

DEVELOPMENT MANAGEMENT COMMITTEE – 16 NOVEMBER 2021

Application Number	East Herts Council Reference: 3/19/1046/FUL Harlow Council Reference: HW/CRB/19/00220
Proposal	Alterations to the existing Fifth Avenue road/rail bridge, and creation of new bridges to support the widened highway to west of the existing structure to create the Central Stort Crossing, including embankment works, pedestrian and cycle facilities, a pedestrian and cycle bridge over Eastwick Road, lighting and landscaping works and other associated works.
Location	Land Adjacent To Fifth Avenue Existing Eastwick Crossing Hertfordshire/Harlow
Parish	Eastwick and Gilston
Ward	EHDC: Hunsdon HDC: Hare St and Little Parndon, Netteswell

Date of Registration of Application	12 June 2019
Target Determination Date	EHDC: 16 November 2021 HDC: 17 November 2021
Reason for Committee Report	Major application
Case Officer	Jenny Pierce

RECOMMENDATION

1. That planning permission be **GRANTED**
 - A) subject to the conditions and the reason(s) set out at the end of this report, and
 - B) That delegated authority be given to the Head of Planning and Building Control at East Herts Council, in consultation with the Director of Strategic Growth and Regeneration at Harlow District Council and with the Chair/s of their respective Development Management Committees, to finalise the detail of the conditions attached to their respective planning permissions. If any substantive additions or changes to conditions post Development

Management Committee/s are necessary the matter would be referred back to them.

2. If the committee resolves to grant planning permission pursuant to recommendation 1, and Harlow District Council decides to defer determination or to consider amendments to the planning application for the part of the Central Stort Crossing development in its area, then the Decision Notice will not be released for a minimum period of four weeks, pending progress with the determination of the associated planning application by Harlow District Council.

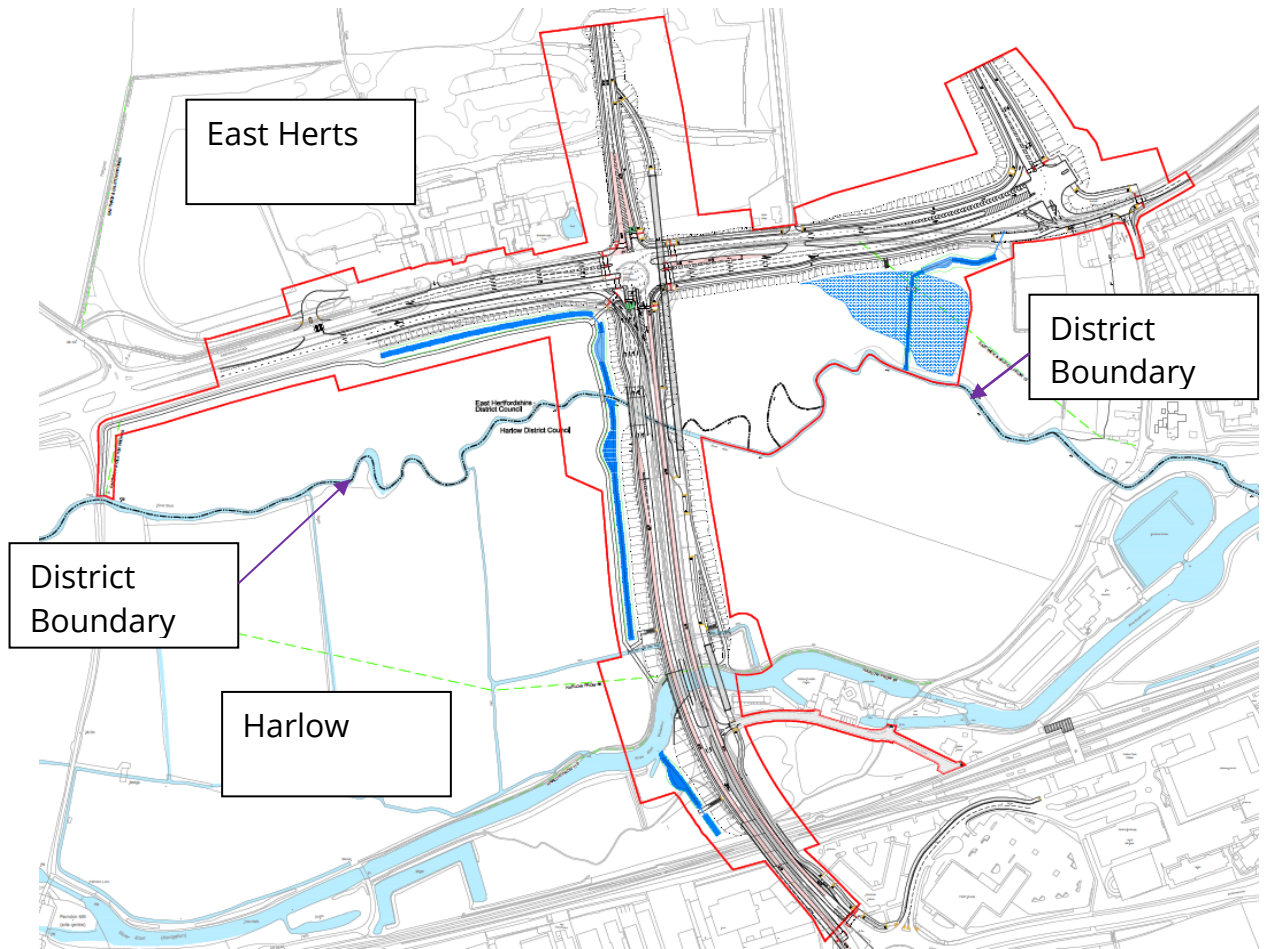
1.0 Determination Arrangements

- 1.1 The development proposal relates to the road crossing of the Stort Valley, and as the district boundary follows the natural course of the River Stort, the application site straddles the boundary between East Herts and Harlow Council administrative areas. The proposal forming this application is known as the Central Stort Crossing or 'CSC'.
- 1.2 Duplicate applications were submitted to both local planning authorities, East Herts Council and Harlow District Council, and therefore the application has an East Herts and Harlow planning reference number. This is in accordance with the Planning Practice Guidance which advises "where a site which is the subject of a planning application straddles one or more local planning authority boundaries, the applicant must submit identical applications to each local planning authority." To enable a comprehensive understanding of the proposals as a whole and consistency with regard to the issues to be considered in accordance with Planning Practice Guidance, this single joint report has been prepared which sets out an assessment of the proposal against the Development Plan of both LPAs. The report considers the respective parts of the proposal comprehensively against the relevant Development Plan, as appropriate, for each LPA, and all relevant material considerations. This process was agreed through a Memorandum of Understanding between the two LPAs, which provided that East Herts Council would be the administering authority with both LPAs working collaboratively to support the

consultation processes, engagement with the applicant and the preparation of this report.

- 1.3 **However, both Local Planning Authorities are required to reach independent determinations with respect to the proposals only in relation to the part of the site that falls within their respective administrative boundary area, as illustrated at Figure 1 below which shows the site of the CSC proposal with the district boundary marked. The Eastwick Junction and Village 1 accesses lie within East Herts and the majority of the bridge structures lie within the Harlow administrative area. Each Local Planning Authority will determine their part of the proposed application in accordance with its own Development Plan policies and any other material considerations which are relevant to development in its area.**
- 1.4 The proposal also straddles the two Highway Authority areas of Hertfordshire and Essex County Councils.
- 1.5 The recommendation set out in this report is that planning permission should be granted by both LPAs. However, in the event that one authority resolves to grant permission and the other resolves to defer the decision, Officers recommend that the approving authority delay issuing the decision notice for a period of not less than four weeks from the date of resolution in order that the deferring authority has sufficient time to consider and determine the application within their authority area. Either authority may, for example, be minded to consider any proposed amendments to the planning application to overcome concerns in the event of inconsistent decisions by the LPAs. However, each LPA is making an independent decision and reserve the right to issue a decision notice as soon as reasonably practicable following consideration by committee.
- 1.6 This report also includes a Schedule of Conditions, some of which are common to both authorities' areas, and some of which are relevant only to one authority reflecting the issues, mitigation or compensatory measures relevant to the applications in their areas. These are clearly labelled within the condition schedule.

Figure 1: Application Site and the District Boundary



2.0 Context of this Application, the Gilston Area and Harlow and Gilston Garden Town

2.1 The proposed development comprises enhancements and widening the existing Eastwick (A414)/ Fifth Avenue Crossing over the Stort Valley (the 'Central Stort Crossing' or CSC) to facilitate the provision of sustainable transport infrastructure between the Gilston Area residential development (District Plan allocation Site GA1) and Harlow. The application, as amended, comprises:

- The main central access into that part of the Gilston area allocation immediately north of the existing Eastwick junction (Village 1) (in interim and final form), to allow for sustainable modes of transport only;

- A new all modes access into Village 1, located to the east of the sustainable modes junction off Eastwick Road (in interim and final form);
- New northbound carriageway and bridge structures to the west of the existing Fifth Avenue Crossing;
- Parameters for a new dedicated pedestrian and cycle route to the east of the existing Fifth Avenue Crossing comprising a bridge over the Eastwick Road junction, a bridge over the Stort Navigation and a bridge over the West Anglia Mainline; and
- A new access from the A414 into the Eastwick Lodge Farm complex and amendments to existing access arrangements.

- 2.2 Full details are provided for the accesses, new pedestrian and cycle provision and the new road carriageway. However, details for the design of the area under the carriageway where Stort Navigation and its associated towpath will be provided as part of the detailed engineering design stage to follow determination. This is addressed by a planning condition. Similarly, details will be required via Condition 11 for the design of the dedicated pedestrian and cycle bridge over Eastwick Road. At this stage, the application provides the technical design parameters for the construction of the bridge, but full details are proposed to emerge through a later design stage.
- 2.3 The application is submitted along with another full planning application (also submitted in duplicate to both LPAs) proposing a new vehicular, pedestrian and cycle crossing to the east of the existing crossing (the 'Eastern Stort Crossing' or ESC) (see application reference: 3/10/1051/FUL (East Herts Council) and HW/CRB/19/00221 (Harlow Council)). The Eastern Stort Crossing is accompanied by a further application for listed building consent for works to Fiddlers' Brook Bridge (East Herts application reference: 3/19/1049/LBC).
- 2.4 All the applications have been submitted by the same applicant, Places for People Ltd (PfP) who own the majority of the land which comprises the Gilston area GA1 allocation. The same applicant has also submitted an application for outline planning permission for the residential-led mixed-use development of 8,500 new homes which constitutes the majority part of the GA1 site allocation. The allocation

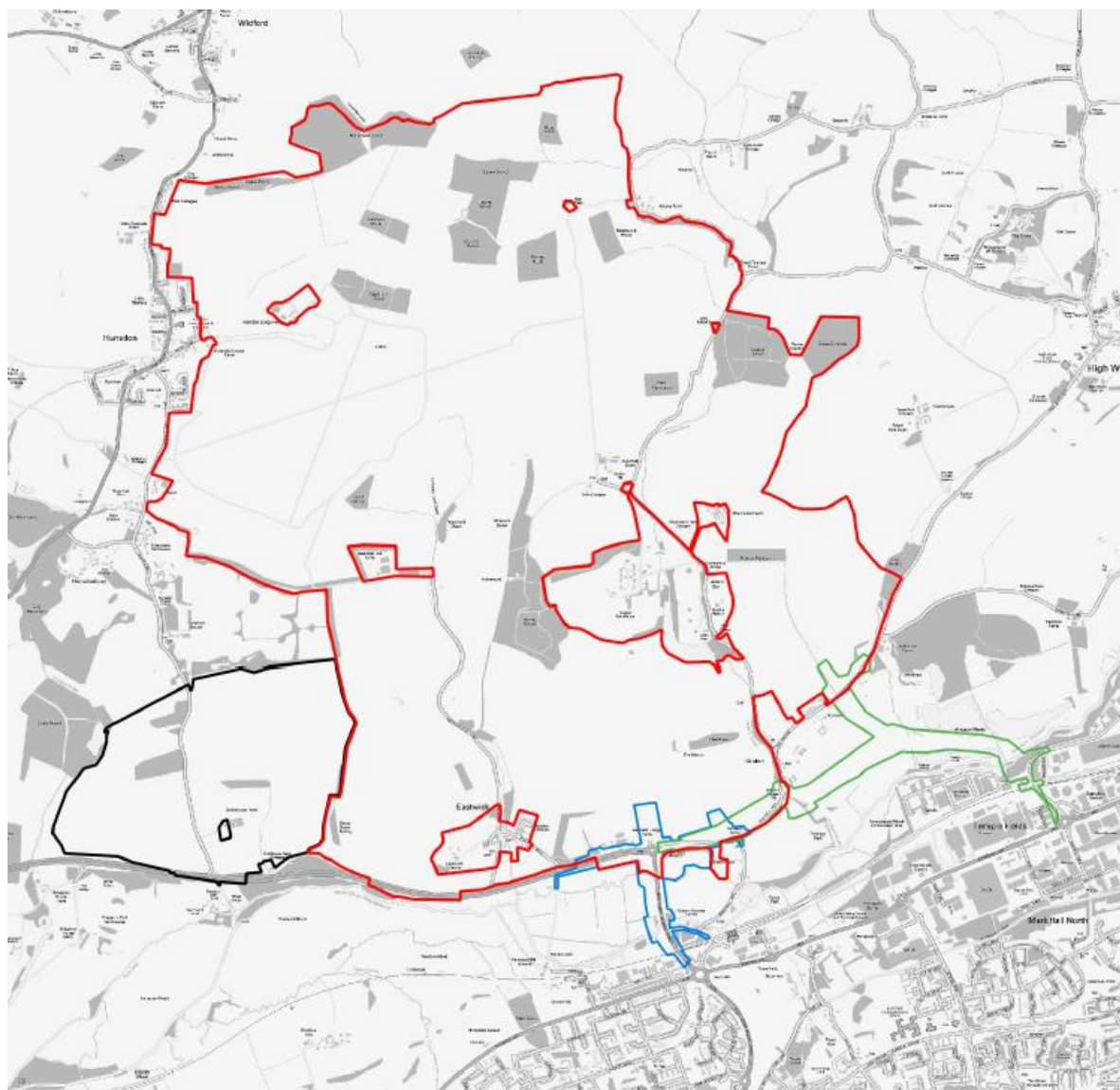
provides for seven new villages to be developed in total, the PfP outline application (ref 3/19/1045/OUT) comprises six of these, known as Villages 1-6 delivering up to 8,500 homes and is shown at Figure 2 below edged red and described as Gilston Park Estate.

- 2.5 A separate outline application has been submitted in respect of Village 7 of the Gilston Area initially by Briggens Estate Ltd. However, following the transfer of the land in their ownership, this part of the GA1 site is now owned by Taylor Wimpey North Thames which has taken on the outline Village 7 application. This application proposes 1,500 new homes and associated village development under reference 3/19/2124/OUT and is shown edged black at Figure 2 below. The Village 7 and Villages 1-6 PfP proposals together comprise the whole of the Gilston Area allocation in the East Herts District Plan and together will deliver 10,000 homes. Neither of the two outline applications referred to above are yet ready for determination.

Figure 2: Site Area for Village Development Applications plus Central Stort Crossing and Eastern Stort Crossing

Legend

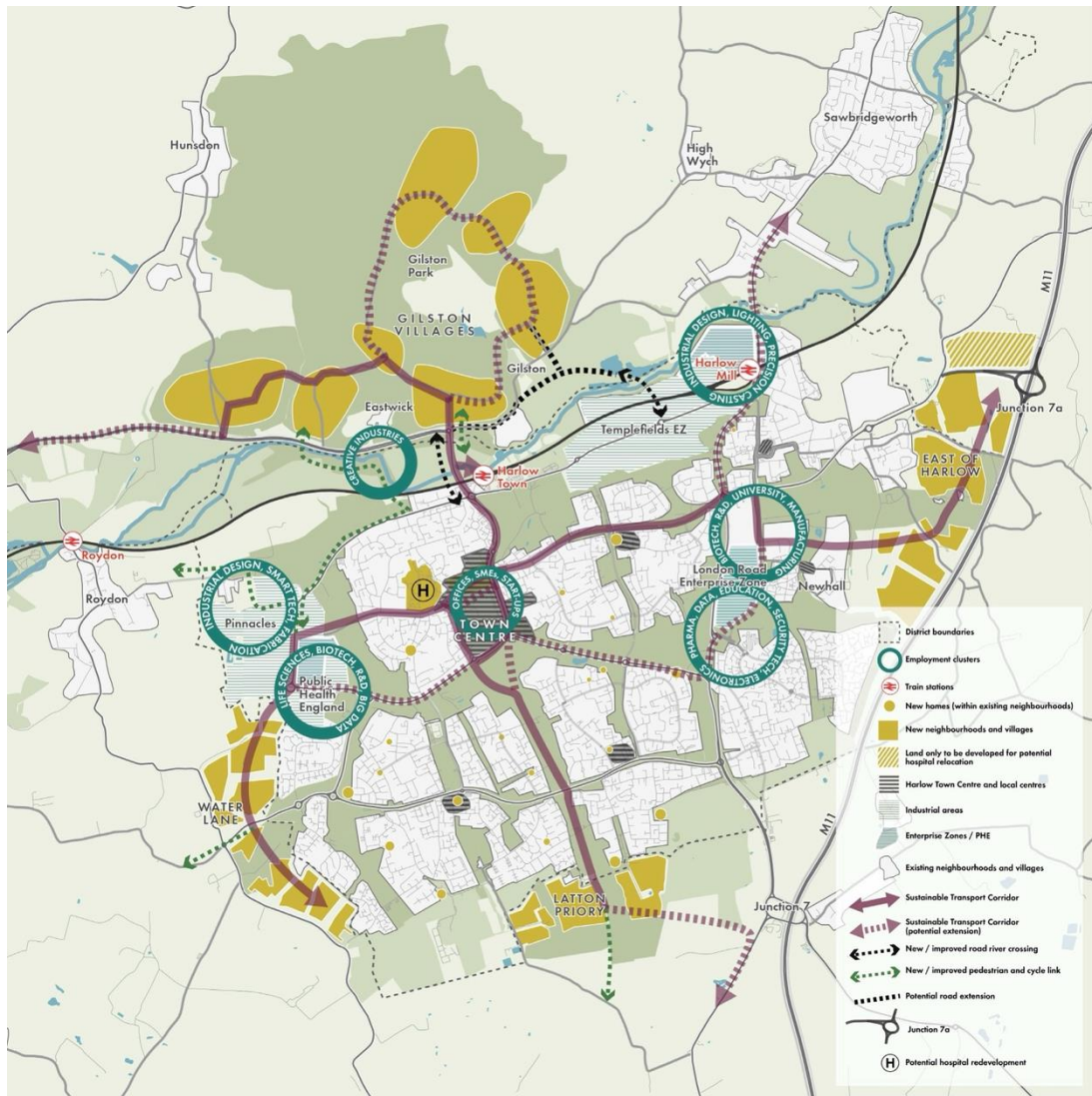
-  Gilston Park Estate Site Boundary
-  Eastern Stort Crossing (ESC) Site Boundary
-  Central Stort Crossing (CSC) Site Boundary
-  Village 7 Site Boundary



- 2.6 In January 2017 the Ministry for Homes, Communities and Local Government designated the Harlow and Gilston Area as a Garden Town. The Harlow and Gilston Garden Town (HGGT) involves partnership working between East Herts, Epping Forest and Harlow District Councils (being local planning authorities for land comprised in the Garden Town) and Essex and Hertfordshire County Councils (being the highways and education authorities) to deliver transformational growth in and around Harlow according to Garden City principles, to ensure that growth plans for the Garden Town support sustainable living and a healthy economy, provide a good quality of life for existing and future residents and to respond to local landscape and character.

- 2.7 The HGGT comprises new and existing communities in and around Harlow which are planned and promoted on Garden City principles. The strategic sites for the HGGT make up 23,000 new homes and includes: East Harlow; Latton Priory (south of Harlow); and the Water Lane Area (west of Harlow); and the Gilston Area (north of Harlow). Figure 3 below indicates the locations of each of these strategic sites.
- 2.8 The Central Stort Crossing along with the Eastern Stort Crossing and the Gilston Area outline applications represent the first strategic planning applications to come forward within the HGGT area, and the two crossing applications will be the first to be determined.
- 2.9 Working together the Garden Town partners have published a Garden Town Vision. This sets out that the pioneering New Town of Gibberd and Kao will grow into a Garden Town of enterprise, health and sculpture at the heart of the UK Innovation Corridor. It is to be adaptable, healthy, sustainable and innovative. The partners have also set up a Quality Review Panel (QRP) which can be convened to consider policy documents and development proposals coming forward in the HGGT area. The QRP has considered the transport infrastructure proposals which the applications comprise as part of the wider overall Gilston Area development proposals. Paragraphs 4.4 to 4.21 below summarise the outputs of the QRP sessions.
- 2.10 A successful application was made by HCC (acting as accountable body for the HGGT partners) for Government funding via Homes England towards the early delivery of infrastructure required for the Gilston Area development and the wider HGGT. Approximately £171 million is now available ("the Grant"), in principle (subject to detailed contractual requirements and milestones in relation to the proposed development). By forward funding infrastructure such as the crossing schemes and community facilities such as schools, the Homes England Grant will support and accelerate the development of homes within the Gilston Area and the wider HGGT.

Figure 3: Strategic Development within the HGGT Vision



(HGGT Vision, 2018)

- 2.11 The Grant is made on the basis that it will not be repaid to Homes England provided that equivalent or higher quantum of developer contributions are secured and recovered by the Local Planning Authorities via planning agreements associated with the Outline Villages 1-6 development and other HGGT developments. Such developer contributions (which do not arise in connection with the Crossings but the outline housing applications) would be paid into and ring-fenced into a Rolling Infrastructure Fund (RIF). The RIF can then be used to fund other HGGT infrastructure moving forward in accordance with any planning obligations and relevant policy considerations.

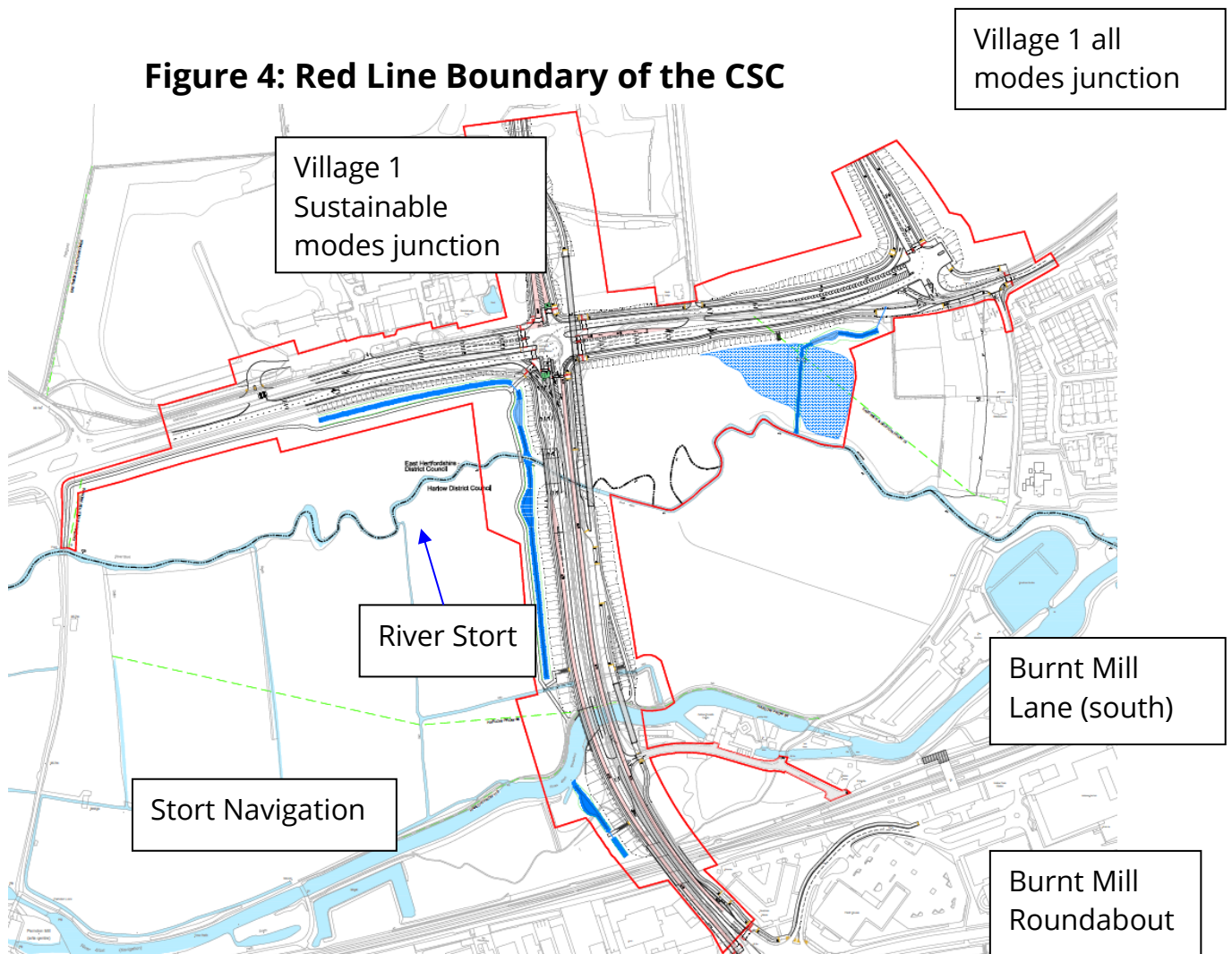
- 2.12 The HIG fund is time limited and must be drawn down and spent within a strict spending window. As a large proportion of the HIG fund will contribute towards the delivery of the Crossing infrastructure, the Applicant considers that it is important for work on the CSC to commence at the earliest opportunity. This application and the associated proposals for the ESC are being presented to members now because they are the earliest of the applications which are ready for determination and in order that progress can be made in relation to the developments within the timescales planned for. The HIG funding presents a unique opportunity to secure the delivery of the essential transport infrastructure in advance of the housing schemes forming part of the GA1 allocation. It is not however, considered to be a local financial consideration in the context of Section 70(2) of the Town and Country Planning Act 1990 (as amended by the Localism Act 2011) nor a material consideration in the context of Section 38(6) of the Planning and Compulsory Purchase Act 2004 for the purposes of determining this application. The Grant is not deemed to serve a planning purpose connected with the character and use of the land or which is fairly and reasonably related to the development comprised in the application. Therefore, it has not been and should not be taken into account.

3.0 Site and Scheme Description

- 3.1 The site comprises the existing Fifth Avenue River Stort crossing (the A414), which is a two lane carriageway (one in each direction) connecting Harlow to the south with the Gilston Area and Hertfordshire to the north. Figure 2 above illustrates the red line boundary of the application. Figure 4 below is an extract of the General Arrangement Drawing showing the red line in more detail. It shows the application boundary includes part of the existing A414 to the west of the current Eastwick roundabout junction and part of the existing Eastwick Road to the east of the junction. This eastern arm overlaps with the red line boundary for the Eastern Stort Crossing application with the new access to Village 1 included in both as shown in Figure 5 below.

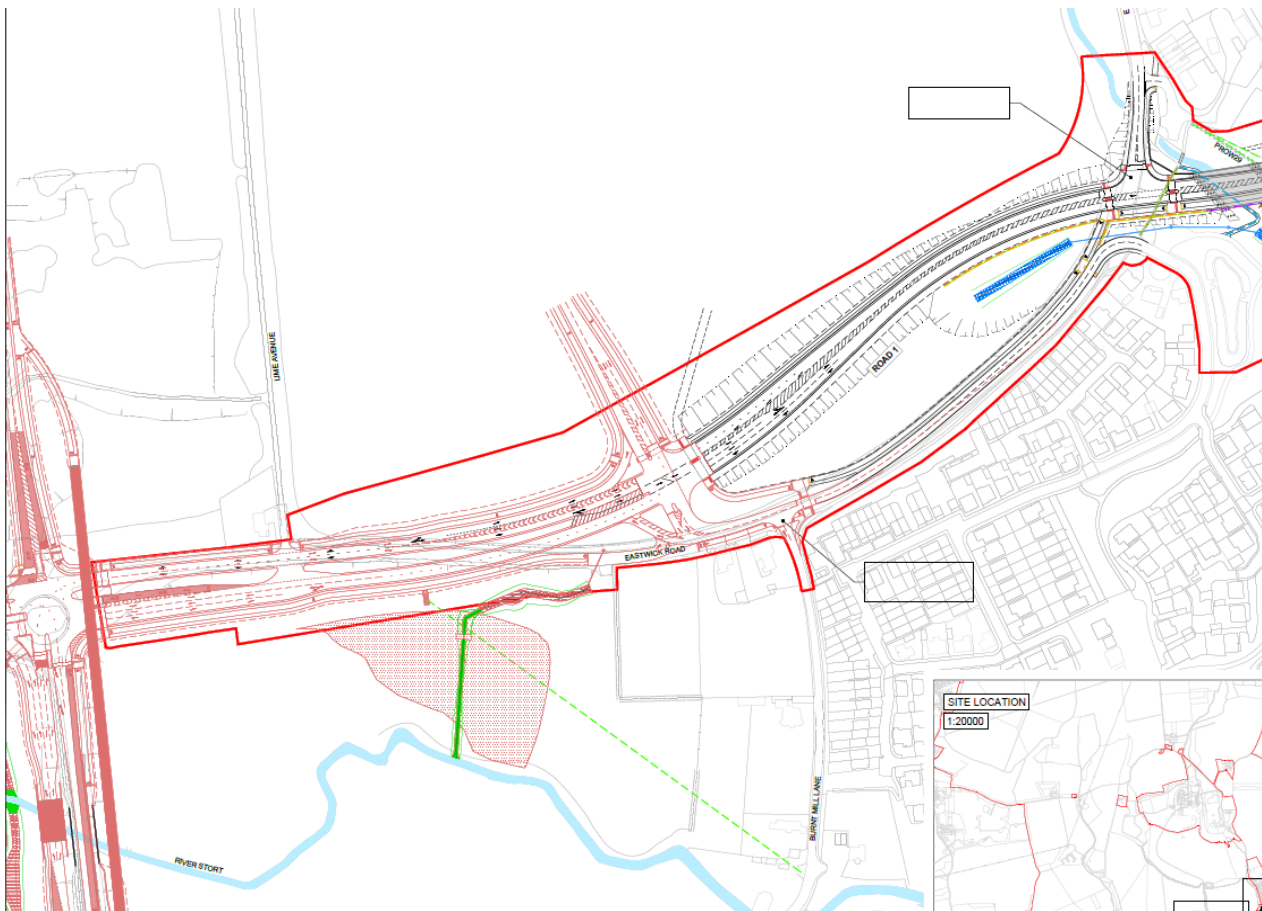
- 3.2 The existing Fifth Avenue road crossing is constructed on a raised embankment above the Stort Valley floodplain and crosses the River Stort, the Stort Navigation and the West Anglia Mainline railway (which links Harlow with London, Stansted Airport and Cambridge) on bridges.
- 3.3 To the north of the existing crossing is a non-signalised roundabout where Fifth Avenue joins Eastwick Road. To the west this comprises the A414 a dual carriageway road toward Ware and Hertford. To the east it is a two lane single carriageway road linking across to Terlings Park, Pye Corner, High Wych and Sawbridgeworth. There is an existing pedestrian path to the west of the roundabout, being approximately 500mm wide in this location. It continues on the western side of Fifth Avenue but is very narrow in places and encroached upon by vegetation. The path is generally well separated from the carriageway, except at the northernmost end.

Figure 4: Red Line Boundary of the CSC



- 3.4 As set out above, there are three bridges along the route, which cross the River Stort, the Stort Navigation, and the railway. Each of these bridges has at some point been fitted with an inner vehicle restraint barrier to protect the edges of the bridges and to contain vehicles in the case of an accident, especially over the railway line.
- 3.5 Towards the south, the route becomes more enclosed by trees to either side. Burnt Mill Lane joins Fifth Avenue to the south of the River Stort Navigation. From this point heading south there is a second, wider, shared use walking and cycle path found to the east side of the road. There is stepped access down to the Stort Navigation, as well as to Parndon Moat Marsh Local Nature Reserve (LNR) on the western side of the crossing.
- 3.6 The railway bridge crossing has brick parapets to protect road users and the railway line below. This parapet restricts views from the road over the railway line. Southwards of this crossing, the context becomes more urban approaching the southern roundabout and its connection to Harlow town centre and train station.

Figure 5: Red Line Boundary of ESC Overlap with CSC



Key: Red Line = application area for ESC (part)

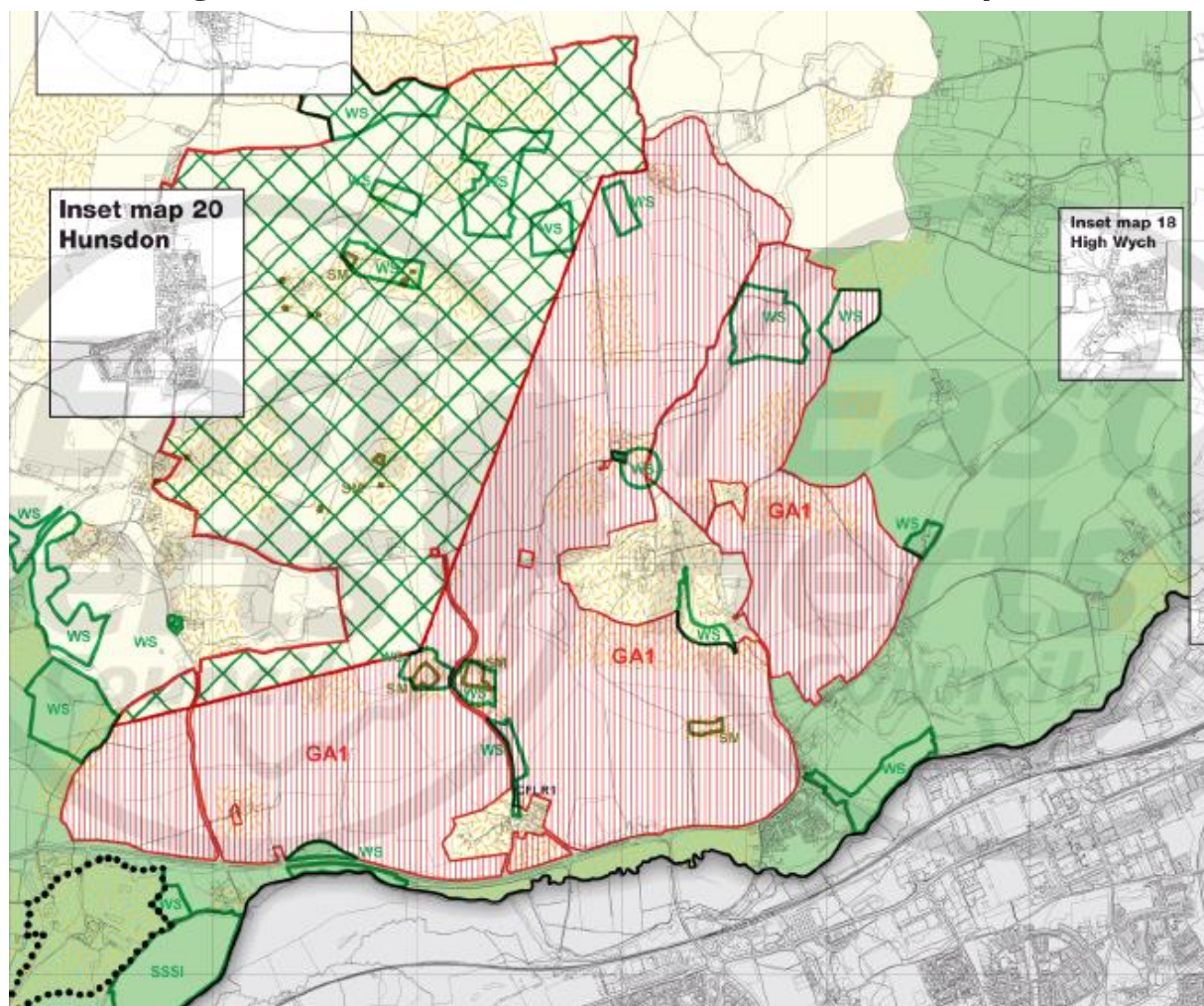
Red colour road outline = included in CSC and ESC proposals

3.7 The area below the existing crossing is generally floodplain and to the south marshland. The River Stort Navigation contains a tree lined towpath, which runs underneath the proposed crossing route, and is used as a leisure route for cycling/walking. There is currently only a stepped access route directly from Fifth Avenue down to the River Stort Navigation.

3.8 The CSC site area is located partly in the Metropolitan Green Belt and partly within a Green Wedge as identified in the Harlow Local Development Plan. The proposed new northbound carriageway located to the west of the existing Fifth Avenue crossing is within the Green Belt as denoted on both Policies Maps. The proposed pedestrian and cycle bridge over Eastwick Road to the east of the existing Fifth Avenue crossing lies within the Green Belt as denoted on the East Herts Policies Map up the district boundary (as shown at

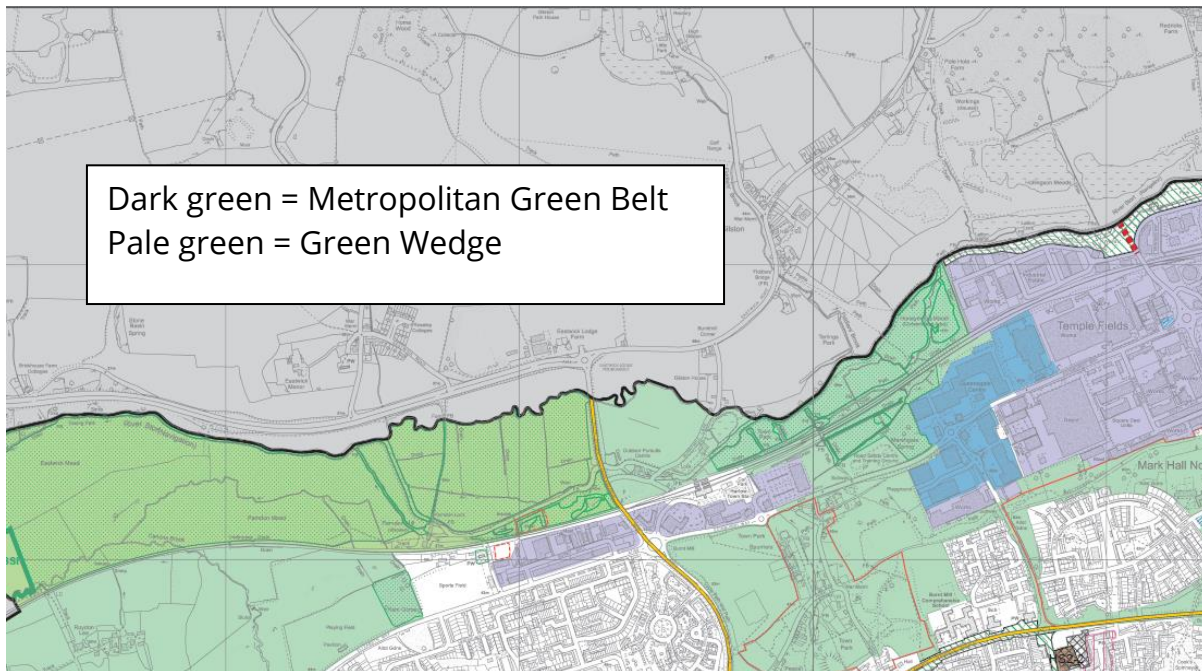
Figure 1 above), but where the bridge lands upon the widened embankment and continues southwards it falls within Harlow district and is therefore located within a Green Wedge. Figures 6 and 7 below contain extracts from the two Policies Maps from the adopted East Herts District Plan and Harlow Local Development Plan.

Figure 6: Green Belt in East Herts Policies Map



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Figure 7: Green Belt and Green Wedge in Harlow Policies Map



4.0 Consultation and Amendment of the Application

- 4.1 The application was subject to consultation between 14 June and 9 August 2019. As submitted, the application proposed a single access in to the GA1 area Village 1, comprising a continuation of the CSC northwards into the village. Figure 8 below shows the original junction design. The northern arm of the junction is wide enough to accommodate two southbound exit lanes, and the southern arm accommodates three northbound exit lanes to enable 'straight over' movements and right hand turns.
- 4.2 As a result of consultation and engagement on the applications, the proposals were amended with the principal change being a restriction to the use of the direct Village 1 access to sustainable modes only, with consequent amendments to its detailed design. This was complemented by the addition of a proposed further all-modes access to Village 1, which will be located to the east of the Eastwick Junction. This will take the form of a new cross-road style junction with access to Village 1 to the north and access to Terlings Park and Burnt Mill Lane to the south. These amendments result in the movement northwards of the current Eastwick Road to enable the retention of the access to Terlings Park on its current alignment, albeit with a new

junction (shown at Figure 9 below). These amendments along with additional environmental information submitted by the Applicants were subject to consultation between November 2020 and January 2021.

Figure 8: CSC Original Submission Proposed Eastwick Junction

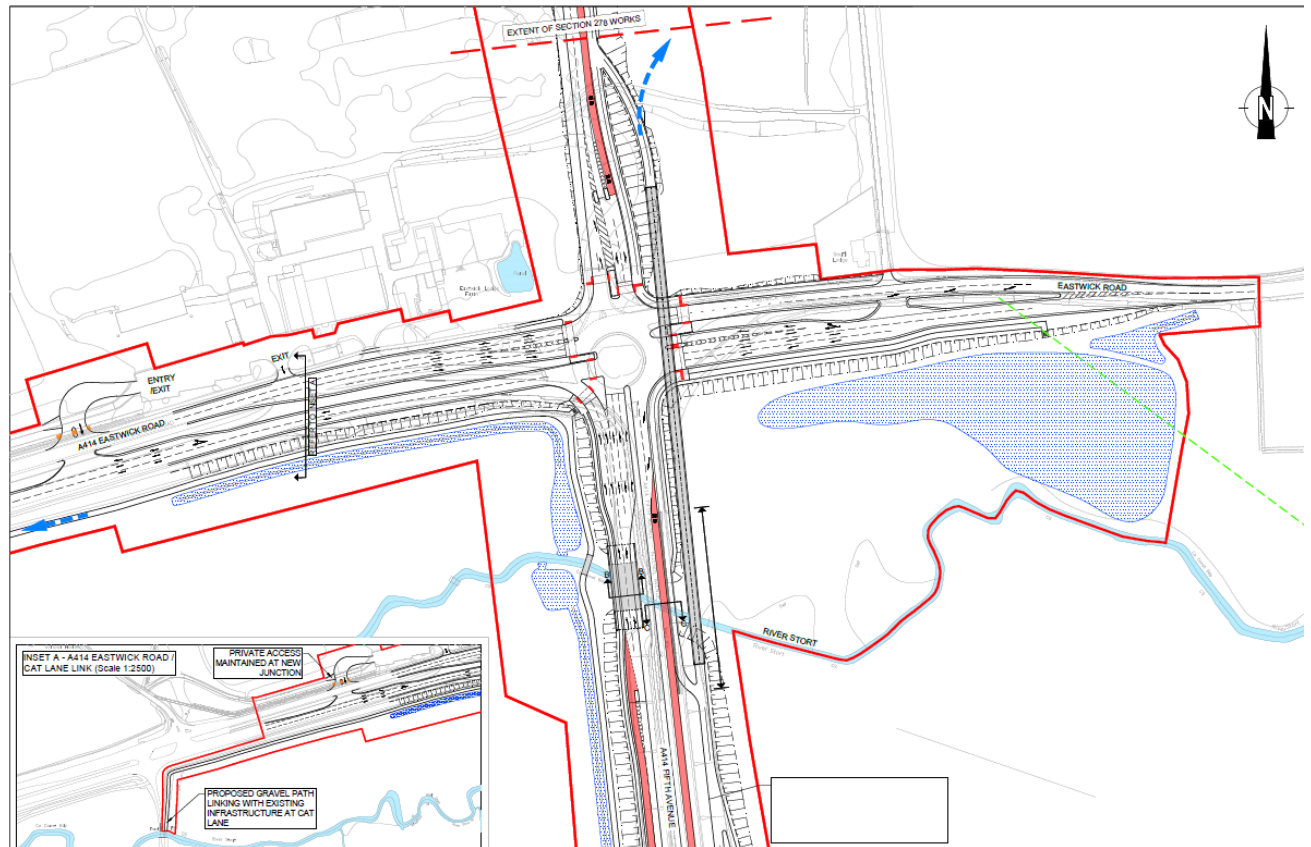
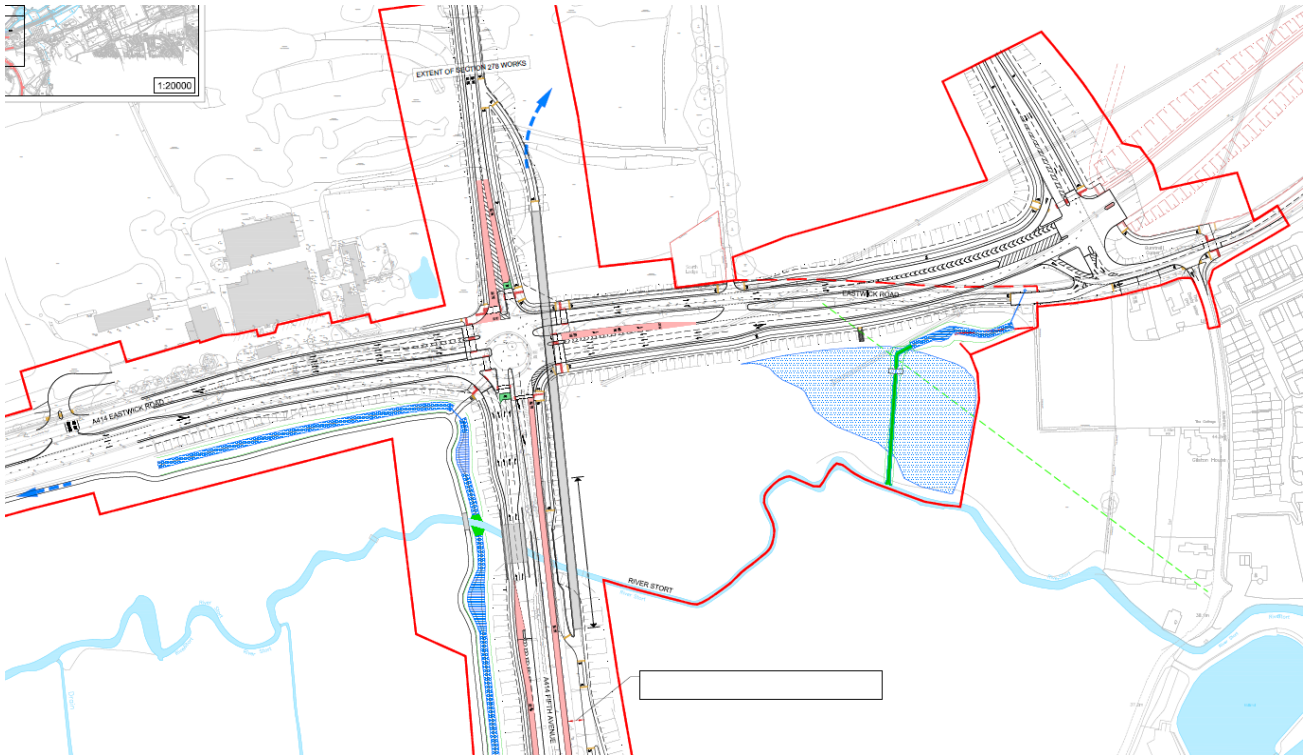


Figure 9: Amended Submission Extract Showing Proposed Eastwick Junction



Extract of VD17516-CC-100.1-GA (Rev P07)

- 4.3 In designing the proposed Central Stort Crossing engagement has taken place with local, regional and national stakeholders including *inter alia* the Environment Agency, the Canal and Rivers Trust, the Stort Catchment Partnership, HCC, ECC, the Environmental Agency, EHDC, HDC, Network Rail and Natural England. This engagement has resulted in a range of design amendments and enhancements to the proposals. In addition, the proposed crossing was reviewed by the Garden Town Quality Review Panel in February 2019 and again in April 2020 which resulted in a comprehensive review of the pedestrian and cyclist experience and landscaping proposals.

Quality Review Panel – Advice in relation to the Central Stort Crossing Proposals

- 4.4 The applicants have presented their proposals for the Crossings as part of the wider Gilston Area development proposals to the HGGT Quality Review Panel on three occasions. At each of the meetings, the Panel's focus has been on different elements of the overall Gilston Area proposals being advanced. The first Panel meeting was held on 19 July

2018 as a joint presentation by the Applicants/ owners of the Villages 1-6 sites and the owners of the Village 7 site. This was a strategic overview of the approach to the development of the Gilston Area as a whole which is beyond the scope of the instant application before members. Some specific references were made to the crossing element of the Gilston area proposals and where relevant they are referred to in this report.

4.5 The Applicants returned to the Panel on 22 Feb 2019 and the Panel were asked for their views on the emerging Crossings proposals with regard to:

- a. The provision for healthy, active and sustainable transport.
- b. The appearance of the Crossings developments in the River Stort valley.
- c. The parameters relating to the pedestrian/ cycle bridge over Eastwick Road – which remains as an undetailed element of the Central Crossing proposals.

4.6 Those Panel meetings were held prior to the formal submission of the planning application in May 2019. After submission, a further Panel meeting was held on 17 April 2020. At this meeting the Panel were asked to comment on a narrow range of issues, including the access arrangements for Village 1 and the Eastern Crossing element of the proposals. The planning application was amended to take into account feedback from the Panel and the planning authorities (East Herts and Harlow). Amendments were submitted which were subject to re-consultation in Nov 2020.

4.7 Given the strategic focus of the first Panel meeting, comments in detail in relation to the crossing elements of the overall development scheme are limited. Primarily, the Panel set out that achieving the sustainable travel targets of the Garden Town partners and overcoming severance risks hinged critically on the delivery of strategic infrastructure at an appropriate time and in a sympathetic way. The Panel considered that there was scope to create a beautifully designed route from village 1 to Harlow and that there was potential for the pedestrian/ cycle bridge to

Eastwick Road element of the scheme to be progressed through a design competition.

- 4.8 The design competition approach is a process through which architects and designers are invited to come forward with designs based on a brief they are provided with. This approach has been suggested by the Garden Town partners in relation to the proposed pedestrian and cycling bridge– which is currently undetailed in the application. The Panel also set out that good design and creative thinking will be essential to ensure new routes are well integrated and designed to encourage walking and cycling.
- 4.9 At the second 22 Feb 2019 Panel meeting, where there was more of a specific focus on elements relating to the crossings, the advice of the Panel was that the unique setting of the River Stort Crossings represents an opportunity to enable two critical transport corridors (Central and East) – and that these would play an important role in supporting the Garden Town’s sustainable travel ambitions. The Panel did not think, however, that this opportunity had been fully exploited and recommended further work to effectively translate aspirations and prioritise sustainable transport modes.
- 4.10 The Panel supported the joint work undertaken by the Applicant’s team and the Local Planning Authorities in bringing forward the Stort River Crossings, concurrently with the Gilston Area scheme. The Panel strongly supported the planning authority’s work to ensure the design of the Central Stort Crossing supports active healthy sustainable travel from the outset. There was a concern with regard to how the aspirations in relation to the crossings were to be translated and delivered, and a need for a strong design vision that would inspire and delight users of the crossings on foot, cycling and when using buses. There was a feeling that the crossings should be conceived and delivered as urban and landscape interventions that will entice pedestrians and cyclists and become successful places. The Panel felt that the landscape thinking was not fully formed, that this represented a significant gap and it was concerned at the potential loss of vegetation. There was a concern at that early stage that the proposals appeared to prioritise car travel.

- 4.11 With regard to the Central Crossing specifically, the Panel felt that there was a lack of clarity on placemaking aspirations and how the crossings would seamlessly interface with broader strategic Garden Town work – as well as the quality of the experience travelling to the station and town centre. The Panel asked for more information on the strategy to provide a sustainable route to a potential new northern access to Harlow Town station.
- 4.12 With regard to the pedestrian/ cycle bridge over Eastwick Road, the Panel said that the elevation and likely visual prominence of the pedestrian and cycle bridge will make this an important, and potentially visually emblematic, structure. Any design competition should be sufficiently flexible to allow for creative scope.
- 4.13 The applicants were able to consider this Panel feedback prior to the submission of their planning applications. Delivery of the infrastructure early on in the context of the Gilston Area housing schemes is agreed between the Garden Town partners (i.e. the planning and highways authorities) and the Applicants as critical to ensure that the sustainable transport objectives can be delivered. The Applicant has supported the early determination of these critical infrastructure applications in advance of the outline residential development proposals for the Gilston Area.
- 4.14 With regard to attractiveness and attention to place, the Crossings applications have been amended following earlier designs considered by the Panel to ensure that the direct active travel routes are fit for purpose. Furthermore, the wider development scheme includes proposals for additional routes which are more orientated toward leisure use (as opposed to travel to work/ commuting journeys) and which will be designed accordingly. These include treatment to Burnt Mill Lane to enhance its use and an improved off road connection via Parndon Mill.
- 4.15 The applicant has continued to acknowledge the potential of a design competition to enable the delivery of a uniquely designed structure for the Eastwick Road pedestrian/ cycle crossing. If that approach is

followed, the advice of the Panel with regard to the need to retain flexibility is acknowledged. In response to the concerns raised by the Panel, the Applicants have also reconsidered the landscaping element of the Crossings schemes.

- 4.16 With regard to the interface with the wider sustainable transport infrastructure proposals, amendments to the proposals have delivered clarification. These proposals will deal with the length of the Central Crossing north of Burnt Mill roundabout. Enhancements to the roundabout itself and to Station Approach (the southern route to Harlow Town station) will be delivered through a scheme being formulated by Essex County Council which also utilises part of the committed HIG funding. A potential northern access to the station is not part of these proposals but remains under discussion as a scheme for which funding can be secured as part of the outline residential proposals.
- 4.17 As indicated, after submission of the applications, the Panel gave further advice following a meeting on 17 April 2020. This was timed after formal consultation feedback on the proposals had been considered by the Applicants and a period of extensive engagement between the Applicants and the Garden Town partners through regular officer meetings and iterative discussions. As a result of such engagement the Applicants were requested to consider amendments to the Crossings proposals, which were formally actioned by submission of amended drawings prior to the public re-consultation exercise in November 2021.
- 4.18 Those amendments, were available in an early form for the Panel to advise upon, and included:
- a. Restriction of the use of the direct Village 1 access, northbound from the Eastwick junction, to allow sustainable mode use only;
 - b. Creation of a separate all modes Village 1 access located to the east;
 - c. Amendment to the configuration of the new alignment of Eastwick Road – to retain a junction with the current alignment to be utilised as an access to Terlings Park. These details relate to changes also

proposed to the junction with Pye Corner, which are dealt with as part of the Eastern Crossing proposals.

- 4.19 At the April 2020 meeting the Panel were asked to concentrate on a limited number of specific issues – some of which were not related to the Crossing application proposals. They were however asked to consider the above proposals for revisions to the Village 1 access.
- 4.20 The Panel observed that it remained unclear about the degree to which the highway proposals could be barriers to pedestrian and cycle movement and the extent to which they would integrate into the wider landscape. It considered that options in relation to Pye Corner and Terlings Park accesses showed promise and that the access arrangements to Village 1 should be subject to further testing.
- 4.21 As indicated, those proposed amendments have been incorporated into the application through the Nov 2020 amendments. Officers are in agreement with the views of the Panel that the amendments to the Terlings Park and Pye Corner accesses comprise improvements to the overall scheme, by reducing the proposals for road space and enhancing permeability between the Terlings Park area to the south of the realigned Eastwick Road and the existing Gilston village and new development to the north. The amended access arrangements to Village 1 have been subject to the consultation process with the Highway and partner authorities and, likewise, are considered to comprise positive amendments to the scheme.

5.0 Environmental Impact Assessment

- 5.1 The proposed development is considered an 'EIA development' as it falls within the description and thresholds in Schedule 2 Category 10 (b) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) as an 'urban development project' likely to have significant effects on the environment by virtue of its nature, size or location. A Scoping Report was submitted to the Council in May 2017 for the development of 10,000 homes and two river crossings,

submitted jointly by the two landowners Places for People (PfP) and Briggens (also known as City and Provincial Properties (CPP)) encompassing the proposed residential developments by the landowners for Villages 1-6, the two crossings, and as proposed by the landowner for Village 7 respectively. East Herts Council responded to this with a Scoping Opinion in August 2017. PfP also submitted the Scoping Report to Harlow District Council due to the cross-boundary nature of the two crossings. Harlow Council responded in October 2017 with its own Scoping Opinion.

5.2 In September 2018, Places for People advised the Councils that it was now their intention to submit an outline application for 8,500 homes (Villages 1-6) and full applications for the two river crossings. Whereas, a separate application for 1,500 homes (Village 7) would be submitted by the owners of Village 7 land at a later date. As such, PfP produced an EIA Scoping Update to describe how the description of the development and the proposals now differed to those originally scoped. This Scoping Update set out that the Environmental Statement to be submitted with its application would be based on the most up to date Scoping Opinion in line with Regulation 18(4)(a) of the EIA Regulations 2017, as the revised description of development remained materially the same as the previous proposed development. The PfP Scoping Update indicated that following the principles set out in Planning Inspectorate Note 9, the Environmental Statement would be based on worst case scenario assumptions and take account of all planned development, including the separate Village 7 proposal to ensure that there would be sufficient information to enable the 'likely significant' effects on the environment to be assessed. Furthermore, a large number of the baseline studies that had been undertaken for the Villages 1 to 6 and river crossing proposals also included the Village 7 element of the original scheme. This information was considered to be relevant context for the assessment, and would be (and indeed has been) carried through to the Environmental Statement to ensure cumulative impacts of all developments including Village 7 were assessed.

5.3 The Scoping Update confirmed that the methodology used for the EIA process continued to apply. The village development and two crossing

applications are interlinked; developments as per the full Gilston Area allocation can only be progressed with the necessary supporting infrastructure provided by the two Stort Valley Crossings. As such, the proposals put forward in the three PfP applications (the CSC, the ESC and the outline residential development for Villages 1-6) are collectively known for the purposes of the EIA process as 'the Development' and the effects of the Development would therefore be considered and reported collectively for EIA purposes. The Development (comprised of three separate applications) has been subject to a single 'project-wide' EIA. The individual effects from each application are not presented separately within the report but addressed collectively (based on the anticipated progress of each element at certain milestones). The effects of Village 7 are dealt with as cumulative development.

5.4 The Environmental Statement (ES) was submitted by PfP with the applications (3/19/1045/OUT, 3/19/1046/FUL/ HW/CRB/19/00220, and 3/19/1051/FUL/ HW/CRB/19/00221) in May 2019 and registered in June 2019. In line with the Scoping Opinions issued by the Councils, the ES assessed the effects of the development on the following environmental receptors and matters:

- Socio-Economics and Community Effects
- Human Health
- Transport and Access
- Air Quality
- Noise and Vibration
- Cultural Heritage: Archaeology
- Cultural Heritage: Built Heritage
- Landscape and Visual
- Biodiversity
- Agriculture and Soils
- Ground Conditions
- Water Resource and Flood Risk
- Services and Utilities
- Light
- Climate Change

- 5.5 On behalf of both LPAs, East Herts Council appointed Barton Wilmore (BW) to assist the Councils in ensuring the reliability of the Environmental Statement (ES), whether the assumptions made are reasonable and correct and to confirm whether it satisfies the requirements of the EIA Regulations 2017.
- 5.6 The review undertaken by Officers supported by consultants BW identified the requirement for a number of clarifications and potential requests for 'further information' under Regulation 25 of the EIA Regulations. Officers wrote to the applicants with initial feedback on the originally submitted application in February 2020 setting out these requests for clarification and further information. However, as amendments were required to the application, it was agreed that these EIA clarifications and requests for further information would be addressed through corresponding amendments to the ES. The amended application and supporting information including an ES Addendum were submitted in November 2020 and were subject to consultation as part of the consultation on wider amendments to the application.
- 5.7 The applicant's ES Addendum was submitted alongside the application amendments and consulted on. Following a further review by Officers and BW, Officers requested 'further information' be sought in relation to the noise assessment for the Village 1-6 development. No further information was requested in relation to the CSC. The applicant submitted the requested further information in April 2021, which was made available for public comment in accordance with Regulation 25 of the EIA Regulations 2017. The ES amendments relating to noise relate to the Outline application within East Herts, therefore East Herts Officers and Harlow Officers are satisfied that the further information together with the ES and ES Addendum provides sufficient information to assess the likely effects of the proposed CSC development in this regard and that the ES is compliant with the requirements of the EIA Regulations.
- 5.8 The ES has taken into account whether there are any impacts and likely significant effects on the environment from the Development (which includes the effects of the Central Stort Crossing, the Eastern Stort

Crossing and the Outline application cumulatively in combination). This is considered the most robust approach given that the schemes are linked and considered in ES terms as one project, titled 'The Development'. Where necessary, the ES highlights impacts that have particular relevance to the CSC proposal, therefore the ES provides a comprehensive assessment of the likely environmental impact to enable a decision to be made on this application on its own as well as taking into account the cumulative impact of other planned developments. The effects of the CSC and ESC are also assessed in the ES having specific regard to:

- 1) The cumulative trips predicted out of the wider strategic allocations (including the Gilston Area);
- 2) The effect the crossings are likely to have on the wider transport networks (and therefore on other factors, such as air quality, noise and vibration).

5.9 The ES identifies the likely significant environmental effects (adverse and beneficial) from the construction phase (including demolition and other associated site preparation activities) and operation of the proposed development. The crossings have been designed with embedded mitigation (measures identified and adopted as part of the evolution of the project design) which is reflected in the assessment of effects. Likely effects are considered both with respect to:

- 5.9.1 'the Development' (Villages 1-6 and the two crossings) as a stand-alone development, and
- 5.9.2 when taken cumulatively with other consented and planned proposals, including the related Village 7 application as part of the overall GA1 site, and
- 5.9.3 development allocations within the East Herts District Plan, applications within the Harlow area, development allocations within the Harlow Local Development Plan and within the draft Epping Forest District Plan.

5.10 Appropriate mitigation measures are recommended where adverse effects have been identified. It is for the two LPAs to assess whether the proposed mitigation measures are appropriate and to determine

the appropriate way in which such measures are secured such as by way of planning conditions and/or planning obligations as appropriate.

- 5.11 The ES, along with other relevant documentation submitted with the planning application, consultee responses and representations made by any other persons constitute the 'environmental information' which has been taken into account in this report and is required to be taken into account when arriving at a decision on this planning application.

6.0 Equalities and Human Rights

- 6.1 Under the Equality Act 2010, planners are required to have regard to the impacts of planning decisions on equality. The Act provides a legal framework to protect the rights of individuals and advance equality of opportunity for all. As part of the Equality Act, a public sector equality duty applies to all public authorities including those developing planning policies and applying them. The public sector equality duty requires that decisions take account of individuals with protected characteristics that might lead people to experience discrimination and inequality. Under the Act, a public authority must, in the exercise of its functions, have due regard to the need to:
- Eliminate discrimination, harassment and victimisation and any other conduct that is prohibited by or under the Act;
 - Advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
 - Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.
- 6.2 The duty covers the following eight protected characteristics: age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation. Public authorities also need to have due regard to the need to eliminate unlawful discrimination against someone because of their marriage or civil partnership status.

6.3 Public authorities must also have regard to the requirements of the Human Rights Act 1998, which transposed the European Convention on Human Rights (ECHR) into UK law. The general purpose of the ECHR is to protect human rights and fundamental freedoms and to maintain and promote the ideals and values of a democratic society.

6.4 Section 6 of the Human Rights Act 1998 prohibits public authorities from acting in a manner incompatible with the European Convention on Human Rights. Various convention rights are relevant and potentially engaged in the context of the current applications, namely: -

6.4.1 *Entitlement to a fair and public hearing in the determination of a person's civil and political rights (Convention Article 6)*. This can include property rights and opportunities to be heard in the consultation process. It is noted that ample opportunities for consultation have been afforded to the public in connection with the current proposals, including in respect of the ES information submitted and any material amendments to the proposals. Further, constitutional processes of the LPAs for determination of major applications of this scale afford applicants and objectors the right to be heard in public by decision makers. Thereafter further rights to be heard are available to both applicants and the public.

6.4.2 *Peaceful enjoyment of possessions (First Protocol Article 1)*. This right is subject to the State's right to enforce such laws as it deems necessary to control the use of property in accordance with the general interest. It is noted that land assembly, including by compulsory acquisition, will be required in connection with implementation of the development proposals, and such decisions will be subject to separate decisions and consideration of Human Rights and Equalities implications in the context of any exercise of compulsory purchase powers. The Crossings are vital infrastructure required to enable the delivery of 8,500 homes comprised in the Gilston Area and GA1 allocation. Therefore the general interest in the promotion of planned growth to meet the needs of local communities by providing infrastructure to enable the delivery of homes is a legitimate aim and any interference

with Protocol 1 rights would be proportionate to such aims in the public interest.

6.4.3 *Right to respect for, private and family life (Convention Article 8)* in respect of which the likely health impacts of the proposals will need to be taken into account in evaluating the scheme. A very thorough EIA process has been undertaken to consider the likely significant impacts of the Crossings applications in combination with other related developments (as a single project) and cumulatively in respect of human health and noise impacts (among others). Officers are satisfied that sufficient information has been provided, including on relation to the likely significant health impacts of the proposals to conclude that no unlawful interference with Article 8 rights is anticipated. In addition, enabling the delivery of future homes for local communities in need is likely to promote respect for the private and family life of future residents.

6.5 The courts recognise that "regard must be had to the fair balance that has to be struck between the competing interests of the individual and of the community as a whole". Both public and private interests are to be taken into account in the exercise of the Council's powers to determine these applications in accordance with the recommendation to grant permission. Any interference with a Convention right must be necessary and proportionate. Officers consider that no unlawful interference with convention rights would arise and any interference would be necessary and proportionate in the wider public interest in granting permission for these schemes which would promote housing growth planned for in both LPAs' Development Plans.

6.6 An Equalities Impact Assessment has been carried out by the Councils to consider the impacts of the ESC and it concludes that no conflicts with the requirements of the Equality Act 2010 or the Human Rights Act 1998 are anticipated from this development. Being an application for transport infrastructure, it is noted that by design it will be required to meet relevant industry standards which ensure regard and respect for the rights of those with disabilities. This report incorporates

considerations of the above requirements within the body of the report where relevant.

7.0 Planning History

7.0 There is no relevant planning history relating to the site.

8.0 Main Policy Issues

8.1 The relevant policies for the CSC application are comprised in the adopted East Herts District Plan 2018 (EHDC), the adopted Harlow Local Development Plan 2020 (HDC) and the National Planning Policy Framework (NPPF).

8.2 In addition, the Gilston Area Neighbourhood Plan (GANP) went to a referendum on 27th May 2021 and was endorsed by the constituents of the referendum area. The Plan was 'made' at meeting of the EHDC Council on 28th July) and now forms part of the development plan for the part of the application site that falls within the Neighbourhood Plan Area. The GANP is considered to be in general conformity with the adopted East Herts District Plan.

8.3 The Neighbourhood Plan Area covers the part of the Central Stort Crossing route within East Herts, ending at the district boundary which follows the course of the River Stort. The GANP policies relevant to the application are therefore considered below alongside the two District Plan policies and the National Planning Policy Framework (NPPF).

8.4 The Hertfordshire Minerals Local Plan and Waste Local Plan, along with the Essex Minerals Local Plan and Waste Local Plan are also part of the Development Plan relevant to this proposal, particularly in respect of construction activities. Where relevant these are also summarised and considered throughout the report.

8.5 The main issues for consideration with this full application are as follows:

- Principle of Development;
- Design and Layout;
- Impact on the transport network and mitigation;
- Climate Change, flood risk and sustainable drainage;
- Land contamination and pollution;
- Impact on the natural environment;
- Impact on the historic environment;
- Green Belt Issues;

8.6 Members will need to consider the overall planning balance and whether the proposal will result in a sustainable form of development having regard to the above considerations. The application must be determined in accordance with the Development Plan unless material considerations indicate otherwise in accordance with S38(6) of the Planning and Compulsory Purchase Act 2004 (as amended). Members must also consider the likely significant effects of the development on the environment in accordance with Regulation 3 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

8.7 The table below identifies the relevant applicable policies of the Development Plan (excluding the Waste and Minerals LPs) and the NPPF. The relevant policies are summarised and considered in detail throughout the report with reference to each of the main issues as part of the overall planning balance.

Table 1: Development Plan Policies and the NPPF

EHDC Policy	HDC Policy	GANP Policy	NPPF
Principle of development (Section 12.1)			
<ul style="list-style-type: none"> •GA1: The Gilston Area •GA2: The River Stort Crossings •INT1: Presumption 	<ul style="list-style-type: none"> •HGT1: Development and Delivery of Garden Communities in the Harlow and 	<ul style="list-style-type: none"> •AG1: Promoting Sustainable Development in the Gilston Area •AG9: Phasing of 	Section 5

<p>in Favour of Sustainable Development</p> <ul style="list-style-type: none"> •DPS1: Housing, Employment and Retail Growth), •DPS2: The Development Strategy 2011-2033 •DPS3: Housing Supply 2011-2033 •DEL1: Infrastructure and Service Delivery 	<p>Gilston Garden Town</p> <ul style="list-style-type: none"> •SD1: Presumption in Favour of Sustainable Development •SIR1: Infrastructure Requirements •SIR2: Enhancing Key Gateway Locations •PR1: Development within Employment Areas 	<p>Infrastructure Delivery</p> <ul style="list-style-type: none"> •TRA1: Sustainable Mobility 	
Design and layout (Section 12.2)			
<ul style="list-style-type: none"> •DES2: Landscape Character •DES3: Landscaping •DES4: Design of Development •CFLR9: Health and Wellbeing 	<ul style="list-style-type: none"> •WE1: Strategic Green Infrastructure •WE2: Green Belt, Green Wedges and Green Fingers •PL1: Design Principles for Development •PL2: Amenity Principles for Development •PL3: Sustainable Design, Construction and Energy Usage •PL4: Green Belt •SIR2: Enhancing Key Gateway Locations •L4: Health and Wellbeing •IN1: Development 	<ul style="list-style-type: none"> •AG5: Respecting Areas of Local Significance •AG8: Minimising the Impact of Traffic and New Transport Infrastructure on Existing Communities •EX1: Existing Settlements •TRA1: Sustainable Mobility •TRA2: Access to the Countryside 	Section 12

	and Sustainable Modes of Travel		
Impact on the highway network and mitigation (Section 12.3)			
<ul style="list-style-type: none"> •TRA1: Sustainable Transport •TRA2: Safe and Suitable Highway Access Arrangements and Mitigation •CFLR3: Public Rights of Way •CFLR9: Health and Wellbeing 	<ul style="list-style-type: none"> •HGT1: Development and Delivery of Garden Communities in the Harlow and Gilston Garden Town •IN1: Development and Sustainable Modes of Travel •IN2: Impact of Development on the Highways Network including Access and Servicing •L4: Health and Wellbeing 	<ul style="list-style-type: none"> •TRA1: Sustainable Mobility •AG8: Minimising the Impact of Traffic and New Transport Infrastructure on Existing Communities 	Section 9
Climate change, flood risk and sustainable drainage (Section 12.4)			
<ul style="list-style-type: none"> •WAT1: Flood Risk Management •WAT3: Water Quality and the Water Environment •WAT5: Sustainable Drainage •CC1: Climate Change Adaptation •CC2: Climate Change Mitigation 	<ul style="list-style-type: none"> •PL11: Water Quality, Water Management, Flooding and Sustainable Drainage Systems •HGT1: Development and Delivery of Garden Communities in the Harlow and Gilston Garden Town •PL3: Sustainable Design, Construction and 	<ul style="list-style-type: none"> •AG1: Promoting Sustainable Development in the Gilston Area •AG2: Creating a Connected Green Infrastructure Network •AG8: Minimising the Impact of Traffic and New Transport Infrastructure on Existing Communities •LA1: Landscape 	Section 14

	Energy Usage	Within the New Village Boundaries	
Land contamination and pollution (Section 12.5)			
<ul style="list-style-type: none"> •WAT2: Source Protection Zones •EQ1: Contaminated Land and Land Instability •EQ2: Noise Pollution •EQ3: Light Pollution •EQ4: Air Quality 	<ul style="list-style-type: none"> •SIR3: Waste and Minerals •PL10: Pollution and Contamination •Policy PL11 (Water Quality, Water Management, Flooding and Sustainable Drainage Systems) 	<ul style="list-style-type: none"> •AG3: Protecting and Enhancing the Countryside Setting of New and Existing Villages •AG8: Minimising the Impact of Traffic and New Transport Infrastructure on Existing Communities 	Section 15
Impact on the natural environment (Section 12.6)			
<ul style="list-style-type: none"> •DES2: Landscape Character •DES3: Landscaping •NE1: International, National and Locally Designated Nature Conservation Sites •NE2: Sites or Features of Nature Conservation Interest (Non-Designated) •NE3: Species and Habitats •NE4: Green Infrastructure •EQ2: Noise Pollution •EQ3: Light Pollution •EQ4: Air Quality 	<ul style="list-style-type: none"> •PL7: Trees and Hedgerows •PL8: Green Infrastructure and Landscaping •PL9: Biodiversity and Geodiversity Assets •WE1: Strategic Green Infrastructure •WE3: General Strategy for Biodiversity and Geodiversity •WE4: Safeguarding Wildlife Sites Beyond the District Boundary 	<ul style="list-style-type: none"> •AG1: Promoting Sustainable Development in the Gilston Area •AG2: Creating a Connected Green Infrastructure Network •AG3: Protecting and Enhancing the Countryside Setting of New and Existing Villages •AG4: Maintaining the Individuality and Separation of all Villages •LA1: Landscape Within the New Village Boundaries •TRA2: Access to the Countryside 	Section 15

Impact on the historic environment (Section 12.7)			
<ul style="list-style-type: none"> • HA1: Designated Heritage Assets • Policy HA2 (Non-Designated Heritage Assets) • HA3: Archaeology 	<ul style="list-style-type: none"> • HGT1: Development and Delivery of Garden Communities in the Harlow and Gilston Garden Town • WE5: Heritage • PL12: Heritage Assets and their Settings 	<ul style="list-style-type: none"> • AG1: Promoting Sustainable Development in the Gilston Area • H1: Celebrating Existing Heritage Assets 	Section 16
Green Belt (Section 12.8)			
<ul style="list-style-type: none"> • GBR1: Green Belt 	<ul style="list-style-type: none"> • WE1: Strategic Infrastructure • WE2: Green Belt, Green Wedges and Green Fingers • PL4: Green Belt 		Section 13
Infrastructure delivery (Section 13)			
<ul style="list-style-type: none"> • GA1: The Gilston Area • GA2: The River Stort Crossings • DEL1: Infrastructure and Service Delivery • DEL2: Planning Obligations • DEL3: Monitoring Framework • DEL4: Monitoring of the Gilston Area 	<ul style="list-style-type: none"> • SIR1: Infrastructure Requirements • SIR2: Enhancing Key Gateway Locations • IN1: Development and Sustainable Modes of Travel • IN6: Planning Obligations 	AG9: Phasing of Infrastructure Delivery	Section 2 Section 4

8.8 Other relevant planning supplementary documents and guidance are summarised below:

Table 2: Relevant Planning Documents and Guidance

Document	Author	Summary
Gilston Area Charter SPD	East Herts Council	Provides guidance to support the production of Masterplans and Design Codes specific to the Gilston Area that will follow outline planning permission.
Sustainability SPD (2021)	East Herts Council	Supports the implementation of East Herts District Plan policies that seek to improve the environmental sustainability of new development.
Gilston Area Concept Framework and Council Report (2018)	Places for People, in partnership with City and Provincial Properties and East Herts Council	<p>Produced to demonstrate the deliverability of the proposed site allocation, establish key principles that should underpin the development of the Gilston Area and guide the preparation of future detailed proposals. Relevant to this application are the objectives on promoting sustainable travel, protecting and enhancing landscape and a network of green spaces, protecting and enhancing natural assets and ensuring the phased delivery of necessary infrastructure to meet the needs arising from the development. The Concept Framework has been largely assimilated in the Gilston Area Neighbourhood Plan.</p> <p>The Framework indicates that a second crossing of the Stort Valley may be provided, which would also incorporate a combined footway/ cycleway. This will allow direct connections, particularly for cyclists, between the site and employment areas including Temple Fields and the Enterprise Zone.</p>
Hertfordshire's Local	Hertfordshire County	Sets out how transport can help deliver a positive future vision for Hertfordshire by

Transport Plan, 2018 – 2031 (adopted 2008)	Council	<p>having a major input into wider policies such as economic growth, meeting housing needs, improving public health and reducing environmental damage whilst also providing for safe and efficient travel.</p> <p>The plan also considers how future planning decisions and emerging technology might affect the way that transport needs to be provided in the longer term. Of particular relevance to Gilston is Local Transport Plan 4.</p>
Essex Transport Strategy, the Local Transport Plan for Essex (adopted 2011)	Essex County Council	<p>Sets out how to achieve five broad outcomes of:</p> <ul style="list-style-type: none"> • Provide connectivity for Essex communities and international gateways to support sustainable economic growth and regeneration; • Reduce carbon dioxide emissions and improve air quality through lifestyle changes, innovation and technology; • Improve safety on the transport network and enhance and promote a safe travelling environment; • Secure and maintain all transport assets to an appropriate standard and ensure that the network is available for use; • Provide sustainable access and travel choice for Essex residents to help create sustainable communities.

8.9 A series of HGGT documents have been prepared by the partnership that seek to provide guidance for strategic developments within the HGGT. These are summarised in Table 3 below.

Table 3: Relevant HGGT Documents and Guidance

Document	Author	Summary
Harlow and Gilston Garden Town Vision (2018)	On behalf of the Harlow and Gilston Garden Town Partner Councils	<p>Document sets out the vision for the Harlow and Gilston Garden Town and the principles which will inform its growth and management.</p> <p>Of particular relevance to the application are page 4 - the Vision for the Harlow and Gilston Garden Town, pages 12-16 - the principles and indicators relating to landscape and green infrastructure and pages 18-21 the principles and indicators relating to sustainable movement which should shape and inform the development.</p> <p>The Vision sets the objective that 50% of all trips originating within the Harlow and Gilston Garden Town should be by sustainable active travel modes, with a target to achieve 60% within new villages and neighbourhoods. This target is continued through to the emerging Harlow and Gilston Transport Strategy.</p>
Harlow and Gilston Garden Town Design Guide (2018)	On behalf of the Harlow and Gilston Garden Town Authorities	<p>Document sets out the expectations and aspirations for the delivery of high quality and sustainable developments.</p> <p>Of particular relevance are pages 24-25 on sustainable movement and pages 39-41 on strategic site guidance for the Gilston Area.</p>
HGGT Infrastructure Delivery Plan (IDP)	On behalf of the Harlow and Gilston Garden Town partner	<p>The IDP draws on previous work undertaken by the HGGT authorities, in particular the District-level IDPs already produced to support the respective Local Plans and compiles, aligns and updates it. The IDP identifies the infrastructure</p>

	Councils	<p>requirements of the HGGT including the Central and Eastern Crossings, classifying them as ‘critical infrastructure’, which must happen in order for the planned HGGT development to proceed.</p> <p>The IDP identifies how expected developer contributions from various sites will be apportioned and what collection mechanisms can be utilised to assist in funding the infrastructure items which serve more than one site. Through the process of producing the IDP, a package of measures and broad estimates of the likely financial contribution for each of the Harlow and Gilston Garden Town sites has been produced. The IDP has been produced concurrently with the <i>Strategic Viability Assessment</i>, to allow these costs to be included in the appraisal. The purpose of the Strategic Viability Assessment is to consider the wider deliverability of the Harlow and Gilston Garden Town, taking into account infrastructure requirements alongside other considerations.</p>
HGGT Transport Strategy 2021	On behalf of the Harlow and Gilston Garden Town Council Partners	Sets out how the HGGT will achieve the challenge of future travel demand linked to planned growth. The Transport Strategy has been subject to consultation and has been endorsed as a material consideration by Harlow Council on the 4 th Nov, and will be presented to East Herts Council’s Executive on 23 rd November.
HGGT Sustainability	On behalf of the Harlow	Provides practical and technical guidance on how relevant sustainability indicators

Guidance and Checklist	and Gilston Garden Town Council Partners	and policies (environmental, social and economic) in the HGGT Vision and partner authorities plans will be applied to new major developments in the HGGT.
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9.0 Summary of Consultee Responses

Hertfordshire County Council (HCC) Highway Authority

- 9.1 HCC previously submitted response to the planning applications in August 2019. This identified a number of outstanding issues. Since then further discussions have taken place with the applicant to address the points raised. This response relates to the revised planning submission submitted by the applicant in November 2020.
- 9.2 As a statutory consultee the response from HCC includes comments from the Lead local Flood Authority (LLFA), Archaeology, Ecology, Minerals and waste Planning and Highways (including Bridges and Structures).
- 9.3 HCC Highway Authority - The CSC lies partially within Hertfordshire and partially in Essex, the River Stort provides the boundary between the two Counties. This response should therefore be read in conjunction with the Highway Authority response from Essex County Council.
- 9.4 The applications proposed for the Gilston Area are required to demonstrate how 60% of development related travel will be by sustainable/active modes. A key component of this will be through the provision of Sustainable Transport Corridors (STCs). These will provide high quality facilities for pedestrians, cyclists and public transport. In particular, STCs will provide dedicated space to allow buses to move freely by avoiding traffic congestion and giving them priority over other traffic.

- 9.5 The Transport Strategy envisages two primary STCs, these will run north to south, and east to west connecting the central area of Harlow with the development areas at Gilston (10,000 homes), East of Harlow (3,350 homes), Latton Priory (1,050 homes) and Water Lane (2,100 homes). The Central Stort Crossing forms part of the north-south STC and is therefore a vital component of the highways infrastructure which is needed to support the development of the whole HGGT and achieve the HGGT mode share target of 50% of trips within the HGGT being by active and sustainable modes. Ultimately the STC will link the Gilston Villages with Harlow town centre.
- 9.6 HCC's review and commentary have focused on the proposals for the highway structures to be offered for adoption by HCC. With the exception of the proposed Eastwick Road footbridge, the highway structures on the CSC are located in Essex. Notwithstanding this, earlier reviews have considered the proposals for the River Stort and Stort Navigation bridges. It was highlighted that the proposed the vehicle restraint system on the approaches to these bridges provided a gap which could allow errant vehicles to pass – this has been addressed in the planning application (PA).
- 9.7 Details of the Eastwick Road footbridge have been included in an outline format only – the details show the footbridge can vary in location +/-5m from the indicated position. The sufficiency of the red-line boundary is queried for both construction and future maintenance and inspection. This structure carries a footpath and cycle way over Eastwick Road and the River Stort and is indicated as 6m wide and approximately 350m total length including approaches. It is understood a design competition will be held to confirm the preferred structure format. However, the headroom clearance exceeds the design standard requirements which will increase the overall length and height of the structure and, visual impact. Earlier commentary has highlighted this issue and confirmed the structure is not located on a high load route – no changes have been made. Mandatory requirements for the footbridge have not been included – such as finishes, appearance criteria and periods for minor and major maintenance and inspection etc.

- 9.8 Having reviewed the revised application and supplementary documents, HCC remains supportive of the principle of development within Gilston. This Council's support of this application is on the basis that a number of issues are mitigated/ addressed either within the S106 legal agreement prior to determination, or through planning conditions and through modifications prior to determination.
- 9.9 HCC Lead Local Flood Authority (LLFA) - Confirm that they have no objection in principle on flood risk grounds and advise the LPA that the proposed development site can be adequately drained and mitigate any potential existing surface water flood risk if carried out in accordance with the overall drainage strategy principles. Conditions are recommended should planning permission be granted. *Officer note for report – a final set of conditions was agreed with ECC's LLFA. These are set out in Recommendation section below.
- 9.10 HCC Archaeology - The proposed 'Central Stort River Crossing' will have an impact on peat and alluvial deposits within the Stort Valley, and on potentially buried prehistoric deposits. This has been established by geo-archaeological modelling of existing borehole data carried out in 2017, which demonstrated potential for peat deposits of regional importance to be present and for evidence of Mesolithic to Late Bronze Age settlement to be present within and beneath the peat, sealed by alluvium. As stated in the *Assessment of Archaeological Potential* that accompanies the application (L-P Archaeology, 2018), the condition of these deposits remains untested, but could be of 'medium to high significance'.
- 9.11 The proposed development is such that it should be regarded as likely to have an impact on heritage assets of archaeological interest which in this case appropriately worded conditions on any planning consent would be sufficient to provide for the level of investigation that this proposal warrants. *Officer note for report – a final set of conditions was agreed with ECC Archaeology. These are set out in Recommendation section below.
- 9.12 HCC Ecology – Consideration has been given to the loss of river floodplain habitats due to the proposed widening of the road. This

equates to approximately 1.33ha of habitat loss. The crossing proposals will have a significant and permanent impact and therefore the highest priority should be given to securing demonstrable and sustainable benefits to ensure these can be adequately mitigated and addressed at the earliest stage of overall development; the Stort Valley Park proposals will be critical to this. Further details (requested by way of conditions) are required to provide confidence that appropriate ecological protection, enhancement, mitigation and future maintenance and management will be undertaken and secured in the long term.

- 9.13 Minerals and Waste - The proximity of local resources should be exploited and opportunities to re-use materials/ minerals found on site during its preparation as part of the development should be explored.
- 9.14 Hazardous waste is likely to be present which may need to be removed during construction through appropriate methods in order to protect the environment. A Site Waste Management Plan to address this will be required (to be secured by condition).
- 9.15 A separate Construction Environmental Management Plan should also be provided (to be secured by condition) and should include details of how waste at each stage of the development will be managed in line with the waste hierarchy having regard to developing upon a historic landfill.
- 9.16 HCC Landscape and Building Futures – notes that existing landscape in the valley provides valuable screening and therefore should be protected during all works and where possible landscaping should be enhanced. More detail is needed regarding the proposed landscape planting scheme along with landscape management plans which should be submitted by condition. There is a need to ensure that there is cohesion between the proposed plans and the detailed design stage to ensure there is an overarching holistic strategy for wayfinding and amenity. The location of seating should reflect locations of key views within the valley. Similarly planting on verges and in the central reservation may have a maintenance burden and therefore needs careful consideration at the detailed design stage.

- 9.17 The LVIA does not take full account of construction impacts such as storage, compounds and access roads for example. It does not give sufficient weight to the value of the valley and therefore under values the significance of impacts. *Officer note for report – a final set of conditions was agreed with HCC's Landscape Officer. These are set out in the Recommendation section below.

Essex County Council (ECC)

- 9.18 ECC Highway Authority: To achieve high levels of sustainable transport as soon as possible ECC expect the CSC to be complete as soon as possible (suggest prior to occupation of 650th home in the Gilston development). The principle of the highway design for the CSC as set out in the application drawings is accepted. However conditions are sought for further design details and to address where minor amendments have been identified. These are summarised below.
- At Eastwick Corner, the priority for sustainable transport at the junction will be undermined by the amount of space being given to general turning traffic and it is therefore recommend that the road layout is amended to allow for one right and left turn lane only.
 - ECC requires details to be provided of the shared surface for Burnt Mill Lane and Burnt Mill close (identified for sustainable modes only) prior to the detailed design stage. This should include details of the timing of its delivery to ensure the works are not damaged during the construction of the northern access to Harlow station.
 - Prior to any construction taking place, the relevant technical sign off of the highway structure by ECC (to Eurocode and DMRB standards) should be evidenced to the LPA.
 - All works shown in principle on the General Arrangement drawing to be undertaken by the occupation of the 650th dwelling.
 - Burnt Mill Station Bridge is likely to require structural modifications to allow for increased capacity. A structural assessment should be undertaken and details submitted to confirm any works necessary.
 - Throughout the detailed design process, the crossing designs are to be subject to a Road Safety Audit and designs modified where identified.

- Confirmation on the design and delivery of the new walking and cycling bridge (ECC should be the final approval body for this) and the interim walking and cycling provision prior to its delivery,
- Submission of a Construction Management Plan.
- Submission of a Landscape and Ecological Management Plan.

9.19 Amendments to the plans should be undertaken to address comments in relation to the Vehicle Restraint System and the inclusion of a physical separation between the new walking and cycling route on the east side of the CSC. Further information is also sought in regards to:

- how buses will obtain priority on the STC,
- the quality of bus stop facilities at the Burnt Mill junction,
- clarity on the necessary arrangements to be put in place with Network Rail to enable works to take place over the rail line.

9.20 The following commitments should also be sought from the developer:

- Commuted sum of all landscaping shown (or a licence to plant)
- Delivery of the shared surface works for Burnt Mill Lane and Burnt Mill close?
- Delivery of alterations to Public Footpath no.68 and no.119.
- Commuted sum to maintain any transport/SUDS infrastructure adopted by ECC through the appropriate legal mechanisms in the Highways Act 1980.
- Vehicular access maintained to Essex Outdoors Centre throughout the construction works.

9.21 ECC Lead Local Flood Authority (LLFA) – Having reviewed the Flood Risk Assessment and associated documents, the LLFA do not object to the granting of planning permission subject to conditions being applied. *Officer note for report – a final set of conditions was agreed with HCC's LLFA. These are set out in the Recommendation section below.

9.22 ECC Archaeology – Within Harlow District, the Essex Historic Environmental Record (HER) shows that the proposed Central and Eastern Stort Crossings will impact on peat and alluvial deposits within the river valet and on potentially buried prehistoric remains. ECC recommends that conditions are imposed to appropriately investigate, preserve and record any findings. *Officer note for report – a final set

of conditions was agreed with HCC Archaeology. These are set out in Recommendation section below.

Other Statutory Bodies

- 9.23 Affinity Water – no comments received to date.
- 9.24 Cadent Gas – Advise that they have identified operational gas apparatus within the application site boundary. An informative requesting that if any structures are proposed directly above the gas apparatus then development should only take place following a diversion of this apparatus and the applicant to contact Cadent's Plant Protection Team at the earliest opportunity to discuss proposed diversions of apparatus to avoid any unnecessary delay. The response also assesses impacts on National Grid Electricity Transmission PLC's and National Grid Gas Transmission PLC's apparatus.
- 9.25 Campaign to Protect Rural England (CPRE) Hertfordshire – Have raised objections to the Gilston allocation and the outline application (3/19/1045/OUT) but raise no specific points in relation to this application other than to reference it within the correspondence.
- 9.26 Canal and Rivers Trust – The Canal and Rivers Trust previously submitted a response in 2019. An additional response was received in 2021 following revision to the proposed development.
- 9.27 The Canal and Rivers Trust advise that the amended information submitted to support this application has not materially affected the proposal in relation to the Trust's assets or issues raised in the previous response. Therefore, the substantive response, as required by the Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended), is to advise that suitably worded conditions and a S106 agreement are necessary to address matters relating to the impact on the river and towpath users, impact on the structural integrity of the river wall and impact on the ecology of the waterway corridor.

- 9.28 EHDC Environmental Health – does not wish to restrict development at the site subject to the imposition of conditions relating to contaminated land and construction management. *Officer note for report – a final set of conditions was agreed with the Environmental Health Advisor. These are set out in Recommendation section below.
- 9.29 EHDC Strategic Masterplanning, Conservation and Urban Design – raises a number of concerns that officers feel have not yet been fully addressed, but agree that these matters can be resolved through the detailed technical design stage. Comments include:
- Interim measures for pedestrians and cyclists are unclear and not continuous;
 - Village 1 all-modes access is designed in a way that gives too much priority to west-bound vehicle movements from Terlings Park and could be redesigned to reduce conflicts with pedestrian and cycle routes and add more landscaping;
 - landscaping proposals need to consider maintenance; that consideration be given to enhancing routes along Bunt Mill Lane and at the intersections of junctions to give priority to walking and cycling;
 - the pedestrian and cycle bridge design must design-out conflict between pedestrians and high speed cyclists and ensure sustainability is embodied in the design; and
 - that placeshaping officers should be engaged in the detailed design stage of the proposal.
- *Officer note for report – a final set of conditions was agreed with the Strategic Masterplanning, Conservation and Urban Design Officers. These are set out in Recommendation section below.
- 9.30 Environment Agency – Originally raised objection on the grounds of inadequate flood storage compensation and inadequate information to demonstrate protection of water quality. The EA raised no objections on the revised submission subject to conditions to address flood risk and water quality to be imposed should permission be granted. *Officer note for report – a final set of conditions was agreed with the EA. These are set out in Recommendation section below.
- 9.31 Essex Police – Having reviewed documents, Essex Police concur with the comments made by Hertfordshire Police CPDO, regarding the

lighting uniformity, especially given the heavy use of the proposed crossings. In the same way they are not in a position to support the application but would not be seeking at this stage to object it.

- 9.32 Health and Safety Executive – Advises that the proposed development does not lay within the consultation distance of a major hazard site or major accident hazard pipeline. HSE therefore has no comments to make.
- 9.33 Hertfordshire Constabulary – The only concern is in regard to the proposed lighting provision. The examples shown in the Design and Access Statement appear to be bollard style and they also exhibit the ‘pooling effect’ – this is where you get alternate areas of light and dark. The problem with this is that because the light stops people having a clear view of what is ahead in the dark patches. This can be easily mitigated by using a uniform spread of light (at least 25% uniformity) and using a light source that has a colour rendition index of at least 60 (i.e. –‘white’ light). By using column based lighting together with directional luminaires it is possible to achieve this with a lesser number of columns than bollards. In light of the above the Police Crime Prevention Design Service are not in a position to support this application but neither do they object to it.
- 9.34 Hertfordshire Gardens Trust on behalf of Gardens Trust – The Gardens Trust have authorised Hertfordshire Gardens Trust to comment on planning application 3-19-1046-FUL and subsequent revisions. Having considered the details for determination to any matters regarding the heritage of designated parks and gardens in the area both designated and non-designated, HGT do not wish to make a comment. However, they applaud the provision of dedicated foot and cycle bridges across the River Stort.
- 9.35 Highways England – In July 2019 Highways England previously advised that they wish to lodge a holding objection to this and the Eastern crossing application (3/19/1051/FUL) and also the outline application (3/19/1045/OUT) subject a full assessment of the submitted transport data. Subsequently in August 2019 AECOM on behalf of Highways England submitted a detailed response with a list of recommendations

considered critical to the acceptability of planning approval and a list of recommendations not critical to the acceptability of planning approval. Highways England subsequently confirmed (February 2021) that they did not wish to object to the application, though they had some concerns over the transport model and its ability to project over a long period of time. In June 2021 Highways England confirmed that they no longer require a holding direction. *Officer note for report – these conditions have informed those that are set out in Recommendation section below.

- 9.36 Historic England (Archaeology) – Advise that they do not wish to comment and request that consultation be undertaken with local archaeological advisors.
- 9.37 Ministry of Defence (Defence Infrastructure Organisation) – Advise that the site lies outside any safeguarded areas and therefore raises no objections to the development.
- 9.38 NATS Safeguarding – NATS advise that the proposed development has been examined from a technical safeguarding aspect and does not conflict with NATS safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company (“NERL”) has no safeguarding objections to the proposal.
- 9.39 Network Rail – Network Rail advise that although the bridge structure is owned by Essex County Council any proposal will be subject to NR approval via business and technical clearance. Therefore, the applicant must consult with them to obtain easement for the proposed works adjacent to the existing Network Rail Bridge re:BGK 1453. Comprehensive design and construction proposals should be submitted to National Rail for review and due consideration should be given to National Rail operational requirements and existing National Rail infrastructure such as overhead electricity lines at this location. Bridge parapet is required to be 1.8m high H4a. Any work to be carried out over the railway must comply with National Rail safe working practices.

- 9.40 Stansted Airport – The Safeguarding Authority for Stansted Airport has assessed this proposal and its potential to conflict aerodrome Safeguarding criteria. They have no aerodrome safeguarding objections to the proposal, however request a condition requiring the submission of a Bird Hazard Management Plan (BHMP) (included within recommendation).
- 9.41 Thames Water – advise that with regard to surface water drainage, if the developer follows the sequential approach to the disposal of surface water they would have no objection. Where the developer proposes to discharge to a public sewer, prior approval from Thames Water Developer Services will be required. Thames Water advise that with regard to foul water sewerage network infrastructure capacity, they would not have any objection to the above planning application, based on the information provided. The development is within 15m of a sewer and a condition requiring the submission of a piling method statement is requested. *Officer note for report – a final set of conditions was agreed with Thames Water, the LLFA and the EA. These are set out in Recommendation section below.

10.0 Town/Parish Council Representations

- 10.1 Hunsdon Parish Council - comment that they fully endorse the comments of the Hunsdon, Eastwick and Gilston Neighbourhood Plan Group (see below). Concerns expressed over traffic impact of overall development and adequate mitigation to existing villages needs to be demonstrated. Safeguards also need to be in place to ensure the full infrastructure package is provided on time and as promised.
- 10.2 Eastwick and Gilston Parish Council comment that they fully endorse the comments of the Hunsdon, Eastwick and Gilston Neighbourhood Plan Group (see below).
- 10.3 High Wych Parish Council – Object to the overall development. Specific concerns over traffic impact, inadequate transport infrastructure, no additional capacity for private cars and significant disruption during

construction. Wish to see a vehicle drop off area at the new station access to reduce demand on the Central Stort Crossing. Wish to see a new crossing of the Stort to the west of the current crossing with grade separation of accesses to the A414 to ensure the A414 flows unimpeded. Wish to see all work complete on the CSC before first occupation. Construction traffic should not use local roads and all construction vehicle movements to occur between 7pm and 7am to avoid daytime.

- 10.4 Roydon Parish Council – comment that there seems to be little recognition of the risk that if there is insufficient general traffic capacity at the new crossings (excluding the dedicated bus route), roads such as the B181 through Roydon could be used as a cut through making life within the village very challenging. Regarding potential new links to Pinnacles Employment Area and Roydon Station, the clear aim would be to encourage walkers/cyclists from village 6, in particular, to use Roydon station. The Parish Council has concerns that there is an over reliance on cycling/walking and that directing people to Roydon Station is unrealistic with trains running at full capacity and sometimes non-stopping.
- 10.5 Civic Society, Epping Upland Parish Council - expressed concern regarding volumes of diverted traffic during construction.
- 10.6 Hunsdon, Eastwick and Gilston Neighbourhood Plan Group – Object to the application on the following grounds:
- The proposal does not provide details about how a northern access to Harlow Town Station will be provided, or the impact on station parking, cycle parking;
 - The whole network of new roads (primarily the Eastern Stort Crossing) has no justification and do not demonstrate how they will support the delivery of sustainable transport;
 - The scheme needs to be redesigned to be landscape-led with a comprehensive reliable pedestrian and cycling permeability;
 - No details are provided for the design of the pedestrian and cycle bridge or for pedestrian and cycle access along Burnt Mill Lane and Station Approach;
 - Delivery of infrastructure is too late compared to delivery of homes;

- Insufficient information to evaluate the design choices for the CSC;
- Significant land take due to the Village 1 bus only access requiring an additional access to Village 1, and the eastern arm of Eastwick junction is too big;
- Impact on the Stort valley;
- Confines pedestrian and cycle movement to an inconvenient bridge over the roads that is uncondusive to those pushing prams and wheelchair users, placing them at risk;
- Suspend or reject approval pending a detailed A414 Strategy for Segment 14 in the context of the design of STCs across Harlow;
- No commitment to upgrade Burnt Mill Lane and the Stort Valley routes, with no comprehensive plan of PRowS integrating with the green infrastructure
- Lack of clarity on when BNG and the biodiversity strategy will be achieved, with surveys being out of date for mammals in the Stort Valley.

11.0 Summary of Other Representations

11.1 In total 1753 neighbouring properties were originally consulted. A total of 116 responses were received. Of these, six were neutral representations, one supports the proposal and 108 object to the proposal (number recorded on 01.11.21). The concerns objections and comments raised are summarised as follows:

- Inadequate assessment of delivery timescales;
- Absence of Statement of Delivery;
- Inadequacy of land assembly costs, compensation and lack of viability assessment;
- Inadequate transport assessment;
- Inadequate EIA;
- Inadequate section 106 draft heads of terms;
- Inadequate assessment of noise and air quality impacts;
- Adverse impact on heritage and landscape character;
- Inadequate description of development;
- Inappropriate design and inadequate provision of properly costed infrastructure;

- Loss of trees;
- Development will create too much disruption;
- A414 already too congested;
- Adverse impact of development on quiet country area;
- New road will cut Gilston off from the rest of the locality;
- Adverse impact of noise from the road;
- Sound barrier will be ugly and intrusive;
- Devaluation of properties in the area;
- Plan is flawed as only allows for additional bus movements;
- Adverse impact on home environment and mental health;
- Consultation period too short;
- Development will create more traffic but road is not being widened. Needs two lanes in each direction;
- Development will impact adversely on the environment and quality of life for local people;
- Development should have the River Stort as its focal point;
- Noise pollution and adverse impact on Terlings Park;
- Alternative route away from Terlings Park should be sought;
- Adverse impact on rail network;
- Red line boundary incorrect (NB: Not specified where);
- Adverse impact on Princess Alexandra Hospital;
- Additional stress on water supply/sewage;
- 60% mode share target unachievable;
- New bridges will be visually intrusive;
- Impact on local wildlife sites (Hunsdon Meads Site of Special Scientific Interest (SSSI) and Rye Meads SSSI);
- Road has been designed for dualling, bringing more traffic and HGV's into the area;
- Pedestrian/cycle bridge may be an eyesore;
- Inadequate public transport to serve the development;
- Loss of light, outlook and privacy;
- Adverse impact on road safety;
- Increased traffic in Roydon and impact on capacity of trains to/from Roydon station;
- Roads in Harlow cannot cope with additional traffic;
- Application should only be determined when outcome of outline application(s) is known;

- Councils have already made HIF bids so suggests support already agreed. Therefore applications should be determined by an independent body;
- New northern entrance lacks detailed design or funding mechanism;
- Construction traffic should not be allowed through Pye Corner;
- Construction materials should be delivered by train and transported by crane across the valley;
- It would be preferable to separate the cycle route from the walking route. Bicycles are stressful for walkers;
- Instead of developing the South East of England, investment should be focussed on the North East;
- The development is welcome if it relieves congestion. Would also have like to have a western crossing to further reduce congestion.

12.0 Consideration of Issues

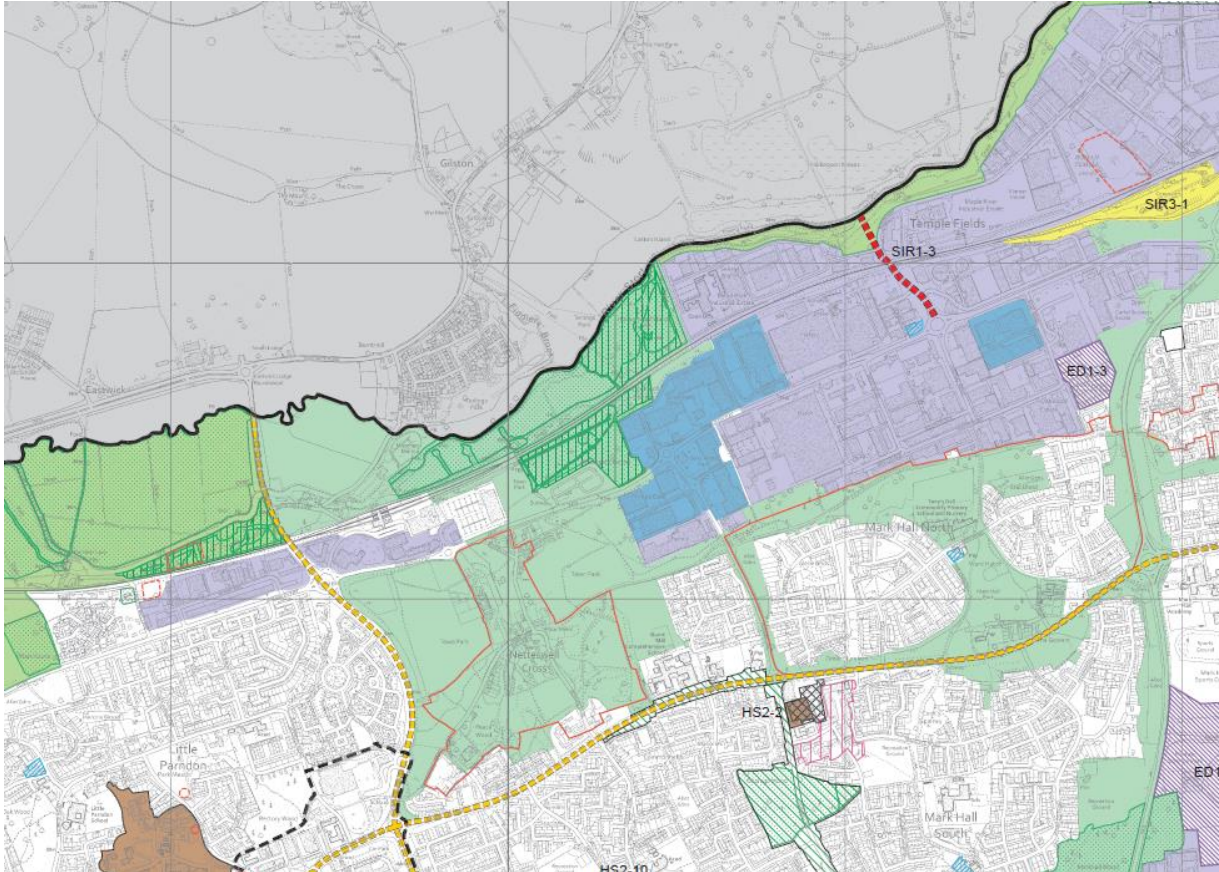
12.1 Principle of Development

- 12.1.1 Policy GA1 (The Gilston Area) of the East Herts District Plan 2018 allocates the Gilston Area for 10,000 new houses. This allocation forms part of the development strategy in the District Plan as detailed in Policies DPS1 (Housing, Employment and Retail Growth), DPS2 (The Development Strategy 2011-2033) and DPS3 (Housing Supply 2011-2033).
- 12.1.2 EHDP Policy GA2 (The River Stort Crossings) states that the improvement of crossings over the River Stort will include the *“widening of the existing A414 crossing to enable a dualling of the northbound and southbound carriageways and provision of a new footway/cycleway, which will form part of a north-south sustainable transport corridor through Harlow”*. Policy DEL1 (Infrastructure and Service Delivery) at part II(a) requires development to demonstrate that adequate infrastructure capacity can be provided both on and off site to enable the delivery of sustainable development within the site, the locality and the wider area as appropriate.

- 12.1.3 The Harlow Local Development Plan 2020 sets out the framework to guide and shape development in Harlow to 2033 and beyond. The Plan acknowledges in Policies HGT1 (Development and Delivery of Garden Communities in the Harlow and Gilston Garden Town) and SIR1 (Infrastructure Requirements) that the Spatial Development Strategy will be underpinned by delivery of the necessary supporting infrastructure, with development phased over the Local Plan period to ensure that the correct levels of infrastructure are provided. Policy SIR1 (Infrastructure Requirements) identifies *'infrastructure items which require safeguarding or have a land use implication'* including:
- *SIR1-1 North-South Sustainable Transport Corridor and River Stort Crossing to Eastwick Roundabout;*
 - *SIR1-2 East-west Sustainable Transport Corridor;*
 - *SIR1-3 Second River Stort Crossing at River Way;*
- 12.1.4 The Harlow Local Development Plan identifies on its Policies Map Strategic Infrastructure Items which require safeguarding or have a land use implication. The map includes an indicative line (yellow dotted line) marking the potential route of the Central Stort crossing within the district boundary as indicated on Figure 10 below
- 12.1.5 HLDP Policy SIR2 (Enhancing Key Gateway Locations), identifies gateway locations in the district which include the *River Stort Crossing where Fifth Avenue enters and exits the Harlow district boundary*, and the *Eastern Stort Crossing, which enters Templefields Employment Area at River Way*. The Policy requires improvements to landscaping and boundary treatments, principles of green wedges, public art and improved signage, pedestrian and cycle networks, security and safety measures.
- 12.1.6 Policy PR1 (Development within Employment Areas) requires that development provides a complementary benefit to the employment area and would not have an adverse effect on the overall provision of employment land. The proposal will result in the loss of a small area of employment land through the widening of the carriageway just north of the Burnt Mill Roundabout. However, this loss is not considered to have an adverse effect on the overall provision of employment land as

the land affected is currently in use as a highway verge beyond the boundary of the adjacent land use.

Figure 10: Extract of Harlow Local Development Plan Policies Map



*Key: Red dotted line – Indicative Second Stort Crossing at River Way
Yellow dotted line – Indicative North-South Sustainable Transport Corridor and River Stort Crossing to Eastwick Roundabout*

- 12.1.7 The proposed CSC scheme is designed to tie in with the existing Burnt Mill Roundabout, which will itself be improved as part of a wider Essex County Council led programme of transport improvements. In line with HLDP Policy WE2 (Green Belt, Wedges and Green Fingers), the CSC proposal will provide significantly improved pedestrian and cycle routes across the Stort Valley provided through the CSC proposal, providing an attractive and legible connection with the wider green infrastructure of the valley, discussed in further detail in later sections of this report.
- 12.1.8 The Central Stort Crossing proposal provides an additional carriageway which will be used only as part of a Sustainable Transport Corridor (STC); it does not provide additional highway capacity for other vehicle

movements, except through the conversion of the Eastwick Roundabout to a signal controlled junction. The Burnt Mill Roundabout enhancements, though not part of the CSC application, also provides some enhancement to capacity. It is agreed by both Highway Authorities that the Central Stort Crossing is necessary, in conjunction with the Eastern Stort Crossing to provide the additional highway capacity required for the Gilston Area development as well as to support the growth of the wider Garden Town in and around Harlow. The STC is intended to operate as a network providing travel choice serving existing residents and businesses as well as new developments in and around the HGGT area,

- 12.1.9 The provision of this essential infrastructure, both the Central and Eastern River Stort crossings, supports the delivery of the Gilston Area allocation which is the largest strategic development allocated in the East Herts District Plan, and also supports the planned strategic growth of the HGGT (23,000 homes, of which 16,000 is to be delivered by 2033) and the sustainable transport objectives of the HGGT. The improved Central Crossing and new Eastern Crossing are also identified in the HGGT Vision.
- 12.1.10 The principle of the CSC development is established in the East Herts District Plan and the Harlow Local Development Plan and this carries significant positive weight and the development is considered to be acceptable in principle. There are a number of other planning considerations that need to be assessed to determine the acceptability or otherwise of this application which are covered hereafter in the report.

12.2 Design and Layout

- 12.2.1 Policies DES2 (Landscape Character), DES3 (Landscaping) and DES4 (Design of Development) of the East Herts District Plan 2018 seek to ensure that all developments throughout the District follow high-quality design and layout principles, while conserving, enhancing or strengthening the character and distinctive features of the District's

landscape. Policy CFLR9 (Health and Wellbeing) requires development to provide necessary infrastructure to encourage physical exercise and health, including through safe, well promoted walking and cycling routes.

- 12.2.2 Policy PL1 (Design Principles for Development) and Policy PL2 (Amenity Principles for Development) of the Harlow Local Development Plan 2020 sets out the design principles to guide development within the town and seeks a high standard of urban and architectural design for all development. These policies sets out the design criteria for all development in Harlow, taking into account the requirements of the adopted Harlow Design Guide SPD. Policy PL3 (Sustainable Design, Construction and Energy Usage) requires development to deliver high standards of sustainable design and construction and efficient energy usage, taking account of predicted changes to heating and cooling requirements as a result of climate change".
- 12.2.3 Policy SIR2 (Enhancing Key Gateway Locations) requires improvements to landscaping and boundary treatments, principles of green wedges, public art and improved signage, pedestrian and cycle networks, security and safety measures. HLDP Policy PL4 requires that development must not adversely affect the role or function of adjacent land which forms part of a Green Wedge or Green Finger. Policy PL5 (Green Wedges and Green Fingers, Policy WE1 (Strategic Green Infrastructure) and Policy WE2 (Green Belt, Green Wedges and Green Fingers) require that proposals preserve and enhance the role and setting of green spaces, promote biodiversity and integrate with existing green infrastructure.
- 12.2.4 HLDP Policy L4 (Health and Wellbeing) require *inter alia* developments to provide infrastructure to encourage physical exercise, including walking and cycling. Policy IN1 (Development and Sustainable Modes of Travel) requires development to reduce the use of the car and promote alternative ways to travel.
- 12.2.5 Gilston Area Neighbourhood Plan Policies AG1 (Promoting Sustainable Development in the Gilston Area), AG2 (Creating a Connected Green Infrastructure Network), AG3 (Protecting and Enhancing the

Countryside Setting of New and Existing Villages), AG5 (Respecting Areas of Local Significance) and AG8 (Minimising the Impact of Traffic and New Transport Infrastructure on Existing Communities) all have some relevance to the issue of design in the context of the Central Stort Crossing, primarily in relation to impacts on views and setting, landscape and ecology and the Stort Valley environment. Policies TRA1 (Sustainable Mobility) and Policy TRA2 (Access to the Countryside) require developments to provide opportunities for active travel, providing routes that are well connected to the existing Public Rights of Way network.

- 12.2.6 Paragraphs 130 to 135 (section 12) of the NPPF relate to the consideration of development proposals in the context of achieving well designed places. Key principles include ensuring that developments function well and add to the overall quality of the area, are visually attractive, incorporating effective landscaping, support local facilities and transport networks and create safe inclusive and accessible places that promote health and wellbeing. The NPPF includes a recent addition in paragraph 131 which requires streets to be tree-lined and advises that local planning authorities should work with highways and tree officers to ensure the right trees are planted in the right places and that solutions are found that are compatible with highways standards and needs of different users. Furthermore, the use of design review panel arrangements is encouraged. Paragraph 134 states that significant weight should be given to outstanding or innovative designs which promote high levels of sustainability, or help raise the standard of design more generally in an area so long as they fit in with the overall form and layout of their surroundings.
- 12.2.7 The CSC proposals as originally submitted comprised a new northbound vehicular carriageway immediately to the west of the existing carriageway. This would enable the existing north/south section of Fifth Avenue to become a southbound carriageway only, with the new carriageway taking northbound vehicles. A lane in each direction would be for sustainable transport modes only. At the northern end of the CSC, the current A414 roundabout at Eastwick Lodge was to become a four-arm signal controlled junction with the northern arm being an all modes access to Village 1 of the main Gilston

development. This northern arm was to comprise a vehicular route and a bus lane in both directions.

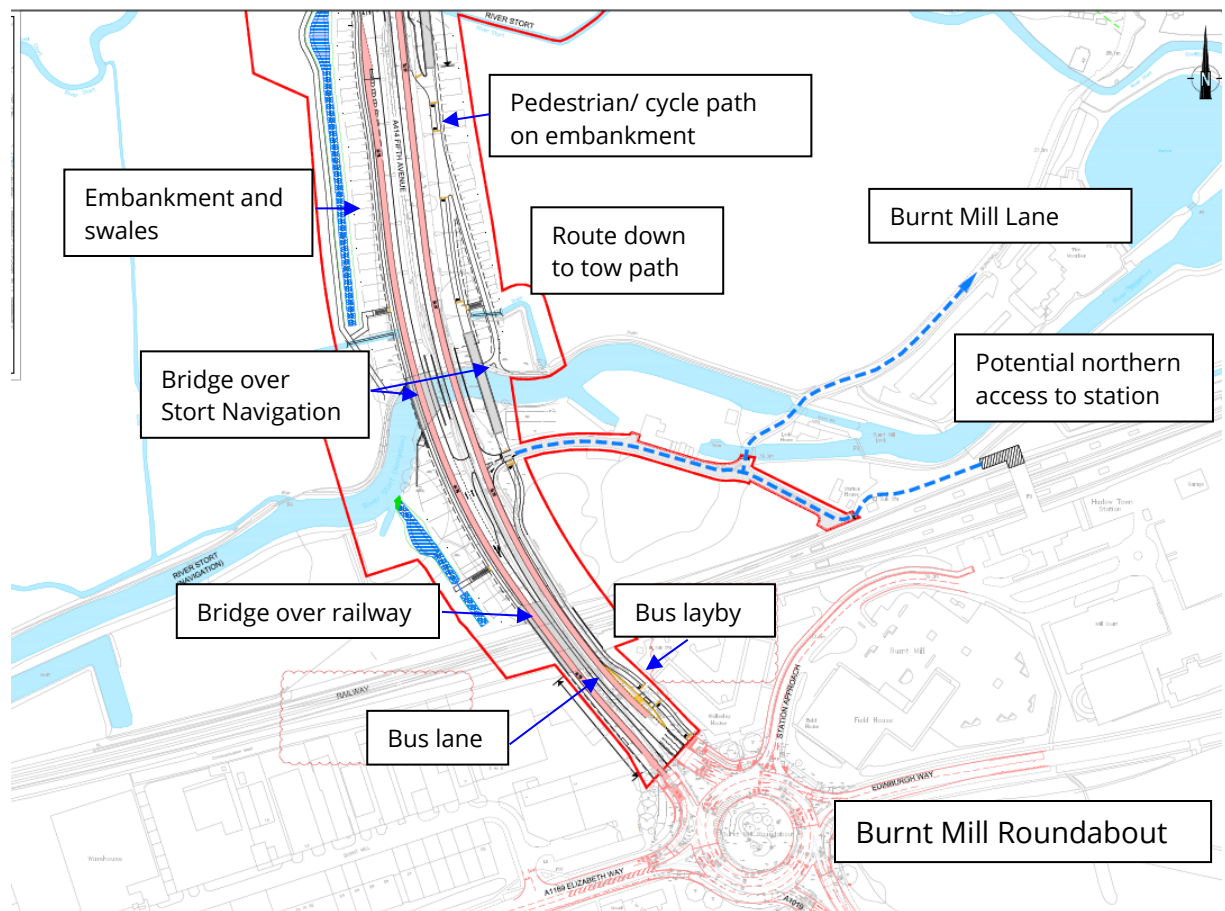
- 12.2.8 A 2m footway was to be provided to the west of the new crossing carriageway and a 5m footway/cycleway to the eastern side of the existing carriageway. This was to connect to a new foot/cycle bridge taking users over Eastwick Road and to link to the new Village 1.
- 12.2.9 As a result of extensive discussions with Officers post submission of both the full applications for the river crossings and the outline Gilston development proposals, the proposed Central Stort Crossing has been amended. A signalised junction is still to be provided at the Eastwick junction with the A414/Fifth Avenue, but the northern arm is now a single lane entry and exit, sustainable modes only route. This will operate as part of a sustainable transport corridor between the existing urban area of Harlow to the south and the Gilston Area via Village 1. There will be no access for private vehicles along this route enforced through appropriate signage, coloured surfacing and design features. A 5m (plus verges on either side) segregated pedestrian/cycle route is to be provided along east side of the existing crossing, with a 2m footway provided along the west side of the proposed northbound carriageway. In addition, a new route for pedestrians and cyclists is proposed that runs along the valley floor to the west of the new carriageway that runs from the Stort Navigation in the south to the Stort river to the north. Improvements provided as part of this new route include a gravel path and a wooden bridge over the natural course of the River Stort providing an alternative route within the valley towards the village of Eastwick and to Cat Lane.
- 12.2.10 As the existing carriageway will be repurposed for southbound movement only, a segregated sustainable modes lane can be provided, commencing at the new signalised junction, continuing along the length of the crossing. At the southern end of the existing crossing the application will provide a full width lay-by to enable the relocation of an existing bus stop in order to tie in with Essex County Council's (ECC) scheme to enhance the Burnt Mill roundabout. These roundabout works are to be delivered by ECC as part of a wider North to Centre Sustainable Transport Corridor (STC). Similarly, a pedestrian crossing

has also been revised to reflect amended kerb lines between Burnt Mill Roundabout and the new northbound carriageway.

- 12.2.11 The new northbound carriageway will start at the Burnt Mill roundabout and the embankment on which the road currently sits will be widened with a low retaining wall. A new bridge will be installed over the West Anglia Mainline; the eastern parapet (and edge beams) will be rebuilt to meet the standards required by Network Rail (H4A); and on the western edge the parapet will be removed and edge beams will be replaced to form a central reserve between the existing and new northbound carriageway. Due to the physical constraints and proximity of buildings, the new bridge deck over the railway line will be joined to the existing carriageway with a continual central reserve between the bridges protected with vehicle restraint systems. This is to protect the railway line beneath. Similarly, the deck over the natural watercourse is continuous between the two carriageways. South of the railway line the carriageways are separated by a grass verge approximately 2.5m wide. As the carriageway heads north a greater separation is achieved between the carriageways (approximately 9.8m), with the existing embankment widened between the carriageways and planted.
- 12.2.12 The new northbound carriageway comprises a dedicated lane for sustainable modes for approximately two-thirds of its length and a further lane for all other traffic. The sustainable modes lane re-joins the all other modes running lane of the carriageway on the approach to the River Stort bridge using a signalised “bus gate” so that buses will have priority over general traffic. Continuing northward, there will be two lanes for all vehicles across the River Stort bridge heading towards the new signalised Eastwick junction. This is to enable the division of northbound vehicles into left and right turn lanes at the junction. Westbound vehicles have a dedicated two lane slip road from the crossing on to the A414 towards Hertford.
- 12.2.13 With the expected phasing and duration necessary to deliver the major highway improvements, interim proposals for the CSC are required to allow development to commence and for new pedestrian and cycle routes to be delivered in advance of the full CSC being completed. The

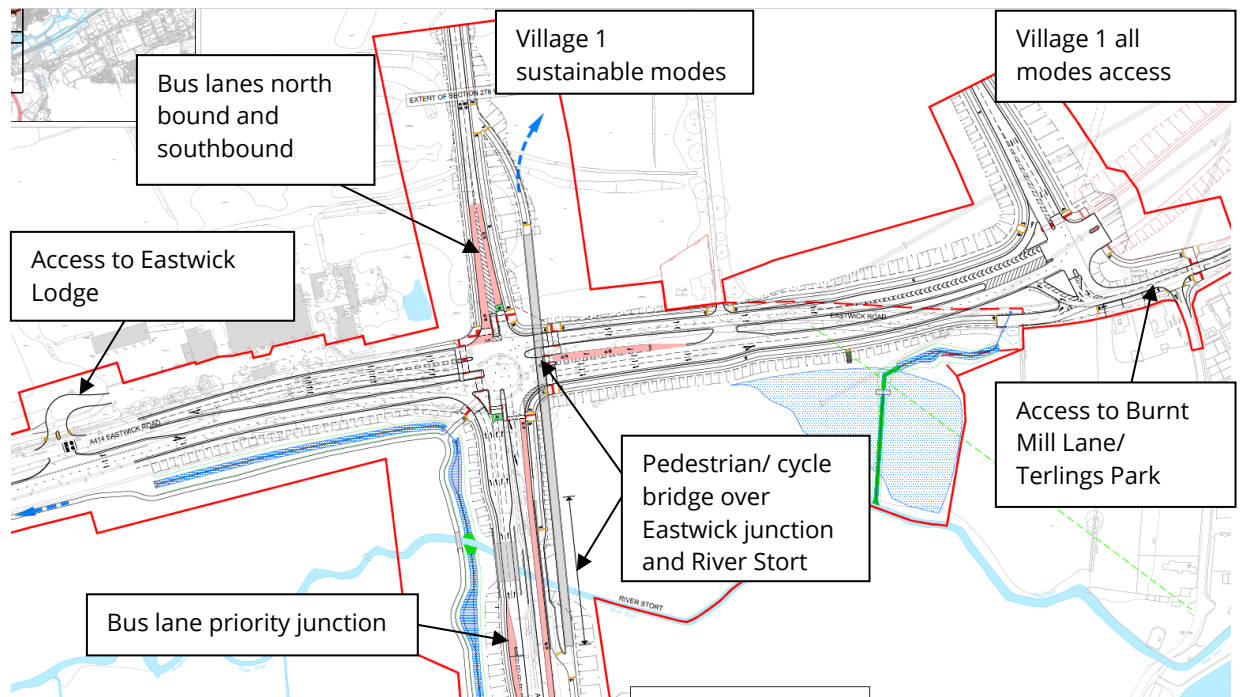
CSC is anticipated to take two and a half years to design and construct including enabling works and it will be necessary to keep the existing carriageway in operation throughout that period. It is also necessary to ensure that existing walking and cycling opportunities remain during the construction and that new and improved ones are created in advance of the delivery of the dedicated pedestrian and cycle bridge over Eastwick Road. Early delivery of good quality north-south routes between the Gilston Area homes and the urban area of Harlow being a priority. The interim solution is to deliver the vast majority of the new permanent signalised Eastwick junction design to the north of the existing River Stort bridge. When the new northbound carriageway is constructed, this will then tie in to the junction. This approach avoids some abortive work and allows some permanent landscaping of the earthworks and verges to be delivered early on in the phasing.

Figure 11: Southern end of proposal and extent of ECC Burnt Mill Roundabout scheme



Extract of VD17516-CC-100.1-GA (Rev P07)

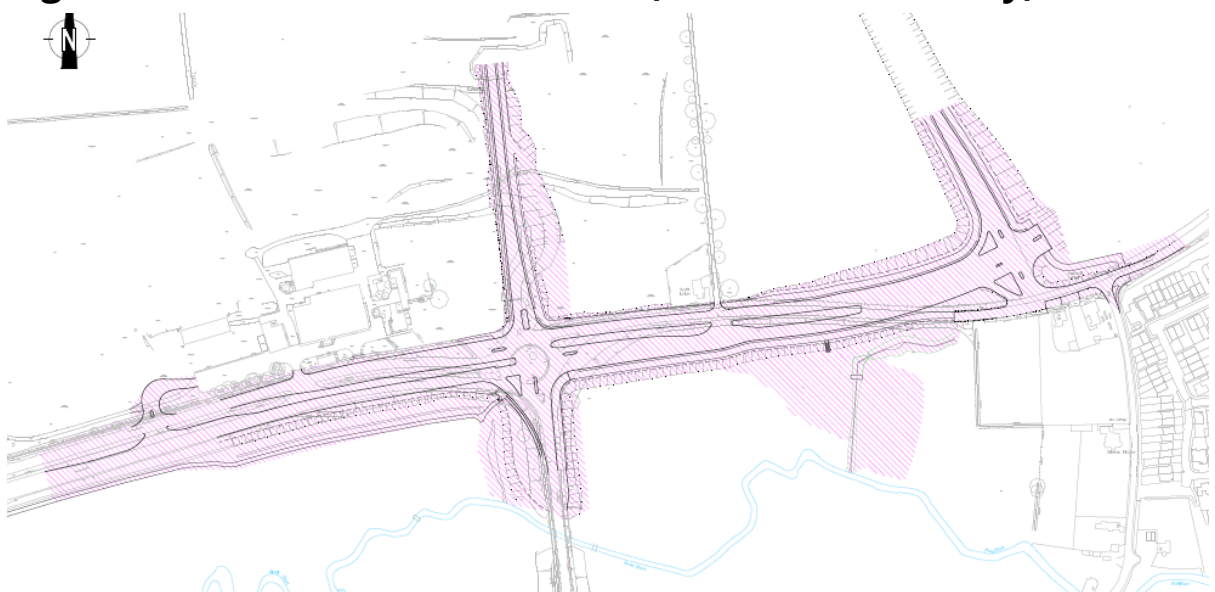
Figure 12: Eastwick Junction and northern section of crossing



Extract of VD17516-CC-100-GA (Rev P07)

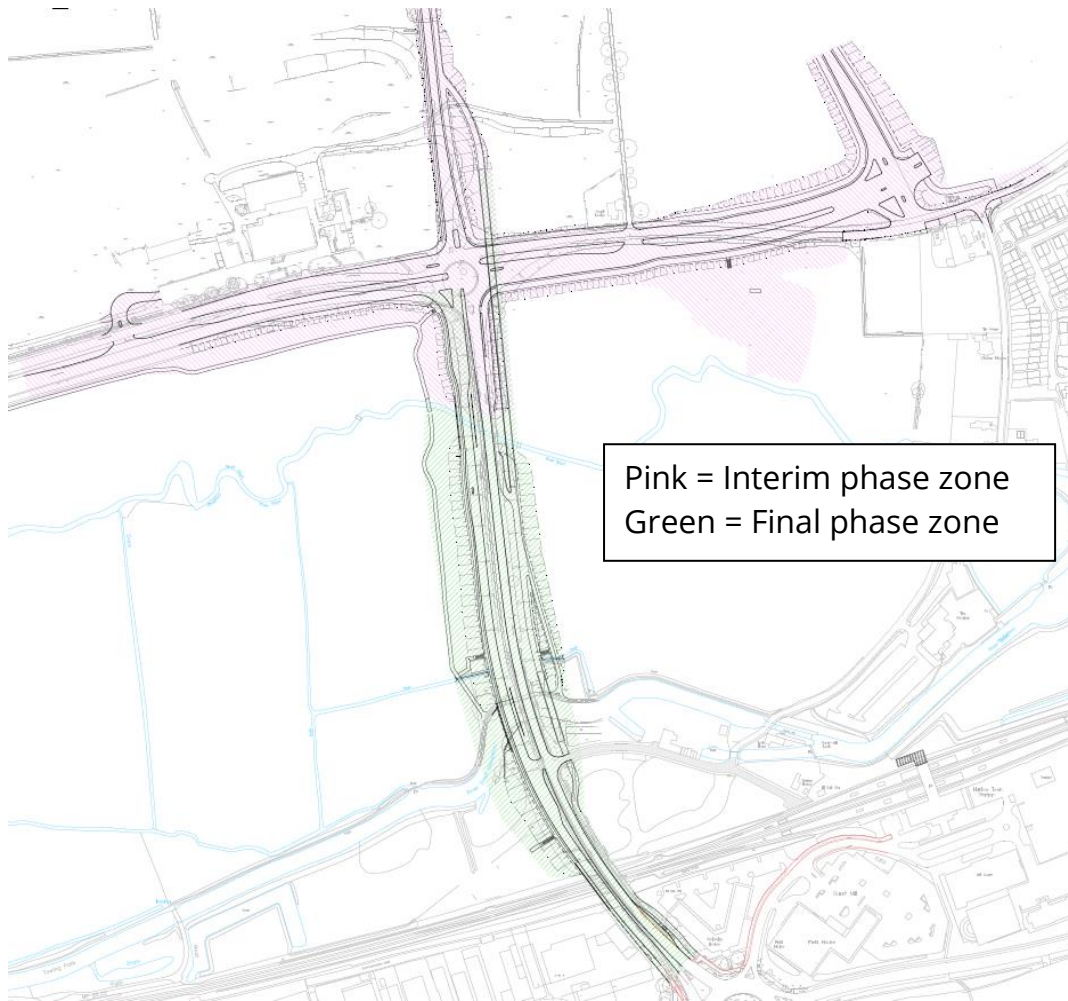
12.2.14 Figures 13 and 14 below show the initial indicative phasing plans which show at a high level the delivery of the CSC in two phases, with the first phase comprising the works to the Eastwick junction, Village 1 Sustainable only access, realignment of Eastwick Road and Village 1 all modes access. The second phase comprises the crossing element itself.

Figure 13: Extent of Interim Phase (for illustration only)



- 12.2.15 The proposed Eastwick junction will provide pedestrian and cycle crossing points on each arm enabling movement in every direction. Albeit that the current demand for walking and cycling facilities in this location is limited, the proposals represent a marked improvement to the current situation. At present, there is one poorly defined narrow path on the western side of the busy carriageway, located immediately adjacent to the roadside kerb with no waiting space and no protection at the central reservation between eastbound and westbound carriageways of the A414 where it can be crossed to the west of the current roundabout.
- 12.2.16 West of the Eastwick junction, a new arrangement is proposed for access to Eastwick Lodge Farm. This comprises a slip lane and central refuge providing access into and out of the employment area. The current entrance and exit will be closed and an internal one-way system will direct movements within the car parking area.
- 12.2.17 The scheme also proposes a new gravel footway link from the Village 1 STC junction to Cat Lane in the west along the southern side of the A414. The path is moved away from the edge of the carriageway behind a sustainable drainage feature. This route is not intended for regular footfall but represents an enhancement to a current informal route and will provide a link between Eastwick village and the Stort Navigation towpath.

Figure 14: Extent of Final Phase (for illustration only)



12.2.18 An access to Village 1, for all traffic other than sustainable modes, is to be delivered to the east of the sustainable modes access opposite the current Burnt Mill Lane/Eastwick Road junction. This forms the new eastward extent of the CSC scheme and brings the delivery of the Village 1 access into the same delivery phase as the main sustainable modes access. A 4-arm signalised junction will be delivered with the northern arm forming the Village 1 access. To the east (and as part of the ESC proposals) Eastwick Road is proposed to be moved north from its current alignment. The current alignment will then form the southern arm of the junction. That part of Eastwick Road is retained to providing access to Burnt Mill Lane and Terlings Park. A dedicated left-turn lane is provided to Village 1 for traffic from the west (see Figures 4 and 5 above).

12.2.19 As an interim arrangement, the Eastwick Road eastwards terminates at a point just beyond the all modes Village 1 junction. This enables the

provision of a pedestrian and cycle Toucan crossing to enable connection to the current Eastwick Road, and onwards via a non-controlled crossing towards Burnt Mill Lane to the south. Vehicular access to Terlings Park is to be retained via Eastwick Road at this junction. Eastwick Road is to be realigned slightly to create a segregated pedestrian/cycle route on the south side of the road and a new turning junction into Burnt Mill Lane. Improvements to Eastwick Road's existing junction with Burnt Mill Lane are now incorporated into the CSC scheme (see Figure 5 above). During the interim phase, east-west movement will use this junction to route onto the current Eastwick Road alignment. Westbound movements get a priority slip lane at this junction onto the westbound section of the new carriageway. This interim arrangement will be upgraded to the final layout as proposed in the ESC application.

12.2.20 A key feature of the CSC proposal is the creation of good quality, dedicated segregated pedestrian and cycle facilities running parallel to the road on the eastern side of the existing carriageway. Running north to south, the proposed Eastwick Road foot and cycle bridge commences north of the Village 1 sustainable modes access where it will tie in with new routes into Village 1 and other internal connection routes. The route heading south rises gradually up on a newly created embankment and then becomes a bridge over Eastwick Road for 276 metres in length. The route then runs along an area of embankment for 160 metres. This is to enable the creation of two alternative routes to the north and south; northwards, the route drops to the level of the road enabling connection to the eastbound pedestrian and cycle route along the ESC; and southwards, the route continues on a modified embankment at a slightly lower level to the carriageway before rising over a second new bridge structure over the Stort Navigation. A link is also provided that drops down to the level of the Stort Navigation to connect to the east-west towpath (see Figure 11 above).

12.2.21 South of the Stort Navigation, the segregated path re-joins the existing southbound crossing where it bridges the West Anglian Mainline railway. A change to the road bridge structure is required at this location in order to enable the continuation of the 5 metre wide segregated footway/cycleway and fit the necessary carriageway width

for the bus lane and vehicle lane. The route then continues southwards towards the Burnt Mill roundabout where it will connect into the STC scheme to the town centre.

- 12.2.22 The pedestrian and cycle bridge east of the existing Fifth Avenue crossing falls within the Green Wedge as defined in HLDP Policy WE2, which lists six roles the Green Wedges perform. The Green Wedge adjacent to the crossing performs a green infrastructure role, providing a corridor for wildlife, habitats, rivers, canals and other ecological assets and landscape features. Green Wedges are to be protected from inappropriate development. HLDP Policy PL5 states that development on land designated as a Green Wedge must meet certain criteria, including local transport infrastructure which demonstrates a requirement for a Green Wedge location. As described in section 12.1 above, the Central Stort Crossing, which includes the pedestrian and cycle bridge are considered to comprise local transport infrastructure that is supported in principle by Development Plan policies and as such it is demonstrated that the proposal requires a Green Wedge location.
- 12.2.23 HLDP Policy PL5 additionally requires that the role of the Green Wedge is not adversely affected and demonstrates that the wider landscape and setting is preserved, enhanced, promotes biodiversity and integrates with existing infrastructure. The pedestrian and cycle route comprises two bridges over the watercourses within the valley, and a widened embankment providing connections from the new route to the existing canal towpath, enabling users of the route through and across the valley to observe and experience the valley from a unique elevated position. It is considered that the elevated elements of the pedestrian and cycle route will not conflict with the Green Wedge designation given that the purpose of the route is to provide for active means of travel across and through the valley and is supported by a comprehensive landscaping strategy designed to mitigate the loss of self-set scrub and trees that will be lost as a result of the bridge structures. Furthermore, as is explained in section 12.6 below, the CSC proposal will mitigate the impacts of the development through enhanced habitat creation within the valley.
- 12.2.24 To the west of the new carriageway, a 2 metre wide footway is provided. Two new routes from the footway down into the river valley

below are provided via steps to connect to the Stort Navigation towpath and to link to existing Public Rights of Way (PRoW) within the valley.

- 12.2.25 As shown on Figure 11 above, the CSC proposal also includes the spur of Burnt Mill Lane from the Fifth Avenue crossing towards Burnt Mill Close. Improvements are proposed to this existing route in order to ensure alternative walking and cycling routes options are available to new and existing residents. These improvements comprise changing the status of Burnt Mill Lane and Burnt Mill Close to become a pedestrian and cycle quiet lane which may potentially include the provision of a shared surface and reduced speed limit with clear signs and surfacing. The detail of these changes will be submitted via a planning condition on this application, but the delivery of the improvements will be secured through either a legal agreement entered into by the applicant with the Highway Authority under section 278 of the Highways Act 1980, or via a S106 planning obligation associated with the Outline Villages 1-6 application.
- 12.2.26 This lane is an important route connecting residents of Terlings Park and Burnt Mill Lane to Harlow Town Station via the Fifth Avenue Crossing, so vehicular movements from the south will be restricted to access only to serve the outdoor activity centre, Station House, and the public car park for the nature reserve. Access northwards along Burnt Mill Lane will remain closed to vehicles due to the presence of a weak bridge. The temporary treatment to secure the closure of the bridge comprises the use of large concrete blocks. The applicant has committed to delivering public realm improvements at this location along with enhancements to the rest of Burnt Mill Lane in order to improve pedestrian and cycle access along its entire length (delivered via a legal agreement entered into by the applicant with the Highway Authority under section 278 of the Highways Act 1980) or through a s106 obligation associated with the Villages 1-6 outline application. The details of the proposed improvements will be required to be submitted via a condition on the outline application, so whilst this is not material for this application, this paragraph provides the context of the wider package of mitigation associated with the development as a whole.

- 12.2.27 The Burnt Mill Lane route will also provide direct pedestrian and cycle access to a potential future new northern access for the station. This potential future northern station access is included as a critical item of infrastructure in the HGGT Infrastructure Delivery Plan and is therefore considered as part of the Outline application as the residential development would be the source of the additional trips made to the station.
- 12.2.28 Essex County Council is leading on the delivery of the onward southward Sustainable Transport Corridor through Burnt Mill Roundabout and to Harlow town centre. The Roundabout will be upgraded to accommodate increased public transport services, be provided with signal controlled crossing facilities on all arms of the junction to give priority to walking and cycling, manage traffic flows and to improve the public realm. Previously works to the roundabout were included within the application site. However, as ECC is now leading on this element of the STC proposals, they are removed from the application site and are being delivered separately.
- 12.2.29 These works undertaken by ECC will include proposals to enhance the footpath along Station Approach to improve the pedestrian and cycling environment given it is an important route. Works to Station Approach will now also be incorporated in ECC's design of the Burnt Mill roundabout improvements and again no longer forms part of this application.
- 12.2.30 Given that the Stort Valley is a major green infrastructure asset, forming a natural and strategic green corridor between both East Herts and Harlow, a soft landscape strategy forms part of the proposals. This will assist in assimilating the scheme into its surroundings. Where trees and scrub are removed to enable construction of the widened carriageways and bridges these are replaced and supplemented by additional planting; which is reflective of the existing character of the Stort Valley, with scattered groups of new native trees, planted within native species rich grassland and occasional blocks of native scrubland planting (section 8.6 below considers these impacts further). Commuted sums for the maintenance of the landscaping and highway

infrastructure will be expected which will be secured through the section 278 legal agreement.

- 12.2.31 The layout provides large gaps (up to 10 metres) between north and southbound carriageways in order to facilitate the planting of small trees on the top of the embankment. Trees are also proposed to be planted on either side of the bridges to provide screening to larger structures such as bridge abutments and ramps/steps. Additionally, native hedgerows are proposed to be planted alongside the structure to form new build boundaries, to reflect the existing landscape character. The central section of the crossing is designed to have only low level planting along its embankments in order to afford views from the crossing across the valley and to continue the current open aspect of the valley across its middle section.
- 12.2.32 The new northbound carriageway and its associated structures is located immediately to the west of the existing crossing. As a result the new bridge structures are seen against the backdrop of the existing crossing when viewed from the west, and when viewing from the east, the new bridge structures will be obscured by the existing crossing and the new segregated pedestrian and cycle bridge.
- 12.2.33 The pedestrian and cycle bridge over Eastwick Road has not yet been designed; only parameters are included within the application. This is because it is proposed that the design itself will be subject to a design competition, which it is anticipated will allow innovative design solutions to come forward. The parameters for the two bridge elements therefore set clear objectives that any future bridge design will need to follow in order to meet appropriate technical structural design standards, but the parameters are flexible enough not to fetter the design process. These parameters have been amended to address technical requirements specified by the two Highway Authorities such as headroom above the carriageway for example.
- 12.2.34 As this route is intended to provide for high volumes of pedestrian and cycle movements, the bridge needs to have gentle gradients to ensure accessibility standards are met, and should be constructed using materials that are robust. Condition 11 will require full details of the

design and appearance to be submitted following the results of the design competition which will need to demonstrate how the proposal is in line with these parameters and achieves defined objectives that marry the desired function of the bridge with the retention of open views along the valley and takes full account of ecological and landscaping interests.

- 12.2.35 The proposed highway alignment is submitted as being compliant with current standards (Design Manual for Roads and Bridges (DMRB)) and the geometric and structural requirements of both highway authorities. The proposal has also incorporated a number of structural improvements to the existing crossing route, including new parapets, edge beams and vehicle restraint systems where necessary to facilitate the proposed works. The current structures have edge protection features, and changes in the design of the existing rail bridge will remove the need for these features. The new bridges, embankment and associated drainage networks will be subject to commuted sums for maintenance.
- 12.2.36 The detailed design, technical approval, delivery and adoption of the Central Stort Crossing will be secured pursuant to powers within the Highway Act 1980, which will be subject to satisfactory surety/performance bond and any commuted sums to secure performance of the works and future maintenance. The two highway authorities will determine the most appropriate section of the act to use to ensure safe and timely delivery of the proposal whilst minimising the liabilities and risk to the local authorities, including the maintenance of the new infrastructure through commuted sums (a payment by a developer to the highway authority as a contribution towards the future capital maintenance of specific or non-standard features of that development) to be secured via Section 278 or 38 Agreements as some of the detailed design specification and technical approvals will emerge post planning decision. Details of the process are set out for ECC in the Essex Highways Development Construction Manual (April 2020) and for HCC in the Roads in Hertfordshire: A Design Guide (2011) (or as amended).
- 12.2.37 The application is accompanied by a Landscape and Visual Impact Assessment (LVIA) submitted with the Environmental Statement which

considers the significance of landscape and visual effects, the sensitivity of the landscape to accommodate impacts and the magnitude of those effects. The LVIA follows a standard methodology considering the impact of the proposal from key vantage points taking account of terrain features, existing landscaping and buildings. Whilst this does not strictly present a 'worst case' scenario which would assume a 'bare earth' situation, this is considered to be a reasonable approach given that there is no reason to expect changes to occur to these features, being as they are outside the remit of this application and the landownership of the applicant. Notwithstanding this, Officers consider that the submitted LVIA undervalues the landscape and recreational value of the Stort Valley and as such have considered the effects on the landscape according to a higher value of sensitivity.

12.2.38 In landscape terms, the proposal will necessitate the removal of a large number of trees and scrub alongside the current crossing in order to construct the northbound carriageway to the west of the crossing and pedestrian/cycle route to the east. The Arboricultural Impact Assessment (AIA) submitted with the ES and taken account of within the LVIA shows that trees will be removed in the vicinity of the Eastwick junction in order to enable the construction of the dedicated pedestrian and cycle bridge over the Eastwick Road junction. However, given that the pedestrian and cycle bridge is an elevated structure in this location, these trees would provide minimal benefit in terms of screening views of the bridge. By its very nature the bridge will be a prominent feature over the road, but this does not necessarily follow that the bridge will be visually harmful.

12.2.39 The AIA also identifies that there will be a loss of trees at the southern end of the site which when considered in the LVIA is considered to have a negative impact on those using the Stort Navigation (either by boat or using the towpath). Officers consider that these trees provide a valuable role in screening views of the current crossing from public vantage points around the site. While replacement planting is indicated, and the landscaping scheme positively amended to ensure an appropriate planting typology is now proposed, it will be a number of years until such planting is established. In the interim period therefore, the development will be more visible within the valley than

the existing crossing is, for both occupiers of nearby properties and users of the Public Rights of Way in the valley.

- 12.2.40 The LVIA assesses the impact of the development both during the construction and operational phases. However, details relating to the location and extent of temporary works required to enable the construction (such as haul routes, compounds, material storage etc.) are not currently presented, and therefore the submitted LVIA has not considered the impacts associated with these on the landscape. However, given the floodplain environment, materials and plant will not be able to be stored immediately adjacent to the structures, therefore the construction compounds will need to be suitably located and are therefore unlikely to cause additional detrimental effects on the landscape during the construction phase than currently assessed, particularly given that they will be temporary and short term in nature. Notwithstanding this, Officers recommend a number of conditions that require the submission of details for each phase of construction which will include details of site compounds, lighting, noise and tree protection strategies for example, how they will be managed and impacts minimised.
- 12.2.41 Impacts from disturbance and activity peak during construction with the residents and businesses in the vicinity of the crossing and users of the Stort Navigation tow path and other pedestrian routes experiencing significant adverse visual effects. However, construction activities are temporary by their very nature and it is expected that impacts associated with construction will be minimised as far as possible through the application of standard Codes of Construction Practice.
- 12.2.42 It is estimated that once works commence the CSC will take in the region of two and a half years to construct, including enabling works. As such, the impacts from construction will be greatest during this period, albeit those impacts will be temporary. In order to construct each bridge structure for example, cranes will be necessary and these will be clearly visible to properties and viewpoints within the vicinity of the structures, and also potentially from taller buildings beyond the site; though clearly the further away the receptor, the less the impact will be.

- 12.2.43 The ES considers the outputs of the LVIA cumulatively with other planned strategic allocations and development proposals, with a comprehensive and updated list provided with the application material. Sites within the urban area of Harlow and beyond are a sufficient distance from the site that there would be no significant cumulative landscape or visual effects arising from the combination of the development of these schemes given the distinct nature of this proposal.
- 12.2.44 The design of the CSC has considerably improved from when first submitted. It now incorporates features that not only give more priority to active and sustainable forms of transport, but also incorporates more landscaping into the design, which will reduce the visual impact of the widened crossing structures.
- 12.2.45 Nonetheless, the proposal still comprises a widened carriageway and bridge structures which will have a residual slight adverse visual effect until surrounding planting is established and the proposed landscaping will mitigate the visual impacts of the proposal, providing screening, greening and a softening of the highway infrastructure in the longer term. Therefore, in terms of design and layout considerations, the proposal is considered to comply with Development Plan policies.

12.3 Highway Impact and Mitigation

- 12.3.1 Policy GA1 (The Gilston Area) of the East Herts District Plan 2018 requires the development to follow Garden Town Principles, namely the creation of an integrated and accessible sustainable transport system, with walking, cycling and public transport designed to be the most attractive forms of travel. Policy GA2 (The River Stort Crossings) seeks improvements to the existing A414 crossing of the River Stort, including the provision of northbound and southbound bus lanes and a new footway/cycleway, which together will form part of a north-south sustainable transport corridor through Harlow.

- 12.3.2 EHDP Policy TRA1 (Sustainable Transport) seeks the provision and prioritisation of sustainable and active forms of travel and seeks contributions towards the provision of strategic transportation schemes. Policy TRA2 (Safe and Suitable Highway Access Arrangements and Mitigation) requires development proposals to provide safe and suitable access for all users, and that proposals should not have a significant detrimental effect on the character of the environment.
- 12.3.3 Policies HGT1 (Development and Delivery of Garden Communities in the Harlow and Gilston Garden Town) and IN1 (Development and Sustainable Modes of Travel) of the Harlow Local Development Plan 2020 require development to create a step change in modal share by contributing to the delivery of sustainable transport corridors and establishing an integrated, accessible and safe transport system which reduces car use and maximises active and sustainable travel, to promote healthy lifestyles, and to provide linkages between communities. Policy SIR2 (Enhancing Key Gateway Locations) identifies the Central Stort Crossing as a key gateway location which should be seamlessly integrated within the wider transport and green infrastructure network of Harlow. Policy IN2 (Impact of Development on the Highways Network Including Access and Servicing) states that development must not cause severe residual impacts on highway congestion and movement, and should not cause a detrimental impact on the safety of all highway users.
- 12.3.4 Policy AG8 (Minimising the Impact of Traffic and New Transport Infrastructure on Existing Communities) of the Gilston Area Neighbourhood Plan 2021 is the principal policy related to transport infrastructure. Objectives relate to minimising the impact of new transport infrastructure on existing communities, including from impacts such as air quality and noise. Proposals are expected to minimise impacts on heritage assets and the natural environment, including through the prevention of pollution. Construction and Environmental Management Plans are to be prepared along with a monitoring and management regime to address issues that may arise through the construction or operation of the development.

- 12.3.5 GANP Policy TRA2 seeks to ensure that PRoW networks are enhanced where possible and that development is to provide an extended network of safe and where possible, separated footpaths, cycleways and bridleways integrated with the existing wider Public Right of Way network. Policy TRA2 (Access to the Countryside) also states that 'routes' should consider the tranquillity of the Green Infrastructure Network and other natural green spaces, and the need to minimise environmental impacts such as noise and light pollution. The preamble to Policy TRA2 includes specific reference to the river crossings, and so while not explicitly included in the Policy, Officers have interpreted the Policy as if the term 'routes' in Part 2 iii also includes the river crossing routes.
- 12.3.6 Paragraphs 110 to 113 (section 9) of the NPPF 2021 relate to the consideration of development proposals in the context of promoting sustainable transport. Key principles include ensuring opportunities to promote sustainable transport modes are taken, safe and suitable access can be achieved, significant impacts on the transport network in terms of capacity and congestion can be acceptably mitigated, priority is firstly given to pedestrian and cycle movements and secondly to public transport use.
- 12.3.7 The impact of the proposed Villages 1-6 development on the highway network will be considered in due course in the report accompanying the Outline housing application 3/19/1045/OUT. This CSC application report does not consider in detail the highway and transport impacts arising from the Outline residential development save for where this is directly relevant to the CSC proposal. This is because the crossing proposal itself does not create additional journeys; the impacts in terms of additional vehicle movements occur as a result of the growth within the Gilston Area as well as background growth and the planned development of other strategic sites within and around Harlow as allocated in both the Harlow Local Development Plan and the emerging Epping Forest District Plan.
- 12.3.8 However, the CSC proposal will have some impacts on the existing highway network in its own right during construction, but is expected to have beneficial impacts once operational. Therefore, relevant

information is provided regarding the modelling and assessments undertaken in order to inform the consideration of how the CSC proposal will impact the local highway and transport network. The Environmental Statement considers the highway impacts of the development as a whole and also considers the effects of the CSC in regard to cumulative trips predicted from the wider growth from strategic allocations in the HGGT area and the effects they are likely to have on wider transport networks (and therefore on other factors such as air quality, noise and vibration and on where impacts are likely to occur to habitats as a result of the construction of the CSC.

12.3.9 The impacts of the overall Gilston development (including Villages 1-6 and Village 7) on the surrounding highway network have been assessed using an area wide traffic model known as Paramics modelling. The model contains a cumulative assessment which takes account of all other planned growth within the HGGT and beyond. Following the initial submission of the application, a number of modelling updates, scenario testing and sensitivity testing (to take account of amended plans and proposals within the Villages 1-6 development) have occurred iteratively following discussions with both Essex County Council and Hertfordshire County Council, being the two Highway Authorities. The modelling compares future year scenarios with:

- a. no development in the Gilston Area but with traffic growth forecast to arise from other planned developments at the end of the current Plan periods (2033), including the Village 7 development,
- b. against the scenarios which include planned development to 2033 but with 8,500 homes occupied within Villages 1-6. The results from this modelling are contained in the submitted Transport Assessment (TA) Addendum.

12.3.10 The principal objectives of the Central Stort Crossing proposal are to provide for active and sustainable modes of travel between the Gilston Area developments and the Harlow urban area through the creation of a sustainable transport corridor connecting the site to Harlow Town Station and town centre and beyond. Combined with the Eastern Stort Crossing, the two routes are designed to mitigate the additional vehicle movements associated with the proposed development of 10,000

homes in the Gilston Area and to provide critical infrastructure for the entire HGGT community. The CSC proposal forms part of the strategic infrastructure supporting the wider HGGT and is necessary to achieve a shift towards active and sustainable travel, necessary to achieve a mode share target of 60% of all journeys within the new HGGT communities, and 50% of all journeys originating within the HGGT area being undertaken by active or sustainable means.

12.3.11 The main impact of the CSC will come from its use as the main movement corridor from the Gilston developments into Harlow. With the exception of the junctions at the northern and southern end¹ of the CSC, the proposal provides no additional capacity for vehicles other than public transport vehicles, as the road will continue to have one lane in each direction for non-sustainable modes. For this reason the two crossing proposals must be considered in combination, as the ESC provides for the additional vehicle capacity required to serve the Gilston Area development as well as wider growth within the HGGT. The CSC also provides dedicated public transport, walking and cycling infrastructure, and together the two crossing proposals alleviate congestion within Harlow, therefore enabling the creation of a sustainable transport corridor that serves the town as a whole.

12.3.12 As the Gilston Area and HGGT developments grow and traffic levels increase as a result of all the developments within and around Harlow, the benefits arising from the provision of sustainable transport measures will increase as those choosing to walk, cycle or use public transport will experience greater convenience and travel journey savings compared to those using other modes. This will also be achieved by designing junctions to give greater priority to sustainable modes, recognising that increases in journey times for those travelling by private vehicle is considered to be an acceptable outcome of encouraging drivers to shift to alternative means of travel. It is for this reason that bus priority measures are provided at key junctions, in order for drivers to see the advantages of using the bus when they are held back by signals with a bus driving past them.

¹ Please note, the Burnt Mill Roundabout at the southern end of the CSC is a scheme to be delivered by Essex County Council and therefore does not form part of this application.

- 12.3.13 The main benefit of the amended CSC scheme is the conversion of the main access to Village 1 to a sustainable only route. This means that all motorised vehicles other than buses will need to take a longer route east or west to access the site. While the distance to the relocated Village 1 all-modes access may be short, vehicles leaving the development can be held at the signal controlled junction and will join Eastwick Road behind other vehicles travelling westwards if heading into Harlow. Meanwhile, those using sustainable modes will benefit from a direct, and most importantly, quicker journey time by virtue of the dedicated bus lanes and priority at the sustainable modes Village 1 junction, which will extend into and through the whole development site, the detail of which is contained in the Outline applications for Villages 1-6 and Village 7.
- 12.3.14 The proposal will provide a bus lane that runs the whole length of the southbound carriageway, with a bus layby at the southern end of the route. On the northbound carriageway on the proposed new bridge the bus lane covers approximately two-thirds of the length of the crossing; then the bus lane merges into the running lane at a bus gate. This will comprise traffic lights that turn to red on the approach of a bus to temporarily halt the northbound traffic. This will enable the buses to align to the correct turning lane for its onward journey, east, west or straight on. This pausing of general traffic will give clear visual priority to the sustainable transport option.
- 12.3.15 The CSC proposal also provides multiple options for pedestrians and cyclists. The elevated, dedicated pedestrian and cycle bridge will again give a clear visible priority to active modes. The proposed parameters for the pedestrian and cycle bridge design will ensure that appropriate gradients are used to enable safe, comfortable use for those in wheelchairs or pushing buggies and prams. Design measures such as build outs, surfacing material and barriers can be explored at the design stage if necessary to ensure that cyclists do not conflict with other users. Those that do not wish to use the elevated structure will benefit from routes provided on either side of the bridge, comprising a mixture of shared and segregated paths for walking and cycling. In this way, the application meets the proposal ensures that no disadvantage is given to those with disabilities. Those using the at-grade option will

however be required to use the crossing points on each arm of the new junction which will add slightly to those journey times while those using the elevated bridge over the Eastwick Junction will have a journey time saving compared to waiting at the crossing points on the at-grade options.

12.3.16 When testing the highway impacts associated with construction activities themselves, the modelling considers the impacts arising from the construction for the proposed crossing in combination with the construction of the village development. Following industry standard methodologies for appraising the significance of increased vehicle movements, the CSC is considered to have moderate adverse effects on nearby or adjoining locations to the crossing where construction vehicles are anticipated to travel i.e. on the A414 and Eastwick Road (to construct the CSC).

12.3.17 As such, it is necessary to ensure that the phasing of delivery is programmed to ensure that impacts on the existing highway network are managed throughout different phases of construction. On a day to day basis, shift working and 'just-in-time' delivery strategies will assist in reducing impacts. For example, movements from employees would be distributed between 6am and 10am and 2pm to 7pm and deliveries will be distributed throughout the day, timed to avoid peak hours where possible. It is also worth noting that given the size of the site, not all these movements would be focussed on the same area as there will likely be a number of compounds dealing with different parts of construction. Such details will be set out in the Construction Traffic Management Plans for each phase of construction, required by condition. Officers also recommend that conditions require the submission of Construction Environment Management Plans for each phase of construction. These, along with approved Codes of Construction Practice will ensure impacts on properties in the vicinity of the works are minimised as far as possible, with monitoring and reporting processes in place to rapidly respond to any issues that arise during construction.

12.3.18 Highway impacts can also occur for pedestrians and cyclists, particularly during construction periods. There are a number of routes

available that will remain useable during construction of the CSC for pedestrians and cyclists from homes in Gilston, Terlings Park and Eastwick Lodge via the existing Fifth Avenue Crossing and Burnt Mill Lane towards key destinations such as the Harlow Town Station, and are therefore not expected to be significantly inconvenienced. This is because most of the work on the new crossing and the pedestrian and cycle bridge will occur independently of the existing crossing or following completion of the northbound carriageway and footpath on the western side.

12.3.19 It is currently anticipated that construction will be occurring on the early phases of the residential development simultaneously with the construction of the CSC, and therefore access must also be maintained for early occupants in order to enable and encourage movements by sustainable means. The early delivery of off-site improvements to routes such as Burnt Mill Lane will provide alternative options for pedestrian and cycling movements during the construction of the new bridge, with delivery secured via conditions and or the legal agreement associated with the residential development. Notwithstanding this, during the construction phases the applicant has proposed interim arrangements to maintain a pedestrian route, and to add a cycle route along the existing Fifth Avenue Crossing. The interim provision will be altered to maintain safety through the construction period but will maintain a direct connection from Eastwick junction to Harlow and these routes will be considerably safer than current crossing arrangements.

12.3.20 It is normal practice to retain access to Public Rights of Way throughout construction, but if temporary closures are necessary, such as during the construction of the bridge over the Stort Navigation, alternative routes need to be made available. Details will be determined at the detailed engineering stage, but are likely to include diverting users to use existing paths on the Fifth Avenue crossing and minor changes are likely to be required to the PRow in the vicinity of the Stort Navigation. Any proposed changes to the PRow will require formal processes for temporarily stopping up and diverting the route for this temporary period.

12.3.21 The Environmental Statement (ES) assesses the impact on each part (link) of the highway network directly and indirectly affected by the proposed CSC development, and as such there are different levels of impact depending upon which part (link) of the road network one focuses on. The ES also considers the highway impacts for the proposed developments as a whole (Outline housing proposals for Villages 1-6 plus the two river crossing proposals) in addition to cumulative development considerations, including Village 7. During construction the following effects were reported:

- a. slight adverse effects for driver delay, severance and cyclist amenity;
- b. neutral effect for pedestrian delay, cyclist delay, and accidents and road safety;
- c. slight beneficial effects for public transport.

12.3.22 Put simply, there will be anticipated delays to all forms of movement during the construction period due to the need for temporary road/ lane closures or diversions, but impacts are anticipated to be less on those walking and cycling, either because routes will remain unaffected, or because suitable alternatives are available. Once the CSC is operational this is likely to lead to some improvements for drivers due to capacity enhancements at the Eastwick junction at the northern end of the CSC. In combination with strategic growth within HGGT there will be some increases in peak period driver delay on and in the vicinity of the CSC but this will be mitigated by the significantly enhanced sustainable transport provision. Therefore, these slight adverse effects to vehicle delay are considered to be outweighed by the wider benefits arising from the proposal by virtue of enabling a prioritisation for active and sustainable modes within the wider transport network.

12.3.23 In terms of the assessment on the magnitude of impact on public transport, there is no standard measurement available as there will be a mixture of new services and changes to existing routes as a result of diversions, and improved bus priority at junctions. The residential developments within the HGGT will deliver new bus services and the CSC proposal will ensure that the services arising from the Gilston Area development will have priority over other forms of transport along its

route. Being part of the wider STC network the CSC will help to create journey time reliability, which will be of benefit to residents along those routes. Furthermore, the proposed measures to increase public transport priority at key junctions will also benefit existing routes, improving journey time reliability and frequency in line with growing patronage. However, in terms of the EIA report these benefits are classed as slight beneficial effects in terms of public transport during operation.

- 12.3.24 The CSC proposal, along with the ESC crossing, is designed for the purpose of enabling the delivery of 10,000 homes in the Gilston Area and supporting wider growth by promoting active and sustainable modes of travel in a bid towards achieving the ambitious target of 60% of trips within new villages and neighbourhoods and 50% of all trips originating within the Harlow and Gilston Garden Town being by active and sustainable means. This is achieved by ensuring that movements by pedestrians and cyclists are direct and safe at all junctions. The design retains existing pedestrian and cycle routes and provides new opportunities for active movement, especially through the provision of dedicated walking and cycling routes that will provide safe and convenient routes, both for commuter and leisure purposes. Therefore, the design of the CSC will enable the residential developments in the Gilston Area and HGGT in achieving sustainable mobility targets.
- 12.3.25 Furthermore, the CSC has been designed to be constructed using resilient and robust materials that have minimal maintenance requirements (roads and embankments) or can be easily maintained from below the surface of the structure (the open span bridges), thereby reducing the need for road closures and delays associated with maintenance during the long term operational phase of the development.
- 12.3.26 The proposal is in line with both highway authority road user hierarchies which focus on active and sustainable travel followed by buses then private vehicles. Overall, the proposed highways provision and mitigation measures are considered to meet the policy requirements of the development plan and will provide key essential

infrastructure to support the objectives of the Gilston allocation and the wider HGGT objectives. This carries positive weight.

12.4 Climate Change, Flood Risk and Sustainable Drainage

- 12.4.1 Policies WAT1 (Flood Risk Management), WAT3 (Water Quality and the Water Environment) and WAT5 (Sustainable Drainage) of the of the East Herts District Plan 2018 note that development proposals should neither increase the likelihood or intensity of any form of flooding, nor the risk to people property, crops or livestock, both on site and to neighbouring land or further downstream. Furthermore, development should account for impacts of climate change and should build in long term resilience against increased water levels. Additionally, development proposals are required to preserve or enhance the water environment by ensuring improvements in surface water quality and the ecological value of watercourses. Opportunities for the removal of culverts, river restoration and naturalisation should be considered as part of any development adjacent to a watercourse.
- 12.4.2 EHDP Policies CC1 (Climate Change Adaptation) and CC2 (Climate Change Mitigation) require development to make provision for climate change, integrating green infrastructure into the design, demonstrating how carbon dioxide emissions will be minimised through design, and that the energy embodied in construction materials should be reduced through re-use and recycling, where possible of existing materials and the sustainable materials and local sourcing.
- 12.4.3 Policy PL11 (Water Quality, Water Management, Flooding and Sustainable Drainage Systems) of the Harlow Local Development Plan 2020 states that all development proposals will be considered against national policies (including application of the sequential test and, if necessary, the exception test) and against the European Water Framework Directive (or any subsequent equivalent). Development must follow a risk-based and sequential approach, so that it is located in the lowest flood risk area. If this cannot be achieved, the exception test must be applied and the appropriate mitigation measures must be

undertaken which meets a list of detailed criteria, including that development within Flood Zone 3b must be 'essential' development, that measures should not have an undue impact on nature conservation, landscape character and recreation *inter alia*, and that no net loss of flood storage on-site should occur.

- 12.4.4 HLDP Policy HGT1 (Development and Delivery of Garden Communities in the Harlow and Gilston Garden Town) requires development associated with the Harlow and Gilston Garden Town to ensure mitigation from and adaptation to climate change is secured through design and construction methods. Policy PL3 (Sustainable Design, Construction and Energy Usage) requires that new development will be expected to deliver high standards of sustainable design and construction and efficient energy usage, taking account of predicted changes to heating and cooling requirements as a result of climate change.
- 12.4.5 Policies AG1 (Promoting Sustainable Development in the Gilston Area) and AG2 (Creating a Connected Green Infrastructure Network) of the Gilston Area Neighbourhood Plan promote sustainable development that among other issues, should protect existing and new communities from the impacts of flood risk and climate change through a landscaped approach.
- 12.4.6 Policy 3 (Sites for sand and gravel extraction and the working of preferred areas), Policy 5 (Mineral Sterilisation) and Policy 7 (Secondary and recycled materials) of the Hertfordshire Minerals Local Plan 2007, and Policy S4 (Reducing the use of mineral resources) and Policy S8 (Safeguarding mineral resources and mineral reserves) of the Essex Minerals Local Plan 2014 encourage the opportunistic extraction of minerals for use on site to reduce the need to transport sand and gravel to the site and to make sustainable use of these resources. Appendix 5 of the Hertfordshire Minerals Local Plan and the Mineral Consultation Area SPD also identified Pole Hole Quarry as a specific site for sand and gravel extraction (under Policy 3) as it had permission for extraction at the time of the Plan production. These Policies 3, 5 and 7 are relevant as part of the ESC proposal site falls within a Mineral

Safeguarding Area (MSA) identified in both the Essex Minerals Local Plan and Hertfordshire Minerals Local Plan.

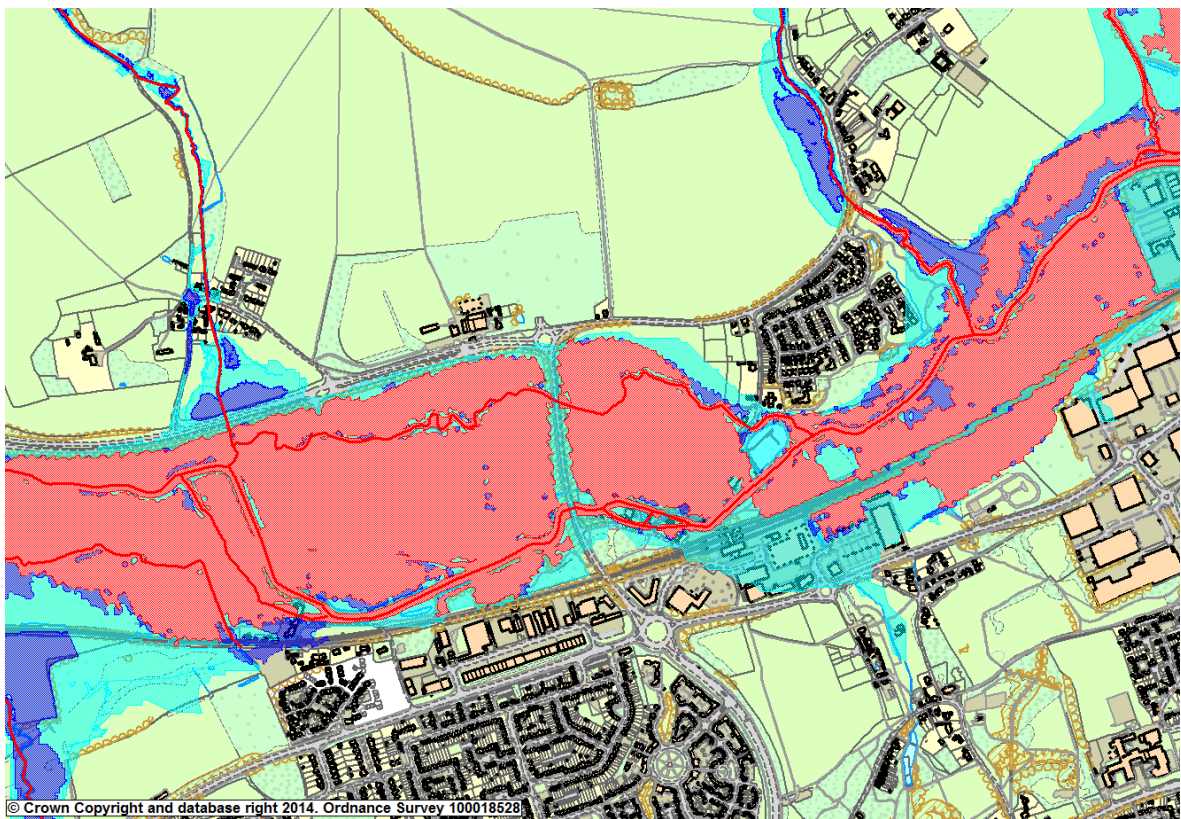
- 12.4.7 Paragraphs 152 to 158 (section 14) of the NPPF relate to the consideration of development proposals in the context of planning for climate change. Key principles include ensuring that development is designed to be resilient to changes and risks associated with climate change. Paragraph 152 states that the planning system 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 and support renewable and low carbon energy and associated infrastructure. Paragraphs 159 to 169 relate to planning for flood risk, directing development away from locations that are at highest risk of flooding, ensuring that proposals do not cause risks from flooding.

Flood Risk and Sustainable Drainage

- 12.4.8 Paragraph 159 of the NPPF 2021 states that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk and where development is necessary, the development should be made safe for its lifetime without increasing the risk of flooding elsewhere. In order to determine this, Paragraph 161 states that a sequential test should be applied and then, if necessary, an exception test should be carried out.
- 12.4.9 While the East Herts District Plan and Harlow Local Development Plan both support in policy terms the principle of widening the existing Fifth Avenue Crossing, neither Plan defines the location of this crossing. Therefore at the Plan-making stage the Strategic Flood Risk Assessments identified the need for detailed site-specific Flood Risk Assessments to be submitted with applications relating to the Gilston Area.
- 12.4.10 Paragraph 162 of the NPPF 2021 describes the aim of the Sequential Test as being to keep development out of medium and high flood risk areas (Flood Zones 2 and 3) and other areas affected by other sources of flooding where possible.

12.4.11 The entire Stort Valley in this location is classified as Flood Zones 2, 3a and 3b (functional floodplain) on the Environment Agency's Flood Zone Map. Figure 15 below shows the extent of the Flood Zones within the Stort Valley, which indicates that the site area for the CSC proposal south of the Eastwick Junction falls within Flood Zone 3b. In order to perform its function as a bridge connecting the Gilston Area development to the urban area of Harlow the CSC is designed to cross the natural watercourse of the River Stort and the Stort Navigation, and is therefore located in the floodplain. When applying the sequential test to this development the, conclusion is that it is not possible to locate the development in an area of lower flood risk.

Figure 15: Flood Zones in the Stort Valley



Red = Flood Zone 3b, Dark Blue = Flood Zone 3, Pale Blue = Flood Zone 2.

12.4.12 Paragraph 163 states that where it is not possible for development to be located in areas with a lower risk of flooding (taking into account wider sustainable development objectives), the exception test may have to be applied. The need for the exception test will depend upon the vulnerability of the site and the development proposed considered against the Flood Risk Vulnerability Classification set out in Annex 3 of

the NPPF. The river crossings are considered as “essential transport infrastructure which has to cross the area at risk” under Annex 3 of the NPPF 2021. The Planning Practice Guidance expands upon Annex 3 and advises that within Flood Zone 3a ‘essential infrastructure’ requires an exception test to be undertaken, and to be designed and constructed to remain operational and safe in times of flood. In Flood Zone 3b (functional floodplain) essential infrastructure that has to be located in the functional floodplain must pass the Exception Test in that it must be designed to:

- Remain operational and safe for users in times of flood;
- Result in no net loss of floodplain storage; and
- Not impede water flows and not increase flood risk elsewhere.

12.4.13 The Exception Test as set out in paragraph 163 and 164 of the NPPF, state that in order to pass the exception test a Flood Risk Assessment should be submitted to demonstrate that the development will:

- (1) provide wider sustainable benefits to the community that outweigh flood risk, and
- (2) that it will be safe for its lifetime taking account of the flood risk vulnerability classification, without increasing flood risk elsewhere, and where possible to reduce flood risk overall.

12.4.14 In terms of remaining operation and safe for users in times of flood, the part of the CSC within the floodplain is designed as a series of bridges and embankments. The bridges cross the natural watercourse and Stort Navigation. The bridge abutments are located beyond areas of standing water and will be designed to withstand corrosion and to operate effectively for at least 120 years, and the surface of the bridges will be well beyond one in a thousand year flood event water levels. It is therefore considered that the CSC will remain operational and safe for users in times of flood.

12.4.15 In terms of floodplain storage, water flows and increased flood risk The proposed CSC proposal has been modelled to determine its impact on the existing flood plain. The Environmental Statement that supports this application assesses the potential effects of the Central Stort

Crossing on the surface water environment, including an assessment of the potential effects on surface water quality, hydrology, river morphology, flood risk and drainage.

12.4.16 The Lead Local Flood Authorities (LLFA) collectively raised a number of concerns as part of the initial consultation. These included the requirement to submit a detailed drainage strategy identifying appropriate discharge locations and measures to limit discharge to greenfield run off rates, the provision of detailed surface water calculations to ensure that the proposed system can cater for the required volumes and flows and a drainage plan demonstrating an appropriate SuDS management treatment train. Additional details have been provided via the November 2020 revisions and reassessed. Subsequent to this further assessment, minor alterations to a number of technical drawings have been made which provide clarity on SuDS locations, areas and storage volumes to the satisfaction of the LLFA.

12.4.17 In respect of Sustainable Drainage Systems (SuDS) and flood compensation, the applicants have liaised with both Lead Local Flood Authorities (ECC and HCC) and, as has been agreed with both LLFAs, all SuDS features are designed to be in themselves capable of functioning independently of the functional floodplain of the Stort Valley. This is because all roads must be designed with appropriate drainage networks and this network must ensure that surface water runoff from the highway passes through an adequate number of treatment components (cleansing processes) to ensure appropriate removal of pollutants prior to water being discharged into the watercourse.

12.4.18 As such, the applicant has worked with the LLFA within both County Councils to ensure that appropriate Flood Risk Assessments, hydraulic modelling and micro-drainage calculations were undertaken using approved methodologies, and that the drainage strategy and technical plans demonstrate a suitable approach to managing surface water runoff. In order to take account of normal flood events, extreme flood events and to make allowance for climate change, SuDS are designed to sit above the flood levels within the Stort Valley floodplain during a 1 in 30 year storm event level plus a 70% uplift to account for climate change. This is so they can continue to operate independently of the

wider river floodplain even when water levels within the floodplain are raised after a storm event.

- 12.4.19 The submitted AECOM Flood Assessment, detailed in the Environmental Statement describes how the assessment uses both the Highways England HAWRAT (Highways Agency Water Risk Assessment Tool) and the LLFA preferred Simple Index Approach to assess the impact of the proposed highway development on water quality. These tools determine that highways surfaces must have at least two forms of treatment of surface water before they are discharged to the ordinary watercourse. Each SuDS treatment train for the CSC proposal is proposed as a three stage feature comprising a swale, wetland and vegetated ditch, before out-falling to the River Stort or Stort Navigation.
- 12.4.20 In addition, prior to reaching the swales, the SuDS themselves must also provide for the storage of surface water that runs off the surface of the highway in order that the flow into the rest of the SuDS network is controlled. Surface water runoff from the highway is therefore stored in underground features beneath the highway surface and can accommodate flows during a 1 in 30 year storm event. In order to account for anticipated changes in guidance and to ensure the assessments remain a robust basis for the lifespan of the development changes may be made to the proposed drainage strategy to accommodate further storage within the piped drainage network to accommodate flows for up to and including a 1 in 100 year storm event including an allowance for climate change. Such changes will be determined following further detailed modelling undertaken iteratively with the detailed highway engineering design stage, and as such details will be required to confirm the final drainage strategy by Condition 28 and 29.
- 12.4.21 Maintenance of SuDS is an important consideration, and as such the amended scheme has been designed to enable easier access from valley, accessed by the gravel path which runs along the west side of the SuDS instead of in between the SuDS and road earthworks. A 3.0m wide clear offset is provided to one side of the SuDS in order to enable maintenance access along the entire length of the feature. A series of conditions are proposed to ensure compliance with the agreed strategy

and to ensure that if technical changes are required at the detailed engineering stage that the agreed discharge rates and treatment processes are still met. Conditions are also proposed to ensure appropriate management of drainage systems are carried out on a yearly basis and logs are recorded of such maintenance.

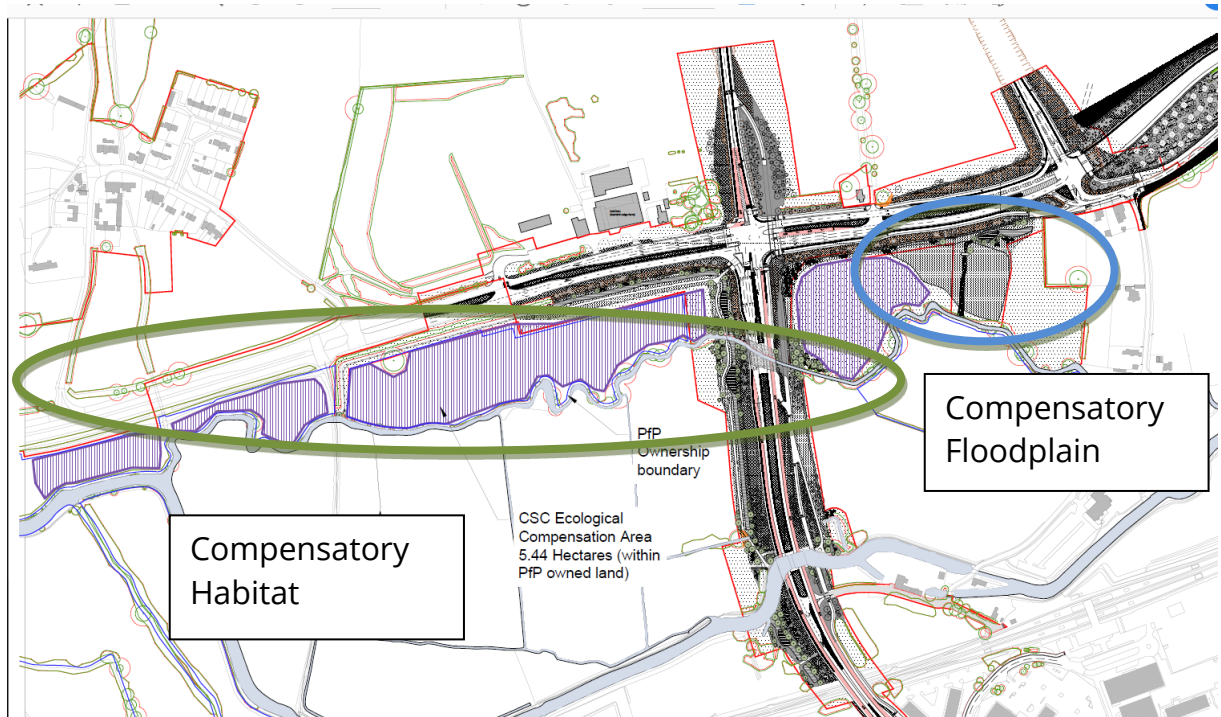
12.4.22 As the site for the CSC is part of the functional floodplain the proposal must ensure the floodplain continues to operate effectively and that where structures are introduced (which includes new SuDS features), that compensatory floodplain volume is created within the vicinity of the structures. The design of the northbound crossing has been designed to make sure that the bridge piers and abutments are constructed in alignment with the existing structure, to reduce the amount of land take on the valley floor, and to reduce impacts associated with changes in water movement and behaviour.

12.4.23 Similarly, the embankment sections of the crossing remain in the same alignment as existing embankments, however, the embankment area is in some sections approximately twice the width of the existing crossing and this therefore reduces the amount of functional floodplain available. As a result, compensatory floodplain needs to be created to offset the area where the land is raised in height. Flood compensation must provide a level for level replacement for a 1 in 1000yr event, in accordance with the current Environment Agency preferred method. It has been agreed through consultation with the Environment Agency and the Lead Local Flood Authority that to compensate for the CSC proposal a flood compensation area will be created to the north east of the crossing (shown in Figure 16 below), where arable land of negligible biodiversity value will be excavated to a lower level and replanted/re-seeded with suitable habitat, using seed stocks from SSSIs located downstream in the valley. While the primary purpose of this land is to compensate for the lost floodplain, it will also provide additional wetland habitat.

12.4.24 In addition, new structures within the floodplain have to be designed to ensure that they do not cause flooding upstream of the structures, that they enable movement of water that does not affect the river channel from changes in water flow, and that no impacts arise downstream

through flooding or changes to water quality. This is pertinent given that downstream of the development the River Stort contains a number of environments that are designated for their riparian habitat which supports flora and fauna of European importance. Maintaining water quantity and quality is therefore crucial to not harming and indeed improving the River Stort in line with objectives of the Water Framework Directive Regulations.

Figure 16 Flood plain and Habitat Compensation Area CSC



12.4.25 A detailed analysis of potential water quality impacts of run-off from the two river crossings has been undertaken (in the submitted ES) which also considered accidental spillages. An assessment of the impacts during construction has also been undertaken. Overall there would be negligible to minor adverse effects with mitigation on the water environment which includes the River Stort and Stort Navigation and a negligible effect on groundwater during construction. An assessment has been undertaken to establish whether the development as a whole would cause deterioration or prevent future improvement of waterbodies and this concludes that this will not be the case with mitigation in place. Overall, the residual effects of the Development as a whole are considered to range between minor adverse effects during construction to neutral (not significant) during

the operation of the crossing. No significant cumulative effects are predicted during the construction or operational phase as each development site will be required to address its own drainage and flood prevention requirements.

12.4.26 In terms of preventing flood risk and integrating sustainable drainage through design the CSC proposal meets the requirements of the Environment Agency and LLFA. The Drainage Strategy is agreed in principle at this stage and subsequent engineering design stages will refine details of the proposed attenuation features, which will be controlled by a series of conditions. In terms of the Exception Test, the application demonstrates that the development will result in no net loss of floodplain storage through its provision of compensatory floodplain volume, will be safe for its lifetime through design, will not impede water flows and will not increase flood risk elsewhere through its integrated sustainable drainage solutions as detailed above. Furthermore, the CSC comprises essential transport infrastructure that has to cross the area at risk as defined in Annex 3 of the NPPF and that will provide wider sustainability benefits to the community through enabling the delivery of the allocated 10,000 home Gilston Area site and wider growth within the HGGT, enabling the CSC to operate as a Sustainable Transport Corridor and connecting new and existing communities to key destinations within Harlow, namely the station and the town centre through a north to centre Sustainable Transport Corridor. The CSC is therefore considered to meet both parts of the Exception Test in accordance with the NPPF. Furthermore, the proposal is considered to meet the requirements of Development Plan policies and as such, these elements of the proposals may be given considerable weight by members.

Re-use of Mineral Resources

12.4.27 Part of the CSC proposal site falls within a Mineral Safeguarding Area (MSA) as identified in both the Essex Minerals Local Plan and Hertfordshire Minerals Local Plan and the Hertfordshire Mineral Consultation Area SPD.

- 12.4.28 Policy S4 (Reducing the use of mineral resources) of the Essex Minerals Local Plan 2014 seeks to ensure that mineral waste is minimised and minerals won are re-used and recycled, reducing not only waste but also demands on the transportation of minerals. Policy S8 (Safeguarding mineral resources and mineral reserves) requires consideration to be given to the opportunistic extraction of existing minerals.
- 12.4.29 Policy 5 (Mineral Sterilisation) of the Hertfordshire Minerals Local Plan encourages the opportunistic extraction of minerals for use on site prior to non-mineral development, where the development may result in the sterilisation of any significant mineral resource. HCC will object to proposals which would prevent or prejudice mineral extraction unless the proposal can demonstrate that the land does not contain workable mineral deposits, that there is an over-riding need for the development and that the mineral cannot be practically extracted in advance. Policy 8 (Mineral Safeguarding) of the Proposed Submission document relates to the full consideration of using raised sand and gravel material on site in construction projects to reduce the need to import material and to make sustainable use of these valuable resources.
- 12.4.30 Given that the CSC proposal is located within a floodplain which has already experienced extensive sand and gravel extraction, the ES demonstrates that the site does not meet the minimum criteria set by the two mineral local plan policies in terms of identifying economically valuable resources. Furthermore, the CSC proposal will require very little in terms of earthworks to existing landforms for its construction, and therefore the opportunity to 'win' material from the ground for use within the scheme will be limited and no sterilisation of mineral reserves will occur.
- 12.4.31 Therefore, the CSC proposal will need to demonstrate how a sustainable approach will be taken to mineral sourcing, construction techniques and waste minimisation, and also how impacts on proximal authorities are minimised. One way of achieving this is to undertake mineral supply audits which should consider the approximate volume of aggregates required to facilitate the development on a phased basis,

where such aggregate will or could be supplied from, implications for that demand on local aggregate supply and the impact on any proximal infrastructure that may potentially arise as a consequence of the need to import that aggregate. Where the storage of materials on site is required, this will be managed through the provision of such detail within the Construction Management Plans required by conditions.

Climate Change and Sustainable Construction

- 12.4.32 Paragraph 152 of the NPPF 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”. Paragraph 153 advises that “plans should take a proactive approach to mitigating and adapting to climate change”, and in doing so retains the link between planning policy and the provisions in the Climate Change Act 2008. Paragraph 154 requires new development to be planned in ways that avoid increased vulnerability to the range of impacts arising from climate change. Where development is brought forward in areas which are vulnerable care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure. Paragraph 154 also requires development to help reduce greenhouse gas emissions, such as through its location, orientation or design. The NPPF expects local planning authorities when setting requirements for sustainability in buildings to do so in a way that is consistent with the Government’s zero-carbon buildings policy and adopt nationally described standards, however, no such policies are in place for infrastructure schemes.
- 12.4.33 In the context of a development that comprises the construction of new roads and bridge structures, consideration of the proposal against policies that relate to climate change takes on a different emphasis. It is not just about whether a design is resilient to flooding or heating and cooling of the environment. Transport infrastructure has an impact through its construction and yet also has a role in increasing active and sustainable travel, thereby reducing impacts associated with the movement of vehicles.

- 12.4.34 The Government's Clean Growth Strategy, 2017 includes a key policy to accelerate the shift to low carbon transport, focussing on a transition to low emission vehicles and promoting walking and cycling. The Government's Road to Zero Strategy, 2018 set out steps and policy interventions to decarbonise and electrify road transport, focussing on supporting modal shift, reducing emissions and investing in electric vehicle infrastructure. The Government's policy paper Decarbonising Transport, 2021 states the steps to be taken to develop a transport decarbonisation plan. Alongside the paper, the Department for Transport has initiated a Carbon Management Programme to embed an integrated system for managing whole life carbon of infrastructure projects at a portfolio level. The framework will include capital carbon i.e. emissions associated with the creation or major modification of an infrastructure asset and be guided by the principles of PAS 2080, which is the leading industry-wide global standard for carbon management². The application embraces carbon management principles which will be considered further at the technical detailed design stage.
- 12.4.35 All new infrastructure development will have an impact in terms of carbon emissions both during construction and when the new road is operational. Accounting for carbon emissions in construction is still a relatively new field and as such there are currently few recognised methods for quantifying carbon emissions beyond the UK Greenhouse Gas (GHG) Inventory³ and the PAS 2080 standard. However, the ES takes a pragmatic approach and has drawn upon a wide number of published sources and has created a bespoke methodology. This approach takes account not only of carbon in construction and operation, but also carbon within soils, trees and waterbodies. In this way, a full account can be taken of the impacts of development.
- 12.4.36 The assessment considers how embodied carbon and operational carbon emissions from the proposed development would be partly reduced by proposed blue and green infrastructure. The assessment considers carbon emission from the following sources:

² PAS 2080: Carbon Management in Infrastructure, 2016 developed by the Construction Leadership Council's Green Construction Board with the British Standards Institute (BSI)

³ <https://www.gov.uk/government/publications/uk-greenhouse-gas-emissions-statistics-user-guidance>

- Natural capital – green and blue infrastructure (soft landscaping, water bodies and SuDS);
- Direct carbon (energy) – operational energy from on-site fuel consumption (e.g. gas);
- Indirect carbon (energy) – operational energy from off-site generation (e.g. grid electricity);
- Embodied/ Indirect carbon (construction) – embodied carbon associated with construction; and
- Water – used within buildings.

12.4.37 The assessment calculates carbon from the above sources and then evaluates a 'carbon balance'. The carbon balance is determined by subtracting carbon emissions from construction and operational sources from carbon which could be available through likely 'gains' such as carbon sequestration⁴ absorption from the proposed green infrastructure (landscaping) and blue infrastructure (drainage features). These carbon emissions are then proposed to be mitigated through a series of measures to reduce operational carbon, to create new carbon sinks and to create resilience against changes from climate change such as: hotter, drier summers; warmer and wetter winters; and increased frequency of extreme weather events. For the crossing proposal this includes the following measures:

- Blue infrastructure including swales and ponds to absorb carbon emissions and to accommodate storm event rainfall;
- Use of renewable energy sources where necessary;
- Green infrastructure including landscaping and tree planting to provide shade, reduce 'urban heat island' effects and to absorb carbon dioxide emissions,
- Protect existing soil resources for re-use across the site;
- Construction management and site waste management to reduce vehicle movements;
- Construction materials and energy and water efficient construction techniques
- Resilient design and construction techniques to reduce ongoing maintenance;

⁴ The process by which carbon dioxide is removed from the atmosphere and held in solid or liquid form,

- Energy efficient lighting.

12.4.38 Carbon emissions associated with the construction and operation of the development have been determined based on published benchmark data which were available at the time of the assessment. For the crossings, carbon factors were applied based on the area of the length and width of the proposed infrastructure schemes (with carbon factors derived from the UK GHG Inventory). The CSC scheme is 1.575km long, adding a 7.3m wide carriageway adjacent to the existing Fifth Avenue carriageway and includes two signalised junctions (Eastwick Junction and Burnt Mill Roundabout), footpaths, cycleways and pedestrian and cycle bridges. The assessment indicates that circa 1.3 million kilograms of CO₂ will be generated by concrete used and circa 18.2 million kilograms of CO₂ by hot asphalt used during construction for the whole of the CSC and the ESC combined (total circa 19.5 million kilograms of CO₂). This is a one-off impact and not a per year calculation.

12.4.39 This calculation is based on initial designs, but it is worth noting that at this stage the detailed specification is yet to be fixed. However, it is recognised that the largest magnitude of emissions during construction are likely to arise from the products and materials used in construction (extraction of raw materials, transportation to manufacturing plant, manufacturing and fabrication), followed by the transportation of construction products and materials to the site and then the installation process. The emissions related to the construction of the CSC are likely to be broadly comparable with other road schemes on a per km basis. However, as each road scheme is unique, no other comparable will be appropriate and is not required by the EIA Regulations governing the Environmental Statement. It is considered that the carbon impact associated with the construction of the CSC is acceptable in the context of the role it plays in facilitating the creation of a sustainable transport corridor and priority given to active and sustainable travel which will assist in meeting the ambitious mode share targets established for the HGGT communities.

12.4.40 This report considers the proposal in terms of how the design has minimised the embodied carbon used in its choice of material and in

construction methods, which also includes the long term maintenance of the structures and even the supply chain of materials via a Sustainable Procurement Policy as set out in the submitted Sustainability Strategy. Additional considerations include how green infrastructure has been incorporated in to the design and the direct benefits in terms of the scheme's contribution to achieving sustainable transport objectives thus reducing the use of private vehicles and reducing congestion.

- 12.4.41 The CSC proposal comprises a combination of bridges constructed using steel reinforced concrete piers and decks and raised embankments. For the bridge over the railway line, due to the presence of the railway high voltage electrified overhead lines immediately below the proposed bridge deck, use of pre-cast concrete beams for the new bridge over the railway is proposed. The existing bridge also uses pre-cast concrete beams. The decision to use pre-cast concrete beams relates to safety matters both during construction and during operation of the railway.
- 12.4.42 For the bridge over the Stort Navigation, following detailed discussions with Canal and River Trust (C&RT) with regard to bridge materials and bridge form, the bridge is proposed to be constructed with a concrete soffit (underside) to reflect good practice guidance where new structures are placed above navigable waterways. The proposed use of concrete for the deck construction enables either a) use of abutting (no gap) pre-cast concrete beams delivered to site, being compatible with the proposed deck spans, or b) an in-situ cast structural deck, removing the requirement for independent structure beams. Both forms have been deemed acceptable to C&RT, reviewed by ECC and require minimal maintenance for the adopting authority (ECC).
- 12.4.43 The proposed River Stort bridge is a short single span, integral bridge. Being within the Stort Valley flood plain, the use of concrete pre-cast beams or an in-situ concrete structural deck is proposed to minimise deterioration of the structure and minimise future maintenance needs, thereby reducing its longer term carbon footprint associated with maintenance and repair.

- 12.4.44 For the Eastwick Road footbridge and Stort Navigation footbridge, both structures are to be considered further in terms of structure type, form and material choice as part of the design competition process. Details of materials at this time are deliberately undefined, as requested by the planning authority and adopting authorities (HCC re Eastwick Road / ECC re Stort Navigation) to allow maximum flexibility as part of the design competition process. Regardless of the process by which the design solution is come by, full details of the bridges will be required to be submitted by Condition 11 prior to commencement of this part of the CSC proposal. The condition will require the design submission information to demonstrate how sustainability has been incorporated into the proposal.
- 12.4.45 Inevitably when constructing new bridges and highway structures of this scale and nature there will be impacts in terms of carbon footprint. However, new technologies are evolving which seek to reduce the embodied energy and energy used in creating concrete, recycling both steel and concrete and in the construction of roads and bridges. The road construction industry is already exploring innovative ways to reduce the carbon impact of road surfacing material, moving from hot rolled asphalt to cold rolled and using recycled material in surface treatments for example. The Design Manual for Roads and Bridges includes guidance on sustainable construction, and the emerging Roads in Hertfordshire Design Guide encapsulates these principles.
- 12.4.46 As technology and techniques are changing rapidly, Officers recommend Condition 6 that requires the submission of an Energy and Sustainability Strategy for each phase of the proposal. This will need to set out how the choice of materials and construction methods proposed follow the energy hierarchy and that materials are processed and sourced locally where possible. This will also require demonstration that the procurement processes and decisions ensure that carbon emissions have been reduced across the whole supply chain.
- 12.4.47 As has been described above, the construction of the CSC proposal will result in the loss of some mature trees and landscaping. However, the proposal includes a variety of measures to mitigate such losses and

changes to the landscape, which includes not only new planting but also the enhancement of land within the floodplain by converting arable land to floodplain grassland as well as creating new SuDS features that in themselves act as carbon sinks. Planting a greater number of trees and hedgerows as part of the bridge design will compensate for the trees and scrub lost due to the construction of the bridge abutments. Incorporating landscape in the design helps to reduce the overall impact of the proposal.

12.4.48 The primary objective of the CSC is to provide for the creation of a sustainable transport corridor connecting the Gilston Area developments with Harlow's Town Centre and Station and beyond, and providing priority to active forms of travel, contributing to the overall target of achieving 60% of trips associated with the Gilston Area developments and 50% of all trips originating within the HGGT being by active and sustainable modes of travel. The resultant reduction in vehicle movements (when compared against an extrapolation of movements based on existing mode share), congestion and fuel consumption is also a benefit of this proposal. This is in line with the 2021 policy paper Decarbonising Transport, which notes on page 29 that *"As well as decarbonising private and commercial road vehicles, therefore, we must increase the share of trips taken by public transport, cycling and walking. We want to make these modes the natural first choice for all who can take them. We want less motor traffic in urban areas. Improvements to public transport, walking and cycling, along with the changes in commuting, shopping and business travel accelerated by the pandemic, also offer the opportunity for a reduction, or at least a stabilisation, in traffic more widely. Increasing car occupancy and encouraging public transport use are two measures that can immediately cut transport's carbon emissions. They will help tackle chronic road congestion, freeing up road space for those with no alternative but to drive."* In the case of Harlow, this will also free up the road space required to facilitate the creation of a STC network that will serve the existing and new communities.

12.4.49 The ES indicates that as individual developments are required to attenuate impacts to surface water and to take account of climate change resilient measures, no significant cumulative effects are

predicted during the construction or operational phase of the development. The application makes appropriate allowances for climate change when assessing flood risk and planning for suitable SuDS solutions. The assessment has identified no significant climate change risk effects to the Development which could not be effectively managed through current or future stages of design. The application acknowledges the climate emergency and the Government's and local authority's commitments to reducing carbon emissions. The 2008 Climate Change Act brought in Carbon Budgets which set limits on the greenhouse gas (GHG) emissions emitted between now and 2050 in five year periods. The CSC is proposed to be delivered between 2022 and 2025, so would fall within the fourth carbon budget. Based on the available information, and given the magnitude of the UK's carbon budget, it is not considered that the CSC proposal will have a material impact on the ability of the UK Government to meet its carbon budget.

12.4.50 The Strategy for Sustainability and Development Specification associated with the Outline Villages 1-6 application commits to ensuring that sustainability principles are embedded at all stages of decision-making, from design, procurement, implementation, operation and stewardship. Officers consider that these principles should run through the entire Development as submitted (the CSC, ESC and Villages 1-6 proposals) and therefore the CSC application will be required to demonstrate through condition that the detailed engineering and technical approval process has delivered on these principles, and as such is considered to meet the provisions of the development plan policies and therefore is afforded positive weight.

12.5 Land Contamination and Pollution

12.5.1 Policies WAT2 (Source Protection Zones), EQ1 (Contaminated Land and Land Instability), EQ2 (Noise Pollution), EQ3 (Light Pollution) and EQ4 (Air Quality) of the East Herts District Plan 2018 require developments to prevent and where necessary to mitigate impacts arising from

development from contaminated land and land stability issues, noise and light pollution and from air quality related impacts.

- 12.5.2 Policy PL10 (Pollution and Contamination) of the Harlow Local Development Plan 2020 requires development to minimise and where possible to reduce all forms of pollution and contamination, and where it can be demonstrated that pollution and/or contamination is unavoidable, appropriate measures must be used to mitigate the negative effects of the development. Policy PL11 (Water Quality, Water Management, Flooding and Sustainable Drainage Systems) requires development to not cause deterioration to water quality, including quality of waterways and identified Source Protection Zones, aquifers and all other groundwater, improving water quality where possible. Policy SIR3 simply cross references to the Essex County Council Waste and Minerals Development Plan Documents.
- 12.5.3 Policies AG3 (Protecting and Enhancing the Countryside Setting of New and Existing Villages) and AG8 (Minimising the Impact of Traffic and New Transport Infrastructure on Existing Communities) of the Gilston Area Neighbourhood Plan 2021 require appropriate measures to be implemented to mitigate the impacts of development proposals on the Stort Valley, including noise and light pollution, particularly arising from traffic and transport infrastructure. Policy AG8, Parts 2 and 3 specifically refer to proper management of construction traffic and monitoring to deal with any issues which may arise during construction.
- 12.5.4 The Hertfordshire Waste Core Strategy and Development Policies document and the Essex and Southend-on-Sea Waste Local Plan 2017 seek to minimise the creation of waste through construction and to manage any potentially harmful waste arising safely and appropriately.
- 12.5.5 The National Planning Policy for Waste 2014, to be read alongside the NPPF, states that when determining non-waste applications consideration should be given to the likely impact on existing waste management facilities and the waste hierarchy, ensuring that the handling of waste arising from the construction and operation of development maximises re-use and recovery operations and minimises

off-site disposal. Paragraphs 183 to 188 (section 15) of the NPPF 2021 relate to the consideration of development proposals in the context of ground conditions and pollution. Key principles include ensuring adequate assessments are undertaken to inform proposals to ensure land is suitable for the development and that development mitigates and reduces to a minimum potential adverse impacts arising from noise and light pollution, and that proposals contribute towards compliance with relevant air quality limits and objectives.

Waste Matters

- 12.5.6 Part of the development site as a whole (Outline Villages 1-6 application area and two crossings) is within a Waste Consultation Area (WCA) associated with a recycling facility at Elizabeth Way in Harlow, identified in the Essex and Southend-on-Sea Waste Local Plan 2017 (Policy 2). The policy seeks to ensure that existing and allocated waste sites and infrastructure are protected from inappropriate neighbouring developments that may prejudice their continuing efficient operation. ECC consider that the application will not compromise the operation of this facility and made no objection to the site.
- 12.5.7 Similarly, Policy 12 of the Hertfordshire Waste Local Plan requires that a Site Waste Management Plan (SWMP) be submitted and kept up to date as a live document. The SWMP will record the actual waste to arise from demolition and construction phases, waste management actions for each type of waste including whether it is re-used, recycled, recovered or disposed of, and where disposal will occur and how. It should be noted that Hertfordshire does not accept hazardous waste so alternative provisions must be made for the safe recovery and disposal of hazardous waste by the applicant during the construction process.

Contaminated land and land stability

- 12.5.8 Within the site area for the CSC there is no groundwater Source Protection Zone but there is some Secondary A aquifer underlying the site, which means that it is important to ensure that the development manages risks posed to controlled waters.

- 12.5.9 Following a number of technical discussions with Environmental Health Officers a number of updates were made to the Ground Conditions chapter of the Environmental Statement to ensure that a 'worst case' approach had been tested. While this was predominantly an issue for the ESC, the approach applied to the ES as a whole. This is in line with advice from the Planning Inspectorate *"in assessing the 'likely' effects, it is entirely consistent with the [EIA Regulations] to adopt a cautious 'worst case' approach.* The application is supported by a Phase 1 Geotechnical and Geo-environmental Desk Study Report – River Stort Crossing Options document which assesses the ground conditions for the identified crossing options.
- 12.5.10 Further intrusive geotechnical investigations will need to be undertaken at the detailed engineering design stage in order to inform the foundation design process. Structural foundations for the open span bridges are currently expected to include abutments located on piles designed to withstand loading requirements of structures as defined by the Design Manual for Roads and Bridges and other relevant construction standards. Given the nature of the riparian valley geography, foundations will take account of ground stability and ground water levels. Where piles are proposed additional information will need to be submitted and approved by the planning authority, the LLFA, the Environment Agency, Affinity Water and Thames Water. These are normal requirements and will be managed via a series of technical conditions and informatives.
- 12.5.11 Given the proximity of the proposal to the existing railway line and due to the previous construction of the Fifth Avenue Crossing the Environmental Statement indicated that there is a potential for contaminated land to be present within the site area, which may need to be remediated during construction. Officers therefore recommend Condition 20 that requires detailed site investigations to occur prior to construction. This will inform the creation of a remediation strategy which will then be implemented should evidence of contaminated land be found. Ongoing monitoring will also be required during construction.

- 12.5.12 With any construction there will need to be movement of material within, to and from the site. Officers therefore recommend Condition 24 that requires the submission of a Site Waste Management Plan for each phase of the development, in order to ensure that waste is identified, reduced and managed in accordance with the waste hierarchy.
- 12.5.13 Construction operations will be undertaken following all relevant codes of practice, which require frequent monitoring of ground stability, contaminant exposure and groundwater and ground gas monitoring where necessary. This monitoring enables rapid detection, mitigation and remediation to occur, which is vital given the site's location within the Stort Valley upstream of SSSIs. These processes will be required via a comprehensive Construction Environment Management Plan and Code of Construction Practice, and as such no adverse effects are considered likely during construction as a result of the CSC proposal.

Noise

- 12.5.14 This section considers the noise in relation to its impact on residential occupants and human receptors. Paragraphs 12.6.30 to 12.6.33 below consider noise in relation to its impact on the environment, in particular on sensitive species.
- 12.5.15 At the southern end of the crossing, immediately west of the proposed new carriageway lies the Burnt Mill Industrial Estate. Uses comprise light and heavy industry and informal uses such as car washing utilising otherwise vacant unit space. There is an approved scheme for the redevelopment of this site as part office, part residential uses. The lower floors will be for office use with residential above. There is not envisaged to be any negative impact on these residential properties given their distance from the proposed highway. Existing retaining wall features will remain on the western side of the carriageway during construction providing screening for the new units at the lower floors. Construction is currently underway, but it is not envisaged that there would be any conflicts as each site will be managed using agreed practices. This scheme was considered as part of the cumulative assessment in the Environmental Statement.

- 12.5.16 In order to consider the impact of construction noise and vibration on sensitive receptors and buildings a comprehensive noise assessment has been undertaken. Properties nearest to the construction will clearly be those most affected, and the magnitude of that effect will depend upon how long the construction nearest to those properties continues. The CSC as a whole is expected to take around two and a half years including enabling works, but will be constructed in phases.
- 12.5.17 At the northern end of the crossing to the north-west of the junction is the Eastwick Lodge Farm complex which comprises retail units, workshops and a veterinary practice. The former Eastwick Lodge Farm House has been converted into a number of apartments, located approximately 75 metres from the proposed junction. To the north-east lies a single residential property, South Lodge, some 115 metres from the junction. The indicative phasing plans describes how the works to create the new four-arm junction will be carried out in one continual tranche of works, including creating the kerb lines necessary for the new northern carriageway and the Village 1 sustainable modes only access, which will be constructed during later phases, in order to avoid significant works occurring to the junction at a later point in time.
- 12.5.18 As with any form of construction project there will be temporary impacts on nearby uses from the noise and disturbance caused by vehicles and construction activities. The Code of Construction Practice proposes that all construction works will occur during normal working hours as far as is reasonably practicable, with restrictions on construction works outside of these hours. However, there may be instances where larger vehicles are needed to transport materials such as long structural beams for example, and for the benefit of highway safety it is often better that these deliveries occur outside of peak travel periods.
- 12.5.19 For the residential uses north of the junction restrictions on hours of work as set out in the Code of Construction Practice will be beneficial as it will reduce disturbance during evenings and prior to 8 o'clock in the morning. However, for the uses at the southern end of the crossing, construction hours will coincide with working hours. For example, on

the eastern side of the crossing is Goodman House, a mixed occupancy office block and on the western side of the crossing is the proposed mixed use office and residential development as referred to above. Internal acoustic standards are different for business uses compared to residential uses, so apart from the relatively short period of time required to construct the northbound carriageway from Burnt Mill Roundabout, levels of amenity will be retained. The noise assessment considered the effects of the CSC proposal on the emerging mixed use development on the Burnt Mill Industrial Estate. Changes in road traffic noise were predicted to be below 3 dB and in ES terms this is considered at worst, as a slight adverse effect.

- 12.5.20 It should be noted, that while the submitted Code of Construction Practice does seek to restrict hours of operation, Officers anticipate that there will need to be night time construction activities and temporary road closures when the new and existing carriageways are tied in and the new bridge decks and parapets are installed. This is in order to ensure the existing Fifth Avenue crossing remains operational until this necessary part of the construction and for health and safety reasons due to the length of bridge decks. In order to minimise such disruption, these activities are normally undertaken over a very short time period and residents and properties will be notified of these periods in advance.
- 12.5.21 While it is accepted that those walking or cycling along the crossing will experience noise associated with the passing traffic, those walking or cycling along the canal towpath in the vicinity of the crossing should be protected from as much road noise as possible, retaining a more tranquil environment for those using the Stort Navigation. As such, the design of the bridge parapets become more important than just a safety barrier; they also need to be able to provide a level of noise attenuation. The preliminary drawings for the watercourse bridge structures show the parapet to be an open horizontal rail design with inner mesh, while the parapet over the railway line is a 1.8m solid wall in order to conform with Network Rail's standards. Visual illustrations of both are included in the Design and Access Statement (Figure 17 below).

Figure 17: Parapet illustrations for CSC Bridge Structures

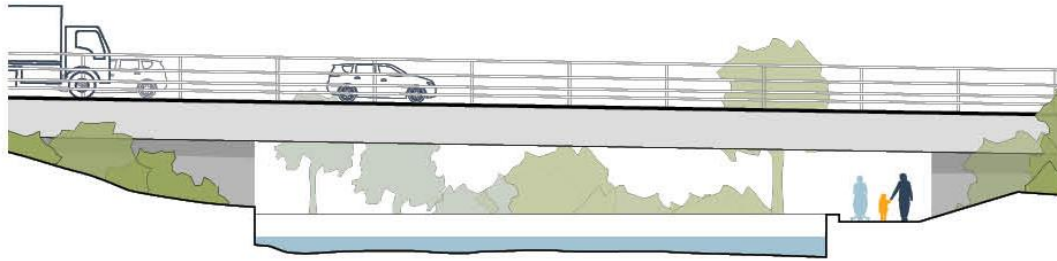


FIGURE 173: Stort Navigation elevation

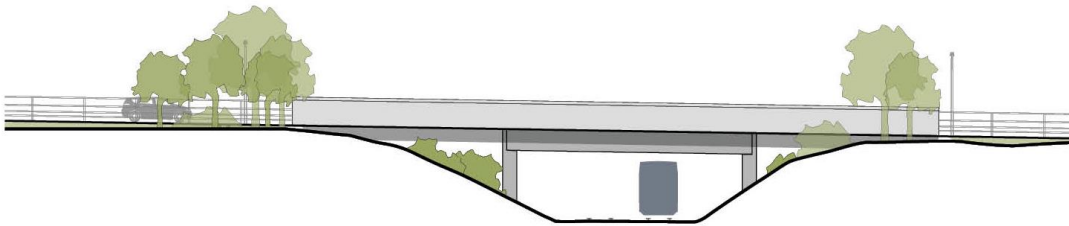


FIGURE 176: New railway bridge elevation

12.5.22 The solid wall design of the rail bridge not only protects the railway line below from falling debris, but also reduces the impact on the surface of the carriageway from wind buffering caused when trains pass below the bridge. In order to ensure that the amenity of the Navigation towpath is protected, the bridges will need to have a parapet designed to deflect road noise upwards. There is a balance that needs to be struck in terms of the visual impact of a more solid parapet in terms of its increased bulk and the need to ensure the towpath and riverside paths that run beneath the bridges are protected not only in terms of noise but also from the visual disturbance of vehicles moving overhead. Officers therefore recommend Condition 10 that requires details to be submitted for the design of the parapets at the detailed engineering design stage to demonstrate that the complete bridge design achieves not only the safety requirements of structures in terms of vehicle restraint systems but are designed to reduce road noise experienced in the valley below.

Air Quality

12.5.22 The ES indicates that the CSC proposal will not result in increases in pollution, and when considered cumulatively with the residential development within and around the area no significant air quality impacts were predicted. The crossing infrastructure, with other highway interventions will change the distribution of vehicle

movements and will therefore change where pollution is likely to occur, but are not in themselves the source of the pollution. 78 receptor locations have been assessed for air quality through the use of dispersion modelling. These receptor locations are representative of existing and proposed properties where the effects from the development are likely to be greatest. The pollutants assessed were nitrogen dioxide (NO₂) and particulate matter (PM₁₀ and PM_{2.5}). The years assessed were the current situation (2019), construction year, intermediate year 1 (2027), intermediate years 2A and 2B (2033) and completion year (2040). The with and without development scenarios were assessed in each of the future years where the development includes the Eastern Stort Crossing, Central Stort Crossing and Gilston Park Estate Village development. As such, the 2027 intermediate year does not include the ESC and only a small number of homes within the Gilston Area Villages 1-6 development.

12.5.23 The assessments undertaken for air quality take a conservative approach to modelling so that the predicted concentrations in the future are likely to be an overestimate of what will actually occur. Conservative assumptions were made in relation to the background concentrations which were assumed to remain at 2019 levels in the future and in relation to the vehicle emission rates in the construction year, intermediate year 2 of 2033 and completion year of 2040. In reality, with the latest Government announcements around the ban on sales of new diesel and petrol cars from 2030, the expected improvements in vehicle emissions should occur earlier and more quickly than previously projected by the Emission Factors Toolkit (the emissions guidance for undertaking air quality assessments), this is subject of course to Government investments in infrastructure to support this shift. The modelling takes full account of all known and planned developments within the area including Village 7, to address cumulative increases in traffic and other sources of emissions as well as to consider the locations of new sensitive receptors such as residential properties.

12.5.24 In the baseline year of 2019, annual mean nitrogen dioxide concentrations exceeded the air quality criteria at The Hides, Velizy Avenue, Harlow, which is likely due to bus movements associated with

the bus station. Velizy Avenue lies directly south of the CSC, providing the most direct route to the town centre of Harlow and is the route of the proposed North to Centre Sustainable Transport Corridor. One other location also currently exceeds air quality criteria in London Road, Sawbridgeworth which is already designated as an Air Quality Management Area. Concentrations at these locations and also all other receptor locations are predicted to be within the air quality criteria for nitrogen dioxide and particulate matter (PM₁₀ and PM_{2.5}) in the intermediate years of 2027 and 2033 and completion year of 2040, both with and without the development in operation. The improvements in air quality are mainly due to a cleaner vehicle fleet in future years.

- 12.5.25 The majority of receptor locations are predicted to have negligible impacts due to the development being in operation in 2027, 2033 and 2040. Receptors where the impact is not negligible include a commercial property in Printers Way, Harlow, a receptor location in Sawbridgeworth AQMA, one property in Eastwick Road and The Hides in Velizy Avenue, Harlow. These receptor locations represent areas with the greatest impacts. However, concentrations at all of these locations will be within the air quality criteria for all pollutants. No significant effects are predicted due to the development being in operation.
- 12.5.26 During the construction stage, The Hides, Velizy Avenue receptor location is predicted to experience a small increase in NO₂ levels and because of existing NO₂ levels this is recorded as a major adverse effect. In order to mitigate this as far as possible, the Construction Traffic Management Plan will be required to set routes for construction vehicles that avoid this location; this will be secured by planning condition. All other receptor locations saw negligible changes for NO₂, PM₁₀ and PM_{2.5} projections during construction. No significant impacts are expected.
- 12.5.27 During construction, there are a range of measures that can be employed to control dust and emissions generated thereby lessening the nuisance and human health impacts associated with dust and particulate matter that may arise from construction activities. Effective

site management is essential to ensure successful prevention and mitigation. All potential dust-generating activities will be identified prior to the commencement of each phase of construction and will be managed at source through appropriate handling techniques, good maintenance and good housekeeping. Conditions relating to construction environment management will ensure that appropriate standards are applied. Given the distance of residential properties from the site and the proposed management techniques included in the Code of Construction Practice submitted with the application, it is considered that potential risks are identified and can be mitigated appropriately.

12.5.28 The ES assessments use appropriate modelling tools and assumptions taking a precautionary approach. The models account for all known Local Plan development including Village 7, thereby ensuring the assessment is cumulative and comprehensive. Overall the Gilston Area applications (Outline, Central Stort Crossing and Eastern Stort Crossing) are expected to have no significant impacts on air quality.

Light

12.5.29 This section considers the impact of light on human receptors and in terms of its design on the safe movement of vehicles, pedestrians and cyclists along the route of the CSC. The impact of lighting on the natural environment (habitats and species) is considered in paragraphs 12.6.20 to 12.6.23 below.

12.5.30 Lighting columns by their very nature will stand proud of any structure upon which they are placed. They will therefore be visible from a wider number of vantage points and the light they create will draw attention to the road and structure during darker hours. The current Fifth Avenue Crossing marks the transition from the rural surrounds of the A414 and Eastwick Road to the urban environment of Harlow. The existing approach to lighting also reflects this, with fewer lighting columns at the northern end of the crossing and lights on both sides of the road at closer intervals towards the Burnt Mill Roundabout.

- 12.5.31 The current Eastwick Lodge roundabout is well lit in order to retain the safe operation of the roundabout. The proposed conversion of this roundabout to a four-arm signalised junction will require street lighting as well as traffic signals and pedestrian signals. A Central and Eastern Stort Crossings Glare Assessment of the Central and Eastern Stort Crossing has been submitted with the amended proposal. This assessment shows that with appropriate design the light spill beyond the edge of the carriageway will be minimal, and the distance from the Eastwick junction to the residential properties ensures that there will be no direct impact on their residential amenity as a result of the additional lighting.
- 12.5.32 The current lighting columns over the crossing do not benefit from new luminary designs, such as LED bulbs and directional shading. It is therefore the intention that opportunities are taken to improve the current lighting strategy of the crossing when designing the lighting for the new carriageway. The application commits to replacing the street lighting along the Fifth Avenue Crossing with modern LED lanterns on new lighting columns with new low voltage electricity cabling throughout. LED lighting is considered to be 'bat friendly' as it can provide for directional lighting with less light spill and a lower voltage. Furthermore, it is low in energy consumption and has significantly extended periods between maintenance.
- 12.5.33 All new street lighting infrastructure will be compliant with the adopting authority's specifications and will be located for convenient access for maintenance purposes. All lighting units which illuminate road signs will be replaced as necessary. Lighting columns will be located to minimise impacts on the railway line. Instead of lighting columns on both east and west edges of the two carriageways, columns will be located at the back of the west footway and at the back of the eastern verge, providing light for the carriageways without over-lighting the structure as a whole. Separate lighting will be provided for the pedestrian/cycle bridges using lower height lighting with details to be explored and secured through the design competition process.
- 12.5.34 In consultation with the Canal and River Trust, the application proposes low level lighting to be provided below the Stort Navigation bridge to

improve visibility for the towpath where it passes below the proposed and existing bridges. Details will be confirmed with the Trust at the detailed engineering design stage and secured via condition.

- 12.5.35 Further to these commitments, high level lighting design principles are included in the Development Specification which commits to lighting strategies that will be designed with high efficiency luminaries to be directionally and energy efficient, to minimise adverse impacts on road users, the amenity of residents, neighbouring uses and the wider landscape through good design, which minimises potential glare, light spill/trespass and sky glow. The Development Specification is specific to the Outline application but Officers support the use of these principles being applied to the crossing design also. As such, Officers recommend that a lighting strategy is submitted to inform the detailed engineering design stage of each part of the crossing in line with these principles.
- 12.5.36 In terms of construction, during winter months when daylight hours are reduced there will be a need for lighting to provide a safe working environment. The applicants will be required to submit detailed plans setting out how construction activity will be managed, which will include details of site lighting. The same principles as set out in the Development Specification will apply to site lighting during the period of construction, the details of which will be set out in the Construction Environment Management Plan required by condition.
- 12.5.37 The Environmental Statement submitted with the application demonstrates that adequate appraisals have been undertaken on the likely effects of the CSC proposal in terms of impacts associated with land contamination and pollution from air quality, noise and light during construction and when the crossing is operational. With appropriate codes of construction practice, monitoring and mitigation no likely significant effects are anticipated. A series of detailed conditions are proposed to ensure that details are submitted at the appropriate stages. The CSC is therefore considered to comply with the policies summarised above. However, as these mitigations will be secured by condition they are considered to have neutral weight.

12.6 Impact on the Natural Environment

- 12.6.1 Policies GA1 (The Gilston Area) and GA2 (The River Stort Crossings) of the East Herts District Plan 2018 support developments that enhance the natural environment, provide a comprehensive green infrastructure network and net biodiversity gains. Policy DES2 (Landscape Character) requires proposals to demonstrate how they conserve, enhance or strengthen the landscape character and be supported by a Landscape and Visual Impact Appraisal. Policy DES3 (Landscaping) requires proposals retain, protect and enhance existing landscape features, ensuring no net loss, and where losses are unavoidable and justified should be compensated for appropriately.
- 12.6.2 EHDP Policy NE1 (International, National and Locally Designated Nature Conservation Sites) state that development that adversely affects the integrity of a designated site will not be permitted unless it can be demonstrated that there are material considerations that outweigh the harm. Policy NE2 (Sites or Features of Nature Conservation Interest (Non-Designated)) recognises the importance of all non-designated assets and states that proposals should achieve a net gain to biodiversity. Policy NE3 (Species and Habitats) requires development to enhance biodiversity and to create opportunities for wildlife, protecting and enhancing habitats and avoiding impacts on species and habitats of principal importance for the purpose of conserving biodiversity as defined under section 41 of the Natural Environment and Rural Communities Act 2006 (or as amended). Policy NE4 (Green Infrastructure) states that proposals should avoid the loss, fragmentation or functionality of the green infrastructure network and to maximise opportunities for its enhancement, and should demonstrate how lighting will not adversely impact on green infrastructure that functions as nocturnal wildlife movement and foraging corridors.
- 12.6.3 EHDP Policy EQ2 (Noise Pollution) and EQ3 (Light Pollution) seek to avoid and minimise impacts on the environment from noise generating activities and from glare and light spillage. Policy EQ4 (Air Quality) states that all developments are to include measures to minimise then mitigate impacts on air quality during construction and operation.

- 12.6.4 Policy HGT1 (Development and Delivery of Garden Communities in the Harlow and Gilston Garden Town) of the Harlow Local Development Plan 2020 requires strategic development within the HGGT to protect or enhance natural and historic environments, green infrastructure and biodiversity. Policy WE1 (Strategic Green Infrastructure) requires the protection and enhancement of strategic green infrastructure, particularly relevant is reference to the intended future creation of a new linear 'Stort Riverpark.' Policy WE3 (General Strategy for Biodiversity and Geodiversity) sets the approach to development which may have an adverse impact on any internationally, nationally or locally designated sites of wildlife value similar to the East Herts policies. Policy PL7 (Trees and Hedgerows) sets the approach to protecting and replacing trees affected by development; minimising impacts and mitigating where necessary. Policy PL8 (Green Infrastructure and Landscaping), Policy PL9 (Biodiversity and Geodiversity Assets), Policy WE1 (Strategic Green Infrastructure), Policy WE3 (General Strategy for Biodiversity and Geodiversity) and WE4 (Safeguarding Wildlife Sites Beyond the District Boundary) require development to contribute to and enhance biodiversity assets.
- 12.6.5 Gilston Area Neighbourhood Plan Policies AG1 (Promoting Sustainable Development in the Gilston Area) and AG2 (Creating a Connected Green Infrastructure Network) state that development should protect and enhance areas of ecological importance, minimising direct and indirect effects on natural landscape assets, to ensure suitable connections are created for wildlife, walking and cycling and to create new green spaces and habitats to achieve a net gain in biodiversity. Policy AG3 requires development in the Stort Valley to protect the rural setting and wetland environment and open views of the valley. Policy AG8 (Minimising the Impact of Traffic and New Transport Infrastructure on Existing Communities) specifically seeks that the new bridge infrastructure proposals must minimise impacts on the character and environment of the River Stort, including potential noise, visual and pollution impacts. Policy TRA2 (Access to the Countryside) requires that connections to strategic green infrastructure such as the River Stort should minimise environmental impacts such as noise and light pollution.

- 12.6.6 Paragraphs 174 to 182 of the NPPF 2021 relate to the consideration of development proposals in the context of conserving and enhancing the natural environment. Key principles include protecting and enhancing sites of nature conservation importance in a manner commensurate to its designation, avoiding harm, mitigating impacts and as a last resort, compensating for harmful impacts.

The Stort Valley Habitats

- 12.6.7 The River Stort and its functional floodplain is one of the best and most extensive functioning floodplains in Hertfordshire and the floodplain itself has high habitat value. The proposal crosses two branches of the River Stort, where the river has been diverted to form the Stort Navigation and the main river into which multiple tributaries flow. The site's sensitivity also relates to its connections to a variety of local wildlife sites and the Hunsdon Mead, Amwell Quarry and Rye Meads SSSIs downstream of the site. There is a series of statutory designated sites and undesignated sites of ecological value along the River Stort, including Rye Meads SSSI, Fiddlers' Brook Marsh, Hollingson Meads LWS and Maymead Marsh/ Honeymead Marsh, Harlow Marsh and Pishiobury Park LNRs. North of Sawbridgeworth to Bishop's Stortford are a further three river corridor SSSIs.
- 12.6.8 The River Stort runs into the River Lea where there are a number of sites designated for their international importance. The Lee Valley Special Protection Area is comprised of four separate SSSIs (Amwell Quarry, Rye Meads, Turnford and Cheshunt Pits and Walthamstow reservoirs). The SSSIs closest to the site are Amwell Quarry and Rye Meads, 2.5km downstream of the River Stort at the application site. As such, at the pre-app stage impacts on the SPA were not considered likely due to the distance and lack of likely impact pathways.

Habitat Regulations Assessment

- 12.6.9 Following recent case law, Natural England required the submission of a Habitat Regulations Assessment to ensure the proposal has been appropriately assessed for its potential impacts on internationally

designated sites for nature conservation beyond the site (namely Epping Forest SPA, Lea Valley SPA, Wormley and Hoddesdon Park Woods SAC and Epping Forest SAC) in terms of air quality, recreational impacts, water quality and water abstraction effects.

12.6.10 The Habitats Regulations (2010 and 2017) originally implemented appropriate assessment requirements under Article 6(3) of the Habitats Directive (92/43/EEC) for development (plans or projects) that are likely to significantly affect EU protected habitats and species implemented. The regulations have become part of retained EU law with limited amendments to recognise the UK has left the EU whilst ensuring that they remain legally operative. The Regulations do not set out a specific methodology; rather they place obligations on the competent authority (i.e. a local planning authority) and the developer which are fulfilled by a four stage process involving:

- a. *Stage 1: Screening* – to identify the likely impacts of a project on a relevant protected European site, either alone or in combination with other plans and projects. Case law has determined that at this stage mitigation measures should not be considered in determining whether it is necessary to carry out an appropriate assessment of the impact of a proposed plan or project on a protected site.
- b. *Stage 2: Appropriate Assessment* – The authority considers the impacts on the integrity of a protected site, either alone or in combination with other plans and projects, with regard to the site's structure, function and its conservation objectives. Where there are adverse impacts, an assessment of mitigation options is undertaken to determine the adverse effect on the integrity of the site. If at this stage adverse effects cannot be mitigated, then the third stage follows.
- c. *Stage 3: Assessment of alternative solutions* - the authority is required to assess alternative ways of achieving the objectives of the project to establish whether there are solutions that would avoid, or have a lesser effect on protected European site.

- d. *Stage 4: Imperative reasons of overriding public interest (IROPI)* - If the authority assesses that no alternative solution exists and adverse impacts remain an IROPI assessment must be undertaken.

12.6.11 The Habitat Regulations Assessment considered the effects of the Development as a whole (including the outline Villages 1-6 application and the two river crossing proposals) in the absence of mitigation and identified that the development would have the potential, during its operational phase, to cause the following biophysical changes, which could result in ecological effects on international sites (Lee Valley SPA and Ramsar site, Wormley-Hoddesdon Park SAC and Epping Forest SAC):

- recreational pressure arising from increased visitation of publicly accessible sites;
- air quality changes arising from traffic generated by the proposed development; and
- changes in water quality or quantity.

12.6.12 The Habitat Regulations Assessment considered the effects of the Development as a whole against these potential impacts both in the absence of mitigation and once the proposed mitigation is in place, and demonstrated that no likely significant effects were anticipated on these sites of international importance due to distance and absence of viable impact pathways even without mitigation, and due to the range of mitigation to be delivered on site (replacement habitats, floodplain and accessible natural greenspace).

Ecology and Biodiversity

12.6.13 The CSC proposal directly affects the statutorily designated Parndon Moat Marsh Local Wildlife Site and Local Nature Reserve (two designations on the same land area shown in pale green at Figure 18 below) which lies to the west of the crossing between the Stort Navigation and the West Anglia Mainline, and the much larger Eastwick and Parndon Meads LWS which lies between the Navigation and the natural river (shown in darker green at Figure 18 below). Both are locally important designations. The proposal increases the road and

embankment width from around 20 metres to 40 metres including vegetated embankments and swales. As such, approximately 0.64ha of the Parndon Moat Marsh LWS/LNR and 0.08ha of the Eastwick and Parndon Mead LWS habitat will be lost to create the new crossing. The Eastwick and Parndon Mead LWS land is largely grassland that is seasonally flooded. Within the Parndon Moat Marsh LWS/LNR, the land affected is a mosaic of woodland, scrub, grassland, swamp and open water. For both habitats the losses will be permanent and as such is considered to be a significant impact, particularly as this may affect the LNR habitat that supports Desmoulins whorl snails.

Figure 18 Extent of Parndon Moat Marsh (LWS and LNR) and Eastwick and Parndon Meads (LWS)



12.6.14 The physical loss of habitats of local importance needs to be considered against the requirements of HLDP Policy WE3(3), where the proposal must demonstrate that:

- 1) there are material considerations that outweigh the need to safeguard the nature conservation value of the site and any other broader impacts on the network of conservation sites; and

- 2) the development provides appropriate avoidance or mitigation and, as a last resort, provides compensation measures to offset any detriment to the nature conservation interest on the site.

12.6.15 As already described, the CSC scheme is a piece of essential infrastructure allocated in two development plan documents that will provide for the creation of a sustainable transport corridor connecting the Gilston Area developments to Harlow, and when combined with the Eastern Stort Crossing, provide the highway capacity to facilitate wider improvements to the highway network in Harlow, serving existing residents plus other strategic sites around Harlow. The allocation along with the contribution the proposal will make towards achieving active and sustainable travel objectives is a material consideration that on their own could be considered as being sufficient to outweigh any harm caused. However, Officers consider it prudent to consider the impacts arising from the specific proposal as submitted rather than simply the principle of the development.

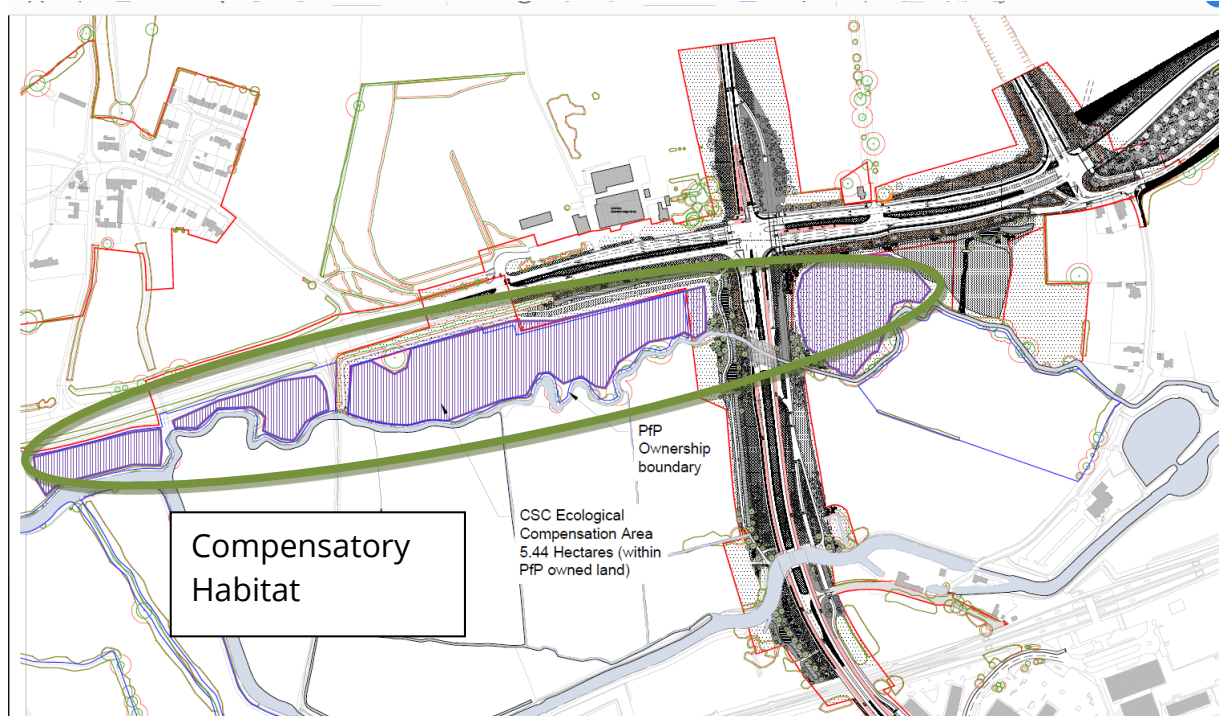
12.6.16 In terms of the policy requirement to consider means of avoiding the harm, alternative locations and approaches to delivering highway capacity and to provide connections between the Gilston Area development and the urban area of Harlow were considered and these have been described satisfactorily in reports submitted with the application. Given that the Fifth Avenue Crossing is an existing structure, the widening of this crossing is the most direct and least harmful way to enable connectivity between the Gilston Area and the urban area of Harlow in a way that facilitates active and sustainable travel.

12.6.17 The next consideration therefore is how the proposal has sought to minimise habitat loss and proposes to mitigate those impacts. The bridge piers and abutments have been designed to sit in direct alignment with existing structures to minimise the amount of land lost on the valley floor. Where land is raised to form embankments to support the central part of the crossing these will comprise gradual slopes that can support planting, and the associated SuDS features within the valley floor itself will comprise swales, wetland and

vegetated ditches, adding complementary features within the floodplain environment.

- 12.6.18 In addition to Policy WE3 of the HLDP noted above, Policy NE3 (VI) of the East Herts District Plan requires that where adverse impacts on species or habitats are unavoidable, appropriate mitigation and compensation measures must be employed. The CSC proposal results in the loss of approximately 0.64 ha of the Parndon Moat Marsh LWS/LNR. This comprises both rank, species-poor grassland, and nettle/thistle patches (3,800m²); embankment grassland/scrub complex (c.1,800m²); and 800m² of Eastwick and Parndon Mead swamp habitat. In addition, 1.33ha of breeding bird habitat is lost through the widening of the embankments either side of the crossing and through the creation of the SuDS to the west of the proposed new carriageway.
- 12.6.19 To compensate for this loss, the grassland / nettle and thistle patches and the embankment grassland/scrub complex will be compensated for by the creation of grassland and scrub on the new embankment as part of the Central Stort Crossing Development; therefore no additional compensation is required. However, to compensate for the lost breeding bird habitat, 1.33ha (incorporating 800m² of swamp habitat) will be created on the floodplain in areas within the Stort Valley.
- 12.6.20 The new habitat (indicated at Figure 19 below) is proposed to be on land outside the red line boundary of the CSC, but within the ownership of PfP and beyond the Eastwick and Parndon Mead Local Wildlife Site. This area also incorporates 4.11ha of breeding bird habitat lost through the ESC proposal, which when combined represents a like for like compensation in terms of wetland/breeding bird habitat. This will be secured through a condition on this application and the ESC application respectively.

Figure 19: Habitat Compensation Area Combined with ESC Mitigation



12.6.21 Since the construction of the Fifth Avenue Crossing areas of self-set scrub and trees have grown alongside the existing bridge structures. A detailed Arboricultural Impact Assessment (AIA) was submitted with the application to determine the impact on these trees. The AIA surveyed 146 trees, woodlands and hedgerows, classifying them against standard categories to determine their relative retentive worth. Category A trees are of high quality that are particularly good examples of their species, with particular visual, conservation or historical importance; Category B trees are of moderate quality that have an impaired condition, that have a higher collective rating as part of a group rather than individual or have material conservation or other cultural value; Category C trees are of low quality with a low life expectancy or are young, being unremarkable or with impaired condition, offering low or temporary landscape merits or with no material conservation or other cultural value; and Category U trees are unsuitable for retention such that they cannot realistically be retained as living trees, often with a serious, irremediable structural defect, are dead or dying or with infections that may harm the health and or safety of other trees nearby.

12.6.22 15 trees and 14 groups have been identified for complete removal and 10 groups and two hedgerows for partial removal to facilitate the development of the CSC. None of these are category A, 13 are category B and 28 are category C. 3 category U trees will also be removed. However, some of these groups contain many immature, low quality trees and therefore an estimated 102 moderate quality and 286 low quality trees will be removed. A further 508 specimens either standalone trees, within groups or hedgerows are to be retained. Please note that due to limitations on survey methods available at the time these figures represent upper estimates rather than an accurate count. The majority of category B trees in groups have been scored as moderate quality for their landscape contribution value in their role of screening views of the road rather than because of the individual arboricultural merits of the trees.

12.6.23 Where trees are able to be retained they will be protected during construction using approved methods in line with British Standards. To compensate for the trees and scrub that are unavoidably lost to accommodate the works these will be replaced with suitable species, with an overall increase in the number of trees. Opportunities will be taken to remove invasive species and replace them with more suitable plant species to introduce diversity which will support mammals like Otter and Water Vole (discussed further below). A comprehensive but preliminary landscape strategy has been submitted setting out proposals for informal groups of replacement trees adjacent to the highway, together with riparian woodland trees and scrub adjacent to the River Stort and around the new carriageway, with large species at specific locations. Planting is designed to be incorporated with existing retained trees. The landscape strategy indicates that approximately 870 trees (semi-mature to feathered trees) will be planted along with approximately 1,840 linear metres of hedgerow (mixed native hedge planting). Further details of specific species and the planting regime will be required through condition. The proposed mitigation is considered suitable and sufficient to ensure that there is no overall harm to the nature conservation of the Stort Valley habitats.

Species Impacts

- 12.6.24 Comprehensive surveys were undertaken prior to the submission of the application which assessed the types of habitats and species likely to be affected by the proposal; the results of which are summarised below. Up to date surveys will be required via Condition 32 prior to the commencement of each phase of the development to confirm the presence of notable species and habitats and to agree appropriate mitigation as required.
- 12.6.25 Artificial lighting at night has a range of impacts on some mammal species and in particular on bats of different types. For example, lighting may repel light-averse bats restricting their use of commuting or feeding space by forming visual barriers; for smaller more manoeuvrable bats, street lamps may attract insects which they feed on, changing their natural foraging behaviour. The Stort Valley corridor is home to a number of bats (Serotine, Pipistrelle, Noctules, Barbastelle and Daubenton's Bats). It is therefore important that when determining the approach to lighting that all opportunities are taken to reduce light spill and sky glow and reduce voltage of luminaries. In the case of the CSC proposal, the approach to lighting will be a matter controlled via Condition 12 in consultation with the planning and highway authorities, and opportunities will be taken to redesign the existing lighting for the crossing.
- 12.6.26 Currently lighting columns are present on both sides of the crossing at its southern end. There is a gap of no lighting columns over the railway line and Stort Navigation and then lighting columns on only the western verge of the bridge up to the Eastwick roundabout with a longer gap over the natural course of the River Stort. This is to ensure there is no glare for train drivers and that no light is directed over the two watercourses. High level lighting design principles are contained in the Development Specification that seek to ensure that future lighting for the development will reduce impacts on biodiversity as well as to ensure the safety and amenity of all users and properties. The Development Specification applies to the Outline Village Development only and as such, Officers recommend that Condition 12 is applied that requires a lighting strategy to be submitted to inform the detailed engineering design stage in line with these principles.

- 12.6.27 As the pedestrian and cycle bridge will be subject to a design competition, Officers are keen that designs include innovative lighting solutions that provide the level of lighting needed for the safe movement of cyclists, pedestrians and vehicles, but also reduce the impacts of lighting and make use of materials that allow users to navigate safely in low lighting, delaying the need to switch on lights in the evening.
- 12.6.28 Given that the CSC already exists and this application is to widen the existing structure there are opportunities to design a lighting strategy that provides sufficient lighting for both north and south carriageways without the need to increase the overall level of lighting along the length of the crossing. The lighting assessment undertaken to inform the Environmental Impact Assessment demonstrates that there will be no adverse impacts from the proposal in relation to the current situation. This is in line with policies as set out above and has neutral weight.
- 12.6.29 The River Stort has the potential to support otters and water voles, though the species surveys undertaken showed no, or some unconfirmed evidence of their presence in the areas affected by the CSC. Otters are a reasonably sensitive species that require appropriate habitat to enable a population to be sustained. There have been a number of otter reintroduction programmes in the Stort Valley in recent years, so the absence of them within the surveys does not mean that they and water voles are not present in the valley, just that evidence was not identified during the surveys, and therefore, opportunities to enhance their habitat within the valley should be taken where practicable, particularly given the loss of habitat due to the widening of the crossing through this proposal.
- 12.6.30 In terms of other mammals, no Dormice have been recorded and no Badger sett has been identified in the vicinity of the application area. However, because mammals are mobile in nature, it will be necessary to undertake up to date surveys prior to commencement of construction and enabling works, and if necessary, further appropriate mitigation measures will be determined in consultation with the Local Planning Authority to ensure that not only are no offences committed,

but that changes to construction management plans can be made if required. This will be managed via Condition 34.

- 12.6.31 The CSC proposal approximately doubles the width of the bridged elements and the embankment areas with east-west movement opportunities limited to the riverside footpath and Navigation towpath, both environments designed for pedestrian movement in mind primarily. Hertfordshire County Council's Environmental Resource Protection Team therefore recommend that opportunities are created to ensure that mammals can move east and west through the valley safely and that road structures do not hinder these movements. These could take the form of badger tunnels for example. These will be explored at the detailed engineering design stage, controlled by condition.
- 12.6.32 In respect of birds, the Stort floodplain in the vicinity of the proposal is considered to be a habitat of importance for supporting breeding, foraging and over-wintering of birds. Therefore the loss of habitat will have a detrimental impact, particularly as part of the habitat lost has the potential to support birds that favour wetland environments. However, the application identifies an area within which habitat enhancements will be made that will provide alternative wetland environments to support these species. This provision along with an Ecological Management Plan will be secured via condition.
- 12.6.33 In terms of reptiles and amphibians, surveys showed no evidence of Great Crested Newt in the vicinity of the proposal site. Low populations of three reptiles have been recorded, including grass snake. In terms of invertebrates, assemblages of dragonflies associated with the Stort are considered to be of local importance. Desmoulins whorl snail is also present in the valley which is of regional importance, having been recorded within Parndon Moat Marsh LNR to the south of the Navigation. The LNR is a relatively small area of land and is tight up against the current southern bridge abutments. The crossing design places the extended bridge abutment within the LNR area and therefore a more detailed understanding of the potential impacts on this particular species will be required through updated surveys. Again, the Outline Ecological Management Plan sets out how alternative

suitable habitats will be created within the valley to support these species.

12.6.34 Aquatic Invertebrate Surveys and fish surveys undertaken of the river within the site indicate little or no invertebrate conservation interest despite water quality being generally good, suggesting that habitat diversity may be a limiting factor, therefore proposed enhancements which include diversifying bankside habitats are supported. Fish surveys identified limited species, reflecting the limited invertebrate variety, but did identify the presence of Bullhead which is a species cited in the Habitats Directive for protection. No adverse effects to water quality were identified as a result of the development, so no harm is anticipated to fish and aquatic invertebrate species.

Human disturbance impacts

12.6.35 The ES assessments consider that traffic noise associated with the CSC proposal will not cause any effect on birds and mammals. However, during the period of construction, noise, vibration and lighting has the potential to negatively affect ground nesting birds, mammals and bats, dissuading roosting, foraging and commuting in habitats close to construction areas. The probability and magnitude of any effects will vary on the particular activity, time of year and time at which the work is completed. Such activities are likely to be short term in localised areas, and construction related disturbance would be expected to predominantly occur during daylight hours when bats and nocturnal mammals would not be foraging or commuting. However, due to the need for security lighting and the occasional period of night time works there is the potential for lighting and noise to disturb sensitive species albeit with measures taken to minimise such impacts through Codes of Construction Practice required through the Construction Environment Management Plan condition.

12.6.36 The focus on pedestrian and cycle movement on and around the crossing is a key feature of this proposal. As such, routes are proposed along the outer edges of the two carriageways and a gravel path is proposed along the valley floor to the west of the new crossing, linking the Navigation towpath to the south and the riverside footpath to the

north. It is therefore anticipated that there will be more walkers using the footpaths for commuting and leisure purposes, overlooking the site and introducing a level of disturbance on the valley floor than currently experienced. Locally designated wildlife sites are subject to management regimes, and advice on how to visit these spaces in a way that does not harm the environment are provided through onsite information boards and on various websites. Providing a suitable path for walkers prevents visitors straying onto more sensitive locations.

12.6.37 When considering pedestrian access proposals in relation to the bridge over the Navigation and its towpath, a balance needed to be struck between competing objectives. On the one hand there is a need to maintain pedestrian links beneath it for which paths have to be retained, but pedestrian activity brings with it an element of disturbance. While ecologically speaking having an area of riverbank exposed between the canal and the southern abutment would be beneficial in maintaining an ecological corridor, there is a need to ensure spaces under structures do not invite or facilitate anti-social behaviour and damage. The choice was made to design out the opportunity for anti-social behaviour, on the basis that the width of the bridge above and its resultant shading would have reduced the viability of planting beneath the structure.

12.6.38 A key objective of the crossing proposal is to facilitate pedestrian and cycle movements both above and along the valley floor. It is therefore anticipated that there will be more walkers using the footpaths for commuting and leisure purposes. If not managed appropriately, this could conflict with providing replacement habitat for ground nesting birds. Therefore the Ecological Management Plan that will be submitted as part of the condition used to secure the compensatory breeding bird habitat discussed above will be required to set out how suitable measures will be put in place to ensure that the footpath route proposed as part of the CSC will avoid such impacts, such as by directing visitors away from or fencing off sensitive areas.

12.6.39 The Habitats Regulations prohibit the deliberate capture, killing or disturbance of European Protected Species (EPS), which include *inter alia* Dormouse *Muscardinus avellanarius*, Great Crested Newt *Triturus*

cristatus, Otter *Lutra lutra* and all native species of bat, and make it an offence to destroy or damage either the nesting or breeding sites of these species. Where the prohibitions in the Habitat Regulations will be offended against, for example where bats that are European Protected Species will be disturbed by the development, the Local Planning Authority is obliged to consider the Habitat Regulation tests and the likelihood of a licence being issued by Natural England and the “three tests” under the Regulations being satisfied. Therefore, certain impacts can in certain circumstances be made lawful through the granting of licenses, provided that Natural England is satisfied that the following three tests are satisfied before issuing licenses covering a European Protected Species:

- The proposal is necessary to preserve public health or public safety, or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
- There is no satisfactory alternative; and
- The proposal will have no detrimental effect to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

12.6.40 These three tests provide a legal benchmark for consideration in the determination of the application. As has been discussed in this report, the CSC is an item of essential transport infrastructure identified in two development plans, in a location for which there is no satisfactory alternative. The proposed CSC is considered to provide imperative reasons of overriding public interest being overriding public benefits of a social and economic nature in terms of unlocking the delivery of the Gilston Area strategic allocation of 10,000 homes and enabling the creation of a sustainable transport corridor which supports the growth and sustainable transport objectives of the Harlow and Gilston Garden Town. This report has throughout detailed the overriding public interest in providing a substantial number of homes in accordance with policy allocations and the growth to be enabled by sustainable transport corridors which will be enabled by the CSC scheme.

- 12.6.41 EHDP Policy NE3 (VI) states that where adverse impacts are unavoidable, appropriate mitigation and compensation measures must be employed, commensurate to the importance, legal protection or other status of the species or habitat. The submitted surveys indicate that no evidence of protected species have been found in the areas of land directly affected by the CSC proposal, but the proposal does include design measures to address and minimise impacts on bats within the valley. Nonetheless, a number of conditions are recommended that will require that updated habitat and species surveys be undertaken prior to the commencement of each phase of the CSC development, which will inform updated habitat protection and enhancement strategies that will be expected to outline updated further appropriate mitigation measures where necessary. This may include seeking licenses to relocate species if found along with measures to minimise disturbance from human activities, such as ensuring that walkers are directed to, or even restricted to, routes that prevent disturbance to flora and fauna within the valley that are sensitive to disturbance of this kind.
- 12.6.42 Given that compensatory habitats are to be created to replace habitats lost or impacted by the proposal and that mitigation measures are proposed that will be secured via Condition 35, the ES considers there will be no likely significant effects on locally or statutory habitat designations within or adjacent to the application site. Officers are content that compensatory measures have been applied as a last resort, with the design of the scheme having achieved avoidance and mitigation in preference where feasible. With an agreed approach to mitigation the loss of habitat will be replaced with suitable compensatory habitat in line with the provisions of policies as summarised above and therefore this is considered to be of neutral weight in the planning balance, the actual weight to be given being a matter for the committee.

Biodiversity Net Gain

- 12.6.43 EHDP Policy NE3 (Species and Habitats) requires the use of a locally approved Biodiversity Impact Assessment Calculator, or Metric, in order to assess the impact of a proposal. When the assessment was

undertaken DEFRA's own metric 2 had been withdrawn and the DEFRA metric 3 was not yet available. As such the applicants used a model developed by Warwickshire, Coventry and Solihull Councils. The Warwickshire model is a nationally recognised and DEFRA approved calculator. Essentially, the model is available for experts to use and was considered an appropriate calculator for assigning a score to a type of habitat and its quality. Once you assess the baseline score, i.e. the current situation, the ecologist looks at the proposed landscaping strategy or biodiversity strategy and works out the score of the proposed new environment. The difference between the current and the proposed is the Biodiversity Net Gain or Net Loss.

12.6.44 When using a biodiversity metric, replacing one highly scoring habitat with another adds little benefit in terms of the calculator. However, replacing a poorly scoring habitat with a highly scoring one is clearly going to achieve a greater gain in biodiversity metric units. As much of the Stort Valley is already subject to designations of local or national importance, the enhancements achieved within the valley itself are limited in terms of their ability to contribute towards a biodiversity net gain that needs to be achieved across the site as a whole, including the Outline and Eastern Stort Crossing applications. Notwithstanding this, the proposed ecological mitigation provided as part of the CSC proposal as shown at Figure 18 above provides 0.80 Biodiversity Units which represents a 1.8% increase above the existing metric score. Furthermore, the additional 5.44Ha to be provided alongside the CSC mitigation will provide yet more ecological benefit within the valley environment. However, as this is beyond the red line area of the application and will be secured via a condition it is not included within the application area as a net gain.

12.6.45 There is no current policy or legal requirement that requires a 10% net gain. This is an objective of the emerging Environment Bill, but this is not expected to be on the statute book until late 2023 at current estimates. Notwithstanding this, in terms of the overall development (the two river crossings and the Villages 1-6 proposal), the submitted ecological strategy proposes to collectively deliver a Biodiversity Net Gain of between 25 and 30% and a biodiversity net gain is achieved within the river valley itself associated with the CSC proposal. This

complies with policies as summarised above and is given positive weight. Biodiversity mitigation in line with existing relevant policies and any net gain offered by the applicants in connection with this scheme is to be secured via a condition.

12.7 Impact on the Historic Environment

- 12.7.1 Policy HA1 (Designated Heritage Assets) of the East Herts District Plan seeks the preservation and enhancement where possible of designated heritage assets; harm should be avoided or where unavoidable the proposal must demonstrate that substantial benefits outweigh that harm or loss. Policy HA2 (Non-Designated Heritage Assets) considers the impacts on non-designated assets on a proportionate basis commensurate to the significance of the asset. Policy HA3 (Archaeology) requires appropriate assessments to be undertaken to assess the potential for archaeological assets and to undertake appropriate excavation and recording in advance of development.
- 12.7.2 Policy HGT1 (Development and Delivery of Garden Communities in the Harlow and Gilston Garden Town) of the Harlow Local Development Plan requires the submission of information relating to heritage assets in the form of a Heritage Impact Assessment; applications are to be designed to avoid any harm and to mitigate impacts when they are unavoidable. Policy WE5 (Heritage) seeks the conservation or enhancement of heritage assets. Policy PL12 (Heritage Assets and their Settings) considers proposals against their impact on heritage assets and their setting, requires the submission of a Heritage Statement and for areas of archaeological interest requires desk-based or field evaluation to be undertaken and submitted.
- 12.7.3 Policy AG1 (Promoting Sustainable Development in the Gilston Area) of the Gilston Area Neighbourhood Plan seeks the protection and, where possible, the enhancement of heritage assets. Policy H1 (Celebrating Heritage Assets) seeks the conservation and celebration of heritage assets, primarily related to designated and non-designated buildings, memorials, scheduled monuments and landscape features and boundaries associated with former uses. The policy seeks to ensure

that public appreciation and understanding of heritage assets are promoted through development.

- 12.7.4 Paragraphs 194 to 208 (section 16) of the NPPF 2021 relate to the consideration of development proposals in the context of conserving and enhancing the historic environment. Key principles relevant to the CSC proposal include the requirement to assess the significance of any heritage assets affected, any harm to the significance of those assets, and whether those harms are substantial or less than substantial. Where harm is less than substantial, this harm should be weighed against the public benefit of the proposal.
- 12.7.5 There are no heritage assets directly affected by this application proposal. However, Parndon Moat Marsh Local Nature Reserve contains a Scheduled Monument, Little Parndon Moated Site, which is located in the western end of the LNR. Little is known about the history of this feature, thought to be remnants of a moated manor, however, the Heritage Assessment submitted with the application describes the site as being a below ground feature, visible in the land and surrounded by trees. Given the intervening landscape, it is considered that there are no detrimental impacts on the setting of this listed asset.
- 12.7.6 In terms of the Stort Valley landscape itself, the valley has a long history of early industry with a number of mills as well as parks associated with aristocratic leisure. Relatively little survives of any of these parks except at Briggens and Stanstead Bury. The Stort was partially canalised in the late eighteenth century and there are a series of surviving locks for the Navigation. The older course of the river still survives. The Navigation was an important transport link in to the early nineteenth century for moving products from maltings and mills at Bishop's Stortford south to the river Lee, but was later replaced by the railway line. The canal is now a popular leisure route. The A414 and the northern edge to Harlow now give the valley a more urbanised character, with the most recent addition being the redevelopment of the Terlings Park Research Centre as a residential estate on the north side of the river.

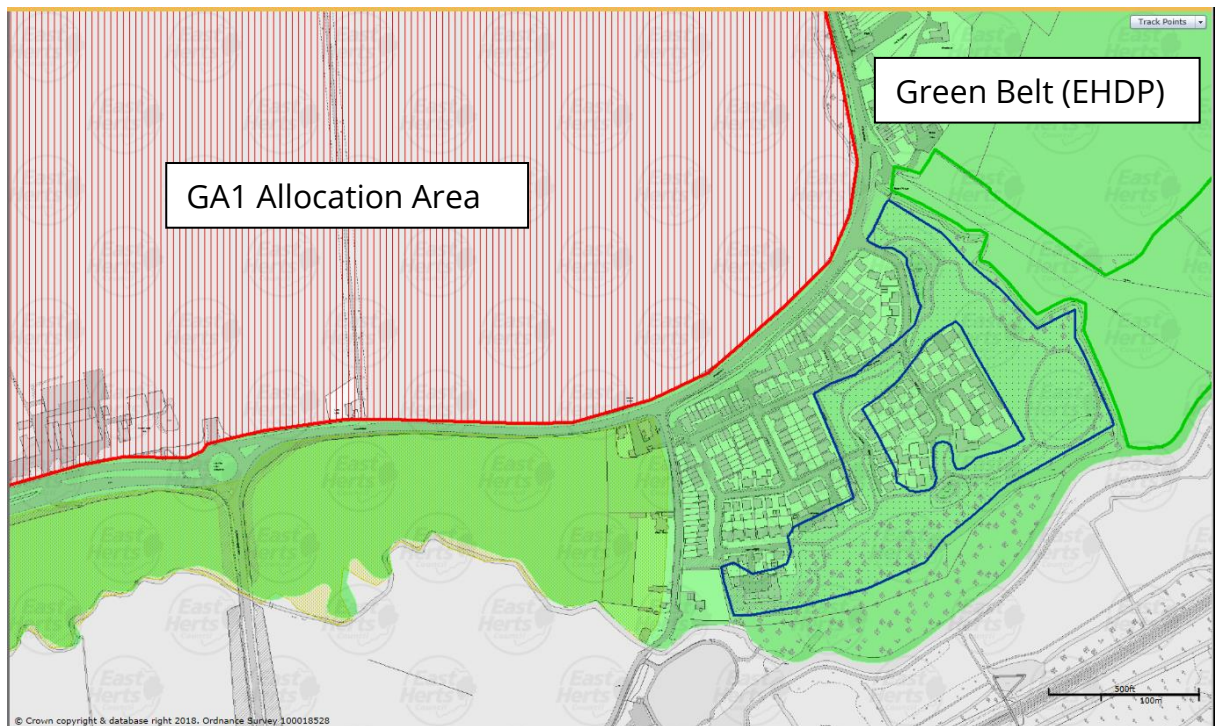
- 12.7.7 In terms of 'below ground assets', the CSC will have an impact on peat and alluvial deposits within the Stort Valley, and potentially on buried prehistoric deposits. The application is supported by an Assessment of Archaeological Potential which is informed by a number of technical archaeological assessments, including geo-archaeological modelling of existing borehole data. This modelling demonstrates that there is a potential for peat deposits of at least regional importance to be present, and for evidence of Mesolithic to Late Bronze Age settlement to be present within and beneath the peat sealed by alluvium. This is not uncommon along the length of the River Stort.
- 12.7.8 The bridge supporting columns and abutments are in line with the existing bridge structures to minimise any disruption to the valley floor on land that was previously disturbed to create the existing crossing. However, Hertfordshire County Council's Environmental Resource Protection Team considers that more detailed investigations are necessary in order to explore the full potential significance of these assets and to preserve them in situ. Furthermore, the Council for British Archaeology, whilst they have only responded to the Outline application, request that any investigations that are undertaken are carried out in a way that enables public engagement in the process, particularly in the dissemination of information. Such investigations are important in understanding the history of human settlement and therefore the detailed conditions attached to this report set out the requirements for pre-commencement investigations.
- 12.7.9 The CSC proposal is considered to result in no harm to the significance of known heritage assets. Furthermore, an approach for investigating below ground assets prior to the commencement of each phase of the development, has been agreed and will be secured via Conditions 37, 38 and 39. The proposal is therefore considered to have neutral impact on the historic environment and to comply with the relevant Development Plan policies.

12.8 Green Belt Issues

- 12.8.1 As is described in paragraph 3.8 above, the CSC site area is located partly in the Metropolitan Green Belt and partly within a Green Wedge as identified in the Harlow Local Development Plan. Consideration is given to the Green Wedge policies in section 12.2 of this report above and is therefore not repeated here. The proposed new northbound carriageway located to the west of the existing Fifth Avenue crossing is within the Green Belt as denoted on both Policies Maps. The proposed pedestrian and cycle bridge over Eastwick Road to the east of the existing Fifth Avenue crossing lies within the Green Belt as denoted on the East Herts Policies Map up the district boundary (as shown at Figure 1 above), but where the bridge lands upon the widened embankment and continues southwards it falls within Harlow district and is therefore located within a Green Wedge. Figures 6 and 7 above contain extracts from the two Policies Maps from the adopted East Herts District Plan and Harlow Local Development Plan which show the extent of the Green Belt and Green Wedge designations. Figure 20 below illustrates that the land north of the A414 and Eastwick Junction was removed from the Green Belt through the East Herts District Plan allocation Policy GA1. Therefore, the two Village 1 accesses and the realignment of the Eastwick Road are beyond the Green Belt, but the Eastwick junction works southwards is within Green Belt (EHDP and HLDP) and also within Green Wedge (HLDP) designations.
- 12.8.2 Policy GBR1 (Green Belt) of the East Herts District Plan 2018 states that planning applications within the Green Belt will be considered in line with the provisions of the NPPF.
- 12.8.3 Policy WE1 (Strategic Infrastructure), Policy WE2 (Green Belt, Green Wedges and Green Fingers) of the Harlow Local Development Plan relate to development within the Green Belt reflecting the purposes of the designations. Policy PL4 (Green Belt) reflects provisions within the NPPF.
- 12.8.4 Paragraphs 137 and 139 (section 13) of the NPPF 2021 describe the importance of Green Belt and the five purposes that Green Belt serves. Paragraphs 147 to 151 relate to proposals affecting the Green Belt, describing the circumstances in which development is or may be acceptable in the Green Belt.

- 12.8.5 Paragraph 147 of the NPPF provides that 'inappropriate development' is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. Paragraph 148 of the NPPF requires that local planning authorities "should ensure that substantial weight is given to any harm to the Green Belt. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations."
- 12.8.6 Paragraph 150 of the (NPPF) states that certain forms of development are not inappropriate in the Green Belt provided that openness is preserved and such development does not conflict with the purposes of including land within it. These forms are limited, but include 'engineering operations' and 'local transport infrastructure which can demonstrate a requirement for a Green Belt location'.

Figure 20: Green Belt extent in relation to the existing infrastructure



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Blue = Open Space (Policy CFLR1 EHDP)

*Green outline = Fiddlers' Brook, Hollingson Mead LWS (EHDP)
and Local Green Space (Policy AG5 GANP)*

Assessment of Proposals Against Green Belt Policies

- 12.8.7 For the proposed Central Stort Crossing the starting point to consider is whether it is 'local transport infrastructure' which may not be inappropriate development within the terms of paragraph 150 of the NPPF. Both the East Herts District Plan and Harlow Local Development Plan require the widening of the existing A414 Fifth Avenue crossing, which is located within the Green Belt to form part of a north-south sustainable transport corridor, and as such it is confirmed that a Green Belt location is necessary.
- 12.8.8 However, the proviso in Paragraph 150 of the NPPF states that the identified forms of development are not inappropriate in the Green Belt provided (officer highlight) they "preserve its openness and do not conflict with the purposes of including land within it." Turning to the matter of preserving openness, the CSC proposal comprises the widening of existing bridge and embankment structures, in some parts doubling the width of the overall structure as a result of the embankments and carriageway. In addition, the pedestrian and cycle bridge is an elevated structure that will stand a minimum of 6.45 metres above the proposed Eastwick Junction with another elevated pedestrian and cycle bridge over the Stort navigation further south.
- 12.8.9 The Planning Practice Guidance (Impacts on Openness and Compensatory Improvements: July 2019) (PPG) provides advice on assessing the likely effects of development on physical and visual openness. The PPG states that when assessing the impact of a proposal on openness, a judgement is required based on the circumstances of the case. The courts have identified a number of matters which may need to be taken into account in making this assessment. These include, but are not limited to:
- openness is capable of having both spatial and visual aspects – in other words, the visual impact of the proposal may be relevant, as could its volume;

- the duration of the development, and its remediability – taking into account any provisions to return land to its original state or to an equivalent (or improved) state of openness; and
- the degree of activity likely to be generated, such as traffic generation.

12.8.10 Consideration needs to be given to the existing context. In this instance, the existing Eastwick Crossing is constructed on embankments and is raised from the surrounding floodplain crossing the River Stort, the Stort Navigation and the railway line on bridge structures. The existing crossing therefore forms a key part of the character in this part of the Stort Valley and currently already has an impact on the openness of the area in terms of long views along the Stort Valley.

12.8.11 The CSC proposal adds additional volume to the existing crossing through an approximate doubling in width, but the surface level of the new carriageway is designed to match the existing structures. In addition, the new pedestrian and cycle route adds two new bridge structures and a widened embankment where the bridges 'land' level with the existing crossing to provide surface route options. The two elevated elements of the pedestrian and cycle bridges are not yet designed but the application provides a clear design brief of being a complementary light structure, having a clear purpose of enabling active and sustainable travel. In terms of the visual impact of this route, the bridge over the Stort Navigation will sit adjacent to the existing crossing and will be seen against the backdrop of the existing crossing, but despite its potential light structural appearance the bridge over the Eastwick Junction will stand proud of the existing and proposed road level, which is already raised above the level of the valley below.

12.8.12 In terms of the durability and remediability of the proposal, the new carriageway will be a permanent feature and as such the land will not be returned to its original state.

12.8.13 In terms of the degree of activity likely to be generated, with the exception of the provision of a northbound and southbound

sustainable transport route and improvements at the junctions at the northern and southern end of the CSC, the scheme does not increase the capacity of the crossing the proposal it will not increase the level of traffic in this location. However, with the additional number of lanes and the addition of the pedestrian and cycle bridge to encourage sustainable active travel modes this will create the impression of intensifying the level of movement across the CSC.

12.8.14 Using the considerations set out in paragraph 12.8.9 above, the CSC adds additional physical and visual volume and will therefore unavoidably cause some degree of harm to the openness of the Green Belt in this context. However, Officers consider that the proposed structures are not considered to have a significant impact on openness given the context of the existing crossing and the clear parameters guiding the design of the elevated bridges. However, for the purpose of paragraph 150 of the NPPF and generally, the proposals will cause some degree of harm to and will not therefore “preserve” openness.

12.8.15 In addition to a consideration of harm to openness, paragraph 150 of the NPPF also requires that such essential infrastructure does not conflict with the purposes of including land within the Green Belt, and therefore the purposes of the Green Belt in the relevant location must also be considered to be certain that the development is not inappropriate. The five purposes of Green Belt include:

- To check the unrestricted sprawl of large built-up areas;
- To prevent neighbouring towns from merging into one another;
- To assist in safeguarding the countryside from encroachment;
- To preserve the setting and special character of historic towns; and
- To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

Check unrestricted sprawl of built-up areas

12.8.16 It is accepted that the Green Belt designation in this area fulfils a role in checking the unrestricted sprawl of Harlow. Harlow is tightly bound by Green Belt and as such, the urban edge of Harlow has been built right up to Green Belt edge. The Stort Valley floodplain and the West Anglia

Mainline that runs for the most part along the northern edge of Harlow has prevented the northwards expansion of Harlow irrespective of the Green Belt designation, but towards the east, the northern part of the Templefields industrial area has breached the railway line with development, where undoubtedly the Green Belt designation has been the key factor in checking urban growth in this area. The CSC application site is located within the flood plain of the Stort Valley, but given the location and design of the new crossing in the context of the existing crossing, the expansion of the transport infrastructure is not considered to diminish the purpose of the Green Belt in this location given the role of the floodplain valley in checking the unrestricted sprawl of Harlow.

12.8.17 The East Herts District Plan allocated the Gilston Area for the development of 10,000 homes and upon adoption in 2018, the Gilston Area allocation released land from the Green Belt. As shown in Figures 6 and 7 above only the land allocated for the development of the residential development was removed from the Green Belt, with land between the Gilston Area and Harlow being retained as Green Belt. As a planned development with clearly defined boundaries, the Green Belt will continue to check the unrestricted growth of what is planned to be a built up area.

12.8.18 The proposals in this instance comprise an item of essential transport infrastructure which will enable the creation of a sustainable transport corridor linking Harlow to the allocated residential-led development at the Gilston Area. The surrounding land will continue to form part of the Green Belt, as well as the flood plain, and therefore the introduction of the Central Stort Crossing is not considered to have an adverse impact on the Green Belt's role in checking the unrestricted sprawl of Harlow or the Gilston Area.

Prevent neighbouring towns merging into one another

12.8.19 This purpose seeks to maintain existing settlement patterns. Harlow is predominately surrounded by rural environments and edge of settlement development to the north. The presence of the Stort Valley floodplain acts as constraint to development preventing the merging of

settlements with Harlow. Officers consider that the proposed site of the Central Stort Crossing will not result in a merger of existing and planned new settlements to the north of the floodplain within the Gilston Area with Harlow, and will not undermine this Green Belt purpose. This is underscored by the nature of the proposals which seek permission for a transport infrastructure scheme rather than residential or commercial buildings, which would be expected to have more of an impact on this purpose for Green Belt designation.

Assist in safeguarding the countryside from encroachment

- 12.8.20 This purpose seeks to safeguard the countryside, which is enjoyed for its openness including the extent that the Green Belt has resisted encroachment from past development. Openness refers to the extent to which Green Belt land could be considered open from an absence of built development rather than from a landscape character perspective, where openness might be characterised through topography and presence or otherwise of woodland and hedgerow cover.
- 12.8.21 Part of the site currently forms the southernmost portion of the Green Belt in EHDC and a small northern section of Green Belt within HDC, with an Existing Employment Area sitting to the south. While, the CSC proposal extends in width an existing road and bridge structure in an environment already marked by the urban form of development of Harlow to the south of the crossing the new carriageway will introduce new carriageway infrastructure including an embankment and drainage network within the valley to the west of the existing crossing which will impact upon a Local Nature Reserve and Local Wildlife Site as discussed previously in this report. In addition, the dedicated pedestrian and cycle bridge over Eastwick Road will introduce an elevated bridge structure (with a widened embankment to the east of the existing crossing), which will have a greater visual appearance than the widened carriageway, and will be visible within the valley environment from a wider field of view. Even though the new structures are planned items of infrastructure identified in the Development Plans of the East Herts

District Plan (2018) and the Harlow Local Development Plan (2020), and will be seen against the backdrop of existing infrastructure, It is considered that the CSC proposal will have a degree of conflict with this purpose of the Green Belt,

Preserve the setting and special character of historic towns

12.8.22 The fourth purpose relates to retaining open land surrounding historic settlements. The Heritage Statement submitted with the planning application for the CSC provides a full identification and assessment of the proposal's impact on heritage. The existing Green Belt fulfils no role in protecting the setting and special character of historic towns, and therefore the application proposals result in no harm in this regard.

Assist in urban regeneration, by encouraging the recycling of derelict and other urban land

12.8.23 The Green Belt fulfils some role in encouraging the use of brownfield land within the urban area of Harlow. However, the flood plain and Stort Valley characteristics of the area mean that other planning constraints exist that would limit the development potential in this location.

12.8.24 Undoubtedly, part of the case for the release of Green Belt land at the Gilston Area as part of the East Herts District Plan was specifically to assist and facilitate the economic and social regeneration of Harlow, notwithstanding that it comprises largely greenfield land. The CSC proposal facilitates the delivery of planned growth in the Gilston Area including 10,000 homes and supports the wider growth and regeneration objectives of the HGGT Vision. The CSC scheme, which facilitates delivery of a local plan allocation has a neutral effect on and would cause no harm to this Green Belt purpose.

12.8.25 Despite being considered 'local transport infrastructure which can demonstrate a requirement for a Green Belt location' in the context of paragraph 150 of the NPPF, the CSC proposal is considered to have a degree of harm to the openness of the Green Belt in this location, albeit

this impact is not significant harm. It is also considered that there is a conflict with the purpose of including land within the Green Belt in terms of safeguarding the countryside from encroachment. Therefore, based on the proviso in paragraph 150 of the NPPF, the CSC is considered, on balance, to represent inappropriate development within the Green Belt.

Very Special Circumstances

- 12.8.26 Inappropriate development is by definition, harmful to the Green Belt and should not be approved except in very special circumstances. Paragraph 148 of the NPPF requires decision makers to attach substantial weight to any harm to the Green Belt. Paragraph 148 of the NPPF also states that “‘very special circumstances’ will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations.”
- 12.8.27 The CSC is considered to be inappropriate development in the Green Belt. This is of itself and by definition to be regarded as harmful to the Green. Moreover, the development is considered to cause some limited harm to the openness of the Green Belt and conflicts to some degree with the Green Belt purpose of assisting in safeguarding the countryside from encroachment as set out in the preceding paragraphs 12.8.7 – 12.8.25. Therefore in accordance with paragraph 148 of the NPPF it is necessary to give substantial weight to these elements of harm to the Green Belt .
- 12.8.28 With regard to other non-Green Belt harm , the Environmental Statement (ES) (as amended) submitted with the application assesses the impact and effects of the Central Stort Crossing development. Officers have summarised the adverse construction effects of the Central Stort Crossing reported in the ES and considered throughout this report as follows:
- Archaeology – adverse effects were reported on peat deposits and also potentially on areas of archaeological sensitivity, subject to confirmation through additional surveys; and

- Landscape and visual – introduction of the structure through construction would give rise to adverse effects on visual receptors as the structure rises out of the ground.
- Access to PRow and recreation uses during construction – temporary stopping up will be required to the current Stort Navigation Towpath, involving a diversion while the new bridge is constructed, to ensure safety of users of the Navigation.
- Loss of land of nature conservation interest – while the CSC results in the loss of a small area of land of nature conservation interest, the proposal will mitigate this impact with the addition of significant habitat and ecological enhancements to the Stort Valley through its proposed off-site mitigation, providing a net gain to biodiversity within the valley. In addition, the landscaping proposals will also deliver a net gain in hedgerow and tree planting.

12.8.29 A number of non-significant adverse temporary effects during construction are anticipated in relation to severance as a result of access to PRowS requiring a temporary stopping up and diversion of routes along the Stort Navigation towpath; cyclist amenity; driver delay; noise and vibration on nearby receptors; construction traffic; the loss of breeding and wintering bird habitat, changes in flood risk and pollution from site runoff,

12.8.30 Officers have summarised the adverse effects of the operation of the Central Stort Crossing reported in the ES and considered throughout this report as follows:

- Noise – the widened carriageway will bring the road closer to businesses and properties that are currently in construction. Noise levels are anticipated to be below 3dB, which is considered to be at worst, a slight adverse effect.
- Landscape and visual – Once complete, the elevated section of the pedestrian and cycle bridge over Eastwick Road will be potentially visible above new landscaping and tree planting. The distance for

which the towpath runs beneath the new carriageway above will be longer.

- 12.8.31 The elements of harm, namely harm by reason of inappropriateness, harm to openness and to Green Belt purposes and other non-Green Belt harm (as described above) should all be given substantial weight. Very special circumstances so as to justify the grant of planning permission will only arise if other considerations clearly outweigh this harm, considered as a whole. This is the policy test required to be applied by paragraph 148 of the NPPF.
- 12.8.32 Officers have considered various circumstances pertaining to this case and considered whether these alone, or in combination with other circumstances are sufficient to constitute very special circumstances that clearly outweigh the harm to the Green Belt and other harm as referred to above.
- 12.8.33 Firstly, both the EHDP and HLDP respectively have policies that support the provision of the widening of the existing Fifth Avenue crossing (EHDP Policy GA1 and HLDP Policy SIR1). However, the route of the crossing remains within the Green Belt. It is considered that whilst this policy recognition which supports a Green Belt location is a relevant consideration which contributes to very special circumstances, it does not, and of itself, clearly outweigh the overall harm caused.
- 12.8.34 The CSC is necessary to bring forward the Gilston Area allocation, which makes a substantial contribution to meeting identified development needs in the East Herts District Plan, but it also facilitates wider growth within the HGGT. However, the contribution to facilitating wider growth is not, of itself, a consideration that clearly outweighs harm.
- 12.8.35 The HGGT Vision sets out ambitious plans to encourage existing communities and new planned communities to travel by active and sustainable means. The ability to bring forward the STC network is integral to achieving this vision as the STC will reach each new strategic growth sites and will connect existing and new communities to key destinations such as the station, the town centre and employment sites. The design of the CSC is an integral part of that STC which

ensures that the main connection route between the Gilston Area developments to Harlow is along a route that prioritises sustainable and active transport modes. The provision of frequent and regular public transport services on a dedicated STC network is key to achieving the HGGT Vision objective of 60% of journeys within the Gilston Area and 50% of all travel within the HGGT being by active and sustainable means.

- 12.8.36 Without the CSC, the Gilston Area applications (Villages 1-6 and Village 7) could not be delivered, and this will not only undermine the ability for East Herts to meet its housing need, but it will also prevent the opportunity for the Gilston Area developments to contribute to the social and economic regeneration of Harlow, including the delivery of much needed affordable and family homes.
- 12.8.37 The Villages 1-6 development Outline application alone forms the majority part (8,500 homes) of the overall Gilston Area allocation of 10,000 homes in the East Herts District Plan and is the single largest allocation in the HGGT. It is considered that the delivery of the Villages 1-6 outline application, and with it the directly associated social, economic and environmental infrastructure and other measures, such as: new schools, healthcare, community and leisure facilities and an appropriate section 106 legal agreement associated with the outline Villages 1-6 scheme delivering a wide range of affordable housing, sustainable transport initiatives and other regeneration and transformative benefits, is a consideration of significant weight which, of itself, clearly outweigh Green Belt and other harm, so as to give rise to very special circumstances which justify the CSC proposal for the purposes of NPPF paragraph 147 and 148 and development plan Green Belt policy.
- 12.8.38 The other considerations identified above - the policy recognition of the need for a Green Belt location for the CSC proposal, and wider benefits in terms of contributing to the delivery of schemes as part of planned growth reinforce this conclusion, as does the fact that the CSC will also support the wider Gilston Area development, including Village 7 (comprising 1,500 homes, education, community and sports facilities), along with other planned growth within the wider HGGT. Officers

consider that very special circumstances arise which are such that planning permission may be granted for the CSC proposals consistent with paragraphs 147 and 148 of the NPPF and the relevant development plan policies concerning the development in the Green Belt which have been detailed above and are in turn consistent with the NPPF.

12.8.39 The Town and Country Planning (Consultation) (England) Direction 2009⁵ requires under paragraph 4b that development that consists of inappropriate development in the Green Belt, which by reason of its scale or nature or location, would have a significant impact on the openness of the Green Belt, the Council is obliged to consult with the Secretary of State, regardless of whether the authority is minded to refuse or grant permission. As the CSC proposal is not considered to have a significant impact on the openness of the Green Belt, this obligation does not apply. As the application is considered to be an EIA application, in accordance with Part 5, Regulation 19 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, the Councils notified the Secretary of State of the application and subsequent amendments. Notwithstanding this, if the Committee is minded to approve the application, each Council will notify the Secretary of State for Levelling Up, Housing and Communities that it has determined the application and intends to issue the decision, providing a reasonable time to enable the Secretary of State to respond, before issuing the decision notice.

12.8.40 While the Outline application for Villages 1-6 has yet to be determined, given the harm to the Green Belt and other harms arising from this CSC proposal, there is a need to ensure that these harms do not occur unless the Gilston Area Villages 1-6 outline application is granted. It is the benefits that will arise as a result of this outline residential development that give rise to the very special circumstances that justify the development of this Crossing in the Green Belt, as explained above. It is therefore considered necessary to use a condition to prevent the part of the CSC development that falls within the Green Belt from commencing unless permission has also been granted for the Villages

⁵ The 2009 Direction was updated and replaced on 21 April 2021, which applies to planning applications received after this date. Therefore the 2009 Direction still applies to this application.

1-6 outline application. It is submitted that the grant of planning permission for Villages 1-6 will give sufficient confidence that the residential development will proceed such that the development of the CSC scheme in the Green Belt can proceed. Given that the planning application for Villages 1-6 has been submitted by the same Applicant as the application for the CSC, such Condition 4 is considered to be reasonable.

13.0 Infrastructure Delivery

- 13.1. The application provides indicative phasing plans which show the anticipated order in which the crossing and associated works are expected to be carried out. However, as these are indicative and could change as development progresses Officers recommend requiring through condition the submission of up to date phasing plans as part of the Construction Environment Management Plan in order that these changes can be taken into account and managed accordingly, particularly if construction activities are occurring in multiple locations.
- 13.2. A number of conditions were requested by statutory bodies in their consultation responses. Officers have consulted with these bodies as necessary in order to develop a suite of conditions that have been identified as necessary to make the development acceptable in planning terms. As a result, it is not necessary to require a Section 106 legal agreement for this application. However, it is expected that the legal agreement associated with the outline residential application for Villages 1-6 will contain a limit to the number of homes that can be occupied until the CSC scheme is complete. Additionally, a condition will be imposed that prevents the commencement of the Central Stort Crossing proposal with the exception of enabling works (to be defined and agreed with the LPA), and parts of the scheme not within the Green Belt, until the outline application for the Villages 1-6 development is granted.
- 13.3. As the CSC proposal comprises highway infrastructure, a process of technical approval is necessary and the applicant will be required to

enter in to a legal agreement under Section 278 of the Highway Act 1980 to enable the works to the public highway to take place to the satisfaction of the Highway Authorities. Furthermore, the applicants will be required to enter in to a legal agreement under Section 38 of the Highways Act 1980 in respect of any land to be dedicated or adopted as public highway.

14.0 Planning Balance and Conclusion

- 14.1 This proposal is for the delivery of a critical piece of infrastructure, comprising new bridges, new sustainable transport routes and new pedestrian and cycle infrastructure. The provision of essential infrastructure carries significant positive weight and the development is considered to be acceptable in principle.
- 14.2 The design and layout of the proposal has been designed to minimise visual impacts by locating the new carriageway immediately adjacent to the existing crossing. Clear parameters are provided to control the detailed design of the dedicated foot and cycle bridges. The scheme proposes additional landscaping and planting around the structures, and opportunities are created to connect pedestrians and cyclists to the valley landscape through new routes including via the Stort Navigation tow path.
- 14.3 It is considered that temporary visual harms to the landscape arising through construction and the residual permanent visual harms arising from the scheme once operational are outweighed by the beneficial impacts arising from the scheme in terms of providing additional transport capacity required for the Gilston Area outline housing developments (comprising 10,000 homes, including the 8,500 proposed by the applicant as part of the Villages 1-6 development and 1,500 for Village 7) and to support wider planned growth and sustainable transport objectives in the Harlow and Gilston Garden Town. As such, it is considered that the beneficial impacts arising from the scheme outweigh the visual harms identified.

- 14.4 The preliminary structural designs have been agreed with the two highway authorities and are considered to meet relevant standards. Detailed engineering stages that follow will confirm these details in collaboration with the planning authorities.
- 14.5 In terms of preventing flood risk and integrating sustainable drainage through design, the CSC proposal meets the requirements of the Environment Agency and LLFA. The Preliminary Drainage Strategy is agreed in principle at this stage and subsequent engineering design stages will refine details about the proposed attenuation features, which will be controlled by a series of conditions. The proposal is therefore considered to meet the requirements of Development Plan policies in this regard.
- 14.6 The application is supported by a Carbon Footprint Assessment which considers the carbon footprint associated with each part of the road and structures. The CSC comprises the construction of a new road and bridge structure and will inevitably have an impact in terms of carbon footprint as a result of its construction. However, these impacts are considered to be outweighed by the significant contribution the proposal would make to achieving active and sustainable travel from the allocated Gilston Area development of 10,000 homes and within the wider HGGT by enabling the creation of new sustainable travel corridors linking the Gilston Area to the town centre and station, and also within Harlow itself as a result of reduced congestion and changes in travel behaviour. Commitments are made to using materials and construction methods that seek to minimise the impact of the proposal in sustainability terms, and such detail will be controlled by condition.
- 14.7 Construction operations will be undertaken following all relevant codes of practice, which require frequent monitoring of dust, air quality, water quality, ground stability, contaminant exposure and groundwater monitoring where necessary. These processes will be required via a comprehensive Construction Environment Management Plan and Code of Construction Practice, and as such no adverse effects are considered likely as a result of the CSC proposal.

- 14.8 There will be harms that arise from the development due to the loss of habitats. However, it is considered that suitable habitat mitigation measures are proposed, which in terms of biodiversity net gain represent an overall benefit to the environment of the Stort Valley. In addition, there will be improvements to the overall design of the existing Fifth Avenue Crossing through the replacement of old luminaries with new lighting technologies.
- 14.9 In term of heritage impacts, the CSC proposal has a limited impact on known heritage assets and an approach for investigating below ground assets prior to the commencement of development, has been agreed which will be secured via conditions. This is therefore considered to have neutral weight.
- 14.10 In terms of 'below ground assets', the CSC will have an impact on peat and alluvial deposits within the Stort Valley, and potentially on buried prehistoric deposits though this is anticipated given the river valley environment. Therefore, more detailed investigations are necessary in order to explore the full potential significance of these assets in understanding the history of human settlement and therefore the detailed conditions attached to this report clearly set out the requirements for pre-commencement investigations. The conditions will require analysis, recording, dissemination and deposition of investigation analysis and findings.
- 14.11 The CSC proposal is identified within Development Plans as being necessary in the Green Belt. As such the proposal represents essential transport infrastructure as defined in Paragraph 150 of the NPPF 2021. However, while the scheme has been designed to minimise its visual impact, there is some unavoidable impact on openness, albeit that this harm is not considered significant. It is also considered that the proposal conflicts with the purpose of the Green Belt in safeguarding the countryside from encroachment, and as such, the proposal constitutes inappropriate development within the Green Belt in accordance with Paragraphs 147, 148 and 150 of the NPPF 2021. The harm to the Green Belt and the other harms identified above must be

given substantial weight. However, it is considered that, the delivery of the Villages 1-6 application, which represents the bulk of the Gilston Area strategic allocation, and with it the directly associated social, economic and environmental benefits that will accrue as a result of the Villages 1-6 development. The outline Villages 1-6 application will include an appropriate section 106 legal agreement delivering a wide range of affordable housing and sustainable transport initiatives along with a range of regeneration and transformative benefits. These benefits collectively give rise to the very special circumstances that clearly outweigh the Green Belt harm identified from the Central Stort Crossing proposal and any other harm. In addition, the benefits arising from the proposal in terms of enabling the growth and sustainable transport objectives of the HGGT Vision are considered to contribute to the very special circumstances that outweigh these harms, in accordance with paragraph 148 of the NPPF 2021.

- 14.12 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that, "if regard is to be had to the development plan for the purpose of any determination to be made under the Planning Acts, the determination shall be made in accordance with the plan unless material consideration indicate otherwise". Section 70(2) of the Town and Country Planning Act 1990 requires regard to be had to the development (and other material considerations). The development plan includes the East Herts District Plan 2018, the Harlow Local Development Plan 2020, and the Gilston Area Neighbourhood Plan 2021. The National Planning Policy Framework (updated 2021), is one of the other material considerations to which regard must be had.
- 14.13 Considering the Central Stort Crossing proposal on its own merits, it is considered to comply with the Development Plan viewed as a whole; is in accordance with the NPPF; and other material considerations support the recommendation for approving it. The benefits arising from the proposals in terms of facilitating the delivery of planned growth in the Gilston Area, including 10,000 homes and supporting the growth and sustainable transport objectives of the Harlow and Gilston Garden Town, are considered to outweigh temporary and permanent impacts arising from the proposal, including harm to the Green Belt by

reason of very special circumstances and therefore provide an acceptable form of development.

15.0 RECOMMENDATIONS

1. That planning permission be **GRANTED**
 - a. subject to the conditions and the reason(s) set out at the end of this report, and
 - b. That delegated authority be given to the Head of Planning and Building Control at East Herts Council, in consultation with the Director of Strategic Growth and Regeneration at Harlow District Council and with the Chair/s of their respective Development Management Committees, to finalise the detail of the conditions attached to their respective planning permissions. If any substantive additions or changes to conditions post Development Management Committee/s are necessary the matter would be referred back to them.
2. If the committee resolves to grant planning permission pursuant to recommendation 1, and Harlow District Council decides to defer determination or to consider amendments to the planning application for the part of the Central Stort Crossing development in its area, then the Decision Notice will not be released for a minimum of four weeks, pending progress with the determination of the associated planning application by Harlow District Council.

16.0 Draft Schedule of Conditions

In this permission '**Enabling Works**' means site clearance and demolition; tree/vegetation removal (in accordance with the approved plans in Condition 2); soil investigations (including soakage testing, window sampling,

boreholes, CBR's and gas monitoring); ecology surveys; archaeology surveys (including geo physical surveys, window samples and trenching); slip trenches to investigate existing services; drainage surveys (such as CCTV and jetting); river modelling; and topographical surveys"

'Local Planning Authority' means either East Herts Council and/or Harlow District Council. Both Councils will consult the other when providing agreement in writing on applications to discharge conditions.

'Highway Authority' means either Essex County Council and/or Hertfordshire County Council. The Local Planning Authorities will consult with the Highway Authorities when providing agreement in writing on applications to discharge conditions.

Procedural

1. Consistent implementation of permissions across Local Planning Authority boundaries

No development shall commence until planning permissions are granted for the development as a whole, as detailed in planning applications reference 3/19/1046/ FULL (East Herts District) and HW/CRB/19/00220 (Harlow District).

Reason: To ensure, in circumstances where, for the development to perform its function, sections of the new roads and bridges must be constructed as a whole across local authority boundaries, that the relevant phases of the development are capable of being built on both sides of the local authority boundary.

2. Approved Drawings and Documents

Subject to any contrary details, drawings and timetables approved under any condition, the development shall be carried out in accordance with the approved drawings listed in Appendix A.

Reason: To restrict the development to that applied for and for which the environmental, transport and infrastructure impacts have been assessed, and to ensure that the development meets the policy standards required by the development plan and any other material considerations including national and local policy guidance.

3. Time limit for Commencement

The development hereby approved shall be begun within a period of three years commencing on the date of this notice.

Reason: To comply with the requirements of Section 91 of the Town and Country Planning Act 1990 and to ensure the timely implementation of the development.

4. Condition linking implementation to the outline

The development hereby permitted shall not be commenced (save for Enabling Works) unless and until planning permission has been granted for the development pursuant to planning application no. 3/19/1045/OUT (Gilston Area Villages 1-6).

Reason: The harm to the Green Belt and other harms arising from the development are outweighed by the significant public benefit arising from its contribution towards a shift towards active and sustainable travel associated with strategic growth in the Gilston Area and the wider Harlow and Gilston Garden Town in accordance with Policies GA1 'The Gilston Area' and GA2 'The River Stort Crossings' of the East Herts District Plan (2018) and Policies HGT1 'Development and Delivery of Garden Communities in the Harlow and Gilston Garden Town' and SIR1 'Infrastructure Requirements' of the Harlow Local Development Plan (2020).

5. Submission and approval of phasing plans and documents

Prior to the commencement of the development hereby approved (save for Enabling Works), a Phasing Plan shall be submitted to and approved in writing by the Local Planning Authority. The Phasing Plan shall set out the

details of the proposed sequence of development and the extent and location of individual development phases or sub-phases.

Once approved, the development shall be implemented in accordance with the approved Phasing Plan (or any subsequent revision thereof approved in writing by the Local Planning Authority).

Reason: To ensure proper management of the phasing of the development, compliance with essential pre-commencement conditions on the development and the provision of relevant mitigation at appropriate times throughout the development, in a way that does not prevent or unnecessarily hinder practical implementation, and in the interests of the amenity of occupiers and users of the site and in accordance with the requirements of Policies DEL1 'Infrastructure and Service Delivery' and DEL4 'Monitoring of the Gilston Area' of the East Herts District Plan (2018), and Policy IN2 'Impact of Development on the Highways Network Including Access and Servicing' of the Harlow Local Development Plan (2020).

Design Matters

6. Energy and Sustainability Strategy

Prior to the commencement of any construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) an Energy and Sustainability Strategy for that phase or sub-phase shall be submitted to and approved in writing by the by the Local Planning Authority.

The Strategy will include details of the measures to be implemented to minimise climate impacts arising from the development taking account of all levels of the energy hierarchy and consideration of the East Herts Sustainability Supplementary Planning Document and Harlow and Gilston Garden Town Sustainability Guidance.

The Energy and Sustainability Strategy will specifically address the following:

- a) How green infrastructure, urban greening and water management have been integrated;
- b) Reducing energy and carbon embodied in construction materials through re-use and recycling of existing materials where possible, and the use of sustainable materials and local sourcing where possible;
- c) Considering high quality innovative design, new technologies and construction techniques, including zero or low carbon energy/energy generation and water efficient, design and sustainable construction methods;
- d) Demonstration that energy and carbon reduction and sustainability has been considered in all stages of the commissioning, procurement, transportation and construction processes.

The phase or sub-phase of the development shall thereafter be implemented in accordance with the relevant approved energy and sustainability strategy.

Reason: In order that the development appropriately mitigates and adapts to the impact of climate change, minimises the impact of pollution and reduces pressure on natural resources in accordance in accordance with Policy CC2 'Climate Change Mitigation' of the East Herts District Plan (2018) and Policy PL3 'Sustainable Design, Construction and Energy Usage' of the Harlow Local Development Plan (2020).

7. Materials

Prior to the commencement of any above ground construction works (save for Enabling Works) on any phase or sub-phase of the site (as defined in plans and documents approved pursuant to Condition 5), the external materials of construction for the structures on that phase or sub-phase shall submitted to and approved in writing by the Local Planning Authority. The development shall thereafter be carried out only using the approved materials.

Reason: In the interests of amenity and good design in accordance with Policy DES4 'Design of Development' of the East Herts District Plan (2018) and

Policies PL1 'Design Principles for Development' and 2 'Amenity Principles for Development' of the Harlow Local Development Plan (2020).

8. Levels

Prior to the commencement of construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) detailed plans showing the existing and proposed ground levels for that phase or sub-phase of the site relative to adjoining land, shall be submitted to, and approved in writing by the Local Planning Authority and the development shall be carried out in accordance with the approved details.

Reason: To ensure that the development is properly related to the levels of adjoining development in the interests of neighbour amenity and good design in accordance with Policy DES4 'Design of Development' of the East Herts District Plan (2018) and Policies PL1 'Design Principles for Development' and 2 'Amenity Principles for Development' of the Harlow Local Development Plan (2020).

9. Details of river / canal crossings and related structures (in respect of management of water course related environmental issues)

Prior to the commencement of construction works (save for Enabling Works) for each relevant phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) full details of any vehicular or pedestrian river crossings or underpasses on main rivers, or other relevant works (e.g. realignment of a watercourse), informed by a detailed Water Framework Directive assessment, for that phase or sub-phase shall be submitted to, and approved in writing by, the Local Planning Authority.

This should include (as relevant to that phase of the development):

- a) Detailed plans, long-sections and cross-sections of the road or pedestrian crossing/ underpass structure or other relevant works, and its relationship to the main river channel and corridor;

- b) A minimum of an 8 metre unobstructed buffer zone is maintained around main rivers for access and biodiversity, except adjacent to structures (as shown on the approved plans in Condition 2). Any reduction must demonstrate how any impacts on flood risk, water quality or biodiversity are to be mitigated or compensated for, taking into account the Water Framework Directive and be agreed in writing with the Local Planning Authority.

The development shall be fully implemented and subsequently maintained, in accordance with the details approved or with any amendments as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To ensure compliance with the Water Framework Directive and the protection of wildlife and supporting habitat and to secure opportunities for enhancing the site's nature conservation value. This approach is supported by paragraphs 174 and 180 of the NPPF 2021 and Policy WAT3 'Water Quality and Water Environment' of the East Herts District Plan 2018, and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

10. Details of Stort Navigation (canal) crossing and related structures (in respect of management of the navigable water way and its amenities)

Prior to the commencement of any phase or sub-phase of the development (save for Enabling Works) related to the Stort Navigation canal road bridge (as defined in plans and documents approved pursuant to Condition 5) , full details of the following shall be submitted to and approved in writing by the local planning authority;

- a) Details of materials and finishes to be used in the construction of the canal road bridge abutments, beams, deck and parapets;
- b) Details of vehicle and pedestrian restraint systems;
- c) The proposed layout and materials of the ramp and steps adjacent to the towpath, including any railings and detail of how the ramp will interact with the bridge holes adjacent;

- d) A lighting strategy for the tow path tunnel which demonstrates how a balance can be achieved between ensuring safety for vehicles, pedestrians, cyclists and users of the highway whilst also ensuring that the proposals would not cause an unacceptable impact on amenity, biodiversity or landscape and visual effects.
- e) A maintenance strategy in relation to the above.

The canal road bridge shall thereafter be implemented in accordance with the approved details prior to its first use.

Reason: To ensure the proposals have no adverse impact on highway safety, amenity or the character, appearance and biodiversity of the Stort Navigation (canal) or the use of its towpath and in accordance with policies TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', NE3 'Species and Habitats', EQ3 'Light Pollution', CFLR3 'Public Rights of Way', CFLR4 'Water Based Recreation' and WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policies WE1 'Strategic Green Infrastructure', WE3 'General Strategy for Biodiversity and Geodiversity', PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems', PL1 'Design Principles for Development', PL2 'Amenity Principles for Development', PL8 'Green Infrastructure and Landscaping', PL9 'Biodiversity and Geodiversity Assets', PL10 'Pollution and Contamination', and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

11. Pedestrian/ Cycle Bridges (Eastwick Road and Stort Navigation) (Detailed design)

Prior to the commencement of the phase or sub-phase of the development (save for Enabling Works) related to the pedestrian and cycle bridges over Eastwick Road and over the Stort Navigation (as defined in plans and details approved pursuant to Condition 5), a Design Brief shall be submitted to and approved in writing by the Local Planning Authority. The Design Brief shall set out the basis upon which the design of the bridges will be determined.

Prior to the construction of the pedestrian and cycle bridges over Eastwick Road and over the Stort Navigation (save for Enabling Works) (as defined in

plans and details approved pursuant to Condition 5), full details shall be submitted to and approved in writing by the Local Planning Authority.

The submitted details shall include as a minimum:

- a) Full elevation drawings and cross sections to demonstrate the scale and layout of the bridge, including gradients
- b) Details of materials and appearance
- c) Details of structures including fencing, chicanes, seating, signage
- d) Hard and soft landscaping proposals
- e) Details of lighting
- f) Details of how innovative, sustainable design solutions have been incorporated
- g) Details of how sustainable construction methods and materials have been incorporated
- h) Demonstration of compliance with approved parameters pursuant to Condition 2 (VD17516-CC-121-CoMP P03, VD17516-CC-121.1-COMP P03 and CSC Footbridge Design Parameters Revision C)
- i) A maintenance strategy in relation to the above.

The construction of the pedestrian and cycle bridge over Eastwick Road and over the Stort Navigation shall be carried out in accordance with the approved details and shall be practically completed and open to the public within six months of the completion of the full Central Stort Crossing.

Reason: To allow for approval of the details of this part of the development, as the detailed design of the bridge is not included in approved application drawings and to ensure the delivery of a high quality sustainable design solution for the crossing that supports sustainable travel and both compliments and avoids adverse impacts on the character and appearance of the River Stort and the use of its towpath. This is in accordance with policies CC1 'Climate Change Adaptation', CC2 'Climate Change Mitigation', TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation' and DES4 'Design of Development' of the East Herts District Plan (2018) and Policies PL1 'Design Principles for Development', PL2 'Amenity Principles for Development', Policy PL3 'Sustainable Design, Construction and Energy Usage' and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

12. Lighting Strategy

Prior to the commencement of construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Lighting Strategy for that phase or sub-phase shall be submitted to and approved in writing by the Local Planning Authority.

The Strategy shall include the following details as a minimum:

- a) Details of the proposed location(s) of all lighting to be installed.
- b) Details of the make and model of the proposed lighting.
- c) A LUX plan demonstrating the light spill from the proposed lighting.
- d) A timetable for provision.
- e) An operation and maintenance plan.

The strategy shall demonstrate how a balance can be achieved between ensuring safety for pedestrians, cyclists and users of the highway whilst also ensuring that the lighting proposals would not cause an unacceptable impact on amenity, biodiversity or landscape and visual effects.

The strategy shall demonstrate how consideration has been given to new and alternative technologies and innovative approaches to securing appropriate levels of light and reduction of energy consumption.

The approved lighting strategy shall thereafter be implemented in accordance with the approved details.

Reason: In the interests of highway safety, the river environment, its users and its biodiversity and in accordance with policies TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', NE3 'Species and Habitats', EQ3 'Light Pollution', CFLR3 'Public Rights of Way', CFLR4 'Water Based Recreation' CC2 'Climate Change Mitigation', CC3 'Renewable and Low Carbon Energy' and WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policies WE1 'Strategic Green Infrastructure', WE3 'General Strategy for Biodiversity and Geodiversity' PL11

'Water Quality, Water Management, Flooding and Sustainable Drainage Systems', PL1 'Design Principles for Development', PL2 'Amenity Principles for Development', 'PL3 Sustainable Design, Construction and Energy Usage', PL8 'Green Infrastructure and Landscaping', PL9 'Biodiversity and Geodiversity Assets', PL10 'Pollution and Contamination', and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

13. Public Realm Strategy for Burnt Mill Lane

Prior to the commencement of the phase or sub-phase of the development directly associated with Burnt Mill Lane, Burnt Mill Close and the junction of Burnt Mill Lane with the existing Fifth Avenue crossing (as shown on Drawing VD17516-CC-100.1-GA P07 and as defined in plans and details approved pursuant to Condition 5), details of a Public Realm Strategy shall be submitted to and approved in writing by the Local Planning Authority.

The strategy shall include:

- a) Details of proposed function, layout and design
- b) Details of proposed surface and materials
- c) Soft and hard landscaping, including details of any proposed structures
- d) Measures to manage vehicular access and vehicle speed, including signage and wayfinding
- e) Measures to prioritise walking and cycling at the junction of Burnt Mill Lane and Fifth Avenue
- f) Details of lighting
- g) A maintenance strategy in relation to the above.

Reason: To allow for approval of the details of this part of the development, as the detailed design of the Burnt Mill Lane enhancements are not included in approved application drawings. And to ensure the delivery of a high quality public realm strategy for the route that supports active and sustainable travel.

Construction Management Matters

14. Construction Environment Management (CEMP)

Prior to the commencement of construction works (save for Enabling Works, but excluding site clearance, demolition and tree removal) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a detailed Construction Environmental Management Plan (CEMP) for that phase or sub-phase of the development shall be submitted to and approved in writing by the Local Planning Authority.

CEMPs shall include the following as a minimum:

- a) Updated Code of Construction Practice;
- b) The construction programme and phasing;
- c) Hours of operation and delivery of materials;
- d) Details of any highway works necessary to enable construction to take place, including access;
- e) Parking and loading arrangements;
- f) Emergency planning response including fire prevention and control and worker welfare
- g) Bird Hazard Management Plan to mitigate risks to highway and aerodrome safety caused by the hazard from birds attracted to the site during construction;
- h) Details of site compound: location relative to the CSC site, lighting, hoarding, security, parking, material storage areas, and utilities, including measures taken to utilise renewable energy sources and to reduce energy consumption;
- i) Control of dust and dirt on the public highway including siting and details of wheel washing facilities, cleaning of site entrances, site tracks and the adjacent public highway;
- j) Details of consultation and complaint management with local businesses and neighbours including contact details;
- k) Waste management proposals;
- l) Mechanisms to deal with environmental and heritage impacts such as noise and vibration, air quality and dust, light and odour, including pollution incident response processes; and
- m) Surface water management plan during construction;
- n) Demonstrate how the CEMP for that phase has been cognisant of the CEMP(s) for prior phases.

All works shall be carried out in accordance with the approved relevant CEMP thereafter, or with any amendments as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: In the interests of amenity and to limit and control environmental impacts in accordance with policies TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', DES4, 'Design of Development', EQ2 'Noise Pollution', EQ4 'Air Quality', WAT1 'Flood Risk Management', WAT2 'Source Protection Zones' and WAT3 'Water Quality and the Water Environment' of the adopted East of the East Herts District Plan (2018) and Policies PL2 'Amenity Principles for Development', PL10 'Pollution and Contamination', PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan (2020).

15. Construction Traffic Management (CTMP)

Prior to the commencement of construction works (save for Enabling Works, but excluding site clearance, demolition and tree/ vegetation removal) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Construction Traffic Management Plan (CTMP) for that phase or sub-phase shall be submitted to and approved in writing by the Local Planning Authority.

CTMPs shall include the following details as a minimum:

- a) Construction vehicle numbers, type, routing;
- b) Access arrangements to the site;
- c) Traffic management requirements;
- d) Delivery and unloading arrangements;
- e) A construction travel plan to include site operatives and other on-site personnel
- f) Timing of construction activities (including delivery times and removal of waste) and to avoid school pick up/drop off times;
- g) Provision of sufficient on-site/ compound parking prior to commencement of construction activities;

- h) Post construction restoration/reinstatement of the working areas and temporary access to the public highway;
- i) Where works cannot be contained wholly within the site a plan should be submitted showing the site layout on the highway including extent of hoarding, pedestrian routes and remaining road width for vehicle movements.
- j) Measures to be taken to seek approval from the highway authority that the highway extent has been marked out accurately prior to construction.
- k) Demonstrate how the CTMP for that phase has been cognisant of the CTMP(s) for prior phases.

Thereafter, the construction of the development shall only be carried out in accordance with the approved CTMP, or with any amendments as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To protect highway safety and the amenity of users of the public highway and rights of way in accordance with policies TRA2 'Safe and Suitable Highway Access Arrangements and Mitigation', DES4 'Design of Development', EQ2 'Noise Pollution', EQ4 'Air Quality', WAT1 'Flood Risk Management', WAT2 'Source Protection Zones' and WAT3 'Water Quality and the Water Environment' of the adopted East of the East Herts District Plan 2018 and Policies PL1 'Design Principles for Development', PL2 'Amenity Principles for Development', PL10 'Pollution and Contamination', PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' and IN2 'Impact of Development on the Highways Network including Access and Servicing' of the Harlow Local Development Plan 2020, as well as relevant Highway Authority policies.

16. Construction Landscape and Ecological Management (CLEMP)

Prior to the commencement of any construction works (save for Enabling Works, but excluding site clearance, demolition and tree/vegetation removal) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Construction Landscape and Ecological Management Plan (CLEMP) for that phase or sub-phase of the

development shall be submitted to and approved in writing by the Local Planning Authority.

CLEMPs shall include the following details as a minimum:

- a) Measures taken to minimise impacts on the landscape and landscape character during construction
- b) Description and evaluation of features to be managed, including bat commuting routes and other ecologically sensitive areas or species, trees, hedgerows, woodlands, watercourses and other existing environmental features on-site and off-site
- c) Measures to be taken to protect and manage the features identified above during the construction process, including pre-construction checks, construction methodology, and watching briefs/Ecological Clerk of Works
- d) Details of the body or organisation responsible for implementation of the CLEMP and timetables for implementation
- e) Details of ongoing monitoring (including timetables) and details of how and when any remedial action will be identified, agreed and implemented
- f) Demonstrate how the CLEMP for that phase has been cognisant of the CLEMP(s) for prior phases.

Thereafter, the construction of the development shall only be carried out in accordance with the approved CLEMP, or with any amendments as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To secure the protection of existing landscape features and habitats of ecological interest and protected species in accordance with Policies NE1 'International, National and Locally Designated Nature Conservation Sites', and NE3 'Species and Habitats' of the East Herts District Plan (2018) and Policies WE3 'General Strategy for Biodiversity and PL9 'Biodiversity and Geodiversity Assets', of the Harlow Local Development Plan (2020).

Environmental Protection Matters

17. Implementation of Floodplain Compensation Measures

The development hereby permitted shall be carried out in complete accordance with the submitted Highways Drainage Strategy and Drawings VD17516-CC-502 P05 and VD17516-CC-502.1 P05 and the following measures they detail:

- a) Compensatory storage shall be provided south of the A414 in accordance with drawing VD17516-CC-502 P05. A compensation area of 5,233m³ will be provided by lowering land (Highways Drainage Strategy Chapter 8, bullet point 3).
- b) These measures shall be fully implemented prior to any widening of the existing crossing in accordance with the scheme's phasing and timing arrangements (as defined in plans and details approved pursuant to Condition 5).

The measures detailed above shall be retained thereafter throughout the lifetime of the development.

Reason: To reduce the risk of flooding to the proposed development and future occupants and prevent flooding elsewhere by ensuring that compensatory storage of flood water is provided in accordance with Policy WAT1 'Flood Risk Management' of the East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

18. Water Framework Directive Mitigation and Enhancement Strategy

No phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), shall take place until a Water Framework Directive Mitigation and Enhancement Strategy for that phase or sub-phase has been submitted to, and approved in writing by, the Local Planning Authority.

The strategy for that phase or sub-phase shall be carried out as approved and any subsequent variations shall be agreed in writing by the Local Planning Authority.

The scheme shall include the following elements as relevant to that phase or sub-phase:

- a) Evidence that the development will cause no deterioration of waterbody status, nor prevent future improvement to the waterbody, nor contribute to cumulative deterioration of the River Stort and Stort Navigation using up to date Water Framework Directive classification data;
- b) Long-term objectives, management responsibilities and maintenance schedules;
- c) Update the existing scour assessment in the current Water Framework Directive assessment to confirm impacts and mitigation requirements (if additional mitigation needed) for the final design;
- d) Details of any proposed enhancements to watercourses and their corridors to support improving overall Water Framework Directive status (with reference to the approved Species and Habitat Protection and Enhancement Plan)

Reason: To ensure compliance with the Water Framework Directive and the protection and enhancement of biodiversity in accordance with Policy WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

19. Risk Assessment and Method Statement

Prior to the commencement of any construction works (save for Enabling Works) for each phase or sub-phase of the development that involves works adjacent to the Stort Navigation (canal) (as defined in plans and documents approved Pursuant to Condition 5), a risk assessment and method statement outlining all works to be carried out adjacent to or affecting (directly or indirectly) the Stort Navigation (canal) in that phase or sub-phase must be submitted to, and approved in writing, by the Local Planning Authority.

The submitted details will include an assessment of any works to the banks of the River Stort Navigation and any works that may increase loading on the canal infrastructure.

Development shall thereafter be carried out in accordance with the approved risk assessment and method statements relevant to that phase or sub-phase.

Reason: To ensure that the works have no adverse impact on the structural integrity of the river walls and towpath. Information should be provided prior to commencement as impacts on the canal corridor may occur during the initial demolition and construction phases. In the interests of users of the Stort Navigation and the water environment in accordance with WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems', of the Harlow Local Development Plan (2020).

20. Land, Air and Water Contamination Investigation and Remediation

Prior to the commencement of any construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), an Investigation and Remediation Strategy to deal with the risks associated with the contamination of land, air and water relevant to that phase or sub-phase shall be submitted to, and approved in writing by, the Local Planning Authority.

The investigation and remediation strategy shall include the following elements:

- a) A site investigation scheme, based on the preliminary risk assessment/desk studies, to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off-site;
- b) The results of the site investigation and the detailed risk assessment referred to in a) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how and when they are to be undertaken;
- c) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy

in b) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

The Remediation Strategies shall thereafter be implemented in complete accordance with the approved details.

Reason: To ensure that the development does not contribute to and is not put at unacceptable risk from, or adversely affected by, unacceptable levels of land, air or water pollution in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

21. Land, Air and Water Contamination Verification Report

Prior to the completion of each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Verification Report demonstrating the completion of works set out in the approved remediation strategy and the effectiveness of the remediation for that phase or sub-phase shall be submitted to, and approved in writing, by the Local Planning Authority.

The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met.

Reason: To ensure that the site does not pose any further risk to human health or the water environment by demonstrating that the requirements of the approved investigation and remediation strategy and its remediation criteria have been met and that remediation of the site is complete in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

22. Contamination Monitoring and Maintenance Plan

Prior to the commencement of any construction works (save for Enabling Works) for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Monitoring and Maintenance plan for that phase or sub-phase in respect of land, air and water contamination, including a timetable of monitoring and submission of reports to the Local Planning Authority has been submitted to and approved in writing by, the Local Planning Authority.

The Monitoring and Maintenance Plan shall cover the period of construction of that phase or sub-phase plus a period of six months, and shall be cognisant of prior phases or sub-phases.

The Monitoring and Maintenance Plan shall thereafter be fully implemented and complied with in accordance with the approved details.

REASON: To ensure that the site does not pose any further risk to human health or the water environment by demonstrating that the requirements of the approved monitoring and maintenance plan have been met in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

23. Unsuspected Contamination

If, during site investigation works and/or development, contamination not previously identified is found to be present at the site then all works in that phase or sub-phase must immediately cease and no further development shall be carried out in that phase or sub-phase until a remediation strategy detailing how this contamination will be dealt with has been submitted to, and approved in writing by, the Local Planning Authority without delay.

The remediation strategy shall thereafter be implemented in accordance with the approved details.

Reason: To ensure that the development does not contribute to and is not put at unacceptable risk from or adversely affected by unacceptable levels of land or water pollution from previously unidentified contamination sources at the development site. No site investigation can fully characterise a site. This approach is in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

24. Site Waste Management Plan

Prior to the commencement of any demolition or construction works (save for Enabling Works, but excluding demolition), for each phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a Site Waste Management Plan (SWMP) for that phase or sub-phase shall be submitted to and approved in writing by the Local Planning Authority.

The Site Waste Management Plan shall set out the following:

- a) Details of waste arising during both the site preparation, demolition and construction phases- type and estimated volume;
- b) Confirmation that opportunities to reuse waste generated by the site are maximised;
- c) where residual waste is to be disposed from the site, details shall be provided as to the volumes, type and timing of waste disposal from the site;
- d) Where waste is being transported to, together with details of the waste carrier;

Demolition and construction shall take place in accordance with the relevant approved Site Waste Management Plan for that phase or sub-phase.

Reason: In order to minimise waste and ensure most sustainable disposal in accordance with Policy CC2 'Climate Change Mitigation' of the East Herts District Plan (2018) and Policy PL3 'Sustainable Design, Construction and Energy Usage' of the Harlow Local Development Plan (2020).

25. Infiltration Drainage

No drainage systems for the infiltration of surface water to the ground are permitted other than with the written consent of the Local Planning Authority. Any proposals for such systems must be supported by an assessment of the risks to controlled waters.

The development shall be carried out in accordance with the approved details.

Reason: This condition relates to where contamination is present and may be mobilised due to the infiltration of surface water or where contaminated surface water may result in an input of contaminants to groundwater. To ensure that the development does not contribute to, and is not put at unacceptable risk from or adversely affected by, unacceptable levels of water pollution caused by mobilised contaminants. This approach is in accordance with Policies EQ1 'Contaminated Land and Land Instability' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

26. Piling/Deep Foundations Method Statement

No piling, deep foundations or other intrusive groundworks (investigation boreholes/tunnel shafts/ground source heating and cooling systems) using penetrative methods shall be undertaken until a Piling/ Deep Foundation Method Statement has first been submitted to and approved in writing by the Local Planning Authority in consultation with potentially affected parties responsible for sub-surface infrastructure.

The Statement shall include an assessment of impacts on noise, vibration, land stability, ground water levels, underground pipes and other

infrastructure as well as details of the measures to be taken to mitigate any adverse effects.

The groundworks shall thereafter be carried out in accordance with the approved details.

REASON: To ensure that the proposed Piling, deep foundations or other intrusive groundworks (investigation boreholes/tunnel shafts/ground source heating and cooling systems) do not harm groundwater resources, damage essential infrastructure and do not have an adverse impact on the local amenity in accordance with Policies EQ1 'Contaminated Land and Land Instability', EQ2 'Noise Pollution' and WAT3 'Water Quality and Water Environment' of the East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

27. Scheme for Managing Borehole Investigation

Prior to commencement of any phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), that involves the installation of, or use of, existing boreholes, a scheme for managing any borehole installed for the investigation of soils, groundwater or geotechnical purposes shall be submitted to and approved in writing by the Local Planning Authority.

The scheme shall provide details of how redundant boreholes are to be decommissioned and how any boreholes that need to be retained, post-development, for monitoring purposes will be secured, protected and inspected.

The scheme as approved shall be implemented prior to the operational use of each phase or sub-phase of development and no boreholes should be decommissioned until it has been agreed in writing that they are no longer required.

Reason: To ensure that a sufficient monitoring network is maintained to allow for the completion of any monitoring required and to ensure that redundant boreholes are safe and secure, and do not cause groundwater pollution or loss of water supplies in accordance with Policy WAT3 'Water Quality and Water Environment' of East Herts District Plan (2018) and Policies PL10 'Pollution and Contamination' and PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

28. Implementation of Drainage Strategy

The development hereby approved shall be carried out in accordance with the principles of the approved Drainage Strategy (Reference number: EHUK-VEC-1XX-XX—TN-D-9001 B) and shall include and follow the mitigation details identified for each drainage catchment including:

- a) Specification to demonstrate and follow an appropriate Sustainable Drainage System (SuDS) management and treatment train.
- b) Prioritise on-surface conveyance features.
- c) Provision of biodiversity enhancement within SuDS provision.
- d) Provision of drainage catchments as per the agreed characteristic below – or such discharge rates and storage volumes agreed with the Local Planning Authority following detailed design:
 - **Catchment C1** – limiting the surface water runoff generated by the critical storm events to the maximum of 17 l/s for the 1 in 30 year event providing a minimum of 898m³ of storage.
 - **Catchment C2** – limiting the surface water runoff generated by the critical storm events to the maximum of 5 l/s for the 1 in 30 year event providing a minimum of 215m³ of storage.
 - **Catchment C3** – limiting the surface water runoff generated by the critical storm events to the maximum of 5 l/s for the 1 in 30 year event providing a minimum of 95m³ of storage.

The mitigation measures shall be fully implemented prior to operational use of the development and subsequently in accordance with the timing / phasing arrangements embodied within the scheme, or within any other

period as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To ensure the development appropriately addresses climate change and the risk of flooding, to ensure satisfactory storage of and disposal of surface water from the entire strategic drainage network, to improve and protect water quality and to protect natural habitats in accordance with Policy WAT3 'Water Quality and Water Environment' of East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

29. Detailed Surface Water Drainage Scheme

Prior to the commencement of each phase or sub-phase of the development (save for Enabling Works) (as defined in plans and documents approved pursuant to Condition 5), a Detailed Surface Water Drainage Scheme for that phase or sub-phase, or for the whole affected catchment based on the approved Drainage Strategy and sustainable drainage principles, shall be submitted to and approved in writing by the Local Planning Authority in consultation with Hertfordshire County Council/ Essex County Council as Lead Local Flood Authorities.

The Scheme shall accord with the approved SuDS principles and shall include the following details as relevant to that phase or sub-phase:

- a) Demonstration of an appropriate, final and detailed SuDS management and treatment train for each outfall.
- b) Information on ground conditions, including desk-based assessment, exploratory hole logs, in-situ test data, including infiltration tests undertaken in accordance with the BRE 365 testing procedure and, records of groundwater level monitoring, undertaken for a minimum period of 6 months over the autumn/winter period. .
- c) Verification of the suitability of infiltration of surface water for the development.
- d) Any existing drainage network within the extents of the planning application boundary, into which new highway runoff is being discharged, shall be checked to be functional/operational and the

highway authority to be advised of existing blockages which need maintenance to repair. Additional attenuation storage shall be provided if identified as required, to reflect any net increases in runoff quantities being discharged into the existing networks, to avoid downstream flooding.

- e) Detailed plan showing the finalised drainage catchment areas.
- f) Full, detailed modelling for the strategic network to demonstrate how the system operates during up to and including the 1 in 1 year, the 1 in 30 year and the 1 in 100 year rainfall event including 40% allowance for climate change. Primarily surface water storage to be provided for up to and including the 1 in 30 year rainfall event.
- g) Full detailed engineering drawings of any SuDS, surface water storage or conveyance feature including cross and long sections, location, size, volume, depth and any inlet and outlet features. This should be supported by a clearly labelled, detailed drainage layout plan showing any SuDS and pipe networks. The plan should show any pipe 'node numbers' that have been referred to in network calculations and it should also show invert and cover levels of manholes. Total storage volumes provided within each catchment should be identified.
- h) Identification of opportunities to address existing surface water flooding in the immediate vicinity of the development site, within the extents of the red line planning application boundary.
- i) Detailed topographical surveys of the site and any existing watercourses.
- j) A Catchment Walkover of receiving watercourses shall be undertaken including topographical survey, details of water levels, and the location of existing structures that may constrain flows along watercourses receiving surface water runoff from the development, to ensure that there is sufficient capacity to accommodate future changes in flows.
- k) Full condition survey of all existing structures on all watercourse networks impacted by the proposed development or located within the development site.
- l) Full details of connection points to ordinary watercourses and main rivers, including cross sections and long sections drawings of any new proposed structures.
- m) Details of final exceedance routes above the designed 1 in 30 year return period, also including those for an event which exceeds to 1:100 rainfall event including climate change event.

- n) A management and maintenance plan including maintenance and operational activities. This should include land ownership plans with identified operators responsible for any future maintenance for the lifetime of the development.
- o) Phasing plan for the provision of SuDS and drainage infrastructure within each drainage catchment.
- p) Final, detailed planting plans for all proposed SuDS features and its surrounding area.
- q) Assessment of all works impacting on any existing ordinary watercourses and identification with acknowledgement of any needed ordinary watercourse consents.
- r) Demonstrate that all storage features can half empty within 24 hours for the 1 in 30 year plus 40% climate change critical storm event.
- s) The appropriate level of treatment for all runoff leaving the site, in line with the Simple Index Approach in chapter 26 of the CIRIA SuDS Manual C753 and Highways England Water Risk Assessment Tool (HEWRAT).
- t) A written report summarising the final strategy and highlighting any minor changes to the approved strategy.

The surface water drainage network shall be designed and fully implemented in accordance with the details and phasing plan thus approved.

Reason: To prevent flooding by ensuring the satisfactory storage of / disposal of surface water from the site; to ensure the effective operation of SuDS features over the lifetime of the development; and to provide mitigation of any environmental harm which may be caused to the local water environment. Failure to provide the above required information before commencement of works may result in a system being installed that is not sufficient to deal with surface water occurring during rainfall events and may lead to increased risk and pollution hazard from the site. This is in accordance with Policy WAT3 'Water Quality and Water Environment' of East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

30. SuDS Completion and Verification Report

Within three months of completion of SuDS works for each phase or sub-phase (as defined in plans and documents approved pursuant to Condition 5), or for a defined catchment relevant to the development, a final Completion and Verification Report for that phase or sub-phase or catchment shall be submitted to, and approved in writing by the Local Planning Authority in consultation with Hertfordshire County Council/ Essex County Council as Lead Local Flood Authorities.

The Completion and Verification Report shall include the following details:

- a) Provision of a Completion and Verification Report appended with substantiating evidence demonstrating the approved construction details and specifications for the SuDS features and drainage network have been implemented in accordance with the surface water drainage scheme. The verification report shall include photographs of excavations and soil profiles/horizons, installation of any surface water structure, during construction and final make up, and the control mechanism.
- b) Provision of a complete set of as built drawings for site drainage.
- c) Post-construction surveys including a CCTV survey for any underground features and piped networks.
- d) A management and maintenance plan for the SuDS features and drainage network, which should include details of the maintenance activities/ frequencies for each feature.
- e) Final arrangements for adoption with identified operators responsible for future maintenance and any other measures to secure the operation of the scheme throughout its lifetime.

Reason: To ensure approved drainage measures are fully implemented and appropriate maintenance arrangements are put in place to enable the surface water drainage system to function as intended to ensure mitigation against flood risk. Failure to provide the above required information prior to occupation may result in the installation of a system that is incomplete and / or not properly maintained and may increase flood risk or pollution hazard from the site. This is in accordance with Policy WAT3 'Water Quality and Water Environment' of East Herts District Plan (2018) and Policy PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems' of the Harlow Local Development Plan (2020).

Landscape and Biodiversity Matters

31. Tree and Hedge Removal

Until the end of five years following completion of each phase of the development (as defined in plans and documents approved pursuant to Condition 5), all existing trees and hedges which are shown on the approved drawings as being retained, shall be retained and shall not be damaged, cut down, uprooted or destroyed without the prior consent of the Local Planning Authority.

Reason: To ensure the continuity of amenity afforded by existing trees and hedges, in accordance with Policy DES3 'Landscaping' of the East Herts District Plan (2018) and Policy PL7 'Trees and Hedgerows' of the Harlow Local Development Plan (2020).

32. Tree and Hedge Protection Measures

No phase or sub-phase of development (as defined in plans and documents approved pursuant to Condition 5) shall commence until full details of the tree and hedge protection measures in respect of that phase or sub-phase have been submitted to, and approved in writing by, the Local Planning Authority and until the approved protection has been erected on site.

Protection measures shall be in accordance with BS5837: 2012 Trees in Relation to Design, Demolition and Construction, and be in place for the duration of the works on site. In the event that trees or hedging die, become damaged or otherwise defective within five years of completion of development within that phase or sub-phase, the Local Planning Authority shall be notified as soon as reasonably practicable, and remedial action agreed and implemented. The agreed remediation strategy and associated planting shall be undertaken during the first available planting season.

Reason: To ensure the continuity of amenity afforded by existing trees and hedges, in accordance with Policy DES3 'Landscaping' of the East Herts

District Plan (2018) and Policy PL7 'Trees and Hedgerows' of the Harlow Local Development Plan (2020).

33. Landscaping Strategy and Management and Maintenance Plan

Prior to the first public use of any phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), a detailed hard and soft Landscaping Strategy for that phase or sub-phase shall be submitted to and approved by the Local Planning Authority, in consultation with the Highway Authority.

The Landscaping Strategy shall include as a minimum the following details:

- a) Planting schedule to show species, sizes, number and densities;
- b) Planting plans to show the location of proposed planting based on the approved landscaping drawings but informed by a consideration of the screening properties of the proposed planting;
- c) Written specifications to demonstrate cultivation and other operations associated with the establishment of grassland and planting;
- d) Details of hard landscaping proposals including surface treatment of SuDS maintenance access routes, fencing, gates, benches, lighting, bins and other structures;
- e) Details of signage and wayfinding;
- f) Implementation timetables;
- g) Landscape Management and Maintenance Plan;
- h) Demonstration how the Landscape Strategy for that phase or sub-phase has been cognisant of the Landscape Strategies for prior phases.

The development shall be carried out in accordance with the approved Landscaping Scheme and the approved timetable and Landscape Management and Maintenance Plan.

Any trees or plants that, within a period of five years after planting, are removed, die or become, in the opinion of the Local Planning Authority, in consultation with the Highway Authority, seriously damaged or defective, shall be replaced as soon as is reasonably practicable with others of species,

size and number as originally approved, unless the Local Planning Authority gives its written consent to any variation

Reason: In order to provide green infrastructure and landscaping in accordance with Policies NE4 'Green Infrastructure' and DES3 'Landscaping' of the East Herts District Plan (2018) and Policy 'PL8 Green Infrastructure and Landscaping' of the Harlow Local Development Plan (2020).

34. Legally Protected Species and Habitat Protection and Enhancement Plan

No phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) shall commence (save for Enabling Works, but excluding site clearance, demolition and tree/ vegetation removal), until a Species and Habitat Protection and Enhancement Plan for that phase or sub-phase has been submitted to and approved in writing by the Local Planning Authority.

The Species and Habitat Protection and Enhancement Plan shall detail measures to mitigate and/or compensate damages to protected and notable species (under The Wildlife and Countryside Act 1981) and their associated habitat.

The Species and Habitat Protection and Enhancement Plan must be based on up-to-date surveys and consider the whole duration of that phase or sub-phase of the development, from the construction phase through to completion.

The plan shall include the following (as far as is relevant to that phase or sub-phase):

- a) Up-to-date ecological surveys conducted by a suitably qualified ecologist, at the appropriate time of year;
- b) Details and drawings of the road crossings and culverts, including how they will interact with the watercourses (e.g. abutments, buffer zones, shading, lighting);

- c) Details of how the development will mitigate and compensate for any impacts it may have on protected species and their associated habitats and habitat corridors including floodplain restoration and how it will enhance habitats and corridors;
- d) Details of improvements to watercourse riparian corridors and river channels;
- e) Measures to be taken to ensure the safe movement of terrestrial mammals through/ beneath the structures;
- f) Measures to be taken to provide bird and bat nesting and roosting sites on or around elevated structures;
- g) Measures to be taken to avoid disturbance to landscaping and habitats adjacent to pedestrian/cycle routes;
- h) Demonstration of how the above measures contribute towards biodiversity gain based on an up to date biodiversity net gain metric or alternative methodology as agreed by the Local Planning Authority;
- i) Description and evaluation of any features to be managed;
- j) Any specific ecological trends and constraints on the site that might influence management;
- k) Aims, objectives, actions and methods to ensure effective management;
- l) Preparation of a works schedule including an annual work plan capable of being rolled forward every 5 years;
- m) Details of ongoing management, maintenance, monitoring and remedial measures;
- n) A programme for implementation;
- o) Details of the body or organisation responsible for implementation and management of the plan;
- p) A scheme for the long-term funding and management mechanisms by which implementation, long term management and protection of these species and habitats will be secured.

The development shall be carried out in accordance with the approved details and the plan shall be implemented and the site managed in accordance with the approved details.

Reason: In order to provide an up to date baseline of biodiversity information and to ensure biodiversity is protected as far as possible and habitats are created and enhanced in accordance with Policies NE3 'Species and Habitats' and WAT3 'Water Quality and the Water Environment' of the

East Herts District Plan (2018) and Policies WE3 'General Strategy for Biodiversity and Geodiversity' PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems', and PL9 'Biodiversity and Geodiversity Assets' of the Harlow Local Development Plan (2020).

35. Habitat Compensation Ecological Management Plan – Off-Site

Prior to the commencement of any phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), that results in the loss of habitat in the Parndon Moat Marsh Local Wildlife Site and Local Nature Reserve, and the Eastwick and Parndon Meads Local Wildlife Site, a Habitat Compensation Ecological Management Plan shall be submitted to and approved in writing by the Local Planning Authority setting out how 1.33 Ha of compensatory habitat will be provided within the area of land identified in Drawing HNP495-GRA-SK-0011 Rev 02 – CSC Ecological Compensation.

The Plan shall include the following:

- a) Details of how the development will mitigate and compensate for any impacts it may have on protected species and their associated habitats and habitat corridors including floodplain restoration and how it will enhance habitats and corridors;
- b) Demonstration of how the above measures contribute towards achieving a biodiversity net gain based on an up to date biodiversity metric or alternative methodology as agreed by the Local Planning Authority;
- c) Description and evaluation of any features to be managed;
- d) Any specific ecological trends and constraints on the site that might influence management;
- e) Aims, objectives, actions and methods to ensure effective management;
- f) Preparation of a works schedule including an annual work plan capable of being rolled forward every 5 years;
- g) Details of ongoing management, maintenance, monitoring and remedial measures;
- h) A programme for implementation;

- i) Details of the body or organisation responsible for implementation and management of the plan;
- j) A scheme for the long-term funding and management mechanisms by which implementation, long term management and protection of these species and habitats will be secured.

Thereafter, the Plan shall be implemented in accordance with the approved details and programme.

Reason: To ensure that the development compensates for the loss of designated sites of nature conservation interest in accordance with Policy NE1 and NE3 of the East Herts District Plan (2018) and Policy PL8 and PL9 of the Harlow Local Development Plan (2020).

36. Biodiversity Monitoring and Verification Plan

Five years following completion of the development hereby approved (plus every five years thereafter for a period of 30 years) a Biodiversity Monitoring and Verification Report and Action Plan shall be submitted to the Local Planning Authority for approval.

The Report shall confirm the effectiveness or otherwise of the Landscape Management and Maintenance Plan (Condition 33), Species and Habitat Protection and Enhancement Plan (Condition 34) and Habitat Compensation Ecological Management Plan – Off-Site (Condition 35). The submission must be made by a suitably qualified professional.

As a minimum the report shall include a suite of quantitative and qualitative indicators using methods such as annual site walkovers, surveys and fixed-point photography, to monitor the implementation and effectiveness of mitigation/ management measures. The report shall include any remediation works required in order to address where measures may not be functioning and/or meeting net gain targets expected. The details of all survey findings shall be shared with Herts Ecological Record database.

Any remediation works identified shall thereafter be implemented in accordance with the approved details.

Reason: To ensure that the development maintains, enhances and contributes appropriately to biodiversity in accordance with Policies NE3 'Species and Habitats' and WAT3 'Water Quality and the Water Environment' of the East Herts District Plan (2018) and Policies WE3 'General Strategy for Biodiversity and Geodiversity' PL11 'Water Quality, Water Management, Flooding and Sustainable Drainage Systems', and PL9 'Biodiversity and Geodiversity Assets' of the Harlow Local Development Plan 2020.

Archaeology Matters

37. Archaeological Written Scheme of Investigation

No demolition shall be carried out nor shall any development commence (save for Enabling Works) in any phase or sub-phase of the site (as defined in plans and documents approved pursuant to Condition 5), until an Archaeological Written Scheme of Investigation covering that phase or sub-phase of the site has been submitted to and approved in writing by the Local Planning Authority.

The Written Scheme of Investigation shall include an assessment of archaeological significance and research questions; and details of:

- a) The programme and methodology of site investigation and recording as suggested by the evaluation
- b) The programme for post investigation assessment
- c) Provision to be made for analysis of the site investigation and recording
- d) Provision to be made for publication and dissemination of the analysis and records of the site investigation
- e) Provision to be made for archive deposition of the analysis and records of the site investigation
- f) Nomination of a competent person or person/organisation to undertake the works set out within the Archaeological Written Scheme of Investigation.

Reason: To ensure the appropriate investigation for presence / recording of heritage assets in accordance with Policy HA3 'Archaeology' of the East Herts

District Plan (2018) and Policy PL12 'Heritage Assets and their Settings' of the Harlow Local Development Plan (2020).

38. Implementation of Archaeological Investigation

No development shall take place in any phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5) other than in complete accordance with the programme of archaeological investigation and works set out in the Written Scheme of Investigation for that phase approved pursuant to Condition 37.

Reason: to ensure the appropriate investigation for presence / recording of heritage assets and to comply with the requirements of Policy GA1 of the East Herts District Plan 2018, Policy PL12 of the Harlow Local Development Plan and paragraph 211 of the NPPF.

39. Post Archaeological investigation Assessment

No phase or sub-phase of the development (as defined in plans and documents approved pursuant to Condition 5), shall be brought into use until the site investigation and post investigation assessment has been completed for that phase or sub-phase in accordance with the programme set out in the Written Scheme of Investigation approved pursuant to Condition 37 and the provision made for analysis and publication where appropriate.

Reason: To ensure the appropriate investigation for presence / recording of heritage assets in accordance with Policy HA3 'Archaeology' of the East Herts District Plan (2018) and Policy PL12 'Heritage Assets and their Settings' of the Harlow Local Development Plan (2020).

Informatives

All parties involved in implementation of this planning permission are informed that:

- A) The permission does not convey any consent which may be required under any legislation other than the Town and Country Planning Acts.

Any permission required under the Highways Act, Building Regulations or under any other form of law, must be obtained from the relevant authority or body e.g. Fire Officer, Health and Safety Executive, Environment Agency etc. Neither does this permission negate or override any private covenants which may affect the land.

- B) The permission is for construction of new public highway infrastructure. As a result the permission cannot be implemented without the prior approval of the local highway authorities (Hertfordshire County Council and Essex County Council). Before works commence the applicant will need to apply to the Highway Authority to obtain their permission and meet their requirements. In order to implement this permission it will be necessary for the developer of the site to enter into agreements with the County Councils as Highway Authorities under Section 278 and Section 38 of the Highways Act to ensure satisfactory completion of the road improvements. The construction must be undertaken to the Highway Authorities' detailed design / specification and to their satisfaction. Construction must be undertaken by a contractor who is authorised to work in the public highway.
- C) A structural reassessment of the deck and associated bearings of Burnt Mill Station Bridge (Essex) is required to be carried out to the latest standards; CS454 for normal traffic loading and CS458 for special type vehicles, prior to the detailed design stage. The results of the reassessment should be submitted to Essex County Council for approval.
- D) Implementation also requires:
- I. that necessary property rights for use and access to all land required for the extended / enlarged and new highways (including drainage features and drainage rights and connections to existing water courses) have been legally secured in the public interest.
 - II. that the agreements under Section 38 of Highways Act for the highways authorities to adopt the newly constructed public highway (and any related features that are required for its operation) on its satisfactory completion include financial provision for future maintenance. Highways Development Management teams should be consulted on any drainage features that are proposed for adoption by Hertfordshire

County Council/ Essex County Council. Any drainage features to be adopted shall be designed and built to accommodate the Highway Authorities adoption requirements and an appropriate commuted sum, based on the approved feature maintenance plan must be agreed.

- E) The highway authorities also advise that, to ensure any works as part of this development are carried out in accordance with other the provisions of the Highways Act 1980 and other relevant processes, the following advice is considered:

I. Public Rights of Way:

Public Rights of Way should remain unobstructed by vehicles, machinery, materials, tools and any other aspects of the construction during works. The safety of the public using the route and any other routes to be used by construction traffic should be a paramount concern during works. Safe passage past the site should be maintained at all times. The condition of the route should not deteriorate as a result of these works. Any adverse effects to the surface from traffic, machinery or materials (especially overspills of cement and concrete) should be made good to the satisfaction of this Authority. All materials should be removed at the end of the construction and not left on the Highway or Highway verges. If the above conditions cannot reasonably be achieved, then a Temporary Traffic Regulation Order would be required to close the affected route and divert users for any periods necessary to allow works to proceed. A fee would be payable to the relevant County Council for such an order. Further information should be sought in relation to the works that are required along the route including any permissions that may be needed to carry out the works.

II. Obstruction of public highway land:

It is an offence under Section 137 of the Highways Act 1980 for any person, without lawful authority or excuse, in any way to wilfully obstruct the free passage along a highway or public right of way. If this development is likely to result in the public highway or public right of way network becoming routinely blocked (fully or partly) the applicant must contact the Highway Authority to obtain their permission and requirements before construction works commence.

III. Storage of materials:

The applicant is advised that the storage of materials associated with the construction of this development should be provided within the site on land which is not public highway, and the use of such areas must not interfere with the public highway. If this is not possible, authorisation should be sought from the Highway Authority before construction works commence.

IV. Road Deposits:

It is an offence under Section 148 of the Highways Act 1980 to deposit mud or other debris on the public highway, and Section 149 of the same Act gives the Highway Authority powers to remove such material at the expense of the party responsible. Therefore, best practical means shall be taken at all times to ensure that all vehicles leaving the site during construction of the development are in a condition such as not to emit dust or deposit mud, slurry or other debris on the highway.

F) Other legal procedures providing wider public and private interest safeguards must be satisfied before implementation. These include:

- I. Procedural Orders for any changes to existing public highway that affect public and / or private interests.
- II. Procedural Orders for bridging the navigable waterway.
- III. Land drainage procedures, rights and legal requirements taking account of Environment Agency and Lead Local Flood Authority (LLFA) requirements and advice. All works to ordinary watercourses, including widening of the channel to include additional storage will require ordinary watercourse consent from the LLFAs. It is the applicant's responsibility to check that they are complying with common law if the drainage scheme proposes to discharge into an off-site ditch/pipe. The applicant should seek consent where appropriate from other downstream riparian landowners. Any works proposed to be carried out that may affect the flow within an ordinary watercourse will also require the prior written consent from the LLFA under Section

23 of the Land Drainage Act 1991. This includes any permanent and or temporary works regardless of planning permission. The LLFAs have a duty to maintain an asset register and records of assets which have a significant impact on the risk of flooding. In order to capture proposed Sustainable Urban Drainage (SuDS) features which may form part of the future register, details of and location of the SuDS assets created or modified through the development should be provided in a GIS layer on completion of the development.

- G) Additional regulatory consideration may be required on some of specialist matters relevant to this permission as follows:
- I. Archaeological requirments (Hertfordshire and Essex County Councils)
 - II. Local Land and Property Gazetteer Custodian requirements (District Councils); the development may involve the naming of new streets and numbering of properties)
 - III. Sewer protection requirements; the site has public sewers running across or close to it which may be affected by the proposed building works. It may be necessary to divert the sewer and water course and carry out other works to protect it and the proposed building works before any site works are commenced (Thames Water Development Planning, Asset Investment Unit, Maple Lodge, Denham Way, Rickmansworth, WD3 9SQ Telephone: 01923 898072)
 - IV. Ground water pollution risk; parts of the site are located within the groundwater protection zone of Sawbridgeworth Pumping Station. The construction works and operation of the proposed development should be in accordance with the relevant British Standards and Best Management Practices, thereby significantly reducing the polution risk. Construction works may exacerbate any existing pollution. Please refer to CIRIA Publication C532 'Control of water pollution from construction-guidance for consultants and contractors'
 - V. Protected species including bats / reptiles / great crested newts; if found during development, works must stop immediately and professional ecological advice must be sought on how to proceed. A

licence may be required from Natural England who can be contacted on 01206 796666. Nesting birds are protected under the Wildlife and Countryside Act 1981 and care should be taken in vegetation clearance works between 1st March and 30th September.

These informatives are not intended to be comprehensive. The parties involved in implementing the planning permission are advised to take appropriate legal and technical advice on the other than planning procedures they must follow.

Condition Schedule Appendix A: List of Approved Plans – Central Stort Crossing

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|---|-------------------------------|-----|---|
| • | VD17516-CC-100- GA (1 of 2) | P07 | General Arrangement 1 of 2 |
| • | VD17516-CC-100.1- GA (2 of 2) | P07 | General Arrangement 2 of 2 |
| • | VD17516-CC-101- LS (1 of 3) | P03 | A414 Fifth Avenue North Bound Longitudinal Section Sheet 1 of 3 |
| • | VD17516-CC-101.1- LS (2 of 3) | P03 | A414 Pedestrian/Cyclist Bridge Longitudinal Section Sheet 2 of 3 |
| • | VD17516-CC-101.2- LS (3 of 3) | P03 | Central Crossing Northern Arm Longitudinal Section Sheet 3 of 3 |
| • | VD17516-CC-105- RL P02 | | Red Line Boundary Sheet 1 of 2 |
| • | VD17516-CC-105.1- RL P02 | | Red Line Boundary Sheet 2 of 2 |
| • | VD17516-CC-106- XS-P03 | | A414 Fifth Avenue Typical Cross Sections (Sheet 1 of 2) |
| • | VD17516-CC-107- XS-P03 | | A414 Fifth Avenue Typical Cross Sections (Sheet 2 of 2) |
| • | VD17516-CC-109 TR P02 | | A414 Fifth Avenue 16.5m Large Articulated Vehicle Swept Paths |
| • | VD17516-CC-110 TR P02 | | A414 Fifth Avenue 10m Rigid and Single Deck Bus Vehicle Swept Paths |
| • | VD17516-CC-111- VS P03 | | Proposed Visibility Sheet 1 of 2 |
| • | VD17516-CC-112- VS P03 | | Proposed Visibility Sheet 2 of 2 |
| • | VD17516-111.2-VS Rev P03 | | Proposed Visibility Fifth Avenue/Burnt Mill Lane (Sheet 1 of 3) |
| • | VD17516-CC-111.4-VS rev P03 | | Proposed Visibility Fifth Avenue/Burnt Mill Lane (Sheet 3 of 3) |

- VD17516-CC-120- EX P02 Existing Layout Plan Sheet 1 of 2
- VD17516-CC-120.1- EX P02 Existing Layout Plan Sheet 2 of 2
- VD17516-CC-121- COMP P03 A414 Pedestrian/Cyclist Bridge Design Parameters Sheet 1 of 2
- VD17516-CC-121.1- COMP P03 A414 Pedestrian/Cyclist Bridge – Design Parameters Sheet 2 of 2
- Revision C - November 2020 Central Stort Crossing Adoptable Footbridges - Design Competition Design Parameters
- VD17516-CC-122- PSL P02 Proposed Speed Strategy Plan
- VD17516-CC-123.1- SURF P02 Proposed vs Existing Levels Sheet 2 of 2
- VD17516-CC-123- SURF P02 Proposed vs Existing Levels Sheet 1 of 2
- VD17516-CC-160- AR P03 Highway Areas Plan Sheet 1 of 2
- VD17516-CC-160.1- AR P03 Highway Areas Plan Sheet 2 of 2
- VD17516-CC-170-AP P02 Preliminary Adoption Plan Sheet 1 of 2
- VD17516-CC-170.1-AP P02 Preliminary Adoption Plan Sheet 2 of 2
- VD17516-CC-180- ST P03 Structures Location Plan Sheet 1 of 2
- VD17516-CC-180.1- ST P03 Structures Location Plan Sheet 2 of 2
- VD17516-CC-400- VRS P05 Proposed Vehicle Restraint Systems
- VD17516-CC-400.1- VRS P05 Proposed Vehicle Restraint Systems
- VD17516-CCi-100- GA P03 Interim Junction Tie-In General Arrangement
- VD17516-CC-STR- 010 P03 River Stort Bridge - Preliminary Design GA drawings
- VD17516-CC-STR- 020 P03 Stort Navigation Bridge – Preliminary Design GA drawings
- VD17516-CC-STR- 050 P03 Harlow Railway Bridge - Preliminary Design GA drawings Sheet 1 of 2
- VD17516-CC-STR- 051 P03 Harlow Railway Bridge - Preliminary Design GA drawings Sheet 2 of 2
- VD17516-CC-501 P03 Preliminary Drainage Proposed Impermeable and Permeable Areas Sheet 1 of 2

- VD17516-CC-501.1 P03 Preliminary Drainage Proposed Impermeable and Permeable Areas Sheet 2 of 2
- VD17516-CC-502 P05 Preliminary Drainage Strategy Sheet 1 of 2
- VD17516-CC-502.1 P05 Preliminary Drainage Strategy Sheet 2 of 2
- VD17516-CC-503 P03 Preliminary Drainage Swale C1
- VD17516-CC-504 P03 Preliminary Drainage Swale C2
- VD17516-CC-505 P01 Preliminary Drainage Swale C3
- VD17516-CC-506 Preliminary Drainage Flood Compensation Level for Level Long Section
- VD17516-CC-507 P02 Preliminary Drainage Proposed SuDS Catchment Areas Sheet 1 of 2
- VD17516-CC-507.1 P02 Preliminary Drainage Proposed SuDS Catchment Areas Sheet 2 of 2
- 201109-3.3-GPA- CC-TPP-MM Tree Protection Plan Central Stort Crossing
- HNP495-GRA-X-XX- DR-L-5171 Rev 04 Central Stort Crossing Planting Plan 1/5
- HNP495-GRA-X-XX- DR-L-5172 Rev 03 Central Stort Crossing Planting Plan 2/5
- HNP495-GRA-X-XX- DR-L-5173 Rev 03 Central Stort Crossing Planting Plan 3/5
- HNP495-GRA-X-XX- DR-L-5174 Rev 02 Central Stort Crossing Planting Plan 4/5
- HNP495-GRA-X-XX- DR-L-5175 Rev 02 Central Stort Crossing Planting Plan 5/5
- HNP495-GRA-SC-001_Rev 03 Gilston River Crossings and Village Development Accesses Planting Schedule
- HNP495-GRA-SK-0011_Rev 02 CSC Ecological Compensation
- Drainage Strategy (Reference number: EHUK-VEC-1XX-XX—TN-D-9001 B)

17.0 Summary of Reasons for Decision

East Herts Council and Harlow Council have considered the applicant's proposal in a positive and proactive manner with regard to the policies of the Development Plan and any relevant material considerations. The balance of the considerations is that permission should be granted for the reasons set out in the above report.