

14.0 CONCLUSION

14.1 INTRODUCTION

- 14.1.1 An EIA has been undertaken for the Proposed Development at Campdown, Purbrook, which has included an assessment of the likely significant environmental effects of those aspects of the environment likely to be affected. Detailed below are the conclusions of the post mitigation effects assessments from each of the technical chapters, together with a table summarising how all the proposed mitigation measures could be secured.
- 14.1.2 An assessment of the Proposed Development in respect to the scoped areas of potential environmental concern has shown the majority of the construction and operational stage effects identified can be appropriately mitigated and reduced to a level which is not considered to be significant.
- 14.1.3 Nonetheless, some residual effects, both positive and adverse effects were identified following the implementation of additional mitigation. These are summarised below and in Section 14.10 together with Table 14.1 which outlines how all proposed additional mitigation measures could be secured.

14.2 TRAFFIC AND TRANSPORT

- 14.2.1 The traffic and transport ES Chapter (Volume 1, Chapter 5) assesses the likely significant effects of the Proposed Development on the environment in respect of Traffic and Transport during the construction and operational phases. This is supported by a Transport Assessment prepared in consultation with the officers of the local highway authority.
- Construction Phase**
- 14.2.2 The measures proposed to mitigate the potential disruptions associated with the traffic movement identified are focussed on ensuring that the Construction Traffic Management Plan which would be secured via a planning condition is as effective as possible and is monitored during the construction works.
- 14.2.3 With these mitigation measures implemented and monitored throughout the construction works, the assessment identified that the residual effects in relation severance, driver delay, pedestrian delay and amenity and accidents and safety are negligible and not significant.
- Operational Phase**
- 14.2.4 The Proposed Development has inherent mitigation against Severance in the design, chiefly through a raft of pedestrian environment improvements and modifications on College Road and Scratchface Lane, designed to emphasise the links from the Site to the facilities in the local area. This will help to minimise the environmental impact upon sensitive receptors potentially affected. In addition, the provision of walking and cycling routes through the masterplan will encourage existing residents to use the on-site facilities. The residual effects in relation to severance would therefore be negligible and permanent in nature. The enhancement of pedestrian facilities around the Site also ensure that

effects associated with pedestrian delay and amenity are negligible and not significant. Similarly, effects upon Fear and Intimidation are identified to be slight beneficial, given the improvements to pedestrian facilities.

- 14.2.5 In relation to driver delay, the designs of the access points to the Site have taken into consideration impacts upon drivers, seeking to minimise delay where possible. A number of off-site schemes have also been considered, particularly where sensitive receptors were identified nearby. These result in effects which vary from slight adverse to slight beneficial and are not considered to be significant.

14.3 AIR QUALITY

- 14.3.1 The Air Quality ES Chapter (Volume 1, Chapter 6) assessed the air quality and dust effect associated with the demolition and construction works. This chapter is supported by two technical appendices presented in Volume 2, Appendix 6.1 – Air Quality Assessment and Appendix 6.2 – Technical note supporting the Air Quality Assessment.

Construction Phase

- 14.3.2 The main emissions associated with the construction works have been identified to be dust and particulate matter generated during earth moving which may arise from vehicle movements, soiling of the public highway, demolition or windblown stockpiles. The potential effects associated with dust nuisance and surface soiling have been identified to be negligible for all residential receptors and not significant on the basis that appropriate measures would be secured via a Construction Environmental Management Plan. This would include measures in relation to dust management and proposed earthworks as well as communications with the nearby receptors.

Operational Phase

- 14.3.3 The assessment of the significance of the effects associated with both the committed and proposed developments with respect to traffic derived NO₂ exposure is determined to be negligible for both existing and proposed receptors. With respect to predicted PM₁₀ and PM_{2.5} exposure, the significance of the proposed development is determined to be negligible for both existing and proposed receptors.

14.4 HERITAGE AND ARCHAEOLOGY

- 14.4.1 The heritage and archaeology assessment presented in Volume 1, Chapter 7 evaluates built heritage and archaeological assets within the Site and surrounding area and assesses how the proposals might potentially affect below and above ground assets. The Chapter is supported by Appendix 7.1 - Heritage Impact Assessment and Appendix 10.2 - Archaeology Desk-Based Assessment.

Construction Phase

Heritage

- 14.4.2 Indirect effects may affect the setting of above ground heritage assets, through construction traffic, and other environmental effects, including an increase in construction noise, dust and vibrations, as well as visual effects such as the presence of cranes and other associated structures and vehicles. All

indirect effects during this phase will be of a temporary nature. Good practice measures and standard environmental controls will be put in place to manage temporary factors such as noise and dust, and construction activities should be screened from view, as far as practicable, by suitable boundary treatments to construction areas. These would reduce the residual effects to minor adverse to negligible and not significant.

Archaeology

- 14.4.3 During the Construction Phase, the potential for direct, adverse effects on the heritage value of heritage assets arises out of physical removal of buried heritage assets, through construction of foundations within the footprint of the proposed buildings, levelling groundworks take for access and landscaping, and excavation for below ground services. Such effects would be permanent. Mitigation for the construction phase includes a programme of archaeological works, which would assist in further understanding the context of the potential archaeological assets and, proposed retention of open space surrounding the Roman Villa heritage site to reduce any potential significant effects on the heritage value of the asset. With the mitigation measures secured, the residual effects are reduced to temporary minor adverse to negligible effects and not significant.

Operational Phase

Heritage

- 14.4.4 Effects arising from the Operational Phase of the Proposed Development are mainly focused on the contribution of the setting of heritage assets, and its contribution to their respective heritage values, through the completion of the Proposed Development and the alteration from an open field to a finalised development. To reduce the potential effects on the identified heritage assets it is proposed that a land management plan is developed to allow an enhanced understanding of the historic development of the landscape by a wider audience. Additional measures will be put in place to enhance the setting of the heritage assets in consultation with Historic England. With the proposed design and additional mitigation, any potential operational effects on the Littlepark Wood Roman villa Scheduled Monument and the Bevi's Grave Long Barrow Scheduled Ancient Monument are reduced to a minor adverse effect and not significant. Effects on the remainder of the identified assets are negligible and not significant.

Archaeology

- 14.4.5 Once the scheme is developed, no further effects on buried archaeology are anticipated.

14.5 LANDSCAPE AND VISUAL IMPACT ASSESSMENT

- 14.5.1 The landscape and visual effects presented in Volume 1, Chapter 8 have been assessed in accordance with industry best practice guidance set out in *Guidelines for Landscape and Visual Impact Assessment* and have assessed the effects associated with the Proposed Development on local and wider landscape, its character, scenic quality, visual amenities and people's views onto the Proposed Development.
- 14.5.2 The assessment is supported by the following appendices:
- Appendix 8.1.1 to 8.1.3 – Plans

- Appendix 8.2.1 to 8.2.2 – Annotated viewpoints
- Appendix 8.3 – Assessment tables
- Appendix 8.4 – Photography Methodology
- Appendix 8.5 – LVIA Scoping Letter.

Construction Phase

- 14.5.3 Construction effects are those resulting from the temporary construction works associated with the build out of the proposals.
- 14.5.4 The landscape effects of the construction phase of the development are generally not seen as significant due to the generally low sensitivity of the character area and landscape elements associated with the site. The exception to these is the potential effect on the heritage assets, including the Littlepark Wood Roman villa Scheduled Ancient Monument and the Bevi's Grave Long Barrow Scheduled Ancient Monument. The effect on the visual and setting effects are reported above in the heritage and archaeology section.
- 14.5.5 In relation to visual effects, there are very few changes to permanent receptors due to dense intervening vegetation and topography, with no expected significant effect. Where receptors have a greater interest in their surroundings, such as the users of PRoW no.26c within the site boundary and no. 28 (Scratchface Lane) immediately adjacent to the site boundary, the resulting effects are greater and are likely to be deemed significant during the construction stage. Similar effects are also identified from Residents from dwelling off Portsdown Hill Road that have open views over the construction site.

Operational Phase

- 14.5.6 The Site is located between existing urban development and a major transport corridor and therefore the precedent of development is already an established factor in both The Site's landscape character and the adjacent landscape character areas both on a local and a county level. The development of The Site will therefore not be deemed to result in any significant effects.
- 14.5.7 The early input of landscape (and other disciplines) in the design development of the site has ensured that any potential significant effects in relation to the individual landscape element receptors as well as landscape related heritage elements have been identified and mitigated at an early stage. This has ensured that there will be no expected significant landscape effects after 15 years.
- 14.5.8 The same applies to both permanent and transient close and medium distance visual receptors, where most result in minor adverse or less effects after 15 years. There are some exceptions, with a limited number of moderate adverse effects after 15 years and one major/moderate adverse effect. The remaining significant effect (major/moderate adverse) is related to transient close views from Scratchface Lane (Viewpoint 6) when in very close proximity to the site where previously wider views were available. This view is generally softened through the introduction of intervening vegetation, but due to its distance from the proposed built will remain significant effect after 15 years.

14.6 ECOLOGY

14.6.1 The ecological impact assessment (EclA) was undertaken in accordance the Chartered Institute of Ecology and Environmental Management Guidelines for Ecological Impact Assessment (2018 v1.1) and is presented in Volume 1, Chapter 9. This assessment is supported by four technical appendices presented in Volume 2, Appendices 9.1 to 9.5 and include the following:

- Appendix 9.1 – Ecological Appraisal
- Appendix 9.2 – Reptile Survey Report
- Appendix 9.3 – Dormouse Survey Report
- Appendix 9.4 – Combined Bat Report
- Appendix 9.5 – Wintering Bird Report (Wild New Forest, 2023)

Construction Phase

14.6.1 The embedded mitigation seeks to retain and enhance key habitat areas on site including woodland and hedgerows, with new and additional boundary habitats and species rich grassland to enhance the site in the long term for dormice, reptiles and bats in the long-term to avoid a loss in these species. Impact avoidance and biodiversity enhancement have been sought in the first instance by design through the following measures:

- Within the southern and western central boundaries of the site, SuDs measures will be incorporated to reduce run off, prevent pollution or sedimentation and reduce surface water flooding.
- Within the northern section of the site to protect the ancient monument, no works are proposed with the retention and enhancement of the existing grassland, woodland, scrub and hedgerows.
- The retained boundary habitats are further fostered by native species and provide a mosaic of habitat types.
- The incorporation of open spaces will ensure that the boundary woodlands have additional protection by way of buffer planting. In addition, the eastern boundary will have enhancement by infilling planting ensuring connectivity along the A3 corridor.

14.6.2 Potential effects associated with construction works include potential for the loss and disturbance to habitats and species. Impact avoidance and biodiversity enhancement have been sought in the first instance by design, followed by further measures secured via a Construction Environmental Management Plan. These measures will include minimising habitat removal and the protection of retained habitats and construction measures to prevent pollution and light spillage on sensitive areas.

14.6.3 To mitigate the risk of killing and injuring hazel dormice, all clearance of suitable habitat will take place under an EPS licence from Natural England. To mitigate the risk of killing and injuring common reptiles during construction, reptile translocation will be carried out to move reptiles to the receptor site in the north of the site (centred on the scheduled ancient monument)

14.6.4 Through implementing this mitigation there will be no residually significant adverse effects at the construction phase. The retention and enhancement of the existing hedgerow on site results in significant beneficial effects.

Operational Phase

14.6.5 Lighting will be secured by condition, however the layout includes buffers to all retained and created habitats, and avoids adopted roads in proximity to important features which will enable a detailed lighting layout which avoids any significant illumination of these features in accordance with best practice from the Bat Conservation Trust and Institute for Lighting Professionals.

14.6.6 To reduce the potential effects associated with recreational disturbance on Chichester and Langstone Harbours SPA and Ramsar and Portsmouth Harbour SPA and Ramsar, the development will secure a financial contribution in accordance with the Solent Recreation Mitigation Strategy. With the application of this embedded mitigation there will be no adverse effect on integrity of these designated sites and therefore no significant adverse effect.

14.6.7 The drainage strategy has been designed to prevent runoff of sediment and chemicals and maintain existing greenfield runoff rates. Increases in nitrogen output will be offset through the purchase of credits from a suitable mitigation provider resulting in a net reduction in TN output and nutrient neutrality. With the application of this embedded mitigation there will be no adverse effect on integrity of the designated sites and therefore no significant adverse effect.

14.7 NOISE

14.7.1 The assessment of noise and vibration is presented in Volume 1, Chapter 10 and considers the effects on the Proposed Development during the construction and operational phases. The assessment is supported by technical figures presented in Appendix 10.1 – Noise Figures and a technical Noise Impact Assessment presented in Appendix 10.2.

Construction Phase

14.7.2 Noise and Vibration from the construction phase will be controlled through a CEMP which will ensure that all construction work is carried out in accordance with good practice. During the construction phase, it is anticipated that through appropriate mitigation (suitable design practices adhered to by the Contractor) potentially significant noise effects can be minimised so that residual significant effects would not arise.

14.7.3 It is proposed that construction vibration is considered in more detail when the piling method has been identified by the construction contractor. Where ground conditions allow, a low vibration method of piling will be utilised. In addition, good management of piling vibration will minimise any impact at nearby residential receptors including reasonable working hours and good communication with occupants of nearby residential properties. The residual effect of vibration is considered to be minor adverse and not significant.

Operational Phase

14.7.4 To reduce the potential operational noise effects, the development includes the provision of an acoustic fence along the eastern site boundary with the A3(M). The building fabric of the dwellings

included in the Proposed Development is designed to ensure acceptable internal noise levels are achieved within the new dwellings. With these measures in place, the assessment indicates that the effect of road traffic due to the Proposed Development will be neutral in the short and long term for most residential receptors. For properties to the west of College Road, the effect will be intermediate in the short-term and minor in the long term. The effect of existing noise sources upon future receptors within the Proposed Development will be no greater than minor.

14.8 FLOOD RISK AND WATER

14.8.1 An assessment of hydrology and flood risk has been undertaken in Volume 1, Chapter 11 and considers the likely effects of the Proposed Development in terms of flood risk, risk of pollution to controlled waters and hydrology. Volume 1, Chapter 11 is supported by a Flood Risk Assessment and Drainage Strategy submitted as part of the planning application.

Construction Phase

14.8.2 The construction assessment identified that the following activities may result in potential effects on flood risk and water:

- Excavations and construction for foundations, drainage runs, services, and new road construction;
- General earthworks involving the excavation, movement and compaction of soil to form the proposed site levels;
- Stockpiling, storage, handling of materials as well as potential spillages and disposal;
- Movement of construction plant and vehicles.

14.8.3 In addition, construction activities can cause disturbance and mobilisation of contaminants during heavy rainfall and vehicle movement. On the other hand, during long dry periods, dust can be generated by soil excavation which will impact the quality of surface water.

14.8.4 The assessment has recommended that construction works will be undertaken in accordance with a Construction Environmental Management Plan (CEMP) which will be implemented during construction phase. In addition, it will include guidance on 'Pollution prevention for businesses' (DEFRA and the Environment Agency, 2016, updated 2019) as a minimum. With a CEMP secured via a planning condition, the assessment concluded that negligible and not significant effects are likely.

Operational Phase

14.8.5 The assessment that the operational phase of the proposed development may result in the following effects:

- Increased impermeable area and traffic volumes could increase the risk of contamination within the surface water run-off
- The increased impermeable area of the development will increase the peak rate of surface water run-off and volume thus increase the risk of flooding downstream;
- The increase occupancy on the site will increase the foul water discharge from the site which could pollute the receiving water body.

14.8.6 A site-specific flood risk assessment has been produced in conjunction with a surface water drainage strategy to mitigate the increase of surface water run-off from this site through the provision of Sustainable Drainage Systems (SuDS) schemes. These would provide both attenuation storage and treatment of the surface water prior to discharge to the downstream watercourse.

14.8.7 The scheme has been designed to accommodate peak storm events up to and including the 1 in 100-year return period with an additional allowance for climate change.

14.8.8 Following the implementation of the mitigation measures identified, the potential effects associated with flood risk and water quality have been identified as negligible and not significant.

14.9 SOCIO-ECONOMIC

14.9.1 An assessment of socio-economic and human health effects is provided in Volume 1, Chapter 12. This assessment examined how the Proposed Development is likely to affect both the local and regional economies, social outcomes and community facilities through its construction and operational phases.

Construction Phase

14.9.2 Construction effects resulting from the proposed development include the provision of direct and indirect employment opportunities. The assessment identified that the construction phase of the proposed development is anticipated to deliver 94.2 direct FTE during the 6-years construction period and a further 87.67 indirect construction jobs elsewhere in the supply chain. This was considered to be a beneficial and not significant effect.

Operational Phase

14.9.3 During the operational phase, the Proposed Development will beneficially affect the regional housing targets by bringing a range of high-quality housing and consequently a mixture of age groups into the area. The potential effects on housing provision have therefore been identified as minor beneficial but not significant.

14.9.4 The Proposed Development does not include the provision of direct employment as such the overall employment effect is negligible and not significant. However, the effects of the additional expenditure in the region, the fiscal implications for the local area as well as the potential for reduction in deprivation rates are considered to be beneficial and significant. The provision of new recreational, open space and playspace provision are considered to represent minor beneficial but not significant effects.

14.9.5 The development does not include for the provision of additional educational and healthcare facilities. The assessed area has shown a surplus in primary school places. Therefore, it has been considered that the proposed development would result in minor adverse effects on these facilities which are not significant in EIA terms. However, the development would result in increases in pressure on the existing secondary schools and GP surgeries due to limited existing capacity. Therefore additional mitigation in the form of financial contribution agreements with the Education Authority has been recommended. This would reduce the residual effect to minor adverse and not significant.

14.10 SUMMARY

- 14.10.1 An assessment has been undertaken for the Proposed Development in respect to the scoped areas of potential environmental concern. This has shown that if the identified additional mitigation is implemented during the design, construction and operational stages of the development, the majority of operational and construction stage effects identified can be appropriately mitigated and reduced to a level which is not considered to be significant. Table 14.1 summarises the mitigation measures proposed, together with an indication of how these can be secured.
- 14.10.2 However, there remain a small number of effects that are still considered to be significant following additional mitigation. It should be noted however that whilst the construction related effects may be considered significant, the construction time period is relatively short and as such their significance is not permanent.
- 14.10.3 These effects are listed below:

Beneficial

- Ecology Construction: Protection and enhancement of the existing hedgerow.
- Socio-economic Operation: Beneficial effects associated with population, deprivation and expenditure.
- Traffic and Transport Operation – beneficial effects on driver delay following the enhancement works at to the Stakes Hill Road roundabout carried out by HCC.

Adverse

- Landscape Character Construction - intervening construction activity within the visual corridor between this SAM and Bevis' Grave SAM to the south
- Visual Effects Construction – Open view over the construction site from users of PRow 108/26c/1 within the site boundary; users of PRow 108/28/3 on Scratchface Lane and from dwelling off Portsdown Hill Road.
- Visual Effect Operational – Open view of the proposed development from users of PRow 108/26c/1 within the site boundary; users of PRow 108/28/3 on Scratchface Lane;

Table 14.1 Summary of method for securing additional mitigation

Identified Effect where additional mitigation (Not design mitigation) has been identified	Type of mitigation measures (prevent, reduce, Offset, enhance)	Means by which mitigation measure may be secured	To be delivered by	Auditable by
Construction				
Air Quality Dust Emissions from Construction Activities	Reduce, offset Good working practices as outlined within the IAQM Guidance on the Assessment of Dust from Demolition and Construction ‘Highly Recommended Mitigation Measures to be secured via a Construction Environmental Management Plan	Planning Condition	Applicant as part of Construction	Discharge of Planning Condition
Noise and Vibration Piling Vibration	Reduce, offset Future assessment once piling method is known, avoidance, good management as required.	Planning Condition	Applicant as part of Construction	Discharge of Planning Condition
Ecology Effects on reptiles	Avoidance Reptile translocation	Planning Condition	Applicant	Discharge of Planning Condition
Ecology Effects on dormouse	Avoidance Dormouse Mitigation Strategy	Planning Condition and EPSL	Applicant as part of Construction	Discharge of Planning Condition
Archaeology Adverse impact of groundworks on previously unrecorded buried heritage assets	Prevent, Reduce A programme of archaeological work in the form of a trial trench evaluation is required, this future programme has been guided through consultation with the LPA heritage advisor. Following this evaluation, further mitigation comprising the opening up of open areas for further excavation, depending on results of the evaluation. If significant remains are found, provision will be made for the analysis and publication of those remains in an appropriate format to be agreed with The County Archaeologist at Hampshire County Council.	Planning Condition	Applicant as part of Construction	Discharge of Planning Condition
Flood Risk and Water Resources Pollution and flood risk to the Langstone Channel, Secondary Aquifer and site workers	Prevent, Reduce Inclusion of mitigation measures in Construction Environmental Management Plan	Planning Condition	Applicant as part of Construction	Discharge of Planning Condition
Socio-economic Construction Employment	Enhance Providing the opportunity for local labour resources to be used where possible, including encouraging recruitment through local press and job centres.	Planning Condition	Applicant	Discharge of Planning Condition
Operation				

Traffic and Transport Improved driver delay and accidents and safety	Enhancement Improvement of the Stakes Hill Roundabout	HCC delivered improvements	HCC	S106
Noise Overheating	Reduce and offset Future assessment which will identify any additional overheating mitigation measures to ensure compliance with requirements of Approved Doc O.	Planning Condition	Applicant	Discharge of Planning Condition
Noise Community Centre	Reduce and offset Future assessment which will include noise limits for plant and operation and will specify any noise mitigation measures required	Planning Condition	Applicant	Discharge of Planning Condition
Heritage Adverse impact of the setting of Littlepark Wood Roman villa and Bevi's Grave Long Barrow	Reduce and offset Development of a land management plan to enhance setting Interpretation panels that illustrate the site's significance	Planning Condition	Applicant	Discharge of Planning Condition
Air Quality Traffic reduction	Reduce, offset Implement Travel Plan	Planning Condition	Applicant	Discharge of Planning Condition
Flood Risk and Water Resources Pollution and flood risk to the Langstone Channel, Secondary Aquifer and to Residents	Prevent, Reduce Implementation of proposed surface water proposals following the drainage strategy	Planning Condition	Applicant	Discharge of Planning Condition
Ecology Bats, birds	Enhance Installation of bat and bird boxes	Planning Condition	Applicant	Discharge of Planning Condition
Socio-economic Health Services and Educational Facilities	Reduce and offset Financial contributions via S106 agreements	S106	Applicant	Discharge of Planning Condition