Ash Road Bridge – Appendix 11 to Full Council Report

Appendix Title:	**Climate Change and Sustainability Implications**
Subject:	Climate Change and Sustainability
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1. Climate Change and Sustainability Summary

1.1 The Council declared a Climate Emergency on the 23rd July 2019, setting out a commitment to reduce emissions, particularly from vehicles, energy use and construction processes.

1.2 The road bridge (Stage 1) provides for the creation of a water-sensitive site, green corridors, high quality biodiversity and habitat creation. Through consultation with the proposed contractor, opportunities for biodiversity net-gain will be further explored whilst construction activities will be sensitively planned to minimise emissions and to mitigate environmental impacts where feasible.

1.3 The landscape design proposes surface water mitigation measures such as filter drains at the base of embankments and wet grassland. Green buffers will separate the proposed new residential development sites and existing housing, and at site boundaries to merge urban and rural transitions. The woodland planted embankments will act as green infrastructure and green corridors enabling connectivity and permeability between habitats for wildlife, within the site and to habitats outside of the site. The new road embankments offer opportunities for this green corridor as permeable links for wildlife, vehicular traffic, pedestrians and cyclists. These habitats will also offer amenity value, interest, learning and an overall enhanced landscape quality and value.

1.4 The landscape design has also considered the landscape setting for future development, associated public and urban realm, amenity space and links to surrounding networks of roads, pathways and cycle routes.

1.5 There is a proposed net increase of 322 trees as part of the scheme, and the selection of species aims to provide a diverse landscape setting and wildlife habitat opportunity. Existing southern boundaries will also be bolstered, providing enclosure and visual impact mitigation / reduction particularly to Ash Manor.

1.6 The scheme design has also considered climate change impacts. The proposal will include attenuation basins, ponds and compensation storage to accommodate potential flood level waters which also diversify the site in character and create wildlife opportunity. Climate change projections within maintenance plans and drainage systems to account for projected rainfall increases have also been taken into account. The delivery of the proposed development will therefore formalise and protect areas identified as Environment Agency Flood Zone 3, a part of which is regarded as the functional floodplain (EA flood zone 3b 1 in 20 chance of flooding annually) to the north of the North Downs line.

1.7 A reduction in congestion and rat running will also have air quality benefits for local residents, particularly around the Ash level crossing where there will be a reduction in queuing and idling traffic.

2. ARB Scheme Environmental Impact Assessment

2.1 An Environmental Statement (ES) (August 2019) and ES Addendum (June 2020) were submitted to support the planning application (19/P/01460) for the road bridge scheme (Stage 1). The ES and ES Addendum summarise the likely significant environmental effects arising from construction and operation of the proposed development and are included as background papers.

2.2 Only effects classified as moderate adverse or beneficial or large/major adverse or beneficial have the potential to create significant environmental effects.

2.3 No significant environmental effects, classified as moderate or major adverse or beneficial effects, have been identified in relation to highway users during the construction period for the road bridge. During operation, a permanent moderate adverse effect in regard to traffic severance is expected as a result of the proposed development on Foreman Road between the A323 and Ellsworth Park and for those at Land South of Guildford Road (19/P/02197), assuming the site is occupied prior to opening of the road bridge. However, the reduction in traffic flows on Guildford Road immediately to the east of the Ash level crossing would result in a permanent major beneficial (significant) effect along this road link. Delivery of the road bridge and diversion of the A323 will improve journey time reliability for buses resulting in improvements in terms of public transport delay, the result of which is a moderate beneficial effect for buses.

2.4 In terms of noise, there will be a major adverse effect at properties at Ellsworth Park (Vyne Walk) during construction and following opening of the road bridge. Further identification of appropriate measures to minimise effects will be reviewed as detailed information relating to construction plant, timings and programme become available. These measures will be implemented through a Construction Environmental Management Plan, whilst it is also recommended that a subsequent assessment to ascertain if any residents are eligible for the offer of insulation under the Noise Insulation Regulations should be undertaken.

2.5 Once operational some other receptors will experience a significant effect in terms of traffic noise including properties close to Foreman Road between the roundabout and the A323 (moderate adverse) and the traveller site opposite the Ash Tree flats (major adverse). Properties close to Guildford Road, between the station and Ash Hill Road on either side of the level crossing will experience large beneficial decreases in traffic noise.

2.6 In terms of air quality, no significant effects are expected during construction. Once operational, whilst significant adverse effects are predicted at three individual receptors (R4 - 37 Guildford Road, R6 – 7 Foreman Park and R7 – Foreman Road Development), significant beneficial effects will also result at other receptors due to the potential changes in concentrations of nitrogen dioxide especially near to the Ash level crossing. The effects from road traffic emissions as a whole are not regarded as significant.

2.7 There will be adverse effects on cultural heritage during construction through impacts on the setting of the listed Church of St Peter and Ash Manor and Old Manor Cottage or through intrusive ground works impacting on previously unrecorded archaeological assets. However, the latter of these will be managed through archaeological investigation and recording during construction. Once operational, all effects are deemed not significant, apart from impacts to Ash Manor

and Old Manor Cottage which will be moderate adverse due to increased traffic noise.

2.8 Similarly, significant adverse effects on the landscape and visual receptors are predicted during construction. However, once the proposed planting scheme is considered established at year 15 there are no significant adverse effects anticipated, with the exception of a moderate adverse effect to receptors at Ellsworth Park (Vyne Walk) as a result of light spill from the new roundabout at Foreman Road. Operational lighting will be installed in accordance with guidelines, with the use of lighting shields to mitigate against light spill.

2.9 The position following progression of the footbridge (Stage 2) was also considered as part of the ES and ES Addendum, with the delivery of the footbridge expected to lead to Ash level crossing accidents and road safety benefits being upgraded from minor beneficial (not significant) to major beneficial (significant) and vulnerable road user delay, amenity and ambience being upgraded from minor beneficial (not significant) to moderate beneficial (significant). No other changes are anticipated in regards to significant effects. The delivery of the footbridge is therefore expected to be beneficial overall in environmental terms.