

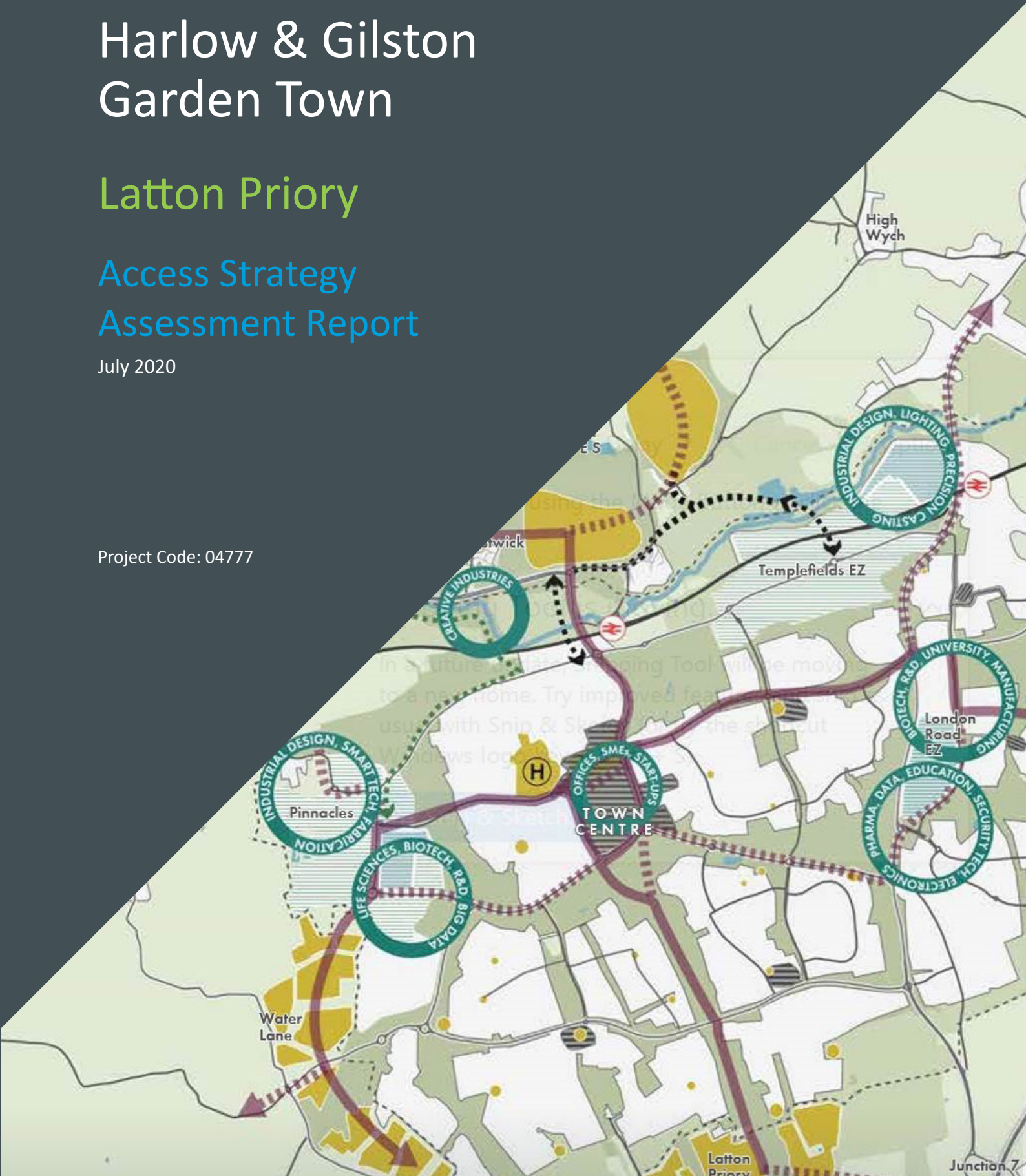
# Harlow & Gilston Garden Town

## Latton Priory

### Access Strategy Assessment Report

July 2020

Project Code: 04777



## Version Control and Approval

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A	26 May 2020	EK/MM/JT/Subs	JT	JT
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# Appendices



## **Appendix A**

Rummey Environmental T2 Technical Review to T6 Option Appraisal Report

## **Appendix B**

PJA Access Strategy Traffic Modelling Report



# 1. Introduction

## 1.1 Overview

- 1.1.1 PJA with Rummey Environmental are appointed on behalf of the Harlow and Gilston Garden Town (HGGT) to prepare an access study for the Latton Priory development within Epping Forest District Council (EFDC) area. Latton Priory is a proposed allocation for 1,050 homes within the Epping Forest District Local Plan Submission Version 2017.
- 1.1.2 The scope of this report is directly guided by advice in the Inspector's note of 2 August 2019 following the examination hearings to review the access proposed to service site SP5.1 (Latton Priory) and either modify it or provide further justification for its route. Specifically, the Inspector has requested further justification of the link road eastwards to the B1393 London Road and impact on the Green Belt. In her note the Inspector sets out at paragraph 33, "Moreover there appear to be several potential points of access to/from the north and west which would better connect the new and existing development in the area."
- 1.1.3 Harlow District Council (HDC), East Hertfordshire District Council (EHDC), EFDC, Hertfordshire County Council (HCC) and Essex County Council (ECC) ('the Councils') are working together to bring forward transformational growth in and around Harlow. Collectedly they form the principle partners of the HGGT and have acted as the main steering group for this project.
- 1.1.4 The HGGT Vision (2018), Design Guide (2018) and Draft Transport Strategy (2019) include a transformational mode user hierarchy and sets out to achieve 60% share for trips to be non-car modes originating from, and travelling to, the development. Latton Priory will be expected to achieve a 60% mode share for active sustainable travel. This means 40% by private vehicles and this forms an important consideration of the access strategy. The National Travel Survey (2018) shows that 61% of trips are currently by car, rising to 77% for longer distance trips and therefore the target mode share represents a step change in travel behaviour. HGGT has commissioned a separate study being conducted by ITP to set out how the aspiration of 60% mode share for active sustainable travel can be achieved.
- 1.1.5 This study has sought to work with the Councils and wider stakeholders to explore options acceptable to all partners (including Natural England, Highways England and Historic England) and assess them against a range of planning, transportation, environmental, community and land use issues. The study has developed realistic access options and drawn conclusions and recommendations on a preferred option
- 1.1.6 Specifically, the study has the following objectives;
  - To develop a transport access strategy based on the transport hierarchy, and prioritising placemaking principles for the Latton Priory site allocation (SP5.1) contained in the Epping Forest District Local Plan Submission Version 2017 and to meet the Garden Town principles,
  - To answer the questions (actions) posed by the Local Plan Inspector, Action 15 concerning access arrangements for Latton Priory,
  - Review and use the existing Local Plan evidence base material to arrive at an acceptable solution,
  - To facilitate between the partners and develop an access strategy to which all HGGT partners find acceptable.

## 1.2 Report Structure

- 1.2.1 *Chapter 2 Background & Context* – sets the scene by reviewing relevant Local Plan policies and supporting evidence relevant to the development proposals at Latton Priory. This includes discussion with several stakeholders. Additionally, the study has prepared a comprehensive analysis of the surrounding area focusing on transport, planning, landscape and environmental topics to inform access constraints and opportunities.
- 1.2.2 *Chapter 3 Option Appraisal* – sets out a long list of 10 access options and uses multi-criteria RAG (Red, Amber, Green) approach to sift out problematic options. Although, a high-level appraisal, the method is fully transparent so that partners can understand the issues and considerations in this initial sifting exercise. Next, a short list of five options have been developed with a development concept diagram prepared for each showing how access by a variety of

modes would work for each option. The options have then been assessed against the DfT Early Appraisal Sifting Tool (EAST) using traffic impact, local amenity, sustainable transport potential, townscape, landscape, heritage and environmental criteria as the topics for assessment. The method has allowed the determination of a preferred access option.

- 1.2.3 *Chapter 4 Preferred Option Development* – presents a preferred development concept showing the main development area, highway accesses and other active travel and bus links. Finally, the chapter presents an outline mitigation strategy for the preferred option.

## 2. Background

### 2.1 Policy and Development Proposals

- 2.1.1 The Latton Priory site is located within Epping Forest District however adjoins the southern edge of the built-up area of Harlow. The Latton Priory site is proposed for allocation within the Epping Forest District Local Plan Submission Version 2017 under Policies SP4 and SP5 for residential and employment development including community facilities and provision for a secondary school. An extract of draft Policy SP5 identifying the proposed development quantum is included in Figure 2-1

Figure 2-1 The Epping Forest District Local Plan Submission Version 2017, Extract of Policy SP5

Policy SP 5 Garden Town Communities		
A. The following sites will be allocated to support the delivery of the spatial development strategy set out in Policy SP 2 and Policy SP 4.		
Allocation Reference	Location	Development to be delivered
SP 5.1	Latton Priory	Approximately 1,050 homes 1ha of employment land 0.5ha for up to 5 Traveller pitches

- 2.1.2 The Latton Priory site is also required to contribute to the delivery of a Sustainable Transport Corridor (STC) and the establishment of an, “integrated, accessible and safe transport system which maximises the use of the sustainable transport modes of walking, cycling and the use of public and community transport in order to improve air quality and reduce emissions and promote healthy lifestyles. Garden Town Communities must ensure the provision of high quality, safe and direct walking and cycling routes and linkages to and from Harlow within a permeable site layout with priority over vehicular traffic,” (Policy SP4, Epping Forest District Local Plan Submission Version, December 2017).
- 2.1.3 Policy SP4 of the Epping Forest District Local Plan Submission Version 2017 at point xii states that development at Latton Priory should, “Ensure the provision of integrated and sustainable transport systems for the Harlow and Gilston area that put walking, cycling and public transit networks and connections at the heart of growth in the area, to create a step change in modal shift through providing for and encouraging more sustainable travel patterns.”

#### Local Plan Examination

- 2.1.4 The Epping Forest District Local Plan is at an advanced stage and was subject to hearings from February to June 2019.
- 2.1.5 Following the Local Plan examination hearing sessions in June 2019, the Inspector has sought further information. The inspector’s comments from the August 2019 advice note (ED98) are extracted below:

##### *SP5.1: Latton Priory Masterplan Area*

*31. The majority of this large site adjoining the administrative boundary with Harlow District would be removed from the Green Belt, but Map 2.2 in the Plan shows that the southern most part would be retained within it. The Green Belt boundary would cut across the site with quite a substantial part of it lying to the south. The new Green Belt boundary has been drawn along the ridgeline and the Council’s site selection work concludes that built development should not take place beyond it. The site promoter agrees and confirmed at the hearing that none would be proposed here. Nevertheless, while it is justified to include this area within the allocation for the contribution it could make to open space provision for example, it is also justified for the Plan to protect it from physical development.*

*32. However, paragraph 85 of the 2012 Framework requires that Green Belt boundaries should be clearly defined, using features that are readily recognisable and likely to be permanent. The ridgeline along which the new Green Belt boundary is presently proposed is not particularly prominent because the land falls away gently to the south, and nor is it demarked by any other obvious physical features. By contrast, the site boundary itself is marked at several points by stands of mature trees. These could be reinforced and linked with similar planting to achieve a readily recognisable*

Green Belt boundary which would be likely to have a more natural appearance than the creation of an entirely new feature along the ridgeline. Therefore the Plan should be modified so that the Green Belt and site boundaries coincide. Further modifications will be required to ensure that physical development does not take place beyond the ridge.

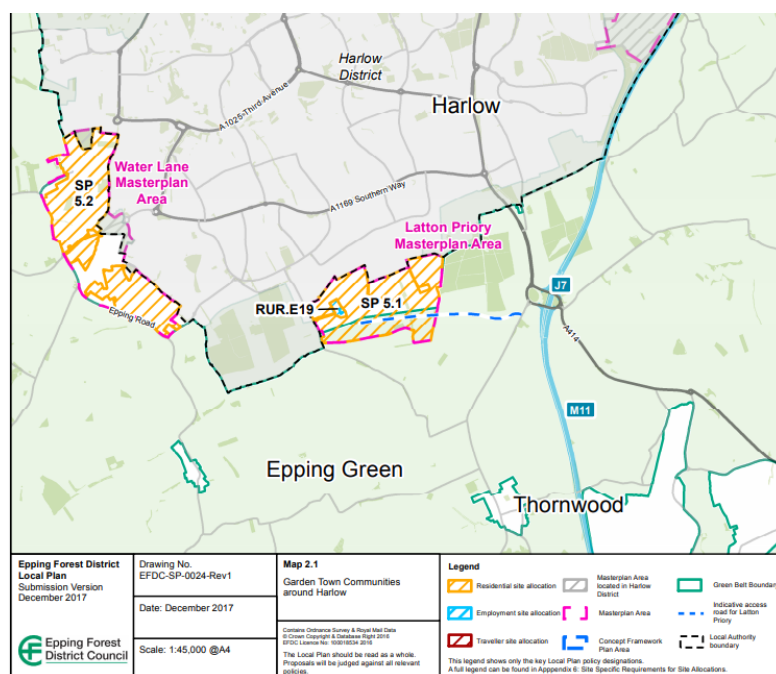
33. Additionally in relation to Latton Priory, the indicative access road shown on Map 2.1 and proposed to be repeated on Map 2.2 would lie to the south of the ridgeline discussed above, and cut through an open field to adjoin the B1393 to the east. This route would appear disconnected from the developable part of the site and represent an intrusion into the Green Belt and countryside generally. Moreover, there appear to be several potential points of access to/from the north and west, which would better connect the new and existing development in the area. Therefore, further investigation/explanation is required before I can conclude that the present proposals are justified."

**ACTION 14: To redraw the Green Belt boundary of site SP5.1 (Latton Priory) to coincide with the boundary of the site allocation.**

**ACTION 15: To review the access proposed to serve site SP5.1 (Latton Priory) and either modify it or provide further justification for its route.**

2.1.6 Action 15 specifically is identified by the Local Plan Inspector is what this study has addressed and provides recommendations on. Figure 2-2 provides an extract of Map 2.1 of the Local Plan which illustrates the indicative access road for Latton Priory.

Figure 2-2 EFDC Submission Local Plan Map 2.1 Extract: Indicative Alignment of Latton Priory Access Road



## 2.2 Previous Studies

2.2.1 There is a substantial evidence base which has informed the development of the draft policy including the following key documents:

- Harlow and Gilston Garden Town Transport Strategy Consultation Draft, 2019
- Harlow and Gilston Garden Town Sustainable Transport Corridors Strategy Summary Report, 2019
- Harlow and Gilston Garden Town Sustainable Transport Corridors Strategy, 2019
- Harlow and Gilston Design Guide, 2018
- Harlow and Gilston Garden Town Vision, 2018
- Green Infrastructure Draft Strategy, EFDC, 2020

- Landscape Character Assessment, CBA, January 2010
- Green Belt Study, LUC, 2016
- Harlow Area Landscape and Environmental Study, CBA, 2005
- Green Wedge Review, HDC, 2014
- West Essex and East Hertfordshire Local Plans Modelling Technical Note 6: South and West Harlow Study, September 2016
- Historic England Monument Listing – Latton Priory and the Moat
- Historic England Hearing Statement – EFDC Local Plan Examination - 21/02/ 2019
- EFDC and HE Statement of Common Ground (SOCG) March 2019 on EFDC LP Submission Version (LPSV)
- Natural England Hearing Statement- EFDC Local Plan Examination- 2019
- The Conservators' of Epping Forest representations (no. 2) on EFDC Local Plan MIQs Matters 5, 8 and 16 – February 2019

2.2.2 The above documents were reviewed early on in the study in order to inform the subsequent access option assessment. Relevant extracts have been recorded by the study team for use within the development and appraisal of options. Rummey Environmental has undertaken a detailed document review for landscape, townscape, biodiversity, natural environment and heritage considerations which is included at Appendix A.

## 2.3 Views of Stakeholders

- 2.3.1 A steering group comprising representatives from Homes England, Harlow District Council (HDC), Epping Forest District Council (EFDC) and Essex County Council (ECC) was established to provide project guidance and stewardship. The large group included both Local Planning Authorities, the Local Highway Authority and design and delivery input from Homes England. Collectively they form some of the principal partners of the HGGT and have acted as the main steering group for this project. The group were actively engaged at an Inception meeting and Initial finding workshop. Additionally, there were a series of separate meetings to understand and debate specific issues.
- 2.3.2 As requested within the brief, a series of further stakeholder meetings were conducted with others, including;
- 2.3.3 Highways England – HE was unable to provide specific advice, but its role is the management of the Strategic Road Network in England and locally includes Junction 7 of the M11, located East of the development site. Their standing advice in relation to new development, seeks that development places no harm on the network by maximising sustainable travel in order to minimise impact and fully mitigating any residual impact through delivery of safety and capacity infrastructure measures.
- 2.3.4 Developers (Hallam / CEG) – provided information on their role as site promoters their draft masterplan which included both East and West access, along with other sustainable transport links.
- 2.3.5 Jacobs (Framework Consultant to ECC) – provided some clarification on their previous work to support the Latton Priority site. Additionally, they were asked about details of the STC and its route into Latton Priory but were unable to advise as detailed work has yet to be progressed.
- 2.3.6 ITP (Consultant to HGGT) – provided an update on their work which has developed toolkits for sustainable travel to ensure the new developments within HGGT achieve the transformational 60% mode share target.
- 2.3.7 *Historic England* - at the LP Examination in Public HE representations flagged that a consideration and evaluation of the setting of Latton Priory (as part of a detailed Heritage Impact Assessment) had not been undertaken in the SP5.1 Policy site allocation.
- 2.3.8 *Natural England* - identified in their representations to the LP Examination in Public the fact that the site (and presumably the indicative access shown on Map 2.1 - though this isn't stated) is partially within the Zone of Influence of Epping Forest SAC. Recreational pressure is addressed through the SANG provision at SP5.1. They also flag impacts on Harlow Woods SSSI but again the SANG provision in and around the development site should address this.
- 2.3.9 Impacts of traffic on Air Quality and Noise in the Forest are part of a further piece of work that EFDC are working on,



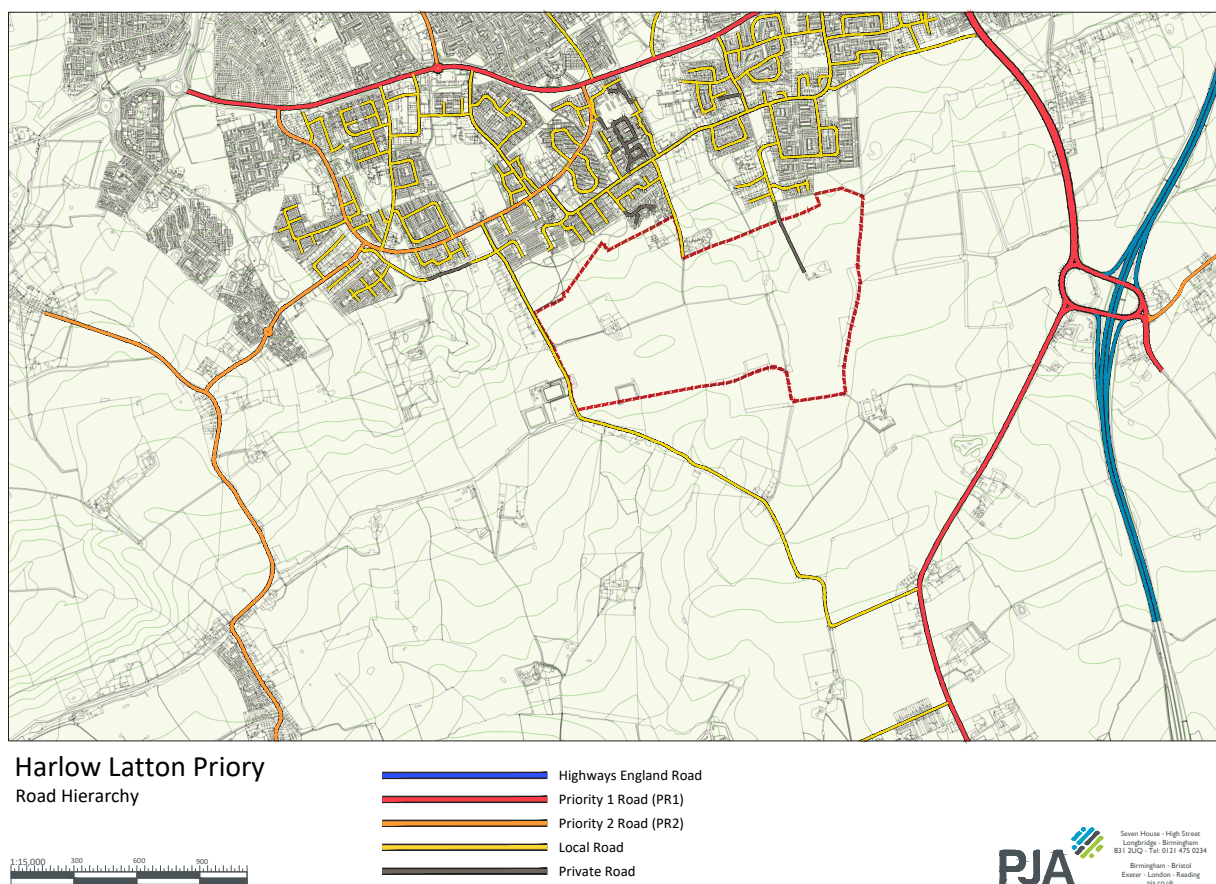
as we understand it, to answer NE representations on this. NE's view will be informed by the findings of any further work on the EFDC Habitats Regulations Assessment (Ref. EB209 Habitats Regulations Assessment, AECOM 2019) and mitigation strategy, and they seek that a combined site allocation view is obtained. NE's current advice is that applications proposing new development anywhere within the District which involve an increase in vehicle movements on roads within 200m of the EFSAC are likely, in combination with other plans or projects, to have a significant effect on the EFSAC. As at January 2020 EFDC were undertaking an initial re-run of the air quality modelling and traffic surveys to provide the most up-to-date and robust bespoke vehicle fleet mix of the traffic using the EFSAC roads. EFDC intends to undertake the transport modelling and then air quality modelling of various alternative scenarios in accordance with the methodology discussed with Natural England. [Ref. Report to the Cabinet, Report reference: C-027-2019/20, Date of Meeting: 6 January 2020].

- 2.3.10 The HRA does not specifically look at the significance of effects of this development and the differences that options for access might make on traffic flows through the Forest. NE are clear they want a view of the strategic, not a case by case solution, as they feel mitigation is unlikely to be deliverable by individual applicants. [See also Epping Forest Special Area of Conservation (SAC) – Position Statement, Updated 30 April 2020 <https://www.eppingforestdc.gov.uk/planning-and-building/planning-policy/epping-forest-special-area-of-conservation-sac/>].

## 2.4 Local Area Analysis - Transport

- 2.4.1 The Latton Priory site is located to the south of Harlow urban area. The roads immediately adjacent to the site, Rye Hill Road, Fern Hill Lane and Riddings Lane, are classified in Essex County Council's (ECC) hierarchy as 'Local Roads', as shown in Figure 2-3. Paringdon Road to the north is classified as a 'Priority 2 Road' and the A1169 Southern Way, the A414 and the B1393 London Road are classified as 'Priority 1 Roads'. Despite the road classifications, the highway conditions (width, street lighting, frontage access etc.) vary between and along the roads. The individual characteristics have been accounted for within the assessment undertaken.

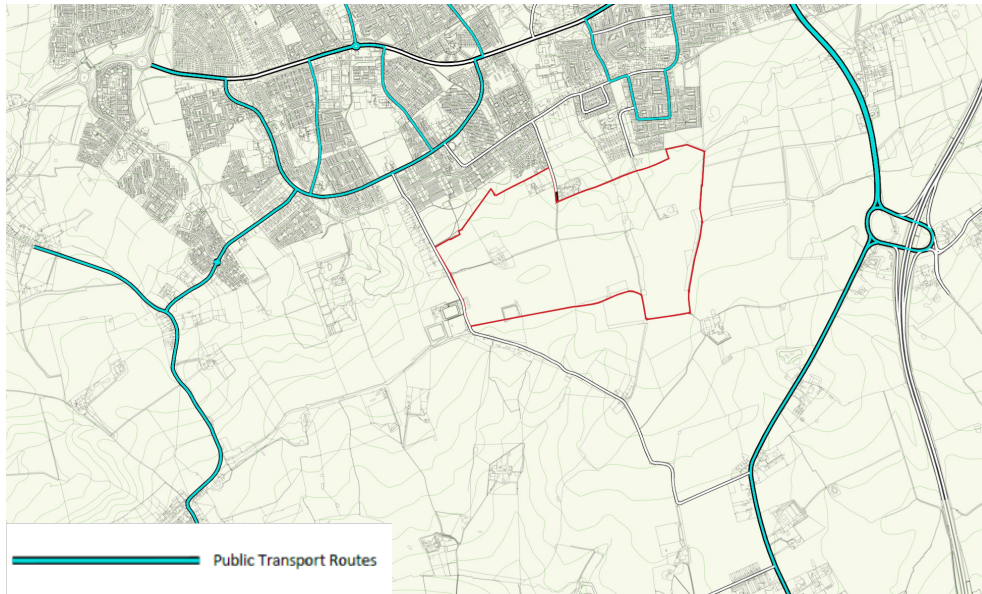
Figure 2-3 Road Hierarchy in the Vicinity of Latton Priory



- 2.4.2 A number of local bus services route in the vicinity of the Latton Priory site, as shown in Figure 2-4. The majority of the routes are provided on Priority 2 and higher classification roads and none of the existing services route adjacent to the site boundary.

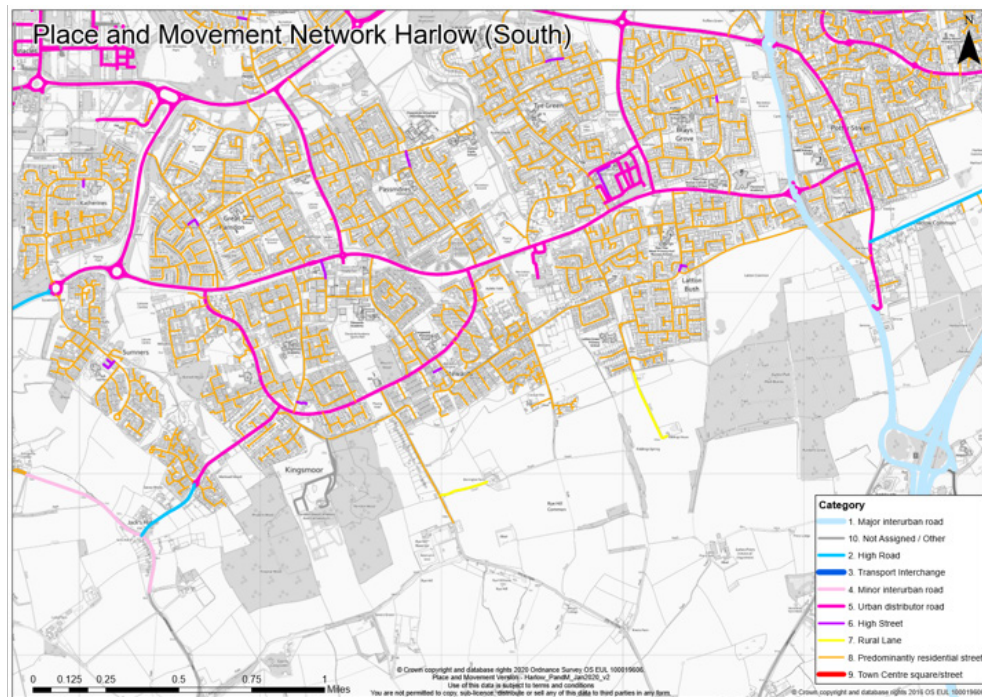


Figure 2-4 Existing Bus Route Provision in the Vicinity of Latton Priory



2.4.3 Whilst prepared by neighbouring Hertfordshire County Council (HCC), a Place and Movement assessment of the highway network local to the site within southern Harlow has been undertaken, an extract of which is included at Figure 2-5. This is not adopted ECC policy but helps to set the context of the streets in southern Harlow.

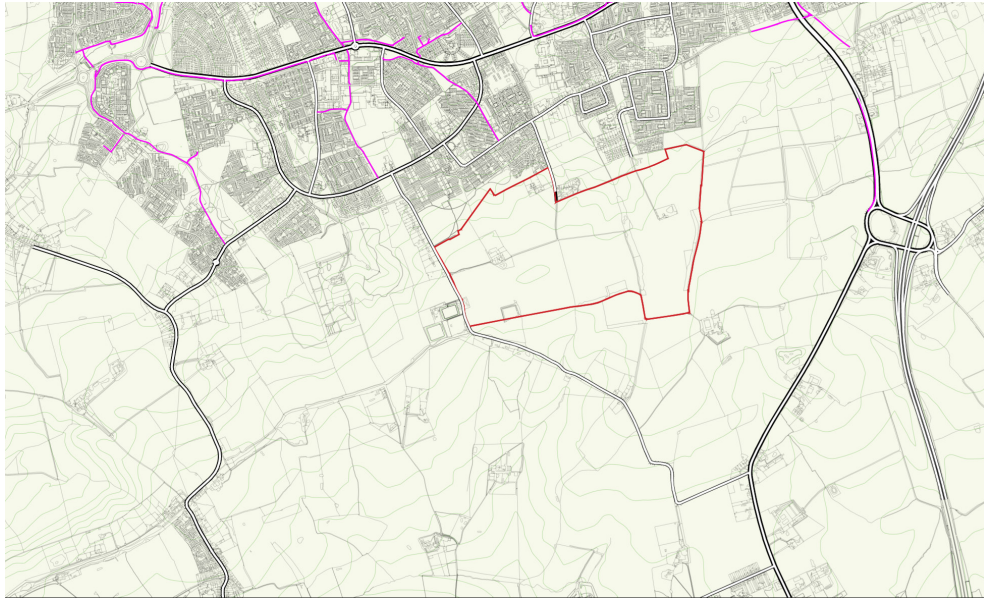
Figure 2-5 Hertfordshire County Council Link and Place Assessment of Southern Harlow



2.4.4 Figure 2-5 demonstrates that the roads immediately adjoining the site to the north are classified as ‘residential streets’ (orange) with Paringdon Road and Southern Way classified as ‘urban distributor roads’ (pink) which form the core highway network within Harlow urban area, having a higher movement role and a lesser sense of place than roads lower down the hierarchy.

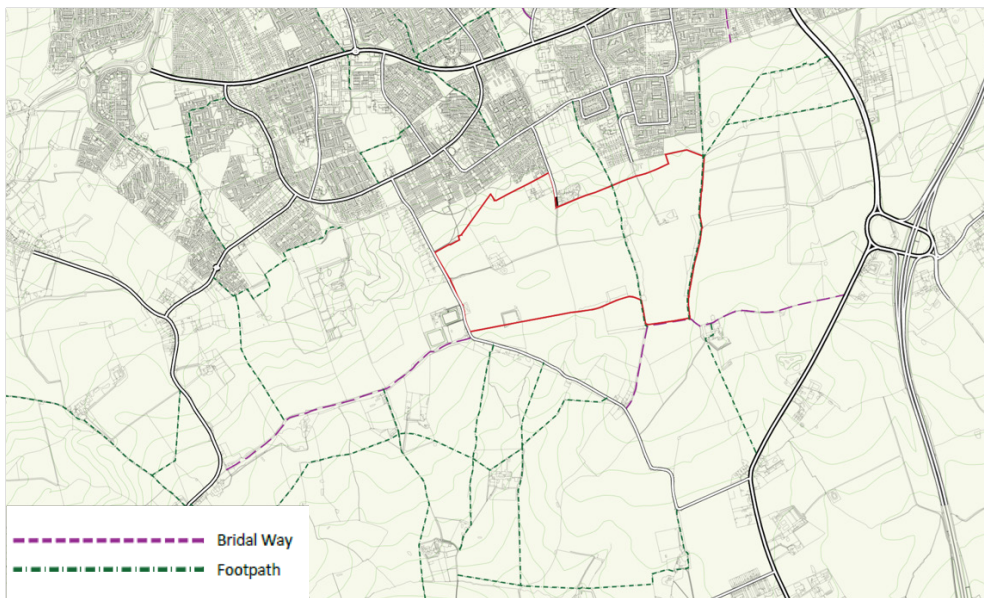
2.4.5 The existing segregated cycle network in the vicinity of Latton Priory is shown in Figure 2-6

**Figure 2-6 Segregated Cycle Routes in the Vicinity of Latton Priory**



- 2.4.6 Within the residential area immediately adjoining the northern boundary of the site, the segregated cycle network is limited. However, to the north of Paringdon Road, and along Southern Way there are a number of routes providing connections towards Harlow town centre, and key employment areas. The STC within the Green Wedge will supplement this network and enhance the connectivity to and of the site by bike.
- 2.4.7 There is an extensive network of Public Rights of Way (PRoW) in the vicinity of Latton Priory, as shown in Figure 2-7 (footpaths are shown in green, and brideways pink). A number of routes connect to the Latton Priory site boundary on the north eastern side providing routes through the site, and north into Harlow, and the Stort Valley pathway, which provides a circular route around Harlow, skirts the site to the south and east.

**Figure 2-7 Public Right of Way Network in the Vicinity of Latton Priory**

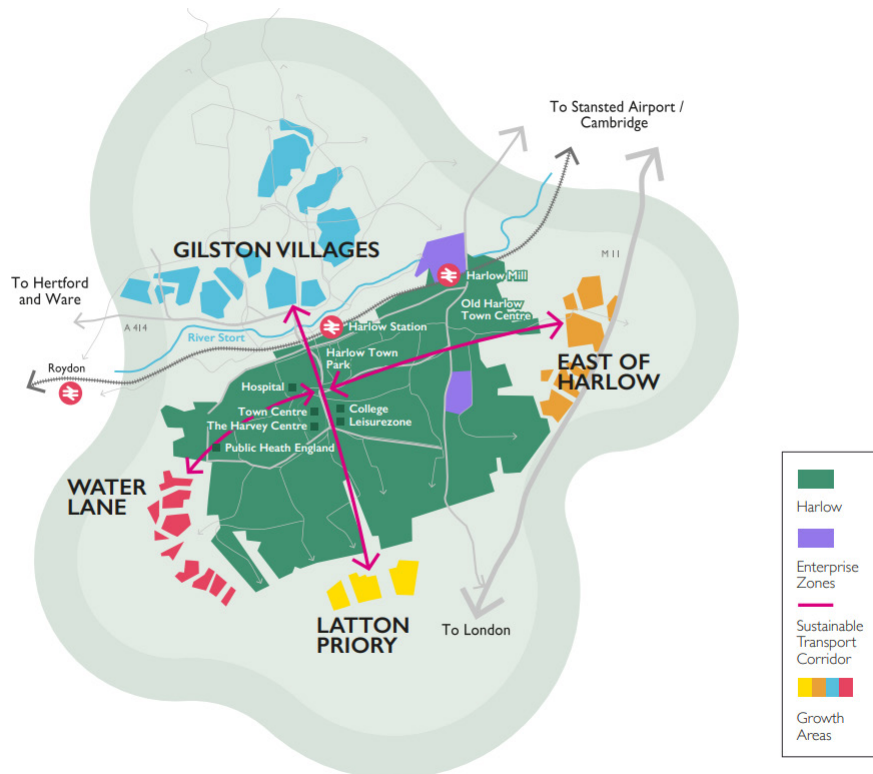




## Sustainable Travel Corridors (STC)

- 2.4.8 A key element of the Garden Town proposals is the requirement for new and existing residents and businesses to adopt sustainable travel behaviours.
- 2.4.9 A network of Sustainable Travel Corridors (STC), as shown in Figure 2-8 is proposed and designed to facilitate modal shift. The STCs will accommodate a rapid bus transport system which will help people travel quickly and sustainably in and around the Garden Town.and around the Garden Town.
- 2.4.10 The new corridors will serve new developments and existing communities so that residents and visitors can travel around Harlow in safe and sustainable transport modes.

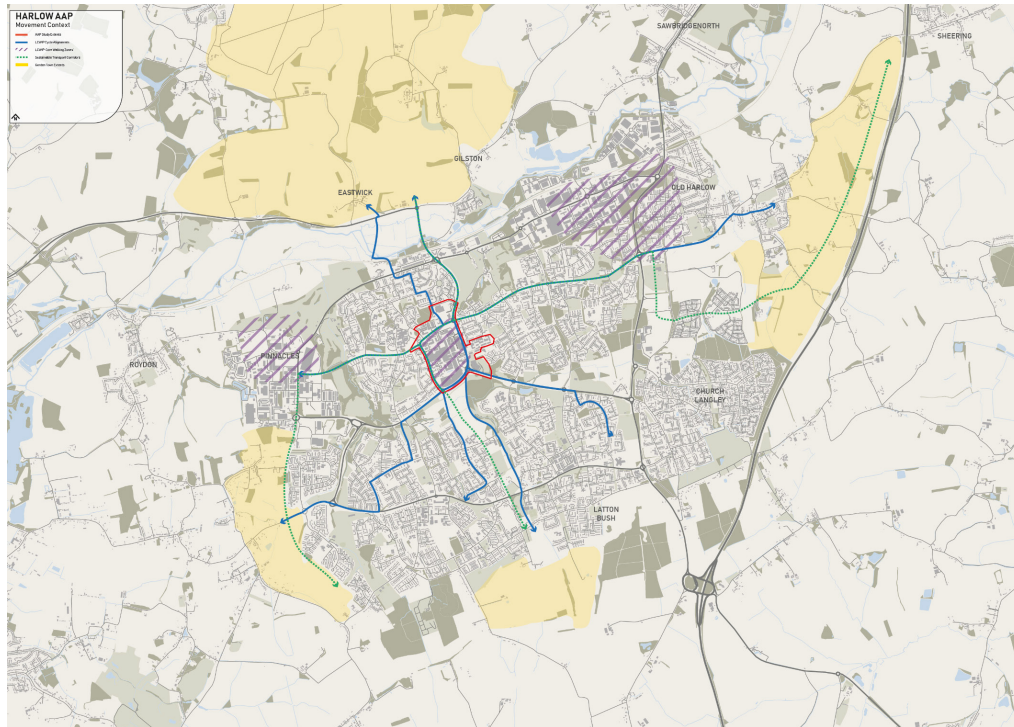
Figure 2-8 Proposed Sustainable Travel Corridors (extracted from HGGT website <http://www.harlowandgilstongardentown.co.uk/latton-priory>)



## LCWIP

- 2.4.11 PJA has been undertaking work on behalf of ECC in preparing the Local Cycling and Walking Infrastructure Plan (LCWIP) for Harlow. LCWIPs take a strategic approach to identifying cycling and walking improvements at a local level. Alongside the LCWIP process, the Propensity to Cycle Tool (PCT) has been developed for England and Wales which estimates cycling potential and provides an evidence base to inform cycling investment. The PCT identifies that baseline levels of cycling for commuting and school trips in the areas of Harlow immediately to the north of the site are low, in the region of 3-5%. Whilst not yet finalised, the LCWIP supports the proposals within the Epping Forest District Local Plan Submission Version 2017 for the provision of improvements to the south of Harlow town centre to enhance the connectivity by bike from Latton Priory.
- 2.4.12 Figure 2-9 illustrates the Area Action Plan which provides an overview of proposed major projects in Harlow, including the STCs, Local Cycling and Walking Infrastructure plans, Garden Town Allocations and the Harlow Town Centre Masterplan. The combined projects illustrate how the town will be subject to significant changes over the coming years particularly in relation to housing development and sustainable transport infrastructure. The key projects in relation to Latton Priory are the proposed North-South STC Corridor and Routes 6 and 7 from the LCWIP. Route 6 is already a good off-road cycling route from the town centre towards Latton. The alignment of the STC though might influence the final LCWIP design. Route 7 already provides some protected facilities for cycling however, the LCWIP focuses on the construction of a new path in Harlow Fields and exploring options for introducing protected cycle facilities on some of the local residential roads along the route.

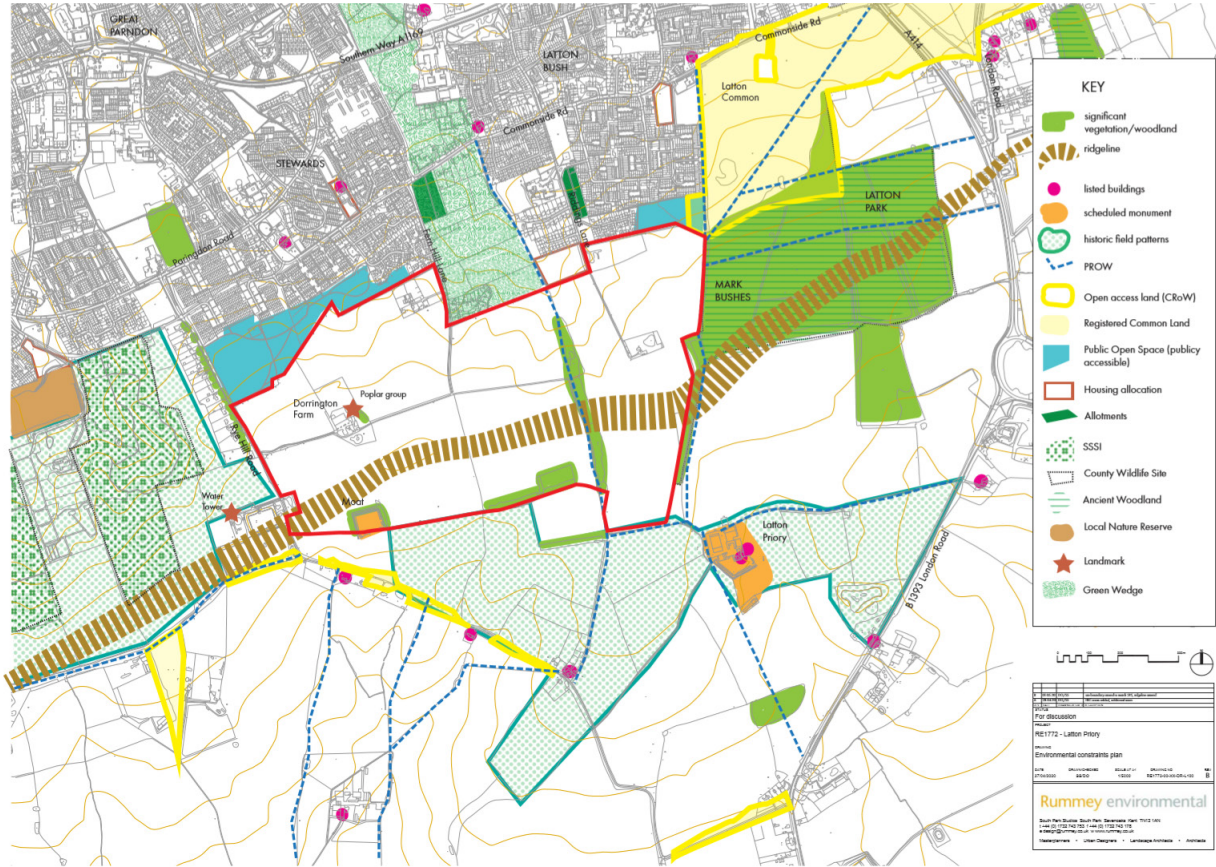
Figure 2-9 Harlow LCWIP AAP



## 2.5 Local Area Analysis - Environment

- 2.5.1 Identifying the baseline landscape and environmental constraints was carried out in reference to local plan policies and environmental resources related to the site area and its surroundings. Some of the constraints are statutory designations that make specific restrictions on types of development and some are areas that have an environmental sensitivity in and of their own right and so are material in their consideration of landscape, townscape, heritage and/or natural environmental value in any appraisal. Green Belt is not shown as it is a land use policy rather than a landscape or environmental designation. Figure 2-10 reproduces Rummey Environmental's constraints plan which is included at Appendix A.
- 2.5.2 There are a number of significant features and designations within the locality which require consideration in the context of the various access options presented for Latton Priory, in particular the ridgeline running broadly east to west across the site, Mark Bushes ancient woodland to the east of the site, Latton Common, and the historic field patterns, scheduled monuments and the listed buildings of Latton Priory to the south and east. To the north, the Green Wedge coincides with the proposed route of the STC. In addition, the site is crossed by a network of Public Rights of Way and there are nature conservation designations in the area.

Figure 2-10 Rummy Environmental Constraints Plan



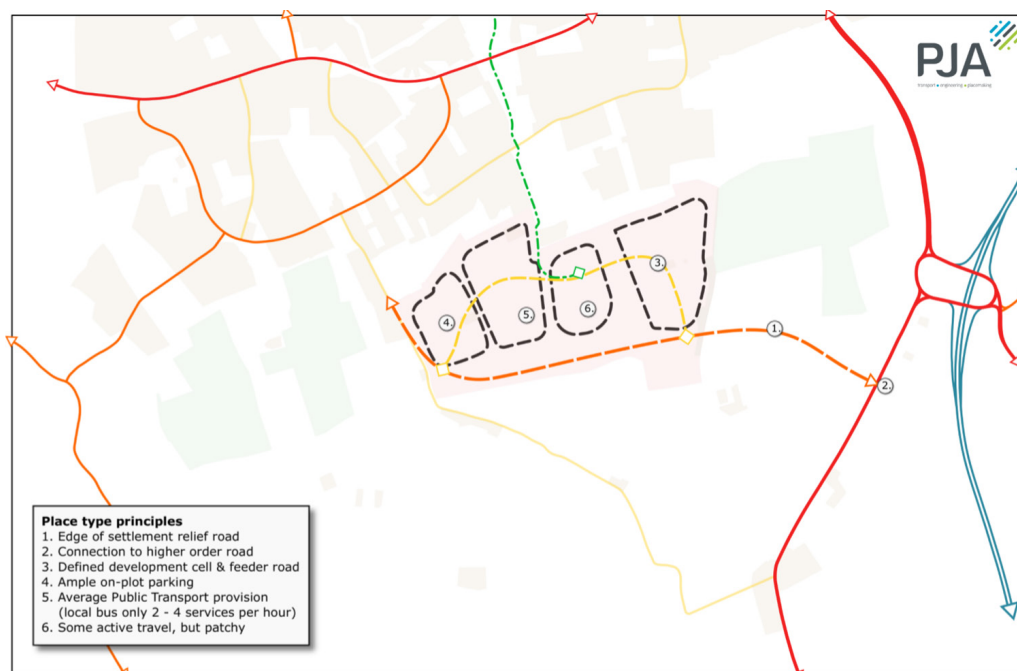
# 3. Development Concept & Option Appraisal

## 3.1 Development Concept

- 3.1.1 This section presents a series of development concepts for the Latton Priory site to ensure that the development of access options is aligned with the transformational mode share commitments sought by HGGT.
- 3.1.2 Although the primary focus of the study is to develop access options for the development, much discussion with stakeholders focused on the ability of the development site to maximise access by sustainable modes in order to achieve the mode share commitments. Guidance and best practice experience on creating contemporary sustainable development requires a balanced approach with incentives for sustainable modes, such as high-quality facilities, but also dis-incentives in the form of parking management to reduce car ownership and usage. This combination of higher accessibility for sustainable modes and reduced car ownership are the two main principle tools for achieving the HGGT mode share targets.
- 3.1.3 To illustrate how these measures might be applied spatially for Latton priority, three development scenarios have been formulated based on the spatial characteristics of the Latton Priory site. These scenarios have not been prepared as access options; they are about illustrating the nature of different development responses to sustainable transport.

### Place X – Traditional

- 3.1.4 Place X is a traditional form of development delivered in the pre-Manual for Streets (MfS) era and largely based on the now superseded (but often still mimicked) DB32 guidance. Place X is accessed by a faster moving relief road which is connected to higher order roads in turn, with development accessed via a series of loop roads. Development is provided in defined cells and there is ample on-plot parking for all land uses. The development would be served by local buses and some active travel routes, but these are of average quality. Experience shows that places like this achieve high car mode share and opportunity to change this is challenging within the development structure. We do not think a response of this type will help achieve the HGGT mode share aspirations. Place X has therefore illustrated what not to do.

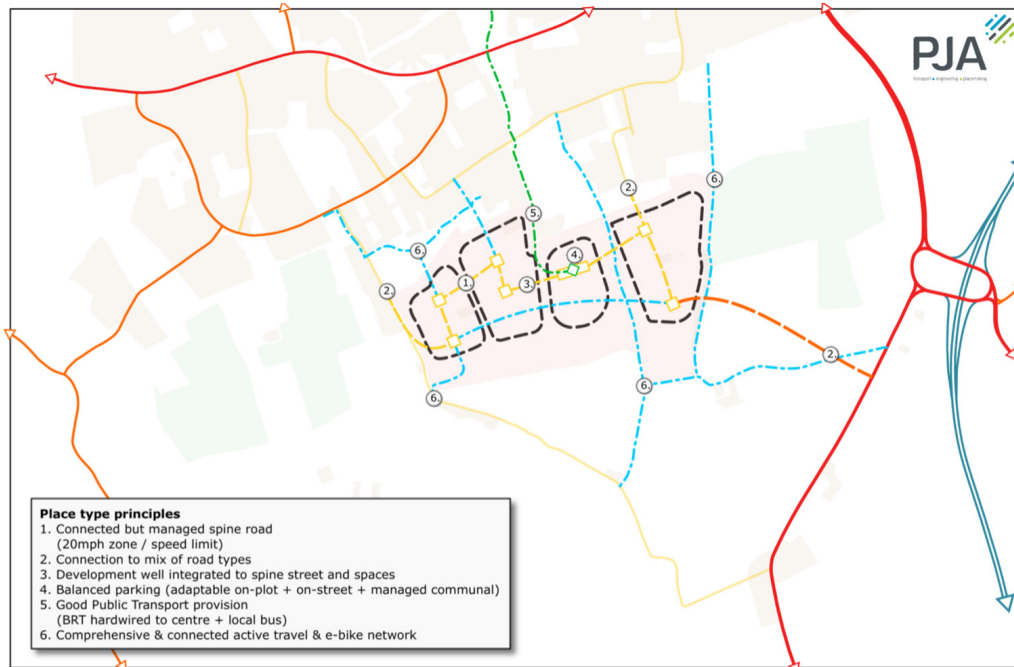


### Place Y – Contemporary

- 3.1.5 Place Y seeks to deliver a more sustainable development based on emerging best practice and a place which forward thinking developers should aspire to deliver, particularly in the context of HGGT. Place Y is structured via a connected but managed spine street which provides a central movement spine for all modes and focus for the local community.

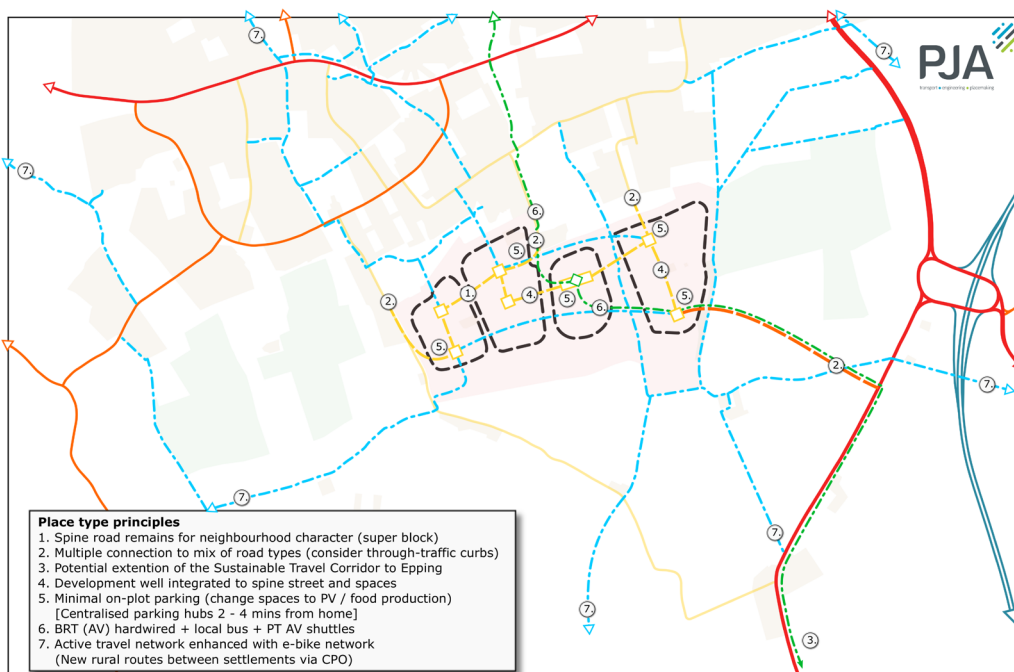


The street interfaces with the local centre, employment, community facilities, public spaces and green infrastructure. Some on-plot parking is provided but this is designed to be adaptive over time and other parking options are provided in the form of managed on-street parking and communal parking courtyards or 'parking barns'. Higher quality public transport like BRT is delivered to the heart of the development with a focus on the central interchange hub allowing cycle parking and direct walking access. A comprehensive network of walking and cycle links are created with priority over other modes where necessary. Place Y is recommended to be the minimum benchmark for development at Latton Priory.



### Place Z – Future

3.1.6 Place Z seeks to maximise sustainable transport and future technologies to create higher levels of sustainable living. Place Z is an evolution of Place Y. Place Z retains the connected and managed spine streets but mostly for placemaking reasons. Access connections may have become more managed or even plugged to create Low traffic neighbourhoods. The BRT link may have been extended to connect to Epping to the South. New technology has allowed AV Shuttles to operate which have increased the efficiency of the BRT fleet allowing reduced wait times and less interchange. For cycling, e-bikes are commonplace and a network of segregated routes is now extended over the urban and rural areas. We see Place Z as an evolution of place Y, supported by policy, as current developers may be unwilling to develop in this way due to 'user perception' creating development risk and some technologies not yet being fully available. It is therefore shown for illustration.



## 3.2 Appraisal Method

- 3.2.1 The study transport and local environment appraisal method is based on the webTAG and Early Appraisal Summary Table (EAST) criteria. These tools study the impacts on a variety of topics including Transport, Landscape, Environmental, Townscape and Historic Environment. Typically, these are appraised in full assessments on a seven point scale.
- Large beneficial (positive) effect
  - Moderate beneficial (positive) effect
  - Slight beneficial (positive) effect
  - Neutral effect
  - Slight adverse (negative) effect
  - Moderate adverse (negative) effect
  - Large adverse (negative) effect
- 3.2.2 Biodiversity and Earth Heritage Value of Features are based on weights as set out in Table 9 of webTAG<sup>1</sup> and magnitude of impacts as Table 11 Criteria for Determining the Magnitude of the Impact on a five point scale:
- Major negative
  - Intermediate negative
  - Minor negative
  - Neutral
  - Positive
- 3.2.3 However, the high level appraisal used for EAST does not seek to fully appraise the detail suggested by webTAG but summarises this into criteria relevant to the early stage of the decision making process. Its purpose is to be applied without having to obtain detailed evidence.
- 3.2.4 It suggests three main local environment assessments relevant to this study;
- Transport (including traffic impact, amenity impact and potential for sustainable transport)
  - Landscape, Historic Environment and Biodiversity
  - Streetscape and urban environment (Townscape)
- 3.2.5 This study has digested the webTAG appraisal into the following impact magnitude to fit with the EAST summary tables and given a Red, Amber, Green rating.
- Red - Negative significant negative impact on environmental resources,
  - Amber - No impact on environmental resources, or moderate adverse or beneficial impact but with element of risk due to uncertainties of mitigation,
  - Green - No significant impact on environmental resources

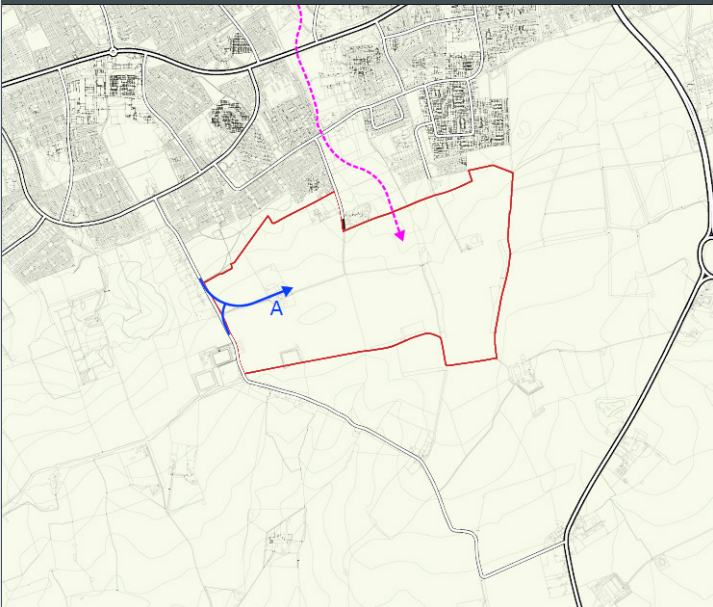
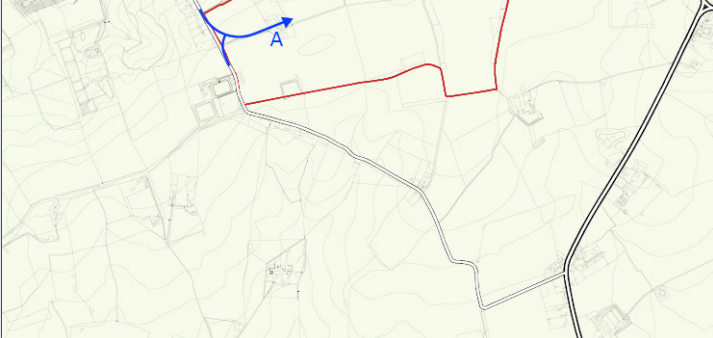
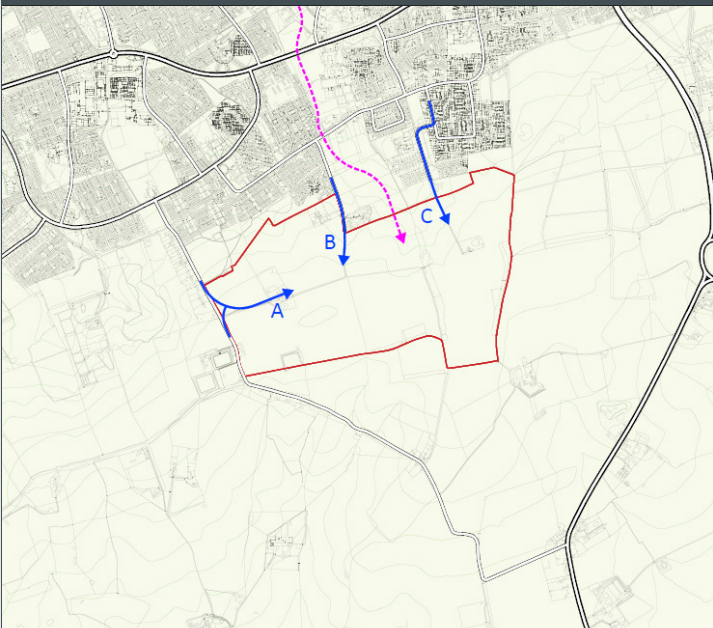
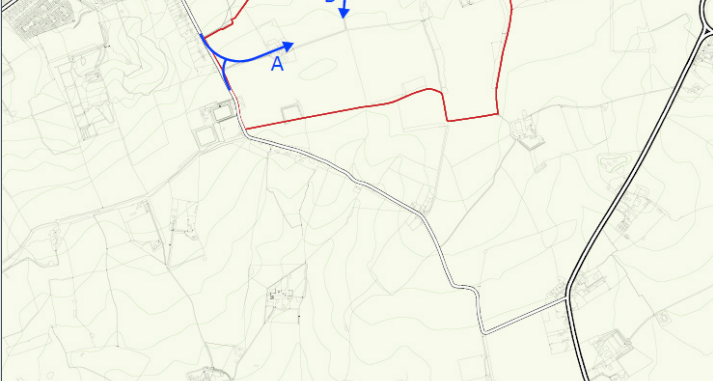
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<sup>1</sup>In accordance Early Assessment Sifting Tool (EAST) Guidance (April 2011, DfT), assessments for environmental effects broadly follow TAG Unit 3, Environmental Impact Appraisal, May 2019, DfT : Section 6 Landscape; Section 7 Townscape; Section 8 Historic Environment; Section 9 Biodiversity. Transport Assessment Guidelines TAG Unit 3 see [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/825064/tag-unit-a3-environmental-impact-appraisal.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/825064/tag-unit-a3-environmental-impact-appraisal.pdf)

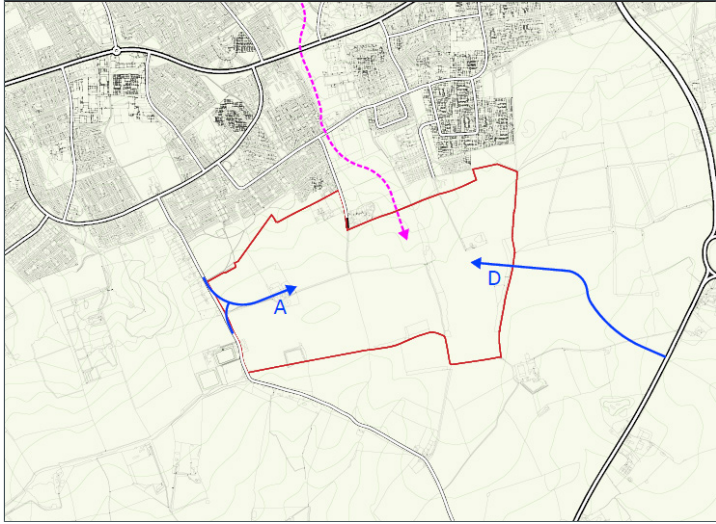
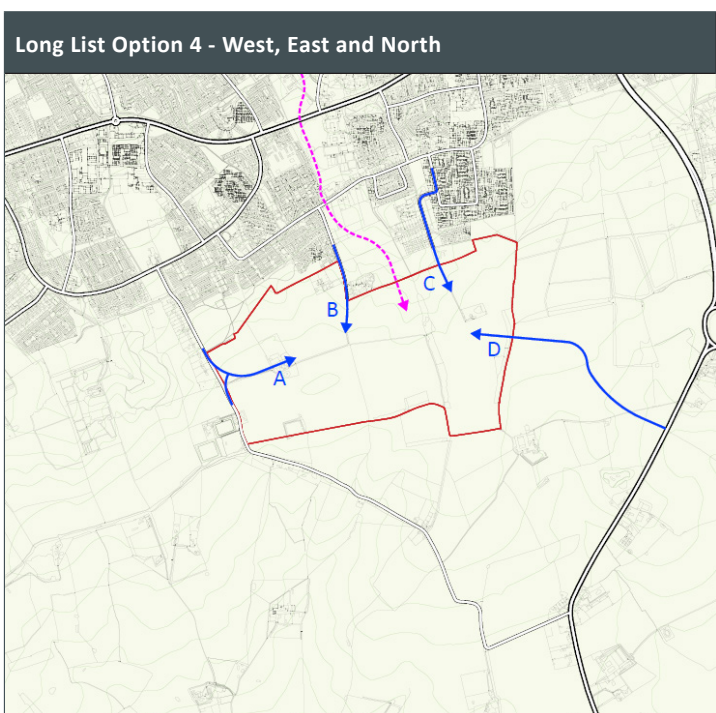
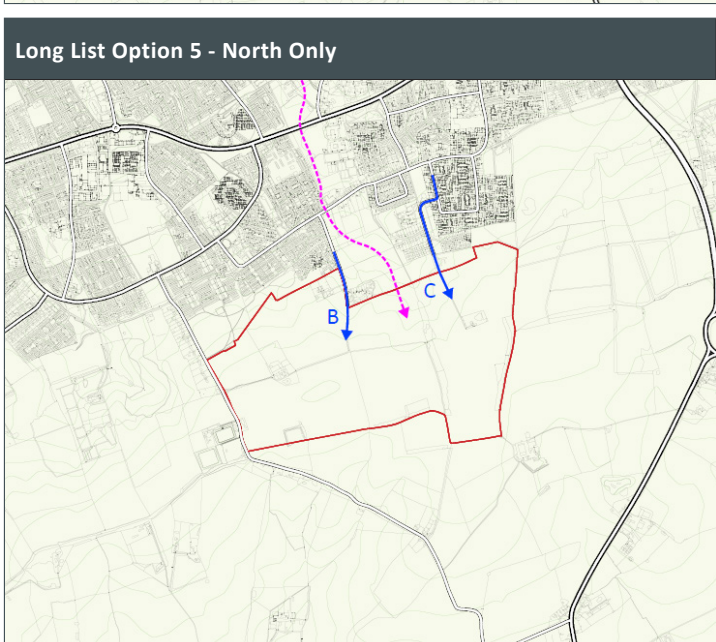
EAST guidance - see <https://www.gov.uk/government/publications/transport-business-case#history>

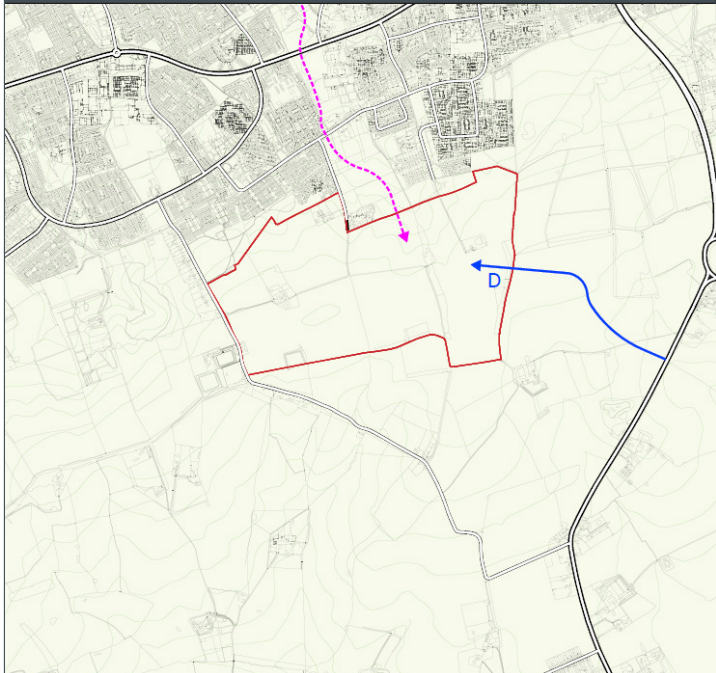
## 3.3 Long List Appraisal

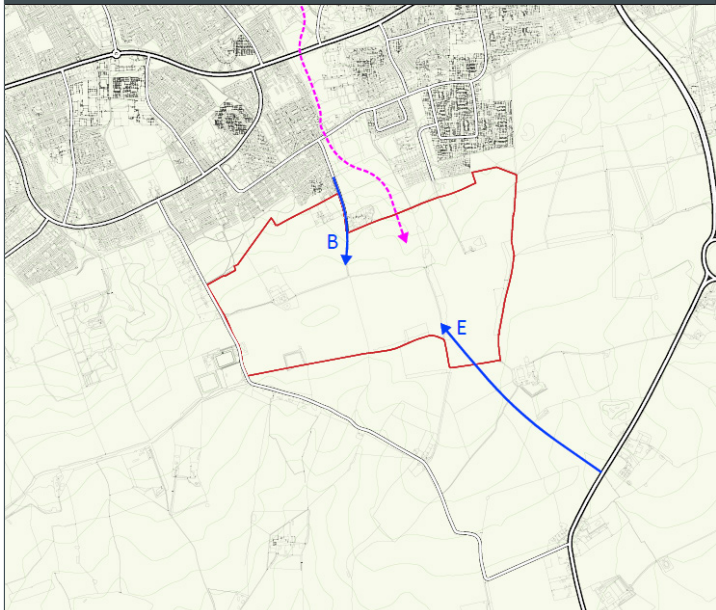
- 3.3.1 A long list of ten potential access options was initially developed by the study team. This was informed by the earlier work undertaken by ECC which included several schematic options, and also considered the potential for vehicular access to be established to the A414 to the north east.
- 3.3.2 The options were given an overall score for 'Transport' and 'Environment' using a red, amber, green (RAG) rating, informed by discussion of the relative merits and impacts of the various options amongst the project team using the guidance set out above. The outputs of the long list appraisal are summarised in this section.
- 3.3.3 Throughout the appraisal of the access options, it has been assumed that the development concept of 'Place Y' with the STC link (shown in magenta on the following plans) and comprehensive network of active travel connections would be common to all options.
- 3.3.4 The best performing five options from this process were taken forward and are discussed in greater detail in Section 3.4.

Long List Option 1 - West Only	RAG	Considerations
	●	<b>Transport</b>
		<ul style="list-style-type: none"> <li>• Connected into Harlow urban area</li> <li>• Off-site traffic impact focussed in one location</li> <li>• Would facilitate access by sustainable modes</li> </ul>
	●	<b>Environment</b>
		<ul style="list-style-type: none"> <li>• 20th century landscape with minor effects on Rye Hill Road from junction scale.</li> <li>• No heritage assets or remnant historic landscape pattern affected.</li> <li>• No significant biodiversity assets affected.</li> </ul>
Long List Option 2 - West and North	●	Considerations
	●	<b>Transport</b>
		<ul style="list-style-type: none"> <li>• Off-site traffic impact dispersed across three potential access points, but some lower order roads</li> <li>• Would facilitate access by sustainable modes</li> </ul>
	●	<b>Environment</b>
		<ul style="list-style-type: none"> <li>• 20th century landscape with small scale changes on Fern Hill and Riddings Lane.</li> <li>• No heritage assets or remnant historic landscape pattern affected.</li> <li>• No significant biodiversity assets affected.</li> <li>• Impact mitigation on townscape required.</li> </ul>

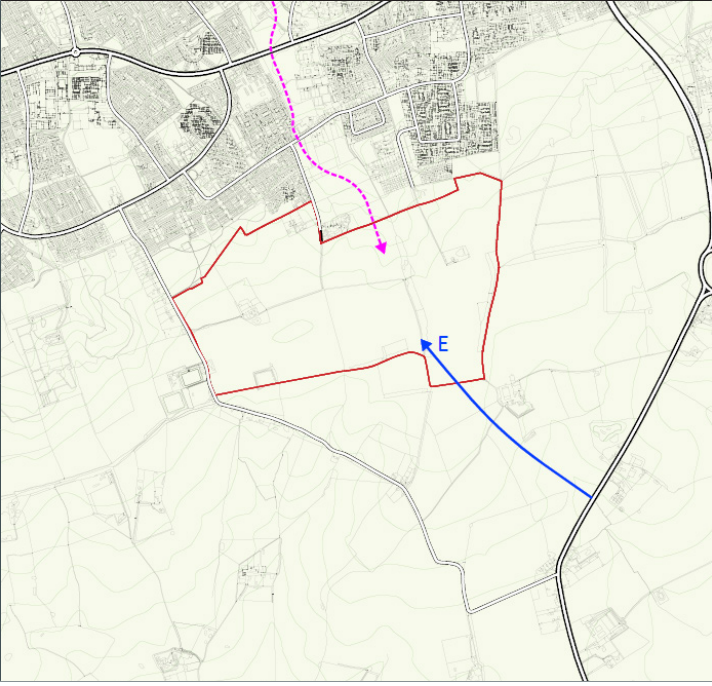
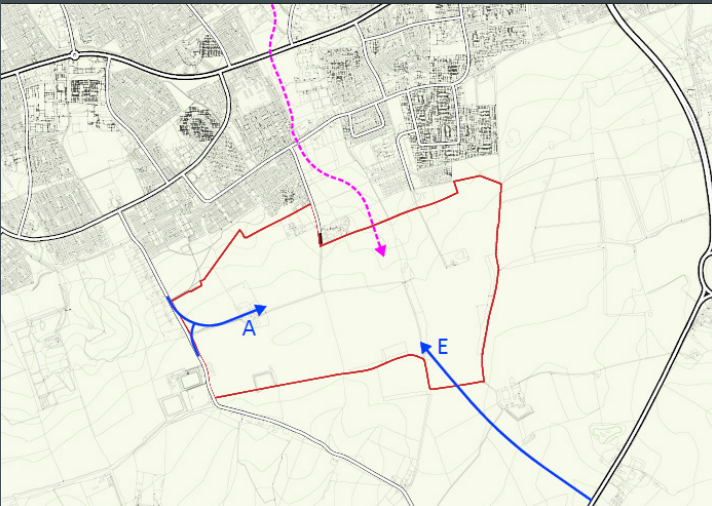
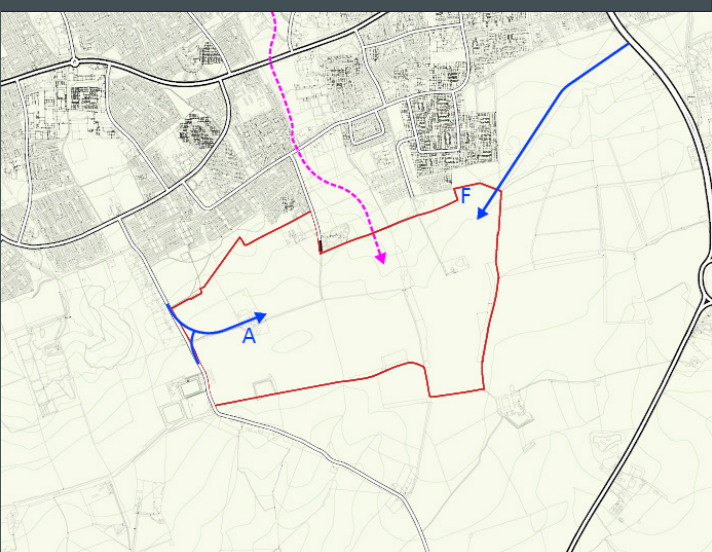


Long List Option 3 - West and East	RAG	Considerations
	●	<b>Transport</b> <ul style="list-style-type: none"> <li>• Connected into Harlow urban area and provides for strategic connections to Epping and M11</li> <li>• Would facilitate access by sustainable modes</li> </ul>
		●
	●	
		●
	●	
		●

Long List Option 6 – East Only	RAG	Considerations
		<p><b>Transport</b></p> <ul style="list-style-type: none"> <li>• Provides for strategic connections to Epping and M11</li> <li>• No direct road relationship with Harlow urban area, meaning vehicular trips to Harlow destinations convoluted and delayed</li> <li>• Avoids direct impact on lower order roads</li> <li>• Would facilitate access by sustainable modes</li> </ul>
		<p><b>Environment</b></p> <ul style="list-style-type: none"> <li>• Eastern access crosses CWS tree belt.</li> <li>• Moderate adverse impact to historic field pattern.</li> <li>• Potential impact on important hedgerows and Ancient Woodland.</li> <li>• Possible severance effects on Stort Valley Long Distance Path.</li> </ul>

Long List Option 7 - North and South East	RAG	Considerations
		<p><b>Transport</b></p> <ul style="list-style-type: none"> <li>• South east access offers no transport benefits over option D, and would increase trip lengths</li> <li>• Connected into Harlow urban area, but via lower order road</li> <li>• Would facilitate access by sustainable modes</li> </ul>
		<p><b>Environment</b></p> <ul style="list-style-type: none"> <li>• Moderate to high adverse impacts on historic environment to the south and east including setting of Latton Priory.</li> <li>• Moderate adverse impact on the historic field pattern and landscape to the south and east</li> <li>• Potential impact on important hedgerows</li> </ul>



Long List Option 8 - South East Only	RAG	Considerations
	<p>●</p>	<p><b>Transport</b></p> <ul style="list-style-type: none"> <li>• South east access offers no transport benefits over option D, and would increase trip lengths</li> <li>• No direct road relationship with Harlow urban area, meaning vehicular trips to Harlow destinations convoluted and delayed</li> <li>• Avoids direct impact on lower order roads</li> <li>• Would facilitate access by sustainable modes</li> </ul>
		<p>●</p>
Long List Option 9 - West and South East	RAG	
	<p>●</p>	<p><b>Transport</b></p> <ul style="list-style-type: none"> <li>• Connected into Harlow urban area and provides for strategic connections to Epping and M11</li> <li>• Would facilitate access by sustainable modes</li> </ul>
		<p>●</p>
Long List Option 10 – West and North East	RAG	
	<p>●</p>	<p><b>Transport</b></p> <ul style="list-style-type: none"> <li>• Connected into Harlow urban area and provides for strategic connections via higher order road to Epping and M11</li> <li>• Would facilitate access by sustainable modes</li> </ul>
		<p>●</p>



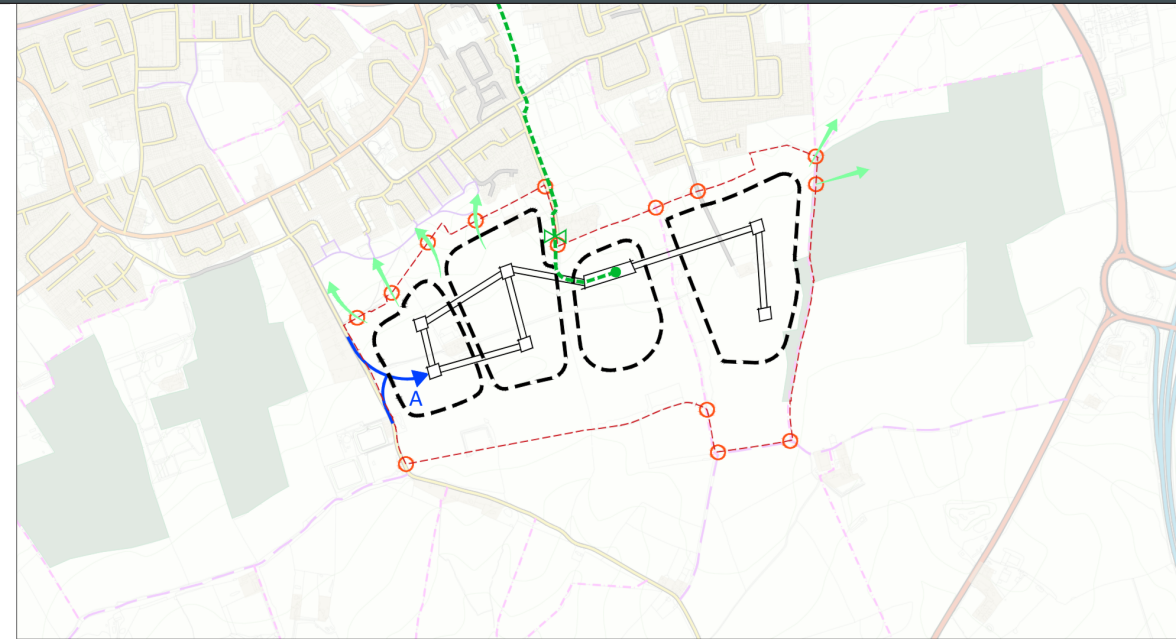
## Summary of Long List Outcomes

- 3.3.5 The long list options were sifted, with options receiving red scores discounted from further detailed consideration due to the significance of these impacts. This included Long List Options 5, 7, 8, 9 and 10. Common to options 7, 8 and 9 was an access road to the south east of the site. The impact of such a road upon the historic field pattern and scheduled monument of Latton Priory was considered sufficient grounds to discount these options. For option 5, the impacts both in terms of transport (traffic and amenity) and environment (townscape) are considered significant given the development quantum and therefore this option was discounted. Option 10 included an access across the common land to the north east of the site, which is undeliverable due to the land designations.

## 3.4 Traffic Impact Assessment

- 3.4.1 An assessment of traffic impact has been undertaken for the short-listed options. A Technical Note has been prepared detailing the impact assessment methodology, which is included at **Appendix B**. Within the scope of this study, the assessment was required to be relatively high-level, and provides a tool for comparing the relative impacts of the shortlisted options. Nevertheless, the assessment has been informed by trip rate information obtained from the TRICS database, and Census origin destination data. Further, detailed modelling of the preferred option will be necessary.
- 3.4.2 The greatest impact in terms of two-way trips is forecast in the AM peak hour and therefore the traffic flow increases summarised in this section for each option refer to the AM peak hour only. Full details of both the AM and PM peak hour assessments are included in the Traffic Modelling Technical Note.
- 3.4.3 Due to the nature of the impact assessment, it has not been possible to account for any re-routing of base traffic that may occur as a result of the creation of a new link road through Latton Priory. Assessment of these impacts would be necessary as a part of any subsequent Transport Assessment in order to determine the detail of site design and off-site mitigation.

Short List Option 1 - West Only



Harlow Latton Priory  
Option 1

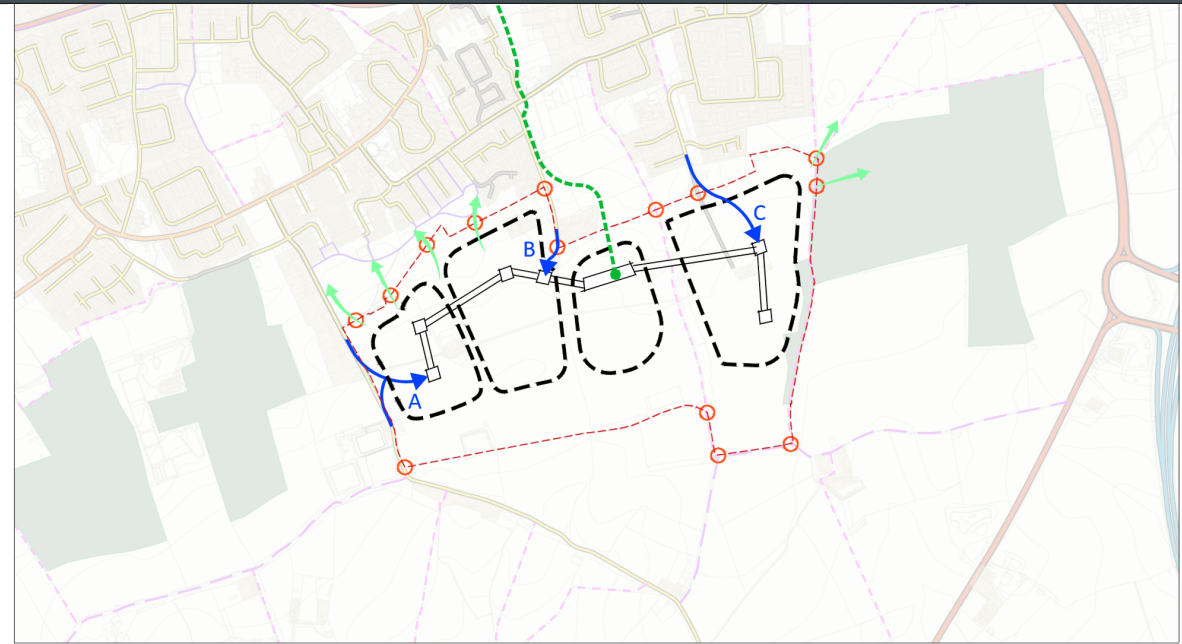


- Strategic Road Network
- Priority 1 Road
- Priority 2 Road
- Local Road
- Private Road
- Potential Highway Access
- Notional development street / space
- Sustainable Transport Link
- Draft Allocation Boundary
- Potential Development Area (super block)
- Public Footpath
- Public Bridleway
- Path over park / open space
- Pedestrian/cycle connection
- X Modal Filter
- New link across park / open space



<b>Transport</b>	Traffic Impact	●	<ul style="list-style-type: none"> <li>Off-site traffic impact focussed on Rye Hill Road.</li> <li>117% and 121% increase in traffic southbound and northbound respectively on Rye Hill Road to the north of the access in the AM peak hour, and 98% and 74% increase in traffic southbound and northbound respectively to the south of the access.</li> <li>Impacts on Paringdon Road of circa 55% increase in eastbound traffic and 75% increase in westbound traffic in the AM peak.</li> <li>Unconstrained, Rye Hill Road to the south of the access is forecast to operate at 125% of link capacity.</li> </ul>
	Amenity	●	<ul style="list-style-type: none"> <li>Impacts upon Rye Hill Road would need to be mitigated to prevent the southern section being heavily used by development traffic travelling to the south of the site and M11.</li> <li>High level of development traffic arriving at Rye Hill Road/Paringdon Road junction, opposite St James C of E Primary School.</li> </ul>
	Sustainability	●	<ul style="list-style-type: none"> <li>The STC would be enabled into the centre of the site.</li> <li>The location of the STC relative to the vehicular access may serve to encourage greater levels of bus/cycle use for trips into Harlow and walking for more local trips.</li> </ul>
<b>Environment</b>	Landscape	●	<ul style="list-style-type: none"> <li>20th century landscape; north of ridge forms setting to Harlow, which is contained within the Stort Valley to the north.</li> </ul>
	Heritage	●	<ul style="list-style-type: none"> <li>No heritage assets or remnant historic landscape pattern affected. Moat SM 350m to south of Dorrington Farm.</li> </ul>
	Biodiversity	●	<ul style="list-style-type: none"> <li>No significant biodiversity assets affected.</li> </ul>
	Townscape	●	<ul style="list-style-type: none"> <li>Rye Hill Road and STC – mitigatable impacts</li> </ul>

Short List Option 2 - West and North



Harlow Latton Priory Option 2

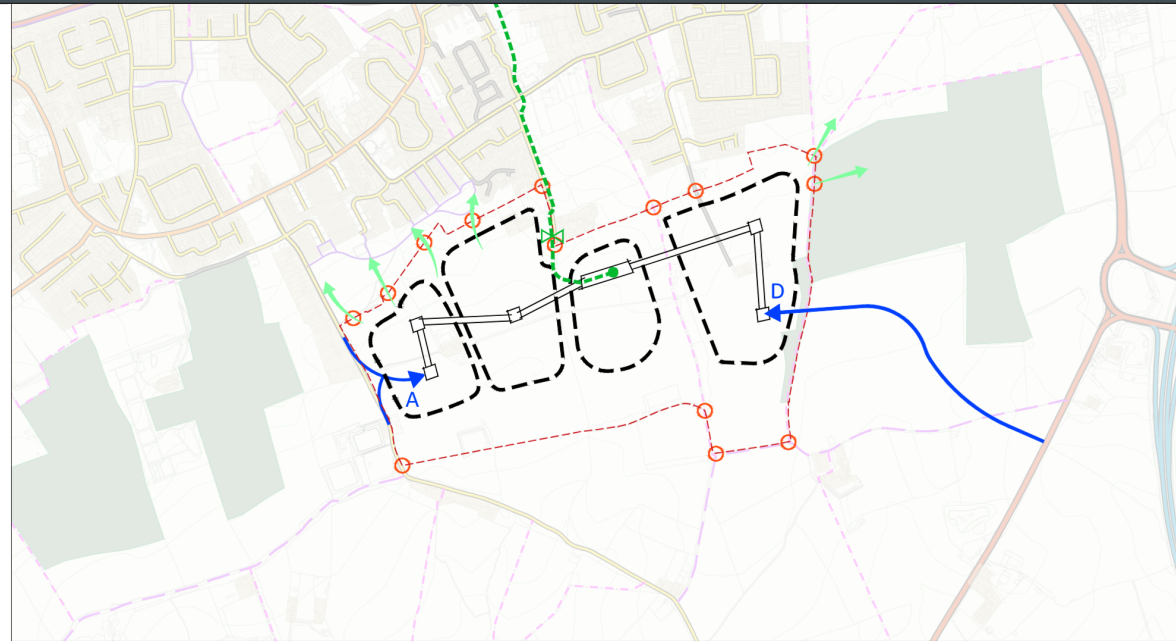
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- Strategic Road Network
- Priority 1 Road
- Priority 2 Road
- Local Road
- Private Road
- Potential Highway Access
- Notional development street / space
- Sustainable Transport Link
- Draft Allocation Boundary
- Potential Development Area (super block)
- Public Footpath
- Public Bridleway
- Path over park / open space
- Pedestrian/cycle connection
- ⊗ Modal Filter
- ➔ New link across park / open space



Transport	Traffic Impact	●	<ul style="list-style-type: none"> <li>Off-site traffic impact dispersed across three potential access points.</li> <li>Impacts on Paringdon Road reduced compared to Option 1 (circa 10% increase in eastbound traffic and 12% increase in westbound in the AM peak), but still remaining very high. Additional increases of circa 50% north and south bound on Tysea Road.</li> </ul>
	Amenity	●	<ul style="list-style-type: none"> <li>Existing link characteristics on Fern Hill Road and Riddings Lane are not well suited to accommodating a significant increase in through traffic due to width, alignment and sensitive receptors (Latton Green Primary School).</li> <li>Wider amenity impacts in Latton Bush/Stewards (noise, air quality, severance etc.) associated with development traffic routing through local road network to reach higher order roads.</li> </ul>
	Sustainability	●	<ul style="list-style-type: none"> <li>The STC would be enabled into the centre of the site.</li> </ul>
Environment	Landscape	●	<ul style="list-style-type: none"> <li>20th century landscape; north of ridge forms setting to Harlow, which is in bowl.</li> </ul>
	Heritage	●	<ul style="list-style-type: none"> <li>No heritage assets or remnant historic landscape pattern affected. Moat SM 350m to south of Dorrington Farm.</li> </ul>
	Biodiversity	●	<ul style="list-style-type: none"> <li>No significant biodiversity assets affected.</li> </ul>
	Townscape	●	<ul style="list-style-type: none"> <li>Mitigation required to address impacts on local roads and townscape may be economically unacceptable.</li> </ul>

Short List Option 3 - West and East

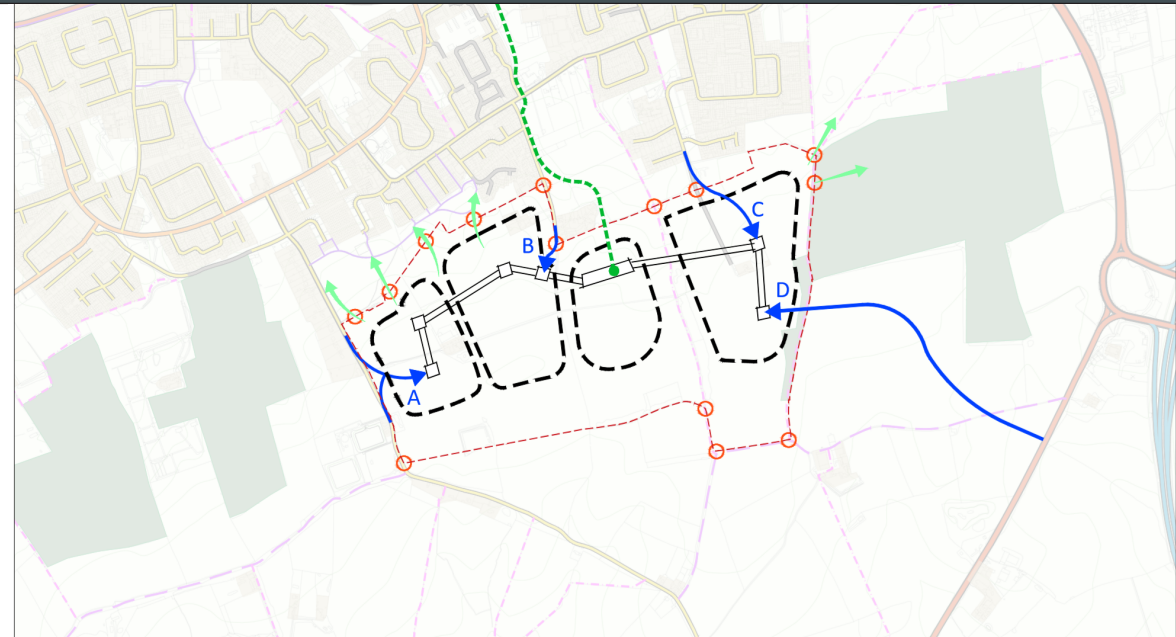


Harlow Latton Priory  
Option 3



Transport	Traffic Impact	●	<ul style="list-style-type: none"> <li>Provides for strategic connections to Epping and M11, reducing traffic impact through urban areas to the south of Harlow.</li> <li>80% and 72% increase in traffic southbound and northbound respectively on Rye Hill Road to the north of the western access in the AM peak hour.</li> <li>Impacts on Paringdon Road of circa 20% increase in eastbound traffic and 30% increase in westbound traffic in the AM peak.</li> <li>Increase of 38% traffic approaching M11 Junction 7 on London Road and 33% increase in southbound traffic between Junction 7 and eastern access.</li> </ul>
	Amenity	●	<ul style="list-style-type: none"> <li>Amenity impacts on Latton Bush/Stewards reduced compared to Short List Options 1 and 2.</li> <li>Impacts of increase in traffic arriving at Rye Hill Road/Paringdon Road junction, opposite St James C of E Primary School require consideration.</li> </ul>
	Sustainability	●	<ul style="list-style-type: none"> <li>The STC would be enabled into the centre of the site.</li> </ul>
Environment	Landscape	●	<ul style="list-style-type: none"> <li>Historic field pattern to south-east.</li> <li>Road crosses CWS tree belt and close to Mark Bush Ancient Woodland.</li> </ul>
	Heritage	●	<ul style="list-style-type: none"> <li>Historic field pattern and setting of Latton Priory SM &amp; listed buildings access track.</li> <li>Junction onto London Road with potential to impact Rundells listed building (depending on final location).</li> </ul>
	Biodiversity	●	<ul style="list-style-type: none"> <li>Potential impact on CWS treebelt, important hedgerows &amp; Ancient Woodland – connectivity important to bats.</li> </ul>
	Townscape	●	<ul style="list-style-type: none"> <li>No impact to east.</li> </ul>

Short List Option 4 - West, East and North



Harlow Latton Priory  
Option 4

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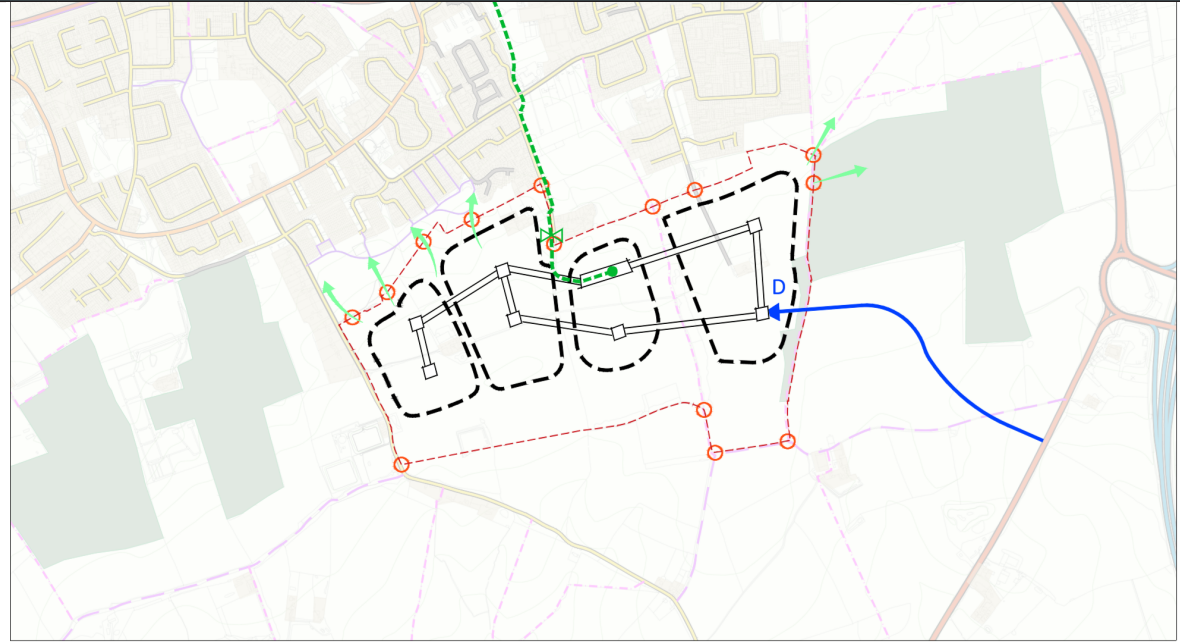
- Strategic Road Network
- Priority 1 Road
- Priority 2 Road
- Local Road
- Private Road
- Potential Highway Access
- Notional development street / space
- Sustainable Transport Link
- Draft Allocation Boundary
- Potential Development Area (super block)
- Public Footpath
- Public Bridleway
- Path over park / open space
- Pedestrian/cycle connection
- Modal Filter
- New link across park / open space



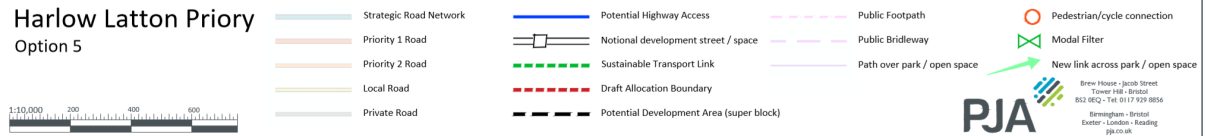
Transport	Traffic Impact	●	<ul style="list-style-type: none"> <li>Well connected into Harlow urban area and provides for strategic connections to Epping and M11.</li> <li>Off-site traffic impact dispersed compared to other Short List Options.</li> <li>Traffic impacts on Paringdon Road further reduced from Short List Option 2 (circa 4% increase eastbound and westbound in the AM peak).</li> <li>Increase of 25% traffic approaching M11 Junction 7 on London Road and 28% increase in southbound traffic between Junction 7 and eastern access.</li> </ul>
	Amenity	●	<ul style="list-style-type: none"> <li>Existing link characteristics on Fern Hill Road and Riddings Lane are not well suited to accommodating a significant increase in through traffic due to width, alignment and sensitive receptors (Latton Green Primary School).</li> </ul>
	Sustainability	●	<ul style="list-style-type: none"> <li>The STC would be enabled into the centre of the site.</li> </ul>
Environment	Landscape	●	<ul style="list-style-type: none"> <li>Historic field pattern to south-east; road crosses CWS tree belt and close to Mark Bush Ancient Woodland.</li> </ul>
	Heritage	●	<ul style="list-style-type: none"> <li>Historic field pattern and setting of Latton Priory SM &amp; listed buildings access track.</li> <li>Junction onto London Road with potential to impact Rundells listed building (depending on final location).</li> </ul>
	Biodiversity	●	<ul style="list-style-type: none"> <li>Potential impact on CWS treebelt, important hedgerows &amp; Ancient Woodland – connectivity important to bats.</li> </ul>
	Townscape	●	<ul style="list-style-type: none"> <li>Mitigation required to address impacts on local roads and townscape may be economically unacceptable.</li> </ul>



Short List Option 5 - East



Harlow Latton Priory  
Option 5



Transport	Traffic Impact	●	<ul style="list-style-type: none"> <li>Provides for strategic connections to Epping and M11 and avoids direct impact on lower order residential roads.</li> <li>29% and 14% increase in traffic southbound and northbound respectively on Rye Hill Road in the AM peak hour.</li> <li>Increase of 66% traffic approaching M11 Junction 7 on London Road and 55% increase in southbound traffic between Junction 7 and eastern access.</li> </ul>
	Amenity	●	<ul style="list-style-type: none"> <li>No amenity impacts on Latton Bush/Stewards resulting from development traffic.</li> </ul>
	Sustainability	●	<ul style="list-style-type: none"> <li>The STC would be enabled into the centre of the site.</li> <li>East only access would result in significantly extended (distance and time) vehicle trips to locations in Harlow with associated environmental impacts.</li> </ul>
Environment	Landscape	●	<ul style="list-style-type: none"> <li>Historic field pattern to south-east; road crosses CWS tree belt and close to Mark Bush Ancient Woodland.</li> </ul>
	Heritage	●	<ul style="list-style-type: none"> <li>Historic field pattern and setting of Latton Priory SM &amp; listed buildings.</li> </ul>
	Biodiversity	●	<ul style="list-style-type: none"> <li>Potential impact on CWS treebelt, important hedgerows &amp; Ancient Woodland – connectivity important to bats.</li> </ul>
	Townscape	●	<ul style="list-style-type: none"> <li>No impact to east or on STC.</li> </ul>



## 3.5 Summary of Short List Outcomes

- 3.5.1 Based on the appraisal method, the study team has concluded that Option 3 is the preferred option. The appraisal has led to several clear conclusions which are summarised below;
- 3.5.2 Firstly, Option 1, 2 and 5 all score red on traffic or amenity impact and have been discounted. This means the concentration of development traffic impact is unacceptable and cannot be viably mitigated. In the cases of Option 1 and 2, this severe impact is created on lower order roads which given highway land corridor width and land use cannot be mitigated. In the case of Option 5, the London Road facing structure of development would require very convoluted road access to urban Harlow placing undue pressure on known congestion hotspots including M11 Junction 7 and A414. Furthermore, the option is likely to create severe impacts on Rye Hill Road and other rural roads like Epping Road, as development traffic seeks alternative access to Harlow.
- 3.5.3 Secondly, based on the remaining options 3 and 4. Option 3 avoids some of the impacts on lower order roads including Fern Hill Lane and Ridding Lane and associated amenity impacts and is therefore preferred when compared with Option 4.
- 3.5.4 Finally, this leaves just Option 3. The study team has concluded this option is acceptable on environmental grounds subject to mitigation and design. Specifically, the eastern link road design will need to respond to the historic field patterns to south-east and setting of Latton Priory SM & listed buildings. It will also need to consider the potential impact on CWS tree belt and important hedgerows & Ancient Woodland. The study team consider all these issues can be suitably mitigated and thus Option 3 is selected as preferred option and considered further in the final chapter.
- 3.5.5 The eastern link road would cross land to be retained within Green Belt from the boundary of the proposed Latton Priory allocation to London Road. According to NPPF (para 146) certain forms of development are not inappropriate within the Green Belt provided they do not conflict with the purposes of including the land within it. Local transport infrastructure falls within this category. The Green Belt in this location, according to the Green Belt Study, performs strongly with respect to Purposes 2 and 3. With sensitive road design it is considered that the link road would not conflict with these purposes.
- 3.5.6 The SP5.1 policy requires a new defensible boundary to the Green Belt to the south of the site. EFDC has proposed a change to the currently adopted Green Belt boundary as part of the Local Plan process (shown in Map 2.1 and 2.2 December 2017) after their two stage Green Belt Review, 2015 and 2016. The first stage review states 'The ridgeline to the south of Harlow does act as a strong defensible boundary against development sprawling further south of the ridgeline'. In reviewing the accesses, we have not engaged in the whether the exceptional circumstances requirement for Green Belt release have been addressed nor whether the alignment is sufficiently 'readily recognisable and permanent' (as NPPF requires in para 85) as these have been defined by EFDC in Policy, and the Masterplan will need to address this. We do note the development's internal site landscape layout will need to respect this and continue the Green Wedge south to meet the open countryside. The east access does enter the Green Belt but we consider that with appropriate landscape mitigation and avoidance of visual intrusion of urbanising features or road furniture such as signs and lighting, safeguarding encroachment on the countryside by road infrastructure would be achievable.

# 4. Preferred Option Development

## 4.1 Development Urban Structure

4.1.1 This section describes the urban structure of the preferred layout, option 3. This has been developed based on the main transport parameters of option 3, the SP5.1 allocation development parameters and identified development constants and opportunities.

4.1.2 The main transport parameters of Option 3 are;

- Two main points of highway access to the east (link to London Road) and west (Rye Hill Road)
- Sustainable Transport Corridor Link comprising BRT and active travel via the N-S green finger (likely to route on Fern Hill Lane with 'bus only' plug)
- Potential for STC link onwards to London Road and Epping beyond
- Walking & cycling links to existing adopted roads (Fern Hill Lane / Riddings Lane)
- Walking access to several public footpaths to south and north
- Walking and cycling access to public bridleways to south and south west.

4.1.3 The Draft Local Plan Policy (SP5.1) provides guidance on the main development parameters and these include;

- At least 1,050 homes up to 2033;
- 1 hectare of employment land provided at Dorrington Farm;
- Up to 5 traveller pitches;
- Strategic 'green infrastructure' comprising natural/semi natural open space, walking and cycling routes, flood mitigation and wildlife space and a new Green Belt defensible boundary to the South of the site;
- Land within the Green Belt and Masterplan area must be retained for public open space or for appropriate uses in the Green Belt;
- A sympathetic design which responds to the adjacent ancient woodland and the Scheduled Monument;
- A local centre;
- A two-form entry primary school;
- At least 10ha of land to accommodate a secondary school in addition to any necessary contributions;
- Early Years Facilities;
- The provision of appropriate community and health facilities;

4.1.4 The development concept has also been influenced by identified development constraints;

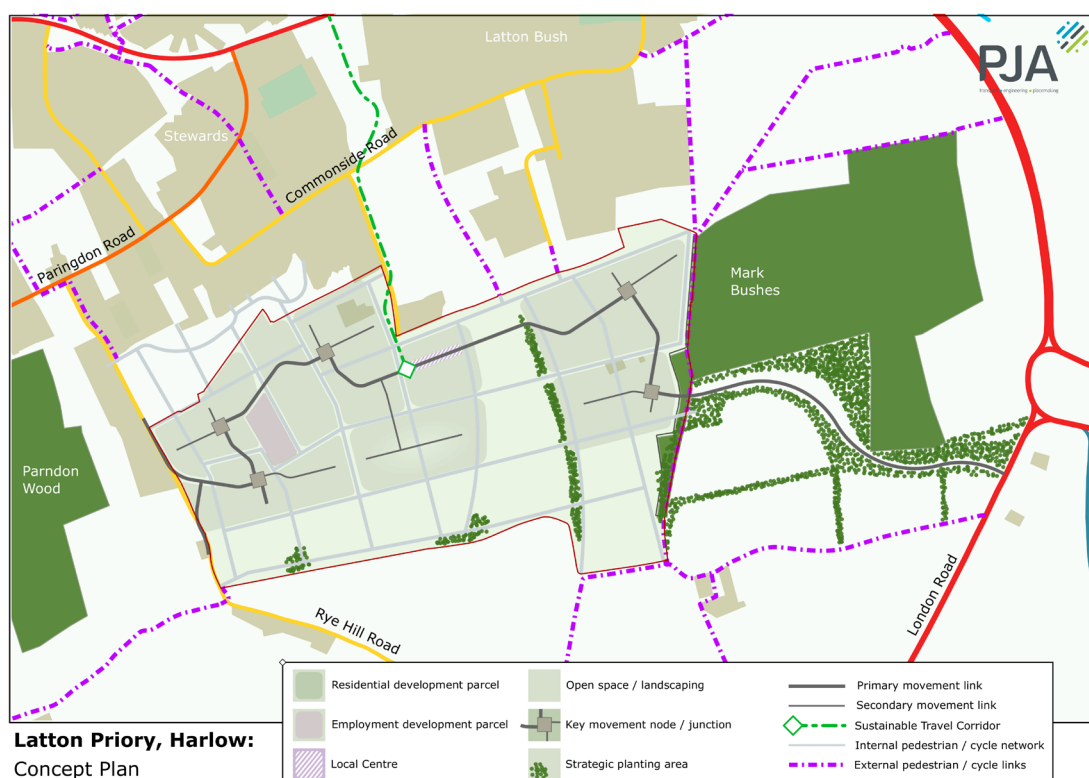
- Existing residential neighbourhoods to north
- Publicly accessible land and common land to north
- The E-W ridge acting as a notional built edge and historic field character beyond
- Historic woodland to east
- Mature tree belt running N-S within the site and associated PRoW

- Heritage assets in the form of Latton Priory building group and associated historic field patterns to the SE
- Historic moat to SW

4.1.5 Based on the main transport parameters and identified development constraints, the study team have formulated the following development opportunities;

- Opportunity to extend the N-S green finger through and beyond the development
- The East road link will be carefully routed to fit into the contours and to avoid vegetation loss or impacts on woodland habitats to the north. Landscape repair and restoration of the historic field patterns is also proposed. Whilst the Green Belt designation does not of itself imply landscape quality, the opportunity to undertake sympathetic landscape repair, in conjunction with careful alignment design is unlikely to adversely affect the openness of this part of the Green Belt and may enhance its contribution to Green Belt purposes through landscape character improvements. The east route has been considered with mitigation specifically to avoid impacts on the Priory and its setting, taking into consideration its visual links to and probable historical cultural associations with, its surrounding fields. In addition the mitigated route proposes a sympathetic alignment to position it in the landscape and the potential to restore field patterns that will enhance the setting of the site. Design development will require more detailed heritage surveys and analysis, including of hidden archaeology.
- Create a managed but connected spine street connecting both development accesses, the local centre and main development parcels.
- Opportunity to centrally locate the Local Centre resulting in optimum access for BRT and maximum walks of 800m from either side of development
- Opportunity to co-locate both schools near the Local Centre, maximising BRT access and placemaking
- Co-locate early years, community, and health facilities at the Local Centre,
- Opportunity to locate school playing fields on flatter land beyond the ridge, thus maximizing development for housing need.
- Provide mixed employment at Dorrington Farm providing linkage with the local centre
- Create a network of secondary active travel links between PRoW and public open space to north and Common Land to NE.

4.1.6 The concept layout is shown below and draws on the stated development principles. It is envisaged this development concept will be used to inform planning and design of the built development and forthcoming planning applications. what not to do.

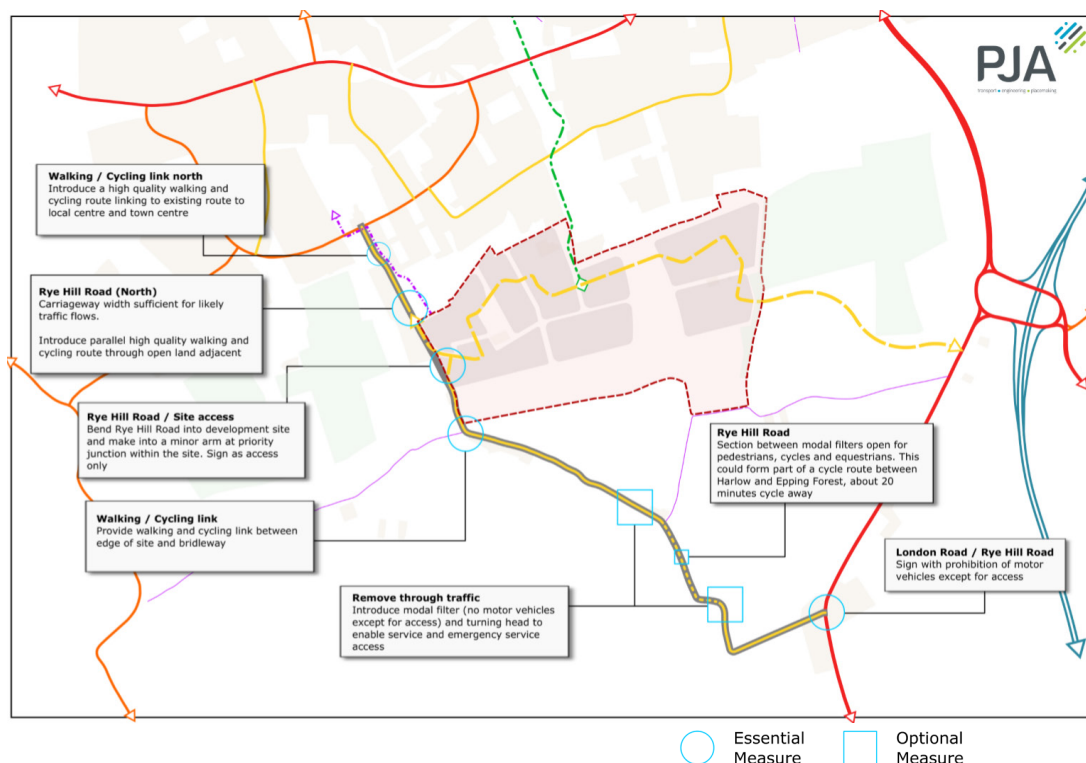


## 4.2 Development Mitigation

- 4.2.1 This section presents a series of transport measures required to deliver the identified development concept. Ultimately, these measures will need to be explored in more detail through Transport Assessments prepared to support the future planning applications.
- 4.2.2 In considering how the preferred access strategy might operate, consideration has been given to a range of complementary measures which could be delivered alongside infrastructure necessary for multi-modal access to the development site. Some of these measures are considered to be essential and others are measures which might be considered as part of the HGGT strategy in order to ameliorate development traffic impacts and to modify existing travel patterns in order to support the aspirations of reducing the use of private cars by new residents and people living, working and learning in the vicinity of the site.

### Rye Hill Road Mitigation

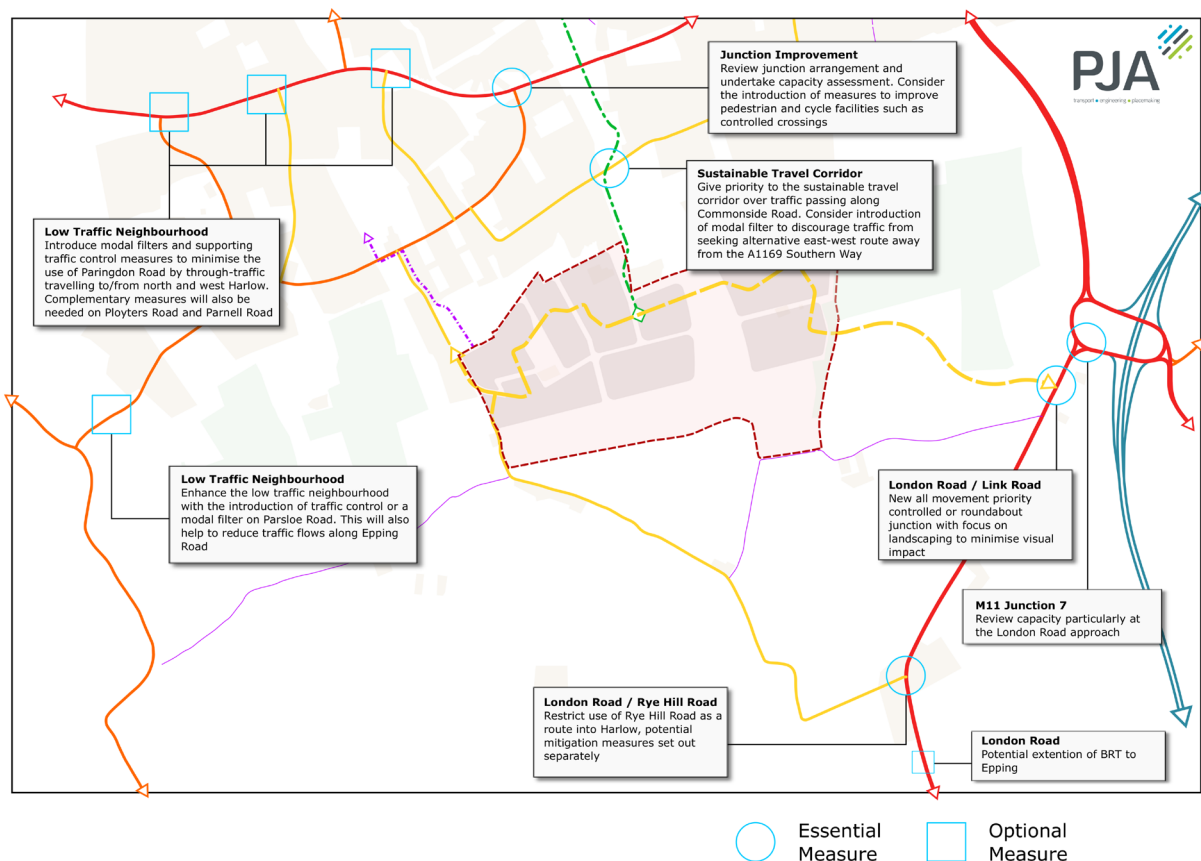
- 4.2.3 Although the preferred access strategy incorporates two points of access, London Road and Rye Hill Road, there is forecast to be an increase in traffic flows along the northern half of Rye Hill Road due to development traffic, and therefore measures will need to be introduced in response.
- 4.2.4 Rye Hill Road north of the site is considered to have sufficient capacity to accommodate the existing flows plus new development traffic. However, the construction of a new through road link between Rye Hill Road and London Road may induce additional traffic by abstracting traffic currently using the congested A1169 Southern Way. It is therefore recommended that Rye Hill Road to the south of the development site is downgraded, and measures are put in place to prevent the use of this section of road by through traffic. The measures are outlined in the attached plan.
- 4.2.5 As a minimum, Traffic Regulation Orders (TROs) should be introduced preventing the use of the road by through traffic. TROs preventing motor vehicles except for access have been used elsewhere in the UK to control the use of rural lanes by through traffic. However, the order is only effective if it is obeyed and this will require enforcement. Alternatively, it might be better to install modal filters along the road to physically prevent through traffic.
- 4.2.6 By closing Rye Hill Road to through traffic, the new link road through the development site effectively replaces the function of it and there is no significant increase in the capacity of the local highway network, which might act against the aspirations for high sustainable travel mode shares.
- 4.2.7 Rye Hill Road has the potential to become the first stage of a safe cycling route between Harlow and Epping, which is only a 20-minute cycle ride from the development site.
- 4.2.8 At the northern end of Rye Hill Road a parallel or adjacent walking and cycling link should be provided. Along the last 250m of Rye Hill Road where there is no adjacent open space, a route can be constructed along the eastern verge, but some road narrowing should be considered.





## Wider Mitigation

- 4.2.9 In addition to the measures targeted at Rye Hill Road, there is a range of complementary measures which should be considered across the wider highway network to mitigate development traffic and modify existing travel patterns in favour of more sustainable modes.
- 4.2.10 To the north west of the development site the existing residential areas either side of Paringdon Road should be considered for inclusion within a Low Traffic Neighbourhood. Paringdon Road accommodates through traffic drawn along Rye Hill Road and on to Epping Forest and places south. The traffic calming features along Paringdon Road have been introduced to make the route less attractive to through traffic and to control the behaviour of drivers passing along it. The volume of through traffic is likely to impact on the mode choice of people who live and work in this area, as higher traffic volumes will discourage short journeys by foot or by bike.
- 4.2.11 To manage these impacts, further traffic calming could be installed on Paringdon Road, or in the extreme, modal filters could be introduced on Paringdon Road (west), Ployters Road and Parnall Road in order to reduce the attractiveness of Paringdon Road and Rye Hill Road/the development site as a routes to Epping. Measures should also be considered on the B1133 Water Lane.
- 4.2.12 If the Low Traffic Neighbourhood measures are implemented, it may remove the need to undertake any junction capacity improvements along Paringdon Road. However, if only the eastern end of Paringdon Road is open, then capacity assessments would be required at the junction of the A1169 Southern Way with Parrington Road. At the very least, pedestrian and cycle crossing facilities in the vicinity of this junction should be enhanced.
- 4.2.13 Another opportunity to discourage undesirable through traffic use of residential streets is found on Commonside Road. Where the proposed sustainable travel corridor is intended to cross this road, priority should be given to the STC. It may also be possible to consider a ban on through traffic along Commonside Road by the introduction of a modal filter at this location instead.
- 4.2.14 To the east of the development a new junction will need to be formed between the link road and London Road. The junction needs to be designed considerably in order to minimise impacts, and should take the form of a priority controlled junction or roundabout, with significant attention paid to the landscaping and screening. At this junction, there may be an opportunity to consider the longer term introduction of bus priority to facilitate bus services to link to the underground network in Epping.
- 4.2.15 Junction capacity will need to be considered on the London Road approach to the M11 junction and this should include detailed modelling of the options and close discussion with highway stakeholders. However, this impact will need to be carefully considered in the context of delivery of a new Junction 7A, which may alter traffic demands across this junction and influence improvement scheme designs.



## Construction Traffic

4.2.16 To deal with construction based impacts, it is recommended that construction traffic including HGVs and worker arrivals are routed on either the Eastern Link Road or the STC to avoid impacts on local neighbourhoods.

## Cost Estimates of Mitigation Measures

4.2.17 The package of local access and wider mitigation measures have been costed to provide indicative cost estimates. Given the level of design detail available, cost ranges have been applied and are indicative only. It is recommended these costs are further reviewed at planning stage through ongoing design development to allow more accurate costs estimates to be prepared. It is envisaged these costs are then used as a basis for Planning Obligations associated with the development site.

4.2.18 The work falls into two categories;

- Local Improvements - which are physical works likely to be implemented by the developer via Section 278 Agreement.
- Wider improvements - which might form the transport and highways basis of a Section 106 Agreement.

4.2.19 The cost estimates exclude any onsite works, land costs and VAT.

**Table 4.1: Local Improvements**

Rye Hill Road / Site Access	Construction of site access and changes to junction priority with Rye Hill Road	£50k - £150k
Rye Hill Road (South) Package	Traffic management to Rye Hill Road including modal filter (no vehicles except for access and emergency access), gateway / signage and walking and cycling improvements	£100k - £200k
Rye Hill Road (North) Package	Construction of new walking and cycling link via public open space or adjacent to Rye Hill Road where space permits to create a continuous link from the development site to Paringdon Road.	£75k - £125k
Eastern Access Road to London Road	New all-purpose link road with 30mph speed limit, parallel walking and cycling link, structural landscaping and reinstatement of historic field patterns to edge of Latton Priory.	£3.5m - £5.5m

**Table 4.2: Wider Improvements**

Harlow Low Traffic Neighbourhoods	Introduction of modal filters and supporting traffic control measures to minimise use of neighbourhood roads by through-traffic.	£300k - £500k
Paringdon Road / Southern Way Junction Capacity Improvement	Introduction of junction changes at Paringdon Road / Second Avenue to mitigate development impact and enhance walking and cycling crossing.	£125k - £175k

4.2.20 These works are in addition to any contributions towards strategic infrastructure defined in the HGGT Infrastructure Delivery Plan (2019). The Latton Priory allocation includes partial transport contributions towards; Upgrades to Junction 7 M11, Velizy Ave / Second Ave Signalized Crossing, Second Stort crossing, Sustainable Transport Corridor and Town Centre Transport Hub and public and active transport support. There is also a full allocation towards the Eastern Link Road, as identified above.

# 5. Summary and Conclusions

- 5.1.1 This report has been prepared by PJA with Rummey Environmental to present the methodology and findings of a study undertaken to assess potential access options for proposed development at Latton Priory, Epping Forest District.
- 5.1.2 The scope of the study was directly guided by questions posed by the Local Plan Inspector which requested further justification of the previously proposed link road eastwards to the B1393 London Road and impact on the Green Belt. The EFDC Local Plan Inspector has sought further information as to whether other vehicle access options should have been considered, specifically to the north and west of the site, which would have less impact on the Green Belt.
- 5.1.3 The extensive background material and Local Plan policies and evidence base relevant to Latton Priory was reviewed and a comprehensive analysis of the surrounding area and constraints undertaken focussing on transport, planning, landscape and environmental topics.
- 5.1.4 Throughout the study, PJA and Rummey Environmental worked with the HGGT Councils and a number of other stakeholder parties. The study has sought to explore options acceptable to all partners.
- 5.1.5 A key aspect of development at Latton Priory is that aspiration for 60% of trips to be undertaken by sustainable modes of travel. Due to the significance of this mode share target, it necessitated consideration of the spatial characteristics of the site layout. Three alternative development concepts have been developed; Places X, Y and Z, to demonstrate how the development of the site could respond to achieve the sustainable mode target. Place Y with a connected but managed spine street is recommended to be the minimum benchmark for the development, this arrangement would not preclude the future delivery of the more ambitious Place Z characteristics. This concept would also facilitate the STC and would provide a comprehensive network of walking and cycle links are created with priority over other modes. This place framework formed a common internal site context against which access options were considered.
- 5.1.6 A long list of ten access options was initially developed by the study team, informed by earlier work undertaken by ECC. A multi-criteria RAG (Red, Amber, Green) approach was taken to sift out problematic options. This process generated five shortlisted access options for which development concept diagrams were prepared and traffic impact assessment was undertaken.
- 5.1.7 The short list access options were scored using a RAG rating against multiple transport and environmental criteria. The appraisal method identified Option 3; western and eastern access as the preferred option. It was one of only two options not to score red impacts across the transport and environment criteria, and unlike the other option, avoids some impacts on lower order roads in the vicinity of the site. It is concluded that this option is acceptable, subject to mitigation and design.
- 5.1.8 A package of mitigation measures will be necessary for the access option to be acceptable, in addition to further measures to enhance the attractiveness of sustainable modes. A range of measures and further suggested options have been identified including:
- The eastern link road design will need to respond to the historic field patterns to south-east and setting of Latton Priory SM & listed buildings.
  - Impacts on CWS tree belt and important hedgerows & Ancient Woodland will need careful consideration.
  - Works to Rye Hill Road to downgrade the road to the south of the site, to prevent its use by through traffic, potentially through the use of modal filters.
  - Provision of a parallel or adjacent walking and cycling link between Latton Priory and Paringdon Road on Rye Hill Road to the north of the site.
  - Consideration to the implementation of a Low Traffic Neighbourhood to the existing residential areas accessed from Paringdon Road through implementing further traffic calming or modal filters.
  - Significant attention paid to the landscaping and screening of the junction of the eastern link road and London Road with the opportunity to consider the longer-term introduction of an extension to the BRT service to Epping.
- 5.1.9 Further mitigation would be necessary and should be assessed in detail as part of any subsequent Transport Assessment prepared in association with a planning submission for Latton Priory.

# Appendix A

Rummey Environmental T2 Technical Review to T6 Option Appraisal Report



# Appendix B

PJA Access Strategy Traffic Modelling Report

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