

HERTFORDSHIRE COUNTY COUNCIL

**DEVELOPMENT CONTROL COMMITTEE
WEDNESDAY, 21 DECEMBER 2016 AT 10.00 AM**

EAST HERTS BOROUGH

Agenda Item
No.

1

**APPLICATION FOR PROPOSED 3.9KM NORTHERN BYPASS OF THE
A120 AND FLOOD ALLEVIATION SCHEME, COMPRISING A NEW 9.3M
WIDE SINGLE CARRIAGEWAY ROAD, VERGES, ROUNDABOUT
JUNCTIONS (INCLUDING LIGHTING), BRIDGES, EMBANKMENTS,
DRAINAGE, LANDSCAPING AND ASSOCIATED ENGINEERING AT A120,
LAND NORTH OF LITTLE HADHAM, HERTFORDSHIRE**

Report of the Chief Executive and Director of Environment

Author: Rob Egan, Senior Planning Officer (Tel: 01992 556224)

Local Member: Graham McAndrew

1. Purpose of Report

- 1.1 To consider planning application reference 3/2364-15 for the proposed 3.9km northern bypass of the A120 and flood alleviation scheme, comprising a new 9.3m wide single carriageway road, verges, roundabout junctions (including lighting), bridges, embankments, drainage, landscaping and associated engineering at A120, land north of Little Hadham, Hertfordshire.

Procedural matters

- 1.2 This planning application has been submitted by joint applicants, namely Hertfordshire County Council and the Environment Agency, with the former concentrating on the provision of the proposed bypass, and the latter concentrating on the delivery of the proposed flood alleviation scheme. The planning application is accompanied by an Environmental Statement (ES). Further to the submission of the application, the applicants submitted addendums to both the Planning Statement and to the Environmental Statement for the consideration of the local planning authority. These addendums primarily related to design changes to the proposed scheme as a result of the identification of the need for the incorporation of further ecological mitigation, particularly in relation to bats, as well as a statement covering Green Belt policy considerations; something that had been omitted from the initial application. The submission of the addendums necessitated a re-consultation exercise, with all original consultees being consulted on the details of the addendums. The contents of the addendums will be explained further within this report.

2 Summary

- 2.1 There is a compelling need for both the bypass and its associated flood alleviation measures. The need for the bypass is identified in a number of policy documents, and its construction and operation would give real benefits in terms of journey times along the A120, alleviating the present congestion that takes place within the village of Little Hadham. The flood alleviation scheme would reduce the risk of flooding from a significant number of residential properties in Little Hadham.
- 2.2 The bypass would, however, result in impacts on other roads and traffic junctions along this stretch of the A120. In order to mitigate for this, there is a commitment from the Highway Authority to carry out continued monitoring into the future of the scheme, addressing the need for future mitigation measures – including the possibility of a further local bypass to the village of Standon – as and when these measures are required.
- 2.3 Part of the development results in development within the Green belt. There is an argument that such development is considered appropriate within such a location. However, if considered inappropriate, there are very special circumstances that clearly outweigh the harm to the openness of the Green Belt. Similarly, the main part of the development takes place within the Rural Area Beyond the Green Belt. The proposed bypass is unable to avoid such land designations and the benefits of the scheme clearly outweigh the harm to the Rural Area.
- 2.4 The development will travel through a rural agricultural landscape. There will be visual and landscape impacts resulting from this, with adverse impacts on Landscape Character Areas. However, these can be mitigated to varying degrees with the introduction of suitable landscaping measures.
- 2.5 In respect of residential amenity, the visual impact of the scheme will undoubtedly detract from certain properties, although this is not considered to be to any substantial degree and the benefits of the bypass outweigh this harm. There are overall benefits of the bypass to air quality in the centre of Little Hadham due to the reduction in traffic, with no other sensitive receptors having been identified as suffering significantly from any reduction in air quality. Similarly, in terms of noise, some communities may experience an increase in noise levels, but others will experience relatively large reductions in noise as a result of traffic moving on to the bypass. Vibration from construction works should not adversely impact upon the vast majority of residential properties but, where this does occur, it will not be for any prolonged period of time and can be controlled by condition.
- 2.6 In respect of the historic heritage, it is concluded that there is less than substantial harm to identified heritage assets within the vicinity of the scheme. Furthermore, the reduction in traffic within the centre of Little

Hadham gives benefits to the wider setting of the Little Hadham Conservation Area as well as a number of listed buildings that front the existing A120. Archaeological impacts of the scheme can be addressed through the imposition of conditions seeking proper studies be carried out both prior to, and during, construction of the bypass.

- 2.7 Public rights of way are affected by the development, with temporary and permanent diversions proposed as part of the scheme and its construction. However, these are considered to be acceptable, having no overall detrimental impact on the use of these.
- 2.8 Finally, the scheme will have an impact on ecology and biodiversity, especially in relation to a colony of barbastelle bats that are found close to the proposed bypass, as well as great crested newts. However, both on-site and off-site mitigation addresses these concerns.
- 2.9 Consequently, taking into account the environmental information submitted with the planning application, it is recommended that planning permission be granted for the proposed development, subject to the imposition of a number of conditions, and referral to the Secretary of State, as set out in the final chapter of this report.

3. Description of the site and proposed development

- 3.1 The A120 is an important east-west road link in the county's primary road network. Starting at the A10 at the village of Standon at its western-most point, the road travels through Little Hadham some 6 kilometres to the east before bypassing Bishop's Stortford to the north of the town and joining the M11 at junction 8. The road continues into Essex and – apart from a stretch at Colchester where it joins with the A12 – continues uninterrupted as it travels to its destination at the port of Harwich. In Essex, parts of the A120 are dual-carriageway, although the relatively short section in Hertfordshire is single-carriageway. The A120 in Hertfordshire also serves as part of an official signed emergency diversion for the M11 and M25.
- 3.2 The stretch of the A120 from a point west of Little Hadham and through the village to Bishop's Stortford is very straight, following the line of Stane Street; a Roman road. There is, however, a kink in the road in the centre of Little Hadham, where there is a staggered crossroads where the A120 is met by Albury Road to the north (serving a number of villages) and an unnamed road to Much Hadham to the south. Due to the s-shaped road alignment at the crossroads and the narrow width of the A120 in this location – resulting in a pinch-point – the junction is signal controlled with traffic lights. The A120 accordingly experiences severe congestion at the traffic lights. The lights have been historically upgraded, but there is no ability to continue to do this. At present the lights operate on a five minute cycle. Due to the s-shaped configuration of the A120, the staggered crossroads and the presence

of listed buildings right on the junction, road improvements are unable to be made as a means of alleviating the congestion.

- 3.3 It is therefore proposed to construct a bypass to the north of Little Hadham. This would measure approximately 3.9km in length and would link with the existing A120 at two new roundabouts to the east and west of the village. The proposed works would encompass an area of approximately 40.5 hectares. The typical carriageway width would be 9.3 metres, excluding verges, which will consist of two 3.65 metre lanes. In the centre of the scheme, however, there will be a one kilometre long eastbound climbing lane. Apart from at the two new roundabouts, there would be no other lighting associated with the proposed development. The existing Albury Road would cross over the proposed bypass by way of a new bridge.
- 3.4 In addition, three rivers and/or watercourses go through Little Hadham. The River Ash travels in a north-east to south-west direction through the village, flowing under the A120 just to the east of the traffic lights. The Albury Tributary flows south-easterly into the village, joining the Ash just north of the A120. In addition, the Lloyd Taylor Drain flows in an easterly direction to the south of the A120, joining the River Ash to the south of the traffic lights. All of these are prone to flooding, and there have been a total of six extensive floods since 1947, with particularly severe flooding taking place in 2001. The most recent flooding occurred in February 2014. In total, 72 properties in Little Hadham have a 1 in 100 or greater annual probability of river flooding. Consequently, built into the development will be a flood alleviation scheme, thus significantly reducing flood risk for the majority of these properties.

Description of the development

- 3.5 The proposed bypass will form a sweeping arc to the north of the village of Little Hadham, with the northern part of the village sitting between the bypass and the existing A120. Similarly, the bypass will travel to the north of the hamlet of Church End as well as the developments at Hadham Hall and Hadham Park. These will also be enclosed between the existing A120 and the bypass. The overall consequence of this is that the primary road network will move away from Little Hadham, also taking it further away from the settlements that are located to the south of the existing A120 such as Hadham Ford, Green Street, Bury Green and Cradle End.
- 3.6 However, the bypass and its associated works will ultimately travel through what is, at present, predominantly agricultural land in a rural setting. It will also result in development that encroaches on the parish of Albury to the north of Little Hadham, with the bypass being located much closer to the villages and settlements to the north than presently exists with the A120. The settlements most affected will be Albury End,

Albury Lodge and Upwick Green, with Albury and Clapgate located just beyond these.

- 3.7 Taking each section of the development in turn, from west to east, the bypass will commence at the new Tilekiln roundabout approximately 650 metres to the west of the signalised traffic junction in Little Hadham. The new roundabout will be located adjacent to an existing detached residential property known as The Lodge. When travelling east from Standon, there will be a dedicated left-hand feeder lane constructed within the roundabout thus removing the need to enter the bypass in this location. During the construction phase, the roundabout will mainly be built off-line so as to minimise the disruption to the existing A120. This section of the bypass descends from west to east, with most of it running through two cuttings with depths of over 2.5 metres and over 3.5 metres respectively, thus reducing the visual impact. A brief section in the centre runs on a very low raised section, approximately 500mm above existing ground levels, although an environmental bund will be provided in this location to mitigate the noise and visual impacts of the road. An existing footpath will be affected and will be permanently diverted to the west of the roundabout, although this does not materially affect the operation of the footpath. In fact, it allows a link with an existing footpath that runs to the south of the A120 in this location, with an uncontrolled pedestrian crossing over the existing A120 linking the two.
- 3.8 After approximately 500 metres, the bypass emerges from the second cutting and reaches the Albury Tributary at the confluence of two watercourses and its shallow valley. As the road crosses the tributary, a high embankment is provided, being over 5 metres above original ground levels. The embankment has been designed to provide a flood storage area upstream during instances of likely flooding, with a culvert orifice in the embankment being designed to restrict flow during storms. Two public footpaths will be diverted so that they cross the bypass at grade by way of an uncontrolled pedestrian crossing, although an alternative route will also be available beneath the embankment utilising the proposed spillway. The latter route would prevent the need to cross the road on foot in this location. Drainage basins are also proposed at the location of the embankment, and a two metre high noise barrier is proposed on the embankment to reduce noise impacts from the road.
- 3.9 After crossing the valley of the Albury Tributary, the bypass will travel north eastwards towards Albury Road, which is the road that travels north from the signalised junction in Little Hadham and which serves the villages to the north. The stretch of bypass just to the east of Albury Road, is within a cutting up to 5 metres below existing ground levels. However, Albury Road itself will be slightly realigned and raised, with a new bridge being provided to take this over the proposed bypass.

- 3.10 After approximately 1.25km of the bypass's route from its western end, it emerges into the valley of the River Ash. To necessitate the movement of the road across the valley, as well as to provide the second element of the flood alleviation scheme, a further embankment is provided up to 10 metres above existing ground levels. The embankment provides sufficient height to retain the volumes of water associated with a probable maximum flood event, with a constriction of the flow of the River Ash through the embankment. The embankment will continue for a total length of approximately 560 metres and, just to the east of the River Ash, the road will begin to ascend, climbing up the eastern valley side. At the point to the east of the river will be the commencement of the eastbound climbing lane.
- 3.11 The next stretch of the bypass moves into deep a cutting up to 7.5 metres below existing ground levels, with the gradient being steep and justifying the climbing lane. A new bridge will be provided to the east of the Mill Mound scheduled monument to provide agricultural access and to enable the crossing of the bypass by an existing bridleway (which also forms part of the Hertfordshire Way). Moving further east from here, the bypass is close to existing ground levels or, in stretches, is slightly raised. Where this occurs, environmental bunds are proposed to reduce the noise impacts of the scheme on Hadham Hall to the south, reaching a maximum height of 4.5 metres. Also along this stretch, the bypass crosses the Cradle End Brook, with the need for this to be culverted. However, this does not form part of the flood alleviation scheme.
- 3.12 Further east, the original scheme proposed the construction of a further bridge to cross the bypass to provide agricultural access as well as to accommodate a further bridleway. This has since been redesigned, predominantly for ecological reasons, which will be explained in greater detail within this report. The redesigned scheme now provides an underpass in this general location, serving the same purposes as the previously proposed bridge.
- 3.13 The final portion of the bypass runs close to a large residential property, known as Savernake, to its west, before joining with the existing A120 at the proposed Hadham Park roundabout. The road is close to existing ground levels on this final part. An existing footpath will be diverted here to allow it to cross the bypass at the roundabout, utilising a traffic island.
- 3.14 In addition to the bypass itself, works will also be carried out to the Lloyd Taylor Drain that is located to the west of Little Hadham. This watercourse will be diverted to the west of the village around the residential properties of Lloyd Taylor Close and The Smithy. It would operate by diverting flood flows away from an existing undersized culvert beneath the properties off Spindle Hill, taking them instead into the River Ash below The Ash settlement. A new oversized culvert will

also be constructed under Albury Road to allow the flood waters to pass without issue.

- 3.15 Finally, minor works are proposed at a detached site at Upwick Road, approximately 1.5km north of Little Hadham, to raise the level of the road in that location. This runs close to the River Ash in that location and the works would reduce the risk of it flooding.

Planning history

- 3.16 There is no planning history considered relevant to this planning application.

4. Consultations

4.1 East Herts District Council – Planning

Original consultation response

Supports the proposal, but requests that further action be taken to bring forward mitigation measures in the local area and beyond.

Further consultation response

No additional comments to make.

The full consultation responses are attached at Appendix A.

4.2 Little Hadham Parish Council

Original consultation response

Supports the application but with requests for the county council to consider:

- The provision of an access off the bypass with Albury Road, preventing the need for traffic to travel through Little Hadham when accessing the villages to the north.
- A revision of the Lloyd Taylor Drain to include a previously designed attenuation pond to prevent excessive water from entering the channel.
- The imposition of a time limit for noise reduction measures.
- The imposition of time limits regarding the installation of traffic calming in Little Hadham.

Further consultation response

Considers that the alterations to the eastern end of the bypass would improve the visual impact of the development, and supports the measures taken to protect the important wildlife of the area.

The full consultation responses are attached at Appendix A.

4.3 Albury Parish Council

Original consultation response

Objects to the development on the basis that:

- The impact of the development on Albury is extensive without any benefits.
- Although regard has been made to the NPPF and the beneficial impacts on Little Hadham, a similar appraisal of the negative impacts on Albury has not been made.
- Proposals to mitigate against noise, and the negative impact on the landscape and environment of the Parish of Albury should be reassessed.
- Incorrect statements should be noted and rectified.
- It is vital that the parish council understands what the impacts of the proposal on flood risk are.

Further consultation response

Welcomes the introduction of an underpass on ecological grounds. However, is of the opinion that previous concerns regarding the environmental and visual impacts on the parish of Albury have not been addressed and, with the introduction of the deer fencing to the top of embankments, the visual impact will be worse.

The full consultation responses are attached at Appendix A.

4.4 Environment Agency

Original consultation response

No objection, but the development will only be acceptable if a number of suggested planning conditions are attached to any grant of planning permission.

Further consultation response

No objection, but a change to the suggested condition regarding lighting, plus the provision of a further condition to take account of the presence of Great Crested Newts.

The full consultation responses are attached at Appendix A.

4.5 Hertfordshire County Council - Highways

Original consultation response

Does not wish to restrict the grant of planning permission, subject to the imposition of a number of conditions.

Further consultation response

None received.

The full consultation responses are attached at Appendix A.

4.6 Highways England

Original consultation response

Offers no objection.

Further consultation response

Offers no objection.

4.7 Natural England

Original consultation response

No objection and no conditions requested.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.8 Hertfordshire County Council – Ecology

Does not consider that there are any outstanding ecological issues that would in principle prevent this proposal from being determined, subject to satisfactory amendments.

The full consultation responses are attached at Appendix A.

4.9 Herts & Middlesex Wildlife Trust

Original consultation response

Objects on the following basis:

- More survey information required to properly quantify impacts on barbastelle population
- Mitigation required based on the survey appropriate to the level of impact, e.g. lighting, habitat creation, flight line crossing points etc.
- Monitoring regime required

- Habitat enhancement fund required to create net gains in barbastelle population
- Definition needed on all other habitat creation aspects of the scheme

Further consultation response

Whilst happy with the survey work carried out in relation to Barbastelle bats, still has concerns about a number of issues, including mitigation measures for ecology.

The full consultation responses are attached at Appendix A.

4.10 Hertfordshire and Middlesex Bat Group

Original consultation response

Objects due to insufficient information in respect of survey, impacts and mitigation to enable an evaluation to be made of the likely effects on the important bat populations in the area.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.11 CPRE Hertfordshire

Original consultation response

Raises concerns regarding the impact of the development on the highway network once the scheme is operational, requesting that consideration be given to the imposition of conditions and Highways Agreements provisions to ensure that appropriate mitigation measures are implemented, especially within Standon.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.12 Hertfordshire Gardens Trust

Original consultation response

Objects, as the proposed Hadham Park Bridge would cause significant damage to the view from Hadham Hall and the significance of the site.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.13 Historic England

Original consultation response

Comments that there is likely to be some harm to the significance of a number of heritage assets but it is up to the Council to weight this harm against the public benefits of the proposal in line with paragraph 134 of the NPPF as part of the decision-making process. Any harm requires clear and convincing justification in line with paragraph 132 of the NPPF. Mitigation should also be appropriate to the level of harm experienced.

Further consultation response

No further comments to add to the original response.

The full consultation responses are attached at Appendix A.

4.14 Hertfordshire County Council – Historic Environment

Original consultation response

Does not object, subject to the imposition of conditions requiring an Archaeological Scheme of Investigation to be submitted and approved, with construction works taking place in accordance with this and with adequate safeguards in place to record any findings.

Further consultation response

Advice remains largely unchanged, but acknowledges that trial trenching has taken place. Therefore, recommendation to continue with further site investigations, with the imposition of the conditions originally proposed.

The full consultation responses are attached at Appendix A.

4.15 Hertfordshire County Council – Flood Risk Management

Original consultation response

Recommends that planning permission can be granted subject to a number of conditions.

Further consultation response

Note that the amended scheme does not affect the proposed drainage strategy and flood risk assessment with exception to the changes to boundary. Therefore the original position is maintained.

The full consultation responses are attached at Appendix A.

4.16 Hertfordshire County Council – Landscape

Original consultation response

The proposed development results in permanent significant adverse landscape and visual effects and is therefore not supported in principle. However in the event that, on balance of all planning considerations, the proposal is approved, then it is considered that the proposed landscape mitigation strategy is the most effective it can be within the constraints of the tight site boundary, and large areas of flood banks that cannot be planted.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.17 Hertfordshire County Council – Rights of Way Service

Original consultation response

Does not object as the Rights of Way Service has had input into the relevant sections of the planning process over the course of some years and is generally happy with the outcome of this, so don't have any comments to make at this stage.

Further consultation response

None received.

4.18 Ramblers Footpath Secretary – Bishop's Stortford

Original consultation response

Makes comments and suggestions about how the public rights of way could be better linked or made safer.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.19 Affinity Water

Original consultation response

Does not object, but states that construction works may exacerbate the risk of pollution. If any pollution is found at the sites then the appropriate monitoring and remediation methods will need to be undertaken.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.20 Third Party Comments

The application was advertised in the press and a total of 303 letters were sent to residents and other premises in the surrounding area. Site notices were erected on 1 December 2015.

Further to the submission of the addendums, the application was again advertised in the press and further letters were sent to the 303 residents and other premises. Further site notices were erected on 18 October 2016.

Original consultation responses

42 responses were received in respect of the original consultation. Of these, 22 were in support of the proposed development; and 20 objected and/or raised concerns about the proposal. These responses can be summarised as follows:

In support

- The proposal would alleviate current traffic problems in Little Hadham.
- The bypass is long overdue.
- A bypass is desperately needed.
- The present commute through Little Hadham is awful and tiresome.
- The development would resolve the issues of cars trying to join the existing main road from dangerous junctions.
- The proposal would resolve the issues of cars pulling out onto the existing A120 from houses and the local primary school.
- It would solve the dangers of people trying to jump the Little Hadham traffic lights, with pedestrian safety presently being compromised by such actions.
- Vehicles speed through the village to try to beat the traffic lights.

- Children crossing the existing road are subject to near-misses from traffic.
- The proposed development will have an improvement in pedestrian and cycle safety.
- The bypass will reduce rat-running through the village.
- Some motorists have little regard for the residents of Little Hadham.
- The volume of traffic through the village has disturbed sleep.
- The quality of life of residents will improve.
- Health concerns arising from fumes from vehicles waiting at the traffic lights would be improved.
- Dirt and grime from traffic going through the village results in expensive upkeep of properties, including listed buildings.
- The proposed development would resolve the flooding of homes in Little Hadham.
- Flooding has resulted in residents being unable to leave the village.
- Flooding has resulted in excessive damage to properties in Little Hadham.
- Houses are presently unable to have insurance cover due to historic flooding.
- The Lloyd Taylor Drain regularly results in flooding. The proposed works will solve this.
- The proposed bypass respects the countryside.
- The proposed development is not ideal but offers the best solution.

In objection

- The initial public consultation process, which looked at a number of proposed routes for the bypass, was flawed.
- Other routes that were initially proposed are preferable to this route.
- Previous public consultation on routes has been ignored.
- The development consists of the wrong road in the wrong place.
- The proposed bypass fails to comply with Local Transport Plan policies.
- Due to its alignment close to Little Hadham, it is not a proper bypass.
- It is not a village bypass, but a bypass around the traffic lights.
- A better solution would be to remove the traffic lights in Little Hadham and to install a new traffic system.
- Double mini-roundabouts have previously been proposed for the centre of Little Hadham, but this has not been explored further.
- Relocation of a couple of houses in the centre of Little Hadham would be preferable.
- Residents of Little Hadham were fully aware of the traffic issues when they bought their houses.
- When the Little Hadham traffic lights have failed, traffic has moved freely without congestion during the rush hour.
- A more strategic approach is needed, building a proper dual-carriageway road between the M11 and A10, and ultimately onwards to the A1 and M1.

- Future strategic routing would render the Little Hadham bypass as unnecessary.
- The proposal does not consider a bypass at Standon.
- The development is out of time as traffic studies were carried out in 2006.
- The proposal is just a short-term solution.
- The initial stated aim of the bypass to reduce journey times has been watered down.
- The scheme provides no additional capacity beyond existing requirements.
- An increase of roundabouts on the route of the A120 will increase congestion.
- The proposed road would result in queues of traffic being moved to the east (Bishops Stortford) and west (Standon).
- There is concern that Little Hadham residents will experience congestion when trying to gain access to the bypass at its eastern and western ends.
- The proposal falls short of addressing traffic needs, and does not take into consideration future housing developments at Bishops Stortford.
- The proposal does not consider the proposed expansion of Stanstead Airport.
- There is already congestion at junction 8 of the M11, and this will worsen the situation.
- The present irritating sequence on the traffic lights at Little Hadham will continue.
- The ability to access the bypass at Albury Road is essential for Little Hadham residents.
- The lack of a slip road off Albury Road means that HGVs and farm traffic will still go along Albury Road when accessing the villages to the north of the bypass, continuing the present noise and disturbance.
- The proposed Tilekiln roundabout will adversely affect the entrance to Tilekiln Farm.
- The slip road on the bypass coming away from the Tilekiln roundabout is not required.
- The design of the proposed Tilekiln roundabout may impact upon highway safety.
- At present, the speed restrictions in Little Hadham limit accidents and animal strikes. Moving the road to the open countryside will increase the likelihood of animal strikes.
- The bypass should link directly with the Tesco roundabout at Bishops Stortford.
- The Lloyd Taylor Drain is the worst contributor to flooding in the village. The works to this could have been carried out without the bypass.
- The proposed flood alleviation scheme could be implemented independently of the bypass at a fraction of the cost.

- It is immoral to suggest that the flood alleviation scheme is dependent on the construction of the bypass.
- The Albury Road floods south of Clapgate. Backing up the River Ash through the proposed flood alleviation scheme will worsen this. Albury Road needs to be raised/protected.
- Dredging the River Ash is a preferable solution to flooding.
- Originally proposed water-holding reservoirs have been omitted from present proposal. These would have been more effective.
- The bypass will increase air, noise and light pollution to residents of Albury Road.
- The contours of the Ash Valley will funnel noise. A sound barrier is needed to the north of the proposed dam.
- Views from Upwick towards the bypass should be protected through the deepening of the cutting.
- Planting and earth embankments should be sufficient to provide the necessary visual screening.
- The road will adversely affect the setting of the Mill Mound ancient monument.
- The northern aspect of the dam will be visible from Patmore Heath, which is a SSSI. This needs to be protected through additional planting.
- The road will have an adverse impact on the Grade I St Cecilia's Church.
- Properties in Upwick Green, Albury End, Clapgate, Patmore Heath and Gravesend will all look towards the road, with the road being audible from these, especially with the bypass being 7.8 metres above existing ground levels.
- Hadham Hall (Grade II*) will be affected by the proposed bypass.
- The development will undermine the viability of Grade 2 agricultural land.
- There is a threat that infill development will take place on land between Albury Road and the proposed bypass.
- The road will carve a gash in a ridge created 20,000 years ago when the ice sheet retreated.
- The bypass will despoil beautiful countryside, including a historic site.
- The new road will lead to a loss of footpaths and countryside access.
- The development will ruin the countryside and Green Belt.
- The proposed bypass will adversely impact upon wildlife corridors.
- Nightingales nest on the proposed route of the new road.
- The proposal will result in a loss of flora and fauna.
- Historic oak trees will be lost along the route.
- The proposed development represents a waste of money.
- Money that will be spent on the project could be spent on other vital services in the county.

Further consultation responses

Upon the further consultation, three responses were received, all in objection to the development. These came from parties that had already objected when the first consultation exercise was carried out.

- Heartening that the underpass will be provided for the benefit of ecology, reducing the visual impact, but the same consideration has not been given to the embankments and their visual impact and impact on ecology.
- The embankment over the River Ash will result in the road being visible and audible from Upwick Green, Albury End, Clapgate, Patmore Heath and Gravesend, and will adversely affect walkers and cyclists attracted to the area for its unspoilt beauty.
- The SSSI at Patmore Heath falls within the 2km buffer zone.
- Whilst bunds have been added to the southern side of the road, no such bunds/landscaping have been introduced to the northern aspect of the bypass.
- In respect of the Hadham Park underpass, the only way in which the landowner can access his land is via this and he has the following concerns:
 - The underpass measures 6 metres wide (including two verges of 0.5 metres wide) by 5 metres in height. This will not allow all of his agricultural machinery to travel through the underpass without the need for it to be dismantled.
 - There is concern that the dual use as a bridleway gives danger as it is orientated in an east-west direction. Underpass users may therefore be dazzled by the sun, which could cause collisions.
 - A concrete road is required under the underpass due to the existing softness of this part of the land.
- The landowner has also raised concerns about the intended ecological planting to the south of the A120 as discussions with the Wildlife Trust indicate that the present arrangements of how that field is managed are beneficial for wildlife.

5. Planning Policy

- 5.1 Section 70(2) of the Town and Country Planning Act 1990 (as amended) and Section 38(6) of the Planning and Compulsory Purchase Act 2004 (as amended) require that planning applications be determined in accordance with the development plan unless material considerations indicate otherwise.
- 5.2 In the national context, the National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied.

National Planning Policy Framework 2012 (NPPF)

- 5.3 The NPPF was released in March 2012. The NPPF contains the presumption in favour of sustainable development. The document also promotes the development plan as the starting point for decision making and that decisions should be made in accordance with an up to date Local Plan unless material considerations indicate otherwise.
- 5.4 The NPPF refers to three dimensions of sustainable development; economic, social and environmental and the purpose of the planning system being to contribute to the achievement of sustainable development. In order to achieve sustainable development economic, social and environmental gains should be sought jointly and simultaneously through the planning system. Pursuing sustainable development involves seeking positive improvements in the quality of the built, natural and historic environment, as well as in people's quality of life and improving the conditions in which people live, work, travel and take leisure.
- 5.5 The NPPF also seeks to protect Green Belt land stating that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics being their openness and their permanence. Green Belt purposes include checking the unrestricted sprawl of large built-up areas; preventing neighbouring towns merging into one another; assisting in safeguarding the countryside from encroachment; preserving the setting and special character of historic towns; and to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 5.6 Inappropriate development in the Green Belt is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. 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, is clearly outweighed by other considerations.

The Development Plan

- 5.7 The development plan consists of the East Herts Local Plan Second Review (April 2007) and its associated Supplementary Planning Documents (SPDs).
- 5.8 The most relevant planning policies to consider for this application are:
 - Policy GBC1 Appropriate Development in the Green Belt
 - Policy GBC2 The Rural Area Beyond the Green Belt
 - Policy GBC3 Appropriate Development in the Rural Area Beyond the Green Belt
 - Policy GBC14 Landscape Character

Policy TR3	Transport Assessment
Policy TR17	Traffic Calming
Policy ENV1	Design and Environmental Quality
Policy ENV2	Landscaping
Policy ENV11	Protection of Existing Hedgerows and Trees
Policy ENV13	Development and SSSIs
Policy ENV14	Local Sites
Policy ENV16	Protected Species
Policy ENV17	Wildlife Habitats
Policy ENV18	Water Environment
Policy ENV19	Development in Areas Liable to Flood
Policy ENV20	Groundwater Protection
Policy ENV21	Surface Water Drainage
Policy ENV23	Light Pollution and Floodlighting
Policy ENV24	Noise Generating Development
Policy ENV25	Noise Sensitive Development
Policy ENV27	Air Quality
Policy BH1	Archaeology and New Development
Policy BH6	New Developments in Conservation Areas

- 5.9 The emerging East Herts Local Plan is at the preferred options stage, and has been the subject of a public consultation exercise. At the moment, however, it only carries limited weight. Nevertheless, Policy DPS5 of the emerging plan identifies the A120 Bypass as a road improvement.
- 5.10 From a transport planning perspective, the Hertfordshire County Council Local Transport Plan (2011-2031) sets out the county council's vision and strategy for the long term development of transport within the county.
- 5.11 In addition, the Eastern Herts Transport Plan (2007) covers the settlements of Bishop's Stortford and Sawbridgeworth, and also includes the surrounding rural area approximately bounded by the A10 in the west, the A120 to the north, and the county boundary to the south and east.

6. Planning Issues

- 6.1 The principal planning issues to be taken into account in determining this application can be summarised as:
- Need and justification of the bypass
 - Congestion relief and the impact of the bypass on other roads
 - Need and justification of the flood alleviation measures
 - Green Belt development
 - Development in the Rural Area beyond the Green Belt
 - Landscape and visual impact
 - Impact on residential and non-residential amenity
 - Impact on historic environment

- Impact on the network of rights of way
- Impact on ecology and biodiversity

The need and justification for a bypass

- 6.2 The NPPF supports sustainable development by encouraging local planning authorities to:
- support development that facilitates the use of sustainable modes of transport, including the potential to locate developments where the need to travel will be minimised;
 - develop strategies for the provision of viable transport infrastructure to support sustainable development;
 - identify and protect sites and routes which could be critical in developing infrastructure to widen transport choice.
- 6.3 The NPPF sets out that planning authorities should work with neighbouring authorities and transport providers to develop strategies for the provision of viable infrastructure necessary to support sustainable development, including “transport investment necessary to support strategies for the growth of ports, airports or other major generators of travel demand in their areas.”
- 6.4 With this in mind, London Stanstead Airport is located just 10 kilometres to the east of the proposed bypass. In fact, the A120 is identified in the airport’s Sustainable Development Plan as being a major point of access. London Stanstead has planning permission to expand, thus increasing the number of passengers from 20 million to 35 million per annum, with it anticipated that this higher figure will be reached in the next 10 years. Furthermore, future capacity will exist to allow further increases up to approximately 40 to 45 million passengers per year.
- 6.5 The physical need for the proposed bypass at Little Hadham has also been identified for some time through a range of policy documents.
- 6.6 Planning permission exists for an additional 2,200 homes in Bishop’s Stortford, and, as explained, it is also proposed to increase the capacity of London Stanstead Airport; which itself has a projection that 10,000 new jobs will be created. The Government’s Transport White Paper (Creating Growth, Cutting Carbon Making Sustainable Transport Happen) 2011 provides key objectives for future transport investment. These are, primarily, the aim to create growth in the economy, and the aim to tackle climate change by cutting carbon emissions. The paper also seeks to tackle places where congestion results in slow and unreliable journeys which impact significantly on the economy and the environment.
- 6.7 Hertfordshire’s Local Transport Plan covers the years 2011 to 2031. Identified as a major scheme within the Plan is the proposed Little

Hadham bypass and flood alleviation scheme. The Plan sets out five principal goals. These are to ensure that transport schemes:

- Support economic development and planned dwelling growth.
- Improve transport opportunities for all and achieve behavioural change in mode choice.
- Enhance quality of life, health and the natural, built, historic environment for all Hertfordshire residents.
- Improve the safety and security of residents and other road users.
- Reduce transport's contribution to greenhouse gas emissions and improve its resilience.

- 6.8 The applicants are of the view that the proposed bypass accords with all of these objectives; especially where it is anticipated that the bypass will support economic development and planned dwelling growth through the provision of additional capacity on the A120; and in terms of the enhancement of the quality of life, health and the natural and built historic environments through the removal of traffic congestion from the centre of Little Hadham. To a lesser degree, the applicants also believe that the bypassing of Little Hadham will remove traffic from Little Hadham, improving the safety of residents and other road users and, through the removal of the bottle neck at the staggered crossroads, will reduce greenhouse gas emissions.
- 6.9 Hertfordshire County Council, in its role as local transport authority, is responsible for producing spatial transport strategies. One of these is the Inter-Urban Route Strategy, which aims, amongst other things, to provide a strategy for each route and a county-wide strategy, identifying potential contenders for Major Projects. Corridor 8 of the Strategy focuses on the A120, which is identified as carrying a mix of local and strategic traffic as it is the main link to Stanstead Airport and the M11. The Strategy refers to the existing bottleneck at Little Hadham and the plan to address this through the provision of a bypass, which is a major aspiration of the Local Transport Plan.
- 6.10 In addition, the Transport Economic Evidence Study published in September 2008 recognised that the section of the A120 to the east is close to capacity. The study stated that “the removal of transport constraints (congestion) would...deliver significant economic benefits to the region.”
- 6.11 In further support for a bypass, the scheme was identified within the Local Transport Body Shortlist in 2013. Local Transport Bodies (LTBs) are the result of the Government devolving the funding of major transport schemes. LTBs are voluntary partnerships between local authorities, LEPs and other organisations. The proposed bypass was identified as being within the top three for deliverability and achievability of Local Transport Plan goals within Hertfordshire. Similarly, the LEP Strategic Economic Plan that was published in March 2014 named the

A120 bypass as being one of the 2015/16 Implementation Priorities for the M11/A10 package, being a scheme that was considered as being able to ease congestion within the area.

- 6.12 Furthermore, the Hertfordshire Infrastructure and Investment Strategy, published in November 2009, considered the locations of where investment in transport infrastructure should go between the years 2011 to 2031. This identified that east to west journeys were not as well catered for as existing north to south routes. The A120 was therefore identified within the strategy as being in need of a bypass to alleviate capacity issues and to assist with future forecast growth.
- 6.13 In further support for a bypass, the Highways and Transport Panel at Hertfordshire County Council had, in 2006, endorsed the continued Primary Route function of the A120 and the need for improvements in the form of local bypasses, including the provision of single-carriageway local bypasses for the villages of Little Hadham and Standon. As background to this, the Highways Authority had considered a number of options in which the congestion at Little Hadham could be alleviated. These options included the bypassing of Little Hadham on its own, bypassing both Little Hadham and Standon (through the provision of both single and dual carriageway roads), and the provision of more strategic east-west routes from the A10 to the M11. The original preference was for a bypass to both villages of Little Hadham and Standon as, firstly, the existing A120 at Standon has a poor accident record and, secondly, bypassing both villages was seen as providing greater benefits to the operation of the A120 as well as the environment of both villages. However, bypassing both villages scored low in terms of funding and deliverability. Similarly, the strategic east-west proposals scored low due to concerns about the effectiveness of these schemes on traffic movement through Little Hadham, as well as movement along the A120 in general.
- 6.14 The proposed bypass to Little Hadham was subsequently brought forward as it offered the opportunity to reduce accidents between Little Hadham and Standon, whilst also providing a good quality link between the A10 to the west and the M11 to the east. However, the applicants stress that this is a staged approach with the bypass to Standon anticipated to be delivered in the future. This accords with the Local Transport Plan, which identifies the Little Hadham bypass as the first stage with other phases being prioritised against other projects in the county as part of the Local Transport Plan processes.
- 6.15 When the Highways Authority originally carried out public consultation on a number of proposed routes back in 2007, Option 5 was seen to be the preference of the public with 65% of respondents saying that it was acceptable. Option 5 was also the least unacceptable option with 32% of respondents identifying it as being unacceptable. This was also considered by the Highways Authority to be the best performing route, although it did attract opposition from residents of Albury End due to

the anticipated visual impact of the bypass along its western stretch, as well as opposition from landowners to the north of the bypass who considered the scheme would adversely sever agricultural land in that location. Subsequently, in 2008 further modelling was carried out, resulting in Option 5B, which is the route of the proposed bypass that is the subject of this application. The western-most tie-in of the bypass with the existing road has been moved some 650 metres east and closer to Little Hadham, with the bypass re-joining the originally proposed route just west of where it crosses Albury Road. This is considered to reduce the impact on residential properties at Albury End, namely Tilekiln Farm, Albury and Poplar Hall Cottage as the road has been moved significantly away from these. The proposed bypass is also located on lower ground in this area than originally proposed, further alleviating the visual impact of the development. Option 5 originally resulted in the proposed bypass meeting directly with the Tesco roundabout at Bishop's Stortford, but this has also changed with a new roundabout proposed to the west of the existing roundabout. This takes the bypass away from Hadham Lodge, although it does bring it closer to residential properties at Savernake and Plantings Cottage. In addition, this realignment decreases the amount of land take, resulting in less agricultural severance.

Congestion relief and the impact of the bypass on other roads

- 6.16 In order to determine existing conditions on the A120 and the roads in the vicinity, turning counts and queue lengths were undertaken at a number of minor junctions along this stretch of the road in March 2014. A further turning count was carried out at the junction of the A120 with Albury End in June 2014. Further turning counts were also available for the more major junctions, such as where the A120 meets the A10, the A1184 (at the Tesco roundabout in Bishop's Stortford), and Albury Road, together with where the A1184 running to the south of the Tesco roundabout meets the B1004, the B1383, and Obrey Way. These latter counts range from June 2008 through to March 2015, although the historic ones have been brought up to 2014 levels through the input of growth factors. In addition, a Permanent Automatic Traffic Counter is located to the east of Little Hadham.
- 6.17 For the purposes of the study, the assessment hours were set as being the weekday morning and evening peak hours, namely 8am to 9am, and 5pm to 6pm. The study identified that the traffic lights at Little Hadham act as a major constraint, with queues extending beyond 200 metres during peak hours. Even during off peaks, the length of the signal cycle at the junction of up to five minutes results in significant delays.
- 6.18 The study further identified that the other junctions on the existing A120 between the A10 and the A1184 generally operate reasonably well with limited queuing or delays, although queues can occasionally build on

local roads within Standon as cars attempt to make right hand turns on to the main road. This is due to the volume of traffic on the A120.

- 6.19 In forecasting the impact of the bypass on the local road network, the traffic has been modelled on anticipated flows in 2019 (the anticipated opening year of the bypass) and 2024 (five years post-opening). The modelling includes estimates of traffic based on future growth, including already committed developments and allocations for development set out in relevant Local Plans. Traffic flows have accordingly been estimated on an existing road layout scenario (in other words, without the provision of a bypass) as well as in respect of the situation once the bypass is operational. This latter scenario also includes changes to the phasing of the signals within Little Hadham once traffic volumes have reduced within the village, thus allowing better operation of the A120 within the village itself.
- 6.20 The analysis shows that, when first opened, the bypass will increase the traffic on the A120, being a more attractive east-west route within the county than at present. In the morning peak hour there will be between a 9% and 82% increase in traffic, depending on which stretch of the A120 is examined, and increases of between 12% and 92% during the evening peak. The largest increases are anticipated on the stretch between Standon High Street and the proposed new Tilekiln roundabout (at the western tie-in of the bypass). Through Standon itself, traffic is expected to increase by between 15% and 18% in the morning peak, and between 21% and 26% during the evening peak. Significant increases are also expected to occur at Horse Cross and at Albury Road south of the signalised junction in Little Hadham (623% and 131% in the morning respectively; and 475% and 135% in the evening). However, this is, in part, due to the relatively low baseline of the existing traffic flows on these roads.
- 6.21 Traffic flows within Little Hadham itself are, as expected, likely to be significantly lower after the bypass has been constructed, with an estimated 74% decrease in the morning peak and a 68% decrease in the evening peak. There are also significant anticipated decreases in traffic flow on Albury Road north of the traffic lights (25% AM, 29% PM), Standon High Street (44% AM, 39% PM), Cradle End (95% in both the AM and PM), and Albury End (2% AM, 41% PM).
- 6.22 In respect of the junction analysis, this was carried out with reference to the seven roundabouts, seven priority junctions and the one signalised junction on the broad network in the vicinity of the proposed bypass. This was further informed by a survey of queue lengths. With the exception of the signalised junction in Little Hadham, all junctions were found to be operating within their theoretical capacity threshold, although the A10/A120 junction at the western end of the A120 was found to be at its capacity threshold during the course of the evening peak hour. The signalised junction was found to be operating above its

theoretical capacity threshold, with significant queueing of vehicles taking place on the eastern and western arms of the A120.

Junction analysis – 2019 without a bypass

- 6.23 Modelling has been carried out based on predicted 2019 traffic volumes where a bypass has not been provided. It has been concluded that growth in volumes will result in the A10/A120 junction operating above capacity during the PM peak as a result of congestion on the A10 (South) approach. Furthermore, the A120/Albury Road junction in the centre of Little Hadham is estimated to operate at a similar level to 2014, except that on the Albury Road approach there will be a significant worsening of congestion in the PM peak hour when compared to 2014. The roundabout where the A120 meets the A1184 (at Tesco in Bishop's Stortford) is also predicted to operate above capacity in the PM peak hour in 2019, with the growth in traffic resulting in the Hadham Road approach out of Bishop's Stortford operating above its capacity during this period.

Junction analysis – 2019 with the provision of a bypass

- 6.24 Forecasts for 2019 that are based on the provision of the bypass to Little Hadham show significant benefits to the A120/Albury Road signalised junction in the village. The transfer of traffic on to the bypass would mean that this junction operates within its theoretical capacity threshold during both the AM and PM peaks. However, the modelling shows that there will be significant knock-on effects from providing the bypass. For instance, at the A10/A120 roundabout it is forecast that this will operate within capacity in the morning, but that the bypass will substantially worsen the congestion problems on the A10 (South) approach during the PM peak as the junction will be operating above capacity during this period. Within the village of Standon, the junction of the A120 and Cambridge Road is likely to operate above its capacity during both the AM and PM peaks, with maximum delays of over 5 minutes in the AM and almost 7 minutes in the PM. These delays would occur on Cambridge Road itself as a result of increased traffic flows on the A120 preventing those wishing to turn right out of Cambridge Road from joining the main road. This would not, however, result in long queues on Cambridge Road, as traffic volumes are light on this road. Similarly, the junction of the A120 with Station Road in Standon will result in delays of in the region of 5 minutes in the AM peak and 2 minutes in the PM, for the same reasons as with Cambridge Road. To the east of Little Hadham, the A120/A1184 roundabout is likely to also operate above its capacity in both the AM and PM peaks, with the approach from both sides of the A120 (North and West) and Hadham Road experiencing capacity issues.

Junction analysis – 2024 without a bypass

- 6.25 Based on 2024 traffic volumes where a bypass has not been provided, modelling shows that the A10/A120 junction is likely to be operating above its capacity during both the AM and PM peaks, worsening the capacity issues on the A10 (South) arm as one approaches the roundabout. Within Standon, the A120/Cambridge Road junction would, however, be operating within capacity, although the A120/Station Road junction would be above capacity in the AM peak hour with delays of approximately 3 minutes. At Little Hadham, the A120/Albury Road signalised junction would be even more congested than the 2019 model shows, with much longer queues likely to be experienced. At the A120 junction with Cradle End, the junction would be marginally above capacity in the AM peak due to cars turning right out of this minor turning. In addition, the A120/A1184 junction at Tesco would be above capacity in the AM and PM peak hours, primarily due to issues on the Hadham Road approach, representing a worsening of the 2019 position.

Junction analysis – 2024 with the provision of a bypass

- 6.26 Modelling of the different scenarios based on 2024 traffic volumes and the provision of a bypass indicates that the A10/A120 roundabout would operate above capacity during both the AM and PM peaks hours. In the morning, this would be similar to the 2024 baseline scenario where a bypass had not been provided, although the A10 (North) approach is now likely to be slightly above theoretical capacity. In the PM, the A10 (South) approach – which was over capacity in the 2024 baseline study without a bypass – is worsened as a result of traffic being attracted to use the bypass, with predictions of queues of over 100 vehicles. At the A120/Cambridge Road junction, this would be above capacity in the AM and PM peaks, with queues exceeding 6 minutes in the morning and 10 minutes in the evening, again as a result of cars attempting to turn right out of Cambridge Road, although the queues are still likely to be small in length due to the minor nature of the road. At the junction of the A120 with Station Road in Standon, the junction is likely to be above capacity during the AM peak hour and within capacity in the PM. Queues would be in the region of 7 minutes and 4 minutes respectively in the AM and PM, again due to right turning out of the road. At the A120/Horse Cross junction, this would now operate above capacity in the AM and PM peak hours. In the morning, this would result from right hand turns into Horse Cross, and in the evening from queuing from the Horse Cross approach into the junction. At the A120 roundabout with the A1184, this would operate above capacity during both the AM and PM peaks, being a worse situation than had the bypass not been provided. Problems would result from congestion arising from both A120 approaches (North and West) and the Hadham Road arm of this junction. However, the analysis identifies that there will be significant benefits persisting at the A120/Albury Road

signalised junction in Little Hadham, with this junction still operating within its theoretical capacity threshold at all times of the day.

- 6.27 In summary, therefore, the bypass is seen to significantly reduce delays on the A120 between its eastern point at the A1184 and its western end at the A10. Traffic will be attracted to the new route, with the inclusion of new trips plus the removal of traffic that currently uses inappropriate minor roads as a means of avoiding the signalised junction within Little Hadham. The traffic attracted to use the bypass will relieve the congestion that routinely occurs at the A120/Albury Road junction, as well as the A120/Cradle End junction. However, the provision of a bypass is likely to have a detrimental impact upon the operation of the following junctions:
- A120/A10
 - A120/Cambridge Road
 - A120/Station Road
 - A120/Horse Cross
 - A120/A1184

Journey times

- 6.28 In respect of journey times, the bypass will remove the need for east-west traffic to go through the signalised junction in Little Hadham. Journey times have been modelled, which indicate that without the bypass average journey times in 2019 travelling westwards along the A120 from a point east of the proposed bypass to a point just west of it would be in the region of 13.7 minutes during the AM peak, and 13.0 minutes in the PM. The bypass will significantly improve this, as travelling along the new stretch of road will reduce this time to 4.6 minutes in both the AM and PM peaks, equating to a reduction of 9.1 minutes and 8.4 minutes respectively. In the reverse eastbound direction, journeys without the bypass in 2019 would be in the region of 13.3 minutes in the AM peak and 13.1 minutes in the PM peak. The bypass would reduce this journey time to 4.6 minutes in the AM peak and 5.0 minutes in the PM peak; a saving of 8.7 and 8.1 minutes respectively. Even outside of peak hours it is estimated that there will be time savings of 3.6 minutes in a westerly direction (7.6 minutes reducing to 4.0 minutes) and 4.4 minutes in an easterly direction (8.2 minutes down to 3.8 minutes). The time taken to travel through Little Hadham along the old route of the A120 will also be significantly reduced as a result of a decrease in the volume of traffic using this road, together with the re-phasing of the signalised junction to cater for this.
- 6.29 In addition, there are four local bus services that travel through Little Hadham, and all of these will benefit from the bypass due to the significantly reduced journey times through the village itself. Two of these services also serve Standon, benefitting public transport users in that village. However, it is accepted that bus services in Standon travel along Station Road and the High Street. As already outlined, there are

likely to be delays on Station Road. Nevertheless, of the three services that use this road, only one operates on a weekday during peak hours, so the impact on these three services will be relatively minimal. The other service along Standon High Street should not encounter any problems as the A120 junction with the High Street is anticipated to operate within its capacity.

- 6.30 In respect of pedestrians and cyclists, the public rights of way that are crossed by the bypass will be reconnected, and this is explained further later within this report. Notwithstanding this, it is considered that the reduction in the volume of traffic through the centre of Little Hadham will provide a better environment for pedestrians and cyclists in the village, making it easier for pedestrians to cross the A120 and allowing cyclists to have shortened queues at the signalised traffic junction.

Highway safety

- 6.31 During the period of 1 December 2009 to 30 November 2014, personal injury collision data has been obtained. This indicates that 73 personal injury collisions occurred in this period within the study area, with two of these being fatalities and 10 being classified as serious.
- 6.32 The road safety engineering team within the county council produce an annual list of hazardous sites, identifying locations where there has been a cluster of personal injury collisions. An annual programme of engineering schemes and measures follows from this to address such locations, balancing this against the county as a whole. Currently there are no sites under such investigation on the A120, although the county council will continue to monitor the road as part of this annual exercise.

Proposed mitigation

- 6.33 In order to alleviate against the detrimental impacts of the proposed bypass on parts of the existing highway network at the eastern and western ends of this stretch of the A120, the county council intends to provide further mitigation. Within the Standon area, it is acknowledged that the best solution would be to provide a further local bypass to that village. However, this is not possible as part of this scheme, with funding only being made available for the Little Hadham section of road, which was considered as being the priority. Nevertheless, the county council's current agreed strategy is to promote local bypasses for both settlements, with a further desktop study now taking place to define potential corridors for such a scheme. The results of this will feed into the long-term transport vision for Hertfordshire.
- 6.34 In addition, should issues be identified in the Standon area post-implementation of the bypass, the county council will consider interim mitigation measures at appropriate strategic locations. With this in mind, the county council will assess likely future traffic flows, which will

assist in the provision of improvements to the highway network within a reasonable timeframe.

6.35 At the A120/A1184 roundabout, the planning consent for the Bishop's Stortford North expansion includes the provision of minor improvements to this junction, consisting of amendments to the splitter islands in order to increase the entry widths on the A120 (North), A120 (West) and the A1184 approaches. It is further proposed that additional capacity improvements should be provided comprising:

- The widening of the A120 (West) approach to the junction to allow for two lanes of traffic.
- The widening of Hadham Road to increase the flare length of that junction.

It is believed that these works can be carried out within the highway boundary. The results for the mitigated junction show that the roundabout will be operating at its theoretical capacity threshold in the AM and PM peak hours in the opening year of the bypass. Although in 2024 the A120 (North) arm in the AM peak hour and the A120 (West) arm in the PM peak hour are slightly above their theoretical capacity, this is considered to be acceptable as likely queues are not considered to be excessive and the junction was identified as being over capacity to a much greater extent in the 2024 scenario where a bypass had not been provided.

6.36 It should be noted that Highways England has not objected to the grant of planning permission for this scheme, nor does it suggest the imposition of any conditions. Similarly, the Highways Authority has not objected, although it wishes to see the imposition of conditions relating to:

- A phasing programme.
- Details of all proposed highway infrastructure or any changes to the existing highway infrastructure.
- A Construction Traffic Management Plan.
- The requirement that the bypass shall not be brought into use until it has been constructed to the satisfaction of the local planning authority.

6.37 The Highways Authority also sets out an advisory note recommending that traffic monitoring shall take place post-construction within 12 months of the bypass opening, with associated studies submitted to the local planning authority in order that the extent of mitigation measures on the existing route can be determined. However, this monitoring is fundamentally important and crucial to the effective operation of the local highway network, and it is considered that this should also form a requirement by virtue of the imposition of a condition.

6.38 Consequently, in summary, the proposed bypass would substantially reduce journey times for vehicles travelling along the A120 between the A10 and A1184. As a result, it is likely that traffic will be attracted to the A120 from other routes including less appropriate minor roads that are

currently used to avoid the delays at Little Hadham. This may lead to issues around the Standon area including at the A10 junction, although the county council has made a commitment to monitor the operation of the road network in this area post implementation of the bypass. If significant capacity issues are identified, the county council will look at all opportunities for providing appropriate mitigation.

Need and justification for the flood alleviation measures

- 6.39 As previously explained, the bypass has been designed in order that it also provides downstream flood relief to Little Hadham and Hadham Ford. This is through controlling the flow allowed downstream of the proposed bypass crossing points of the River Ash and the Albury Tributaries, which flows into the river just north of the signalised traffic junction in Little Hadham. The Lloyd Taylor Drain, which presently flows into the Albury Tributary just before it meets the River Ash to the north of the signalised traffic junction, will be diverted as part of the overall scheme so that it meets the River Ash to the south of the signalised junction, again controlling the flow of water into the River Ash.
- 6.40 There have been six extensive flooding events between 1947 and 2014, with one severe flooding event experienced in the village in 2001. Following flooding in 2001, the Environment Agency developed the River Ash Flood Risk Management Strategy (FRMS) to examine the extent of flooding along the river and to evaluate potential solutions for reducing flood risk. No solutions were implemented at the time due to a lack of funding. However, it was considered that a proposed bypass offered a solution whereby flood waters could be held upstream of the bypass, with the waters controlled so that flooding of properties in Little Hadham and Hadham Ford no longer occurred. The route of the bypass was therefore planned with this dual benefit in mind. Results of fluvial hydraulic modelling illustrated that the maximum benefits came from providing culverts beneath the bypass with additional flow control devices installed on the downstream face of these, thus significantly restricting the flow of water downstream as and when required. It was also recognised that the Lloyd Taylor Drain had an impact on the flooding of properties. Although this is not crossed by the bypass, therefore giving no ability to provide an embankment, diverting the drain so that it fed into the River Ash to the south of the village alleviated local flood risk to Little Hadham and did not create any more risk of flooding than any other available solutions.
- 6.41 Current modelling of the river indicates that 72 properties in Little Hadham and Hadham Ford are at risk from a 1 in 100 (1%) chance of flooding in any year. Using the flood model to assess the benefit of the scheme, it is estimated that these 72 properties would have a reduced risk, with 69 no longer being at risk from a 1 in 100 (1%) or greater annual probability of river flooding. Consequently, the justification for

the flood alleviation scheme is compelling when one considers the overall benefits and the removal of the flood risk.

Flood Risk Assessment

- 6.42 The NPPF requires that flood risk is taken into account at all stages of the planning process. The framework also requires that a Sequential Test be applied during the planning process to ensure that preference for developable land is given to land that has the lowest risk of flooding, with this being primarily based on the Flood Zoning system. The EA's Flood Zone mapping indicates that the proposed bypass will cross all three Flood Zones in the vicinity of the main channel of the River Ash, with the area directly adjacent to the watercourse being located where the risk of flooding is highest.
- 6.43 Underpinning the Sequential Test is the aim to direct development away from areas of flood risk. If this cannot be achieved, it may be possible to demonstrate that development is still feasible by the management of flood risk by way of an Exception Test. The Exception Test within the NPPF requires the demonstration that:
- The development provides wide sustainability benefits that outweigh the flood risk; and
 - A Flood Risk Assessment must be able to demonstrate that the proposed development either does not cause increased flood risk elsewhere, or reduces flood risk.
- 6.44 In this instance the course of the bypass has been chosen specifically to ensure that it provides the necessary and identified flood alleviation measures. This can only be effective if the bypass crosses the Ash and the Albury Tributaries in order to control flood flows. Therefore, the application of the Sequential Test is not considered appropriate for the crossing of the River Ash and Albury Tributaries or, for that matter, the proposed works to the Lloyd Taylor Drain. It is therefore necessary to judge the scheme with reference to the Exception Test.
- 6.45 As already described, the provision of culverts with flow controls at the points where the bypass will cross the River Ash and the Albury Tributaries will allow flood water to back up upstream of the bypass. This will result in the temporary flooding of rural undeveloped agricultural land instead of properties in Little Hadham and Hadham Ford. In addition, the works to the Lloyd Taylor Drain have been designed to reduce flooding within Little Hadham. Therefore, it can be concluded that the proposed development meets the Exception Test.
- 6.46 The ES concludes that the development will ultimately have a major beneficial impact on Little Hadham. However, there will be a major adverse impact on the land upstream of the embankments on the River Ash and Albury Tributary. However, the land upstream of these is agricultural or wooded in nature and the flooding of these, whilst being far from ideal, is considered preferable to the continued risk of the

flooding of residential properties within Little Hadham. The applicants have stated that they are in discussion with landowners likely to be affected by the impounding of floodwaters for temporary periods of time, discussing ways in which their land can be beneficially managed in this regard.

- 6.47 Albury Parish Council has raised concerns about the impact of the flood alleviation scheme on the parish of Albury, particularly asking whether the scheme will make the situation worse within the parish, exacerbating the flooding in Clapgate and Albury. However, the flood event modelling that has been produced within the ES shows that as a result of the flood alleviation scheme, flood waters will be backed up no further than presently exists, thus having no greater impact on those communities.
- 6.48 The Local Lead Flood Authority (LLFA) has responded to state that, in its view, 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. The drainage strategy details an assessment of the potential increase in flood risk and how to manage the increase in run-off rates, volumes and overland flows and the LLFA considers that the applicant has demonstrated that an appropriate sustainable drainage scheme can be implemented in accordance with industry best practice, prioritising on surface drainage methods such as swales, ponds and filter drains. These are able to provide adequate storage, water quality treatment and, where possible, biodiversity benefits. The LLFA further considers that the drainage strategy provides evidence of a clear management and treatment train for the SuDS system.
- 6.49 Consequently, the LLFA does not object to the application so long as a condition is imposed to ensure that the development is carried out as described.
- 6.50 The Environment Agency is also content with the proposed development so long as a number of conditions are attached to any permission under the following broad headings:
- Requirement for detailed design of the impounding structures and controls on the River Ash and Albury Tributary.
 - Requirement for a scheme to provide adequate floodplain storage compensation at the Cradle End Brook crossing.
 - Any facilities for the storage of oils, fuels or chemicals shall be provided with secondary containment that is impermeable to both the oil, fuel or chemical and water.
 - A scheme for surface water disposal to be submitted.
 - No infiltration of surface water drainage into the ground along the length of the bypass is permitted.
 - No further development to be carried out if contamination is encountered, with a requirement for a strategy to deal with this.

- Requirement for a scheme to secure the protection of licensed and un-licensed sources.
- Piling or any other foundation designs using penetrative methods shall not be permitted.
- The scheme must be completed in accordance with the mitigation measures outlined in the Water Framework Directive assessment document.
- The development hereby permitted shall not be commenced until such time as a biodiversity enhancement scheme has been agreed.
- There shall be no light spill from artificial lighting into the watercourse or adjacent river corridor habitat. Also there shall be no light spill from artificial lighting in the areas to be enhanced for wildlife.
- No development until a detailed method statement for removing or the long-term management/control of Japanese Knotweed.

Development in the Green Belt

- 6.51 The most eastern stretch of the proposed bypass, running for an approximate distance of 900 metres from the proposed roundabout at Hadham Park to land just north east of the proposed Hadham Park underpass, is located within the Metropolitan Green Belt.
- 6.52 Paragraph 79 of the NPPF lists the five purposes of Green Belts, these being:
- to check the unrestricted sprawl of large built-up areas;
 - to prevent neighbouring towns merging into one another;
 - to assist in safeguarding the countryside from encroachment;
 - to preserve the setting and character of historic towns; and
 - to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 6.53 Paragraph 87 of the NPPF states that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. This reiterates the general approach of Policy GBC1 of the East Herts Local Plan, which states that permission will not be given for inappropriate development within the Green Belt unless very special circumstances can be demonstrated that clearly outweigh the harm by reason of inappropriateness or any other harm.
- 6.54 Paragraph 90 of the NPPF states that certain forms of development are not inappropriate in the Green Belt provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in the Green Belt. One such form of development is “local transport infrastructure which can demonstrate a requirement for a Green Belt location”.
- 6.55 In this particular instance, being of such a large size and scale and related to a strategic approach to a classified A road, it is debateable

whether the proposed development consists of local transport infrastructure. In any event, it is considered that, when looking at the potential alignment of a bypass for Little Hadham, there was a requirement for the scheme to utilise part of the Green Belt as part of its proposed route. Consequently, with reference to Paragraph 90 of the NPPF, if the proposal falls within the broad definition of 'local transport infrastructure' then it is considered that the proposed bypass meets the general definition of 'appropriate development', although this is reliant on the development preserving the openness of the Green Belt as well as ensuring that it complies with the purposes of including land within the Green Belt.

- 6.56 On this latter point, it is considered that this relatively short stretch of the new road will still undoubtedly result in a significant encroachment into the countryside, contrary to one of the primary purposes of the Green Belt. This section of the bypass is proposed to run at or just above existing ground levels, with no part of the carriageway being more than one metre above the existing ground levels. In fact, the final stretch towards the new roundabout runs just below existing levels. Natural planting alongside the new road will assist in the integration of the development with the landscape, thus reducing any impact on openness. Nevertheless, despite minimal changes in the topography of the land, it is clear that the openness of the Green Belt will be affected to some degree. Furthermore, the introduction of a new roundabout with associated lighting columns will also adversely impact upon openness, although the specific lighting details will ultimately be developed to minimise impact as a consequence of ecological mitigation. Therefore, although it may be argued that the development amounts to local transport infrastructure that can be considered appropriate development within the Green Belt, the fact that the proposed bypass will have an adverse impact on openness – together with it resulting in encroachment into the countryside – means that it must be considered inappropriate development in this instance. As such, there must be very special circumstances that overcome the acknowledged harm.
- 6.57 The primary very special circumstance is the benefit that the road will have on journey times along the A120 and the alleviation of the congestion within the village of Little Hadham. The bypass forms part of a strategic solution to improve the east-west primary road network, which has a benefit to economic development within the wider region. It is recognised that the provision of a bypass is vital to not only cater to existing needs but to future proof the A120 to take into account future planned development. The need and justification for a bypass were identified in the Hertfordshire Local Transport Plan. There is therefore clear justification for a bypass, and it is inevitable that part of that bypass would encroach into the Green Belt. In addition, although none of the proposed flood alleviation measures will be located within the Green Belt, without the bypass there would not be the funding and

opportunity for flood alleviation measures to be constructed to benefit the 72 residential properties in Little Hadham.

- 6.58 Consequently, it is concluded that, although the development will have an adverse impact on openness, the design of the development will assist in minimising this, thus allowing the bypass to assimilate with the landscape in this particular area. Furthermore, although the proposal represents inappropriate development in the Green Belt, there are clear very special circumstances that outweigh the acknowledged harm as well as any other harm.

Development in the Rural Area Beyond the Green Belt

- 6.59 The remaining majority length of the proposed bypass from Hadham Park eastwards to the new Tilekiln roundabout, together with the associated flood alleviation measures, all fall within the Rural Area beyond the Green Belt, as designated within Policy GBC2 of the East Herts Local Plan. The policy states that inappropriate development will not be permitted within the Rural Area, with Policy GBC3 setting out a list of development that would be considered appropriate within such a location. A major road scheme of this nature, together with the associated flood alleviation works, is not considered to be an appropriate development within the Rural Area. A similar test to Green Belt policy considerations must therefore be applied, with the need for reasons that outweigh the harm to the Rural Area.
- 6.60 As described in the preceding section, the justification for a bypass at Little Hadham is compelling, and the need for the associated flood alleviation works is also compelling. Although such a development is not singled out as being appropriate within the Rural Area in the East Herts Local Plan, the plan itself explains that East Herts District Council supports the provision of a bypass for the A120 in this location, as it meets Local Transport Plan goals and objectives. As with the Green Belt, the harm to the Rural Area is considered to be overcome by the overriding benefits of the bypass and flood alleviation measures.

Landscape and visual impact of the development

- 6.61 Within the Landscape Strategy that accompanies this planning application, the identified key landscape features within the vicinity of the proposed bypass and flood alleviation scheme are set out as follows:
- River Ash corridor and associated gently undulating valley landform.
 - Little Hadham village, comprising a typical settlement in a rural setting.
 - Dispersed farmsteads and residential properties.
 - Small woodlands.
 - Hedgerow network defining small fields that are organic in shape.

- Existing linear A120 transport corridor.
 - Edge of major urban settlement at Bishop's Stortford.
- 6.62 In landscape terms, England is subdivided into a number of National Character Areas (NCAs), with the application site falling within NCA 86 (South Suffolk and North Essex Clayland), as defined by Natural England. The key characteristics of this NCA are:
- An undulating chalky boulder clay plateau is dissected by numerous river valleys, giving a topography of gentle slopes in the lower, wider valleys and steeper slopes in the narrower upper parts.
 - The agricultural landscape is predominantly arable with a wooded appearance.
 - Field patterns are irregular despite rationalisation, with much ancient countryside surviving.
 - Impressive churches, large barns and substantial country house estate dot the landscape, forming historical resources.
 - There is a dispersed settlement pattern of scattered farmsteads, parishes and small settlements.
- 6.63 Regionally, Landscape East (www.landscape-east.org.uk) brings together landscape, biodiversity, geodiversity, historic environment and spatial planning interest to steer the development of the East of England Landscape Framework. It has defined a range of landscape character types for the area and the site falls within Settled Chalk Valleys and Wooded Plateau Farmlands. It describes perceptions of the area as *'generally a peaceful, rural landscape ... with framed views down and across valleys'*.
- 6.64 Local Character Areas (LCAs) have also been designated by East Herts District Council, which consist of Supplementary Planning Guidance to the East Herts Local Plan. The site travels through several local character areas, namely:
- Perry Green Uplands (86); Just touches the site of the proposed roundabout at the eastern end of the scheme.
 - Wareside – Braughing Uplands (89); A majority of this character area lies to the west of the scheme, however it follows the valley side and just comes into the western half of the scheme.
 - Hadhams Valley (93); This is the dominant character area to the south of the scheme and contains the proposed roundabout at the western end.
 - Upper Ash Valley (147); This is the dominant character area to the north of the scheme and contains the central corridor route.
 - Hadhams Plateau (150).
- 6.65 Paragraph 17 of the NPPF sets out the twelve Core Planning Principles. Those that are relevant to landscape state:
- *"Always seek to secure high quality design and a good standard of amenity for all existing and future occupants of the land and buildings;*

- *Take account of the different roles and character of different areas, promoting the vitality of our main urban areas, protecting Green Belts around them, **recognising the intrinsic character and beauty of the countryside** and supporting thriving rural communities within it; and*
- ***Contribute to the conserving and enhancing of the natural environment and reducing pollution.***

6.66 In respect of the present scheme, a landscape and visual assessment has been carried out, which sets a baseline prior to the development taking place. The landscape and visual effects assessment for the development follows the Highways Agency DMRB 'Interim Advice Note (IAN) 135/10 Landscape and Visual Effects Assessment' and the Landscape Institute's 'Guidelines for Landscape and Visual Impact Assessment third edition' (GLVIA3). The former of these sets out that landscape and visual assessments should be based on a number of specified scenarios. In the first instance, landscape and visual assessments should be based upon the construction of the scheme. In the second instance, assessments should be based on the winter of the year of opening (to represent a maximum effect situation, before any planted mitigation can take effect), taking account of the completed project and the traffic using it. The third scenario is during the summer of the 15th year after project opening (to represent a least effect scenario, where any planted mitigation measures can be expected to be reasonably effective), taking account of the completed project and the traffic using it.

Proposed mitigation for landscape and visual impact

6.67 In order to provide mitigation in respect of landscape and visual impact, the proposed development will incorporate a number of measures. These include designing bridges so that they offer a lower physical mass and footprint than other options, making them less visually intrusive. In addition, the Albury Road Bridge will be positioned to the west of the existing alignment, rather than to the east, to reduce the amount of earthworks required and to retain more vegetation in the view for receptors located to the east.

6.68 Landscape mitigation proposals include the following:

- All planting to be of native species that are of local provenance and appropriate to the site species and habitat in the area.
- Roadside verges will incorporate ditches, hedges, trees and wildflowers where possible. Seeding will consist of specialist species mixes to create suitable grassland specific to the site, for example, chalky grasslands on embankments and cuttings.
- The proposed hedgerows will use native species consistent with existing hedgerows and include semi-mature trees at irregular spacing, at every 10-15 metres, in groups of one, three or five. The

hedgerows will form new field boundaries and replace hedgerows removed due to construction.

- Proposed lighting will be low level, directional lighting, reducing the visual impact in the day and at night.

6.69 However, due to access, inspection and maintenance requirements, it will not be possible to carry out planting on the proposed flood embankments. In addition, since the original submission of the planning application, there has been an identified need to relocate deer fencing on these embankments. Whilst deer fencing was originally proposed along the length of the bypass close to the proposed hedgerows, maintenance issues surrounding the Albury Tributary and River Ash flood embankments means that the deer fencing has to be moved from the toe of these to their crest, increasing the ease of inspection of these and preventing flood waters from reducing their longevity. The verges on the crest of each embankment have therefore had to be increased by 500mm on both north and south sides.

Assessment of effects - landscape

6.70 The construction of the bypass and flood alleviation scheme will have a significant adverse impact on the wider landscape. Construction works will include large-scale earth moving, the construction of haul roads and the removal of existing vegetation. In addition, there will be the presence of fixed construction plant, site compounds, security and safety lighting, together with the use of mobile plant and machinery, and associated construction traffic. However, it is acknowledged that the construction phase is, by its very nature, a temporary operation and, although the visual and landscape impacts will be significant, the impacts will also be temporary. Construction of the bypass is scheduled to commence in 2017, with completion anticipated by Spring 2019.

6.71 In respect of the completed operational bypass and flood alleviation scheme, the Environmental Statement assesses it in line with its national and regional designations. The ES states that the development will have a neutral impact on the South Suffolk and North Essex Claylands of NCA 86, as the magnitude of impact will be of 'no change'.

6.72 Regionally, in respect of the Settled Chalk Valleys of the area's regional designation, the development will pass through this landscape area on embankment and in cutting. The ES states that the creation of a large embankment across the River Ash valley will change the perception of this area from a natural valley landscape to one that includes a new man-made engineering feature with passing vehicles. It is judged that the magnitude of impact will be Moderate Adverse and the overall significance of effect of the development on the Settled Chalk Valleys in this area is Moderate Adverse. In respect of the other strand of the regional designation, namely the Wooded Plateau Farmlands, the ES

describes the scheme and the Albury Road Bridge as passing across a previously agricultural landscape. The ES considers that the presence of an over-bridge on this relatively flat landscape will be a distinctive piece of infrastructure but no greater than nearby commercial buildings. Accordingly, it is considered that the development will not affect the integrity or people's perception of the wider area. It is judged that magnitude of impact will be negligible adverse and the overall significance of effect of the development on this area is Neutral.

- 6.73 On a local scale, it is necessary to assess the landscape impacts of the development on each of the LCAs in turn. This has been carried out travelling east to west through the route of the proposed bypass.
- 6.74 In respect of Perry Green Uplands, this LCA is predominantly located to the south of the existing route of the A120, adjoining Bishop's Stortford to its eastern boundary. The only part of the proposed development that will affect this LCA is the new roundabout at Hadham Park, which is on the northern boundary of the LCA. The new infrastructure will be linked to the existing road network and, as such, it is relatively compatible with the existing landscape, being relatively well screened from the south. The ES concludes that there will be a Neutral significance of effect. However, this must be questioned as the ES does not refer to the lighting columns that will need to be placed at the roundabout, although it is accepted that the final detail of the proposed lighting has yet to be formally set out and would need to be agreed at a later stage.
- 6.75 When looked at in terms of the situation 15 years after the bypass has been operational, the ES judges that there will remain a Neutral significance of effect.
- 6.76 Moving westwards, the next LCA is Hadham Plateau, which runs in a broad swathe north from the existing A120 to the east of the Ash valley. This LCA incorporates Hadham Hall, Hadham Park, Church End and Upwick Green. The north eastern section of the bypass cuts across this LCA in a sweeping arc. Much of the road will be at grade in this section, although land will be raised to provide a noise amelioration bund to the north of Hadham Hall as well as ground raising to provide Cradle End Brook Culvert. Whereas the original intention was to have provided a bridge at Hadham Park to go over the bypass, this has now been replaced with an underpass, which lessens the impact of the development on the landscape in this location. In general, the area is softly undulating and rural, with small fields marked with mature hedge boundaries. A power line with associated electricity pylons is prominent in the existing landscape to the west of Bloodhounds Wood and to the north east of the proposed route of the new road. The development will result in the loss of trees and hedges, and the existing field pattern will also be lost to some extent. The ES judges that the overall significance of effect on the Hadham Plateau LCA is Moderate

Adverse due to the infrastructure of the road and its associated traffic conflicting with the rural character of the landscape.

- 6.77 Fifteen years after the bypass is operational, the ES concludes that the impact on the Hadham Plateau LCA will remain as Moderate Adverse. Even though the scheme is likely to be much less conspicuous as the roadside planting matures, the ES takes the view that the relative impact of the development in this LCA will not reduce its impact to Slight Adverse.
- 6.78 To the west, and following the line of the River Ash northwards from Little Hadham, is the Upper Ash Valley LCA. The scheduled monument at Mill Mound falls just within this character area. Travelling west, the bypass will at first be in a relatively deep cutting (over 5 metres below existing ground levels) in the vicinity of Mill Mound. It then emerges out of this on the eastern valley side where it must then cross the valley, and the River Ash, on a large and high man-made embankment. This forms part of the River Ash Flood Alleviation Scheme. The development is likely to be at its most prominent in this location, before it heads into a cutting on the western valley side. The embankment will form a large physical barrier within the valley, and the ES takes the view that the Upper Ash Valley LCA may well start at this point at some time in the future. A further impact will result from a new bridge that will be constructed to enable Albury Road to cross the bypass just north of Little Hadham. The copse of trees at Mill Mound will be retained and will remain a prominent feature within the landscape. There will be a limited loss of hedgerows and minimal impact on field patterns as the route of the bypass is relatively parallel to three of the four field boundaries in the area. There will also be a temporary impact on landscape north of the embankment at times when the agricultural land in this location is used to act as a floodwater holding basin. The ES judges that the development will result in a total loss of valley character due to the road and its associated infrastructure as it crosses the Ash, which will give an overall significance of effect of Moderate Adverse. However, the county council's landscape officer is of the opinion that this should be viewed as being Moderate-High.
- 6.79 Fifteen years after the opening of the bypass, the ES judges that the overall effect of significance on the Upper Ash Valley LCA will remain Moderate Adverse. This is on the basis that the proposed flood embankment cannot be planted and this will remain a visible feature in the landscape.
- 6.80 The next LCA that is encountered is Wareside/Braughing Uplands. This is predominantly located to the west of the route of the proposed bypass and going as far as Standon, but one arm of it skirts to the south of Albury and runs between Albury Tributary to the west and Albury Road to the east. The bypass will cut through a spur that separates the valley of the River Ash with that of the Albury Tributary to the west. At the spur, the road will be in a cutting. The ES considers

that the scheme will not result in a significant change in the perception of the landscape in this LCA, with the overall significance of effect being Neutral. The county council's landscape officer has concluded that the overall significance of effect should be regraded as Neutral-Slight.

- 6.81 After a period of 15 years, the ES judges that the overall significance of effect on this LCA will remain Neutral.
- 6.82 Finally, the most western section of the bypass up to where it joins with the existing A120 at the Tilekiln roundabout is located within the Hadhams Valley LCA. This character area extends to the south of the village of Little Hadham incorporating the valley of the River Ash, although one arm of this – being the area that the bypass crosses – is located to the north of the A120 with the Albury Tributary forming its eastern boundary. The proposed development will result in the loss of mature vegetation, and the presence of a new section of road together with the Tilekiln Roundabout and its associated left hand turn lane, signs and lighting columns will introduce an urban character to the existing rural landscape. The perception of the landscape character will change as it becomes enclosed by the bypass where it crosses diagonally across a large field, eroding the field pattern and rural character. Although it is smaller in scale than the River Ash embankment, the Albury Tributary Flood Attenuation Embankment cuts across the sweep of the valley and creates a horizontal barrier across the valley, and this is further emphasised by the presence of the linear noise barrier and the requirement to maintain the embankment vegetation to no more than short grass to allow access and maintenance that will give the embankment a smooth, engineered appearance. The influence of the development on this LCA is limited by the valley topography, built form of the existing A120 and Little Hadham, together with the vegetation along field boundaries and in woodland blocks. Therefore the ES considers that the changes will not detract from or change the overall perception of the wider LCA, a majority of which lies to the south of these limitations. The ES judges that the overall significance of effect on this LCA is Moderate Adverse. This assessment is due to the introduction of new urban features, such as signs and lighting columns, which diminish the existing rural landscape of the LCA.
- 6.83 After 15 years, the ES considers that the overall significance of effect on the Hadhams Valley LCA will remain Moderate Adverse. This is despite the planting around the Tilekiln roundabout maturing, thus providing an element of assimilation into the landscape. In addition, the embankment at the Albury Tributary will not be able to be planted and, whilst its impact can be lessened through sensitive planting elsewhere, its visual and landscape impact is not completely overcome.

Assessment of effects – visual

- 6.84 The applicants have produced a Zone of Theoretical Visibility (ZTV), showing the area of land from which there could potentially be a view of any part of the bypass and associated works. The ZTV represents a worst case scenario as the extent of visibility is derived from land form only and does not take into account existing visual barriers such as existing buildings or vegetation. This has assisted in the effective identification of visual receptors. Of these, a selection of appropriate representative and principal viewpoints have been chosen. In total, five principal viewpoints have been identified, with photomontages being produced showing the evolution of the scheme over the 15 years. Fourteen additional representative viewpoints have also been identified within the ZTV and study area to inform the assessment, being representative of the visual experience from different receptor types across the study area.
- 6.85 During the construction of the bypass, the ES concludes that there will be a very large adverse effect at 1 and 2 Plantings Cottages, to the east of the proposed Hadham Park roundabout, as the loss of mature trees will allow a clear view of construction works. Views of the construction works from two other residential receptors have been classed as having a large adverse effect, with seven moderate adverse effects due to filtered views of the works. Recreational receptors are those such as public rights of way, which members of the public routinely use and enjoy. Of these, the construction works will have very large adverse effects on ten of these, with three large adverse and four moderate adverse effects. One moderate adverse effect is identified from a transport receptor – being a receptor used by other road users in the vicinity of the scheme – and this is at Albury Road, where the construction of a bridge and road cutting will be constructed to cross the bypass. Two commercial/public receptors, being the businesses at Hadham Park and the Parish Church of St Cecilia at Church End, will have views of the construction works, which are judged to have moderate adverse effects.
- 6.86 However, in all cases, the effects will be temporary. The overall scheme has a construction timescale of approximately two years, and each element of the development will have a shorter build time. Therefore, the temporary effect on each receptor should be significantly less than two years.
- 6.87 In respect of the visual impact of the operation of the bypass, 23 potential residential receptors have been identified within the study area. These are predominantly located to the south of the bypass, including three properties at Little Hadham, three at the Hadham Hall complex and two at Cradle End. Additionally two properties are located to the west and north-west of the bypass, two are located to the east and four to the north. Existing views from all of these towards the bypass and flood alleviation scheme are predominantly rural,

overlooking their own gardens and surrounding vegetation with the wider agricultural landscape visible beyond. The sensitivity of identified residential receptors, as set out in the Environmental Statement, is considered to be high.

- 6.88 Three residential receptors, consisting of individual or small groups of residential properties, have been judged within the ES as having a large adverse impact from the development after the bypass has been operational for one year. These are the properties at Lime Kiln Bungalow at the north western edge of Little Hadham; 8 and 9 Baud Close on the northern boundary of the Hadham Hall site; and 1 and 2 Plantings Wood Cottages, to the east of the proposed roundabout at Hadham Park. After 15 years, the effect on Lime Kiln Bungalow is judged to reduce to a slight adverse effect, whereas 1 and 2 Plantings Wood Cottages will reduce to a moderate adverse effect; in both cases due to the maturation of landscape planting. Numbers 8 and 9 Baud Close will, however, continue to have a large adverse impact, predominantly as the embankment over the River Ash will be visible, with traffic adding movement to the vista that is currently not present. In addition, The Lodge on Standon Road will be located adjacent to the proposed Tilekiln roundabout. The development is judged to have a moderate adverse effect after one year, with this persisting into year 15 as a result of views towards the realigned road and associated lighting columns.
- 6.89 From a recreational point of view, there are 18 bridleways and public footpaths within the study area, including the Hertfordshire Way. They are located on all sides of the proposed development with nine crossing, entering or being located adjacent to the development area. The views along these routes are predominantly across open agricultural land with occasional enclosures provided by mature hedgerows, groups of buildings and areas of woodland. The sensitivity of users of these receptors is also judged to be high.
- 6.90 The ES considers that of the recreational receptors, after one year a total of seven of them will have very large adverse effects, six will have large adverse effects, and four will have moderate adverse effects. Of these, only one of the receptors with very large adverse effects will reduce after 15 years to a large adverse effect, with the other six persisting. The majority of these are visible from public rights of way that cross the scheme and/or are diverted close to the development. As a result, they are in direct proximity to the bypass and mitigation is unable to improve the situation from these receptors. Of those with large adverse effects after one year, one will persist, with four reducing to moderate adverse effects and one to slight adverse effects. Of the four with moderate adverse effects, all will reduce after 15 years to slight adverse effects. All of these reductions are as a result of the landscaping coming into maturity.

- 6.91 In addition, there are identified transport receptors, these being the existing A120 to each side of Little Hadham, together with Albury Road, running northwards from the village. The sensitivity of users of these receptors, as set out in the Environmental Statement, is considered low. However, due to the rural nature of this road and its recreational use, the county council's Landscape Officer has advised that this should be low-moderate.
- 6.92 The ES judges that none of the transport receptors have large adverse effects. One is judged to have a moderate adverse impact, being the view from Albury Road, but this drops to a slight adverse impact once the planting matures after 15 years.
- 6.93 Within the public/commercial realm, there are views from the Parish Church of St Cecilia within Church End to the north and west, and the sensitivity of this receptor is considered to be moderate. The other such receptors consist of businesses at Hadham Park and Hadham Industrial Estate, located in enclosed clusters with some outward views to the surrounding countryside. Hadham Industrial Estate is located on elevated ground so has more open views to the north. Two other commercial receptors include the property to the south of Standon Road (located to the west of the bypass) with views across Standon Road and the vegetation beyond, and the Post Office/Little Hadham Village Hall, with views across an open agricultural field. The sensitivity of all of these is judged to be low.
- 6.94 The ES judges that the development has a moderate adverse effect on one such receptor, being the one at the Parish Church of St Cecilia. However, after 15 years this is judged to have a slight adverse effect.
- 6.95 Albury Parish Council has expressed its concerns regarding the visual impact of the development when viewed from the north, stating that this has not been properly addressed with a need for further mitigation, especially with reference to the embankment over the River Ash. The parish council suggests that negotiations take place with landowners to see what further mitigation, in the form of planting, can take place. However, the residential receptors that will be most affected, as well as those within the public/commercial realm, are all located to the south of the bypass. This lessens the need for planting, in addition to that already proposed, on the northern side of the new road. A number of recreational receptors are located to the north of the bypass and many of these are adversely affected by the development, although this impact lessens over time. In any event, these are often located very close to the route of the proposed bypass and, even with the agreement of landowners, there is no guarantee that additional planting would be of assistance in these instances.

Summary

- 6.96 It is clear that the introduction of a major scheme of this nature into the wider rural landscape will have an impact on the landscape and from a visual perspective. It is of no surprise that elements of this are considered likely to have large adverse effects on the landscape and on visual receptors within the vicinity of the scheme. As set out in the county council's landscape officer's comments on the present application, the proposed development results in permanent significant adverse landscape and visual effects. Disappointment has been expressed that on-site mitigation is limited due to the tight site boundary.
- 6.97 The landscape officer's advice continues to state that the proposed landscape mitigation strategy is, nevertheless, the most effective it can be within the constraints of the site boundary, especially bearing in mind the inability to plant the banks of the flood embankments. The fine details of all on-site mitigation is yet to be agreed, with such items being dealt with by way of a pre-commencement planning condition, and this will provide a further opportunity for the landscaping to offer the best mitigation that can be achieved.
- 6.98 Additionally, there is a requirement for off-site mitigation to take into account the scheme's impact on ecology. This will be described later within this report, but it is considered that such off-site planting for ecological purposes will assist in mitigating against the landscape and visual effects of the overall scheme.
- 6.99 Although the scheme has been revised in respect of the proposed deer fencing, whereby this has had to be moved to the crest of the two flood embankments, this is not ideal but should not add any greater significant harm to the visual impact of the development, on the basis that the design of deer fencing is relatively open and rural in character.
- 6.100 Paragraph 56 of the NPPF states that "good design is a key aspect of sustainable development...and should contribute positively to making places better for people." Although the development will be visible within the rural landscape, it has not been poorly designed, and much thought has been given to the design of the scheme and the ways in which any negative impacts can be mitigated. Although there will be some adverse impacts, there will also be positive impacts, primarily in terms of an improvement to the existing A120 corridor and Little Hadham itself from the removal of the majority of traffic from that route. Therefore, the bypass and flood alleviation scheme are not in conflict with the aims of the NPPF in terms of its quality of design.

Impact on residential and non-residential amenity

Air quality

6.101 Paragraph 124 of the NPPF states that:

“Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan.”

6.102 The National Planning Practice Guidance, published in 2014, also refers to the significance of air quality assessments to determine the impacts of proposed developments in the area in which they will be delivered.

6.103 In respect of the proposed bypass, the ES has identified a total of 31 possible receptors, being those areas where exposure to traffic is potentially the greatest. These areas not only contain residential properties, but also include community facilities such as schools.

6.104 Following analysis and modelling of air quality, the ES has considered the impact of the construction phase of the overall scheme on air quality. This highlights that the Construction Environmental Management Plan (CEMP) for the scheme will contain best practice in respect of dust management. Although a draft CEMP has been produced within the ES, the full details of the CEMP will need to be submitted as a requirement of a pre-commencement condition, thus giving greater control to the local planning authority in respect of construction and its impacts on amenity.

6.105 The ES nevertheless considers that the sensitivity of the area to dust soiling around the proposed scheme is low, with no sensitive receptors within 50 metres of any dust generating activity. The sensitivity of the area to human health impacts is also judged as being low due to the low background PM₁₀ concentrations in the area. PM₁₀ refers to particulate matter that is 10 micrometres or less in diameter, being so small that they can get into the lungs, causing serious health problems. The ES therefore concludes that the site has been classified as low risk to dust soiling and low risk to human health for all construction activities at worst.

6.106 Once the bypass is operational, modelling has taken place to predict the annual mean nitrogen dioxide concentrations at the receptor locations. This identifies that seven of the 31 receptors will have a moderate beneficial improvement in air quality, and three will experience a slight beneficial improvement in air quality. The largest

improvements are seen at the Little Hadham crossroads and along the route of the existing A120, as traffic congestion will be significantly reduced from these areas. The remaining 21 receptors experience a negligible impact in terms of air quality once the scheme is operational.

- 6.107 In addition, annual mean PM₁₀ concentrations were predicted at the 31 receptor locations. The modelling concludes that the impact on PM₁₀ concentrations will be negligible at each of the receptors once the scheme is operational.
- 6.108 Consequently, no significant adverse effects on air quality, either during the construction of the scheme or during its operation, have been identified. However, a significant beneficial air quality impact has been identified in the village of Little Hadham as a result of the reduction of pollutant concentrations in the area.

Sound, noise and vibration

- 6.109 In considering the impact of the development in respect of sound, noise and vibration generated, it is necessary to assess these factors with reference to their impact on people as well as community facilities. The impact on people is primarily a consideration of the impact of sound, noise and vibration on the places where they live on an individual dwelling basis, but also in respect of shared community areas. The impact of these factors on community facilities includes schools, places of worship, hospitals, as well as commercial properties such as offices and hotels. These are collectively described as non-commercial receptors. As with air quality, sound, noise and vibration are assessed based on the construction of the scheme, as well as when it is operational.
- 6.110 The term 'sound' refers to the acoustic conditions that people experience as part of their everyday lives. The assessment considers how this is likely to change as a result of the scheme. 'Noise' refers to unwanted sound. Consequently, adverse effects are considered to be noise effects rather than sound effects. Again, as with air quality, noise or vibration effects may be adverse or beneficial. They may be temporary – as during the construction phase for instance – or permanent. They may also be direct, such as from the operation of the scheme, or indirect, such as when traffic patterns on existing roads are changed.
- 6.111 The Noise Policy Statement for England (NPSE) (2010) sets out the Government's aims regarding noise policy, which include:
- The avoidance of significant adverse impacts on health and quality of life.
 - The mitigation and minimisation of adverse impacts on health and quality of life.
 - A contribution to the improvement of health and quality of life.

6.112 In respect of the proposed scheme, for construction noise and vibration a study area has been established that includes all receptors within 300 metres of the proposed bypass and flood alleviation scheme, which is consistent with good practice. However, in respect of noise arising from the operation of the road scheme, the study area is extended to 600 metres around new or altered highways and sections of existing roads within 1km of the new works that are predicted to be subject to a change in noise level of no more than 1dB(A) as a result of the scheme opening.

Construction of the scheme

6.113 During the construction phase, and looking at each construction phase in isolation, the ES predicts that direct noise effects should not exceed significance thresholds for a duration of one month or longer at any residential receptor. However, noise levels are expected to exceed significance thresholds at two residential receptors, being those at Savernake, close to the Hadham Park roundabout; and The Lodge on Standon Road, close to the Tilekiln roundabout. Depending on the phasing of the works, there is a potential for the cumulative noise levels to exceed the significance threshold for over one month at these two receptors. Nevertheless, the ES concludes that the cumulative effects are unlikely to exceed the threshold for noise insulation qualification for longer than one month in duration or be significant in terms of government noise policy due to the relatively short duration of the works. The construction noise effects are therefore judged to be not significant.

6.114 The study concludes that there are no significant effects due to construction noise predicted at non-residential receptors.

6.115 In respect of indirect effects, it is estimated that there will be up to 400 daily HGV movements associated with the construction of the scheme, with these using the existing A120 to access temporary haul roads within the scheme. There should be a 50:50 split between each end of the scheme in terms of HGV numbers. Due to the high baseline of traffic on the current A120, the study concludes that the impact of the additional HGVs on the road will be negligible in terms of noise.

6.116 In respect of vibration during the construction phase, the study area is considered to extend 75 metres from the scheme with no adverse effects from vibration expected to be detectable beyond that distance. Of the residential receptors, The Lodge at Standon Road, close to the proposed Tilekiln roundabout, is identified as likely to have a minor construction vibration impact during vibro-compaction works. However, these works are scheduled to take place for relatively short durations, and certainly for no longer than one week at any one location. In this instance, the works will have no risk of damage to any property but there will be disruption. As such, the ES considers that this will result in a likely significant effect.

- 6.117 A potential major construction vibration impact is, however, identified at Hadham Lodge, close to the Hadham Park roundabout, as a result of vibro-compaction works. Nevertheless, a significant effect will be avoided by using alternative compaction methods, such as lower vibration compaction plant or static rollers. With this mitigation in place, it is judged that the residual effects will be not significant and this can be controlled by way of a condition.
- 6.118 There are no non-residential receptors within the construction vibration study area.

Operation of the scheme

- 6.119 At the outset of the design of the proposed bypass, an assessment was made of the residential properties most likely to be affected by operational noise. The greatest impacts were considered to be on the northern facades of the properties to the north of the existing A120 but to the south of the proposed bypass, such as those on Albury Road and at Hadham Hall. Where possible, 2.5 metre high noise attenuation bunds have been incorporated into the design of the scheme to allow for this. These are located on the southern side of the bypass to the west of Albury Road, where the bypass travels towards the Tilekiln roundabout, and to the north east of Hadham Hall.
- 6.120 In considering noise levels arising from the operation of the bypass, the Planning Practice Guidance for Noise sets out the following criteria:
- Significant observed adverse effect level (SOAEL) – this is the level of noise exposure above which significant adverse effects on health and quality of life occur.
 - Lowest observed adverse effect level (LOAEL) – this is the level of noise exposure above which adverse effects on health and quality of life can be detected.
 - No observed effect level (NOEL) – this is the level of noise exposure below which no effect at all on health or quality of life can be detected.
- 6.121 The Planning Practice Guidance for Noise provides a further explanation of this:

“As...noise exposure increases, it will cross the no observed effect level (NOEL) as it becomes noticeable. However, the noise has no adverse effect so long as the exposure is such that it does not cause any change in behaviour or attitude. The noise can slightly affect the acoustic character of an area but not to the extent there is a perceived change in quality of life. If the noise exposure is at this level no specific measures are required to manage the acoustic environment.

As...exposure increases further, it crosses the lowest observed adverse effect level (LOAEL) boundary above which the noise starts to cause small changes in behaviour and attitude, for example, having to turn up the volume on the television or needing to speak more loudly to be heard. The noise therefore starts to have an adverse effect and consideration needs to be given to mitigating and minimising those effects

Increasing noise exposure will at some point cause the significant observed adverse effect level (SOAEL) boundary to be crossed. Above this level the noise causes a material change in behaviour such as keeping windows closed for most of the time or avoiding certain activities during periods when the noise is present.”

- 6.122 In respect of the proposed scheme, modelling of predicted noise levels has identified that there will be some communities affected by the development, whereas others will benefit. For example, 12 properties within the small community of Albury End, located to the west and north west of the proposed bypass, are likely to have minor adverse impacts due to road noise. Similarly, two properties at Albury Lodge to the north of the proposed bypass will also have minor adverse impacts. However, in these instances the predicted noise levels at all of these properties are less than the LOAEL for traffic noise, so no significant effect has been identified on either community. A minor beneficial impact has been identified at The Lodge, Little Hadham, located adjacent to the western junction with the proposed bypass, as the noise level without the bypass is predicted to be greater than when the bypass is operational.
- 6.123 At the community of Little Hadham at the signalised traffic junction, beneficial impacts of the development are predicted at 82 residential properties as an indirect effect of reduced traffic noise on the existing A120. Major beneficial impacts are predicted at 23 of these, moderate beneficial impacts at 33, and minor beneficial impacts at the remaining 26. This is considered to result in a perceived change in the quality of life of residents of Little Hadham, with a significant beneficial effect on the community.
- 6.124 However, travelling north along the Albury Road from the Little Hadham crossroads, minor adverse impacts have been predicted at 13 residential properties, with one moderate adverse impact on Lime Kiln Bungalow, being the property closest to the proposed bypass. Nevertheless, the predicted level for traffic noise is still less than the LOAEL, so no significant effect has been identified on this particular community.
- 6.125 Within the community of Hadham Ford to the south of Little Hadham, minor adverse impacts are predicted at 35 residential properties as an indirect result of increased traffic flow along The Ash. The predicted noise levels at these receptors is considered to be above the LOAEL,

having a perceived impact upon the quality of life of this community such that there is considered to be a likely significant adverse effect on the community of Hadham Ford.

- 6.126 At Church End, out of a total of 10 residential properties, six are predicted to have a minor adverse impact from road noise from the bypass. All noise levels will be below the LOAEL, however, so no significant effect has been identified at these properties. To the east, at Hadham Hall, there are 25 residential properties. The study predicted that 17 of these will have major adverse impacts from noise from the bypass. This was due to the magnitude of the impacts compared to the relatively low predicted noise level in the area from existing conditions. However, a baseline survey was subsequently conducted to show the existing levels, which showed that existing levels were higher than predicted. Therefore, despite the magnitude of noise, levels are predicted to still be below the LOAEL at all properties, with no significant effect identified at Hadham Hall.
- 6.127 At Hadham Park, near the eastern end of the bypass, one residential property is likely to have a minor adverse impact, although this is below the LOAEL and no significant effect on communities has been identified.
- 6.128 At Green Street/Cradle End, to the south of the existing A120 and to the south of Hadham Park, beneficial impacts are predicted at 41 residential properties as an indirect result of changes to traffic flow on the A120 and in the local area. The effect is considered to be a significant beneficial effect on the community of Green Street/Cradle End.
- 6.129 At Bury Green, Cradle End, south west of Green Street/Cradle End, there is a total of 59 residential properties. Moderate beneficial impacts are predicted at two of these properties, with minor beneficial impacts predicted at nine properties. Again, this is due to an indirect effect of changes to traffic flow. Due to the low number of properties concerned, no significant effect on communities has been identified.
- 6.130 Lastly, at the property located at Savernake very close to the eastern roundabout of the bypass, a moderate adverse impact has been predicted as a result of traffic noise on the bypass itself. However, as this is just one isolated property, a significant effect on communities has not been identified. Nevertheless, this impact must still be considered with reference to the scheme as a whole.
- 6.131 Therefore, in summary, significant benefits are predicted at the communities of Little Hadham (82 residential properties) and Green Street/Cradle End (41 properties). There is, however, a significant adverse effect predicted on the community of Hadham Ford, which has 35 residential properties. In all cases, these changes arise from indirect impacts of the development. All other communities are

predicted to have no significant effect from the operation of the bypass, directly or indirectly.

- 6.132 Mitigation of noise has been considered at Hadham Ford in the form of noise barriers and low noise road surfacing. However, noise barriers would need to be more than two metres in height and would obstruct footways and driveways, as well as having a negative visual impact upon the community. In respect of road surfacing, this is most effective at speeds greater than 75km/h, yet the average speed through this community is in the region of 30km/h. Therefore, such mitigation would not be effective.
- 6.133 In respect of non-residential receptors, three have been identified within the study area:
- Little Hadham Primary School, Hadham Road, Little Hadham.
 - Bishop's Stortford College, Maze Green Road, Bishop's Stortford.
 - Northgate Primary School, Hadham Road, Bishop's Stortford.
- 6.134 A beneficial impact of 6dB is predicted at Little Hadham Primary School. The predicted noise levels at the other two receptors are below the screening criteria for this type of receptor.
- 6.135 Albury Parish Council has stated that additional noise barriers over the River Ash were originally requested by that council to assist in reducing noise to the parish of Albury. The parish council is of the opinion that road noise is not adequately mitigated against and that the effect of additional noise generated by the road on the parish will be significant, particularly where the road crosses the River Ash embankment. However, as described above, this is not borne out by the data with the noise contours produced within the ES showing the predominant noise to be contained generally within the corridor of the proposed bypass.
- 6.136 Finally, it is important to note that East Herts District Council's response has indicated that its Environmental Health section has considered the overall impacts of the bypass. As such, it has no objections and considers that the scheme will result in improved air quality within Little Hadham.

Impact on the historic environment

- 6.137 The Environmental Statement that accompanies the planning application lists the designated and non-designated heritage assets that are within the vicinity of the proposed scheme, together with a consideration of the likely significance of effect that the scheme will have on each of them.
- 6.138 Paragraph 132 of the NPPF states that when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. It is

considered that the more important the asset, the greater the weight that should be attached to its protection. The NPPF continues by saying that significance can be harmed or lost through alteration or destruction of the designated asset or by development within its setting and, as heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Where there is substantial harm to a grade II listed building, park or garden, the justification should be exceptional. Where more important assets are substantially harmed, such as grade I and II* listed buildings and scheduled monuments, then the justification has to be wholly exceptional.

6.139 Paragraph 134 of the NPPF continues by stating that where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimal use.

6.140 The Environmental Statement lists 117 listed buildings within the vicinity of the proposed development, with one of these being Grade I, and seven being Grade II*. Historic England was consulted on the planning application and commented on a small number of designated heritage assets, raising issues about the impact of the scheme on some of these. The assets in question are as follows:

- the scheduled monument at Mill Mound;
- the grade I listed building of the Parish Church of St Cecilia in Church End;
- the grade II* listed buildings at Hadham Hall and the Gatehouse Range 60 metres west of Hadham Hall; and
- the Little Hadham Conservation Area and a number of grade II listed buildings within this.

6.141 The NPPF defines 'setting' as the surroundings in which a heritage asset is experienced and impact on significance can occur through a change in the setting. Historic England is of the opinion that the intrusion of the bypass within the rural landscape, with its increased urbanisation, will impact on setting, with visual, audio and odours from the bypass likely to have an adverse impact.

6.142 There is one scheduled monument within one kilometre of the proposed scheme being that at Mill Mound, consisting of a moated mound presently surrounded by mature vegetation. The ES describes this as a former mill mound, although there is uncertainty over its original use. It is located in a rural and relatively quiet setting to the north of Hadham Hall and is adjacent to the Hertfordshire Way; a footpath/bridleway that, in this location, runs between Hadham Hall to the south and Upwick Green to the north. The scheduled monument lies approximately 40 metres to the south of the proposed bypass, which will be in a cutting in this location. Despite the cutting, it is clear that there will still be visual and audio impacts upon the setting of the scheduled monument, although these will be lessened due to the

existing mature planting around Mill Mound together with proposed additional roadside planting alongside the bypass.

- 6.143 The ES concludes that there will be a moderate adverse effect on setting, which it considers to be significant, but not to the extent that there will be substantial harm, as set out within paragraph 132 of the NPPF. Historic England believes that the harm may be greater than this, although it welcomes the additional roadside planting as a means of ameliorating the overall impact of the development. However, the existence of the Hertfordshire Way means that this right of way will need to cross the bypass by way of a new footbridge. Historic England queries whether this can be moved further away from Mill Mound, but it is considered that this is impractical as it would require a considerable re-alignment of the footpath in this location. The bypass would be in a relatively deep cutting in this location, being in excess of 5 metres below existing ground levels. Together with the roadside planting, this should ensure that the bypass is obscured from view when looked at from the scheduled monument. It is clear that noise impacts will have an adverse impact on the setting of the monument, as will the introduction of a footbridge – which should be the only element that is visible from Mill Mound itself – but the bridge itself can be designed so that it is sympathetic to its surroundings and the setting of the scheduled monument. The full details of the design can be required as a pre-commencement condition.
- 6.144 Although the noise impacts will adversely affect the setting of the scheduled monument, it is considered that the Environmental Statement accurately defines this as being a moderate impact and not a substantial one. Indeed, Historic England did not go so far as to say that the effect would be substantial. In accordance with paragraph 134 of the NPPF, therefore, where there is less than substantial harm to a heritage asset, the harm should be weighed against the public benefits. Likewise, there must be clear and convincing justification for the harm, as outlined in paragraph 132 of the NPPF. The benefits to the wider public of the proposed bypass and its associated flood alleviation scheme have already been described at length within this report and it is concluded that these clearly outweigh the harm to the heritage asset at Mill Mound. Likewise, the report has already rehearsed the reasons for the route of the proposed bypass, being the best and most deliverable option that is available. Consequently, it is considered that there is a clear and convincing justification for the road scheme in this location.
- 6.145 The grade I listed building of the Parish Church of St Cecilia is located in the small hamlet of Church End, located to the east of Little Hadham and accessed off the existing A120. The hamlet and church will ultimately fall within the arc of the bypass. The church itself is located approximately 150 metres north of the existing A120, and is relatively well screened from the existing road. The Environmental Statement concludes that the bypass will result in a slight beneficial significance of

effect on the church. This is on the basis that, although the bypass will be visible from the church to its north, which would detract from its rural landscape setting, there will be a higher beneficial impact due to the reduction in traffic on the existing road. Historic England agrees that this latter point will provide some benefit, but that this is minimal and outweighed by the overall impact of the scheme. Historic England's approach and conclusions are considered reasonable in this respect as the bypass will introduce a brand new element into the landscape without the wholesale removal of the existing situation. However, it is considered that the overall impact of the proposed development on the church is only slightly detrimental. In addition, as before, the public benefits clearly outweigh any harm that arises, and there is clear and convincing justification for the bypass. Considerable importance and weight have been given to the desirability of preserving the setting of these heritage assets, and it is concluded that the proposed development does not conflict with paragraphs 132 and 134 in this respect.

- 6.146 Similarly, the impact of the proposed development on the grade II* listed buildings of Hadham Hall and the Gatehouse Range at Hadham Hall is considered within the Environmental Statement as having a slight beneficial significance of effect. This is for the very same reasons as for the Parish Church of St Cecelia. In this instance, both buildings again fall within the arc of the new bypass, but they are more distant from the existing A120, being approximately 300 metres away and well screened from the existing road. Therefore, Historic England takes a similar stance as it did with the church, concluding that there is a slight detrimental effect. Again, this is a reasonable approach but, as before, there is a clear and convincing justification for the development, with the public benefits of the new road clearly outweighing any harm with regard to these listed buildings.
- 6.147 Finally, in respect of the Little Hadham Conservation Area, the Environmental Statement concludes that there will be a moderate beneficial effect on the setting due to the removal of traffic from here. In addition, a number of grade II listed buildings have their primary frontages onto the main road in the centre of Little Hadham, particularly congregated around the signalised junction. The removal of traffic and its associated congestion from here will undoubtedly offer significant overall benefits. The Environmental Statement acknowledges that the bypass will be visible from the Conservation Area to the north east of the village but that this visual impact is clearly outweighed by the removal of traffic. Historic England agrees with this position.
- 6.148 In addition to these considerations, the Hertfordshire Gardens Trust originally objected to the proposed development. This was based on the significance of the heritage asset of Hadham Hall and historic landscape, with the Trust considering that the importance of the views from Hadham Hall towards Bloodhounds and High Woods is a key component in the historic significance of the landscape. The objection

was centred upon the proposed Hadham Park Bridge to the east of the bypass, with the Trust being of the view that this would cause significant damage to this view and thus the significance of Hadham Hall site. Although the Trust was of the view that the bypass in itself would adversely affect the setting of Hadham Hall due to noise, light pollution and visual intrusion from bunds and other bridges, it was the proposed Hadham Park Bridge that was the reason for the Trust's objection.

- 6.149 The Trust recommended that the Hadham Park Bridge be deleted from the design and replaced with an underpass, which it considered to overcome their objections, being more respectful to the setting of Hadham Hall. The scheme has subsequently been redesigned, primarily for ecological reasons, but with an underpass now being provided as a crossing point of the bypass. Although the Trust has not commented further on the redesigned proposals, it is considered that the construction of the underpass instead of the bridge overcomes the Trust's original objection.

Archaeology

- 6.150 In respect of the impact of the development on archaeological remains, a geophysical survey of the route of the proposed bypass was carried out in 2014. This identified a limited number of probable archaeological features within the road corridor. A programme of trial trenching was subsequently agreed, although this had not been carried out at the time that the planning application was originally submitted. However, trial trenching subsequently took place in September 2016 and, as confirmed by the council's Historic Environment Adviser, "although the trenching comprised only a very low percentage sample of the route, it did identify three foci of later prehistoric and Roman settlement activity, including two enclosures. Two further sites identified probably represent later prehistoric clay extraction pits."
- 6.151 Historic Environment states that these results "confirm that an appropriate programme of detailed field evaluation of the road corridor and associated sites should be undertaken well prior to road construction, in order that any archaeological remains that might be a significant constraint on the project can be identified at an early stage. The results can also inform the programme of archaeological mitigation that will be required prior to, and potentially during, road construction."
- 6.152 Historic Environment therefore recommends the imposition of conditions setting out the following:
- a programme of further detailed field investigations;
 - appropriate mitigation measures as a result of these investigations, which may include (a) the preservation of remains in situ; (b) the excavation of any remains before the development commences; (c) archaeological monitoring and

- recording of the ground works; (d) analysis of the results of the archaeological work; and (e) any other provisions as necessary.
- the placement of a groundworks condition to ensure that a detailed methodology is agreed in order to mitigate the impact of the development.

Impact on the network of rights of way

- 6.153 There are a number of public rights of way within the vicinity of the proposed development, and a desk-based study has been carried out to existing crossing points on the A120, and potential crossing points of the proposed route. The construction of the bypass will ultimately impact public footpaths at six locations along the proposed route. Alternative provision will be provided where practicable, but temporary closures may be required where alternate routes may not be available during the construction process. The ES considers the overall impact of this, considering there to be a slight adverse effect from the temporary loss of diversion of public footpaths.
- 6.154 The bridleway running north from Hadham Hall, consisting of the Hertfordshire Way, will also require a temporary diversion and possible temporary closure as a result of the need to provide the bridge at the Mill Mound scheduled monument. The number of equestrians using the bridleway is not known but is believed to be low. The significance of this temporary effect is expected to have a slight adverse effect.
- 6.155 The Ramblers have responded to the consultation on the proposed development and made the following comments:
- The Ramblers are suggesting an improvement to the way Footpath 57 ties in with the existing network north of the bypass by allowing it to extend westwards to link with Footpath Albury 21.
 - Footpaths 57 and 58 are to be diverted to cross the new bypass either by way of a pedestrian refuge or, during non-flood conditions, via the flood defence/spillway underneath the new road. Due to increases in flood events, The Ramblers consider that the risk of flooding would be increased when considering the time the spillway will be out of action.
 - Footpath 34 forms part of the Hertfordshire Way. It is proposed to divert this so that it goes across the proposed Hadham Park roundabout, making use of a traffic island, although The Ramblers consider that an underpass should be provided to enable safer passage.
- 6.156 However, the county council's Rights of Way section has not objected to the proposed development and has indicated that it has been involved in the development of the scheme for some time. As such, the Rights of Way section is content with the proposed measures to accommodate changes to the public rights of way, either temporarily or on a permanent basis.

Impact on ecology and biodiversity

- 6.157 The ES describes the likely significant effects of the proposed scheme on nature conservation. The ecological baseline has been determined using information collated from desk studies as well as field surveys, predominantly carried out in 2014, of both habitats and species, which determined the ecological receptors for further assessment to identify adverse and beneficial effects. The ES describes all of these in great detail.
- 6.158 Paragraph 109 of the NPPF states that the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible.

Nature Conservation Sites and Habitats

- 6.159 The ES sets out the designated nature conservation sites within the vicinity of the proposed development. There is one Site of Special Scientific Interest (SSSI), located two kilometres north of the proposed bypass at Patmore Heath. In its response, Natural England has stated that the scheme “will not damage or destroy the interest features for which the site has been notified. We therefore advise your authority that this SSSI does not represent a constraint in determining this application.”
- 6.160 In addition, there are 11 non-statutory designated sites, known as Wildlife Sites, within 500 metres of the proposed development. Natural England does not have enough information to comment on these but refers the LPA to other bodies, such as the Wildlife Trust, that would hold records for the sites in question. None of the Wildlife Sites are directly affected by the bypass, although Little Plantings Wood Wildlife Site and Ancient Woodland Inventory Site is located approximately 50 metres south of the scheme close to the proposed Hadham Park roundabout. The ES highlights that during the construction of the roundabout there would be a permanent adverse effect significant at the county level on this site, but the county council’s ecologist disagrees with this as none of the construction works would physically affect the site. Once the roundabout is operational, however, the council’s ecologist is of the view that the introduction of significant lighting in this area will have a highly significant impact on the Wildlife Site, a site used by Barbastelle bats. New planting is proposed to mitigate for this, but the council’s ecologist is keen to retain the existing habitat in this location without the need for additional planting – which may have negative impacts of its own – save for some planting at the northern edge of the site to mitigate against the artificial lighting and assisting the bats with safe crossing of the A120 in this location.

6.161 In addition to the 2014 surveys that were undertaken, a further Phase 1 Habitat Survey was carried out in July 2016, which did not identify any major changes over the course of the preceding two years. The county council's ecologist considers that the two surveys are more than adequate to assess the area in question. The Phase 1 survey recorded land within a 500m buffer of the road, with the council's ecologist concluding that "the majority of the land affected by the road proposals is of limited ecological significance given it is dominated by intensive arable (95%), although some species interest in the general area is surprisingly high. The River Ash is degraded at this point of its course given the low and intermittent flows it now suffers from."

6.162 In its response, Natural England stressed that:

"The authority should consider securing such measures to enhance the biodiversity of the site from the applicant, if it is minded to grant permission for this application. This is in accordance with Paragraph 118 of the NPPF. Additionally, we would draw your attention to Section 40 of the Natural Environment and Rural Communities Act (2006) which states that '*Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity*'. Section 40(3) of the same Act also states that '*conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat*'."

Hedgerows and trees

6.163 Hedgerows and trees will be lost as a result of the development proposal. A total length of 3.71 kilometres of hedgerow will be lost, of which 1.1 kilometres is considered 'important'.

6.164 In order to mitigate for these losses, it is proposed to carry out the following planting:

- **Roadside planting** of 9.1 km of species-rich hedgerow with trees, located at the boundaries of the proposed scheme.
- **Non roadside planting** of 3.7 km new hedgerow or enhancement of 7.4 km of hedgerow, or a combination of the two. This will be located at least 25m from the proposed scheme.

6.165 The proposed roadside and non-roadside planting is a reasonable response to the loss of existing flora within the vicinity of the proposed scheme. The details are, at present, relatively vague, especially in relation to what exactly will be provided. However, there is a firm commitment for this planting to take place and this can be secured by way of a planning condition.

Species

- 6.166 When the planning application was originally submitted, objections were raised by the Hertfordshire & Middlesex Wildlife Trust as well as the Hertfordshire Bat Group. The objections were focused on what was regarded as being a “lack of appropriate survey, quantification of impact and mitigation measures put forward regarding barbastelle bats.” This was on the basis that a population of barbastelles at Bloodhounds Wood to the north east of the proposed bypass – being the only confirmed maternity population within the county – would be adversely impacted through:
- Severance of flight lines.
 - Lighting at the main existing crossing point.
 - Increased traffic disturbance brought closer to sensitive roosting areas.
- 6.167 As a consequence, the Hertfordshire & Middlesex Wildlife Trust as well as the Hertfordshire Bat Group requested that further survey work be carried out to determine the behaviour and range of the barbastelles, with further mitigation being required based on the findings on the survey work. In addition, these groups wanted to see a monitoring regime for the bats be taken into the future, together with a habitat enhancement fund to create net gains in the population of barbastelles.
- 6.168 Consequently, further extensive survey work was conducted on behalf of the applicants during the summer of 2016. The subsequent survey work has been assessed by the Wildlife Trust, which is content with its scope and conclusions. The surveys allowed the applicants to identify the range of the barbastelles and the manner in which they forage, showing their flight lines and the main ways in which they cross the existing A120. The principal conclusion of this was for the need for an improved crossing point for bats over the proposed bypass to the west of Bloodhounds Wood. This takes the form of an underpass, replacing the previously intended agricultural bridge at Hadham Park. The underpass will be 5 metres tall and 7 metres in width, thus allowing access by agricultural vehicles. This does not result in any realignment of the route of the bypass. Little Hadham Bridleway 36, which was originally intended to cross the proposed bridge, will now be diverted via the underpass.
- 6.169 The surveys conducted in 2016 also highlighted that barbastelles used the woodlands to the west of the proposed scheme, both north and south of the existing A120, as important foraging areas. There is an identified impact on these woodlands from the scheme, therefore additional planting has been identified to mitigate the impact on the bats. A corridor of additional planting is proposed to link the woodlands north of the existing A120 with an existing underpass – which already provides an important crossing point for barbastelles – to the east of the proposed Hadham Park roundabout. Further planting is proposed to the south of the A120 in this location, and the details and

management of all mitigation planting can be required by way of an appropriate condition. The applicants originally proposed to plant an area of land to the south of the existing A120 adjacent to Little Plantings Wood as a means of mitigation, but the Wildlife Trust and the landowner have subsequently raised concerns about the need for this. The county council's ecologist has also stated that the present woodland pasture at this location is suitable for foraging by bats and that he would prefer to see this retained, subject to additional planting along the northern boundary of the land to screen the Hadham Park roundabout, and the applicants have subsequently indicated that they are content to proceed on this basis, thus satisfying the landowner and the Wildlife Trust. The lighting of the Hadham Park roundabout will therefore be vital to ensuring that the impact on barbastelles is limited, and again this can be agreed by way of the imposition of an appropriate condition.

- 6.170 The Wildlife Trust was generally satisfied with the proposed mitigation, although raised concerns about some of the impacts and the ability for mitigation to properly address impacts on barbastelles. These items include further details on lighting, new planting, habitat enhancement, management of construction impacts, post-development habitat management and monitoring of the effectiveness of mitigation. This has since been discussed with the Wildlife Trust, however, and its concerns can be addressed through the imposition of planning conditions, with these being worded in line with the British Standard 'Biodiversity – Code of practice for planning and development' (BS 42020:2013). In other words, the conditions will be enforceable, precise and reasonable.
- 6.171 Regulation 9(5) of the Habitats Regulations requires that, when exercising any of its functions, the local planning authority must have regard to the requirements of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ("the Habitats Directive"), so far as they may be affected by the exercise of those functions.
- 6.172 The Habitats Directive is aimed at the preservation, protection and improvement of the quality of the environment in the European Community. This particularly includes the conservation of both the natural habitats of wild flora and fauna and the flora and fauna themselves. Such conservation is to be achieved by taking measures to maintain the population of protected species at a 'favourable conservation status'. The European Commission, in its guidance document to the Habitats Directive, has summarized 'favourable conservation status' as "in simple terms....a situation where a habitat type or species is doing sufficiently well in terms of quality and quantity and has good prospects of doing so in the future".
- 6.173 The requirements of the Habitats Directive include a strict system of protection for European protected species, which prohibits the

deliberate killing, catching or disturbing of species, the taking of eggs and damage to or destruction of their breeding sites or resting places. Derogations from this strict protection are allowed only in certain limited circumstances and subject to certain tests being met. In England, these derogations take the form of licences that may be granted by Natural England.

- 6.174 It is for the local planning authority to establish whether the proposed development is likely to offend against Article 12(1) of the Habitats Directive. If this is the case then the planning authority should consider whether the proposal would be likely to be granted a licence. Natural England is unable to provide advice on individual cases until licence applications are received since these applications generally involve a much greater level of detail than is provided in planning applications.
- 6.175 All British bats and their roosts are afforded protection by the Habitats Directive. As the proposed works will have an impact upon barbastelle bats, there will be a requirement for the developers to obtain a European Protected Species licence.
- 6.176 In addition to the barbastelles, the proposed works will also affect great crested newts through the removal of hedgerows between three breeding ponds. Again, great crested newts are afforded protection by the Habitats Directive. The proposed scheme has been identified as giving the potential to cause local extinctions, which is considered to be significant at the district level. Consequently, a European Protected Species Licence will also be required in respect of great crested newts. Furthermore, although mitigation is proposed in the form of new ponds and replacement/enhanced hedgerows, a mitigation strategy will be required by way of the imposition of a suitable condition, as suggested by the county council's ecologist.
- 6.177 In these circumstances, the county council's ecologist is generally satisfied with the scheme of mitigation for both barbastelles and great crested newts, recommending conditions be attached to the planning permission that safeguard these species. His advice is that:
- “Suitable mitigation and compensation has been proposed for bats and great crested newts will be outlined in more detail as a Condition. This seeks to avoid any significant adverse effect upon EPS and I consider the proposals will achieve this in a reasonable and proportionate manner. This will also enable the three Habitat regulations tests to be satisfied as outlined within the planning statement. On this basis I also have no reason to consider that appropriate EPS licences would not be issued for the works.”
- 6.178 As referred to above, Test 1 of the three tests set out in Regulation 53 of the Habitat Directive is within Regulation 53(2)(e) and refers to “preserving 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”.

- 6.179 As explained elsewhere within this report, there is a clear need in the public interest of the proposed bypass and flood alleviation scheme, as it provides social and economic, benefits. These are, in brief, the reduction in congestion and reduction in journey times along the A120 corridor, together with the improvements to the amenity and environment of Little Hadham, together with the significant reduction of flood risk to a large number of properties within the village. However, from an ecological perspective alone, the development is not “of primary importance for the environment”. Nevertheless, it can be concluded that there is an overriding public interest in the proposed development, including those of a social or economic nature. In addition, although there will be a significant impact on the environment, proposed mitigation should enable this to be addressed. As such, it is considered that Test 1 within Regulation 53 of the Habitat Directive is met.
- 6.180 Test 2, within Regulation 53(9)(a), requires that “that there is no satisfactory alternative”. In this instance, all mitigation measures have been analysed with the best options identified, and the mitigation proposals will be safeguarded by way of condition. It has been demonstrated that there is no realistic and achievable alternative to the route of the proposed bypass and that all other options have been considered. Therefore, Test 2 within Regulation 53 of the Habitat Directive is also met.
- 6.181 Finally, Test 3, within Regulation 53(9)(b) requires “that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range”. It is considered that, whilst there may be some impact on local populations of both barbastelles and great crested newts, the overall populations will be maintained. Furthermore, there is a commitment to carry out continued monitoring of both species into the future, which will be required by way of appropriate conditions, which will enable remedial action to be taken should it be found that there is a greater impact on the species than originally envisaged.
- 6.182 Consequently, it is considered that the likely impacts on barbastelles and great crested newts is acceptable provided that the implementation of the mitigation and enhancement measures for both species are secured by a planning condition. All three tests of the Habitats Directive are considered to have been met.

Other matters

- 6.183 In respect of the design of the proposed underpass at Hadham Park, the landowner has informed the local planning authority that this is not suitable for purpose as it is too narrow to allow agricultural machinery to

pass through without these being dismantled. Furthermore, he is concerned that there will be glare from the sun as the underpass is orientated in an east-west direction, giving potential risks to users of the bridleway that will also use the underpass.

6.184 The bypass will travel through the landowner's agricultural fields in this location, and any severance of them would be a material planning consideration. The applicants were advised of these concerns and have subsequently responded. They advise that they have discussed the issue with the landowner and that the height of 5 metres has been agreed as being adequate for general operational access for the majority of farm equipment. In addition, although the landowner has referred to the underpass as being 5 metres in width, in reality it is 7 metres wide. The applicants point out that this is wider than that of a typical public highway carriageway, so that all vehicles that would have used the public highway to get to the fields in question would be able to use the underpass unencumbered. Furthermore, agricultural experts have advised the Highways Authority that the majority of farm equipment will not require attachments to be partially removed or detached. Consequently, the size of the underpass is considered suitable so that there is no severance of the agricultural holding. Notwithstanding this, the applicants have confirmed that potential impacts and compensation are being discussed directly with the landowner to ensure that his needs are met.

6.185 With regards to sun glare, the applicants point out that the existing farm track also has an east-west orientation, and that this also forms part of the existing bridleway network and existing users will be aware of the use of this by farm vehicles. This situation will persist with the underpass, and the presence of noise from motorised vehicles will add to the warning for bridleway users. The orientation of the approach to the underpass is also considered appropriate, despite there being a 90 degree bend to the west of the underpass. Visibility splays and the need for vehicles to stop as they turn this corner will ensure that safety is not compromised.

6.186 In respect of the condition of the track and the need for hardsurfacing, the applicants have confirmed that they are in negotiation with the landowner regarding this. Irrespective of these negotiations, the detail of the underpass can be conditioned, ensuring that it offers sufficient access for the landowner.

7. Conclusion

7.1 The present A120 between Bishop's Stortford and Standon is subject to regular congestion and traffic delays as a result of the road layout and necessary signalised traffic junction in the centre of Little Hadham. A bypass is identified within a number of policy documents as offering the solution to this problem. In addition, 72 residential properties within Little Hadham are at continued risk of flooding, with flood water coming

from three sources: the River Ash, the Albury Tributary and the Lloyd Taylor Drain. The bypass will enable flood water to be held back behind artificial embankments that carry the bypass in respect of the first two sources, with a diversion being carried out to the drain, thereby minimising the risk of flooding.

- 7.2 The bypass would, however, result in impacts on other roads and traffic junctions along this stretch of the A120. In order to mitigate for this, there is a commitment from the Highway Authority to carry out continued monitoring into the future of the scheme, addressing the need for mitigation measures to be carried out – including the provision of a further local bypass to the village of Standon – as and when these measures are required.
- 7.3 The development runs through the Metropolitan Green Belt and the Rural Area Beyond the Green Belt. There will also be landscape and visual impacts of the development upon Landscape Character Areas, although these will be minimised through appropriate mitigation. In any event, the overriding benefits of the development clearly outweigh such designations. Very special circumstances exist that clearly outweigh the harm to the Green belt and any other harm.
- 7.4 In respect of residential amenity, there are overall benefits to air quality in the centre of Little Hadham due to the reduction in traffic. No other sensitive receptors have been identified as suffering significantly from any reduction in air quality. Similarly, in terms of noise, some communities may experience an increase in noise levels, but others will experience relatively large reductions in noise as a result of traffic moving on to the bypass.
- 7.5 In respect of the historic heritage, it is concluded that there is less than substantial harm to identified heritage assets within the vicinity of the scheme. Furthermore, the reduction in traffic within the centre of Little Hadham gives benefits to the wider setting of the Little Hadham Conservation Area as well as a number of listed buildings that front the existing A120. Archaeological impacts of the scheme can be addressed through the imposition of conditions seeking proper studies be carried out both prior to, and during, construction of the bypass.
- 7.6 Public rights of way are affected by the development, with temporary and permanent diversions proposed as part of the scheme and its construction. However, these are considered to be acceptable, having no detrimental impact on the use of these.
- 7.7 Finally, the scheme will have an impact on ecology and biodiversity, especially in relation to a colony of Barbastelle bats that are found close to the proposed bypass, as well as Great Crested Newts. However, both on-site and off-site mitigation addresses these concerns and, together with the imposition of suitable conditions that also require future monitoring, it is considered that the development is acceptable.

It is also considered that the three tests of the Habitats Directive are met in respect of these.

- 7.8 It is therefore recommended that planning permission be granted, and referral to the Secretary of State, subject to the imposition of the following conditions. This recommendation has been made with reference to all documents included with the planning application and with reference to the Environmental Statement.

Time Limit

1. The development to which this planning permission relates shall be begun no later than three years from the date of this permission.

Reason: To comply with the requirements of Section 91 of the Town and Country Act 1990 (as amended).

Approved Plans

2. The development hereby permitted shall be carried out in accordance with the following approved plans and documents unless otherwise agreed in writing:
 - Planning Statement – 235086-ARP-XX-XX-RP-YP-00001
November 2015
 - Planning Addendum – 235086-ARP-XX-XX-RP-YP-00004
October 2016
 - Environmental Statement together with accompanying documents and plans – Issue November 2015
 - Environmental Statement Addendum together with accompanying documents and plans – Issue 1 October 2016
 - Statement of Consultation – 235086-ARP-XX-XX-RP-YP-00002
November 2015
 - Transport Assessment – TA001 Issue 17th November 2015
 - Flood Risk Assessment – Issue PO3 11th November 2015
 - Landscape Strategy – November 2015
 - Arboricultural Development Report – dated 15th July 2015
 - Location Plan (Overview) – 235086-ARP-ML-ZZ-DR-YP-50100
 - Location Plan (Sheet 1) – 235086-ARP-ML-ZZ-DR-YP-50101
 - Location Plan (Sheet 2) – 235086-ARP-ML-ZZ-DR-YP-50102
 - Location Plan (Sheet 3) – 235086-ARP-ML-ZZ-DR-YP-50103
 - Site Plan – 235086-ARP-ML-XX-DR-YP-50103
 - Full Scheme with Flood Extents – 235086-ARP-ML-XX-DR-YP-50104
 - Topography Plan – 235086-ARP-ML-XX-DR-YP-50102
 - General Arrangement (Sheet 1) – 235086-ARP-ML-XX-DR-CH-50101
 - General Arrangement (Sheet 2) – 235086-ARP-ML-XX-DR-CH-50102

- General Arrangement (Sheet 3) – 235086-ARP-ML-XX-DR-CH-50103
- General Arrangement (Sheet 4) – 235086-ARP-ML-XX-DR-CH-50104
- General Arrangement (Sheet 5) – 235086-ARP-ML-XX-DR-CH-50105
- General Arrangement (Sheet 6) – 235086-ARP-ML-XX-DR-CH-50106
- General Arrangement (Sheet 7) – 235086-ARP-ML-XX-DR-CH-50107
- Preliminary Drainage Layout (Sheet 1) – 235086-ARP-ML-XX-DR-CD-00101
- Preliminary Drainage Layout (Sheet 2) – 235086-ARP-ML-XX-DR-CD-00102
- Preliminary Drainage Layout (Sheet 3) – 235086-ARP-ML-XX-DR-CD-00103
- Preliminary Drainage Layout (Sheet 4) – 235086-ARP-ML-XX-DR-CD-50104
- Preliminary Drainage Layout (Sheet 5) – 235086-ARP-ML-XX-DR-CD-50105
- Overland Flow Catchment Area Plan – 235086-ARP-ZZ-ZZ-SK-CD-00001
- Highway Surface Water Management Strategy Catchments – 235086-ARP-ZZ-XX-SK-CD-50002
- Balancing Pond Typical Layout and Cross Section – 235086-ARP-XX-XX-DR-CD-00301
- Mainline Plan and Profile (Sheet 1) – 235086-ARP-ML-XX-DR-CH-00201
- Mainline Plan and Profile (Sheet 2) – 235086-ARP-ML-XX-DR-CH-50204
- Mainline Plan and Profile (Sheet 3) – 235086-ARP-ML-XX-DR-CH-50203
- Flood Alleviation Cross Sections Albury Tributary (Sheet 1) – 235086-ARP-ML-08-DR-CH-00301
- Flood Alleviation Cross Sections Albury Tributary (Sheet 2) – 235086-ARP-ML-08-DR-CH-00302
- Albury Tributary Flood Storage Area General Arrangement – 235086-ARP-AL-08-DR-CH-00101
- Typical Cross Sections Mainline (Sheet 1) – 235086-ARP-ML-XX-DR-CH-00301
- Typical Cross Sections Mainline (Sheet 2) – 235086-ARP-ML-XX-DR-CH-00302
- Typical Cross Sections Mainline (Sheet 3) – 235086-ARP-ML-XX-DR-CH-00303
- Lloyd Taylor Drain Proposed Diversion General Arrangement – 235086-ARP-AL-07-DR-CH-00101
- Lloyd Taylor Drain Proposed Diversion Cross Sections – 235086-ARP-AL-07-DR-CH-00301

- Flood Alleviation Cross Sections River Ash (Sheet 1) – 235086-ARP-ML-06-DR-CH-00301
- Flood Alleviation Cross Sections River Ash (Sheet 2) – 235086-ARP-ML-06-DR-CH-00302
- River Ash Flood Storage Area General Arrangement – 235086-ARP-ML-06-DR-CH-00101
- Hadham Park Underpass Options Plan & Profile – 235086-ARP-AL-XX-SK-CH-00003
- Changes to the Application Boundary (Indicative only) – 235085-ARP-ML-ZZ-DR-YP-00104

Reason: For the avoidance of doubt.

Construction

3. No development shall commence until a phasing programme has been submitted to, and approved in writing by, the Local Planning Authority. The provision of all elements in a phasing programme shall be carried out in accordance with the approved phasing programme, and the time triggers specified in it, unless otherwise agreed in writing by the Local Planning Authority.

Reason: To provide clarification on how the development will be delivered, to assist the determination of reserved matters and to ensure that the necessary infrastructure provision and environmental mitigation is provided in time to address the impact of the development.

4. Prior to the commencement of each phase of the scheme in the phasing plan, detailed plans of all proposed highway infrastructure or modifications to the existing highway infrastructure shall be submitted to, and approved in writing by, the Local Planning Authority. This must include all works external to the site, detailed road layouts and the extent of proposed road adoption and drainage provision.

Reason: To ensure that all highway works are built to Highway Authority standards and requirements.

5. Prior to the commencement of the development, a Construction Traffic Management Plan shall be submitted to, and approved in writing by, the Local Planning Authority. The Construction Traffic Management Plan shall contain:
 - The phasing of the development of the site, including all highway works, and the programme of works on the site
 - Location and details of wheel washing facilities and other measures to ensure control of dirt and dust on the public highway
 - Methods for accessing the site, including construction vehicle numbers, sizes and routeing

- Associated construction vehicle parking and turning areas, and storage of materials clear of the public highway
- Temporary warning signage on any parts of the existing public highway where its users may be affected by the works
- Details of temporary or permanent road closures and traffic management measures
- Details of consultation with local businesses and neighbours.

The construction of the development shall only be carried out in accordance with the approved Plan. All temporary traffic management measures shall be agreed in writing by the Local Planning Authority.

Reason: To minimise impact of the construction process on the local environment and local highway network.

6. Prior to the commencement of development, a detailed Construction Environmental Management Plan (CEMP) shall be submitted to, and approved in writing by, the Local Planning Authority, including information as outlined in the draft CEMP submitted with the Environmental Statement as part of the planning application. The CEMP shall include details of hours of construction and the means by which measures will be taken to minimise noise and vibration to residential properties within the vicinity of the construction works.

Reason: To minimise the impacts of construction works and to safeguard the amenities of neighbouring properties and the surrounding area.

7. No development shall take place (including demolition, ground works, vegetation clearance) until a construction environmental management plan for biodiversity (CEMP: Biodiversity) has been submitted to, and approved in writing, by the Local Planning Authority. The CEMP (Biodiversity) shall include the following:
 - a) Risk assessment of potentially damaging construction activities.
 - b) Identification of “biodiversity protection zones”.
 - c) Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction (may be provided as a set of method statements).
 - d) The location and timing of sensitive works to avoid harm to biodiversity features.
 - e) The times during construction when specialist ecologists need to be present on site to oversee works.
 - f) Responsible persons and lines of communication.
 - g) The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person.
 - h) Use of protective fences, exclusion barriers and warning signs.

The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the local planning authority.

Reason: To ensure that biodiversity is adequately protected during the construction process of the development.

8. No removal of hedgerows, trees or shrubs shall take place between 1st March and 31st August inclusive, unless a competent ecologist has undertaken a careful, detailed check of vegetation for active birds' nests immediately before the vegetation is cleared and provided written confirmation that no birds will be harmed and/or that there are appropriate measures in place to protect nesting bird interest on site. Any such written confirmation should be submitted to the Local Planning Authority.

Reason: To ensure that the construction of the scheme does not adversely impact upon nesting birds.

9. Prior to the commencement of development, a detailed Materials Management Plan (MMP) and a Soils Resources Management Plan (SRMP) shall be submitted to, and approved in writing by, the Local Planning Authority. The Defra guidance Construction Code of Practice for Sustainable Use of Soils on Construction Sites shall be adopted and followed.

Reason: To ensure best practice is followed in respect of the management of excavated soils and materials.

10. Prior to the commencement of the development, details of the external lighting scheme to be used during the construction of the development shall be submitted to, and approved in writing by, the Local Planning Authority. These should include details of all night-time lighting required to be provided during the construction phase, particularly at the satellite compounds. All night-time lighting should be minimised to only illuminate temporary work areas (including compounds), whilst remaining at safe levels to ensure safe working together with adequate security of compounds.

Reason: In the interests of security and safe working, whilst ensuring that the impact on amenity is minimised.

Flooding and Water Environment

11. The development permitted by this planning permission shall be carried out in accordance with the approved drainage strategy carried out by Arup, dated 11th of November 2015, project number 235086-ARP-ZZ-ZZ-RP-CD-00001 and the following mitigation measures detailed within the drainage strategy:

- (i) Limiting the surface water run-off generated by the 1 in 100 year + climate change critical storm so that it will not exceed following rates:
 - a. Catchment 1: 11.6 l/s
 - b. Catchment 2a: 2.43 l/s
 - c. Catchment 2b: 0.69 l/s
 - d. Catchment 3: 7.62 l/s
 - e. Catchment 4a: 4.35 l/s
 - f. Catchment 4b: 11.43 l/s
 - g. Catchment 5: 4.16 l/s
 - h. Catchment 6: 6.39 l/s
 - i. Catchment 7: 9.6 l/s
- (ii) Discharge into the following watercourses:
 - j. Catchments 1, 2a and 2b: Albury tributaries
 - k. Catchments 3, 4a and 4b: River Ash
 - l. Catchments 5 and 6: Cradle End Brook
 - m. Catchment 7: Bury Green Brook
- (iii) Undertake the drainage to include swales, ponds and filter drains as indicated in Appendix E of the drainage strategy.
- (iv) Providing a total attenuation volume of 4402 to ensure no increase in surface water run-off volumes for all rainfall events up to and including the 1 in 100 year + climate change event. The minimum attenuation volume to be provided in each catchment as follows:
 - a. Catchment 1: 881 m³
 - b. Catchment 2a: 183 m³
 - c. Catchment 2b: 50 m³
 - d. Catchment 3: 580 m³
 - e. Catchment 4a: 326 m³
 - f. Catchment 4b: 869 m³

g. Catchment 5: 314 m³

h. Catchment 6: 484 m³

i. Catchment 7: 797 m³

The mitigation measures shall be fully implemented prior to occupation 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 prevent flooding by ensuring the satisfactory storage and disposal of surface water from the site.

- 12.** The development is to be undertaken in accordance with the Flood Risk Assessment.

Reason: To manage flood risk and the water environment.

- 13.** Prior to the commencement of the development, a detailed surface water management plan shall be submitted to, and approved by, the Local Planning Authority. This should include
- Details of temporary settlement ponds and cut-off ditches to be designed into the works and installed before the bulk earthworks are undertaken
 - Details of permanent drainage attenuation ponds to be installed early and used in the construction process.

Reason: To manage flood risk and the water environment.

- 14.** The construction works and operation of the proposed development should be carried out in accordance with the relevant British Standards and Best Management Practices, thereby significantly reducing the groundwater pollution risk. If any pollution is found at the sites then the appropriate monitoring and remediation methods will need to be undertaken.

Reason: To mitigate against groundwater pollution risks.

- 15.** The development hereby permitted shall not be commenced until such time as a scheme for the detailed design of the impounding structures and controls including debris screens where appropriate, on the River Ash and Albury Tributary has been submitted to, and approved in writing by, the Local Planning Authority. The scheme shall be fully implemented and subsequently maintained, 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 structural integrity of the proposed flood defences thereby reducing the risk of flooding.

16. The development hereby permitted shall not be commenced until such time as a scheme to provide adequate floodplain storage compensation at the Cradle End Brook crossing has been submitted to, and approved in writing by, the Local Planning Authority. The scheme shall be fully implemented and subsequently maintained, 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 prevent flooding by avoiding the displacement of flood water elsewhere.

17. Any facilities for the storage of oils, fuels or chemicals shall be provided with secondary containment that is impermeable to both the oil, fuel or chemical and water, for example a bund, details of which shall be submitted to the Local Planning Authority for approval. The minimum volume of the secondary containment should be at least equivalent to the capacity of the tank plus 10%. If there is more than one tank in the secondary containment the capacity of the containment should be at least the capacity of the largest tank plus 10% or 25% of the total tank capacity, whichever is greatest. All fill points, vents, gauges and sight gauge must be located within the secondary containment. The secondary containment shall have no opening used to drain the system. Associated above ground pipework should be protected from accidental damage. Below ground pipework should have no mechanical joints, except at inspection hatches and either leak detection equipment installed or regular leak checks. All fill points and tank vent pipe outlets should be detailed to discharge downwards into the bund.

Reason: To protect groundwater. Any work must be done in line with the Environment Agency's Groundwater Protection 3 Position Statement on Storage of Pollutants, particularly statement D1 "Principles of storage and their transmission".

18. A scheme for surface water disposal shall be submitted to, and approved by, the Local Planning Authority. The scheme shall be implemented as approved. Infiltration systems should only be used where it can be demonstrated that they will not pose a risk to groundwater quality.

Reason: To protect groundwater. This must be done in line with the Environment Agency's Groundwater Protection Position Statements "G13: Sustainable drainage system" and "C4: Transport Developments". This is ensure that SuDs are designed and

maintained to current good practice standards, and that the point of discharge is located outside of Source Protection Zone 1 and 2. Where it is not possible to meet these discharge conditions, the Environment Agency will require a risk assessment in order to demonstrate that groundwater pollution will not occur.

19. No infiltration of surface water drainage into the ground along the length of the bypass is permitted other than with the express written consent of the Local Planning Authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to controlled waters. The development shall be carried out in accordance with the approved details.

Reason: To protect groundwater. Infiltration SuDs/soakaways through contaminated soils are unacceptable as contaminants can remobilise and cause groundwater pollution. This is particularly important in locations overlying principal aquifers and within Source Protection Zones 1 and 2.

20. The development hereby permitted shall not be commenced until such time as a scheme to secure the protection of licensed and unlicensed sources has been submitted to, and approved in writing by, the Local Planning Authority. Any such scheme shall be supported by detailed information, include a maintenance programme, and establish current and future ownership of the facilities to be provided. The scheme shall be fully implemented and subsequently maintained, in accordance with the scheme, or any changes as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To protect groundwater. Areas of the proposed development are located within Source Protection Zones 1 and 2, and over The Chalk (Principal Aquifer). Construction and ongoing activities relating to the finished development could impact on the quality of the potable water supplies.

21. Piling or any other foundation designs using penetrative methods shall not be permitted other than with the express written consent of the Local Planning Authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to groundwater. The development shall be carried out in accordance with the approved details.

Reason: To protect groundwater. Some piling techniques can cause preferential pathways for contaminants to migrate to groundwater and cause pollution. A piling risk assessment should be submitted with consideration of the EA guidance <http://webarchive.nationalarchives.gov.uk/20140328084622/http://cdn.environment-agency.gov.uk/scho0202bisw-e-e.pdf>

22. The scheme must be completed in accordance with the mitigation measures outlined in the Water Framework Directive assessment document submitted as part of the planning application, titled “*Assessment of Compliance with WFD Objectives for the Little Hadham A120 Bypass and Flood Alleviation Scheme*”, unless otherwise agreed in writing by the Local Planning Authority.

Reason: To compensate for any biodiversity lost as a result of the scheme. The mitigation outlined will ensure that the work is compliant with the Water Framework Directive.

23. There shall be no light spill from artificial lighting into the watercourse or adjacent river corridor habitat. To achieve this, the specifications, location and direction of artificial lights should be such that the lighting levels crossing the channel and within 8 metres of the top of bank of the watercourse are maintained at background levels. There shall be no light spill from artificial lighting into the area to be enhanced for wildlife.

Reason: To minimise light spill from the new development into the watercourse or adjacent river corridor habitat. Artificial lighting disrupts the natural diurnal rhythms of a range of wildlife using and inhabiting the river and its corridor habitat, and in particular is inhibitive to bats utilising the river corridor.

Contamination

24. If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Local Planning Authority) shall be carried out until the developer has submitted a remediation strategy to the Local Planning Authority detailing how this unsuspected contamination shall be dealt with. Written approval shall subsequently be obtained from the local planning authority. The remediation strategy shall be implemented as approved. On completion of any necessary remedial works, a Verification Report shall be written detailing the remediation that has taken place.

Reason: To protect human health during construction and to protect groundwater. Areas of the proposed development are located within Source Protection Zones 1 and 2, and over The Chalk (Principal Aquifer). Construction and ongoing activities relating to the finished development could impact on the quality of the potable water supplies.

Landscape

25. Prior to commencement of the development, a detailed landscape management plan, including details of native species mitigation

planting, maturing of vegetation, management responsibilities and maintenance schedules for all landscaped areas, shall be submitted to, and approved by, the Local Planning Authority. Proposed hedgerows will use native species consistent with existing hedgerows and standard trees in groups of 3, 5 and 7 mixed species at appropriate centres, groups to be at a variety of distances along the hedgerow between 8 metres and 20 metres. The hedgerows will provide new field boundaries along the route. All planting is to be of native species that are of local provenance and appropriate to the site, species and habitats in the area. Planting of semi-mature native tree species of local provenance of at least 3 metres in height will be provided on raised bunds in key locations to provide a hop-over to encourage bird and bat species to fly higher across the bypass, thereby reducing the risk of collisions and fatalities. The landscape management plan shall be carried out as approved.

Reason: To mitigate the impact of the development on visual receptors, to enhance visual integration within the landscape, to reduce the impact on ecology, and to comply with NPPF requirements for good design, conserving and enhancing the natural environment.

Lighting

- 26.** Prior to the use and operation of the bypass, details of the lighting to be used on the Tilekiln and Hadham Park roundabouts shall be submitted to, and approved by, the Local Planning Authority.

Reason: To ensure that the lighting is designed to minimise light pollution outside the extent of the road.

Highways

- 27.** The highway element of the development shall not be brought into operational use until the development has been fully constructed to the satisfaction of the Local Planning Authority.

Reason: To ensure that the completed scheme is not used until it has been formally approved.

- 28.** Within 12 months of the opening and operation of the bypass, the applicants shall carry out post-construction traffic monitoring. Associated studies shall be submitted to the Local Planning Authority in order to determine the extent of mitigation measures necessary on the existing route. Should it be determined that significant capacity issues have arisen, appropriate interim mitigation measures shall be carried out at appropriate locations within Standon within a timescale to be agreed by the Local Planning Authority.

Reason: To ensure that any significant adverse impacts of the bypass are managed through the carrying out of appropriate mitigation works.

- 29.** Deer fencing shall be provided along sections of the scheme to exclude fallow deer from entering the road corridor. The design and location of the deer fencing shall be submitted to, and approved by, the Local Planning Authority.

Reason: In the interests of highway safety and to ensure that the visual impact of the deer fencing is minimised.

- 30.** No development shall take place until the full details of the underpass at Hadham Park are submitted to, and approved in writing by, the Local Planning Authority, such details to include the means by which agricultural vehicles and machinery will be able to pass and repass through the underpass.

Reason: to ensure that there is no severance of the agricultural fields in this location.

Archaeology

- 31.** No demolition/development shall take place/commence until an Archaeological Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of archaeological significance and research questions; and:
1. The programme and methodology of site investigation
 2. The programme and methodology of site investigation and recording as suggested by the archaeological evaluation
 3. The programme for post investigation assessment
 4. Provision to be made for analysis of the site investigation and recording
 5. Provision to be made for publication and dissemination of the analysis and records of the site investigation
 6. Provision to be made for archive deposition of the analysis and records of the site investigation
 7. Nomination of a competent person or persons/organisation to undertake the works set out within the Archaeological Written Scheme of Investigation.

Reason: To protect probable heritage assets of archaeological interest on the site.

- 32.** The development shall take place/commence in accordance with the programme of archaeological works set out in the Written Scheme of Investigation approved under condition 30.

Reason: To protect probable heritage assets of archaeological interest on the site.

- 33.** The development shall not be occupied/used until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition 30 and the provision made for analysis and publication where appropriate.

Reason: To protect probable heritage assets of archaeological interest on the site.

- 34.** No development shall take place until the full details of the footbridge over the bypass at Mill Mound have been submitted to, and approved in writing by, the Local Planning Authority. These details shall include details of associated planting and landscaping that will minimise the impact of the footbridge on Mill Mound.

Reason: To ensure that the setting of the scheduled monument at Mill Mound is adequately protected.

Ecology

- 35.** The development hereby permitted shall not be commenced until such time as a biodiversity enhancement scheme has been submitted to, and approved in writing by, the Local Planning Authority. The enhancement scheme shall be fully implemented and subsequently maintained, 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 protection of wildlife and supporting habitat and secure opportunities for the enhancement of the nature conservation value of the site. This is in line with National Planning Policy Framework (NPPF) policy to provide a net gain in biodiversity.

- 36.** No development shall take place until a detailed method statement for removing or the long-term management/control of Japanese Knotweed (*Fallopia japonica*) on the site has been submitted to, and approved in writing by, the Local Planning Authority. The method statement shall include measures that will be used to prevent the spread of Japanese Knotweed (*Fallopia japonica*) during any operations e.g. mowing, strimming or soil movement. It shall also contain measures to ensure that any soils brought to the site are free of the seeds/root/stem of any invasive plant listed under the Wildlife and Countryside Act 1981, as amended. Development shall proceed in accordance with the approved method statement.

Reason: This condition is necessary to prevent the spread of Japanese Knotweed (*Fallopia japonica*) which is an invasive species. Without it, avoidable damage could be caused to the nature conservation value of the site contrary to national planning policy as set out in the National Planning Policy Framework paragraph 109, which requires the planning system to aim to conserve and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible.

37. No development shall take place until an ecological design strategy (EDS) addressing mitigation for impacts to barbastelle bat and other bat species (including lighting impacts), has been submitted to, and approved in writing, by the Local Planning Authority.

The EDS for barbastelle bat and other bat species shall include the following.

- a) Purpose and conservation objectives for the proposed works.
- b) Review of site potential and constraints, including identification of those areas/features on site that are particularly sensitive for barbastelle and other bat species and that are likely to cause disturbance in or around their breeding sites and resting places or along important routes used to access key areas of their territory.
- c) Detailed design(s) and/or working method(s) to achieve stated objectives, including how and where external lighting will be installed (through the provision of appropriate lighting contour plans and technical specifications) so that it can be clearly demonstrated that areas to be lit will not disturb or prevent the above species using their territory and having access to their breeding sites and resting places. If this cannot be achieved then the strategy shall include additional mitigation for lighting impacts, as outlined within the Environmental Statement.
- d) Extent and location/area of proposed works on appropriate scale maps and plans.
- e) Type and source of materials to be used where appropriate, e.g. native species of local provenance.
- f) Timetable for implementation demonstrating that works are aligned with the proposed phasing of development.
- g) Persons responsible for implementing the works.
- h) Details of initial aftercare and long-term maintenance.
- i) Details for monitoring and remedial measures.
- j) Details for disposal of any wastes arising from works.

The EDS shall be implemented in accordance with the approved details and all features shall be retained in that manner thereafter. All external lighting shall be installed in accordance with the specifications and locations set out in the strategy, and these shall be maintained thereafter in accordance with the strategy. Under no

circumstances should any other external lighting be installed without prior consent from the local planning authority.

Reason: To ensure that there is appropriate mitigation for all bat species.

- 38.** No development shall take place (including any demolition, ground works, site clearance) until a method statement for great crested newt mitigation has been submitted to, and approved in writing by, the Local Planning Authority. The content of the method statement shall include the:
- a) purpose and objectives for the proposed works;
 - b) detailed design(s) and/or working method(s) necessary to achieve stated objectives (including, where relevant, type and source of materials to be used);
 - c) extent and location of proposed works shown on appropriate scale maps and plans;
 - d) timetable for implementation, demonstrating that works are aligned with the proposed phasing of construction;
 - e) persons responsible for implementing the works;
 - f) initial aftercare and long-term maintenance (where relevant);
 - g) disposal of any wastes arising from works.
- The works shall be carried out strictly in accordance with the approved details and shall be retained in that manner thereafter.

Reason: To ensure that there is appropriate mitigation for great crested newts.

- 39.** No development shall take place (including any demolition, ground works, site clearance) until a method statement for badger mitigation has been submitted to, and approved in writing by, the Local Planning Authority. The content of the method statement shall include the:
- a) purpose and objectives for the proposed works;
 - b) detailed design(s) and/or working method(s) necessary to achieve stated objectives (including, where relevant, type and source of materials to be used);
 - c) extent and location of proposed works shown on appropriate scale maps and plans;
 - d) timetable for implementation, demonstrating that works are aligned with the proposed phasing of construction;
 - e) persons responsible for implementing the works;
 - f) initial aftercare and long-term maintenance (where relevant);
 - g) disposal of any wastes arising from works.
- The works shall be carried out strictly in accordance with the approved details and shall be retained in that manner thereafter.

Reason: To ensure that there is appropriate mitigation for badgers.

40. No development shall take place (including any demolition, ground works, site clearance) until a method statement for reptile mitigation has been submitted to, and approved in writing by, the Local Planning Authority. The content of the method statement shall include the:

- a) purpose and objectives for the proposed works;
- b) detailed design(s) and/or working method(s) necessary to achieve stated objectives (including, where relevant, type and source of materials to be used);
- c) extent and location of proposed works shown on appropriate scale maps and plans;
- d) timetable for implementation, demonstrating that works are aligned with the proposed phasing of construction;
- e) persons responsible for implementing the works;
- f) initial aftercare and long-term maintenance (where relevant);
- g) disposal of any wastes arising from works.

The works shall be carried out strictly in accordance with the approved details and shall be retained in that manner thereafter.

Reason: To ensure that there is appropriate mitigation for reptiles.

41. No development shall take place (including any demolition, ground works, site clearance) until a method statement for roman snail mitigation has been submitted to, and approved in writing by, the Local Planning Authority. The content of the method statement shall include the:

- a) purpose and objectives for the proposed works;
- b) detailed design(s) and/or working method(s) necessary to achieve stated objectives (including, where relevant, type and source of materials to be used);
- c) extent and location of proposed works shown on appropriate scale maps and plans;
- d) timetable for implementation, demonstrating that works are aligned with the proposed phasing of construction;
- e) persons responsible for implementing the works;
- f) initial aftercare and long-term maintenance (where relevant);
- g) disposal of any wastes arising from works.

The works shall be carried out strictly in accordance with the approved details and shall be retained in that manner thereafter.

Reason: To ensure that there is appropriate mitigation for roman snails.

42. No development shall take place (including any demolition, ground works, site clearance) until a method statement for barn owl mitigation has been submitted to, and approved in writing by, the Local Planning Authority. The content of the method statement shall include the:

- a) purpose and objectives for the proposed works;

- b) detailed design(s) and/or working method(s) necessary to achieve stated objectives (including, where relevant, type and source of materials to be used);
 - c) extent and location of proposed works shown on appropriate scale maps and plans;
 - d) timetable for implementation, demonstrating that works are aligned with the proposed phasing of construction;
 - e) persons responsible for implementing the works;
 - f) initial aftercare and long-term maintenance (where relevant);
 - g) disposal of any wastes arising from works.
- The works shall be carried out strictly in accordance with the approved details and shall be retained in that manner thereafter.

Reason: To ensure that there is appropriate mitigation for barn owls.

- 43.** No development shall take place until further supplementary ecological surveys for bats (to assess for new roosts in trees to be impacted), badger (to identify any new setts to be impacted) and great crested newt (to update the assessment of the population size to be impacted) have been undertaken to update the ecological mitigation requirements for these species. Any additional mitigation measures required should be specified and implemented through the method statements required through the other Conditions within this planning permission. The supplementary surveys shall be of an appropriate type for the above habitats and/or species and survey methods shall follow national good practice guidelines.

Reason: To ensure that there is appropriate mitigation for these species.