Divisions Affected – Sutton Courtenay & Marcham, Hendreds & Harwell, Berinsfield & Garsington, and Didcot Ladygrove

PLANNING AND REGULATION COMMITTEE

17th July 2023

- **The dualling of the A4130 carriageway (A4130 Widening) from the Milton Gate Junction eastwards, including the construction of three roundabouts;**
- **A road bridge over the Great Western Mainline (Didcot Science Bridge) and realignment of the A4130 north east of the proposed road bridge including the relocation of a lagoon;**
- **Construction of a new road between Didcot and Culham (Didcot to Culham River Crossing) including the construction of three roundabouts, a road bridge over the Appleford railway sidings and road bridge over the River Thames;**
- **Construction of a new road between the B4015 and A415 (Clifton Hampden bypass), including the provision of one roundabout and associated junctions; and**
- **Controlled crossings, footways and cycleways, landscaping, lighting, noise barriers and sustainable drainage systems.**

Report by the Director of Planning, Environment and Climate Change

Contact Officer: David Periam **E-mail:** Planning@Oxfordshire.gov.uk

Location: A linear site comprising a corridor between the A34 Milton Interchange and the B4015 north of Clifton Hampden including part of the A4130 east of the A34 Milton Interchange, land between Didcot and the former Didcot A Power Station and the Great Western Mainline, land to the north of Didcot where it crosses a private railway sidings and the River Thames to the west of Appleford-on-Thames before joining the A415 west of Culham Station, land to the south of Culham Science Centre through to a connection with the B4015 north of Clifton Hampden.

OCC Application No: R3.0138/21
SODC Application No: P21/S4797/CM
VOWH Application No: P21/V3189/CM

District Council Areas: South Oxfordshire and Vale of White Horse

Applicant: Oxfordshire County Council

Application Received: 2nd November 2021

Consultation Periods: 11th November 2021-11th December 2021
24th November 2022- 24th December 2022
11th May – 12th June 2023

Contents

Background and Context

1. This report considers planning application R3.0138/21, which seeks planning permission for four interlinked pieces of strategic highway infrastructure as a single development: The dualling of a section of the A4130 to the east of Milton Gate, the Didcot Science Bridge, the Didcot-Culham River Thames Crossing, and the Clifton Hampden Bypass. If planning permission is granted, the delivery of the development would be part-funded by a circa £240 million grant issued by Homes England following a successful bid by Oxfordshire County Council to the Housing Infrastructure Fund (HIF). As a result of this, the development has become known locally as the "HIF1" scheme.

2. The availability of the HIF funding presents a unique opportunity to secure the delivery of strategic highway infrastructure that has been identified within the South Oxfordshire and Vale of White Horse District Local Plans as essential to mitigate the impacts of planned housing growth within the Science Vale area. The HIF funding is not, however, considered to be a local financial consideration in the context of Section 70(2) of the Town and Country Planning Act 1990 (as amended by the Localism Act 2011) nor a material consideration in the context of Section 38(6) of the Planning and Compulsory Purchase Act 2004 for the purposes of determining this application. This is because the provision of national funds in this case is not deemed to serve a planning purpose that would impact the acceptability of the development in planning terms. Therefore, members are advised not to take account of the availability of the HIF funding in their consideration of the planning application.

3. The planning application has been submitted by Oxfordshire County Council under the provisions of Regulation 3 of the Town and Country Planning General Regulations 1992 as amended. This Regulation requires that applications for planning permission by an interested planning authority to develop any land of that authority, or for development of any land by an interested planning authority (either on its own or jointly with any other person) shall be determined by the authority concerned except in specific circumstances (which do not apply here), or if the application is referred to the Secretary of State for determination by him. As some of the application land is not "land of an interested planning authority" (land owned by the County Council, or in which it has interest) Regulation 3 is

engaged because the County Council will carry out the proposed development, either alone, or jointly with another person.

4. Therefore, the County Council is both the planning applicant and the body responsible for determining the planning application in this case. It is important that the requirements for processing, considering and determining the application made under the 1992 Regulations must be followed carefully and, in particular, to avoid conflicts of interest. Regulation 10 provides that Regulation 3 applications may not be determined by the committee, sub-committee or officer of the council which is also responsible (wholly or partly) for the management of the land or buildings concerned. The Environmental Impact Assessment Regulations (the EIA Regulations) also require the County Council to carry out its duties in respect of the EIA Regulations in an objective manner that does not give rise to a conflict of interest. Regulation 64 of the EIA Regulations states that where an authority is bringing forward a proposal for development and that authority will also be responsible for determining its own proposal, the relevant authority must make appropriate administrative arrangements to ensure that there is a functional separation, when performing any duty under the EIA Regulations, between the persons bringing forward a proposal for development and the persons responsible for determining that proposal. Members are advised that only officers and their advisors on the regulatory side of the Environment and Place Directorate have been involved in carrying out the planning functions of the County Council in gathering information, assessing the application and producing this report. Legal officers have also kept a separation of functions, so some have been involved in advising the local planning authority and different officers have advised the applicant.

5. Further, the consideration of the planning application by the Planning and Regulation Committee is separate and independent from any decisions the County Council may or may not make in relation to the funding and/or delivery of the proposed development. The County Council may seek powers to acquire some land by compulsory purchase (if required), subject to the grant of planning permission for the scheme and has already commenced that process. However, that process would constitute a separate step to a grant of planning permission and is not a material consideration in the determination of this planning application.

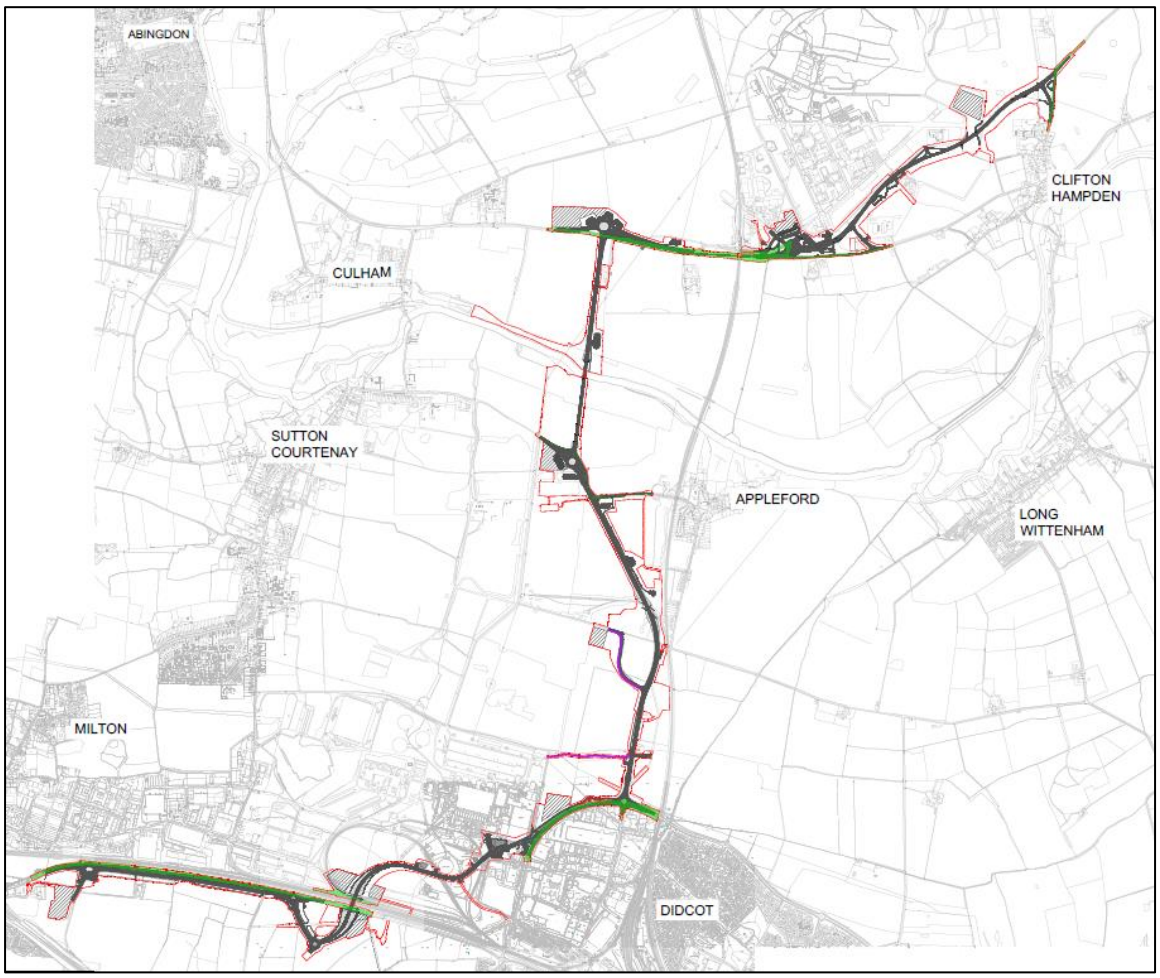
6. Section 70 the Town and Country Planning Act 1990 makes clear that the planning application must be decided in accordance with the Development Plan unless material considerations indicate otherwise.

Recommendation

7. The application has been considered against the development plan, taking account of material considerations including statutory and non-statutory consultation responses and public representations. It is recommended that, subject to the application first being referred to the Secretary of State to consider whether he wishes to call it in for his own determination and to conditions to be determined by the Director of Planning, Environment and Climate Change, including those listed in Annex 1, the application is approved.

PART 1- FACTS AND BACKGROUND

Location (See Plan 1)(Reduced copies of the Preliminary Landscape Masterplan Drawings are provided in Annex 7)



Plan 1: Location Plan

8. The application site comprises a linear route that connects the A4130 to the east of the Milton Interchange with the B4015 to the north of Clifton Hampden. In total the site area is approximately 155ha. The nearest settlements to the route are Milton, Didcot, Appleford-on-Thames, Culham, Sutton Courtenay, and Clifton Hampden. The Culham Science Centre lies to the north of the A415 and its main access lies within the application site.

9. The majority of the southern and central parts of the application site, including the A4130, the former Didcot A Power Station Site, the Sutton Courtenay Minerals and Waste Complex, and land to the west of Appleford-on-Thames lie within the Vale of White Horse District. The northern part of the application site, including the affected parts of the A415 Abingdon Road and the proposed site for the Clifton Hampden Bypass lie within South Oxfordshire District. The boundary between the two Districts is marked by the A4130 to the north of Didcot, and the River Thames. The application area includes land within the parishes of Milton,

Sutton Courtenay, Harwell, Appleford-on-Thames, Culham, and Clifton Hampden and Burcot.

Site and Setting

10. The south-eastern extent of the site lies on the A4130 to the east of the Milton Interchange at the Milton Gate junction. It follows the route of the A4130 eastwards towards Didcot, crossing the accesses to Backhill Tunnel and New Farm as well as Footpath 243/3/10 at Stert Brook, Bridleway 243/1/10 (Cow Lane) at Cow Brook, and Meadow Brook. The application area in this part of the site includes the existing carriageway and a strip of land to the south of the existing carriageway, as well as larger land parcels to the south of Backhill Tunnel and to the west of the Great Western Park housing development.

11. Milton Park Science and Technology Park lies to the north of the A4130 at the south-western extent of the application site; and the Milton Interchange services lies to the south. The Services here include a BP petrol station, McDonalds restaurant, Premier Inn hotel, and a Beefeater restaurant. Footpath 299/10/10 crosses the A4130 connecting Milton Park to the Services. The remainder of the land to the south of the A4130 that is included within the application area is predominantly agricultural land, with the highway boundary marked by a belt of trees and hedgerows. The Great Western Mainline lies to the north of the A4130 and beyond that lies Milton Road and the site of the former Didcot A Power Station.

12. The red line planning application boundary crosses the Great Western Mainline and Milton Road to the north-east of Sir Frank Williams Avenue and follows a linear route in a broadly north-westerly direction across the former Didcot A Power Station site. The route straddles the eastern edge of Moor Ditch and Purchas Road and crosses a parking area and lagoon which form part of the existing RWE operation, before re-joining the existing A4130 to the north of Hawksworth Roundabout on the Southmead Industrial Estate. This part of the site includes part of the National Cycle Route 5/Bridleway 373/24/40.

13. At Collett Roundabout, the application site follows a linear route northward along Bridleway 106/3/10, which is also a track that provides access to Hill Farm, a wood recycling business, Hartwright House, and Level Crossing Cottage. The track lies to the west of the haul road that services Sutton Courtenay Minerals and Waste Complex. The Sutton Courtenay Minerals and Waste Complex extends northwards and westwards from the site. To the east lies the Cherwell Valley railway line which connects Didcot to Culham, and beyond that is agricultural land. Appleford Village lies to the north and east. The application site crosses Restricted Byway no. 106/4/10 and heads further north across Appleford railway sidings and a restored landfill cell known as 90-acre field before meeting the B4016 Appleford Road to the south west of Bridge Farm. The application site in this location includes the entirety of footpath 373/31/10 and parts of footpaths 106/8/10 and 373/12/50 which together connect Appleford and the B4016 to Sutton Courtenay to the west.

14. The application area continues northwards along part of the B4016 and across part-restored areas of Bridge Farm Quarry, which includes wetland habitat. The site then crosses the River Thames and continues northwards across agricultural land past an existing barn until it meets the A415 Abingdon Road to the west of Culham railway station. National Grid power lines cross the application site near to the River Thames. The Thames National Path (footpath 183/11/80) follows the route of the river along its northern bank.

15. The application site then extends eastwards along the existing route of the A415 Abingdon Road past Culham railway station, the Culham No.1 Site and the Culham Science Centre. There are a number of dwellings along this section of the A415 including Zouch Farm, Fullamoor Farmhouse, Fullamoor Barns, and Fullamoor Cottages. From the Culham Science Centre access, the red-line area heads north-eastwards between the A415 and the Science Centre buildings, past the Culham Sewage Treatment Works, and through fields and woodland until it meets the B4015 to the north of Clifton Hampden near to the access to Coppice House. The red-line area traverses the routes of footpaths 171/10/10, 171/6/10, and 171/3/20 which form part of a network of paths to the north of Clifton Hampden.

16. The application site does not pass through any Conservation Areas. The nearest Conservation Areas are at Milton, Didcot Old Town, Long Wittenham, Sutton Courtenay, Culham, Clifton Hampden and Nuneham Courtenay. Within each of these Conservation Areas, there are a number of listed buildings. Further Listed Buildings are also located in the village of Appleford-on-Thames. Other more isolated Listed Buildings near to the application site include the Grade II Listed Schola Europe (circa 680m to the west of the application site), the Grade II Listed Culham Station Overbridge and Grade II* Listed Culham Station Ticket Office and Waiting Room (circa 100m north of the A415 at Culham Railway Station), the Grade II Listed Thame Lane Bridge (circa 850m north of Culham Railway Station), and the Grade II Listed Fullamoor Farmhouse (less than 100m south of the A415 to the east of the Culham Science Centre entrance). The Grade I Listed Nuneham Courtenay Registered Park and Garden is located approximately 470m to the north of the site at the closest point.

17. There are a number of Scheduled Monuments near to the application area, the closest of which is a Settlement Site North of Thames (Ref. 1006345), located approximately 250m to the east of the application site.

18. The application site itself does not lie within any statutory environmental designations. Culham Brake SSSI lies to the north of the A415, approximately 1.6km north of the application site at the nearest point. Little Wittenham Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI) lies approximately 4km to the east of the application site where it crosses Appleford Sidings. Barrow Farm Fen SSSI, Frilford Heath, Ponds & Fen SSSI, Cothill Fen SAC and SSSI, and Dry Sanford Pit SSSI are all located further to the north west on the other side of Abingdon-on-Thames and at distances from the application site of over 5km. The nearest Local Nature Reserves (LNR) are the Abbey Fishponds LNR in Abingdon and Mowbray Fields LNR in south Didcot, both of which are over 2km from the application site.

19. The entirety of the application site that lies to the north of the River Thames lies within the Oxford Green Belt. Parts of the application site that lie to the south of the River Thames fall outside of the Oxford Green Belt.

20. The topography of the southern part of the site, around the A4130, is broadly level at around 55-60m AOD. The topography rises to the north of Didcot in the vicinity of Appleford Sidings and then falls in the wetland areas and floodplain of the River Thames. Land levels gradually rise again towards the A415 and in the vicinity of Clifton Hampden to circa 56-58m AOD.

21. The North Wessex Downs Area of Outstanding Natural Beauty (AONB) lies over 2km to the east and south east of the application site.

22. The majority of the application site lies within Flood Zone 1, which has the lowest probability of fluvial flooding. Two areas of land encompassing parts of the A4130 and land to the south comprise Flood Zones 2 and 3, which have a higher probability of flooding. The application site also crosses the River Thames and therefore includes the functional flood plain in Flood Zones 2 and 3 on both banks of the river.

23. A large part of the site between Didcot and the A415 Abingdon Road falls within the Thames and Lower Thames Valleys – Standlake to Yarnton Mineral Strategic Resource Area and the Mineral Safeguarding Area for sharp sand and gravel, and therefore also falls within the Mineral Consultation Area. Appleford Sidings to the west of Appleford-on-Thames is a safeguarded aggregate rail depot.

24. The majority of the application site falls within land that has been safeguarded for the proposed highway schemes in either the South Oxfordshire Local Plan 2035 (SOLP) or the Vale of White Horse Local Plan Parts 1 and 2 (VOWH P1 and VOWH P2). Part of the site to the north-west of Appleford-on-Thames falls outside of, but near to, the safeguarding boundary.

25. The application site lies in close proximity to a number of strategic allocated housing and employment sites within the SOLP and the VOWH P1 and VOWH P2, which are at various stages of planning and some of which are under construction. These sites include:

    - Land to the south of the A4130 at the south-western extent of the scheme, is allocated for strategic housing in the VOWH P1 (Valley Park and North West Valley Park);
    - Land to the north of the A4130, including Milton Park, land to the west of the Milton Interchange Services, and land to the south of the existing RWE site are allocated for employment in the VOWH P1;
    - The site of the former Didcot A Power Station is allocated in the VOWH P1 for employment-led mixed use;
    - Land to the north of the A415 adjacent to and including land within the application site is allocated for housing (allocated site STRAT8) and employment (allocated site STRAT9) in the SOLP;

- There are also a number of housing allocation sites on the outskirts of Didcot, including Great Western Park and Land South of the A4130, both to the west of Didcot which are allocated for housing development in the SOLP.

26. The application site also lies partly within the boundary of the Didcot Garden Town Masterplan Area as designated in the SOLP and VOWH P1.

Planning History

27. The application site passes through historic and operational landfill and mineral extraction sites. There are also a number of strategic planning applications near to the site related to the allocated housing and employment sites, other housing and employment developments, and minerals and waste developments amongst others. Relevant, recent planning history includes:

Milton Park LDO

- A Local Development Order for Milton Park was adopted by VoWHDC in 2012. The LDO permits various employment uses at Milton Park subject to conditions. A revised LDO is currently being considered under reference P22/V1917/LDO, however no decision on the revision has yet been made.

Land to the South of A4130 & West of New Farm (Roadside Services)

- Reserved Matters application P20/V0657/RM was permitted by VoWHDC in 2020 pursuant to outline planning permission P15/V2880/O. These permissions allow the development of roadside services on land to the south of the A4130 near Milton Interchange. In 2022, outline planning application P22/V1121/O was submitted which seeks a revised mix of uses on the same development site. This application has not yet been determined. Prior to this in 2014, planning permission P14/V0087/FUL was granted for a signalised junction onto the A4130 to serve the development site. It is understood that this consent has been implemented, although the junction onto the A4130 has not yet been constructed.

Valley Park

- Outline planning permission P14/V2873/O was granted by VoWHDC in February 2022 for residential development of up to 4,254 dwellings, mixed-use local centres, primary schools, sports pitches, community and leisure facilities, a special needs school, open space and extensive green infrastructure, hard and soft landscaping, attenuation areas, diversions to public rights of way, pedestrian and vehicular access and associated works at Valley Park, Didcot. A series of Reserved Matters applications were submitted in 2022, however these applications have not yet been determined. In February 2023, planning application no. P23/V0432/FUL was submitted which seeks permission for a temporary construction access to Valley Park from the A4130. This application has also not yet been determined.

Former Didcot A and Didcot B Power Station Sites

- Hybrid planning application P22/V1857/O was submitted to VoWHDC in August 2022 and seeks outline permission for a 197,000m2 data centre and associated development and full permission for a new and improved site access and associated development at RWE N Power Plc Didcot Power Station. This application has not yet been determined.

- Hybrid planning application P21/V0167/FUL (VoWH) and P21/S0274/FUL (SODC) was approved in September 2021, which granted full permission for a single storey 8,692m2 data centre building and associated development and outline permission of a 20,800m2 data centre building and associated development.

- Reserved Matters application P22/V1053/RM was submitted to VoWHDC in February 2023 pursuant to outline permission P19/V1472/FUL, which granted permission for four employment uses and associated development at Signia Park, Didcot. This application has not yet been determined.

- Outline planning permission P22/V2467/O was granted by VoWHDC in November 2022 for a replacement gatehouse with associated ancillary car parking, landscaping and infrastructure at the Didcot B Power Station.

Sutton Courtenay Minerals and Waste Complex & Bridge Farm Quarry

There is a complex planning history associated with the minerals and waste operations at Sutton Courtenay Landfill site and Bridge Farm Quarry. The principal extant consents for the site are as follows:

- Section 73 application MW.0039/15 was approved by the County Council as Minerals and Waste Planning Authority in August 2015 which permitted the continuation of landfill operations at Sutton Courtenay Landfill Site approved under application P14/V0479/CM with amended phasing, restoration plan and contours. The planning permission requires landfilling to cease by the end of 2030, with capping and restoration completion by the end of 2031, with topsoiling and aftercare to follow until 2041.

- The operations at the Appleford Sidings rail depot are currently governed by planning permissions MW.0028/17 (issued in 2017) and MW.0046/20 issued in 2020. In March 2022, the operator of the sidings submitted planning applications MW.0033/22 and MW.0034/22 which seek to extend the operating hours for the sidings for a temporary period of five years. These applications have not yet been determined.

- Development in phases 1-4 of Bridge Farm Quarry is carried out under the provisions of planning permission no. MW.0094/18 which was granted in May 2019. This permission allows the extraction of sand and gravel from phases 1-4, with restoration using in-situ and imported clay materials to create a wet woodland habitat, known locally as the Finger Lakes. In January 2020, the operator of the quarry submitted application MW.0008/20 which seeks to remove extracted material by road and to

allow a further time period to complete the restoration of the site to December 2025. Planning application MW.0008/20 has not yet been determined

- Development in phases 5-7 of Bridge Farm Quarry is carried out under the provisions of planning permission no. MW.0049/19 which allows the extraction of sand and gravel from phases 5-7 with restoration to agriculture and lakes with reed fringes. In June 2022, Hanson submitted planning application MW.0067/22 which seeks to extend the time period for the completion of restoration to December 2025. Planning application MW.0067/22 has not yet been determined.

Culham Science Centre

- Planning permission P22/S1579/FUL was granted in February 2023 by SODC for a support facility including research and development floorspace and associated landscaping

- Planning application P22/S1410/FUL was submitted to SODC in October 2022 and seeks permission for a fusion demonstration plant and associated development. This application has not yet been determined.

- Planning permission P21/S1384/FUL was granted by SODC in January 2022 for a Class F1(a) development to extend the Oxfordshire Advanced Skills building, comprising teaching space, welfare facilities and landscaping.

- Planning permission P21/S1257/FUL was granted by SODC in April 2022 for an employment building and associated multi-storey car park.

- Planning permission P21/S1388/FUL was granted by SODC in October 2021 for two parking hubs.

- Reserved Matters application P21/S0509/RM was permitted by SODC in December 2021 pursuant to outline consent P16/S1753/O for 9,000m2 of Class B1 development.

- Planning permission P20/S1158/FUL was granted by SODC in July 2020 for the construction of an energy centre.

- Planning permission P22/S0207/O was granted by SODC in September 2022 for the construction of a replacement nursery.

Details of the Proposed Development

Overview

28. The proposal comprises four key elements, as follows:

- Dualling of the A4130 between Milton Gate and the proposed Science Bridge, including the provision of three roundabouts

- The construction of Science Bridge over the Great Western Mainline railway and Milton Road, and the realignment of the A4130 through the former Didcot A Power Station site
- The construction of a new road, including three roundabouts, between Didcot and Culham, including a bridge structure over Appleford Sidings and a viaduct and second bridge structure over the River Thames and its approach
- The construction of a new road, including a roundabout, between the A415 and B4015 to the north of Clifton Hampden

29. Each element of the scheme is briefly described in turn below.

Dualling of the A4130

30. A large section of the A4130 between Milton Gate and Didcot would be dualled. Both lanes of the existing road would become the eastbound carriageway and two lanes of westbound carriageway would be constructed on agricultural land to the south. Additional land of varying widths would be included within the highway on either side of the carriageway for footway and cycleway provision, embankments, swales/drains, and landscaping. A central verge would be retained between the two carriageways which would comprise a mix of landscaped areas, ditch and swales/filter drains. Landscaping would comprise a mix of native tree planting, shrubs, species-rich grass, and marsh/wetland grass, with patches of bulb planting in key locations.

31. Two new at-grade roundabouts are proposed on this section of road. Backhill Roundabout would be a 4-arm roundabout, located to the east of Backhill Tunnel, and would provide access into allocated housing land and permitted roadside services to the south. The 'Old A4130' Roundabout would be a 3-arm roundabout located to the east of Cow Lane, which would provide access to Didcot via the existing alignment of the A4130 as well as to the Valley Park housing development to the south. Other major works along this stretch of road would include the provision of a new signalised junction that would provide access to the Valley Park housing site to the south of the A4130.

32. A continuous segregated two-way footway and cycleway would be provided along the length of the westbound carriageway from Backhill Roundabout. The cycleway would be 3m wide and the footpath would be 2m wide and raised above the cycleway by a kerb. A 3m shared use footway would also be provided to the east of Backhill Roundabout on the northern edge of the highway, linking to Backhill Tunnel. Crossings of the A4130 would be provided near to the proposed Valley Park access, to the south of the old A4130 roundabout, and across all arms of Backhill Roundabout.

33. Bus stops would be provided on both sides of the carriageway adjacent to the proposed Valley Park Western Access signalised junction and to the east of the old A4130 roundabout on the existing alignment of the A4130.

Dicot Science Bridge

34. The A4130 would be realigned to the south from the 'Old A4130 Roundabout'. through the Valley Park housing development site. After approximately 250m, the road would connect with a new at-grade 3-arm roundabout (Science Bridge Roundabout), which would provide access to the Valley Park spine road. The road would be single carriageway with verges to either side which would comprise a mix of landscaping and swales/drains. Footway and cycleway provision would continue along the edge of the northbound carriageway, with linkages included to proposed housing development to the south.

35. The new A4130 route would continue as single carriageway over the 'old' A4130, the Great Western Railway, and Milton Road via a new bridge, known as Science Bridge, which would be constructed on embankments to the north and south. The bridge would be a concrete structure, supported by reinforced earth wingwalls with facing blockwork at either end and four piled columns. It would measure approximately 89m long and 16.5m wide and would extend to a maximum height of 14m above the existing ground level along the 'old' A4130 when measured to the top of the parapets. The base of the bridge would allow a clearance height of approximately 11m above the old A4130 and Milton Road and 8m above the Great Western Mainline. The embankments at either side of the bridge would be landscaped with species-rich grassland. Some intermittent tree planting is proposed at the base of the southern embankment.

36. To the north of the Science Bridge, a Science Bridge Link Road would be constructed, to connect the bridge to the A4130 Didcot Perimeter Road to the north of Hawksworth Roundabout on the Southmead Industrial Estate. The link road would be routed through the former Didcot A Power Station site, where provision is made for highway access links to future development sites, however these links would not be delivered as part of the proposed development. The development would result in the relocation of an existing lagoon on land currently occupied by RWE. A new access route connecting the RWE site to Chimney Road would also be provided. The Didcot Science Bridge section of the scheme would conclude at Collett Roundabout, which would be enlarged to form a 4-arm junction. The link road would be flanked by narrow grass verge along both edges, and some drainage attenuation ponds are proposed, but otherwise very little landscaping is proposed in this section of the development.

37. Continuous segregated footway (2m wide) and cycleway (3m wide) routes would extend along the length of the Science Bridge Link Road along both carriageway edges. Three parallel crossings are proposed within the former Didcot A Power Station site, and a fourth crossing would be provided to the north of Hawksworth Roundabout. Further crossings would be provided on all arms of Collett Roundabout. A shared-use connection to the National Cycle Route 5 is also proposed. West of Collett Roundabout, the cycleway and footpath provision would be off-line and segregated from the main carriageway by a wide landscaped buffer.

38. One set of bus stops is proposed to be located centrally within the former Didcot A Power Station site and a second set of bus stops would be provided to the east of Collett Roundabout.

Didcot to Culham River Crossing

39. The 'Didcot to Culham River Crossing' element of the proposed development would comprise a new single-carriageway road between Collett Roundabout on the Southmead Industrial Estate and the A415 Abingdon Road to the west of Culham railway station. This section of the development would include a bridge structure over the Appleford rail sidings and a viaduct and bridge structure over Bridge Farm Quarry and the River Thames.

40. Heading north from Southmead Industrial Estate, the road would be constructed along the existing route of bridleway 106/3/10 between Collett Roundabout and Appleford Level Crossing, which also provides vehicular access to Hill Farm, a wood recycling business, Hartwright House, and Level Crossing Cottage. Alternative accesses are proposed to these properties and a link is also proposed to future development land to the east. A proposed new access is also proposed to serve the Sutton Courtenay Minerals and Waste Complex, which would be located approximately 120m north of Hartwright House and would be served by a priority T junction.

41. The road would be single carriageway with verges to either side which would comprise a mix of landscaping, swales/drains, and water channels. Landscaping would comprise species rich grassland, with some intermittent tree and bulb planting, as well as some marsh and wetland grass. Some parts of the road in this location would be constructed in shallow cutting. The segregated footway and cycleway provision would continue along the edge of both carriageways until Hill Farm, from where it would continue only on the eastern edge. Bridleway provision would be provided on the western edge of the highway, and a link to bridleway 373/24/40/National Cycle Network Route 5 is proposed along a spur to the south of Hill Farm, however this spur would be delivered by a third party and therefore cannot be guaranteed. Three crossing points for pedestrians and cyclists are proposed between Collett Roundabout and Appleford Level Crossing.

42. Close to Level Crossing Cottage, the road would begin to rise up on an embankment as it approaches the Appleford rail sidings. It is proposed to screen views of the road from Level Crossing Cottage and south Appleford through planting of woodland blocks and scrub at the base of the embankment on both sides of the road. The road would be carried over the sidings on a concrete bridge structure, measuring approximately 46m in length and extending to a maximum height of 11m above the existing ground level at the sidings when measured at the top of the tallest structure on the bridge. Although the carriageway, including traffic lanes, footway and cycleway, and verge would be circa 16m wide on top of the bridge, the deck would extend to 72.3m at its widest point creating a large triangular deck on either side of the carriageway, which would be landscaped with a sedum blanket. A noise barrier is proposed along the length of the bridge and its approaches, which would be circa extend from a point around 50m to the south of Level Crossing Cottage to a point around 600m north of the bridge. The noise barrier would be 3m high on the bridge and to the south, and 2.5m high to the north of the bridge. It is proposed that the noise barrier would be greened by climbing vegetation. Further areas of woodland planting and scrub are proposed to soften the appearance of drainage features along this section of the road.

43. The single-carriageway route would continue north from the Appleford Sidings Bridge across restored landfill (90-Acre Field) to connect with the B4016 Appleford Road at a point approximately 500m to the west of Appleford railway station, where a priority T-junction serving Appleford is proposed. Segregated footway and cycleway provision would be maintained along the length of the road between the Appleford Sidings Bridge and the B4016. Shared-use provision is also proposed along the B4016 between its junction with the new road and Bridge Farm, which marks the application site boundary in this location.

44. The proposed road would follow the existing route of the B4016 for circa 300m as it doglegs around the south and west of Bridge Farm Quarry. This section of existing road would be upgraded and realigned, and a new at-grade, 3-arm roundabout (the 'Sutton Courtenay Roundabout') is proposed to mark the junction between the B4016 and the new road as it heads further north towards the River Thames. A 2.5m wide shared-use footway and cycleway would be provided adjacent to the north bound carriageway with crossings provided over the road and roundabout. This shared use provision would tie-in to existing footpath 373/12/5 to enable continuity of footpath provision between Appleford and Sutton Courtenay. Segregated footway and cycleway provision would also continue along the main route of the proposed development and would be off-line to bypass the Sutton Courtenay Roundabout. The highway would be bound by landscaped verges comprising a mix of species-rich grassland, bulbs, intermittent tree planting and some small woodland blocks.

45. From the Sutton Courtenay Roundabout, the proposed new road would be carried over part-restored wetland areas of Bridge Farm Quarry (The Finger Lakes) and the River Thames on a viaduct and bridge. Collectively, these two structures are referred to as the 'River Thames Crossing'. The approach viaduct would be 336m in length and the bridge would be 155m in length, totalling 491m. Both structures would be approximately 18m wide and concrete in appearance. The base of the approach viaduct would allow a clearance of circa 6.5m above average water levels and would be supported on 15 columns with reinforced concrete piles. The river crossing bridge would comprise two 45-metre side spans and a 65-metre main span and would allow a minimum clearance height of 4.1m in a 1-in-100 year flood event. The northern end of the River Thames Bridge would be supported on embankment.

46. A 1.5m high noise barrier is proposed between the Sutton Courtenay Roundabout and the northern end of the bridge, which would be combined with parapets along the length of the bridge structure. No landscaping is proposed on the viaduct or bridge other than a narrow strip of sedum blanket which would be planted on the deck between the main vehicular carriageway and the cycleway and footway. The slope of the embankment to the north of the river crossing would be planted with low growing species rich grassland and woodland blocks. It is proposed to provide a footpath link between the development and the Thames Path. A flood compensation area is proposed to the west of the River Thames Crossing on the northern bank of the river.

47. The road would sit within some limited areas of shallow cutting as it crosses agricultural fields between the River Thames and the A415 and would pass immediately to the west of an agricultural barn. The road would retain the single-carriageway layout with segregated footway and cycleway provision adjacent to the southbound carriageway. A new at-grade 4-arm roundabout is proposed at the junction between the River Thames Crossing and the A415 (the 'Abingdon Roundabout'), which would provide access to land allocated under Policy STRAT9 of the SOLP on its northern arm. Segregated footway and cycleway routes would be provided on the northern edge of the A415 heading in both directions and on the southern edge of the A415 heading east towards Clifton Hampden. Crossings would be provided on the northern and eastern arms of the roundabout. Further east, near to the access to Zouch Farm, these routes would transition to shared use rather than segregated.

48. Two sets of bus stops are proposed on the Didcot-Culham River Crossing element of the proposals. These would be located to the north of Collett Roundabout and approximately 100m south of the Sutton Courtenay roundabout.

49. Much of the proposed route would be flanked on both sides by landscaped areas and surface water drainage features. There is an existing ditch to the west of the proposed road, which would be retained. A swale/filter drain is also proposed to the east of the road, which would link to ponds/lagoons located to the north of Hartwright House. A large pond is shown on the proposed drawings to be located north of the new access to the Sutton Courtenay Minerals and Waste Complex and to the west of Level Crossing Cottage. Further drainage ponds are proposed at the Sutton Courtenay and Abingdon Roundabouts.

Clifton Hampden Bypass

50. The Clifton Hampden Bypass would be a new road that connects the existing A415 at the Culham Science Centre to the B4015 to the north of Clifton Hampden. The existing route of the A415 to the east of the Culham Science Centre would be repurposed to provide a shared use footway/cycleway. Vehicular access to Fullamoor Farmhouse, Fullamoor Barns, Fullamoor Cottages, North Cottage, and South Cottage would also be provided along the route of the existing A415 further east and accessed either from Clifton Hampden or a spur road to the Clifton Hampden Bypass. A 3m high noise barrier is proposed along the southern boundary of the Bypass and the western boundary of the spur road to the Old A415 to provide noise attention to Fullamoor and the surrounding area. It is proposed to soften the appearance of this noise barrier through the use of climbing plants. Woodland scrub planting is also proposed between these properties and the noise barrier.

51. A large new 4-arm roundabout is proposed on land to the west of the existing Culham Science Centre entrance (The 'Culham Science Centre roundabout'). The east and west arms of this roundabout would serve the Clifton Hampden Bypass, whilst two northern arms would provide access to the Culham Science Centre, Culham railway station, and other commercial developments to the north. Various shared-use and segregated routes for pedestrian and cyclists would be provided around the northern side of the roundabout and across its two northern

arms which would link to shared-use provision along the northern edge of the bypass. No crossing routes over the bypass itself are proposed in this part of the site, other than to the east of Fullamoor Barns. The application proposes to terminate the existing access road into the Science Centre and convert it to a footway and cycleway link to the Old A415. The Culham Science Centre roundabout would be landscaped with species-rich grassland, small woodland blocks, areas of bulb planting, and intermittent trees.

52. The bypass would broadly follow the route to the south of Thame Lane where it sits between the Culham Science Centre buildings and the Culham Treatment Works. At the edge of the Culham Science Centre Complex, the route would cut across agricultural fields and wooded field boundaries to the north of Clifton Hampden to meet the realigned B4015 near to the access road to Coppice House. The existing alignment of the B4015 would be redesignated as a footway and cycleway to enable pedestrians and cyclists to avoid the junction between the bypass and the B4015. The bypass would be single-carriageway along its length and a shared-use footway/cycleway would be provided along the north-east bound carriageway. A 3m high noise barrier is proposed along the southern boundary of the bypass as it crosses land to the north of Clifton Hampden. The noise barrier would be planted with climbing vegetation and screened from views to the south by woodland planting.

53. Two sets of bus stops are proposed on the Clifton Hampden Bypass. One pair would be located at the Culham Science Centre access and a second pair would be located near to the proposed junction between the new A415 and the B4015.

Lighting

54. Lighting along the main carriageways for motorised vehicles is proposed to be limited to major junctions and safety critical areas, such as along the A4130 where junctions are in close proximity. Where road lighting is proposed, it would comprise 10m high columns with LED bulbs.

55. It is proposed that the footway and cycleway routes would be lit along the majority of the length of the development, other than between the proposed Sutton Courtenay Roundabout and the A415 where no lighting is proposed at all. Additionally, no lighting at all is proposed on the Didcot Science Bridge and the Appleford Sidings Bridge to avoid glare for train drivers. Where cycleway lighting is proposed it would comprise standard luminaires erected on 5m high columns. Additional lighting would also be installed at crossing points for pedestrians and cyclists.

Construction and Phasing

56. If planning permission is granted, it is proposed that construction would commence in 2024, with the development becoming fully operational in 2026. It is proposed that all four infrastructure schemes that form part of the overall development would be constructed within the same time period. This is a change from when the application was originally submitted in 2021 at which time it was

anticipated that construction would commence in 2023 and be completed by 2024/25.

Environmental Impact Assessment

57. The application is accompanied by an Environmental Statement (ES) and therefore falls under the provisions of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (The EIA Regulations). Prior to the preparation of the ES, the applicant requested a Scoping Opinion from the County Planning Authority in accordance with Regulation 15(1) the EIA Regulations, and a Scoping Opinion (reference no. R3.0047/20) was subsequently issued on 16th June 2020. The ES includes the assessment of environmental effects on a range of issues, in accordance with the Scoping Opinion, including:

- Air Quality
- Cultural Heritage
- Landscape and Trees
- Biodiversity
- Noise and Vibration
- Geology and Soils
- Material Assets and Wealth
- Population and Health
- Road Drainage and Water Environment
- Climate
- Transport
- Cumulative Effects

58. A request for further information under the provisions of Regulation 25 of the EIA Regulations was issued by your officers in April 2022 and that further information was subsequently submitted in November 2022 and was subject to public consultation. The applicant voluntarily submitted further information in December 2022 in response to advice that had been provided directly to them by the Environment Agency. In March 2023, your officers issued a second request for further information under the provisions of Regulation 25 of the EIA Regulations. Further information in response to that second request was submitted in April 2023. A third round of public consultation was held accordingly in May 2023, ending on 12th June 2023, to ensure the submissions of further information submitted in both December 2022 and April 2023 were duly publicised.

59. In June 2023, the applicant provided a document that clarified that the assessment of environmental effects set out in the ES had not changed as a result of the changes to the proposed construction period. This included a review and clarification of the status of planned developments that had been taken into account as part of the assessment of cumulative effects. The applicant also responded to comments made by the Neighbouring Parish Councils Joint Committee and Oxford Friends of the Earth during the third round of consultation. Both of these documents were accepted as points of clarification and have been published on the Council's public access website. However, they were not considered to amount to further information that would require formal publication

and consultation under the EIA Regulations. Additionally, in June 2023, the applicant re-provided some application drawings proposed in order to remove footnotes that incorrectly indicated the drawings should not be scaled or were otherwise subject to change post any planning permission being granted. These drawings did not make any changes at all to the proposed development.

60. Since the application was submitted, the estimated opening year for the proposed development has changed from 2024/25 to late 2026. The applicant has reviewed the ES and has confirmed that, although the construction would start later than anticipated at the of writing the ES, and the duration of construction would be shorter, the reported environmental effects remain the same and your officers agree with this conclusion.

61. A summary of the likely significant environmental effects identified in the ES, along with proposed mitigation and monitoring measures, is summarised in Annex 3 of this report.

Habitats Regulations Assessment

62. The proposed development has the potential to cause significant effects to the Little Wittenham Special Area of Conservation (SAC) and the Cothill Fen SAC, both of which are European protected habitat sites. The proposal has therefore been screened in accordance with the Conservation of Habitats and Species Regulations 2017 (as amended) to establish whether the development, by itself or in-combination with other plans or projects, would have any significant effects on those sites. In undertaking this assessment, the LPA has consulted with Natural England and has taken into account the representations made by Natural England. The screening assessment concluded that an appropriate assessment was not required on the basis that there would be no likely significant effects to Little Wittenham SAC or Cothill Fen SAC. The screening assessment is included at Annex 2.

PART 2 – CONSULTATION RESPONSES

63. There were three periods of public consultation, the second and third of which resulted from the submission of additional information including further environmental information submitted under Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. The full text of the consultation responses can be seen on the e-planning website[1], using the reference R3.0138/21. These are also summarised in Annex 4 to this report.

64. A total of 201 third party representations were received during the first round of consultation from local residents, interested organisations, district councillors, and developers/landowners associated with land affected by the development or development sites near to it. 195 of these comments expressed concern or stated

[1] Click here to view application

objection to the proposal and 6 were written in support. During the second round of consultation on amendments to the proposals and additional environmental information, 168 comments were received. 165 of these were objecting to or raising concerns about the proposals and 3 were written in support. During the third round of consultation, 25 representations were received, 24 of which stated objections to or concerns about the proposal and 1 was written in support. The text of all representations received can be viewed on the e-planning website and the main points raised are summarised in Annex 5.

PART 3 – RELEVANT PLANNING DOCUMENTS

Relevant planning documents and legislation (see Policy Annex to the committee papers)

65. In accordance with Section 70 of the Town and Country Planning Act 1990, planning applications must be decided in accordance with the Development Plan unless material considerations indicate otherwise.

Development Plan Documents

66. The application site lies within the districts of Vale of White Horse and South Oxfordshire and, therefore, policies from both District Councils' Local Plans apply. Additionally, the site falls within a Mineral Safeguarding Area and therefore the Minerals and Waste Local Plan also applies as set out below.

67. The Development Plan for this area comprises:
    - Vale of White Horse District Local Plan Part 1 (VoWH P1), adopted December 2016
    - Vale of White Horse District Local Plan Part 2 (VoWH P2), adopted October 2019
    - South Oxfordshire Local Plan 2011-2035 (SOLP), adopted December 2020
    - Oxfordshire Minerals and Waste Local Plan Part 1: Core Strategy (OMWCS), adopted September 2017
    - Oxfordshire Minerals and Waste Local Plan (Saved Policies), adopted July 1996
    - Culham Neighbourhood Plan (CNP), made on 12th June 2023

Other Policy Documents & Material Considerations

68. Other documents that are relevant to determining this application include:

    - National Planning Policy Framework (NPPF), 2021
    - National Planning Policy for Waste (NPPW), 2014
    - National Planning Practice Guidance (NPPG), last updated June 2021
    - Local Transport and Connectivity Plan 2022-2050 (LTCP), adopted in July 2022
    - Didcot Garden Town Delivery Plan (DGTDP), published in October 2017
    - Noise Policy Statement for England (NPSE), 2010

- National Design Guide (NDG), last updated January 2021
- Tree Policy for Oxfordshire (TP), approved April 2022
- Climate Action Framework (CAF), published 2020
- Oxfordshire Climate and Natural Environment Policy Statement, November 2022
- Joint Design Guide Supplementary Planning Document (JDG), adopted June 2022
- Vale Local Plan Part 1 Review (2021)
- Climate Change Committee – Progress in reducing emissions - Report to Parliament, published June 2023

Emerging Policy Documents

69. Joint Local Plan 2041: South Oxfordshire and Vale of White Horse District Councils are currently preparing a Joint Local Plan which will replace the SOLP and the VOWH P1 and VOWH P2. The emerging plan was subject to an Issues and Options consultation in 2022. The Councils expect to publish a Joint Local Plan 'Preferred Options' consultation in 2023. The plan is at an early stage of preparation and therefore does not carry any weight in decision making.

70. In December 2022, the Oxfordshire Minerals and Waste Local Development Scheme (13th Edition) (OMWDS) was approved at the Oxfordshire County Council Cabinet. This sets out a process for pursuing a new Minerals and Waste Local Plan which combines Part 1 and Part 2, and upon adoption will replace the Core Strategy. The OMWDS now programmes the adoption of the new Oxfordshire Minerals and Waste Local Plan for March 2026 with submission in March 2025. The plan is at an early stage of preparation and therefore does not carry any weight in decision making.

71. Clifton Hampden Neighbourhood Plan: Clifton Hampden and Burcot Parish Council is preparing a Neighbourhood Plan, which includes land proposed for part of the Clifton Hampden Bypass. A public consultation was held on the submitted plan, which ended on 11th April 2023. As the plan has not yet been independently examined, it is not yet considered to carry weight in the decision-making process.

72. Sutton Courtenay Neighbourhood Plan: Sutton Courtenay Parish Council is preparing a Neighbourhood Plan, which includes land proposed for the Didcot to Culham River Crossing between the B4016 to the west of Bridge Farm at Appleford and the River Thames. A public consultation was held on the submission plan, which ended on 7th June 2023. As the plan has not yet been submitted for examination, it is not yet considered to carry weight in the decision-making process.

73. The Department for Levelling Up, Housing and Communities has recently consulted on proposed changes to the NPPF as well as emerging national development management policies. The consultation closed on 2nd March 2023. Given that the outcome of the consultation process is not yet known, the potential changes are not yet considered to carry weight in the decision-making process.

Relevant Development Plan Policies

74. The VoWH P1 policies most relevant to the consideration of this application are:

- Core Policy 1: Presumption in Favour of Sustainable Development
- Core Policy 4: Meeting our Housing Needs
- Core Policy 5: Housing Supply Ring-Fence
- Core Policy 6: Meeting our Business and Employment Needs
- Core Policy 13: The Oxford Green Belt
- Core Policy 15: Spatial Strategy for South East Vale Sub-Area
- Core Policy 17: Delivery of Strategic Highway Improvements within the South East Vale Sub-Area
- Core Policy 18: Safeguarding of Land for Transport Schemes in the South East Vale Sub-Area
- Core Policy 33: Promoting Sustainable Development and Accessibility
- Core Policy 35: Promoting Public Transport, Cycling and Walking
- Core Policy 37: Design and Local Distinctiveness
- Core Policy 38: Design Strategies for Strategic and Major Development Sites
- Core Policy 39: The Historic Environment
- Core Policy 40: Sustainable Design and Construction
- Core Policy 42: Flood Risk
- Core Policy 43: Natural Resources
- Core Policy 44: Landscape
- Core Policy 45: Green Infrastructure
- Core Policy 46: Conservation and Improvement of Biodiversity

75. The VoWH P2 policies most relevant to this application are:

- Core Policy 4a: Meeting our Housing Needs
- Core Policy 16b: Didcot Garden Town
- Core Policy 18a: Safeguarding of Land for Strategic Highway Improvements within the South East Vale Sub-Area
- Development Policy 16: Access
- Development Policy 17: Transport Assessments and Travel Plans
- Development Policy 20: Public Art
- Development Policy 21: External Lighting
- Development Policy 23: Impact of Development on Amenity
- Development Policy 24: Effect of Neighbouring or Previous Uses on New Developments
- Development Policy 25: Noise Pollution
- Development Policy 26: Air Quality
- Development Policy 27: Land Affected by Contamination
- Development Policy 30: Watercourses
- Development Policy 31: Protection of Public Rights of Way, National Trails and Open Access Areas
- Development Policy 34: Leisure and Sports Facilities
- Development Policy 36: Heritage Assets

- Development Policy 37: Conservation Areas
- Development Policy 38: Listed Buildings
- Development Policy 39: Archaeology and Scheduled Monuments

76. The SOLP policies most relevant to this development are:

- STRAT1: The Overall Strategy
- STRAT2: South Oxfordshire's Housing and Employment Requirements
- STRAT3: Didcot Garden Town
- STRAT6: Green Belt
- TRANS1B: Supporting Strategic Transport Investment
- TRANS2: Promoting Sustainable Transport and Accessibility
- TRANS3: Safeguarding of Land for Strategic Transport Schemes
- TRANS4: Transport Assessments, Transport Statements and Travel Plans
- TRANS5: Consideration of Development Proposals
- INF4: Water Resources
- ENV1: Landscape and Countryside
- ENV2: Biodiversity – Designated Sites, Priority Habitats and Species
- ENV3: Biodiversity
- ENV4: Watercourses
- ENV5: Green Infrastructure in New Developments
- ENV6: Historic Environment
- ENV7: Listed Buildings
- ENV8: Conservation Areas
- ENV9: Archaeology and Scheduled Monuments
- ENV10: Historic Battlefields, Registered Parks and Gardens, and Historic Landscapes
- ENV11: Pollution - Impact from Existing and/or Previous Land Uses on New Development
- ENV12: Pollution – Impact of Development on Human Health, the Natural Environment and/or Local Amenity
- EP1: Air Quality
- EP4: Flood Risk
- EP5: Mineral Safeguarding Areas
- DES1: Delivering High Quality Development
- DES2: Enhancing Local Character
- DES3: Design and Access Statements
- DES6: Residential Amenity
- DES7: Efficient Use of Resources
- DES8: Promoting Sustainable Design
- CF4: Existing Open Space, Sport and Recreation Facilities

77. The OMWCS policies most relevant to this development are:

- M8: Mineral Safeguarding
- M9: Safeguarding Mineral Infrastructure

- M10: Restoration of Mineral Workings
- W6: Landfill and Other Permanent Deposit of Waste to Land
- W11: Safeguarding Waste Management Sites

78. The CNP policies most relevant to this development are:

- CUL5: Design Code for Culham
- CUL6: Local Heritage Assets
- CUL7: Nature Recovery and Climate Change
- CUL8: Sustainable Travel
- CUL10: Light Pollution

PART 4 – ASSESSMENT AND CONCLUSIONS

Assessment of the Director of Planning, Environment & Climate Change

79. The NPPF sets out a presumption in favour of sustainable development (paragraph 10), which is supported by policy Core Policy 1 of the VOWH P1. There is no equivalent policy in the SOLP. Appendix 14 of the SOLP states that it was not considered necessary to include such a policy because the presumption in the NPPF is clear. The presumption in favour of development means taking a positive approach to sustainable development and approving an application which accords with the development plan without delay, unless material considerations indicate otherwise. Core Policy 1 of the VoWH also states an exception to the presumption would also apply where any adverse impacts of granting planning permission would significantly and demonstrably outweigh the benefits when assessed against the policies in the NPPF when taken as a whole or where specific policies in the NPPF indicate that development should be restricted.

80. The NPPF states at paragraph 8 that achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways. Those objectives are economic, social and environmental. The NPPF makes it explicit that these objectives should be delivered through the preparation and implementation of plans and the application of the policies in the NPPF. They are not criteria against which every decision can or should be judged. Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area.

81. All planning applications must be determined in accordance with the Development Plan, unless material considerations indicate otherwise, in accordance with the Town and Country Planning Act 1990. The key planning policies are set out above and discussed below in accordance with the key planning issues.

82. The key planning issues are:

- The Principle of the Development
- Design & Layout
- Access, Travel and Movement
- Air Quality
- Noise and Vibration
- Landscape & Trees
- Biodiversity
- Flooding
- Climate Change
- Water Quality & Pollution
- Historic Environment
- Green Belt
- Impact on Minerals and Waste Developments
- Impact on Agricultural Land
- Impact on Recreation
- Other Matters Raised by Third Parties
- Overall Conclusion & Planning Balance

The Principle of the Development

83. Policy STRAT2 of the SOLP provides for 23,550 new homes to be delivered in South Oxfordshire over the plan period to 2035. Additionally, a minimum of 39.1ha of employment land is required. The SOLP sets out that this growth is to be delivered in accordance with the spatial strategy described in policy STRAT1, which includes: *"Focusing major new development in Science Vale including significant growth at Didcot Garden Town and Culham so that this area can play an enhanced role in providing homes, jobs and services with improved transport connectivity".* Policy STRAT3 refers to the development of Didcot Garden Town and states amongst other things that: *"Significant infrastructure improvements are committed to under policy TRANS1B Supporting Strategic Transport Infrastructure Investment. Infrastructure will need to be in place to enable sites allocated in the Local Plan in and around Didcot to be delivered"*.

84. Policy TRANS1B of the SOLP identifies the strategic transport infrastructure that is required to deliver growth and includes: *"the development and delivery of a new Thames River crossing between Culham and Didcot Garden Town, the A4130 widening and road safety improvements from the A34 Milton Interchange to Didcot, a Science Bridge over the A4130 and railway into the former Didcot A power station site and the Clifton Hampden Bypass".*

85. Land is safeguarded under policy TRANS3 of the SOLP for the delivery of the strategic infrastructure listed in policy TRANS1B. This includes land along the A4130 to the north of Didcot, the proposed route of the Didcot to Culham river crossing where it falls within South Oxfordshire District (to the north of the River Thames), land to the south of the Culham Science Centre, and land along the proposed route for the Clifton Hampden Bypass. The policy states that the impact of the safeguarded schemes will be subject to thorough assessment including the full environmental and archaeological assessments working in association with

the relevant statutory bodies. The policy also states that where schemes are located in Flood Zones 2 and 3, a flood risk sequential test and the exception test should be undertaken as part of the appraisal process.

86. In the VoWH district, provision is made in Core Policy 4 of VoWH P1 and Core Policy 4a of VoWH P2 for 22,760 homes to be delivered in the plan period of which at least 11,850 are to be delivered in the Science Vale area (Core Policy 5 of the VoWH P1). Additionally, provision is made within the VoWH P1 for 218ha of employment land (Core Policy 6), of which 208ha is allocated within the South East Vale Sub Area (Core Policy 15).

87. Core Policy 17 of the VoWH P1 identifies the strategic highway improvements that are required to deliver the planned growth in the South East Vale Sub Area. These include: Science Bridge and A4130 re-rerouting through the Didcot A site; A4130 dualling between Milton Interchange and Science Bridge; and a new strategic road connection between the A415 east of Abingdon-on-Thames and the A4130 north of Didcot, which includes a new crossing of the River Thames. Land to deliver these schemes is safeguarded under Core Policy 18 of the VoWH P1 and Core Policy 18a of the VoWH P2. The proposed development largely follows the safeguarded route as set out in the Proposals Map for the VoWHLP other than the section between Appleford Sidings and the River Thames where it takes a route further west, increasing the distance between Appleford and the proposed road beyond that safeguarded in the plan.

88. Both SODC and VoWHDC have stated in their consultation responses that the proposed development is supported in principle and that planned new growth is unlikely to be delivered if the strategic infrastructure proposed is not provided. SODC has stated that the proposed development is essential for the delivery of around 3,500 new homes on land adjacent to Culham Science Centre and 1,700 new homes on land at Berinsfield Garden Village. The infrastructure would also support more than 6,000 homes that have or will be delivered in Didcot between 2011 and 2035. VoWHDC has similarly stated that the proposed development would support housing developments at East of Sutton Courtenay, Milton Heights, Valley Park and North West of Valley Park. Both District Councils have stated that the highways infrastructure is essential to enable jobs growth and the delivery of employment sites to support the economic and social prosperity of Science Vale UK, including two enterprise zones. The area is home to one of the largest science-based research and knowledge clusters in Western Europe based around Harwell (space sector), the Culham Science Centre (nuclear fusion) and Milton Park (life sciences). These sites are subject to significant public and private investment and generate thousands of jobs. The two District Councils consider the development to be essential in providing homes for a highly skilled workforce, and would support employment allocations at Culham Science Centre, Didcot and Berinsfield in South Oxfordshire, and Didcot Power Station, Harwell Campus and Milton Park in the VoWH.

89. In her consultation response to the planning application, the Transport Development Control Officer, acting on behalf of the Local Highway Authority as statutory consultee to the County Planning Authority, has also identified the proposed development as the *"cornerstone of mitigation for planned growth in*

the area" that would unlock and support the delivery of circa 18,000 new homes (including the circa 3.300 built out at Great Western Park). It is clear then, that the proposed development forms a fundamental part of the adopted spatial strategy for housing and employment growth in both the South Oxfordshire and Vale of White Horse Districts and is essential to the delivery of planned growth across the area. The development would also help to address existing issues on the local highway network, including severe congestion, as it would improve north-south connectivity and thereby ease pressure on existing routes that enable movement across the Great Western Mainline and the River Thames.

90. Many local residents and interested parties have raised concerns about the principle of the development, stating for example that the proposal is an outdated, over-engineered solution given the changes that have occurred since Brexit, the Covid-19 Pandemic, and the climate emergency. It is suggested that alternative solutions have not been properly considered, such as investment in rail and bus services between Didcot and Culham, alternative routes and locations, and new technologies and innovations.

91. The proposal before members emerged as the applicant's preferred option following a detailed multi-stage optioneering process, which took place between 2014 and 2021. The ES outlines the main alternatives that were studied by the applicant explains how they evolved over time as well as the reasons for selecting the proposed development as the preferred option, taking account of environmental effects. The alternatives outlined in the ES include other major road schemes, bus and rail improvements, and new technologies including autonomous vehicles. It also considered lower cost options such as traffic management measures, junction re-modelling, and investment in walking and cycling infrastructure. The conclusion was that, whilst some of the options would have lesser environmental effects, only a major road scheme would address the transport issues and requirements of the area.

92. Members are advised that the presence of possible alternative development options is not normally in itself a reason to reject the application that has been submitted for determination. The application submitted must be considered on its own merits, with consideration given to whether or not the development is an acceptable use of the land in planning terms. In order to make this assessment, members are reminded that planning applications must be determined in accordance with the development plan, unless material considerations indicate otherwise.

93. Many objectors have also stated that the proposal does not represent good value for money and that the cost-benefit analysis of the scheme does not stack up especially when public funds should be directed towards other priorities such as social care and tackling climate change. However, Members are reminded of the advice given at the outset of this report that the role of the Planning and Regulation Committee is to determine whether the proposal is an appropriate use of land, rather than to consider whether it is or is not a good use of public funds. If planning permission is granted, the County Council will also need to make decisions about funding and delivery, but these decisions would be separate and independent from any decision made on the planning application.

94. Given that the strategic infrastructure included within the proposal is explicitly identified in the Development Plan as necessary to deliver the adopted spatial strategy for housing and employment growth in South Oxfordshire and the Vale of White Horse, it is recommended that strong support is given to the development as a matter of principle. That strong support should be weighed against the other material considerations outlined in this report, including any benefits and harms, when reaching a reasoned conclusion on whether or not planning permission should or should not be granted.

Design & Layout

95. The NPPF considers the creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Paragraph 126 says that good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities. At paragraph 134, the NPPF states that development that is not well designed should be refused, especially where it fails to reflect local design policies and government guidance on design.

96. Taken together, policies DES1, DES2, and DES3 of the SOLP; Core Policies 37 and 38 of the VoWH P1; and CUL5 of the CNP expect development to be of a high-quality design that reflects and enhances local character, including landscape and natural features. Core Policy 37 also states that development should provide safe and convenient ease of movement by all users, ensuring that the needs of vehicular traffic does not dominate at the expense of other modes of transport, including pedestrians and cyclists. It also states that development should be visually attractive and the scale, height, density, grain, massing, type, details and materials should be appropriate for the site and surrounding area.

97. Development Policy 20 of the VoWH P2 seeks public art provision as part of all major development proposals. Development Policy 21 of the VoWH P2 aims to control external lighting such that it does not have an adverse effect on local character, amenity, biodiversity or safety. It is stated that lighting should be the minimum necessary to undertake the task for which it is required, and that conditions may be imposed that require the fitting of devices to reduce glare and light spillage and restricting the hours during which the lighting may be operated. Policy CUL10 of the CNP seeks to minimise light pollution.

98. The nature of the development as strategic highway infrastructure means that its proposed design largely reflects the functional, engineering and safety requirements associated with its use, and it is noted that the TDC Officer is satisfied that the layout, geometry and design is in accordance with relevant highway standards. Notwithstanding this, there are opportunities to incorporate beauty and good design into the development through the appropriate use of materials, the design of bridges, junctions and other structures, and details of the proposed layout, lighting and landscaping amongst other things. The SODC and VoWHDC Joint Design Guide (JDG) is a supplementary planning document and sets out that the goal of networks and streets design is to deliver a place that is

easy to get to and move through for all users. The JDG expects street design to cater for all users and modes of transport and to encourage and prioritise active and sustainable transport choices. The National Design Guide (NDG) states that patterns of movement are integral to well-designed spaces and that their success is measured by how they contribute to the quality and character of the place, not only how well they function. The NDG lists the following as key components of a well-designed movement network:

- It is safe and accessible for all;
- It functions efficiently to get everyone around, takes account of the diverse needs of all its potential users, and provides a genuine choice of sustainable transport modes;
- Limits the impacts of car use by prioritising and encouraging walking, cycling and public transport, mitigating impacts and identifying opportunities to improve air quality;
- Promotes activity and social interaction, contributing to health, well-being, accessibility and inclusion; and
- Incorporates green infrastructure, including street trees to soften the impact of car parking, help improve air quality, and contribute to biodiversity.

99. Throughout the consultation periods, concerns have been raised about the quality of the proposed design by statutory consultees, including both District Councils and neighbouring Parish Councils, the Landscape Advisor, and local residents and communities living along the proposed route. Specific concerns have also been raised by land and property owners who would be directly affected by the proposal. The focus of the design-related concerns raised have been on its layout (e.g. the perceived lack of segregation between footways, cycleways and the main carriageway) and alignment, inadequacies in landscaping and screening, the visual impact of proposed noise barriers, concerns over the impact of lighting particularly north of Hartwright House, the perceived over-engineered nature and poor design of the bridge structures and major junctions, adherence to Didcot Garden Town Masterplan principles, and impacts on third party property and accesses. Key concerns and how they have been considered and addressed are discussed below.

General Layout and Active Travel Provision

100. The main carriageway would vary in width along the length of the development allowing for the number of lanes for vehicular traffic and land required for central reservations, verges, footways/cycleways, landscaping and drainage features such as swales, but would be at its greatest width along the route of the A4130 widening where it would exceed 36m. Cycleways in the main are proposed to be 3m wide and bi-directional, whilst footways would generally be 2m wide. In the limited areas of the development where walking/cycling infrastructure is shared-use, it would normally be 3m wide. Sufficient space would therefore be provided to ensure that walkers and cyclists could move in both directions whilst also allowing for vehicular movement and associated infrastructure such as lighting and drainage.

101. Despite concerns raised during the consultation process, the proposed development is designed to segregate cycle and pedestrian routes from the main carriageway so that active travel is a safe and attractive option for commuters and leisure users. Along the majority of the length of the scheme, segregation would be achieved through grass verge or other landscaping, and where space is more restricted through segregation strips. There are some parts of the development where footways and cycleways are off-line from the main carriageway, for example to the west of Collett Roundabout on the Southmead Industrial Estate, which would improve the experience for walkers and cyclists further. The development also proposes segregation between the proposed cycleways and footways along the majority of the length of the development, to be achieved by a raised kerb.

102. The proposed development does not go so far as to always prioritise active travel modes over motorised vehicles, and pedestrian and cyclists would be required to give way to motorised vehicles at junctions and road crossings. However, outside of these junctions and crossings, cyclists and pedestrians would have access to a continuous and high-quality route that is a significant improvement on the current provision. Lighting columns (where present) would be erected within verges to ensure that pedestrian and cycle routes are unrestricted. Areas of landscaping and swales are proposed where feasible on the outer edge of both carriageways to ensure that routes are attractive and pleasant for those travelling along the scheme, either by motorised vehicle or active and sustainable travel modes.

103. The layout of the development facilitates safe and convenient movement for walkers and cyclists on segregated and high-quality routes, which would be continuous other than where users would be required to give way to motorised vehicles at junctions and crossings. It is considered that this element of the design is in accordance with local and nation design policies and guidance.

Didcot Garden Town Arrival Experience & Didcot Science Bridge

104. Core policy 16b of the VoWH P2 states that proposals for development within the Didcot Garden Town Masterplan Area will be expected to demonstrate how they positively contribute to the achievement of the Didcot Garden Town Masterplan Principles. The principles include reducing car use, encouraging sustainable travel modes, promoting pioneering architecture, and prioritising green infrastructure and green space over roads and parking.

105. The vision for the Didcot Garden Town is set out in the DGTDP which is a material consideration. The A4130 is a key arrival route into the Garden Town and forms part of its "Gateway Spine" in the DGTDP. The vision for the Gateway Spine is "*to deliver a spectacular arrival experience into Didcot from the east, the west or the station – enhancing first impressions of the town. Movement along the east-west corridor will be enhanced with three key projects: Infrastructure improvements to carriageways, cycle and footpaths; a SuDS scheme along its length; and a public art programme to enhance neglected bridges and underpasses".* The DGTDP also envisages a *"super green town prioritising green infrastructure including tree-lined streets"*.

106. It is the view of both District Councils that the proposed development fails to meet the vision for the Garden Town because it does not offer a judiciously tree-lined route into Didcot with dedicated provision for sustainable travel modes such as buses and autonomous vehicles. The Councils also consider that street lighting is excessive and that opportunities have not been taken to provide SuDS and public art. Both District Councils have described the Didcot Science Bridge design as "mediocre" and "uninspiring" and contend that it would be a visually intrusive feature by reason of its concrete appearance, massing, and the lack of vertical landscaping on its slopes. For these reasons SODC and VoWHDC consider the proposed development to be contrary to the design policies in the NPPF, the DGTDP and Policy 16b of the VoWH P2.

107. The proposed development would improve the overall arrival experience into Didcot by delivering high quality carriageway improvements and new infrastructure with dedicated provision for pedestrians and cyclists. The applicant has not proposed bus priority measures; however has stated that the dualling of the A4130 would reduce congestion and therefore improve journey time and reliability for bus users which would be an overall benefit when compared to the existing scenario. Lighting proposals along the A4130 are considered acceptable given the highway safety issues arising due to the number of junctions in close proximity as well as the urban context of the existing highway. SuDS are proposed along the length of the route, in accordance with the DGTDP. Whilst no public art is proposed as part of the proposed development, provision could be made at key points along the route (for example on the Backhill Roundabout) if funding is secured for public art provision from third party developers.

108. In response to concerns raised during the first two consultation periods, the applicant has increased planting provision along the A4130 from the original submission such that is shows better integration than the originally submitted scheme; however, it remains fairly limited on the approach to Didcot and views to and from the site from land to the south would be more open with the development in place than they are at present. The applicant has stated that planting opportunities have been maximised and that it is not possible to increase planting further due to physical and land ownership constraints, and visibility and highway safety requirements. It is also stated that the site abuts land allocated for housing and employment developments which would in time provide further opportunities for landscape enhancements to be delivered by third parties.

109. The Science Bridge structure is functional in appearance, and this is largely led by the engineering and safety requirements involved with carrying traffic over a mainline railway. The development would need to adhere to the safety-critical technical requirements of the local highway authority and Network Rail and this has led decisions around the design and choice of materials. The applicant has sought to reduce the visual impact of the structure by proposing some tree planting at the base of the southern slope, which would be combined with species-rich grassland and some areas of marsh and wetland grass. Your officers have worked with the applicant to seek increases to planting on and around the Science Bridge structure as this would help to soften its appearance and to integrate it better with the surroundings, however the applicant has stated that

planting opportunities have been maximised given land ownership constraints and the gradient of the embankment. The details of the external appearance of the bridge would be secured through condition if planning permission is granted, however Members are advised that the applicant has indicated that there is limited opportunity to improve the overall appearance beyond the details submitted with the application.

110. Overall, whilst the development would not fully meet the vision and objectives of the DGDTP, it would contribute towards the Didcot Garden Town Masterplan principles referred to in Policy 16b of the VoWH P2 because it would help to encourage sustainable transport modes and would also improve the arrival experience into the town through reducing traffic congestion and upgrading existing infrastructure. The applicant has explained why the planting proposals cannot be improved further and this will need to be taken into account in the consideration of the application.

111. Concerns were raised during the consultation process on behalf of Mays Properties who have planning permission to develop land to the south of the A4130. The concerns raised were mainly related to land ownership matters that would normally be dealt with separately from consideration of the planning application. The landowner also raised concerns about the need to ensure continued access is provided at all times during the construction process. The applicant has confirmed that access would be maintained; and this would be considered in the CEMP to be submitted through pre-commencement condition if planning permission is granted. Therefore, it is considered that these matters are adequately addressed in the application insofar as they relate to the consideration of land use.

Alignment of the Didcot to Culham River Crossing, Appleford Sidings Bridge & the Sutton Courtenay Roundabout

112. A substantial number of objections received to the application refer to the proximity of the proposed Didcot to Culham River Crossing to Appleford and isolated dwellings to the south of Appleford including Level Crossing Cottage, Hartwright House and Hill Farm. Appleford Parish Council and others have sought for the alignment of this section of road to be moved further west, increasing the distance between the road and nearby dwellings. It is noted that VoWHDC also suggested that this option should be considered further given that significant noise effects are predicted to properties to the south of Appleford and the concerns that have been raised about the visual impact of noise barriers (these noise-related matters are discussed in more detail later in this report).

113. Chapter 3 of the ES explains the optioneering process in more detail and includes alternative alignments that were considered for each of the four components of the application. The document explains further why alignment suggestions put forward by Appleford Parish Council were discounted as viable alternatives. The reasons given include: objections from landowners and businesses along the proposed route; sterilisation of future landfill capacity; land contamination arising from building over former landfill cells; the impact on settlement of former mineral and waste operations; gas emissions; the route would be closer to Sutton

Courtenay; and reduced benefits to walkers and cyclists due to the route being longer and less direct than that proposed.

114. Members are advised that the application before them needs to be considered on its own merits, and the availability of potential alternatives is not normally in itself a reason to refuse the application proposed. Members will need to consider the impacts of the proposed development on Appleford and the surrounding area, and to weigh these impacts with other harms and benefits of the development, before deciding whether or not the application before them should be approved or refused. Impacts by way of noise, air quality, and landscape and visual effects are discussed in later chapters of this report to assist Members in reaching a view on these matters.

115. The proposed bridge over the Appleford Rail Sidings is a particularly controversial element of the development as it would be an elevated structure within close proximity to Appleford Village and isolated dwellings to the south. The tallest structure on the bridge would be a 3m high noise barrier, the top of which would sit at a height of around 11m above existing ground levels at the sidings. The bridge would be a concrete structure, reinforced by abutments and piled concrete columns and would have a large deck area extending to 72.3m at its widest point. The deck is substantially larger than the width of the road at circa 16m, and this additional bulk and mass has attracted concern and criticism during the consultation process. The applicant has stated that alternative structural options were considered for the Appleford Sidings Bridge and were also assessed in the ES, but that these were discounted due to future proofing and security concerns and that the extended deck area is required to facilitate the crossing of the railway at a skewed angle whilst reducing the overall bridge span. The applicant also states that the deck area would be screened from views from Appleford by existing and proposed vegetation and the railway line.

116. The bridge itself would be situated circa 190m to the north of the nearest dwelling, Level Crossing Cottage. However, the base of its southern slope would sit within 15m of the Cottage and the road and associated infrastructure including the noise barrier would sit as close as 20m from the nearest façade of the dwelling. The applicant proposes to retain existing vegetation between the dwelling and the road, and to supplement this with further woodland planting. Further woodland is also proposed to the north between the Cherwell Valley railway line and the proposed bridge. This planting would help to soften the appearance of the approach to the bridge and the bridge itself from views from south Appleford and dwellings to the south as far as is feasible. The applicant has responded to concerns raised during the first round of consultation about the appearance of the bridge and has amended the proposal to include a sedum blanket on the bridge deck either side of the carriageway and climbing vegetation to the proposed noise barrier, however it is likely that the structure would be visible from views to the south especially in the short term whilst planting becomes established.

117. Although no road lighting is proposed in this section of the development, cycle path lighting would be provided on the approaches to the Appleford Sidings Bridge and at pedestrian crossing points. This lighting would be mounted on 5m

high columns and would have a localised impact due to the rural nature of the local area and its dark skies. The applicant has considered reducing lighting levels in this part of the site but has continued to include cycle path lighting within the proposals to support and encourage active travel. Evidence has been provided with the application to demonstrate that light spill would not extend across the facades of the nearest dwellings (Hill Farm, Hartwright House and Level Crossing Cottage) and would be dimmed to 75% between the hours of midnight and 6am to reduce impacts further.

118. Concerns have also been raised about the proposed Sutton Courtenay Roundabout. These concerns principally relate to the severance of PRoW links between Appleford and Sutton Courtenay and the risk of increased rat running through Sutton Courtenay. Whilst there would be some diversions of sections of the PRoW in this location, a link between the two villages would be retained therefore there would be no severance, and improvements to footpaths would be delivered where they would cross the proposed development. Concerns about rat running have been considered by the Transport Development Control Officer and have not been deemed to be significant so as to warrant an objection on highway grounds.

119. The operators of the Sutton Courtenay Minerals and Waste Complex, including the rail sidings, have raised some concerns about continued access during construction of the development. The applicant has confirmed that access would be maintained, with details to be provided as part of the CEMP to be submitted through pre-commencement condition, and it is recommended that such a condition is included on any planning permission granted.

120. Overall, whilst efforts have been made to mitigate the impact of the development on the local area, it would inevitably change the character of the area around Appleford and would cause direct impacts to the occupants of Level Crossing Cottage, Hartwright House and Hill Farm. Whilst it may be that some of these impacts could be reduced through potential alternative alignments, other potential alignments are not before members for consideration and a decision will need to be made on the application before the Committee. Therefore, the adverse impacts of the development on Appleford and the surrounding area will need to be considered in the overall balance when determining whether or not planning permission should be granted.

River Thames Crossing

121. As with other bridge structures, concerns have been raised about the perceived over-engineered nature of the River Thames Crossing. The crossing has been designed to take account of flood waters, recreational users of the river and its banks, and biodiversity, and therefore in these respects the design of the bridge is considered to be acceptable. However, like other structures proposed in this application, it would be of concrete appearance and therefore measures to help integrate the structure into its surroundings would have the potential to improve the overall design.

122. No landscaping is proposed on the bridge structure itself other than a narrow strip of sedum blanket which would be planted on the deck between the main vehicular carriageway and the cycleway and footway, however the slope of the embankment to the north of the river crossing would be planted with low growing species rich grassland and blocks of woodland and woodland edge species. Whilst the design is necessarily functional, the applicant has maximised the opportunities that are available to soften its appearance through planting and has committed to providing a coloured parapet to reduce its utilitarian appearance. The details of the parapet colour and the overall external appearance of the bridge would be secured through condition if planning permission is granted.

123. No lighting is proposed on the River Crossing or on its approaches, which would reduce to a minimum the impact on the rural area and dark skies as far as possible and this would assist in improving integration of the proposed development in the surrounding area, in accordance with design policies.

Culham Science Centre Roundabout & Repurposing of Existing A415

124. The part of the site around the entrance to the Culham Science Centre would experience significant change as a result of the proposal. Here, a major new roundabout would be constructed which would result in the loss of a number of parkland trees, most of which would not be replaced. Concerns have been raised about the impact of this roundabout on the character of the area, in particular related to the loss of vegetation and the increase in lighting, which together would have an urbanising effect on the existing rural character. Concerns have also been raised by residents living close to Culham railway station that the roundabout would overbear these dwellings and have an impact on visual amenity.

125. The applicant has given consideration to reducing lighting in this part of the scheme but has stated that lighting is necessary for safety reasons and to encourage active travel modes. Planting proposals have however been increased as a result of discussions with your officers, including additional hedgerow planting to the north of the existing A415 route and the retention of some trees and tree groups that were previously proposed for removal. The applicant has maintained that the roundabout and road layout is necessary and has been designed to take account of other planned developments in the area. It would be sufficiently distant from residential properties next to Culham railway station and separated from it by intervening land uses such that it would not be expected to cause any significant adverse effects to those dwellings.

126. The delivery of the Clifton Hampden Bypass in this location would also enable the repurposing of the existing A415 to a shared-use footpath and dedicated access serving Fullamoor Farmhouse and dwellings at Fullamoor Barns. The occupants of these dwellings have raised some concerns that the downgraded route would become a target for anti-social behaviour including fly-tipping, overflow parking, and unauthorised encampments. If these outcomes were to occur, they would be matters for management by the appropriate authorities including local authorities and the police. Overall, it is considered that there would be some benefit to these dwellings through the provision of an access road off-

line from the main highway. It is recommended that details of the layout and appearance of this repurposed section of road are secured through condition if planning permission is granted, which would include securing details of structures to be retained, removed and provided such as lighting columns and other street furniture. This condition would ensure that the repurposed section of road is design in a way that is appropriate to its new purpose and setting.

Noise Barriers

127. Noise barriers are also proposed in some areas of the development, which would be 1.5-3m high. In response to concerns about the visual impact of the noise barriers, the applicant has confirmed that they would include green walls/climbing plants wherever possible or otherwise be coloured to reduce the visual impact of the development (for example along the River Thames Bridge). Details of the noise barriers would be secured through condition if planning permission is granted, however the applicant has provided indicative details which show that the barriers would be aluminium frames designed to facilitate climbing vegetation and the creation of a 'living wall'. Whilst the noise barriers would be visible in some areas of the development, the visual effects need to be balanced carefully with the need to mitigate noise effects which in some places would be significant (see later chapter of this report). Taking the need to limit noise effects as far as possible, the visual impacts of the noise barriers, taking account of the mitigation measures described above, are considered to be necessary and unavoidable.

Lighting

128. There has been some concern raised about the impact of lighting on the surrounding area, in particular in existing darker areas of the site to the north of Hartwright House. Lighting on the main carriageways for motorised vehicles would however be limited to key junction approaches or proposed lengths of road where junctions are in close proximity (for example between Milton Gate and Backhill Tunnel and from the Old A4130 Roundabout to the Didcot Science Bridge Roundabout). In these locations, lighting would be required to ensure the safe operation of the highway. Elsewhere, the main vehicle carriageways are not proposed to be lit at all. Where road lighting is proposed, it would comprise 10m high columns with LED luminaires, with a maximum correlated colour temperature of 3000k. If the development is to operate safely, lighting on the main carriageways could not feasibly be reduced further, and therefore the impact of this lighting will need to be considered in reaching a balanced view on the proposal.

129. Lighting is however proposed along the majority of the length of the proposed cycleway to encourage the use of cycle paths by commuters and to facilitate a modal shift towards active travel modes. The provision of lighting is an important component of ensuring that the cycle route between Didcot and Culham would be attractive and safe for future users at all times of the day. However, there are parts of the site where no lighting at all is proposed, including where the route would cross the Great Western railway on the Didcot Science Bridge, on the Appleford Sidings Bridge, and on a larger section between the proposed Sutton Courtenay Roundabout and the A415, which includes the River Thames crossing

(other than on the approach to the junctions at either end of this section). Lighting is reduced in these locations to ensure the safe operation of the railway network as well as to protect the wildlife corridor in and around the River Thames. Where cycleway lighting is proposed it would be to standard luminaires erected on 5m high columns and would be dimmed between the hours of midnight and 6am. Additional lighting would also be installed at crossing points for non-motorised users.

130. In terms of impacts on the night sky, it is noted that there are currently varying levels of light pollution around the application site, with extensive lighting across Didcot, Milton Park, and the Didcot B Power Station, contrasting with darker skies further north and east. Existing lighting is also present at the Culham Science Centre. The applicant has stated that proposed lighting for motorised vehicles has been reduced to lowest practicable levels through the use of low energy LED bulbs and would be limited to major junctions and safety-critical areas. The majority of lighting along the route, particularly in the darker sky areas to the north of the River Thames and along the proposed Clifton Hampden Bypass, would be cycle path lighting and lighting from moving vehicles. The LVIA concludes that this lighting would be an uncharacteristic new feature and would have a significant effect at the localised level, but it would be unlikely to contribute to light pollution or impacts on landscape at a larger scale.

131. Overall, whilst it is accepted that the implementation of new light within the local area would have some localised effects, it is necessary to ensure the safe and efficient operation of the highway, and to encourage active and sustainable travel. Light has been reduced as far as possible, particularly in the most sensitive parts of the site and therefore, on balance, the lighting proposals are considered to be acceptable. Final details of the proposed lighting would be secured through condition if planning permission is granted.

Signage

132. The applicant has confirmed that signage would be erected on bollards and no overhead gantries are proposed, and this is considered to be acceptable on design grounds given the functional requirement for signage on a strategic road route. The details of signage would be agreed as part of the formal highway approval processes and would need to adhere to national standards.

Conclusion

133. The proposed development would introduce new and enlarged areas of highway and associated infrastructure to the application site which has been designed to meet the safety and engineering requirements of its intended use. There are however opportunities to improve the design and visual appearance of the development through landscaping, profile, the detailed design of structures, and lighting. Conditions are proposed where necessary to secure the details of the design of these elements to ensure that all reasonable measures are taken to integrate the proposed development in its surroundings as far as is possible. However, the overall design reflects the use and function of the proposed development. Taking all of the above into consideration, the development is

considered to be in accordance with development plan and national policies and guidance that seek to ensure high quality design.

Access, Travel & Movement

134. Policies TRANS2 of the SOLP and Core Policies 33 and 35 of the VoWH P1 aim to ensure that new development is designed to encourage and provide measures to increase walking, cycling and public transport provision within and between developments to encourage the use of sustainable transport modes. Policy TRANS5 of the SOLP requires all new development to provide infrastructure and facilities for cyclists, pedestrians and public transport, amongst other things. Policy CUL8 of the CNP seeks to sustain and enhance active travel networks within the CNP designated area.

135. Development Policy 17 of the VoWH P2 and policy TRANS4 of the SOLP require transport assessments to be submitted for all major development. Development Policy 16 of VOWH P2 requires developments to make adequate provision for vehicle loading, unloading, circulation, servicing and vehicle turning.

136. The LTCP, which does not form part of the development plan but is a material planning consideration, sets a clear vision to deliver a net-zero transport and travel system in Oxfordshire. It aims to enable the county to thrive whilst protecting the environment and improving quality of life. It is stated this will be achieved through reducing the need to travel, discouraging private vehicle journeys and making sustainable and active travel the natural first choice. The LTCP includes a number of policies which it is stated are necessary to achieve this, including prioritising active and sustainable modes, improvements to public rights of way and green infrastructure, supporting healthy place-shaping and carbon reduction measures, and bus, rail and digital connectivity strategies. However, the LTCP also identifies that there are situations where new road schemes and road capacity enhancements will be required, albeit that these will only be considered where all other options, including options for traffic reduction, have been explored.

137. The applicant states that highway infrastructure has failed to keep pace with housing and other development in the Science Vale area and the result is severe congestion, poor access, and declining air quality. These impacts affect all modes of travel, including walking, cycling, public transport and private car use. It is stated that these issues are difficult to address due to severance caused by railway lines and the River Thames which prevent effective movement between homes, jobs and amenities. Severe congestion is therefore evident on the A4130, on existing river crossings between Didcot and Culham/Clifton Hampden and within Clifton Hampden itself. The congestion is so severe that the District Councils have refused developments, even for single dwellings, based on the harm that would be caused to the local highway network. Planned growth in the area is expected to exacerbate existing issues on the highway network significantly.

138. The application documents also note that movement in the application area is typically characterised by car dependence, with 66.3% of journeys undertaken by car in Didcot, compared with 61.8% for Oxfordshire overall. This is, at least in

part, attributed to the poor quality of existing active travel infrastructure provision which is fragmented and discontinuous. There are currently no clear paths connecting Didcot to Culham and there is also a lack of cycling facilities in the area. The existing active travel route between Didcot and the Culham Science Centre is along National Cycle Network (NCN) Route 5, local roads, and the A415 which takes a circuitous route via Long Wittenham and Clifton Hampden. In places the route is not lit and requires walking/cycling within the main vehicular carriageway making it an unattractive option for walkers and cyclists.

139. The applicant has therefore stated that the objectives of the proposed development are:

- To reduce congestion and provide capacity on the arterial routes within Didcot
- Enable modal shift across Science Vale
- Improve accessibility across the River Thames and the Great Western Mainline in Didcot
- Improve resilience in the transport network, including safety enhancements
- Enable sustainable growth within the Science Vale area; and
- Ensure the Science Vale remains a world-leading research location

Impact on Pedestrians/Cyclists/Equestrians

140. Concern has been raised by many local residents and interested third parties that the application prioritises car use over active and sustainable travel modes, and that pedestrian and cycle links have not been given adequate consideration in the development of the scheme. However, the planning application proposes significant improvements to walking and cycling provision along the length of the development and would provide a near continuous, segregated route for pedestrians and cyclists between Milton Gate and the Culham Science Centre with a continued connection to Clifton Hampden being provided by a shared-use footway/cycleway. The footways and cycleways would be separated from the main vehicular carriageway by ditch, landscaping or raised kerb. Crossing points over the proposed road route and key junctions are also proposed through a mix of toucan, parallel and uncontrolled crossings.

141. The TDC Officer supports the proposal stating that it directly delivers and indirectly enables a significant number of new and/or improved walking and cycling routes and alleviates existing north-south connectivity issues caused by the River Thames and railway line which are barriers to movement. For example, the new, direct route between Didcot and the Culham Science Centre would equate to a 20-minute bike ride, reducing journey times by 20% from the existing option which travels through Long Wittenham and Clifton Hampden. The infrastructure would be safer and higher quality and therefore may also be more attractive to pedestrians and cyclists, encouraging greater levels of active travel. The facilities would help engender modal shift away from the private motor car, although it would also be incumbent upon the housing and employment developments coming forward in the local area to ensure additional links are

provided for walkers and cyclists that connect with the proposed development to further improve the facilities available.

Direct Impacts on ProW

142. There would be some permanent closures and diversions of sections of PRoW to facilitate the development, as follows:

- Circa 15m of footpath 243/3 and bridleway 243/1 would be stopped up to make way for the widened section of the A4130 but would otherwise remain open.
- A small section of bridleway 373/24, which forms part of NCN5 would be permanently diverted, increasing its length by circa 150m
- Part of the route between the Southmead Industrial Estate and Sutton Courtenay (comprising parts of footpaths 106/3, 106/4 and 373/10) would be permanently diverted along a new track that provides access to minerals and waste developments, decreasing its length by approximately 120m.
- Part of the footpath route between Sutton Courtenay and the B4016 Appleford Road (comprised of 106/8, 373/12 and 373/1) would be permanently diverted to follow a proposed new shared use footway/cycleway adjacent to the B4016 which would decrease the length of the route
- A section of footpath 171/10 to northwest of Clifton Hampden would be permanently diverted across a pedestrian crossing over the Clifton Hampden Bypass, which would increase its length by circa 40m
- Parts of the route involving footpaths 171/5, 171/6 and 171/3 to the north of Clifton Hampden would be diverted across the proposed junction between the B4015 and the Clifton Hampden Bypass. This would increase the length of the route by circa 120m

143. During the construction process, it is anticipated that a number of Public Rights of Way would be temporarily closed and diverted. These closures and diversions would be managed in accordance with measures to be set out in a CEMP which would be secured by condition on any planning permission granted.

144. The Countryside Access Officer has reviewed the application details and has not objected to the application. As the routes would be diverted and therefore retained, the proposal would not cause any long-term harm to the PRoW network.

Impact on Bus Travel

145. The application site is currently serviced by five pairs of bus stops (10 bus stops in total). However, existing bus services are infrequent and the applicant has stated in most cases are not frequent enough to make bus travel an attractive alternative to cars. Due to the severance created by the River Thames and the historic road network, there are limited opportunities available to improve bus journey times and reliability in a north-south direction.

146. The applicant states that existing bus routes would benefit from the development through reduced journey times and improved journey time reliability. Additionally, the proposed development would enable a new bus route, providing a direct link for new bus services to run between Didcot and Culham. New or improved bus infrastructure is proposed along the length of the development, which it is stated would improve accessibility and the catchment of bus services in the area. Eighteen bus stops are proposed in the following locations:

- A pair of bus stops at the proposed western access to the Valley Park Development on the A4130
- A pair of bus stops on the Old A4130 to the east of the proposed Old A4130 roundabout
- A pair of bus stops north of the Didcot Science Bridge
- A pair of bus stops to north of Hawksworth Roundabout, in proximity to where the proposed development re-joins the existing route of the A4130 Northern Perimeter Road
- A pair of bus stops to the east of Collett Roundabout
- A pair of bus stops to the north of Collett Roundabout
- A pair of bus stops to the north of the proposed junction with the existing B4016 (west of Appleford) and south of the proposed Sutton Courtenay roundabout
- A pair of bus stops to the east of the proposed Culham Science Centre roundabout
- A pair of bus stops to the west of the proposed tie-in between the Clifton Hampden Bypass and the existing B4016.

147. Whilst the provision of bus infrastructure is supported by planning policy and any improvements in journey time reliability would make bus travel more attractive; the proposal does not go so far as to propose dedicated bus lanes along the length of the route, which is considered by many third parties to be a flaw and/or missed opportunity. The applicant has stated that whilst there are currently no proposed bus priority measures, it would be possible in the future to install bus priority traffic signals and to mark out bus lanes where space allows (e.g. on dualled sections of road).

148. Whilst it is considered that the proposals might have gone further in terms of bus priority, the TDC Officer is of the view that they would still relieve queueing at Sutton Bridge and Culham Cut, which in turn would improve the journey time reliability for public transport using this route to/from Abingdon. The proposals would also deliver new routes for additional bus services and would provide additional infrastructure for bus users including bus stops along the proposed route. These measures would make using public transport more attractive, which in turn has the potential to reduce the number of people choosing to drive.

Impact on Car Travel

149. The TA submitted with the application assesses the impact of the development on the local highway network by modelling the existing baseline (in 2020) and comparing this to future baselines in years 2024 (the first possible year of opening at the time the assessment was completed) and 2034, both with and without the

proposed development. Some objections to the planning application, including from the Neighbouring Parish Councils Joint Committee (NPCJC) and a number of individual Parish Councils near to the proposed development, have raised concerns about the TA modelling approach and have highlighted concerns about specific junctions or routes not being adequately assessed, or other claimed flaws in the baseline and future baseline assessments. Further criticism has been levelled that the TA does not properly account for induced demand that would utilise the proposed new road to access the A34 and M40, as well as rat running through local villages. However, the TDC Officer has reviewed the TA, and has stated that she is satisfied the TA and approach to modelling is robust. Twenty-nine junctions were modelled in total, of which fifteen would form part of the proposed development; and fourteen are existing, off-line junctions.

150. The TDC Officer advises that the TA shows a high level of congestion on the existing network, most notably on the A4130, on existing river crossings between Didcot and Culham/Clifton Hampden and within Clifton Hampden. Queues during the AM peak are almost 1.2km long through Sutton Courtenay. This congestion is attributed to the barriers to connectivity caused by the River Thames and the railway line as well as demands being placed on existing infrastructure from growth in the area.

151. Junction modelling of the proposed first opening year for the development and after 10 years (2034) show all junctions to operate within a level that is acceptable to the Highway Authority even when minor discrepancies and issues with the modelling are taken into account. Overall, despite some junctions operating at over-capacity in future years, the TDC Officer has no objections to the proposal stating that the application is just one part of a wider strategy to mitigate the impact of growth on the highway network that can only be delivered incrementally as and when funding becomes available.

152. The model also assesses the impact of the development on the A34 at Milton Interchange which is part of the Strategic Highway Network and managed by National Highways. Without the proposed development in place, the model shows journeys on the A34 after 9am would take over two hours to travel 13km in 2034. Between 5pm and 6pm, the modelling shows the network to reach gridlock with journeys not completed. This is attributed to queuing on the A4130 backing up onto the A34 slips at Milton Interchange. With the proposed development in place, journey times along the A4130 are predicted to improve to levels similar to the 2020 base reducing pressure on the A34. National Highways has confirmed it does not consider the development would have a severe adverse impact on the A34 and therefore has no objections to the proposal subject to construction effects being managed through a CEMP and CTMP.

153. The TA shows that, without the proposed development, average journey times on the local highway network in the AM peak would increase by over two minutes by 2024. By 2034, with planned growth in place but without the proposed development, journey time would have significantly worsened to an average increase of over 24 minutes compared to the 2020 baseline. In the PM peak, without the proposed development, journey times are predicted to increase by an average of 3.5 minutes by 2024 and almost 12.5 minutes by 2034. If the

development is permitted and constructed, the modelling shows journey time improvements in the opening year of an average of over 1 minute in the AM and PM peaks. In 2034, with the proposed development in place, journey times would have increased by just over 4 minutes in the AM peak and 3 minutes in the PM peak. Whilst journey times would still have increased compared to the existing situation by 2034, the TDC Officer supports the proposal because it would enable 14 years of planned housing and employment growth to occur with journey times that are significantly less than they would be if the proposed development is not delivered.

154. Members are also advised that the proposed development is not intended to address every problem on the transport network in and around Didcot on its own. The TDC Officer has highlighted that the application forms part of a wider strategy for the Science Vale area which includes works to the Didcot Northern Perimeter Road, the Didcot Central Corridor, improvements to the Golden Balls junction, the Didcot Local Cycling and Walking Infrastructure Plan, and the Science Vale Active Travel Network, along with public transport enhancements. Additionally, forthcoming applications for housing and employment growth would need to demonstrate the measures that are proposed to prioritise active and sustainable travel, to reduce private car use, and to mitigate any adverse impacts on the local highway network.

155. The TDC Officer has considered the impact of the development on traffic flows in Abingdon Town Centre, which is a designated AQMA. She has stated that Abingdon was not included within the modelling for this planning application because it is considered that changes in traffic flow to and from Abingdon would arise from housing and employment growth rather than from the proposed development and those developments would be required to mitigate their own effects. Traffic signals are used to manage traffic flows into the town centre to prevent excessive emissions. The signals have the effect of holding vehicles outside the town centre to enable the highway network to operate without gridlock. This, in part, creates queuing on the peripheral approaches to Abingdon, for example on the A415 from Culham. It is stated by the TDC Officer that until the vehicle fleet changes away from petrol/diesel vehicles such that the AQMA status can be removed, there is little that can be done to remove the vehicle queuing on the approaches to Abingdon Town Centre.

156. Some objectors to the application have queried whether the predicted movement patterns remain relevant following the behavioural and work pattern changes that have occurred since the Covid-19 pandemic. However, the LTCP, adopted in July 2022, notes that whilst some of the impacts of Covid-19 on travel are uncertain, traffic flow has already returned to pre-pandemic levels.

Construction Effects

157. There would inevitably be an increase in HGV movements on local roads during the construction period, however the applicant proposes to minimise the impact of this on the highway network through measures that would be set out in a CEMP and CTMP to be submitted prior to the commencement of construction. Measures would include appropriate routeing of HGVs via major roads wherever possible,

traffic management measures, temporary access and haul routes, appropriate signage for diverted pedestrian/cycle routes and measures to avoid mud and debris being carried onto the public highway. The TDC Officer has stated that the effects of HGVs on the local highway network would not be significant, and she is satisfied they can be appropriately managed through the CEMP and CTMP. The CTMP would also need to ensure that there were no adverse effects on the A34, as required by National Highways.

Summary

158. Taking all of the above into account, the development is considered to have a positive effect on enabling active and sustainable travel modes through the provision of new infrastructure for walkers and cyclists, and through reduced journey times and new infrastructure for buses. The LTCP is clear that, despite the objective of reducing car use, there will continue to be situations where new road schemes and road capacity enhancements are required. The proposed development is essential in enabling planned housing and employment growth to come forward without creating gridlock on the highway network and is listed in Appendix 1 to the LTCP as a key project being delivered as part of the Science Vale Area Strategy. Furthermore, it is one part of a wider strategy for managing movement by all modes in the Science Vale area and it has the support of TDC.

159. The application is therefore considered to be in accordance with Core Policies 33 and 35 of the VOWH P1, Development Policies 16 and 17 of the VOWH P2, TRANS2, TRANS4, and TRANS5 of the SOLP, and CUL8 of the CUP, and national transport policies.

Air Quality

160. Policies DES6, EP1, ENV11 and ENV12 of the SOLP aim to protect public health and local amenity from the impacts of poor air quality and pollution. Policy EP1 states that air pollution should be minimised and any adverse effects should be mitigated. The policy states that development will only be permitted where it does not exceed air pollution levels set by European and UK regulations. Development policies 23 and 24 of the VOWH P2 also seek to protect local amenity from the effects of pollutants including dust, emissions, and other pollutants. Development policy 26 of the VOWH P2 states that developments that are likely to have an impact on local air quality, including those in, or within relative proximity to, existing or potential AQMAs will need to demonstrate measures or mitigation that are incorporated into the design to minimise any impacts.

161. The PPG explains that the 2008 Ambient Air Quality Directive sets legally binding limits for concentrations in outdoor air of major air pollutants that affect public health such as particulate matter (PM_{10} and $PM_{2.5}$) and nitrogen dioxide (NO_2). The UK also has national emission reduction commitments for overall UK emissions of 5 damaging air pollutants. Those are: fine particulate matter ($PM_{2.5}$), ammonia (NH_3), nitrogen oxides (NOx), sulphur dioxide (SO_2) and non-methane volatile organic compounds (NMVOCs). If national objectives are not met, or at risk of not being met, the local authority concerned must declare an AQMA and prepare an air quality action plan.

162. Air quality, and specifically the impact of poor air quality on human health and the environment, has been a common cause for concern amongst local residents and interest groups and a reason for objecting the proposal. Appleford Parish Council raised some specific concerns about the assessment of air quality effects undertaken by the applicant and considers the development to be contrary to policies EP1 and ENV12 of the SOLP and Development Policies 23 and 26 of the VOWH P2, which it is suggested means the application should be refused. Appleford Parish Council refer to recently updated World Health Organisation (WHO) guidelines (2021), which has tighter targets for air quality emissions than current UK legislation, however it is not yet known if this guidance will result in changes to UK law.

163. The applicant has produced an Air Quality Assessment (AQA) as part of the ES, which identifies the following national objectives as relevant to the proposed development:

- Nitrogen Dioxide (NO_2) – annual mean objective of 40µg/m^3
- Particulate matter (dust) with an aerodynamic diameter of 10 microns or less (PM_{10}) (dust) – annual mean objective of 40µg/m^3
- Particulate matter (dust) with an aerodynamic diameter of 2.5 microns or less $PM_{2.5}$ – annual mean objective of 25µg/m^3
- Nitrogen Oxides (NO_X) for ecosystems – annual mean objective of 30µg/m^3

164. The AQA assesses the impact of the development on residents in Appleford, Milton, Long Wittenham and Clifton Hampden as well as isolated dwellings and numerous schools and other sensitive receptors within close proximity to the proposed development. It also assesses the impact on locally designated ecological sites, namely veteran trees, Kerlart's Field potential LWS, Clifton Hampden Wood, and Clifton Hampden Meadows.

165. The AQA concludes that, during the construction period, there is high potential for temporary air quality effects within 100m of the development due to dust-generating activity, which could affect sensitive receptors including dwellings and schools. It is proposed that air quality effects during the construction period would be mitigated through measures to be set out in a Dust Management Plan (DMP) which would form part of a CEMP to be secured through condition if planning permission is granted. The CEMP would be based on measures set out in the Outline Environmental Management Plan (OEMP) that has been submitted with the application documents and includes measures such as screening, vegetating stockpiles, choice of machinery, surfacing of haul routes, and wheel washing alongside specific dust management measures and dust monitoring. With the proposed DMP and CEMP in place, the AQA concludes that significant air quality effects during construction would be avoided. NO_2 and NOx concentrations during the construction period are predicted to be negligible and would not be expected to exceed the national objectives of 40µg/m^3 and 30µg/m^3 respectively.

166. The AQA also concludes that the development has the potential to cause air quality effects once operational due to changes in vehicle flow, speed and

composition and changes to the separation distance between vehicle emissions and sensitive receptors. These effects are anticipated to result in both increases and decreases in the annual mean NO_2 concentrations across the area studied in the AQA. The largest increase in NO_2 concentrations is anticipated to be experienced at Hartwright House to the north of Didcot, where the annual mean concentration would rise by 3.3 $\mu g/m^3$ to 16.0$\mu g/m^3$. The largest decrease is anticipated to be experienced at Clifton Hampden Pre-school where annual mean concentration levels would reduce by 7.8 $\mu g/m^3$ to 14$\mu g/m^3$. The development is not expected to result in any exceedances of the national objective levels for NO_2 across the area studied within the AQA.

167. It is concluded in the AQA that there would not be any exceedances of the national objectives for dust particles once the development becomes operational and no significant air quality effects would be expected for human health or ecological sites.

168. The application site does not fall within any designated AQMAs. The nearest AQMA to the application site is in Abingdon at a distance of circa 3km. Other AQMAs in South Oxfordshire and Vale of White Horse districts are Henley, Wallingford, Watlington, Marcham and Botley. All AQMAs were designated due to exceedances of the 40$\mu g/m^3$ NO_2 annual mean objective due to emissions from general traffic, narrow roads, and a large proportion of HGVs.

169. The applicant states that annual mean NO_2 concentrations in South Oxfordshire have had an overall decreasing trend over the past six years and have been relatively stable in VoWH. Without the proposed development, it is predicted that background air quality pollutant concentrations would continue to decline and would soon comply with national air quality objectives for NO_2, NOx, PM_{10} and $PM_{2.5}$. This would be attributable to technological improvements including electric vehicles, cleaner fuels, improved emission abatement technology at power stations, and low NOx boilers for domestic heating. Air quality would be expected to continue to improve further by the opening year for the proposed development. It is therefore concluded that the development would not have an adverse effect on any AQMA close to the application site.

170. The Air Quality Officer for SODC and VOWHDC has reviewed the AQA and makes no observations on the proposal nor has requested any further information or clarification. The County Council's Health Improvement Practitioner has also reviewed the AQA and has not raised any objections, subject to the implementation of measures to reduce air quality and dust emissions during the construction process. As such, it is concluded that the information provided by the applicant is a robust assessment of air quality effects. Because the development is not expected to result in any exceedances of national air quality objectives, and no significant air quality effects are expected for human health or ecological sites, the development is considered to be in accordance with development policies 23 and 26 of the VOWH P2 and policies EP1, DES6 and ENV12 of the SOLP and national policies subject to the inclusion of conditions to secure a DMP as part of the CEMP prior to the commencement of each phase of the development.

Noise & Vibration

171. Taken together, policies ENV11, ENV12 and DES6 of the SOLP and policies DP23 and DP24 of the VOWH P2 resist development that would cause residual adverse (post-mitigation) pollution effects including from noise and vibration either through existing sources or those caused by the proposed development. Development Policy 25 of the VOWH P2 states that noise-generating development that would have an impact on environmental amenity or biodiversity will be expected to provide an appropriate scheme of mitigation that should take account of: the location, design and layout of the proposal; existing background noise; measures to reduce or contain noise; and hours of operation and servicing. It is stated in the policy that development will not be permitted if mitigation cannot be provided within an appropriate design or standard.

172. The NPPF states that planning decisions should ensure that development is appropriate for its location taking into account the likely effects (including cumulative effects of pollution on health, living conditions and the natural environment (paragraph 185). In doing so, LPAs should mitigate and reduce to a minimum potential adverse noise effects and avoid noise giving rise to significant adverse impacts on health and quality of life; and identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

173. The PPG refers to the Noise Policy Statement for England (NPSE) and advises LPAs that, in taking account of the acoustic environment the following should be considered:

- Whether or not a significant adverse effect is occurring or likely to occur;
- Whether or not an adverse effect is occurring or likely to occur;
- Whether or not a good standard of amenity can be achieved.

This would include identifying whether the overall effect of noise is, or would be, above or below the "significant observed adverse effect level" (SOAEL) and the "lowest observed adverse effect level" (LOAEL).

174. The noise 'levels' can be considered on a continuum that is unique to site-specific contextual factors. At the lowest extreme, noise is not perceived to be present. As noise levels increase, it will be perceived but may not result in changes to behaviour or attitude, and therefore no specific measures may be needed to manage it. As noise levels increase further however, it will cross the LOAEL level and will begin to cause small changes in behaviour or attitude (e.g. turning up the television or speaking more loudly). In these circumstances, noise should be minimised as far as possible and mitigation measures should be considered to reduce noise effects. At some point, noise increases will cross the SOAEL, causing a material change in behaviour such as keeping windows closed for most of the time or avoiding certain activities when the noise is present. The PPG says that if the exposure is predicted to be above this level, the planning process should be used to avoid this occurring through alternative site selection or appropriate mitigation. It is stated that decisions must take account of the

economic or social benefit of the noise-generating development but that it is undesirable for such noise exposure to be caused. At the highest extreme, noise exposure would cause extensive and sustained adverse changes in behaviour and/or health without the ability to mitigate the effect of the noise. The PPG advises that, in these circumstances, the impacts on health and quality of life are such that regardless of the benefits of the activity causing the noise, this situation should be avoided.

175. The LOAEL, therefore, is the level of noise exposure above which adverse effects on health and quality of life can be detected. The SOAEL is the level of noise exposure above which significant adverse effects on health and quality of life occur.

Construction Noise

176. The ES submitted with the application includes a Noise Assessment. The assessment identifies that, during the construction process, the development has the potential to create noise and vibration disturbance due to site clearance, earthworks, and the construction of the roads and bridges which would include piling and the use of vibratory rollers. The applicant's noise assessment shows that disturbance has the potential to be particularly acute, including during the evening and at night, for short term periods (weeks or months) where construction works are taking place in close proximity to the Premier Inn hotel; New Farm; Great Western Park; any occupied dwellings at the Valley Park housing development; dwellings in Appleford and to the south of Appleford; properties to the east of Sutton Courtenay; Zouch Farm; properties at Culham Station; Culham Science Centre Nursery; properties at Fullamoor; properties to the north of Clifton Hampden; and Coppice House. The noise effects are assessed as being above the SOAEL, meaning that the noise level would be likely to result in material changes to behaviour such as keeping windows closed for most of the time or avoiding certain activities when the noise is present.

177. Construction noise impacts would be reduced as far as possible through measures to be proposed in a Noise and Vibration Management Plan, which it is proposed would form part of the overall CEMP to be secured through condition if planning permission is granted. Noise management measures would include noise-controlled machinery and methods, appropriate siting of machinery, control over operating hours, acoustic enclosures, appropriate routeing of construction vehicles and noise monitoring. The applicant states that these measures have the potential to reduce the magnitude of construction noise impacts in some locations such that they fall below the SOAEL. Impacts on noise levels above the LOAEL and SOAEL are a material planning consideration that should be taken into account in the determination of the application.

178. In addition to the mitigation measures mentioned above, the applicant has drawn attention to the fact that some properties may be eligible for noise insulation work to be carried out or a grant provided for it under the Noise Insulation Regulations 1975 (as amended) or a temporary re-housing policy to be paid for under the Land Compensation Act 1974, although members are advised that these measures fall outside of the planning process, as part of a separate regulatory

regime, and do not constitute a material consideration in the determination of the application. Additionally, it is not possible to know at this stage whether such measures might or might not be available to any affected properties.

Operational Noise

179. Once operational, the applicant's Noise Assessment describes how the development has the potential to impact the noise environment through the introduction of new vehicle routes in areas where they currently do not exist as well as the re-routing of traffic from some areas to others.

180. The Noise Assessment predicts that, once the development is constructed and operational, there would initially be beneficial effects to the noise environment at the nearest facades of 1,862 dwellings and 10 non-residential receptors (schools, community buildings, medical centres, and places of worship) because traffic would be diverted away from existing routes through the villages of Sutton Courtenay, Culham, Long Wittenham, Clifton Hampden and Burcot. In the longer term, the number of dwellings experiencing a reduction in noise levels is predicted to fall to 341 given traffic growth in the area associated with planned housing and employment developments. Longer term noise reductions are also predicted at Clifton Hampden Church of England Primary School, Clifton Hampden Surgery, and Clifton Hampden Village Hall and Scout Association.

181. The Noise Assessment predicts that noise levels would increase initially at the facades of 187 dwellings, and would be significant (above the SOAEL) despite mitigation at Hill Farm, Hartwright House, Level Crossing Cottage, 19 dwellings at the southern end of Appleford, 2 properties at Fullamoor Cottages, Warren Cottage, 7 dwellings at the northern edge of Clifton Hampden, 2 dwellings to the north-east of the development, and 4 dwellings on the B4015 between Clifton Hampden and the A4074 as well as at the Culham Science Centre Nursery. In the longer term, the number of dwellings anticipated to experience adverse noise effects would reduce to 181 due to the establishment of planting. Noise level increases above the SOAEL would likely result in a material change to behaviour, such as keeping windows closed for most of the time or avoiding certain activities when the noise is present and this impact is a material planning consideration. The applicant anticipates that noise levels at two of these dwellings (Hill Farm and Hartwright House) may be significant enough to mean the occupants would be eligible for noise insulation work to be carried out or a grant provided for it under the Noise Insulation Regulations 1975, as amended. As mentioned above, eligibility for work or a grant under those Regulations would be a matter for a separate regulatory regime, and therefore does not constitute a material consideration in the determination of the planning application.

182. Adverse noise effects are proposed to be reduced as far as possible through the use of permanent noise barriers, which are proposed as follows:

- A 3m high barrier on the east side of the scheme as it passes close to the southern end of Appleford, including over the rail sidings bridge.

- A 2.5m high barrier on the east side of the scheme between land to the north of the rail sidings bridge and south of the proposed junction with the B4016 into Appleford.
- A 1.5m parapet on the east side of the River Thames Crossing bridge
- A 3m high barrier on the south side of the scheme as it passes close to Fullamoor Cottages
- A 3m high barrier on the south side of the scheme as it passes close to Clifton Hampden

183. Low noise surfacing is also proposed in some sections of the scheme, including to the south of Appleford, along the A415 near to the proposed Culham Science Centre roundabout, and to the north of Clifton Hampden.

184. The adverse noise impacts of the development are a matter of serious concern of local residents living along the route of proposed development and local businesses who are likely to be affected by adverse noise effects. Residents near Appleford and Appleford Parish Council have highlighted that there are existing high baseline noise levels in the area, resulting in the designation of land at the Appleford Level Crossing as a Noise Important Area (NIA) by DEFRA relating to rail noise. Two further road-related NIAs are relevant to the development: on the A34 south of Milton Interchange and on the A415 in Clifton Hampden Village. Additionally, the NPCJC has raised concerns about the methodology followed in the Noise Assessment and has stated that the conclusions do not fully account for and underestimate the noise effects. It is further stated by the NPCJC that there has been insufficient noise monitoring undertaken in some areas including Nuneham Courtenay. The applicant has not assessed these areas due to the intervening distance between the proposed development and the receptors.

185. Neither the Environmental Protection Officer at SODC and VOWHDC nor the Health Improvement Officer at the County Council have raised any concerns about the methodology and robustness of the conclusions of the Noise Assessment, however both initially requested more be done to mitigate the effects of noise, particularly where they fall above the SOAEL as is required by policy. In response, the applicant has stated that all options for further noise mitigation have been exhausted and/or are not available, because they would be ineffective at reducing noise effects further, the benefits would not outweigh harmful landscape and visual effects, or they would be unfeasible. It is therefore the applicant's case that there is no further action that can be taken to reduce noise effects further and the residual adverse noise effects would remain if planning permission is granted. Taking this into account, the Environmental Health Officer for the District Councils has stated that he does not object to the application and has advised that the adverse impacts to the noise environment in some locations should be balanced with the positive impacts on noise exposure in other locations. It is also requested that a Construction Noise and Vibration Management Plan is submitted prior to commencement, which may form part of a CEMP.

Summary

186. The proposed development would improve the noise environment for the occupants of 1862 dwellings and 10 other receptors (business and community facilities) in the first year of opening, reducing to 341 dwellings and 3 other receptors in the longer term. However, some 187 dwellings (reducing to 181 in the longer term), and the Culham Science Centre Nursery, would be likely to experience long term adverse effects. Many of the occupants of adversely affected properties would experience noise levels above the SOAEL, meaning that there would be a material change to their behaviour as a result of the noise levels. Only Hartwright House and Hill Farm are predicted to be covered by the measures of the Noise Insulation Regulations 1975, which would provide some mitigation, albeit that this would not be something that could be guaranteed or secured through the planning process. Planning policy at the national and local levels expect that mitigation would be employed to avoid significant noise effects occurring, however the applicant has stated that no further mitigation options are available. Therefore, whilst a significant number of properties would experience an improved noise environment, there would be a detrimental effect to 187 properties and the Culham Science Centre Nursery.

187. Planning Practice Guidance says that planning decisions must take account of the economic and social benefit of noise-generating development in making decisions on applications. However, circumstances where noise exposure would cause extensive and sustained changes in behaviour and/or health without the ability to mitigate the effect of the noise should be avoided regardless of the benefits of the activity causing the noise. Members of the Planning and Regulation Committee will need to weigh the adverse noise effects against other material and policy considerations when reaching a decision on whether or not planning permission should be granted. It is recommended that strong weight is applied to the adverse noise impacts in undertaking this overall balancing exercise.

188. Members are advised that the development is contrary to policies ENV11 and ENV12 of the SOLP and development policies 23, 24 and 25 of the VOWH P2 in relation to noise. The policy conflict is not, in itself, a reason for automatic refusal of an application as all applications must be determined in accordance with the Development Plan which must be read as a whole. Members will need to determine whether or not the conflict with policies that seek to protect against adverse noise effects (and any other harm) over-rides other matters, including the strong support that is advised to be given to the development as a matter of principle, and taking into consideration the other benefits as detailed in this report, including noise benefits, to the extent that the development should be refused. The officer advice is that the adverse effects do not outweigh the strong support for the development as a matter of principle and the other benefits, therefore the development should not be refused due to the conflict with development plan and national noise policies.

Landscape and Trees

189. Policies ENV1 and ENV2 of the SOLP and Core Policy 44 of the VoWH P1 seek to protect the landscape, including the North Wessex Downs AONB, countryside and rural areas from harmful development. These policies expect that important

features are protected and, where possible, enhanced. Such features include trees and hedgerows, watercourses, landscapes and views, topographical features, and cultural and historic features. Development resulting in the loss or deterioration of irreplaceable habitats (including veteran trees) will be refused unless there are wholly exceptional reasons justifying the grant of planning permission. Policy ENV1 of the SOLP states that important hedgerows should be retained and that where retention is not possible, compensatory planting will be required with a mixture of native hedgerow species. Policy DES2 of the SOLP requires all new development to be designed to reflect the positive features that make up the character of the local area, and physically and visually enhance and complement the surroundings. Policy DES6 of the SOLP and Development Policies 21 and 23 of the VOWH P2 protect local amenity and the environment from harm including visual intrusion and external lighting. Policy CUL7 of the CNP identifies a nature recovery network in the CNP designated area and expects full regard to be had to maintaining the network in design layouts and landscaping.

190. The County Council's Tree Policy for Oxfordshire (TP) is not a statutory document but is a material consideration in the determination of this application because it states its policies will be implemented where the County Council is determining planning applications made by the County Council and external parties. The document contains a number of policies, which collectively seek to resist tree loss, ensure tree care, and to increase canopy cover and the diversity of tree species across the County. Policies 19-22 of the TP refer to County Council planning functions. Taken together, these policies seek the retention of high amenity value trees as a priority and require that a minimum 30% increase in canopy cover is provided for new and improved highway developments that are to be considered for adoption. Policy 14 of the TP states that compensation will be sought from any organisation requesting the removal of trees that are the responsibility of the County Council, with the level of compensation to be determined by a Capital Asset Valuation of Amenity Trees (CAVAT) assessment.

191. The application site does not lie within any statutory landscape designations. It lies entirely within National Character Area (NCA) no. 108 (Upper Thames Clay Vales), which is noted for its low-lying land dominated by watercourses, including the River Thames and its tributaries and lakes associated with mineral extraction. Major transport routes and the influence of industry are also noted. The NCA identifies that there is little woodland cover in this character area, but hedgerows and mature fields and hedgerow trees are a feature, and many watercourses are fringed with willow or poplar. The Oxfordshire Wildlife and Landscape Study (OWLS) identifies five Landscape Character Types (LCT) and corresponding Landscape Character Areas (LCA) within the vicinity of the application site. For each of these the stated management strategies include the conservation and enhancement of hedgerows, hedgerow trees and field patterns and the safeguarding of parklands, estates, woodlands, hedgerows and villages. At a District level, the South Oxfordshire Landscape Assessment (SOLA) and the VoWH Landscape Assessment (VOWHLA) each identify five LCAs and LCTs relevant to the application site. Landscape guidelines in these documents focus on the protection and enhancement of hedgerows, hedgerow trees, and woodland blocks.

192. The application site has a broadly flat topography, which rises gently to the north and towards the North Wessex Downs AONB in the southeast. The proposed development would pass through a mixed semi-rural and rural landscape with farmland fragmented by industrial uses, business parks, landfill and mineral extraction sites, and crossed by transport corridors and transmission lines in the south of the site. The green corridor of the River Thames and the landscape to the north of Clifton Hampden are areas of higher local landscape quality and sensitivity. Existing planting determines the degree of enclosure and screening across the site. The landscape includes some woodland cover including planting on settlement boundaries, along PRoW routes and road and rail corridors mainly comprised of hedgerows and mature field and hedgerow trees on field boundaries with watercourses including the River Thames fringed with trees and riparian vegetation. Existing mature planting around the Culham Science Centre along with tree belts and woodland blocks around Clifton Hampden and Nuneham Courtenay increases the sense of enclosure to the north. The presence of trees, woodland, and hedgerows is therefore an important feature in the landscape and one which contributes to local landscape character.

193. An updated Arboricultural Impact Assessment (AIA) was submitted in November 2022 to address comments and concerns raised during the first round of consultation, and this was supplemented further with an Addendum in April 2023. The purpose of the AIA is to identify the impacts of the proposed development on trees and tree features (both directly and indirectly) and to set out mitigation measures to reduce impacts as far as possible. The AIA and addendum include a series of plans which show individual trees to be removed and retained, along with details of the protection measures for retained trees. The Addendum re-assessed the impact on trees following amendments made to the position of pathing, a turning head, and a swale which were required to facilitate the retention of a veteran tree, some trees that are subject to a Tree Preservation Order, and some trees along the boundary between the development and Clifton Hampden Conservation Area that had previously been proposed for removal.

194. The AIA identifies 728 tree features across the application site and its immediate surroundings, comprised of 457 individual trees, 228 tree groups, 40 hedges, and 3 woodlands. Tree features range in age from young to over mature and are generally in fair or good condition. Ten tree features are identified as high quality (Category A) and provide significant landscape and amenity value to the wider site. These ten features comprise large mature common oak trees, horse chestnut, ash and common lime. One of the Category A trees (T498 to the north of Clifton Hampden) is noted as a prominent tree that has a significant landscape and amenity value. Additionally, a veteran tree (Common Oak tree T424) is present on the proposed route of the Clifton Hampden Bypass. Of the remaining 717 tree features, 318 are considered to be of moderate quality (Category B).

195. Taken together, the AIA and the Addendum show that the proposed development would result in the loss of approximately 169 individual trees, 36 tree groups, 6 hedges, 60 partial tree groups, 2 partial woodlands, and 14 partial hedges. Of these, 1 tree is Category A (high quality) and 87 trees, 9 groups, 33 partial groups, and 2 partial woodlands are Category B (moderate quality). The remainder are low quality or very low quality and not suitable for long term retention. No veteran

trees, trees that are subject to a TPO or trees that fall partly within the Clifton Hampden Conservation Area would be directly affected by the development following amendments made to the application since submission. The applicant has calculated the total extent of tree canopy loss at around 12ha (just under 8%) of which around 7ha is proposed to be replaced, resulting in a net loss of approximately 5ha of tree cover. After ten years growth, it is estimated that there would be a net gain in canopy cover overall, however the estimation of growth cannot be guaranteed. It is also estimated that around 5.67km of hedgerow would be removed with 3.84km of hedgerow replaced with species-rich varieties with higher biodiversity value.

196. Members are advised that, although construction methods could be conditioned to reduce the risk as far as possible, there remains a risk that further trees would fail during the construction process due to incursion into root protection areas or canopy spread. It is proposed that all retained trees would be protected by a Construction Exclusion Zone, demarcated by protective fencing and monitored by an arboriculture supervisor. Further risks to retained trees may arise in the longer term through tree decline and failure, which could be managed through appropriate risk management strategies and an arboriculture method statement to be secured through planning conditions.

197. There is no doubt that, despite replacement planting, the development would result in the loss of a number of tree features and canopy cover along the length of the proposed development, which cannot be avoided if the development is to proceed. The loss of tree features without sufficient justification would be contrary to development plan policy including Policies ENV1 and ENV2 of the SOLP and Core Policy 44 of the VOWH P1. Members must therefore weigh the impact of the loss of trees and hedgerows against the benefits of the scheme set out elsewhere in this report, and consider whether or not the loss of trees is sufficiently justified. Given that the proposed development clearly forms part of the overall strategy for growth with the Science Vale area, and this cannot feasibly be achieved without the loss of trees and hedgerows, the officer advice is that the benefits outweigh the losses in this instance, and that the conditions suggested in the arboricultural advice should be adopted to reduce and manage the effects on trees and hedgerows as far as possible.

198. The development, as proposed, would not achieve a 30% minimum increase in canopy cover as is required by the TP but instead would result in a decrease in canopy cover at least in the short term. Therefore, it is recommended that a condition be attached to any planning permission that may be granted which would require compensatory planting to be undertaken off-site on land under the control of the County Council.

199. The loss of existing vegetation would clearly have an impact on landscape character and views. These impacts would be reduced to some extent through replacement planting proposals put forward by the applicant, which include tree, hedgerow, bulb and grassland planting along sections of the proposed scheme, albeit that some parts of the development would benefit from more extensive planting than others due to site constraints. Areas of marsh and wet grassland are also proposed in swales and other drainage features and some woodland

blocks are proposed around the Appleford Sidings Bridge and to the north of Clifton Hampden.

200. The Landscape and Visual Impact Assessment (LVIA) submitted as part of the ES concludes that the introduction of the proposed development and ancillary features into the predominantly agricultural landscape would have an inevitable and significant harmful effect that could not be avoided completely through mitigation or changes in design. However, once proposed planting is established, it is anticipated that the level of harm would be reduced such that in the longer term (after fifteen years) the effects on landscape character would not be significant other than at a local level. The LVIA also concluded that views would be significantly harmed on opening of the development from Great Western Park, dwellings in south Appleford and to the south of Appleford as well as footpath 106/4, users of the Thames Path National Trail, dwellings near to the Culham Science Centre entrance, and from views from the north of Clifton Hampden including from PRoW and dwellings. In the longer term (post 15 years) some of these visual effects would lessen as planting becomes established however they would remain significant adverse in the most part. No significant effects are anticipated to the landscape resource of the AONB or the visual receptors within it.

201. The LVIA has been reviewed by the Council's Landscape Consultant and is considered to be a reasonable assessment of the landscape and visual effects. The Landscape Consultant has stated that it is recognised that significant changes to specific views cannot realistically always be fully mitigated, particularly where the road and bridges are new features in the view. Whilst proposed planting would eventually help to integrate sections of the proposed road into the landscape, raised features such as the Appleford Sidings Bridge and the River Thames Crossing, as well as noise barriers, would remain visible. The applicant proposes planting climbers to some sections of acoustic barriers, and to consider elevational treatments to bridges, which would assist in softening their overall appearance as far as is possible. The Culham Science Centre entrance is another area that would be dramatically altered with the loss of several parkland trees. Here, it is proposed to plant some small blocks of woodland or groups of trees along with areas of marsh/wet grassland from planted up drainage features, however the character of the area would inevitably be changed.

202. Concerns have been raised through the consultation process from local residents, community groups, statutory consultees, and technical advisors about insufficiencies in the planting proposals and the harmful landscape and visual effects. Both District Councils consider the proposed landscaping to be inadequate, and contrary to development plan policies that seek to protect and enhance the landscape. As a result of these concerns and through discussions with your officers, the applicant has amended the proposals to include increased planting of additional trees, hedgerows, scrub, woodland and grassland beyond that originally proposed, and has stated that the landscaping proposals are now maximised and cannot be increased further. The Landscape Advisor has reviewed the revised proposals and has stated that the amended scheme is an improvement compared to the original and has resulted in a development that is

better integrated with its surroundings. The advisor has raised no objections to the amended scheme and, although there are some areas where further improvements could be made, has concluded that the proposal is now in accordance with planning policies that seek to protect and enhance the landscape.

203. Whilst it remains the case that the development would result in the loss of some trees and other landscape features, and not all of those would be replaced, the applicant has demonstrated that all reasonable opportunities available to maximise retention and replacement planting have been taken. The applicant has also amended the proposed development to ensure that the most valuable tree features are retained. It is recommended that a suite of conditions is included on any planning permission granted that seek to mitigate the impacts of tree loss, as well as ensuring full delivery of replacement planting. These conditions would include: the submission of an updated tree survey and arboricultural method statement, clerk of works supervision, a tree risk management strategy, landscape and arboriculture controls to be included in the CEMP, compensatory planting to be undertaken off-site on land under the control of the County Council and the submission for approval of a detailed landscaping scheme. It is recommended that the landscaping conditions require the existing trees and hedgerow at the proposed tie-in between the Clifton Hampden Bypass and the B4016 to be retained or replaced, and that any further opportunities to increase planting at the edges of swales, in central reservations, and at the entrance to the Culham Science Centre are included within the detailed landscaping scheme.

204. Subject to the recommended conditions, it is considered that the development would protect and enhance the landscape as far as is reasonably practicable given its nature and associated constraints. The applicant has demonstrated that the removal of trees as proposed is necessary to facilitate the development and is therefore sufficiently justified. Accordingly, the development is considered to be in accordance with national and local planning policies and the TP, which seek to protect and enhance trees and landscape features.

Biodiversity

205. The NPPF requires that planning policies and decisions contribute to and enhance the natural and local environment. This includes protecting sites of biodiversity value commensurate with their statutory status, securing measurable net gains in biodiversity (paragraph 174), ensuring significant harm to biodiversity is avoided, mitigated or compensated for, and integrating biodiversity improvements into development (paragraph 180). Policy ENV1 of the SOLP also protects irreplaceable habitats from harm.

206. Core Policy 46 of the VoWH P1 and policy ENV2 of the SOLP both afford the highest level of protection to sites of international nature conservation importance. Development that is likely to have an adverse effect on a site of national importance (e.g. SSSIs) or local importance should only be permitted where it can be demonstrated that the benefits of the development in the location proposed clearly outweigh the harm and measures are to be provided that would reduce, mitigate or, as a last resort, compensate for the adverse effects.

207. Policy ENV4 of the SOLP and Development Policy 30 of the VOWH P2 provide specific protection to watercourses and their biodiversity and require a 10m buffer zone to be provided for all development adjacent to a watercourse. Culverting is also resisted through these policies. Policy ENV5 of the SOLP seeks to protect and enhance the green infrastructure network through new development.

208. In November 2022 the County Council produced the Oxfordshire Climate and Natural Environment Policy Statement which seeks to ensure environmental considerations are placed at the heart of policy and decision-making across the County Council. This has appended to it a set of Oxfordshire Environmental Principles which, amongst other things, seek to achieve and where possible exceed government and local biodiversity net gain targets with an ambition of achieving 20% net gain.

209. There are no statutorily designated sites within the application site itself. Little Wittenham SAC (which is also an SSSI) is located just over 3km to the southeast of the application site at the closest point; and Cothill Fen SAC (and SSSI) is circa 6.7km to the northwest. The County Council's Habitats Regulations Assessment (HRA) Screening exercise has concluded that there would be no significant likely effects alone or in combination on the European designated Little Wittenham SAC and Cothill Fen SAC. There are also a number of Local Wildlife Sites (LWS) within 1km of the application site, the closest of which is Furze Brake at approximately 0.2km to the north-east. Clifton Hampden Wood LWS and Clifton Hampden Meadows LWS are circa 0.4km east of the application site. A potential LWS, Kelhart's Field, is located 0.7km to the west of the application site.

210. The Environmental Statement submitted with the application includes an assessment of the impact of the development on biodiversity. This assessment comprised a desk top study and Extended Phase 1 Habitat Survey, Walkover Surveys and a series of detailed surveys for great crested newts, bats, hazel dormice, otters, water voles, badgers, birds, reptiles, and terrestrial invertebrates. The Biodiversity Consultant has confirmed that all surveys undertaken to date are appropriate and in line with current guidance to inform the assessment; however, where survey data is in excess of two years old, updated surveys would be required prior to commencement to ensure any changes to site conditions are accounted for.

211. The detailed surveys did not identify the presence of great crested newts, hazel dormice, or water voles and therefore no impacts on these species are anticipated. However, the surveys did identify potential impacts to common species of bat, otters, badgers, breeding and wintering birds, common lizards and grass snakes, and terrestrial invertebrates. Mitigation measures would therefore be required to reduce effects as far as possible, including the creation of habitat, bird and bat boxes, 'hop-over' routes for bats, badger fencing, and designing culverts to maintain connectivity for aquatic and riparian species. It is also proposed that lighting would be reduced as far as possible along the length of the route, and there would be no lighting at all on the River Thames crossing. Details of the proposed mitigation measures would be secured through condition if planning permission is granted.

212. The development would result in the loss and/or potential disturbance of eight bat roosts in buildings and three bat roosts in trees, therefore a European Protected Species License (EPSL) from Natural England would be required to enable the works to proceed lawfully. Your officers are of the view that it is likely an EPSL would be granted, and the reasoning for this is set out in Annex 6. The development would also directly impact two badger setts. In accordance with the Protection of Badgers Act 1992, a derogation licence from Natural England would be required, which would include the methodology for the closure of setts and the creation of new artificial setts. It is also considered likely that the derogation license would be granted.

Biodiversity Net Gain (BNG)

213. The Environment Act (the Act) was given royal assent in November 2021 and makes legislative provision for achieving biodiversity net gain in planning. When Section 98 and Schedule 14 of the Act are brought into force they will mandate a 10% BNG for development projects, including the provision for habitat enhancements to be maintained for a period of at least 30 years (for planning permissions granted after a date that is yet to be confirmed). Central Government Guidance indicates that this will apply to developments from November 2023 unless a development is exempt or on a small site. However, paragraph 174 of the NPPF states that development should provide biodiversity net gains and that they should be measurable (although no minimum net gain requirement is set). Policies ENV3 of the SOLP and core policy 45 of the VoWH P1 also expect all proposals to deliver a net gain in biodiversity. Policy CUL6 of the CNP requires full regard to be had to delivering biodiversity net gain in the Culham Neighbourhood Plan designated area.

214. There are five main habitat types that make up 70% of the application area at present. Those are: arable (23.1%), tall ruderal (13.8%), freshwater (11.5%), poor semi-improved grassland (11.4%) and improved grassland (10.4%). Other habitats include varieties of broad-leaved woodland, scrub, marsh, swamp, freshwater ponds and rivers, standing water, varieties of hedge, and buildings and other built structures. The applicant states that the development has been designed to avoid or reduce impacts on habitats wherever possible. Additionally, habitat would be replaced wherever possible and would include hedgerows, grassland, reedbed, wet woodland, wet flower rich grassland, and standing water.

215. A Biodiversity Net Gain (BNG) Assessment has been provided in accordance with Biodiversity Metric 3.1, which makes a comparison between the biodiversity value of habitats prior to the development with the biodiversity value of habitats following completion of the development. The Metric confirmed that the proposed development would result in an onsite net gain of +145.18 (+23.3%) habitat units, +13.68 (+40.9%) of hedgerow units (based on the creation of better value habitat rather than an increase in the quantity of hedgerow), and +0.26 river units (+1.26%). Therefore, with the implementation of onsite measures, the applicant is reporting a positive increase across terrestrial habitats, hedgerow units, and river units which would be in accordance with currently adopted development plan policy.

216. The applicant however has stated that it intends to provide in excess of 10% biodiversity net gain across all units. In order to achieve a 10% net gain in river units, a further 1.78 river units would be required to be found. The applicant states that it would not be possible to achieve this on-site and therefore the services of the Trust for Oxfordshire's Environment (ToE) would be employed to deliver 2 river units off-site within Oxfordshire. Taken together, the on-site and off-site river units would exceed 10%.

217. Concerns have been raised during the consultation process about the impact of the development on the restoration scheme of Bridge Farm Quarry, which will deliver a wetland vegetation mosaic made up of reedbeds and wet woodland, areas of standing water, and associated habitats including lake margins, known as the Finger Lakes. BBOWT has stated that the Finger Lakes have the potential to reach LWS status and has objected to the application partly on the basis that the impacts on the Finger Lakes area has not been properly assessed. Other concerns raised by BBOWT include the perceived impact of the development on breeding and wintering birds, and concerns over the methodology used to produce the BNG Assessment. However, the Biodiversity Advisor who has reviewed the application has stated that approach taken is a reasonable and robust and that the impacts on the Finger Lakes and wintering and breeding birds have been properly considered.

218. Overall, whilst it is acknowledged that there would be some impacts on biodiversity, it is accepted that these impacts can be avoided where possible or reduced and mitigated in line with the mitigation hierarchy, and that a biodiversity net gain could be achieved. Conditions would be required to secure these mitigation and enhancement measures and would include the submission of a CEMP for biodiversity, a Handover (post-construction) Environmental Management Plan (HEMP) for biodiversity, a LEMP, and a detailed lighting scheme. Additionally, updated pre-commencement protected species surveys should be required through condition to inform revised mitigation measures as necessary. Given the changes that are likely to occur to the baseline habitats and to account for the outcome of updated species surveys and the detailed landscaping scheme, it is also recommended that an updated BNG Assessment is submitted prior to the first operational use of the proposed development to demonstrate that a minimum 10% net gain has been achieved across all habitat types.

219. Subject to the conditions being included as recommended, the development would be in accordance with development plan and national policies that seek to protect and enhance biodiversity.

Flooding

220. Paragraph 159 of the NPPF states that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk. Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere. Paragraph 161 states that all plans should apply a sequential, risk-based

approach to the location of development – taking into account all sources of flood risk and the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property. They should do this by adhering to a number of measures including the application of the sequential test and then, if necessary, the exception test.

221. Core Policy 42 of the VoWH P1 and policy EP4 of the SOLP seek to minimise the risk and impact of flooding through siting development in areas with the lowest probability of flooding, ensuring development manages flood risk effectively and does not increase flood risk elsewhere, and ensures the wider environmental benefits of development in relation to flood risk. Policy INF4 of the SOLP states that all development proposals must demonstrate that there is or will be adequate surface water capacity to serve the whole development, amongst other things.

222. When determining planning applications, the NPPF sets out at paragraph 167 that LPAs should ensure that flood risk is not increased elsewhere. Development should only be permitted in areas at risk of flooding where, in light of the flood risk assessment (and the sequential and exception tests, as applicable) it can be demonstrated that: a) within the site, the most vulnerable development is located in areas at lowest flood risk; b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment; c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate; d) any residual risk can be safely managed and e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.

223. The application included a Flood Risk Assessment, which shows that the development has the potential to increase fluvial flood risk through its interactions with the River Thames and Moor Ditch and associated tributaries. There is also a risk of increases to surface and ground water flooding. To mitigate these risks, the applicant proposes an area of compensatory flood storage on the northern bank of the River Thames (to the west of the proposed road alignment) and has stated that the River Thames Crossing has been designed to account for flood water flows and climate change effects. Surface water would be managed through a series of Sustainable Urban Drainage Systems made up of swales, filters and drains, and several culverts are also proposed to manage flood waters and flows. The FRA concludes that with the mitigation in place, there would be no significant increase in fluvial or surface water flood risk as a result of the development, allowing for climate change effects.

224. The Environment Agency initially objected to the application, partly on the grounds that the FRA had not demonstrated that the development would not increase flood risk to the surrounding area. The applicant subsequently submitted further information comprising a Flood Risk Technical Note and Addendum to address the EA's objection. The EA has since reviewed the additional information and has confirmed the objection on flooding grounds is removed subject to conditions. The LLFA has also reviewed the application and is satisfied with the outline drainage strategy subject to conditions requiring the submission of a detailed drainage scheme prior to commencement and a SuDS compliance report prior to completion. However, despite there being no objections from

statutory consultees on flooding grounds, members must be satisfied that the proposal passes the sequential and exception tests in accordance with national and local planning policy.

The Sequential Test

225. Paragraph 162 of the NPPF explains that the aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. It is stated that the sequential approach should be used in areas known to be at risk now or in the future from any form of flooding

226. The majority of the application site lies in Flood Zone 1, which has the lowest risk of fluvial flooding. However, two areas of land encompassing parts of the A4130 and land to the south comprise Flood Zones 2 and 3, resulting from Moor Ditch. The application site also crosses the River Thames and therefore includes the functional flood plain in Flood Zones 2 and 3 on both banks of the river. There is also a risk of surface and ground water flooding along some sections of the development. The proposed road, including the cycle path and footway and associated infrastructure, is categorised as "essential infrastructure" in the Flood Risk Vulnerability Classification held at Annex 3 of the NPPF. A fundamental part of the proposed development is to deliver an additional road crossing of the River Thames to improve north-south connectivity between Didcot and Culham, and therefore it is necessary for it to cross Flood Zones 2 and 3, and pockets of land at risk of surface and ground water flooding. The widening of the A4130 also necessitates built development in areas at higher risk of flooding given the location of the existing road and land constraints to the north. As it would not be possible to deliver the development on an alternative location at a lower risk of flooding, the sequential test is deemed to be passed. Essential infrastructure may be considered appropriate in Flood Zones 3a and 3b, provided the exception test is also passed.

The Exception Test

227. If it is not possible for essential infrastructure development to be located in zones with a lower risk of flooding, paragraph 163 of the NPPF, states that the exception test should be applied. To pass the exception test it should be demonstrated that: a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall. Both elements of the exception test should be satisfied for development to be permitted. The Planning Practice Guidance advises that essential infrastructure in flood zone 3a should be designed and constructed to remain operational and safe in times of flood. In flood zone 3b (the functional flood plain), essential infrastructure that has passed the exception test should be designed and constructed to remain operational and safe for users in times of flood; result in no net loss of floodplain storage; and not impede water flows and not increase flood risk elsewhere.

228. The proposed development is considered to pass test a) as it would improve connectivity in the Science Vale Area and enable planned growth to come forward without severe harm being caused to the local highway network. The development would also provide the necessary footway and cycleway infrastructure required to enable a shift from private car use to more sustainable transport and active modes and would bring with it a reduction in greenhouse gas emissions. The development would also bring wider benefits through the reduction in traffic congestion with associated benefits to air quality. The Flood Risk Assessment and Technical Notes submitted with the application show that the development has been designed to accommodate periods of flood and would not increase flood risk, therefore it is also considered to pass test b).

229. In summary, although the majority of the application site lies within areas at low risk of flooding, it also includes land in flood zones 2 and 3 including the functional floodplain of the River Thames. The FRA submitted with the application demonstrates that the development would be unlikely to increase flood risk due to mitigation measures and flood compensation. Statutory consultees on flooding matters have reviewed this information and confirmed that they have no objections to the development subject to conditions. Therefore, on the proviso that the conditions requested by the EA and the LLFA are incorporated into any planning permission issued, the proposal is considered to be in accordance with national policy and development plan policies concerning flooding.

Climate Change

230. One of the dominant concerns raised in a large number of third party comments received during the consultation process is objection to the application on the basis of its impact on climate change and the associated impacts to the natural environment, health and wellbeing. Comments have been received from individuals, businesses, and environmental organisations such as Oxford Friends of the Earth who have expressed the view that the proposed development would increase harmful emissions and that it would be in direct conflict with newly adopted and emerging policies and political agendas which prioritise the need to tackle the climate emergency, such as the LTCP. All Oxfordshire Local Authorities have declared a climate emergency in recognition of climate change, adding weight to policies that seek to reduce carbon emissions and protect against the effects of climate change. The County Council subsequently adopted a Climate Action Framework in 2020, which sets out guiding principles and how the County Council will mobilise to tackle climate change through transforming the County Council as an organisation and enabling a zero-carbon Oxfordshire. In November 2022 the County Council produced the Oxfordshire Climate and Natural Environment Policy Statement which seeks to ensure environmental considerations are placed at the heart of policy and decision-making across the County Council. This has appended to it a set of Oxfordshire Environmental Principles which, amongst other things, seeks to deliver the council's transport and connectivity strategies for a net zero carbon transport system and reduce embodied carbon in its infrastructure schemes

231. The June 2023 report to Parliament of the Climate Change Committee – Progress in reducing emissions, is a statutory report produced pursuant to section 36 of the Climate Change Act 2008. It includes assessing the government's progress with regard to the progress that has been made towards meeting the carbon budgets that have been set, the further progress that is needed to meet those budgets and that target, and whether those budgets and that target are likely to be met. Section 37 of the Climate Change Act requires that the Secretary of State must lay a response to the report before Parliament by 15th October. Nonetheless it is considered that it is a objective and robust analysis of progress on climate change.

232. Chapter 4 of the report deals specifically with Surface Transport. With regard to Road Transport Demand the report advises that alongside the uptake of electric vehicles, measures to limit growth in road traffic are also crucial for decarbonising transport, and bring wider co-benefits such as improved air quality. It also advises that the strategic priority of Net Zero should mean that all scheme appraisals (including roadbuilding decisions) must explicitly consider the National Road Traffic Projections decarbonisation scenarios (which set out eight scenarios for future traffic growth to 2060; these now include two decarbonisation scenarios (Vehicle-Led and Mode-Balanced Decarbonisation) and assess the emissions impacts that they will generate. Where these are detrimental, there should be a requirement to develop mitigating actions to reduce these impacts. Further it goes on to advise that the Government should launch a more strategic review to assess whether UK level road building projects which have been pushed back for financial reasons are consistent with its environmental goals. One of the recommendations is the conducting of a systematic review of current and future road-building projects to assess their consistency with the Government's environmental goals to ensure that decisions do not lock in unsustainable levels of traffic growth and develop conditions that permit schemes to be taken forward only if they meaningfully support cost-effective delivery of Net Zero and climate adaptation.

233. The planning system has an important role to play in meeting the challenge of climate change. Paragraph 154 of the NPPF makes this explicit, and states that development should be planned for in ways that:

- Avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and

- Can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the government's policy for national technical standards.

234. These priorities are carried through to planning policies at a local level. Taken together, core policy 43 of the VoWH P1 and policies DES7 and DES8 of the SOLP expect development to make efficient use of resources and promote sustainable design by minimising the carbon and energy impacts of design and

construction and reducing greenhouse gas emissions. Policy DES8 of the SOLP states that all new development should be designed to improve resilience to the anticipated effects of climate change and to incorporate measures that address adaptation to climate change. Similarly, core policies 37 and 40 of the VoWH P1 expect development to be sustainable and resilient to climate change, and to incorporate climate change and adaptation and design measures to combat the effects of changing weather patterns.

235. The recently adopted LTCP is relevant to the application because it has at its heart a vision is to deliver a net-zero Oxfordshire transport and travel system. The LTCP defines a net-zero transport system as one where *"any carbon emissions created are balanced by taking the same amount out of the atmosphere".* This, it says, differs from zero-carbon which means no carbon is given off at all.

236. The LTCP contains a number of policies that provide the tools necessary to achieve a net-zero transport system. These policies seek to discourage individual private car journeys and make walking, cycling, and public and shared transport a natural first choice. However, the LTCP also identifies the need to reduce greenhouse gas emissions that are associated with transport and movement. Policy 27 of the LTCP states that the County Council will:

    (a) use the embodied carbon reduction hierarchy in decisions about transport infrastructure
    (b) take into account embodied, operational and user emissions when assessing a potential infrastructure project and its contribution to Oxfordshire's carbon budget and to a net-zero transport network by 2040
    (c) require a science-based percentage of embodied carbon reduction from baseline in infrastructure projects
    (d) use PAS 2080 to assess, manage and minimise carbon emissions in transport infrastructure projects throughout the lifecycle, including maintenance
    (e) Any offsets needed to achieve net-zero must be certified, additional and deliver local benefits
    (f) Work with contractors to reduce materials, source local and recycled materials, use less carbon-intensive transport options and building methods, and generate less waste.

237. Embodied carbon is the greenhouse gas emissions relating to the construction process, including those contained within materials, emitted during construction processes and travel to and from the site, and from ongoing maintenance and waste management. The LTCP states that in a typical road development project, the production of materials represents about 70% of the embodied carbon, with concrete and asphalt being the main emitters. Therefore, where the construction of new roads is required, the LTCP commits OCC to reducing material consumption, the reuse of materials and to specify low carbon options.

238. The applicant's own assessments specific to this development identify that 83% of embodied carbon emissions in the proposed development would be likely to arise from raw materials. Material selection therefore offers the greatest opportunity to reduce embodied carbon emissions. It is stated that recycled,

secondary or other sustainably sourced materials would be used wherever practicable, which could include the use of lower carbon concrete or, if necessary, off-setting. Energy use during the construction process would also be reduced through potential direct connection to the National Grid which would negate/reduce the need for diesel generators, the use of electric vehicles, and reducing energy use such as limiting lighting to safety critical areas. Other measures include sustainable waste management strategies and ensuring vehicles and plant are well-maintained and that idling is prohibited. These measures would be set out in the proposed CEMP which would include a Site Waste Management Plan, and a Carbon Management Plan would be secured through condition if planning permission is granted.

239. Carbon emissions associated with the operational development would be reduced as far as is practicable through the limited use of lighting, which would be restricted to safety critical areas, including along the footway/cycleway and at key junctions. Existing lighting along the proposed route would also be converted to LED lighting. Whilst it is acknowledged that the proposed development does not discourage private car journeys, it would provide a segregated footway and cycleway along the length of the development to provide a direct connection between Didcot and Culham for those choosing to travel by active modes and would improve overall journey times for those travelling by bus. This provision would support other measures, that are beyond the scope of this planning application, to encourage behaviour change and enabling a shift towards active and sustainable travel modes.

240. The ES submitted with the application includes a chapter on climate change, which assesses the impact of the development on Greenhouse Gas Emissions as well as its vulnerability to climate effects. The assessment of Greenhouse Gas Emissions has been carried out in accordance with PAS 2080 methodology as required by the LTCP, however it is noted that there is no assessment of the impact on local carbon budgets as these have not yet been finalised or formally adopted by the County Council. The assessment concludes that 154,840 tCO_2e of Greenhouse Gas Emissions would be produced during the construction period. Once the development becomes operational, the assessment concludes that Greenhouse Gas Emissions would be 1,074 tCO_2e lower than they would be without the development in the opening year and 1,226 tCO_2e lower than they would be without the development in 2034. This decrease is attributed to the predicted reduction in congestion and journey times resulting from the proposal. It is further concluded in the ES that these reductions in emissions do not fully account for future uptake of lower carbon fuels, electric vehicles and improved vehicle technology and it is therefore likely the overall reductions may improve further.

241. It is noted that the NPCJC and Oxford Friends of the Earth (FoE) have disputed the results of the Climate Assessment, stating that there are flaws in the applicant's analysis. FoE estimate that the proposed development would consume around 8% of Oxfordshire's remaining transport carbon budget and that this would be greater than the potential carbon savings to be achieved from hitting Oxfordshire's cycling targets. However, the ES and other supporting information, including the Climate Change Position Statement have been reviewed by a

consultant acting on behalf of the County Council's Environment Team who has advised that the assessment is robust and has raised no objections to the development on the basis that it would reduce carbon emissions and therefore supports progress towards net-zero.

242. Turning to the assessment of vulnerability and resilience to climate effects, the ES takes into account proposed mitigation measures. These include that a 35% climate change allowance has been incorporated into the assessment of flood risk as required by the Environment Agency; the use of materials that would be certified for resilience to effects such as cracking; the design of bridge structures which would account for the effects of wind and thermal movement; and the use of appropriate earthing design to mitigate against lightning strikes. It is concluded that the development would be resilient to climate change effects and therefore that no vulnerability impacts are identified. The Climate Consultant advising your planning officers agrees with the applicant's assessment that climate vulnerability impacts would be avoided by good design practice and adherence to appropriate standards and therefore has no objection to the development.

243. In summary, the development would lead to an overall carbon saving as a result of a reduction in traffic congestion and is unlikely to cause any significant effects on climate. The development does not discourage private car journeys but does provide the infrastructure required for active and sustainable travel modes which, alongside other measures, would support a shift in travel behaviours, and it is noted that the County Council's Climate Change Assessment Tool has been used and recorded an overall score of +11. The development would therefore be in accordance with the NPPF, policies DES7 and DES8 of the SOLP, and core policies 37, 40 and 43 of the VoWH P1. It is recommended that conditions are attached to any planning permission granted to require the submission of a carbon management plan as part of a CEMP prior to the commencement of each part of the development.

Water Quality and Pollution

244. Taken together, policies ENV11, ENV12 and DES6 of the SOLP and development policies 23 and 24 of the VOWH P2 resist development that would cause residual adverse (post-mitigation) pollution effects including from odour, gases, contamination and land instability either through existing pollutants or those caused by the proposed development. Development policy 27 of the VOWH P2 requires a Contaminated Land Preliminary Risk Report to be provided will all applications on land known or suspected to be contaminated. It states that development will be refused if it cannot be demonstrated that the proposed use is compatible with the condition of the land. Development Policy 30 of the VOWH P2 and policy ENV4 of the SOLP seek to protect the function and setting of watercourses. Proposals that involve culverting of a watercourse are unlikely to be considered acceptable and development within 20m of a watercourse will require a construction management plan to be agreed before commencement to protect from damage, disturbance or pollution.

245. Paragraph 183 of the NPPF says that planning decisions should ensure that a site is suitable for its proposed use taking account of ground conditions and any

risks arising from land instability and contamination. This includes risks arising from former activities such as mining and any proposals for mitigation including land remediation.

246. At paragraph 188, the NPPF makes clear that planning decisions should be focused on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively.

247. The construction of the development would involve works in areas close to and within the floodplain of several waterbodies including the River Thames, Moor Ditch (a main river), Stert Brook, Cow Brook, Meadow Brook, part-restored wetland areas of Bridge Farm Quarry, and several unnamed ditches and ponds. It would also comprise alterations to land profile including the formation of embankments and cuttings, and the implementation of a drainage strategy and associated infrastructure features to include culverts. The development therefore has the potential to impact upon water quality as well as drainage and flooding. These effects could occur during the construction process (for example as a result of the deposition of soils or chemicals or changes to surface water flows and floodplain) or if the development becomes operational (for example through pollutants in highway runoff, changes in the rate and volume of surface water flow, or loss or change to waterbodies and floodplain).

248. Some areas of proposed cutting are predicted by the applicant to be at a depth that would intercept groundwater. These cuttings are located along the proposed Clifton Hampden Bypass and the Didcot to Culham River Crossing. However, given the relatively short length of each area of cutting along with proposed mitigation measures, the impact is not considered to be significant. It is proposed that further quantitative analysis would be undertaken to inform the Construction Dewatering Strategy which would form part of the CEMP. Other mitigation includes the clear span design of the River Thames Bridge, the use of SuDS to manage highway run off, culverts, and water monitoring and enhancements. With these mitigation measures in place, it is not anticipated that there would be any significant effects to water quality.

249. The proposed development would also cross 90-Acre Field to the northwest of the Appleford Sidings Bridge, which is a restored landfill cell. Concern was raised by the landfill operator in their consultation response that the proposed development may impact upon the settlement of this restored cell and would impact on groundwater monitoring and other pollution control measures currently being carried out. The Environment Agency is the statutory body responsible for pollution control and has stated in their consultation response that they are satisfied there would be no contamination risk subject to a condition requiring development to cease in the event that unsuspected contamination is discovered prior to the approval of a remediation strategy.

250. It is noted that the Contaminated Land Officers at both SODC and VoWHDC have reviewed the application and are satisfied those areas of potential contamination relating to both historic and current land uses have been identified by the

applicant. These land uses include past and current landfill, above and underground storage tanks, sewage treatment works, unknown filled land, buried infrastructure related to the former Didcot A Power Station, railways and agricultural land. The preliminary work undertaken by the applicant identified insignificant and negligible impacts to receptors from groundwater and gas, however it is noted that further assessment work is proposed to be undertaken prior to the commencement of the development. A phased risk assessment should therefore be secured through condition to validate the findings of the preliminary work and ensure that any unexpected risk is appropriately mitigated.

251. Subject to the inclusion of the recommended conditions that seek to minimise the risk of pollutants and contamination, the development would be in accordance with the NPPF, policies ENV11 and ENV12 of the SOLP, and development policies 23, 24 and 27 of the VOWH P2.

Cultural Heritage

252. Policy ENV6 of the SOLP seeks to sustain and enhance the significance of heritage assets. Development that has an impact on heritage assets will however be supported, particularly where they conserve and enhance the significance of heritage assets and settings, make a positive contribution to local character and distinctiveness or wider public benefits. Core Policy 39 of the VoWH P1 and Development Policy 36 of the VOWH P2 also seek to conserve and enhance designated and non-designated heritage assets. It is stated that when considering the impact of a proposed development on the significance of a designated heritage asset, great weight will be given to the asset's conservation (and the more important the asset, the greater the weight that will be given). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harms to its significance. In weighing applications that directly, or indirectly affect non-designated heritage assets, a balanced judgement will be made having regard to the scale of any harm or loss and the significance of the heritage asset. These judgements will be made in accordance with national policy.

253. Policy ENV8 of the SOLP and Development Policy 37 of the VOWH P2 expect development affecting the setting of a Conservation Area to conserve or enhance its special interest, character, setting and appearance. Where development would result in less than substantial harm to the significance of a Conservation Area, this harm will be weighed against the public benefits of the proposal.

254. Policy ENV7 of the SOLP and Development policy 38 of the VOWH P2 require that development affecting the setting of a listed building should respect, conserve, and enhance those elements which contribute to the heritage significance and/or setting, respect features of architectural or historic interest, and be sensitive to the listed building and its setting. Development proposals that would result in less than substantial harm to the significance of a listed building must minimise or avoid harm and demonstrate public benefits or exceptional circumstances.

255. Development policy 39 of the VOWH P2 and policy ENV9 of the SOLP expect development to protect the site and setting of Scheduled Monuments or nationally important designated or undesignated archaeological remains. Nationally important archaeological remains (whether scheduled or demonstrably of equivalent significance) should be preserved in situ. Development proposals that would lead to substantial harm or total loss of significance of such remains will only be permitted in exceptional circumstances. For other archaeological remains, the effect of a development proposal on the significance of the remains, either directly or indirectly, will be taken into account in determining the application. As such assets are also irreplaceable, the presumption will be in favour of the avoidance of harm. The scale of the harm or loss will be weighed against this presumption and the significance of the heritage asset. Where impacts on the significance of designated assets are less than substantial, the harm should be minimised and mitigated and weighed against the public benefits of the proposal.

256. Policy ENV10 of the SOLP seeks to conserve or enhance the special historic interest, character and setting of Registered Parks and Gardens.

257. Policy CUL6 of the CNP identifies Station House and Railway Inn near to Culham Railway Station as local, non-designated, heritage assets

258. The application site itself does not contain any designated heritage assets, however there are six Conservation Areas within 1km of the site, namely Milton, Didcot Old Town, Sutton Courtenay, Clifton Hampden, Culham, and Nuneham Courtenay. There are a total of 92 listed buildings within 1km of the application site, the majority of which lie within Conservation Areas or within Appleford-on-Thames village. Other more isolated listed buildings within close proximity to the application site are:

- Grade II* Listed Culham Station, Ticket Office and Waiting Room
- Grade II Listed Culham Station Overbridge and Thame Lane Bridge
- Grade II Listed Fullamoor Farmhouse
- Grade II Listed Schola Europa

259. The Grade I Listed Nuneham Courtenay Registered Park and Garden lies to the north-west of the proposed Clifton Hampden Bypass site; and there are five Scheduled Monuments nearby including Scheduled Monument SM1006345, which is a settlement site adjacent to the River Thames consisting of a series of 12 overlapping enclosures and ditches.

<u>Scheduled Monument SM1006345 (SM)</u>

260. Historic England has advised that the SM consists of archaeological remains of enclosures, pits and trackways of probable prehistoric and Roman date. Its significance lies in its evidential value and is also contributed to by its setting. The evidential value is the potential of the archaeological remains to contribute to our understanding of how people lived and worked in the land in this area, including how this changed through time up to the Roman period. The setting contributes in that the relationship of the river to the monument can be understood, and in

the rural/agricultural land to the west and north which illustrates the original rural surroundings of the prehistoric and Roman features. To the east the setting is compromised by the railway embankment and bridge, and there are modern quarries to the south of the river.

261. The proposed development, at its closest point, would run approximately 250m west of the SM, with the proposed River Thames Crossing to the south-west. Historic England has advised that the development would not change the evidential value of the monument. It would however be affected by changes to its setting caused by light pollution, noise, and views of the road, bridge and infrastructure. This would mean that the site would be enclosed on two sides by modern features, which would be cumulative to the impacts caused by existing the railway line.

262. The applicant has assessed the impact of the development on the significance of the SM as less-than-substantial and at the lower end. However, members are advised that, whilst Historic England agrees that the harm to significance of the SM caused by changes to its setting would be less-than-substantial, the effects would be moderate and at the higher end of less-than-substantial. It is noted that Historic England has also identified some errors in the Cultural Heritage Chapter of the ES, however officers can advise that sufficient environmental information is available to enable a conclusion on the environmental effects to be reached.

<u>Grade I Nuneham Courtenay Registered Park and Garden, Nuneham Courtenay Conservation Area, and Clifton Hampden Conservation Area</u>

263. The applicant acknowledges that there would be some harm caused to the significance of the Grade I Listed Nuneham Courtenay Registered Park and Garden, the Nuneham Courtenay Conservation Area and the Clifton Hampden Conservation Area caused by urbanising effects within the asset's settings, including during the construction period. The harm to the significance of the Registered Park and Garden and Nuneham Courtenay Conservation Area is assessed to be at the low end of less-than-substantial given that views of the proposed Clifton Hampden Bypass would not be gained from key designed views to or from the parkland or its approaches, and there would be no harm to any associated listed buildings. Historic England has confirmed that this is a reasonable conclusion to reach.

264. In respect of the impacts to the significance of Clifton Hampden Conservation Area, Historic England comments that the proposed development may increase and change noise levels to the Conservation Area. However, it would also likely reduce the amount of traffic travelling through the Conservation Area which would improve the overall experience of it. SODC's Conservation Officer originally raised some concerns about the applicant's assessment of effects to the significance of Clifton Hampden Conservation Area, particularly in relation to the impact of lighting and noise barriers, and the perceived lack of landscaping and screening. The applicant submitted further information in April 2023 to seek to address these concerns. The Conservation Officer has since confirmed that the heritage assessment has been enhanced in relation to the impact of lighting and landscaping and that although there would be some adverse impact to the

significance of the Conservation Area due to increased urbanisation and the effect of lighting within its setting, this impact would be mitigated through enhanced landscaping and acoustic mitigation. Overall, there would be less-than-substantial harm caused to the significance of the Conservation Area during the construction phase, and this harm would be at the lower end due to the distance between the asset and the proposed development. On completion of construction, this harm would be reduced to no harm as the proposed development would remove vehicles from the Conservation Area providing a moderate benefit. This would be subject to conditions securing the details of landscaping and noise barrier design.

Sutton Courtenay Conservation Area and Culham Conservation Area

265. The ES submitted with the application concludes that there would be no harm caused to the significance of Sutton Courtenay Conservation Area and Culham Conservation Area. These Conservation Areas would experience a reduction in traffic which it is stated would improve understanding of the Conservation Areas as rural settlements and allow for greater appreciation of their architectural and historic interests, including those of their individual designated buildings. Neither Historic England nor the Conservation Officer have raised any concerns or objections to this assessment of effects to these assets and have stated that the Cultural Heritage chapter of the ES is a reasonable assessment of impacts to heritage assets, other than where specifically mentioned in this report.

Grade II Listed Fullamoor Farmhouse

266. The applicant initially concluded that the proposed development would not affect the significance of any listed buildings, including Fullamoor Farmhouse. However, following concerns raised by the occupier of the listed building and SODC's Conservation Officer, a revised assessment was submitted which acknowledges that the proposed development falls within the asset's setting. The updated assessment concludes that the development would have a slightly urbanising effect on the setting of Fullamoor Farmhouse due to the scale and type of development, but that this would occur within an area of the asset's setting that is already significantly changed. The applicant's assessment is that the development would have a negligible effect that is not considered to harm the asset's significance. At the request of the Conservation Officer, further information was provided in April 2023 to enable an assessment of the impact of lighting on the setting of the listed building, as well as the effectiveness of proposed mitigation to be provided through planting and landscaping. It is noted that the occupant of the listed building remains concerned that the impacts of the development within the building's setting have not been fully understood. The Conservation Officer has since confirmed that there would be less-than-substantial harm caused to the significance of Fullamoor Farmhouse during the construction phase, at the lower end given the distance between the Farmhouse and the proposed development and in the context of existing road infrastructure. On completion, the harm is likely to have reduced to no harm as the proposed development would take vehicles and lighting further away from the asset than they are at present, providing a moderate benefit. This conclusion would be subject to conditions to secure the details of planting proposals.

267. Paragraph 199 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 (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance. Paragraph 202 of the NPPF says 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, where appropriate, securing its optimum viable use.

268. Members are therefore advised that, in concluding on the effects to the designated heritage assets, great weight should be attached to the need to conserve the significance of the assets. The proposed development would alter the character of the settings of Scheduled Monument SM1006345, the Grade I Nuneham Courtenay Registered Park and Garden, and Nuneham Courtenay Conservation Area and would cause less-than-substantial harm to the significance of the assets. This harm would be at the lower end of less-than-substantial in the case of the Grade I Registered Park and Garden and Nuneham Courtenay Conservation Area, and at the higher end of less-than-substantial for the Scheduled Monument. The impact on the significance on Fullamoor Farmhouse and the Clifton Hampden Conservation Area would be at the lower end of less-than-substantial during the construction period, due to the changes to the asset's settings, reducing to no harm once construction is completed. In accordance with paragraph 202 of the NPPF, these harms should be weighed against the public benefits of the proposal listed elsewhere in this report.

Grade II* Listed Culham Station, Ticket Office and Waiting Room, Grade II Listed Culham Station Overbridge and Thame Lane Bridge, and the Grade II Listed Schola Europa

269. The ES submitted with the planning application concludes that there would be no effects to the significance to the listed buildings at Culham railway station including the station, ticket office and waiting room and the overbridge. This is because of the existing context of the asset's settings, which include the A415 and the Culham Science Centre as well as the retention of screening between the assets and the proposed development. The Grade II Listed Schola Europa was scoped-out of the Cultural Heritage assessment due to it being considered unlikely that any effects to the significance of the asset would occur. Neither Historic England nor the Conservation Officer have raised any concerns or objections to the assessment of effects to the significance of these assets and it is noted that the Conservation Officer has stated that the ES accurately identifies the designated and non-designated heritage assets likely to be impacted by the proposed infrastructure scheme.

Non-designated Heritage Assets

270. Non-designated assets within 1km of the application site include archaeological remains, a number of historical buildings (including Hill Farm, New Farm, Level

Crossing Cottage, Zouch Farm, Station House, Railway Inn, and Coppice House), and the historical landscape. The applicant has assessed the effects of the development on non-designated assets and has concluded that there would be significant adverse effects due to the direct effect on archaeological remains, which are likely to contain evidence of prehistoric activity and Iron Age/Roman and Saxon settlements. The harm would be categorised as less-than-substantial and at the lower end because the narrow width of the development means only a limited portion of the remains would be affected. There would be some harm to the significance of the non-designated assets Hill Farm and New Farm due to the effect of urbanisation within the asset's settings. This harm would be less-than-substantial and at the lower end. The ES concludes that there would be no harm to other non-designated heritage assets within close proximity to the application site. Neither Historic England nor the Conservation Officer have raised any concerns or objections to this assessment and have stated that the Cultural Heritage chapter of the ES is a reasonable assessment of impacts to heritage assets, other than where specifically mentioned in this report.

271. Paragraph 203 of the NPPF states that the effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.

272. NPPF paragraph 205 states that local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

273. The County Council's archaeologist has reviewed the information submitted and has confirmed he has no objections subject to conditions requiring a scheme of archaeological investigation and recording to be undertaken prior to the commencement of the development.

274. Taking all of the above into consideration, the proposed development would cause less than substantial harm to the setting of Fullamoor Farmhouse, the Grade I Listed Nuneham Courtenay Registered Park and Garden, The Nuneham Courtenay and Clifton Hampden Conservation Areas, and the Scheduled Monument SM1006345 through its urbanising effect and changes to settings. However, notwithstanding the great weight and importance that is attached to these designated heritage assets, the public benefits arising from the development as set out elsewhere in the report weigh heavily in favour of the development and offer support to the proposal that outweighs the harm to the designated assets. The harm to the non-designated archaeological remains could be mitigated through a programme of archaeological works and recording that would be secured through condition if planning permission is granted. No harm would be caused to the significance of other heritage assets near to the application site, and there would be some beneficial effects to the significance of

Sutton Courtenay Conservation Area and Culham Conservation Area. Therefore, the development is considered to be in accordance with national and development plan policies that seek to protect and enhance the historic environment.

Green Belt

275. The part of the application site that lies to the north of the River Thames, within the South Oxfordshire District, falls within the Green Belt designation. The proposal within this part of the site would include the Clifton Hampden Bypass and the approach to it along the A415, as well as the northern section of the Dicot to Culham River Crossing.

276. Policy STRAT6 of the SOLP seeks to protect the Green Belt in South Oxfordshire from harmful development. It is stated that development in the Green Belt will be restricted to those limited types of development which are deemed appropriate by the NPPF, unless very special circumstances can be demonstrated. Very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations. Core Policy 13 of the VoWH P1 provides similar protection to areas of Green Belt within the VoWH District. The application was originally advertised as a departure application (that is an application which does not accord with the development plan in force in the area) given its Green Belt location. However, following detailed consideration of the proposed development, it is the advice of officers that there is no departure from the development plan in relation to Green Belt, see further below.

277. The NPPF states that the fundamental aim of Green Belt Policy is to prevent urban sprawl by keeping land permanently open. Paragraph 138 of the NPPF sets out the five purposes of the Green Belt, which are:

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

278. Paragraphs 147 and 148 of the NPPF state that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations.

279. Paragraph 150 lists some forms of development that are not inappropriate in the Green Belt provided they "preserve its openness and do not conflict with the purposes of including land within it". These forms of development are limited but include "local transport infrastructure which can demonstrate a requirement for a

Green Belt location". The starting point for consideration against Green Belt policy, therefore, is to establish whether the proposed development is local transport infrastructure which may not be inappropriate within the terms of paragraph 150 of the NPPF.

280. The River Thames Crossing and the Clifton Hampden Bypass form a fundamental component of planned growth in South Oxfordshire as set out in the SOLP and land is safeguarded within the Green Belt to support its delivery. The development would mitigate some of the effects of housing and employment development in the Science Vale Area and is designed to improve connection between Didcot and Culham which are separated by areas of Green Belt. Therefore, all reasonable alternative routes connecting Didcot and Culham would need to travel through designated Green Belt. Similarly, Clifton Hampden Village is surrounded by Green Belt, therefore all reasonable alternative routes for the proposed Bypass that enables travel between major roads would need to travel through designated Green Belt. Through policies TRANS1B and TRANS3 the SOLP acknowledges that a Green Belt location is required for the delivery of the proposed development. It is therefore concluded that the proposed development does represent 'local transport infrastructure which can demonstrate a requirement for a Green Belt location' within the terms of paragraph 150 of the NPPF.

281. However, the proviso in paragraph 150 of the NPPF is that forms of development, such as that proposed, should only be considered to be not inappropriate in the Green Belt provided "they preserve openness and do not conflict with the purposes of including land within it". The PPG advises on the matter of assessing the impact of a proposal on the openness of the Green Belt. It states that the assessment requires a judgement to be made based on the circumstances of the case, but that the courts have identified a number of matters that may need to be taking into account, including:

- Openness is capable of having both spatial and visual aspects – in other words, the visual impact of the proposal may be relevant, as could its volume
- The duration of the development, and its remediability – taking into account any provisions to return the land to its original state or an equivalent (or improved) state of openness; and
- The degree of activity likely to be generated, such as traffic generation.

282. The Green Belt in the vicinity of the application site does contain built development, including the existing A415, the Culham Science Centre, and dwellings along the length of the A415, as well as Clifton Hampden Village; however, it is predominantly characterised by open fields and natural landscape features such as woodland, the River Thames, and field boundaries with access via Public Rights of Way. The proposed River Thames Crossing and Clifton Hampden Bypass would introduce new roads and footway/cycleways within that setting as well as associated structures such as bus stops, lighting and road junctions. The LVIA submitted within the ES concludes that the development would be visible in the long term from Clifton Hampden and the Culham Science Centre and that the impact on these views would be significantly adverse. Given

that openness in this case does have a visual as well as a spatial dimension, it is difficult to conclude other than that the road would fail to preserve openness, and this is a view shared by the applicant as well as many local residents and interested parties who object to the application.

283. In addition to the consideration of harm to openness, paragraph 150 of the NPPF requires that local transport infrastructure developments that require a Green Belt location, should only be considered not inappropriate where they do not conflict with the purposes of including land within the Green Belt. The applicant's own assessment, with which your officers agree, is that the proposed development would conflict with purposes c) to assist in safeguarding the countryside from encroachment and d) to preserve the setting and special character of historic towns.

284. Taking all of the above into consideration, members are advised that despite the fact the development comprises local transport infrastructure that necessitates a Green Belt location, it would harm openness and conflict with its purposes and is therefore inappropriate development in the Green Belt. In accordance with paragraphs 147 and 148 of the NPPF and Policy STRAT6 of the SOLP, very special circumstances must therefore exist that outweigh harm to the Green Belt and any other harm if the development is to be policy compliant.

285. The very special circumstances put forward by the applicant are:

- The "critical" need for the development to address congestion as well as future demand to support housing growth in the surrounding area. It is stated that without the development in place, the ongoing increasing traffic impacts in Didcot and the surrounding villages and their historic cores along with associated noise, air quality and road safety issues would continue. The location of railway lines and the River Thames create physical barriers to housing and employment sites coming forward and restrict capacity. The current highway network is not fit for purpose with the growth planned in the local area
- The development is supported by planning policies that safeguard land in the SOLP and VoWHLP for the development
- The development would unlock the delivery of homes, including affordable homes; would encourage modal change and improve safety for all users; would provide additional highway capacity for development; would improve existing journey times and reduce congestion and associated noise and air quality issues; and
- Key purposes of the proposed development are to provide a river crossing that joins Didcot and the A415 at Culham and a bypass for Clifton Hampden. As the Green Belt designation covers land between the River Thames and the A415, and surrounds Clifton Hampden, all reasonable alternatives considered by the applicant would include development within the Green Belt.

286. In assessing the development against Green Belt policy, Members will need to establish whether very special circumstances exist which indicate that the development should be allowed in the Green Belt. If very special circumstances

do exist, Members will need to weight those circumstances against the harm that would be caused to the Green Belt through reasons of inappropriateness, and any other harms such as landscape, heritage and noise effects (as detailed above).

287. If planning permission is refused for this development, it is likely that planned growth for the Science Vale area would be prevented from, or would be substantially delayed, in coming forward thus it may undermine the approved spatial strategy for SODC and VoWH. In the alternative, if growth was to come forward without the proposed development it would likely result in gridlock and severe harm to the local highway network. It is therefore the view of your officers that very special circumstances do exist and that those circumstances clearly outweigh the harm that would be caused to the Green Belt through reasons of inappropriateness, and the other harms set out in this report. Therefore, notwithstanding that the application was originally advertised as a departure application, after detailed consideration of the proposed scheme, officers consider that the development would be in accordance with the NPPF policies on Green Belt and Policy STRAT6 of the SOLP.

288. Members are advised that, if it is resolved to grant planning permission for this inappropriate development in the Green Belt, the Town and Country Planning (Consultation) (England) Regulations 2021 require that it must first be referred to the Secretary of State for Levelling Up, Housing and Communities to enable him to consider whether the application should be called-in for his own determination. The effect of this is that the issuing of a decision notice may be delayed until the Secretary of State has confirmed whether he wishes to determine the application.

Impact on Minerals and Waste Development

289. Paragraph 109 of the NPPF states that it is essential that there is a sufficient supply of minerals to provide for the infrastructure, buildings, energy and goods that the country needs. Since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation. The proposed Didcot-Culham River Crossing route would pass through land identified as the Sand and Gravel Strategic Resource Area 5: Thames and Lower Thames Valley – Standlake to Yarnton in the OMWCS and it therefore falls within a Mineral Safeguarding Area. Policy M8 of the OMWCS states that development that would prevent or otherwise hinder the possible future working of the mineral within a MSA will not be permitted unless it can be shown that (a) the site has been allocated in an adopted local plan or neighbourhood plan; or (b) the need for the development outweighs the economic and sustainability considerations relating to the mineral resource; or (c) that the mineral will be extracted prior to the development taking place. Policy EP5 of the SOLP directs development away from mineral safeguarding areas.

290. Bridge Farm Quarry lies immediately to the northwest of Bridge Farm in Appleford and is situated between the B4016 and the River Thames. The quarry has been operational since circa 2009 and is being worked and restored in 7 phases. The HIF1 road development would cross land within phases 1-4 and phase 7 of the quarry. The extant planning permission for the working and restoration of Phases

1-4 is no. MW.0094/18. This permission allows the extraction of sand and gravel from phases 1-4, with restoration using in-situ and imported clay materials to create a wet woodland habitat, known locally as the Finger Lakes. The approved restoration scheme for the Finger Lakes area shows the provision of a bird hide with footpath access from the B4016, which would be directly affected by the proposed development.

291. Condition 1 of consent MW.0094/18 required the cessation of extraction and restoration to be completed within a 3-year period from June 2018, meaning that the site should have been completed by June 2021. The current situation at the site is that all mineral has been extracted from phases 1-4, however this part of the site has not been fully restored due to the presence of a stockpile of circa 10,000 tonnes of unprocessed mineral remaining on site, which the quarry operators (Hanson) state has not been moved due a broken conveyor. Hanson submitted planning application no. MW.0008/20 in January 2020 which seeks to remove the stockpiled aggregate via road and to vary condition 1 to allow a further time period to complete the restoration of the site to December 2025, which would offer the opportunity for the stockpiled material to be utilised in the construction of the HIF1 application if planning permission is granted. Planning application MW.0008/20 has not yet been determined.

292. The extant planning permission for the working and restoration of phases 5-7 of Bridge Farm Quarry is MW.0049/19. This permission allows the extraction of sand and gravel from phases 5-7 with restoration to agriculture and lakes with reed fringes. Condition 2 of consent MW.0049/19 required the cessation of extraction and restoration to be completed by 31st May 2021. In June 2022, Hanson submitted planning application MW.0067/22 which seeks to extend the time period for the completion of restoration to December 2025. Planning application MW.0067/22 has not yet been determined. The current situation on the site is that phase 7, which would be directly affected by the HIF1 road scheme, is partially restored. Extraction has not yet commenced in phases 5 and 6, however access to these phases from the B4016 and from Portway would not be permanently severed by the proposed development. The applicant has also stated that access would be maintained throughout the construction process, albeit that details of how this would be implemented would be a matter for the CEMP to be submitted via a condition.

293. In terms of the safeguarding of mineral reserves, it is clear that the phases of the quarry beneath the proposed footprint of the Didcot-Culham River Crossing have been fully extracted, therefore no mineral reserves would be sterilised. The stockpile of unprocessed mineral which remains on the site would need to be either relocated to facilitate the proposed road development or retained for use in the construction of the crossing, however this is a matter for the determination of planning application MW.0008/22, which is still under consideration by the County Council as Mineral Planning Authority. As all of the mineral reserves that would be affected at Bridge Farm Quarry have been extracted, there would be no conflict with Policy M8 of the OMWCS.

294. The proposed development would however prevent delivery of the approved restoration scheme for Bridge Farm Quarry, which would have implications for

compliance with Policy M10 of the OMWCS, which requires mineral workings to be restored to a high standard and in a timely and phased manner. The effects of the development on biodiversity and recreation set out elsewhere in this report include consideration of the impacts on the Finger Lakes and wider approved restoration scheme at Bridge Farm Quarry. However, if planning permission is granted for the proposed development, it would be necessary for the planning permissions and associated S106 legal agreements for Bridge Farm Quarry to be formally amended with revised restoration and aftercare schemes, which could be achieved through the submission of planning applications under Section 73 of the Town and Country Planning Act 1990 as amended. Hanson originally submitted a holding objection to the application partly on the basis that it was not clear who would be responsible for preparing the revised planning applications and delivering the revised scheme and its aftercare. However, the applicant has stated that it is working closely with the landowner and agreements on these matters are progressing. During the third round of consultation, Hanson confirmed that it maintained its holding objection to the application, but commented that the applicant is negotiating in good faith and it is expected that the holding objection would be removed once Heads of Terms for the legal agreement between the applicant and Hanson have been signed by both parties. From a procedural planning perspective, members are advised that it would be incumbent on the landowner or operator to ensure the planning status of the site was regularised. The County Council as LPA is not party to any legal or other agreements between the landowner or operator and the County Council as developer of the road and therefore these are not matters that are included within this report.

295. The MSA also includes land north of Bridge Farm Quarry between the River Thames and the A415 over which the proposed road would pass. As set out earlier in the report, land is also safeguarded in this location for the proposed development under Policy TRANS3 of the SOLP. The proposed route of the road follows the route of the land safeguarded for it, however limited areas of additional land would be required for flood alleviation and major junctions. The proposed development is not allocated within an adopted local plan and therefore would not benefit from exception (a) of Policy M8 of the OMWCS, however it does form a fundamental part of the spatial strategy for the Science Vale area. Exception (b) of Policy M8 of the OMWCS allows for development within the MSA where the need for it outweighs the economic and sustainability considerations relating to the mineral resource. Given that the application area is narrow and would sterilise only a limited amount of resource beneath its footprint and given the in-principle support for the development and its safeguarding under Policy TRANS3 of the SOLP, it is considered that exception (c) applies. No conflict with Policy M8 of the OMWCS therefore applies to the land to the north of the River Thames.

296. The proposed route for the Didcot to Culham River Crossing would cross over the Appleford Sidings which is safeguarded as a rail depot under Policy M9 of the OMWCS. The policy protects the sidings from development that would unnecessarily prevent the operation of the infrastructure or would prejudice or jeopardise its continued use through incompatibility. The road would be carried over the sidings via the proposed Appleford Sidings Bridge and this would ensure the continued operation of the sidings. A dedicated vehicular access from the

proposed road would also be provided to replace the existing access from Portway. Concerns were raised by Hanson as the operator of the sidings during the consultation process about continuity of the sidings operation and access to it during the construction process, however the applicant has confirmed that access would be maintained throughout with details to be confirmed as part of detailed construction phasing plans which would from part of the CEMP and would be secured through a pre-commencement condition if planning permission is granted. Therefore, the development would be in accordance with Policy M9 of the OMWCS as it would not prevent the continued operation of Appleford Sidings.

297. The NPPW expects waste management to be considered alongside other spatial planning concerns, such as housing and transport, recognising the positive contribution that waste management can make to the development of sustainable communities. Policy W11 of the OMWCS safeguards important waste management sites from development that would prevent or prejudice its use, except in specific circumstances, which are (a) the proposed development is in accordance with a site allocation for development in an adopted local plan or neighbourhood plan; (b) equivalent waste management capacity can be appropriately and sustainably provided elsewhere; or (c) it can be demonstrated that the site is no longer required for waste management. There are four safeguarded waste sites that have the potential to be affected by the proposed development. Three of those (waste recycling at Appleford Sidings, wood recycling at Hill Farm, and waste transfer at the Culham No.1 site) would not be directly affected other than by minor changes to the access, which would not prejudice operations. The proposed development would also not affect the non-landfill waste operations at Sutton Courtenay Landfill Site.

298. The proposed road would however cross the landfill site itself and therefore would impact on the delivery of the approved landfill restoration scheme, which would have implications for compliance with policies W6 and M10 of the OMWCS, which taken together require landfill sites to be restored in a high standard and in a timely and phased manner. The extant planning permission for the landfill site is no. MW.0039/15 which permits phased landfilling with restoration for agriculture. The landfill operator (FCC) objected to the application because it was not clear how the revised restoration scheme would be managed and delivered, including associated impacts on borehole monitoring, drainage and Environmental Permits for the site. Additionally, concerns were raised about the impact of the road on the settlement of a restored landfill cell known as 90-Acre Field. However, the applicant has stated that settlement issues would be identified prior to construction and would be mitigated through construction hold periods or surcharging to accelerate the settlement process. As with the situation at Bridge Farm Quarry, it would be necessary for applications to be submitted and approved under S73 of the TCPA to regularise any revisions to the restoration scheme at the landfill complex, which would take into account these matters. Members are advised that the Environment Agency has been consulted on the application and has not raised any objections in respect of the restoration of the landfill.

299. Taking all of the above into account, and subject to the conditions requiring that no development can commence on the Didcot to Culham River Crossing part of

the development unless and until revised restoration and aftercare schemes have been secured for both the Sutton Courtenay Landfill Site and Bridge Farm Quarry, the development would not prejudice the operations at safeguarded mineral and waste sites, nor would it sterilise mineral resource without justification. The proposal would therefore be in accordance with national minerals and waste policies, and policies M8, M9 and W11 of the OMWCS.

Impact on Agricultural Land

300. Agricultural land quality is classified in grades from 1-5. The highest grade (1) goes to land that gives a high yield or output, has the widest range and versatility of use, produces the most consistent yield, and requires less input. Best and most versatile (BMV) land is defined as agricultural land in Grades 1, 2 and 3a. The NPPF expects planning decisions to avoid or reduce the loss of BMV land in order to protect the economic and other benefits offered by the best quality soils. Policy DES7 of the SOLP and Core Policy 43 of the VoWHLP P1 also expects development to avoid BMV agricultural land, unless it is demonstrated to be the most sustainable choice from reasonable alternatives, by first using areas of poorer quality land in preference to that of a higher quality.

301. The application site comprises large areas of agricultural land of varying qualities, including large quantities of BMV land. The best quality land is found in the northern part of the site to the north of the River Thames, where there is a mix of Grade 2, Grade 3a and Grade 3b agricultural land. The poorest quality agricultural land is in the central part of the site between Appleford Sidings and the River Thames which is classified as Grade 4.

302. The ES submitted with the application concludes that the development would result in the permanent loss of 39.4ha of BMV land, of which 15.8ha would be Grade 2 and 23.6ha would be Grade 3a. This equates to a total permanent loss of 25.3% BMV land from within the application site. The development would also result in the temporary loss of 19.1ha BMV land, of which 3.9ha is Grade 2 and 15.2ha is Grade 3a. The ES concludes that the loss of BMV land would be significant. The applicant states that the chosen alignment for the development has taken account of the need to retain BMV land wherever possible, but that the overall loss cannot be reduced further. Impacts on soil resources would be managed through a soil management strategy, but the significant loss of BMV soils cannot be avoided.

303. Natural England has been consulted on the application and has responded to state that it has no comments to make on the application. Natural England stated that the lack of comment does not imply that there are no impacts on the natural environment and advises that it is for the LPA to determine whether or not this application is consistent with national and local policies on the natural environment. LPAs are further advised to obtain specialist environmental advice when determining the environmental impacts of the development.

304. Specialist advice on the impact of the development on agricultural land has been sought from consultants acting on behalf of the County Council as determining authority for the application. That advice is that the applicant's assessment of the

impact of the development on soils, agricultural land, and agricultural land holdings is suitable to support the application. The assessment that the impact on BMV agricultural land that would be significant and harmful is accepted given the extent of BMV land that would be lost if the application is approved. The Advisor notes that the nature of the proposed development as a linear piece of infrastructure with a range of engineering considerations means it would be impractical to change the route alignment to avoid areas of BMV land completely. Accordingly, there are no objections to the application and it is recommended that the adverse impact on agricultural land is weighed by committee members in the overall planning balance. Additionally, a condition should be attached to any planning permission issued requiring the submission of a soil handling strategy prior to the commencement of the development, which would form part of the CEMP.

305. Taking all of the above into consideration, the officer view is that the application has sought to avoid the loss of BMV agricultural land as far as possible given the lack of reasonable alternative options. Therefore, whilst the significant loss of BMV agricultural land is a material consideration that should be taken into account by the Planning and Regulation Committee, the development would be in accordance with Policy DES7 of the SOLP, Core Policy 43 of the VoWHLP P1, and the NPPF with regards to impacts on agricultural land. A soil handling strategy should be secured as part of the CEMP through condition if planning permission is granted to reduce effects on the quantity and quality of BMV agricultural land as far as possible.

Impact on Recreation

306. Paragraph 98 of the NPPF says that access to a network of high-quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities and can deliver wider benefits for nature and support efforts to address climate change. The NPPF goes on to say that existing open space, sports and recreational buildings and land, including playing fields, should not be built on unless a) an assessment has been undertaken which has clearly shown the facility to be surplus to requirements; b) the loss would be replaced by equivalent or better provision; or c) the development is for an alternative sports and recreational provision; the benefits of which clearly outweigh the loss of the current or former use. Policy CF4 of the SOLP and Development Policy 34 of the VOWH P2 aim to protect and maintain existing sport and recreation facilities, including playing fields. The loss of such facilities will only be permitted where it is clearly shown that the facility is surplus to requirements; the loss would be replaced by equivalent or better provision in terms of scale, quantity and quality in a suitable and accessible location; the development is for alternative sports and recreational provision, the needs for which clearly outweigh the loss; or the proposed development is ancillary to the main use of the site and strengthens the function.

307. The proposed development would result in the loss of land identified as a football pitch, which is located within what is currently the RWE site to the north of Didcot. Information provided by the applicant indicates that the football pitch has not been used for at least 11 years and currently comprises poor semi-improved grassland.

When the site was used as a football field, it was for private use associated with the former Didcot A Power Station site, which ceased use in 2013. The site also used to contain a clubhouse and other sports facilities, including a cricket pitch, which have since been removed. There are no known plans to bring the football field and sports facilities back into use.

308. Sport England have raised a non-statutory objection to the loss of the playing field, stating that whilst the pitch is not currently in use, a previous version of the Playing Field Strategy for the Vale of White Horse District had identified a shortage of grass and artificial pitches, and there is a lack of up-to-date evidence base currently available to suggest there is now a surplus of playing fields. Sport England's position, therefore, is that the loss of the playing field is a cause for concern because the proposed development would remove the ability for the pitch to be brought back into use, which would be contrary to policy. Officers at VoWH have advised that a new study has been commissioned, along with a new Facilities Needs Assessment and Strategy, which will support the emerging South and Vale Joint Local Plan; however these studies are not currently available.

309. The most recently published data on playing pitches in the VoWH is contained in the 2015 Playing Pitch Study (PPS), which was used to inform and support the preparation for the VOWH P2. The PPS recommended that the existing network of football pitch sites in secure community use should be retained and improved as needed, and that new playing field provisions should be delivered through strategic development sites throughout the VoWH. The football pitch that would be affected by the proposed development is not specifically identified within the PPS, however the former cricket facilities that used to be at the site are noted as having "very restricted access" and are identified as relocating to Boundary Park. Boundary Park is part of the Great Western Park development on the western edge of Didcot, and VoWHDC officers have advised that a cricket field is now established on this site. Outline permission also exists for a further cricket pitch, an artificial grass pitch (AGP) and five football pitches on the Valley Park housing development, which lies immediately to the west of Great Western Park and a further AGP is permitted as part of the Milton Heights development, which is currently under construction.

310. Taking all of the above into consideration, it is concluded that the loss of the disused playing field would not materially affect the provision and availability of sports facilities in the VoWH District and that the sports provision that is required within the District is provided for through the VOWH P1 and VOWH P2 which are up-to-date. The emerging South and Vale Joint Plan will reassess the availability of football pitches and any shortfalls could be provided for within the emerging plan.

311. Therefore, the proposal is considered to be in accordance with Policy CF4 of the SOLP and Development Policy 34 of the VOWH P2.

312. Development Policy 31 of the VOWH P2 permits development that affects a public right of way provided the development can accommodate the route or provide an alternative route that is equally or more attractive, safe and convenient

for users. Accessibility improvements to rights of way and new connections are encouraged, including the National Trails. The policy states that development will not be permitted where proposals remove, narrow or materially impair the approved line of the Thames Path, key connecting routes, and/or public access to it. Paragraph 100 of the NPPF states that planning decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails.

313. The construction of the River Thames crossing would require the temporary closure of the river for navigation as well as its banks which include the Thames National Trail. The applicant states that these works would not be continuous but would need intermittent periods of daytime (and potentially weekend) closures over a three-week period. It is estimated by the applicant that the affected stretch of the river has a peak use of 50 boats per day in summer. It is proposed that advance advisory notices would be published to enable users of the river to make alternative plans. Temporary mooring buoys would also be installed on the approach to the closure, and the closure would be supervised by a dory boat and crew. Further PRoW will be subject to temporary closures and diversions during the construction period and some permanent closures and diversions to facilitate the development, connectivity would be maintained for those using the ProW network in the long term. Whilst it is recognised elsewhere in this report that users of the ProW network would experience adverse noise and visual effects as a result of the development, these would occur to limited sections of the route and are unlikely to affect the overall provision of leisure and recreational facilities in the South and Vale area.

314. The development is considered to be in accordance with national and local policies that support the retention of, and resist harm or loss to, recreation and leisure facilities in the VoWH and South Oxfordshire Districts.

Other Matters Raised by Third Parties

315. The full text of all consultation responses and representations received since the application was submitted can be viewed on the County Council's e-planning website, and a summary of the main points is contained in Annexes 4 (for statutory and non-statutory consultees) and 5 (for other third-party representations). The main planning issues raised are discussed in the report above. Other key issues raised by third parties are discussed below.

316. Prematurity: The NPCJC states that the principle of the development is flawed because the housing need for the local area was reviewed in the Vale Local Plan Part 1 Review (VoWH P1 Review), undertaken in 2021, which resulted in a decrease in housing requirements over the period 2019-2031. It is stated by the NPCJC that a similar reduction may also be expected in the review of the SOLP, which is scheduled for 2025. The calculation of housing supply using the standard method (as required by NPPF paragraph 74) resulted in a decrease in

housing requirements from 1,211 dwellings per annum (in the VOWH Plan) to 819 dpa (inclusive of accommodating unmet housing need from Oxford City).

317. Members are advised that the review of the VoWH P1, which was a statutory 5-year review undertaken in accordance with Regulation 10A of the Town and Country (Local Planning) (England) Regulations 2012 as amended, does identify that the housing requirement for the District as set out in Core Policy 4 requires updating and states that this update will be achieved through the Joint Local Plan which is currently still at an early stage of development and therefore does not carry any weight in decision making. As the Review makes clear, in the meantime, the minimum local housing need figure is calculated using the standard method (and will change from year to year).

318. Overall, the VoWH P1 Review concluded that VoWH P1 (together with VoWH P2) continues to provide a suitable framework for development in the VoWH that is in overall conformity with government policy. Moreover, members are advised that Core Policy 17, which sets out the strategic highway improvements required over the plan period, is identified in the review as generally consistent with the NPPF. The review also stated that Core Policy 18a in VoWH P2, which safeguards the land required to deliver the strategic infrastructure set out in Core Policy 17, is not required to be reviewed until October 2024 and is consistent with the NPPF

319. The NPCJC has also stated that the application is premature, because the draft revised NPPF, published in December 2022, proposes to remove housing targets which may result in a further reduction in the number of dwellings to be delivered in South Oxfordshire and the VoWH. It is stated that a significant reduction in housing numbers would have a significant bearing on the justification for the proposed development and the assumptions contained within the Transport Assessment. However, as stated earlier in this report, the changes to the NPPF have not yet been finalised or published therefore the draft revised NPPF is not considered to carry any weight in the decision-making process. Once the revised NPPF is published, any changes in housing delivery targets would need to be carried through into revised or updated local plans, however the revised NPPF would be a material consideration once published.

320. Paragraph 49 of the NPPF is clear that arguments that an application is premature are unlikely to justify a refusal of planning permission, other than in limited circumstances where both:

    (a) The development proposed is so substantial, or its cumulative effect would be so significant, that to grant permission would undermine the plan-making process by predetermining decisions about the scale, location or phasing of new development that are central to an emerging plan; and

    (b) The emerging plan is at an advanced stage but not yet formally part of the development plan for the area.

321. Paragraph 50 of the NPPF states that refusal of planning permission on grounds of prematurity will seldom be justified where a draft plan has yet to be submitted for examination (or in the case of a neighbourhood plan – before the end of the local planning publicity period on the draft plan). Where planning permission is refused on the grounds of prematurity, the local planning authority will need to indicate clearly how granting permission for the development concerns would prejudice the outcome of the plan-making process.

322. As set out earlier in this report, the adopted development plans for the local area, clearly set out in-principle support for the proposed development as essential infrastructure required to enable the overall spatial strategies for housing and employment growth in the Science Vale area to be delivered. The VoWHDC and SODC are in the processing of preparing a Joint Local Plan, which will replace the VOWH P1, VOWH P2, and the SOLP, and will take into account any national policies that are relevant to plan-making. However, this plan is at an early stage of development and does not carry any weight in decision making at this stage. Given the early stage of development of the Joint Local Plan, and uncertainty over the contents of the revised NPPF, the tests set out in paragraphs 49 and 50 of the NPPF are not considered to be met and therefore it is the conclusion of officers that refusal on the grounds of prematurity would not be justified.

323. Lack of Health Impact Assessment: A number of representations, including that submitted by the NPCJC state that the application should have included a full Health Impact Assessment, as required by policy 9 of the LTCP. Policy 9 of the LTCP states that:

"We will require transport plans and infrastructure schemes to deliver health benefits and to mitigate any negative impacts by:

(a) *Requiring all major schemes or plans where potential health issues are likely to arise, to screen for possible health and wellbeing impacts*
(b) *Requiring a Rapid or Full HIA to be submitted for larger-scale infrastructure proposals."*

324. The application was submitted in November 2021, in advance of the adoption of the LTCP in July 2022 and did not include a stand-alone Health Impact Assessment. However, the ES submitted with the planning application does include an assessment of the impact of the development on population and health, which draws together conclusions made throughout in the ES in relation to air quality, noise and vibration, access to open space and active travel routes, community land and assets, and community and recreational facilities. The County Council's Public Health Officer was consulted on the application and noted that the relevant chapters in the ES provide sufficient information for an assessment of the impacts of the scheme, positive, negative and neutral, on health and wellbeing to be made. Detailed comments were made by the Public Health Officer in respect of air quality, noise and vibration, physical activity, access to green and public spaces, and connectivity and climate change mitigation and, subject to conditions, the Officer has no objections to the development. Accordingly, members are advised that full and robust information

has been included within the application to enable an assessment of the impacts on human health albeit that a stand-alone HIA was not included.

325. Financial Viability and Deliverability: The NPCJC, and others, have stated that there is uncertainty over the costs and viability of the scheme particularly given inflationary pressures, and that the scheme may therefore be undeliverable. A recent CPO decision is cited in the NPCJC response in which, it is claimed, the Inspector concluded the lack of tangible and substantive evidence on the viability of a development led to the Inspector to conclude there was no reasonable prospect that it would proceed and thus the CPO was not justified. Members are reminded of the advice set out in paragraph 5 of this report that the CPO process is a separate step to a grant of planning permission and is not a material consideration in the determination of the planning application. Therefore, any perceived risk that a CPO may not be granted for the proposed development would not be grounds on which the planning application should be refused.

326. The NPCJC and other third parties have also raised concerns over the feasibility of the proposed construction timetable, which has changed during the lifetime of the planning application. It was originally anticipated that construction would take place over 36 months from 2023 with the development becoming operational in 2024-2025. However, the applicant now expects to commence construction in mid-2024 for a period of 30 months, completing in late 2026. Third parties have stated that the construction timetable has been based around timescales associated with government funding, are unrealistic and are therefore a risk to deliverability.

327. The applicant has advised that the development would be delivered in three parts, consisting of the A4130 widening and Didcot Science Bridge; the Didcot to Culham River Crossing; and the Clifton Hampden Bypass. It is likely that each part of the development would be delivered by a different construction contractor, however the work would be undertaken contemporaneously and is therefore achievable within the proposed construction timescales. The applicant has also stated that efficiencies in the treatment and timing of utility works has enabled a reduced construction period. On this basis, Members are advised that there is no obvious reason why the development could not be fully delivered within the proposed construction timetable and that this should not therefore be an impediment to planning permission being granted.

328. Uncertainty in the Environmental Statement: The NPCJC and other third parties have criticised the handling of uncertainty in the ES, stating that the Rochdale Envelope has been incorrectly applied. The Rochdale Envelope is employed where the nature of a proposed development means that some details of the whole project have not been confirmed when the application is submitted, and flexibility is sought to address uncertainty. Third parties have stated that the Rochdale Envelope should not be used as an excuse to avoid providing necessary information and timelines that are required to make an assessment of environmental effects. The applicant explains in the ES that the Rochdale Envelope approach has been used, in a specific and limited way, in relation to the assessment of certain aspects of the proposed development. Limits of deviation were applied to the horizontal and vertical dimensions of some of the

various structures included in the proposed development, and the "worst-case" scenario (the "outer limit" of the specified deviations) was thereafter considered in the assessment of environmental effects.

329. However, the planning application before members is a *full* planning application and is accompanied by detailed drawings that show the precise details of the development proposed, including the horizontal and vertical alignments. Any planning permission issued would require the development to be carried out in accordance with the approved drawings and therefore there is no scope for flexibility or variation, other than where expressly required or permitted through recommended conditions (or subsequent application to vary or amend the scheme). The references to the Rochdale Envelope approach in relation to the ES means that the limits of possible future deviation of certain alignments have been assessed, as to whether there would be likely significant effects, but the planning permission, if granted, would require development to be carried out in accordance with the specified drawings for development as detailed on the drawings and specified by condition.

Overall Conclusion & Planning Balance

330. The application that is the subject of this report seeks planning permission for four interlinked pieces of strategic infrastructure for which in-principle support is given in both the VoWH P1 and P2 and the SOLP. The proposed highway infrastructure is required to address existing severe congestion, poor access and declining air quality in the Science Vale area, caused because the existing highway infrastructure has failed to keep pace with housing and other development. These impacts affect all modes of travel including walking, cycling, public transport and private car use and are difficult to address due to the severance caused by the Great Western Mainline railway and the River Thames.

331. Both District Councils and the Highway Authority are also clear that the development underpins the spatial strategy for the Science Vale area, and is essential for the delivery of homes on allocated land adjacent to Culham Science Centre, at Berinsfield Garden Village, and in and around Didcot in South Oxfordshire, and land at East of Sutton Courtenay, Milton Heights, Valley Park and North West of Valley Park in the VoWH. The development is also essential in enabling jobs growth and to support the social and economic prosperity of the Science Vale area. The proposed infrastructure is the cornerstone of mitigation that is required to enable planned growth to occur without severe harm being caused to the highway network. Without the development, therefore, planned housing and employment development may be unlikely or less likely to come forward, or otherwise would be delayed, and refusal of the application has the potential to undermine the spatial strategy for both South Oxfordshire and the VoWH. This in-principle support for the development should carry very strong weight in the decision-making process.

332. Other benefits of the development would include the delivery of a high quality, near continuous, segregated footway and cycleway route that would provide a genuine alternative to private car travel. The beneficial impacts on the road network in terms of improved connectivity across the Great Western Mainline and

the River Thames would ease congestion and reduce journey times and reliability for bus travel. Additionally, there would be reductions in traffic volumes through some local villages including Clifton Hampden and Appleford which would improve the quality of the environment and bring associated reductions in noise levels to some properties. The development would also improve air quality through reducing congestion and idling vehicles beyond the levels predicted without the development. The proposed development would result in a net gain of biodiversity of at least 10% across all affected habitat types.

333. However, the proposed development is highly controversial locally and would cause localised harms and impacts that are of deep concern to affected residents and communities. The proposal would cause significant harm to the occupants of some individual properties, schools, and commercial developments through adverse noise effects that, for some, would not be fully mitigated and this would be a permanent harmful effect. The landscape and character of the local area would be changed, and this would cause localised harmful effects through changes to views, urbanisation, loss of trees and other vegetation, and the impact of associated infrastructure such as lighting. Whilst the applicant has sought to minimise these effects as far as is practicable, it remains the case that there are aspects of the development where there are limited opportunities available to soften the impact of the development and to integrate it fully with its surroundings.

334. The development would also cause less than substantial harm to the significance of the Grade I Nuneham Courtenay Registered Park and Garden the Nuneham Courtenay Conservation Area, the Sutton Courtenay Conservation Area, and the Grade II Listed Fullamoor Farmhouse due to changes to the asset's settings. The harm to these assets would be at the lower end of less-than-substantial harm and, in the case of Fullamoor Farmhouse and the Clifton Hampden Conservation Area would reduce to no harm once the development was operational. The development would also cause less-than-substantial harm to the significance of the Scheduled Monument 1006345, due to changes within its setting. The harm to the Scheduled Monument would be at the higher end of less-than-substantial. The harms to designated heritage assets should be given great weight and importance when weighed against the public benefits of the development. There would also be harm to non-designated heritage assets, including Hill Farm and New Farm as well as to archaeological deposits, which would be at the lower end of less-than-substantial harm. No harm would be caused to the significance of other heritage assets near to the application site, and there would be some beneficial effects to the significance of Sutton Courtenay Conservation Area and Culham Conservation Area. It is the advice of officers that in this case the public benefits outweigh the harm to heritage assets and that the development is in accordance with national and local heritage policies.

335. Finally, the proposed development would cause harm to the Green Belt by way of its inappropriateness and impact on openness. This harm should only be allowed in very special circumstances and where the harm to the Green Belt and all other harms is outweighed by the benefits of the scheme. It is the advice of officers that very special circumstances are present in this instance and therefore that the development is in accordance with national and local policies that seek to protect the Green Belt.

336. Taking all of the above into consideration, it is clear that the planning merits of the proposed development need to be balanced in reaching a decision on the application. Paragraph 11 of the NPPF states that plans and decisions should apply a presumption in favour of sustainable development. For decision-making, the NPPF states that this means approving development proposals that accord with an up-to-date development plan without delay. The officer advice to Members is that, notwithstanding the conflict with polices ENV11 and ENV12 of the SOLP and Development Policies 23, 24 and 25 of the VoWH P2 in relation to noise, the proposal accords with the development plan when read as a whole. Therefore, it is recommended that planning permission should be granted subject to the recommended conditions including those listed in Annex 1 of this report.

Financial Implications

337. Not applicable as the financial interests of the County Council are not relevant to the determination of planning applications.

Legal Implications

338. The human rights of individuals under Article 8 and Article 1 of the First Protocol of the European Convention on Human Rights can be a material consideration. To the extent that there is any interference with such rights, it is considered that the recommendations in this report are in accordance with the law and are necessary in a democratic society for the protection of the rights and freedom of others and are also necessary to control the use of property in the public interest.

339. Legal comments and advice have been incorporated into the report.

Equality & Inclusion Implications

340. In accordance with Section 149 of the Equality Act 2010, in considering this proposal, due regard has been had to the need to:

- Eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act
- Advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it
- Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

341. It is not however considered that any issues with regard thereto are raised in relation to consideration of this application.

RECOMMENDATION

It is RECOMMENDED that, subject to the application first being referred to the Secretary of State to consider whether they wish to call it in for their own determination, planning permission for R3.0138/21 be approved subject to conditions to be determined by the Director of Planning, Environment and Climate Change, to include those set out in Annex 1.

Rachel Wileman
Director of Planning, Environment and Climate Change

Annex:	Annex 1: Conditions Annex 2: Habitats Regulations Assessment Screening Annex 3: Environmental Statement Annex 4: Consultation Responses Summary Annex 5: Representations Summary Annex 6: European Protected Species Annex 7: Preliminary Landscape Masterplan Drawings
Background papers:	Nil
Other Documents:	South Oxfordshire Local Plan (2011-2035) Vale of White Horse District Local Plan Part 1 Vale of White Horse District Local Plan Part 2 Oxfordshire Minerals and Waste Local Plan Part 1: Core Strategy Oxfordshire Minerals and Waste Local Plan 1996 (Saved Policies) Culham Neighbourhood Plan National Planning Policy Framework National Planning Policy for Waste National Planning Practice Guidance Local Transport and Connectivity Plan 2022-2050 Noise Policy Statement for England 2010 National Design Guide SODC and VoWHDC Joint Design Guide (2022) Tree Policy for Oxfordshire (2022) 2020 Climate Action Framework Vale Local Plan Part 1 Review (2021)

Annex 1 – Conditions

1) Time limit for commencement
2) Development to be carried out in accordance with approved documents and drawings
3) Submission of Construction Environmental Management Plan (CEMP) prior to commencement of each part of the development to be approved in writing by the CPA
4) Submission of Construction Traffic Management Plan (CTMP) prior to commencement of each part of the development to be approved in writing by the CPA
5) Submission of contour plan showing existing and final ground levels prior to commencement of each part of the development to be approved in writing by the CPA
6) No lighting shall be erected other than in accordance with details that have first been submitted to and approved in writing by the CPA
7) Details of noise barriers to be submitted to and approved in writing by the CPA prior to erection
8) Noise barriers and other noise mitigation measures shall be erected prior to first use of each part of the development
9) The details of the external appearance of each bridge structure, including colour of parapets, shall be submitted to and approved by the LPA prior to commencement of the construction of each bridge structure
10) Footways and cycleways in each part of the development shall be open for use prior to first use of carriageways for motorised vehicles in each part of the development
11) Visibility splays to be provided in accordance with drawings to be submitted to and approved in writing by the CPA prior to first use of each part of the development
12) A Landscape and Ecological Management Plan (LEMP) to be submitted to and approved in writing by the CPA prior to implementation of approved landscaping scheme for each part of the development
13) Updated protected species surveys to be provided to the CPA prior to commencement of each part of the development for any survey that is more than two years old
14) Submission of biodiversity mitigation and enhancement strategy to be approved in writing by the CPA prior to commencement of the development
15) An updated biodiversity net gain assessment to be submitted and approved in writing by the CPA prior to first use of the development to demonstrate delivery of minimum of 10% biodiversity net gain
16) A phased ground contamination risk assessment to be submitted to and approved in writing by the CPA prior to the commencement in each part of the development
17) Development in each part of the development to cease if unexpected contamination is found unless and until a remediation strategy has been submitted to and approved in writing by the CPA. The remediation strategy shall be implemented in accordance with the approved details.
18) No drainage systems for infiltration of surface water to the ground shall be permitted unless and until details have first been submitted to and approved in writing by the CPA

19) Detailed surface water drainage scheme to be submitted to and approved in writing by the CPA prior to the commencement of each part of the development
20) A SuDS compliance report to be submitted to and approved in writing by the CPA prior to first use of each part of the development
21) Development to be carried out in accordance with approved Flood Risk Assessment
22) No development shall take place until such time as a scheme for level for level flood compensatory storage, has been submitted to and approved in writing by the CPA
23) Details of hard and soft landscaping proposals to be submitted to and approved in writing by the CPA within 3 months of the commencement in each part of the development
24) Planting to be carried out in first available planting season following the completion of each part of the development
25) A topographical tree survey to be submitted to the CPA prior to commencement in each part of the development to indicate precise location and condition of trees currently shown to be indicative
26) Trees in each part of the development to be protected in accordance with details to be submitted to and approved in writing by the CPA in an Arboriculture Method Statement
27) Carbon Management Plan to be submitted to and approved in writing by the CPA prior to commencement in each part of the development
28) An updated Climate Vulnerability Risk Assessment Table to be submitted to and approved in writing prior to the commencement of each part of the development
29) Land required only temporarily for construction purposes shall be restored to its current condition within one year of the completion of construction in each part of the development
30) No development to take place within the Didcot to Culham River Crossing section of the development until revised restoration and aftercare schemes have been submitted to and approved in writing by the CPA for Sutton Courtenay Landfill Site
31) No development to take place within the Didcot to Culham River Crossing section of the development until revised restoration and aftercare schemes have been submitted to and approved in writing by the CPA for Bridge Farm Quarry
32) A programme of archaeological works shall be undertaken prior to the commencement of each part of the development
33) Details of the design and appearance of the downgraded section of the A415 to be submitted and approved, including include details of materials and structures e.g. lighting and signage
34) No development shall take place until such time as a compensatory tree planting scheme on land controlled by the applicant has been submitted to and approved in writing by the CPA.
35) Details of the replacement lagoon shall be submitted to and approved in writing by the CPA prior to the commencement of development on the Didcot Science Bridge part of the development

Compliance with National Planning Policy Framework

In accordance with paragraph 38 of the NPPF Oxfordshire County Council takes a positive and creative approach and to this end seeks to work proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area. We seek to approve applications for sustainable development where possible. We work with applicants in a positive and creative manner by;

- offering a pre-application advice service, as was the case with this application, and
- updating applicants and agents of issues that have arisen in the processing of their application, for example in this case the applicant was invited to submit amended drawings and additional information, including environmental information, to overcome material and policy objections in relation to a range of matters.
- Working with the applicant to agree a timetable for decision-making that is expedient whilst enabling the applicant to address outstanding issues prior to consideration by the Planning & Regulation Committee.

Annex 2 – Habitats Regulation Assessment Screening

OUTLINE OF A RECORD FOR A PROJECT WHICH WOULD HAVE NO LIKELY SIGNIFICANT EFFECT ON ANY EUROPEAN SITE, EITHER ALONE OR IN COMBINATION

Introduction to Habitats Regulations Assessment

The requirement for Habitats Regulations Assessment (HRA) is described within Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (otherwise known as the Habitats Directive), which is transposed into English law through the Conservation of Habitats and Species Regulations 2017 (as amended) (hereafter referred to as the Habitats Regulations).

In accordance with Regulation 63(1) of the Habitats Regulations, a competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and is not directly connected with or necessary to the management of that site, must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives.

In accordance with Regulation 64(1) of the Habitats Regulations, if the competent authority is satisfied that, there being no alternative solutions, the plan or project must be carried out for imperative reasons of overriding public interest (which, may be of a social or economic nature), it may agree to the plan or project notwithstanding a negative assessment of the implications for the European site or the European offshore marine site (as the case may be).

A European site or European offshore marine site is defined within Regulation 8 of the Habitats Regulations as:

1. a Special Area of Conservation (SAC);
2. a Special Protection Area (SPA); and
3. a European site so far as consisting of marine areas.

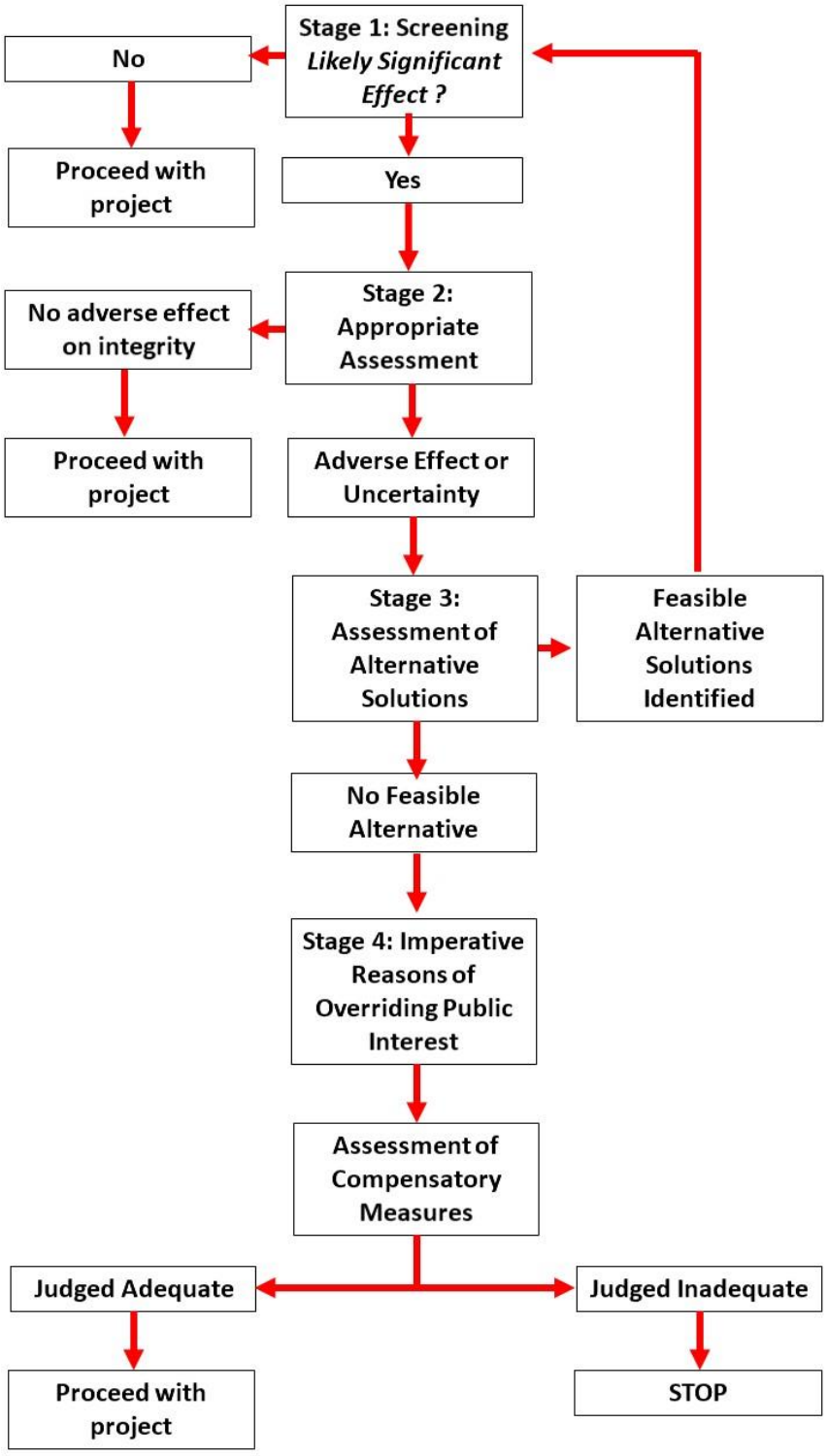
National Planning Policy Framework (NPPF) and ODPM Circular 06/2005 states that potential SPAs (pSPAs), possible SACs (pSACs) and candidate SACs (cSACs), listed or proposed Ramsar sites, and sites identified, or required, as compensatory measures for adverse effects on habitats sites, pSPAs, cSACs, and listed or proposed Ramsar sites, on which the Government has initiated public consultation on the scientific case for their designation, should also be considered European sites. Hereafter all of the above designated nature conservation sites are referred to as 'European sites'.

Based on the requirements of Article 6(3) and 6(4) of the Habitats Directive, the European Commission (2001) describes four distinct stages to the HRA process:

- Stage 1 Screening;
- Stage 2 Appropriate Assessment;
- Stage 3 Assessment of alternative solutions;
- Stage 4 Imperative Reasons of Overriding Public Interest (IROPI).

It should be noted that the Habitats Regulations Assessment for the Didcot Garden Town HIF 1 Scheme covers Stage 1 only. Note that this document uses the original terms for features such as European sites and refers to the legislation that was current when they were designated. However, it is recognised that the Conservation of Habitats and Species Regulations 2017 (as amended) are now amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. The HRA process is summarised in Figure 1 below:

Figure 1: HRA Stage 1 - 4 Process



Summary of the conclusion of the Assessment

The Didcot Garden Town HIF 1 Scheme has been considered in light of the assessment requirements of Regulation 63 of the of the Habitats Regulations by Oxfordshire County Council, which is the competent authority, responsible for authorising the project and any assessment of it required by the Habitats Regulations.

Having carried out a 'screening' assessment of the project, the competent authority has concluded that there will not be a likely significant effect on the Little Wittenham SAC and Cothill Fen SAC.

Information used for the assessment

A copy of the list used to search for and select European sites potentially affected by the project is given in Table 1 below

Table 1: Scanning and site selection list for European sites that could potentially be affected by a project

Types of project	Sites to scan for and check	Names of sites selected
1. All projects (terrestrial, coastal and marine)	Sites within which the project is wholly or partly located	N/A
2. Projects that could affect the aquatic environment	Sites upstream or downstream of the project location in the case of river or estuary sites	Little Wittenham SAC Cothill Fen SAC
	Open water, peatland, fen, marsh and other wetland sites with relevant hydrological links to the project, irrespective of distance from the project location	N/A
3. Projects that could affect the marine environment	Sites that could be affected by changes in water quality, currents or flows; or effects on the inter-tidal or sub-tidal areas or the sea bed, or marine species	N/A
4. Projects that could affect the coast	Sites in the same coastal 'cell', or part of the same coastal ecosystem, or where there are interrelationships with or between different physical coastal processes	N/A
5. Projects that could affect mobile species	Sites whose qualifying features include mobile species which maybe affected by the project irrespective of the location of the project or whether the species would be in or out of the site when they might be affected	Little Wittenham SAC
6. Projects that could increase recreational pressure on European sites where qualifying features are sensitive to such pressure	European sites within which the project would be wholly or partly located	N/A
	Such European sites within an agreed zone of influence, or other reasonable and evidence-based travel distance of the project location, that may be affected by local recreational or other visitor pressure generated bythe project	N/A
	Such European sites within an agreed zone of influence, or other reasonable and evidence-based longer travel distance of the project, which are major (regional or national) visitor attractions such as European sites which are National Nature Reserves where public visiting is promoted, sites in National Parks, coastal sites and sites in other major tourist or visitor destinations	N/A
7. Projects that would increase the amount of development	Sites that are used for, or could be affected by, water abstraction irrespective of distance from the project	N/A
	Sites used for, or could be affected by, discharge of effluent from waste water treatment works or other waste management streams	Little Wittenham SAC Cothill Fen SAC

	serving the project, irrespective of distance from the project	
	Sites that could be affected by the provision of new or extended transport or other infrastructure	Little Wittenham SAC Cothill Fen SAC
	Sites that could be affected by increased deposition of air pollutants arising from the proposals, including emissions from significant increases in traffic	Little Wittenham SAC Cothill Fen SAC
8. Projects comprising linear developments or infrastructure	Sites within a specified distance from the centre line of the proposed route (or alternative routes), the distance may be varied for differing types of site / qualifying features and in the absence of established good practice standards, distance(s) to be agreed by the statutory nature conservation body	N/A
9. Projects that introduce new activities or new uses into the marine, coastal or terrestrial environment	Sites considered to have qualifying features potentially vulnerable or sensitive to the effects of the new activities proposed by the project	N/A
10. Projects that could change the nature, area, extent, intensity, density, timing or scale of existing activities or uses	Sites considered to have qualifying features potentially vulnerable or sensitive to the effects of the changes to existing activities proposed by the project	N/A
11. Projects that could change the quantity, quality, timing, treatment or mitigation of emissions or discharges to air, water or soil	Sites considered to have qualifying features potentially vulnerable or sensitive to the changes in emissions or discharges that could arise as a result of the project, over and above those already identified	Little Wittenham SAC Cothill Fen SAC
12. Projects that could change the quantity, volume, timing, rate, or other characteristics of biological resources harvested, extracted or consumed	Sites whose qualifying features include the biological resources which the project may affect, or whose qualifying features depend on the biological resources which the project may affect, for example as prey species or supporting habitat or which may be disturbed by the harvesting, extraction or consumption	N/A
13. Projects that could change the quantity, volume, timing, rate, or other characteristics of physical resources extracted or consumed	Sites whose qualifying features rely on the physical resources which the project may affect, for example, as habitat or a physical environment on which habitat may develop or which may be disturbed by the extraction or consumption	N/A
14. Projects which could introduce or increase, or alter the timing, nature or location of disturbance to species	Sites whose qualifying features are considered to be potentially sensitive to disturbance, for example as a result of noise, activity or movement, or the presence of disturbing features that could be brought about by the project	N/A
15. Projects which could introduce or increase or change the timing, nature or location of light or noise pollution	Sites whose qualifying features are considered to be potentially sensitive to the effects of changes in light or noise that could be brought about by the project	N/A
16. Projects which could introduce or increase	Sites whose qualifying features are considered to be potentially sensitive to the source of new or	N/A

a potential cause of mortality of species	increased mortality that could be brought about by the project	

A summary of the information gathered for the assessment is presented in the Information Required for Assessment schedule given in Table 2 below:

Table 2: Summary of Basic Information Required for Assessment

Qualifying Feature	Conservation Objectives	Threats & Pressures	Condition Assessment
Little Wittenham SAC			
Annex II species that are a primary reason for selection of this site			
1166 Great crested newt (*Triturus cristatus*)	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of habitats of qualifying species; • The structure and function of the habitats of qualifying species; • The supporting processes on which the habitats of qualifying species rely; • The populations of qualifying species; and, • The distribution of qualifying species within the site.	• Invasive non-native species.	Favourable condition
Cothill Fen SAC			
Annex I habitats that are a primary reason for selection of this site			
7230 Alkaline fens	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; and • The supporting processes on which qualifying natural habitats rely.	• Pollution to groundwater (point sources and diffuse sources); • Problematic native species.	Favourable condition
Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site			
91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; and • The supporting processes on which qualifying natural habitats rely.	• Pollution to groundwater (point sources and diffuse sources); • Problematic native species.	Favourable condition

The screening of the project

A summary of the outcomes of the screening process is given in Table 3 and 4 below.

Table 3: Little Wittenham SAC Schedule for Screening Effects of the Project Alone

Little Wittenham SAC		SAC Conservation Objectives											
		1166 Great crested newt (*Triturus cristatus*)	• The extent and distribution of habitats of qualifying species; • The structure and function of the habitats of qualifying species; • The supporting processes on which the habitats of qualifying species rely; • The populations of qualifying species; and, • The distribution of qualifying species within the site.										
Qualifying feature	Condition	Possible Effect											
		Access disruption		**Direct Habitat Loss**		**Hydrology**		**Water Quality**		**Air quality: dust**		**Air quality: Atmospheric nitrogen**	
		Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
1166 Great crested newt (*Triturus cristatus*)	Favourable	No works or land take within the SAC will be required. **No Effect.**	No works or land take within the SAC will be required. **No Effect.**	There will be no direct habitat loss within the SAC. **No Effect.**	There will be no direct habitat loss within the SAC. **No Effect.**	There are not source-receptor pathways. **No Effect.**	There are not source-receptor pathways. **No Effect.**	There are not source-receptor pathways. **No Effect.**	There are not source-receptor pathways. **No Effect.**	There are not source-receptor pathways. **No Effect.**	There are not source-receptor pathways. **No Effect.**	There are not source-receptor pathways. **No Effect.**	There are not source-receptor pathways. **No Effect.**
Conclusion		No likely significant effect.											

Table 4: Cothill Fen SAC Schedule for Screening Effects of the Project Alone

Cothill Fen SAC		SAC Conservation Objectives											
		7230 Alkaline fens	• Extent and distribution of the feature • Structure and function (including its typical species) • Supporting processes (on which the feature relies)										
		91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)	• Extent and distribution of the feature • Structure and function (including its typical species) • Supporting processes (on which the feature relies)										
Qualifying feature	Condition	Possible Effect											
		Access disruption		**Direct Habitat Loss**		**Hydrology**		**Water Quality**		**Air quality: dust**		**Air quality: Atmospheric nitrogen**	
		Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation

7230 Alkaline fens	Favourable	No w orks or land take w ithin the SAC w ill be required. **No Effect.**	No w orks or land take w ithin the SAC w ill be required. **No Effect.**	There w ill be no direct habitat loss w ithin the SAC. **No Effect.**	There w ill be no direct habitat loss w ithin the SAC. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**
91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)	Favourable	No w orks or land take w ithin the SAC w ill be required. **No Effect.**	No w orks or land take w ithin the SAC w ill be required. **No Effect.**	There w ill be no direct habitat loss w ithin the SAC. **No Effect.**	There w ill be no direct habitat loss w ithin the SAC. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**	There are not source-receptor pathw ays. **No Effect.**
Conclusion		No likely significant effect.											

Mitigation measures

In reaching the conclusion of the screening assessment, the competent authority took no account of any measures intended to avoid or reduce the potentially harmful effects on any European site.

References and reports

In reaching the conclusion of the assessment, the competent authority took the following documents into account:

a) Anon. (2018). Conservation of Habitats and Species Regulations 2017 (as amended). HMSO, London;
b) HMSO. (2019). The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. HMSO, London;
c) European Commission. (2001). Assessment of plans and projects significantly affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and 6(4) of the Habitats Directive;
d) Ministry of Housing, Communities & Local Government. (2019). Appropriate Assessment. Available at: https://www.gov.uk/guidance/appropriate-assessment;
e) Holohan ruling (C-461/17);
f) People Over Wind and Sweetman v Coillte Teoranta (C-323/17);
g) Department for Business, Energy and Industrial Strategy. (2021). Guidelines on the assessment of transboundary impacts of energy developments on Natura 2000 sites outside the UK https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/408465/transboundary_guidelines.pdf;
h) https://sac.jncc.gov.uk/site/UK0030184
i) https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030184.pdf
j) file:///C:/Users/WATS1068/Downloads/UK0030184%20LittleWittenham%20SACV2018%20(5).pdf
k) https://designatedsites.naturalengland.org.uk/SiteGeneralDetail.aspx?SiteCode=UK0030184&SiteName=Little%20Wittenham&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=
l) https://sac.jncc.gov.uk/site/UK0012889;
m) https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0012889.pdf
n) file:///C:/Users/WATS1068/Downloads/UK0012889%20CothillFen%20SACv2018%20(3).pdf
o) https://designatedsites.naturalengland.org.uk/SiteSACFeaturesMatrix.aspx?SiteCode=UK0012889&SiteName=Cothill%20Fen%20SAC

Date: 10/02/2023

Annex 3 - Environmental Statement

Conclusions on Residual Environmental Effects	Proposed Mitigation & Monitoring Measures	Influence on Planning Decision Making
Air Quality • No significant air quality effects in relation to dust or emissions from construction traffic during construction • No significant effects in relation to traffic during operational phase	Construction: Requirement for a CEMP to be based on submitted OEMP. Dust Management Plan to be proposed. Potential need for dust monitoring during the construction process. The ES sets out that the DMP would incorporate measures such as screens, vegetating stockpiles, the type of machinery used, surfacing of haul routes, and wheel washing.	The report considers and discusses the impact of the development air quality. Recommended conditions include the mitigation and monitoring measures set out in the ES to cover: • Submission and implementation of CEMP to include a DMP.
Cultural Heritage • No significant effects on archaeological assets, historic landscape character; and designated and non-designated built heritage assets during the construction process • Significant adverse effects on archaeological remains during construction • No significant effects to heritage assets during the operational phase.	Construction: Requirement for a CEMP to incorporate measures to reduce effects to historical assets (e.g. through lighting and noise) & staged programme of archaeological works and recording. Planting and landscaping to be undertaken to reduce impact on the landscape and setting of historic assets, including to the north of Clifton Hampden Conservation Area.	The report considers and discusses the impact of the development on heritage assets. Recommended conditions include: • Submission and implementation of a CEMP to include measures to protect historic buildings during construction • A programme of archaeological works and recording to be undertaken • Archaeological works to be monitored by an Archaeological Clerk of Works • Detailed planting and landscaping plans to be submitted and implemented in accordance with approved details
Landscape and Visual Impact • Temporary significant effects on landscape during the construction phase, including adverse	CEMP to include measures to reduce and mitigate landscape and visual effects during construction	The report considers and discusses the impact of the development on landscape and visual amenity.

effects on the Site, Local Landscape Character Area (LLCA) 12 Thames Floodplain and LLCA 16 Clifton Hampden Farmland • Significant adverse visual effects during the construction phase on the following receptors: - Views from residential receptors in Didcot, South Appleford, the entrance to the Culham Science Centre, and around Clifton Hampden - Views from recreational users around the former Didcot A Power Station and Didcot B Power Station, PRoW south of Appleford, Thames Path National Trail, and PRoW around Clifton Hampden - Road users on the B4106, roads to the west of the Culham Science Centre and roads near to the entrance to the Science Centre • Temporary, significant adverse landscape effects during operation on the Site, LLCA 12 Thames Floodplain and LLCA 16 Clifton Hampden Farmland. By operational year 15, the proposed landscape planting will have	Implementation of planting and landscaping schemes	Recommended conditions include: • CEMP to include measures to reduce landscape and visual effects during construction • Detailed planting and landscaping schemes to be submitted and implemented • Landscape and Environmental Management Plan • Handover Landscape and Environmental Management Plan • Details of noise barriers and other structures to be submitted for approval • Details of lighting to be submitted for approval

established, and these effects would have reduced to a level that is not significant. • Significant adverse visual effects to the following receptors at Yr 1 of opening: - Residential receptors at South Appleford, near the entrance to Culham Science Centre and around Clifton Hampden - Recreational users of ProW south of Appleford, the Thames Path National Trail, and views from PRoW around Clifton Hampden • Significant adverse visual effects to the following receptors at Yr 15 of opening: - Residential receptors near the entrance to Culham Science Centre and around Clifton Hampden - Recreational users of ProW south of Appleford, the Thames Path National Trail, and views from PRoW around Clifton Hampden		
Biodiversity • No significant effects on designated and non-designated sites during construction.	CEMP to include measures to reduce impacts on biodiversity Creation of new and replacement habitats	The report considers and discusses the impact of the development on biodiversity. Recommended conditions include:

• No significant effects on protected or notable habitats or species during construction. • No significant biodiversity effects during operation.	through planting and landscaping schemes. Specific mitigation measures for protected species Long term biodiversity management plan	• CEMP to include measures to reduce and mitigate construction effects on biodiversity • Updated protected species surveys with specific mitigation proposals to be submitted prior to commencement • Landscape and Ecology Management Plan • Handover Landscape and Ecology Management Plan • Detailed planting and landscaping schemes to be submitted and implemented • Details of lighting to be submitted for approval • A minimum 10% biodiversity net gain to be delivered. • Long term biodiversity management plan
Noise & Vibration • Temporary significant adverse construction noise effects are anticipated at the Premier Inn (Milton Interchange); New Farm (A4130); new receptors at Valley Park; residents at Great Western Park; Hill Farm; Hartwright House and Level Crossing Cottage (between Didcot and Appleford), Appleford western edge	CEMP to include a Noise and Vibration Management Plan which contains measures to reduce and mitigate noise during the construction process. No operation of large vibratory rollers within 15 m of any building, 10 m of any building for medium rollers and 5 m of any building for small rollers, unless the vibration is turned off	The report considers and discusses the impact of the development noise and vibration. Recommended conditions include: • CEMP to include measures to reduce and mitigate noise effects during construction and noise monitoring • Submission of details of mitigation measures to limit operational noise

(Main Road, south, and Chambrai Close); a single property north-west of Appleford; residents in the eastern part of Sutton Courtenay; Zouch Farm near the A415; residents near Culham Station; Fullamoor Barns (off the A415); Fullamoor Cottages and two cottages to the east (off the A415); Culham Science Centre Nursery; Northern edge of Clifton Hampden and two properties north of Scheme north of Clifton Hampden. • Temporary significant adverse construction vibration effects are anticipated at the Premier Inn (Milton Interchange); Hill Farm, Hartwright House and Level Crossing Cottage (between Didcot and Appleford); a single property north-west of Appleford; residents near Culham Station; Fullamoor Barns (off the A415); Fullamoor Cottages and two cottages to the east (off the A415); Culham Science Centre Nursery; properties on the northern edge of Clifton Hampden and two properties north of Scheme north of Clifton Hampden • Significant adverse noise effects are predicted at the Premier Inn (Milton Interchange); Hill Farm, Hartwright House and Level Crossing Cottage (between Didcot and	Noise barriers to reduce traffic noise levels once operational. Low road noise surfacing in some parts of the development.	effects including noise barriers, low noise surfacing and other measures • Noise mitigation measures to be implemented prior to first use of the development and post-completion monitoring to ensure effectiveness.

Appleford); 19 properties along the B4016 in Appleford (south of allotments); Warren Cottage north of A415; Culham Science Centre Nursery; Fullamoor Cottages (off the A415); seven properties located on the northern edge of Clifton Hampden; two properties locate north of Clifton Hampden; and four properties located near to the Golden Balls roundabout. • Significant beneficial noise effects are predicted at 57 properties along the existing A4130 in Didcot; 79 properties located close to the B4016 in Appleford; 228 properties and one educational building located in Sutton Courtenay and Culham; nine properties on the A415 east of Culham Station; 91 properties, three community facilities, one medical building and one school in Clifton Hampden; 207 properties in and close to Long Wittenham, and three community facilities and one school; and 75 properties in Burcot.		
Geology and Soils • Temporary significant adverse effects on agricultural land during construction of the Scheme due to the loss of 19.1ha of BMV agricultural land • Permanent significant adverse effects on agricultural land during construction of the Scheme due to the loss	CEMP to include an Earthworks and Remediation Strategy, Materials Management Plan and Soil Management Plan.	The report considers and discusses the impact of the development on agricultural land and soils. Recommended conditions include: CEMP to include strategies for the management of earthworks and remediation, materials, and soils.

of 39.4ha of BMV agricultural land • No significant effects occurring as a result of the operation of the development		Post-completion reinstatement of BMV agricultural land on land used temporarily for construction purposes.
Material Assets & Waste • No significant effects on material assets and waste during the construction process • No significant effects on material assets and waste as a result of the operation of the development	SWMP to include measures to minimise and manage waste arisings CEMP to include materials management plan.	The report considers and discusses the sustainable use of materials. Recommended conditions include: CEMP to include materials management strategy and SWMP
Population and Health • Significant beneficial, permanent, effects to one designated employment site (known as EZ2: D-Tech) • Significant adverse, temporary and permanent, effects to one site with a planning application for business or commercial use. • Significant adverse, temporary and permanent, effects to one existing business (Appleford Sidings and associated minerals land). • Significant adverse, temporary and permanent, effects to three agricultural land holdings. • Significant adverse, temporary and permanent, effects to one PRoW (known as Route 24, National Cycle Network Route 5). • Significant beneficial effects on community facilities across the study area due to improved connectivity.	CEMP to include measures to temporarily divert ProW during the construction process. Measures to manage noise, dust and air quality as set out in those specific chapters.	The report considers and discusses the impact of the development on noise and vibration, air quality, recreation and open space, PRoW, and access and movement. Recommended conditions are set out to cover noise, vibration, dust and air quality effects. A CEMP would also include measures to divert and manage PRoW during the construction process.

• Significant beneficial effects on two strategic housing development sites (known as North-West of Valley Park and Valley Park) due to improved connectivity across the study area. • Significant beneficial effects on two walking and cycling routes (the route between the Valley Park development site and Southmead Industrial Estate and the route between Culham Station and CSC), due to the introduction of new pedestrian and cycling infrastructure. • Significant beneficial effect to one site with a planning application for business or commercial use due to improved access and connectivity.		
Road Drainage & The Water Environment • No significant effects to the water environment during construction • No significant effects once the development is operational	The CEMP to include measures to mitigate risk to surface and ground water Water Quality Monitoring during construction process Drainage systems and culverts to be subject to routine inspection and maintenance.	The report considers and discusses the impact of the development of drainage and flooding. Recommended conditions include: CEMP to include measures to reduce risk to surface and ground water quality, including monitoring Bridges and viaduct to be constructed in accordance with approved details Detailed surface water drainage scheme to be submitted and implemented as approved, including details of monitoring and maintenance
Climate • No significant effects with regards to changes	Measures to reduce greenhouse gas emissions during construction and to mitigate climate vulnerability	The report considers and discusses the impact of the development climate change and resilience.

in greenhouse gas emissions • No significant effects with regards to flood risk, temperature extremes affecting workers and construction processes. • No significant effects regarding changes in greenhouse gas emissions are likely to occur during operational development. • No significant effects regarding the vulnerability of the development to climate change	effects to be included in CEMP SWMP to be set out sustainable waste management principles. Energy efficient lighting to be installed and lighting reduced to a minimum	Recommended conditions include: Carbon management plan to be submitted prior to commencement. SWMP to be submitted prior to commencement as part of CEMP
Transport • No significant construction effects • Significant beneficial effect once operational due to reductions to driver delay at several key junctions in the area. • Significant beneficial, temporary, effect once operational due to changes to accidents and road safety during the opening year. In the future, as the traffic levels on the Scheme increases, this effect will reduce to a level that is not significant. • Significant beneficial effect once operational due to reductions in delay to bus services through the introduction of highway improvements	CTMP to be submitted prior to the commencement of the development.	The report considers and discusses the impact of the development on all transport modes. Recommended conditions include: CTMP to be submitted prior to the commencement of each phase of the development
Cumulative Effects • Short term, significant cumulative effects on surface water and groundwater during construction as a result of the Scheme and development on the site	No additional mitigation is proposed beyond that set out in individual environmental topic chapters above.	Conditions are included to cover impacts listed in individual chapters outlined above.

of the former Didcot A Power Station. • Significant beneficial cumulative effects as a result of improvements to access and connectivity to the surrounding area. • Significant adverse cumulative effects as a result of losses to best and most versatile land as a result of the development and development at Valley Park. • Significant beneficial cumulative effects as a result of Scheme and development at Valley Park through the introduction of new pedestrian routes and cycleways across the area located south of the A4130. • Temporary significant combined effect from construction noise and vibration at the Premier Inn (Milton Interchange) and Hill Farm. • Temporary significant combined effect from visual intrusion, construction noise and vibration at Hartwright House, Level Crossing Cottage; Culham Station; and a single residential receptor north of the A415 at Culham Station; Fullamoor Barns; Culham Science Centre Nursery; Fullamoor Cottages and two properties east of Fullamoor Cottages; and two properties on the		

northern edge of the Clifton Hampden. • Temporary significant combined effect from visual intrusion and construction noise at New Farm; residents at Great Western Park; residents in the eastern part of Sutton Courtenay; Zouch Farm; and two properties north of Clifton Hampden.		

Annex 4 – Consultation Responses Summary

Vale of White Horse District Council

1. The most recent comments received from VoWH District Council were received in June 2023. They state that the District Council supports the application and that the proposed infrastructure will assist in delivering the housing and employment growth identified in the VoWH Local Plan 2031 Parts 1 and 2. Without the proposed development, planned new growth is unlikely to be delivered. The following technical comments were also made:

2. Bridges: In response to this council's comment that the Science Bridge should be a landmark feature as envisaged in the Didcot Garden Town Delivery Plan (the DGTDP), paragraph 3.3 of the Aecom EIA Regulation 25 response states *"Given the recent plans for large monolithic data centres and warehousing immediately north of the Science bridge the appropriateness of a 'spectacular bridge' structure may now be inappropriate".* Perceived *"large monolithic"* structures justify a 'spectacular bridge' design to enhance the approach to Didcot.

3. The design of the River Thames Crossing between Didcot and Culham is not revised. Appendix G (Oversized bridge examples) of the Reg 25 response, provide little confidence that the bridge will an attractive feature or sensitive to its rural setting.

4. The NPPF places great weight on good design. Paragraph 126 of the NPPF expects *"The creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities".* The bridge designs by reason of their concrete materials, massing, unbroken grassed banks, lack of vertical landscaping on the approaches to the Science Bridge and on the banks of the bridge will result in them being an unspectacular and visually intrusive feature comprising poor design contrary to paragraphs 126, 130 and 131 of the NPPF, core policies 37 and 44 of the Local Plan 2031 Part 1 and the Didcot Garden Town Delivery Plan.

5. Tree and Hedge Planting: The DGTDP envisages Didcot as a "*super green town prioritising green infrastructure including tree lined streets"*. This aligns with the principles of core policies 44 and 45 of the Local Plan 2031 Part 1 and paragraph 131 of the NPPF. The widened A4130 is a key gateway to Didcot. To aspire to the DGTDP vision, the A4130 needs to be judiciously tree and hedge lined. Tree and hedge planting is necessary to screen the road in views from new housing proposed on the southern side of the A4130 e.g. Valley Park, and act as a noise buffer. Trees and hedges should visually separate the road from the cycle and pedestrian paths alongside the road.

6. The planting comprising shrub planting and occasional trees is weak and will not achieve the aims above or the expectation in paragraph 131 of the NPPF that streets should be tree lined. A comparison of the landscaping and street lighting plans shows that street lighting conflicts with the proposed locations of trees and even more so if OCC requires 10m gaps between lighting columns and trees.

Consequently, landscaping will be further weakened. The proposed landscaping is considered inadequate to address the expectations of the DGTDP, core policies 44 and 45 of the Local Plan and paragraph 131 of the NPPF.

7. Street Lighting: Street lighting continues to be shown extending north of Didcot beyond Hartwright House (OX14 4PJ) when there appears to be no overriding need for it particularly as this is a rural area whereby the lighting will be intrusive

8. Acoustic Barriers and Noise: Acoustic barriers of unspecified height but possibly 2 or 3 metres in height, beside the road leading from Didcot to the River Thames Crossing will be visually intrusive in this primarily rural area. Given the comments made by the council's Environmental Protection Team (see below), whereby a number of residents of affected dwellings will experience significant adverse effects despite acoustic barriers and given the visually intrusive appearance of the acoustic barriers, this authority questions the suitability of the road alignment between Didcot and the Thames Crossing and consideration should be given to moving the road further west.

9. Environmental Protection Team Comments (Noise & Vibration): Aecom's response indicates that there is little further that can be done to mitigate the noise impacts of the proposed development. This suggests that there will remain a number of properties which will experience a significant adverse impact from this development but will not benefit from the Noise Insulation Regulations 1975. The decision process will have to balance this negative impact against any benefits that the development is expected to bring

10. Forestry Team Comments: A Revised Arboricultural Impact Assessment Addendum dated April 2023 has been submitted. This report sets out the changes to the proposal and how the revisions impact on trees. The report still identifies that the proposal will require a very significant amount of tree removal and will reduce canopy cover significantly. It is therefore essential that new planting is maximised as part of the scheme. The preliminary landscape masterplans submitted still do not show the level of detail required to be able to scrutinise the mitigation planting in detail. Considering the extensive tree removal proposed for this application, very considerable amounts of tree planting will be required. This is essential to ensure that the scheme delivers a net increase in canopy cover to address environmental issues such as climate change and carbon sequestration, as well as the landscape and amenity benefits required to be achieved for this project. If planning permission is to be granted, then conditions will be required to secure tree protection measures (Arboricultural Method Statement and Tree Protection Plans) in accordance with BS 5837:2012 and conditions to secure planting and its long term management, to ensure that the planting becomes successfully established to help mitigate the tree removal

11. Landscape Architect Comments: Holding objection. The extent of planting mitigation proposed remains inadequate, as noted in previous comments. There has been very little increase in planting compared to the previous proposals, limited to a hedge and some individual trees. In a number of places where vegetation has been removed, there is a reference that the landowner of allocated sites will provide this replacement as part of yet unknown planning applications.

It is essential that HIF1 mitigates for its impacts. The submitted response to landscape comments shows a lack of willingness to include even otherwise unusable areas of land for planting to help with mitigation. These awkward spaces will be of no use to the landowner, but to use them for additional planting would be beneficial in helping to screen the road and better integrate the scheme into the landscape and replace lost vegetation. This approach to landscape mitigation is reflected throughout the proposals, resulting in a scheme where the extent of mitigation appears to have been predominantly limited to the operational land take, rather than defined by an assessment of landscape and visual mitigation requirements. The landscape plans still do not include sufficient information to enable a proper understanding of the scheme, such as embankments and cuttings, and vegetation removed. There is also an excessive amount of gravel access paths which circle the Suds features (in some cases 7m wide paths), this limits the design of the Suds features and the ability to integrate them into the landscape further highlighting their highly engineered design. Where the scheme abuts the Valley Park Vale of White Horse Local Plan housing allocation, the proposed drainage basins will abut or overlap the housing schemes SUDs basins and will not leave any space for mitigation planting. I am unsure why there is no roadside hedgerow provided north of the Valley Park site (on the southern side of the road, sheet 2), but hedgerow is provided further to the east near the entrance to the Valley Park site and the Science Bridge.

12. Previously, the Vale of White Horse District Council stated it has no objections in principle as providing this vital infrastructure will assist in delivering the housing and employment growth identified in the Vale of White Horse Local Plan 2031 Parts 1 and 2. Without this proposed infrastructure planned new growth is unlikely to be delivered. High level observations from technical specialists are set out as follows:

13. Strategic Planning: During the first round of consultation, it was stated that the planning application includes highways infrastructure and measures to support active travel that will benefit existing residents in the District and enable the delivery of the new homes across the Vale allocated in the development plan. The scheme will support the delivery of allocated housing sites including sites at East of Sutton Courtenay, Milton Heights, Valley Park and North West of Valley Park. It is essential to enable jobs growth at key employment sites in the area. This project provides important support to the economic and social prosperity of Science Vale UK, one of the first Enterprise Zones. It is home to one of the largest science based research and knowledge clusters in Western Europe, based around Harwell (space sector), Culham Science Centre (nuclear fusion), and Milton Park (life sciences). These sites are subject to significant public and private investment and creating thousands of jobs.

14. Consent for this planning application is required to deliver infrastructure necessary to provide homes for the growing highly skilled workforce required by the world leading businesses and their supply chains. The employment land allocations linked to this infrastructure in the VoWH P1 and P2 include Didcot Power Station, Harwell Campus and Milton Park.

15. This proposal will therefore deliver key transport infrastructure, relieve congestion and improve connectivity in our districts, to unlock the new homes and jobs required for Oxfordshire to grow as a thriving economy. In addition to supporting new housing and employment growth, it will also help alleviate current congestion issues in and around Didcot Garden Town. In conclusion these schemes will provide essential support for the development coming forward in the Vale Local Plans and are important for the delivery of key housing and employment sites. This application is supported in principle by Local Plan policies.

16. Development Management: Paragraph 5.94 of the VoWH P1 recognises the strategic importance of the highways schemes in the Science Vale Area Strategy and explains that *"Local authorities have been working together through the Oxfordshire Growth Board and the Oxfordshire Local Enterprise Partnership to identify funding mechanisms for this infrastructure to secure its delivery. As part of this work the package has been identified as one of the top priority projects within the Oxfordshire Local Investment Plan".* Core Policy 17 lists the highway improvements required and these include the infrastructure proposed in this planning application. Policy CP18 of the LPP1 safeguards land to support the delivery of these road schemes. In principle the proposals are supported by the VoWH P1 which forms part of the Development Plan.

17. Policy CP16b VoWH P2 requires proposals for development within the Didcot Garden Town Masterplan Area to demonstrate how they positively contribute to the achievement of the Didcot Garden Town Masterplan Principles. The Didcot Garden Town Delivery Plan (the DGTDP) is a material consideration. It seeks to reduce travel by private motor vehicle and encourage more sustainable modes of travel including journeys by public transport, cycling and walking. This is also the thrust of policies CP33 and CP35 of the LPP1. For the A4130, defined by the DGTDP as The Gateway Spine, it envisages improvements *"to deliver a spectacular arrival experience into Didcot from the east, the west or the station - enhancing first impressions of the town. Movement along the east-west corridor will be enhanced with three key projects: infrastructure improvements to carriageways, cycle and footpaths, a SuDS scheme along its length and a public art programme to enhance neglected bridges and underpasses".* These ambitions are supported by policies, CP33, CP35, CP37 and CP42 of the VoWH P1 and policies CP16a and DP20 of the VoWH P2

18. The DGTDP explains that improving the arrival experience into Didcot as well as accommodating multi modal infrastructure to enhance this key corridor must be a key aim of the HIF1 proposals. Improvements would allow a separate lane for public transport vehicles and potentially for autonomous vehicles. It is disappointing that this vision and aim is not met with the proposal favouring private vehicle movements over sustainable modes of travel. The proposals contain limited information on how SUDS will be designed including to benefit biodiversity or how public art can be incorporated into the scheme. Presently the proposals appear to conflict with policies CP42 and CP46 of the VoWH P1 and policy DP20 of the VoWH P2.

19. The DGTDP envisages Didcot as a "*super green town prioritising green infrastructure including tree lined streets"*. This aligns with the principles of core

policies CP44 and CP45 of the Local Plan. The widened A4130 is a key gateway to Didcot. To aspire to the DGTDP vision the A4130 needs to be tree and hedge lined and opportunity taken to plant trees in the central reservation. The proposals lack ambition in this respect.

20. Tree and hedge planting will help screen the road in views from new housing on sites allocated for housing on the southern side of the A4130 and act as a noise buffer. Trees and hedges should visually separate the road from the cycle and pedestrian paths alongside the road. Street lighting is excessive with much of its proposed in spaces shown on the landscaping plans for hedge and tree planting. It is questionable as to whether adequate tree planting could be secured as a consequence. Judicious landscaping is crucial in providing some mitigation for the carbon footprint of the proposals, in reducing their landscape and visual impacts and some compensation for biodiversity impacts.

21. The Science Bridge should be a landmark feature as envisaged in the DGTDP. The design is mediocre, uninspiring and will not meet the aims of the DGTDP.

22. To prevent increased visual intrusion in the rural area, street lighting should not extend north of Didcot beyond Hartwright House.

23. The design of the River Thames Crossing between Didcot and Culham is disappointing. The concrete supporting columns, mass of concrete retaining walls and acoustic barrier on the bridge will be incongruous and intrusive features in the landscape particularly in views from the Thames path. 3m high acoustic barriers beside the road leading from Didcot to the River Thames Crossing are likely to be visually intrusive. Please note the discrepancy between plans with the cross section plan sheet 5 of 6 showing a 3m high noise barrier whereas the River Crossing Structures GA and Proposed Elevations plan sheet 1 of 3 showing a 1.5m high barrier.

24. All maintenance areas and tracks should be of an absolute minimum width necessary for maintenance vehicle access and should be surfaced in grasscrete or similar to allow vegetation to grow through and limit their visual impact.

25. The cycle and pedestrian ways beside the roads is welcomed and provide sustainable links between Didcot and villages to the north as well as linking the town and residential areas with employment sites at its northern and western edges.

26. During the second round of consultation, the Development Management Team maintained that the design of the proposed bridges, by reason of their concrete materials, massing, unbroken grassed banks, lack of vertical landscaping on the approaches to the Science Bridge and on the banks of the bridge will result in them being an unspectacular and visually intrusive feature comprising poor design contrary to paragraphs 126, 130 and 131 of the NPPF, core policies 37 and 44 of the VoWH P1 and the DGDTP.

27. It was also stated that the proposed landscaping remains inadequate to address the expectations of the DGTDP, core policies 44 and 45 of the Local Plan and

paragraph 131 of the NPPF and that there appears to be no overriding need for lighting north of Hartwright House which would be visually intrusive in the rural area. Acoustic barriers of unspecified height but possibly 2 or 3 metres in height, beside the road leading from Didcot to the River Thames Crossing would be visually intrusive in the rural area.

28. Finally, it was stated that given the comments made by the EPO (see below) whereby a number of residents of affected dwellings will experience significant adverse effects despite acoustic barriers and given the visually intrusive appearance of the acoustic barriers, VoWHDC questions the suitability of the road alignment between Didcot and the Thames Crossing and consideration should be given to moving the road further west.

29. Environmental Protection Officer: During the first round of consultation, the EPO noted that 38 residential and two non-residential properties would be subject to Significant Observable Adverse Effect by the operation of this scheme, but only two properties that are likely to qualify under the Noise Insulation Regulations 1975. The Officer queried how it is proposed that the identified significant adverse impact will be mitigated for those properties not qualifying for assistance under the Noise Insulation Regulations.

30. It was also noted that during the construction phase, a number of properties have been identified that will suffer Significant Observable Adverse Effect and vibration annoyance. The construction environmental management plan must identify specific, achievable and measurable steps to minimise noise and vibration impacts.

31. During the second round of consultation, it was noted that the applicant indicates that there is little further that can be done to mitigate the noise impacts of the proposed development. This suggests that there will remain a number of properties which will experience a significant adverse impact from this development but will not benefit from the Noise Insulation Regulations 1975. The decision process will have to balance this negative impact against any benefits that the development is expected to bring.

32. In the third round of consultation, the EPO stated that the acoustic report identifies that there are a number of properties that will experience a significant loss of amenity and for which there is no further cost-effective mitigation available. This negative impact ought to be balanced with positive impacts on noise exposure that the proposed scheme will provide at other locations. Therefore, the EPO does not object to the scheme but recommends that a condition be applied requiring a Construction Noise and Vibration management Plan is submitted and approved prior the commencement of the development, which may form part of a wider CEMP.

33. Contaminated Land Officer: The content of the relevant reports satisfactorily address the requirements for submission to the LPA. There is no objection to the development from a contaminated land perspective. However, it is evident that further investigations are required and that remediation is likely in some areas. Conditions are recommended to include a phased risk assessment prior to the

commencement of the development and the management of unexpected contamination.

34. Forestry: During the first round of consultation, the Forestry Officer raised concerns about the quality of the AIA and the assessment of the impact on trees.

35. During the second round of consultation, the Forestry Officer noted that whilst some of the initial concerns raised had been addressed by amendments to the application documents, some concerns still remained. Drainage plans had been amended in the vicinity of veteran tree T424 as requested, however, there still appears to be construction works proposed within the RPA/buffer of this tree which remains contrary to BS 5837:2012, Forestry Commission and Natural England standing advice and Section 180 of the NPPF. The updated preliminary landscape masterplans submitted, still do not show the level of detail required to be able to scrutinise the mitigation planting in detail, to determine whether or not the proposed planting will mitigate the proposed tree loss. Considering the extensive tree removal proposed for this application, very considerable amounts of tree planting will be required. This is essential to ensure that the scheme delivers a net increase in canopy cover to address environmental issues such as climate change and carbon sequestration, as well as the landscape and amenity benefits requirement to be achieved for this project. Many of the landscape masterplans submitted appear to show very limited levels of tree planting along the route of the proposed road.

36. The officer concludes that the development is contrary to VoWH P1 Core Policies 37 and 44, NPPF Paragraphs 131 and 180 and BS 5387:2012 Trees in Relation to Design, Demolition and Construction.

37. Landscape Architect: During the first round of consultation, the officer noted that there was inconsistent information submitted as part of the application with regards to the extent of level changes, tree and vegetation removal and how this was represented on and mitigated for within the scheme and the Landscape Masterplans. Overall, the proposed mitigation to the road was limited, and in many places hadn't been designed to link into the existing landscape pattern to help to integrate the road into the landscape. Embankments in many places needed to grade out more softly and to better fit the topography rather than using a standard 1 in 3 gradient.

38. It was recommended that additional work is undertaken on mitigation planting and that the scheme should create new woodland in line with the governments aims and be designed to fit in with the existing landscape pattern. Softer gradients are required for the embankments. Further detailed technical comments were also provided.

39. During the second round of consultation, the Landscape Architect stated that there have been very limited changes to the proposals, largely restricted to a few more individual trees and areas of planting, such that previous comments generally still apply.

40. The extent of planting mitigation proposed remains inadequate. Information submitted shows there would be over 5000m2 more tree cover lost than planted, which is not acceptable. This would be contrary to Core Policy 44 of the VoWH P1, which states that development will only be permitted where it protects and where possible enhances features that contribute to the nature and quality of the landscape, including trees, woodlands, hedgerows and field boundaries. Hedges have not been included in the figures, but loss and replacement of these should also be quantified. The opportunity to plant more woodland in line with the Government's aim to plant more trees is lost.

41. Overall, the proposed mitigation to the road is limited, and hasn't been designed to link into the existing landscape pattern to help to integrate the road into the landscape. Embankments in many places need to grade out more softly to better fit the topography, rather than using standard 1 in 3 gradients. The use of false cutting should be considered in preference to acoustic barriers, also where this would help assimilate the road rather than cutting across the grain of the landscape.

42. The landscape plans do not include sufficient information to enable a proper understanding of the scheme, such as embankments and cuttings, vegetation removed, and in some instances existing vegetation retained. In the AIA reports many areas of retained vegetation on the TPP are caveated that 'final extent of tree removals to be determined following site clearance works and setting out of the scheme. Trees retained where feasible".

43. Conservation Officer: The Conservation Officer noted that Chapter 7 of the ES accurately identifies the designated and non-designated heritage assets likely to be impacted within VoWH. Appendix 7.1 to the ES also provides a gazetteer of cultural heritage assets which captures the assets relevant to the scheme. There is no objection in respect of potential impacts for the settings of heritage assets in VoWH.

44. Countryside Officer: During the first round of consultation, the Countryside Officer noted that the proposed development would cross areas of low ecological value (former power station, arable land) and high ecological value (reedbeds, lakes, rivers, woodland). The proposed bridge crossing over the River Thames has been designed to be a clear span structure, which avoids direct impacts to the river channel itself. The position of supports and piles would be approximately 7m away from the top of the bank and would have some impacts on the riparian zone either side of the watercourse. The river crossing is not proposed to be lit. "Hop over" planting is proposed to mitigate against mortality and severance impacts on commuting and foraging bats. Detailed planting is not proposed at this stage and the efficacy of such an approach described.

45. Great crested newt (GCN) surveys have concluded that impacts on the species are unlikely. Surveys concluded absence in waterbodies previously known to support GCN. OCC has their own GCN district level licence and the proposed development would impact habitats within the red and amber zones of the GCN impact risk map. OCC should consider utilising their own GCN district level

licence to ensure that impacts on GCN are adequately mitigated and compensated.

46. The proposed development would involve direct and indirect impacts on waterbodies and aquatic habitats of high ecological value (ponds, lakes, reedbeds, etc.). It is likely that development, particularly around the Culham Finger Lakes, will require the draining of waterbodies, which are known to support protected species. This approach would require the capture and translation of species (e.g. European eel) from the waterbodies. It is not clear whether a receptor site has been identified for captured species. This matter should be confirmed prior to the grant of any permission.

47. Initial habitat surveys were conducted in January 2020, at a time of year unsuitable to determine botanical assemblage. Certain areas of the site were resurveyed in June 2020, related to changes in the red line area. The PEA recommends that further botanical surveys are undertaken at a suitable time of year to ensure that habitats, particularly grassland habitats near to the Culham Science Campus (known to support acid grassland, recorded as improved grassland), are adequately recorded. This would have impacts on the biodiversity net gain (BNG) assessment.

48. The BNG assessment has not provided justification for pre or post development habitat conditions. These should be justified against the technical supplement habitat condition tables. The BNG assessment appears to take into account habitats proposed as part of minerals restoration agreements (e.g. Hanson Restoration Area). These areas of habitat creation have been agreed separately and should not be accounted for as benefits of the scheme. Indeed, in areas where previously agreed habits would be lost in these areas, the target condition of those habitats should be accounted for as if they were existing at the time of development. It has been concluded that development will deliver a calculated 11% net gain for habitat units, 13% gain for hedgerow units and 1% net gain for river units. In the absence of part 6 of the Environment Act 2021 taking force, this level of gain would be compliant with the NPPF.

49. Habitat creation proposals within the Valley Park residential development site will need to accord with detailed proposals which have not yet been submitted.

50. The proposed development is likely to result in adverse impacts on roosting, foraging and commuting bats. Tree lines, particularly those close to the River Thames and other waterbodies have been demonstrated to have high levels of use by foraging and commuting bats. The habitats and levels of bat activity on site have been assessed as being of County importance. OCC, in determining the application, should be satisfied that the adverse impacts of the proposed development can be adequately avoided, mitigated or compensated to ensure that the favourable conservation status of the local bat population is not prejudiced by the development. Specific mitigation details, such as hop over planting adjacent to roads, has not been described in detail and as such it is not clear whether mitigation measures would be adequate to ensure no impacts.

Impacts on designated sites are unlikely as reasonable impact pathways do not

exist.

Details documents (landscape and biodiversity management plans, biosecurity management plans, construction environmental management plans, etc.) will need to be secured.

51. During the second round of consultation, the officer noted that the only matter previously raised that has been potentially addressed is the biodiversity metric assessment. Other matters raised are not explicitly addressed in this latest submission / amendment. The updated BNG assessment document has concluded that development can likely achieve a net gain for biodiversity. This conclusion is based upon the assumption that high value (distinctiveness) habitats will be retained and enhanced as a result of development. OCC should be satisfied that the habitat creation and enhancement proposals contained within the Outline Landscape and Biodiversity Management Plan are sufficient (and practically deliverable) to meet the relevant condition criteria of the 3.1 metric for each habitat.

52. Air Quality Officer: The Air Quality Officer initially requested that a detailed Air Quality Assessment should be submitted in order to fully assess the air quality impacts of the development. In subsequent correspondence with your officers, the Air Quality Officer confirmed she had reviewed the submitted AQA and had no comments to make on the application.

South Oxfordshire District Council

53. The most recent comments received from SODC were received in June 2023. They state that the District Council continues to support the principles of the proposals as the infrastructure will assist in delivering the housing and employment growth identified in the South Oxfordshire Local Plan 2035. Without this proposed infrastructure planned new growth is unlikely to be delivered and therefor the council has no objection in principle to the proposal. The following planning matters should be assessed ahead of any permission given. Previous comments provided by this council in its response dated December 2022 remain applicable and further observations on the amendments are set out below

54. Landscape Officer Comments: The extent of planting mitigation proposed remains inadequate, as noted in previous comments. There has been very little increase in planting compared to the previous proposals, limited to a hedge and a limited number of individual trees. Other than a commitment to agree the colour of acoustic barriers, these seem to be the only changes made, leaving most previous comments unaddressed. It is very disappointing that no significant changes have been made at the Culham Science Centre entrance which remains a major concern. The response to landscape comments contained in Appendix C shows a lack of willingness to include even otherwise unusable areas of land for planting to help with mitigation. As shown on the extract from the application documents below, these awkward spaces will be of no use to the landowner, but to use them for additional planting would be beneficial in helping to screen the road and better integrate the scheme into the landscape. This approach to landscape mitigation is reflected throughout much of the scheme, resulting in a

scheme where the extent of mitigation appears to have been largely limited to within the engineering land take, rather than defined by an assessment of landscape and visual mitigation requirements. The landscape plans still do not include sufficient information to enable a proper understanding of the scheme, such as embankments and cuttings, and vegetation removed.

55. Forestry Officer: These comments are in relation to the amendments made to the application and should be read in addition to previous comments. A Revised Arboricultural Impact Assessment Addendum dated April 2023 has been submitted. This report sets out the changes to the proposal and how the revisions impact on trees. The revised changes to the scheme allow for the retention of more trees than the previous proposals, as it set out at section 3.2, which is welcomed. As shown this includes the retention of all trees subject to a TPO and in the Conservation Area, that were previously effected. The revised plans now also ensure no works are proposed within the root protection area of T424 a veteran tree. The report still identifies that the proposal will require a very significant amount of tree removal and will reduce canopy cover significantly. It is therefore essential that new planting is maximised as part of the scheme. The preliminary landscape masterplans submitted still do not show the level of detail required to be able to scrutinise the mitigation planting in detail. Considering the extensive tree removal proposed for this application, very considerable amounts of tree planting will be required. This is essential to ensure that the scheme delivers a net increase in canopy cover to address environmental issues such as climate change and carbon sequestration, as well as the landscape and amenity benefits required to be achieved for this project. If planning permission is to be granted, then conditions will be required to secure tree protection measures (Arboricultural Method Statement and Tree Protection Plans) in accordance with BS 5837:2012 and conditions to secure planting and its long term management, to ensure that the planting becomes successfully established to help mitigate the tree removal.

56. Conservation Officer: The revised detailing, specifically with regard to lighting and proposed planting and landscaping schemes, has been enhanced based on an understanding of the surrounding context - with regard to heritage assets. The updated Heritage Chapter of the Environmental Statement and the proposed lighting plans show that in association with heritage assets there will be increased lighting in the wider area but when considered in the context of existing lighting near to heritage receptors this will not cause a significant harmful impact. The replacement and new planting schemes have been further detailed on the proposed plans. I suggest that a suitably worded condition is used in the grant of any permission to agree final details of proposed planting to ensure it can perform the required level of mitigation needed. This should include the proposed final detailing for the appearance of acoustic noise barriers.

57. Overall, there is likely to be some minor detrimental impact to the significance of heritage assets as a result of large infrastructure development in their wider setting. This is considered to be to the setting of the Clifton Hampden Conservation Area but will be a minor impact to the northern side of the designated area and is likely to be mitigated by enhanced landscaping and acoustic mitigation.

58. The impacts to Fullamoor Farmhouse are now better understood and the lighting strategy and planting proposals reflect this. Upon completion there will be a reduction in vehicular impacts as the main road is moved further away from the building and although lighting in the area will increase, this is set further from the building than existing street lighting. I consider that the detail submitted is suitable to understand the likely impacts of the proposed infrastructure works. It is recommended that if you are minded to approve the plans, suitable conditions should be applied to agree the final details of planting and acoustic barriers where these serve to mitigate impacts on heritage assets.

59. In conclusion, I consider that there would be less-than-substantial harm to the significance of Fullamoor Farmhouse and the Clifton Hampden Conservation Area during the construction phases, at the lower end as this is still some distance away from any direct impacts and in the context of existing road infrastructure. I believe on completion this harm is likely to have significantly reduced to no harm as the infrastructure would take vehicles and lighting further away from the heritage assets than existing providing a moderate benefit as long as the acoustic and landscape mitigation proposed can be achieved.

60. Environmental Protection Officer (Noise and Vibration): The acoustic report submitted in support of the application identifies that there are a number of properties that will experience a significant loss of amenity and for which there is no further cost-effective mitigation available. This negative impact ought to be balanced with positive impacts on noise exposure that the proposed scheme will provide at other locations. I therefore offer no objection to the scheme but recommend that a condition be applied requiring that a Construction Noise and Vibration Management Plan be submitted and approved in writing prior to the commencement of the development. Such a plan may form part of a wider Construction Environmental Management Plan.

61. Previously, SODC stated that it supports the principle of the proposals. It is stated the proposed highways infrastructure and measures to support active travel will benefit existing residents and enable the delivery of the new homes across the District that are allocated in the SOLP. The proposals will provide vital infrastructure that is essential for the delivery of around 3,500 new homes on land adjacent to Culham Science Centre and 1,700 new homes on land at Berinsfield Garden Village. The scheme will also provide infrastructure for more than 6,000 homes that have / will be delivered in Didcot between 2011 and 2035. The highways infrastructure is essential to enable jobs growth at key employment sites in the area. This project provides important support to the economic and social prosperity of Science Vale UK, including two Enterprise Zones. It is home to one of the largest science-based research and knowledge clusters in Western Europe, based around Harwell (space sector), Culham Science Centre (nuclear fusion), and Milton Park (life sciences). These sites are subject to significant public and private investment and generate thousands of jobs.

62. Consent for this planning application is required to deliver infrastructure necessary to provide homes for the growing highly skilled workforce required by the world leading businesses and their supply chains. The employment land

allocations linked to this infrastructure in South Oxfordshire include Culham Science Centre, Didcot and Berinsfield. This proposal will therefore deliver key transport infrastructure, relieve congestion and improve connectivity in SODC, and unlock the new homes and jobs required for Oxfordshire to grow as a thriving economy. It will also help alleviate current congestion issues in and around Didcot Garden Town. These schemes will provide essential support for the development coming forward in the SOLP and are important for the delivery of key housing and employment sites. Without this proposed infrastructure planned new growth is unlikely to be delivered. The principle of this development is therefore supported by our current Local Plan policies.

63. A summary of the further observations made by SODC is as follows:

64. Planning: During the first round of consultation, it was stated that the proposed infrastructure schemes are a key component of the SOLP and as stated in policy STRAT3, infrastructure will need to be in place to enable sites allocated in the Local Plan in and around Didcot to be delivered. To enable the delivery of these key transport infrastructure schemes, policy TRANS3 safeguards land to ensure that any proposals for development do not prejudice the delivery of the road schemes. Policy TRANS1b of the SOLP outlines measures that the council will take to support strategic transport investment and this includes working with OCC to support the development and delivery of the proposed road schemes. Together, these policies demonstrate the importance of the proposed road schemes to achieve the vision and objectives of the Local Plan. It is also important that the details of the scheme are appropriate to meet the aspirations of the Local Plan to deliver high quality, innovative and well-designed developments that respect the scale and character of our towns and villages and enhance the special character of our historic settlements and the surrounding countryside.

65. The proposals should demonstrate how they positively contribute to the achievement of the Didcot Garden Town Masterplan Principles. The DGTDP is a material consideration, and the following feedback is provided in relation to the design of the proposals: For the A4130, defined by the DGTDP as The Gateway Spine, it envisages improvements *"to deliver a spectacular arrival experience into Didcot from the east, the west or the station - enhancing first impressions of the town. Movement along the east-west corridor will be enhanced with three key projects: infrastructure improvements to carriageways, cycle and footpaths, a SuDS scheme along its length and a public art programme to enhance neglected bridges and underpasses".* The DGTDP explains that improving the arrival experience into Didcot as well as accommodating multi modal infrastructure to enhance this key corridor must be a key aim of the HIF1 proposals. Improvements could allow a separate lane for public transport vehicles and potentially for autonomous vehicles. It is disappointing that this vision and aim is not met with the proposal favouring private vehicle movements over sustainable modes of travel.

66. The DGTDP envisages Didcot as a *"super green town prioritising green infrastructure including tree lined streets".* The widened A4130 is a key gateway to Didcot. To aspire to the DGTDP vision the A4130 needs to be tree and hedge

lined with opportunities taken to plant trees in the central reservation. The proposals lack ambition in this respect. Tree and hedge planting will help screen the road in views from new housing on sites allocated for housing on the southern side of the A4130 and act as a noise buffer. Trees and hedges should visually separate the road from the cycle and pedestrian paths alongside the road. Street lighting is excessive with much of it proposed in spaces shown on the landscaping plans for hedge and tree planting. It is therefore questionable as to whether adequate tree planting could be secured. Judicious landscaping is crucial in providing some mitigation for the carbon footprint of the proposals, in reducing their landscape and visual impacts and some compensation for biodiversity impacts. To prevent increased visual intrusion in the rural area, street lighting should not extend north of Didcot beyond Hartwright House.

67. The Science Bridge should be a landmark feature as envisaged in the DGTDP. The proposed design is mediocre, uninspiring and will not meet the aims of the DGTDP. The design of the River Thames Crossing between Didcot and Culham is also disappointing. The concrete supporting columns, mass of the concrete retaining walls and acoustic barrier on the bridge will be incongruous and intrusive features in the landscape particularly in views from the Thames path.

68. The proposals contain limited information on how SUDS will be designed including to benefit biodiversity or how public art can be incorporated into the scheme. Further information is required in relation to these matters.

69. The proposed 3m high acoustic barriers beside the road leading from Didcot to the River Thames Crossing are likely to be visually intrusive. Please note the discrepancy between plans with the cross-section plan sheet 5 of 6 showing a 3m high noise barrier whereas the River Crossing Structures GA and Proposed Elevations plan sheet 1 of 3 showing a 1.5m high barrier.

70. All maintenance areas and tracks should be of an absolute minimum width necessary for maintenance vehicle access and should be surfaced in grasscrete or similar to allow vegetation to grow through and limit their visual impact.

71. The cycle and pedestrian ways beside the roads are welcomed and provide sustainable links between Didcot and villages to the north as well as linking the town and residential areas with employment sites at its northern and western edges.

72. During the second round of consultation, the Planning Officer maintained that the design of the proposed bridges, by reason of their concrete materials, massing, unbroken grassed banks, lack of vertical landscaping on the approaches to the Science Bridge and on the banks of the bridge will result in them being an unspectacular and visually intrusive feature comprising poor design contrary to paragraphs 126, 130 and 131 of the NPPF and the DGDTP.

73. It was also stated that to align with the DGDTP vision, the A4130 needs to be judiciously tree and hedge lined. Trees and hedges should visually separate the road from the cycle and pedestrian paths alongside the road. The planting comprising shrub planting and occasional trees is weak and will not achieve the

aims of the DGDTP or the expectation in paragraph 131 of the NPPF that streets should be tree lined.

74. A comparison of the landscaping and street lighting plans shows that street lighting conflicts with the proposed locations of trees and even more so if OCC insists on 10m gaps between lighting columns and trees. Consequently, landscaping will be further weakened.

75. Landscape Officer: During the first round of consultation, the Landscape Officer noted inconsistencies in the information submitted with regards to the extent of level changes, tree and vegetation removal and how this was represented on and mitigated for within the scheme and the Landscape Masterplans. Concerns were raised about whether the design of the link road and entrance to the Culham Science Centre minimises the impact of the scheme on existing trees and vegetation located to the south and east of the Science Centre. This vegetation has considerable benefits in reducing the landscape and visual impact of Culham Science Centre.

76. Overall, the proposed mitigation was considered to be limited and, in many places is hadn't been designed to link into the existing landscape patter to help integrate the road into the landscape. Embankments in many places need to grade out more softly to better fit the topography rather than using a standard 1 in 3 gradience.

77. It was recommended that additional work is undertaken on mitigation planting and the opportunity taken to create more woodland in line with the Government's aims and be designed to fit in with the existing landscape patters. Softer gradients are required for the embankments.

78. During the second round of consultation, the Landscape Officer stated that the extent of planting mitigation proposed remains inadequate. Information submitted shows there would be over 5000m2 more tree cover lost than planted, which is not acceptable. No figures are given for hedgerows and the loss and replacement of these should also be quantified. There has been very little increase in planting compared to the previous proposals. The proposal is therefore contrary to policy ENV1 of the SOLP, which states that development will only be permitted where it protects and where possible enhances features that contribute to the nature and quality of the landscape, including trees, tree groups, woodlands, hedgerows and field boundaries. The opportunity to plant more woodland in line with the Government's aim to plant more trees is lost.

79. Overall, the proposed mitigation to the road is limited, and hasn't been designed to link into the existing landscape pattern to help to integrate the road into the landscape. Embankments in many places need to grade out more softly to better fit the topography, rather than using standard 1 in 3 gradients. The use of false cutting should be considered in preference to acoustic barriers, also where this would help assimilate the road rather than cutting across the grain of the landscape.

80. There appears to have been no consideration of alternative options at the Culham Science Centre site entrance. This remains a significant concern. Current proposals result in an unacceptable loss of mature trees which are important in mitigating the impact of development within the Culham Science Centre site, and the complicated road arrangement, limit opportunities to mitigate this. Important groups of trees are also lost along Thame Lane. All these trees currently help provide softening of the Science Centre especially in views from the south. Their loss will result in additional adverse impact to that of the road, due to opening up views of the Culham Science Centre site.

81. The landscape plans do not include sufficient information to enable a proper understanding of the scheme, such as embankments and cuttings, vegetation removed. The mitigation planting still needs further work and the opportunity to create woodland should be taken. Softer gradients are required for the embankments and the use of false cutting should be considered.

82. Forestry Officer: The Forestry Officer initially raised concerns about the quality of the AIA and impact on trees.

83. During the second round of consultation, the Forestry Officer noted that whilst some of the initial concerns raised had been addressed by amendments to the application documents, some concerns still remained. Drainage plans had been amended in the vicinity of veteran tree T424 as requested, however, there still appears to be construction works proposed within the RPA/buffer of this tree which remains contrary to BS 5837:2012, Forestry Commission and Natural England standing advice and Section 180 of the NPPF. The updated preliminary landscape masterplans submitted, still do not show the level of detail required to be able to scrutinise the mitigation planting in detail, to determine whether or not the proposed planting will mitigate the proposed tree loss. Considering the extensive tree removal proposed for this application, very considerable amounts of tree planting will be required. This is essential to ensure that the scheme delivers a net increase in canopy cover to address environmental issues such as climate change and carbon sequestration, as well as the landscape and amenity benefits requirement to be achieved for this project. Many of the landscape masterplans submitted appear to show very limited levels of tree planting along the route of the proposed road.

84. The Officer concludes that the development is contrary to SOLP Policies ENV1m ENV2, DES1 and DES2, NPPF Paragraphs 131 and 180 and BS 5387:2012 Trees in Relation to Design, Demolition and Construction.

85. Conservation Officer: During the first round of consultation, the officer stated that the ES accurately identifies the designated and non-designated heritage assets likely to be impacted by the proposed infrastructure scheme. Appendix 7.1 of the ES provides a gazetteer of cultural heritage assets which captures the assets relevant to the scheme in South Oxfordshire.

86. Of particularly high sensitivity owing to the nature of the assets and the proximity to majors works are: Culham Road Bridge, the Culham Station Ticket Office and associated buildings that are listed Grade II and Grade II* respectively as well as

some non-designated assets that form part of this group; Fullamoor Farmhouse, a grade II listed building; Clifton Hampden Conservation Area and Nuneham Courtenay Registered Park and Garden (RPG) and designated Conservation Area.

87. The assets most susceptible to harmful change to their setting are those in the vicinity of the works that extend from the A415 rail crossing to the northern end of the proposed Clifton Hampden bypass. These comments focus on those aspects of the proposals. There is no direct physical impact proposed to any of the designated heritage assets. I have no objection to the proposed layout of the junctions or route on this basis as I do not consider there are alternatives that would result in less of an impact.

    Lighting is likely to be one of the biggest changes to the context of all these assets. At present there is very little street lighting across the existing route network that surrounds the Culham Station assets, Fullamoor Farmhouse or Clifton Hampden Conservation Area and the listed buildings within it. The nature of Nuneham Courtenay RPG is that some areas are more susceptible to impact from this proposal than others. The southern areas of the RPG will be more exposed to changes from lighting that erodes the sense of the area being rural than those to the north and on the higher ground above the river. The bypass is not proposed to be lit which will mitigate some of the impact to the wider setting of both the Nuneham Courtenay RPG and CA as well as the Clifton Hampden CA.

88. The ES indicates that lighting is proposed from the rail bridge on the A415 to the new junctions that provide CSC access and onward travel to the bypass. This lies to the north-west of Fullamoor Farmhouse. Specific mitigation should be provided to preserve the dark and rural setting of the farmhouse. Chapter 7 of the ES does not specifically assess Fullamoor Farmhouse which lies a similar distance from the new junction into Culham as the GWR Station buildings that have been assessed. This is an oversight and more detailed assessment of the impact on this heritage asset should be undertaken to ensure the proposal is fully informed by an understanding of the likely impacts and appropriate mitigation is incorporated into the scheme

89. The conclusion of Chapter 7 of the ES is that some harm to the designated heritage assets is likely to arise as a result of the proposals. This is considered to be less-than-substantial under the tests of paragraphs 202 and 203 of the NPPF. I agree with this assessment as the impact of necessary lighting at the new junctions will alter the existing rural character of the area, compromising the experience of the assets in a rural setting, in particular this affects Nuneham Courtenay RPG and Clifton Hampden Conservation Area.

90. The impacts to Fullamoor Farmhouse have not been fully considered as a result of the omission of a detailed assessment of this heritage asset from Section 7.10 of Chapter 7 of the ES. Without this additional assessment that would directly inform potential mitigation, the impact of the proposed new roundabout on the A415 that provides access to CSC and the bypass is considered highly likely to

cause harm to the Listed Building contrary to paragraphs 199 and 200 of the NPPF and SOLP Policy ENV7.

91. Following the receipt of additional information provided by the application, the Conservation Officer commented that although the ES had been updated in part to consider impacts to Fullamoor Farmhouse, references to supporting figures are not supported by updated Chapters of the Environmental Statement – in particular Chapter 10.

92. There are no detailed updates to proposed mitigation now that the Farmhouse has been included within the assessment. Likewise, the more detailed acoustic assessments do not appear to have been provided with this latest update to the documents. The proposed acoustic noise barrier to the west of the Clifton Hampden and the edge of the village conservation area is an unfortunate solution and it does not appear to be supported by justification or alternatives that would have less potential visual impact.

93. The revised Lighting and Landscaping plans do not provide adequate assurances of appropriate mitigation in the setting of listed buildings and the conservation areas. The existing entrance to CSC is characterised by the mature tree-scape and hedge-scape and the proposed new planting around the new much larger junction does not appear on the plans to offer adequate replacement. Given the raised levels of the road at the new entrance to the CSC, which will in turn raise the height of street lighting here, the replacement planting needs to be a genuine mechanism for enhancing the appearance of the area.

94. It is also noted that representations have been made concerning the impact during construction on the listed Fullamoor Farmhouse. Given the level of vibration impact required to damage a listed building (see *Design Manual for Roads and Bridges* and IHBC publication *Context May 2015*) the works will be sufficiently distanced from the listed building not to impact likely shallow foundations. The impact of noise during construction would not result in harm to the significance of the designated heritage asset. This is likely a valid amenity issue for the occupants but the temporary nature of this would result in the reinstatement of the existing roadside character of the farmhouse, albeit with traffic actually further removed from the main house.

95. It is concluded that there is still insufficient detail to understand the impacts of proposed lighting on the significance of heritage assets or the potential success of mitigation proposed**.** The plans do not indicate that a suitable landscaping scheme can be employed here to offer mitigation nor has consideration of options that remove the need for embankment and raised road levels been provided.

96. The proposed works are considered likely to cause harm to the Listed Building of Fullamoor Farmhouse as a result of development within its setting that would erode its overall significance. The impact of acoustic barriers on the wider setting of Clifton Hampden Conservation Area is also a material planning consideration and could be improved with further design consideration.

97. The officer stated that it may be possible to address concerns and mitigate some identified impacts, but the detail required has not been provided and as such the proposals remain contrary to paragraphs 199 and 200 of the NPPF and policies ENV6, ENV7 and ENV8 of the SOLP.

98. Countryside Officer: During the first round of consultation, the Countryside Officer noted that the proposed development would cross areas of low ecological value (former power station, arable land) and high ecological value (reedbeds, lakes, rivers, woodland). The proposed bridge crossing over the River Thames has been designed to be a clear span structure, which avoids direct impacts to the river channel itself. The position of supports and piles would be approximately 7m away from the top of the bank and would have some impacts on the riparian zone either side of the watercourse. The river crossing is not proposed to be lit. "Hop over" planting is proposed to mitigate against mortality and severance impacts on commuting and foraging bats. Detailed planting is not proposed at this stage and the efficacy of such an approach described.

99. Great crested newt (GCN) surveys have concluded that impacts on the species are unlikely. Surveys concluded absence in waterbodies previously known to support GCN. OCC has their own GCN district level licence and the proposed development would impact habitats within the red and amber zones of the GCN impact risk map. OCC should consider utilising their own GCN district level licence to ensure that impacts on GCN are adequately mitigated and compensated.

100. The proposed development would involve direct and indirect impacts on waterbodies and aquatic habitats of high ecological value (ponds, lakes, reedbeds, etc.). It is likely that development, particularly around the Culham Finger Lakes, will require the draining of waterbodies, which are known to support protected species. This approach would require the capture and translation of species (e.g. European eel) from the waterbodies. It is not clear whether a receptor site has been identified for captured species. This matter should be confirmed prior to the grant of any permission.

101. Initial habitat surveys were conducted in January 2020, at a time of year unsuitable to determine botanical assemblage. Certain areas of the site were resurveyed in June 2020, related to changes in the red line area. The PEA recommends that further botanical surveys are undertaken at a suitable time of year to ensure that habitats, particularly grassland habitats near to the Culham Science Campus (known to support acid grassland, recorded as improved grassland), are adequately recorded. This would have impacts on the biodiversity net gain (BNG) assessment.

102. The BNG assessment has not provided justification for pre or post development habitat conditions. These should be justified against the technical supplement habitat condition tables. The BNG assessment appears to take into account habitats proposed as part of minerals restoration agreements (e.g. Hanson Restoration Area). These areas of habitat creation have been agreed separately and should not be accounted for as benefits of the scheme. Indeed, in areas where previously agreed habits would be lost in these areas, the target condition

of those habitats should be accounted for as if they were existing at the time of development. It has been concluded that development will deliver a calculated 11% net gain for habitat units, 13% gain for hedgerow units and 1% net gain for river units. In the absence of part 6 of the Environment Act 2021 taking force, this level of gain would be compliant with the NPPF.

103. Habitat creation proposals within the Valley Park residential development site will need to accord with detailed proposals which have not yet been submitted.

104. The proposed development is likely to result in adverse impacts on roosting, foraging and commuting bats. Tree lines, particularly those close to the River Thames and other waterbodies have been demonstrated to have high levels of use by foraging and commuting bats. The habitats and levels of bat activity on site have been assessed as being of County importance. OCC, in determining the application, should be satisfied that the adverse impacts of the proposed development can be adequately avoided, mitigated or compensated to ensure that the favourable conservation status of the local bat population is not prejudiced by the development. Specific mitigation details, such as hop over planting adjacent to roads, has not been described in detail and as such it is not clear whether mitigation measures would be adequate to ensure no impacts.

    Impacts on designated sites are unlikely as reasonable impact pathways do not exist.

    Detailed documents (landscape and biodiversity management plans, biosecurity management plans, construction environmental management plans, etc.) will need to be secured.

105. During the second round of consultation, the officer noted that the only matter previously raised hat has been potentially addressed is the biodiversity metric assessment. Other matters raised are not explicitly addressed in this latest submission / amendment. The updated BNG assessment document has concluded that development can likely achieve a net gain for biodiversity. This conclusion is based upon the assumption that high value (distinctiveness) habitats will be retained and enhanced as a result of development. OCC should be satisfied that the habitat creation and enhancement proposals contained within the Outline Landscape and Biodiversity Management Plan are sufficient (and practically deliverable) to meet the relevant condition criteria of the 3.1 metric for each habitat.

106. Air Quality Officer: The Air Quality Officer initially requested that a detailed Air Quality Assessment should be submitted in order to fully assess the air quality impacts of the development. In subsequent correspondence with your officers, the Air Quality Officer confirmed she had reviewed the submitted AQA and had no comments to make on the application.

107. Environmental Protection Officer: During the first round of consultation, the EPO noted that 38 residential and two non-residential properties would be subject to Significant Observable Adverse Effect by the operation of this scheme, but only two properties that are likely to qualify under the Noise Insulation Regulations

1975. The officer queried how it is proposed that the identified significant adverse impact will be mitigated for those properties not qualifying for assistance under the Noise Insulation Regulations.

108. It was also noted that during the construction phase, a number of properties have been identified that will suffer Significant Observable Adverse Effect and vibration annoyance. The construction environmental management plan must identify specific, achievable and measurable steps to minimise noise and vibration impacts.

109. During the second round of consultation, it was noted that the applicant indicates that there is little further that can be done to mitigate the noise impacts of the proposed development. This suggests that there will remain a number of properties which will experience a significant adverse impact from this development but will not benefit from the Noise Insulation Regulations 1975. The decision process will have to balance this negative impact against any benefits that the development is expected to bring.

110. In the third round of consultation, the EPO stated that the acoustic report identifies that there are a number of properties that will experience a significant loss of amenity and for which there is no further cost-effective mitigation available. This negative impact ought to be balanced with positive impacts on noise exposure that the proposed scheme will provide at other locations. Therefore, the EPO does not object to the scheme but recommends that a condition be applied requiring a Construction Noise and Vibration management Plan is submitted and approved prior the commencement of the development, which may form part of a wider CEMP.

111. Contaminated Land Officer: The content of the relevant reports satisfactorily address the requirements for submission to the LPA. There is no objection to the development from a contaminated land perspective. However, it is evident that further investigations are required and that remediation is likely in some areas. Conditions are recommended to include a phased risk assessment prior to the commencement of the development and the management of unexpected contamination

Neighbouring Parish Councils Joint Planning Committee (NPCJC)

(NB. Members of the NPCJC are: Appleford PC, Sutton Courtenay PC, Culham PC, Nuneham Courtenay PC, and Burcot and Clifton Hampden PC)

112. A number of detailed responses have been received from NPC-JC through the course of the application process. Most recently, in June 2023, NPC-JC confirmed it objects to the planning application on a number of grounds. The comments made and suggested reasons for refusal are summarised as follows:

113. Construction Programme and Timetable
The Regulation 25 request dated 31 March 2023 is seeking information on project delivery and confirmation of the 'validity 'of the proposed construction programme referencing conditions, boundaries between parts, 'drawings' and the implications of project delay and timeframe for conclusions on environmental effects. AECOM

fails to answer or address these questions and invokes the Rochdale Envelope without providing any analysis or explanation to avoid addressing the matters raised. Please refer to the Planning Inspectorate's advice note (#9). This refers to the Government National Planning Policy Statement (NPS) on assessment of proposed developments.

114. AECOM fails to provide a viable 'project management plan for the development showing work within the scheme boundaries proposed. The three constituent parts of the scheme are to be constructed simultaneously by separate contractors, starting in July 24 with the road opening to traffic in 2026. Three separate contractors will have to interface, yet there is no risk analysis to demonstrate how potential issues that are bound to arise will lead to escalation of costs and delays in completion of the project as a whole. No evidence is provided that the work can be delivered in the 30-month timeframe suggested without any explanation for a 6-month delivery reduction. AECOM recites previous submissions with a 'worse case 'of 36 months, amended to 35 months and now reduced to 30 months. This improvement in delivery timescale is not explained in their response. We draw your attention to the Major Infrastructure Capital Programme information presented at Cabinet on 24 Jan 2023 as the "Latest Forecast" for HIF1 representing project expenditure and timings. This shows construction expenditure for project delivery from 2023-24 to 2026-27, a project timeline of 36 months and expected completion by Dec-26 (open to traffic). It is inconceivable that in just two months, the HIF1 scheme is now expected to complete six months earlier than previously forecast.
115. AECOM invoke the Rochdale Envelope (RE), but does not state in the Environmental Statement the nature of the uncertainties, and how the flexibility sought has been taken into account, nor why it is required? The RE is meant to apply where some details of the whole project have not been confirmed. It is not intended as a reason to avoid flexing the Project Plan because of a delay in the start date. Flexing project plans in MS Project or other planning tools is a normal project management task. The Rochdale Envelope should not be used as an excuse (ref para 2.3 of the guidance) to avoid providing necessary information and timelines to make an assessment on a range of ES matters. It should not be used to mask an unexplained reduction in the project timeline (ref para 5.2). The Reg 25 response should clarify which elements have been identified as uncertain and if the Rochdale Envelope applies to other documents or mitigations? We further note the caveat at para 5.4 which states that the ES has been prepared on best available knowledge at the time of writing. This suggests possible deficiencies and that the underlying information may not be a sound basis for decision making. The scale of the HIF1 project warrants a high degree of confidence that the scheme can be delivered on time to enable relevant assessments to be made.

116. Noise and Vibration: The errors in the noise assessment remain. These major deficiencies as detailed in the NPC- JC objection report dated 5th May 2022 remain unanswered. The noise report in the Environmental Statement is an unsafe basis for granting planning approval to the HIF1 road scheme.

117. The HIF1 Scheme remains non-compliant with local plan policies of the Vale of White Horse District Council and South Oxfordshire District Council, SODC Local

Plan 2035 Policy ENV12 (3) and Local Plan Policy DES6 VoWH Development Policy 23 Impact of Development on Amenity. These policies require that a development should not result in significant adverse impact on human health. No adequate noise assessment has been undertaken to convincingly demonstrate that all significant adverse cumulative noise impacts to adjacent communities along the length of the proposed HIF1 road have been identified. Where significant adverse impact has been identified, such as at Appleford, the true extent of the severity has not been admitted and no alternative road alignment has been investigated to select the least harmful. The HIF1 scheme fails to meet the requirements of national planning policy and guidance. The scheme does not meet the NPPF requirement that it should "mitigate and reduce to a minimum potential adverse impacts resulting from noise… and avoid noise giving rise to significant adverse impacts on health and the quality of life". Note: Significant Observed Adverse Effect Level (SOAEL) is likely to cause material change in behaviours, attitude, or other physiological responses where the quality of life is diminished where there is a change to the acoustic character of the area.

118. The noise assessment fails to meet the requirements of the DfT Transport Analysis Guidance (webTAG) 2014 due to its failure to consider alternatives to the road in the ES and to its alignment to ensure a balanced transport provision with least impact on existing communities. It fails to meet the aims of the Noise Policy Statement for England and fails to match the requirements of PPG on Noise as it fails to take account of "how the noise (source) relates to the existing sound environment" and "the local arrangement of buildings, surfaces and green infrastructure, and the extent to which it reflects or absorbs noise" and fails to recognise that "In cases where existing noise sensitive locations already experience high noise levels, a development that is expected to cause even a small increase in the overall noise level may result in a significant adverse effect occurring even though little to no change in behaviour would be likely to occur. It fails to follow PPG requiring that "Noise Action Plans Important Areas (NAPIA) should be taken into account". The NAPIA at Appleford as identified by DEFRA, has been ignored in the assessment of the adverse noise effect of the HIF1 road. Flaws in the applicant's noise assessment are highlighted.

119. Landscape & Lighting: We support the comments by the Principal Major Planning Officer (Vale of WH) that acoustic barriers 2 or 3 meters in height are visually intrusive and that the area including the section Didcot to River Thames Crossing is rural in nature. The scheme will have three major visual impacts that conflict with the character of the area and run counter to policy.

- The Science Bridge will have a major visual impact on the local landscape. There is nothing distinct or appealing about its design or appearance
- The Elevated Road and Flyover Bridge at Appleford has a negative visual impact and is an unjustified imposition on the local community, including from the Wittenham Clumps which is set within an Area of Outstanding Natural Beauty (AONB) and is a site of Site of Special Scientific Interest (SSSI). It is visually intrusive and will bring additional noise and vibration to the local area, with light spill from moving traffic polluting local dark skies. The road will overlook the village and is physically too close to

resident dwellings. It will be damaging to human health and wellbeing (mentally and physically).

- The Double Roundabout at Culham Science Centre is not appropriate to a country area and will change the whole character of the surrounding locality

120. Mitigation: It is not possible to mitigate against the impact of traffic noise in various locations acknowledged as "significant adverse". These are detrimental to the health and wellbeing of residents and cannot be mitigated to within tolerable limits.

121. Arboriculture: The HIF1 scheme requires an area of 155 hectares (383 acres). This is the equivalent to the loss of over 200 football pitches removed from the natural environment to be given over to road use. There is a discrepancy between the area quoted in the planning application dated 4 Oct 2021 (155 hectares) and the CPO information (127 hectares) published some months ago. This should be explained. The biodiversity and environmental impact from tree loss is significant, particularly in Clifton Hampden, and to a lesser extent at Appleford. In total circa three (3) miles of hedgerow will be lost along the nine- mile length of the road. Eighty (80%) of the tree loss due to the HIF1 scheme will be in Clifton Hamden that will change the landscape and natural character of the village. In Appleford 33% of tree groups (incl. 2 partial woodlands) will be lost. The impact on biodiversity along with the visual impact of the tree, hedgerow and canopy loss will denude the landscape and change the nature of the area forever.
We cannot understand how the loss of 383 acres for road use along with the loss of so many trees and hedgerow can result in a biodiversity net gain as claimed by AECOM.

122. Location and Design of Appleford Sidings Bridge: NPC-JC objects to the location and design of the bridge at Appleford Sidings. This section provides NPC-JC's response to the Memo issued by AECOM on 13th April 2023 to OCC Development Management in relation to Appleford Siding Bridge. The AECOM memo responds to the question put by OCC planning officer "Please provide a non-technical explanation of why the extended deck area is required for the proposed Appleford Sidings bridge and further information about alternative designs that were considered and the reasons they were discounted". On 20th January 2023 NPC-JC replied to the regulation 25 response issued by OCC on 13th November 2022 on the bridge, road design and landscaping. NPC-JC's January 2023 report describes the deficiencies of the bridge design that fails to achieve the objectives of the National Planning Policy Framework (NPPF) paragraph 126 (quality & engagement) and paragraph 157 (mitigating climate change). Paragraph 134 of the NPPF applies to this bridge design; "Development that is not well designed should be refused". The Vale of White Horse DC planning team, in a response of 22 December 2022 stated that the poor design of the 3 bridges in the scheme runs contrary to paragraph 126, 130, & 131 of the NPPF and contrary to core policies 37, 44, of the local plan 2031 part 1 and the Didcot Garden Town Delivery Plan. The details of the failure of the location and design of the HFI road bridge over Appleford rail sidings remain as cited in NPC-JC's January 2023 report.

AECOM's memo of 13th April 2023 fails to address the serious consequences of the location and design defects.

123. The HIF1 road and bridge is located adjacent to a Noise Action Plan Important Area, identified by DEFRA as a location already suffering excessive noise and which should be avoided. OCC's duty is to seek to reduce noise impact. The HIF1 scheme and bridge will do the opposite by increasing noise well above tolerable thresholds at this location. The structure is within 60m of the nearest dwellings in Appleford. The tunnel design and noise reflecting concrete surfaces will focus siding rail noise on these dwellings. The noise implications of the combination of rail noise, bridge reflection, and superimposed HIF1 traffic noise have not been investigated by the applicant. To attempt to mitigate the HIF1 traffic noise a 3m high noise barrier is proposed on top of the bridge parapet. No investigation has been undertaken of the inevitable reflection, from this barrier towards these dwellings, of rail noise from Appleford sidings and main line rail traffic. The sidings branch and main line lie between the proposed bridge and the dwellings. The concrete structure topped with a noise barrier more than 10m above adjacent gardens will dominate the western outlook and skyline of the adjacent dwellings, and be seen from local landmarks, such as the Wittenham clumps. The skewed inefficient bridge structure is wasteful in materials, with large areas of redundant concrete deck. This design results in excessive CO_2 consequences and is excessive in scale adding to its intrusive and unsightly appearance.

124. Alternative Alignment: The planning team of the Vale of White Horse DC state that due to the fact that "residents of affected dwellings will experience significant adverse effects despite acoustic barriers" and "the visually intrusive appearance of the acoustic barriers, consideration should be given to moving the road further west". A viable alternative road alignment further west, for the road and bridge over Appleford Sidings is available, see figure 1. This alignment would not require a skewed bridge design which would result in a more efficient smaller bridge structure. The road's further distance away from dwellings in Appleford would reduce the noise impact and provide the offset distance for other landscape-based noise attenuation. A comparison of noise environment of both alignments need to be undertaken to allow a selection of the route alignment that minimises the noise impact on nearby dwellings.

125. Climate Emissions: The predicted CO_2 emissions resulting from the construction and operation of the HIF1 scheme are contained in the Environmental Statement (ES) Vol 1 Chapter 15, September 2021, with subsequent Regulation 25 responses. OCC Environment Team commissioned a review of these documents by SNC- Lavalin/Atkins, dated 15th February 2023. A significant conclusion within the ES is that there will be a reduction in operational CO_2 emissions if the HIF1 road is built due to reduction in traffic congestion and journey times. This statement is based on flawed assumptions. A summary of the defects in this assessment was issued to the Planning Department on 19th January 2023 by Friends of the Earth as a response to R3.0138/21. This cites the detailed analysis contained in the report, dated January 2023, "THE HIF1 road proposal; is this plan compatible with Oxfordshire goals?". This remains the most accurate and comprehensive assessment of the flaws in the ES statement on CO2 emissions, briefly summarised as:

- The traffic modelling fails to account for induced demand caused by the HIF1 road. As new roads encourage more car dependent unban developments, this increased car use leads to an increase in carbon emissions.
- The traffic modelling assumes that traffic increases on existing roads, without HIF1, will rise at the same rate, leading to congestion. This ignores the evidence base that driver behaviour, traffic management, public transport will modify predicted congestion.

126. The ES overestimates the level of congestion without the Scheme and overestimates the improvement in congestion with the Scheme. It therefore overestimates the potential carbon savings from reduced congestion. Using best available data, the operation of the HIF1 scheme would lead to increases in carbon emissions estimated at 359kt CO2 by 2050. It is also clear that the cited benefit in traffic flow will not be realised. This is recognised in OCCs LTCP "However, we have found that road schemes often generate new demand and quickly reach capacity again. It is therefore not a sustainable long- term solution for Oxfordshire's transport network". The HIF1 is an unsuitable solution to enable long-term sustainable housing growth in South Oxfordshire.

127. Conclusion: The EIA Regulation Response (April 23) fails to provide sufficient clarification on the matters raised and for the reasons outlined above and other objections submitted previously the HIF1 application should not be approved. NPC-JC continue to question the validity of the traffic assessment which ignores induced demand and has scoped out the impact on key locations such as Milton A34 junction and hinterland on the western side, Drayton Road / Sutton Courtenay, A415 and Abingdon, and Nuneham Courtenay / A4074. AECOM fails to prove the validity of the proposed Construction Programme as requested. There is no explanation to justify the 6-month reduction in the delivery schedule. The failure to provide a summary Project plan (3 Parts) is a major omission. Moreover, the use of the Rochdale Envelope without explanation or analysis is contrary to government policy and guidance. The discrepancy between AECOMs 30-month plan (for the largest development undertaken by OCC) and the Capital Programme requires explanation.

128. The HIF1 scheme remains non-compliant with national planning policies including NPPF & NPSE and a raft of local policies (Vale & SODC). The standout features – Science Bridge, Flyover at Appleford and Double roundabout are not suitable for their locations and will change the character of the area (Appleford & Clifton Hampden) from country to urban.

129. Mitigation at key pinch points is inadequate and will not reduce the traffic noise (understated in the ES). The design and location do nothing to add to the quality of life for residents as required by NPPF. Significant adverse impacts will detract from the quality of life and enjoyment of homes and gardens.

130. The loss of trees, tree canopy, hedgerow and land taken from the natural environment for road space will damage the biodiversity permanently. We

cannot see any basis for a net gain as claimed. Climate damage is understated (benefits overstated). The plan runs counter to OCCs adopted LTCP policies and will fail to achieve a reduction in car usage (1 in 4 trips by 2030 & 1 in 3 by 2040).

131. There are too many flaws and deficiencies in the HIF1 application, and it should be rejected.

January 2023 Response

132. An objection was also received in January 2023 which include a number of detailed which commented on the TA/modelling, air quality, green belt and landscape, noise, design and alternatives. The stated grounds for objection in January 2023 are provided in summary form below:

133. Prematurity: In our Interim objection dated 13 June 2022 we made reference to the NPPF para 49 which sets out a basis for the refusal of substantial developments which could undermine emerging plans. Whilst the Oxfordshire 2050 Plan has now been dropped, carbon reduction targets will now be the responsibility of SODC and VoWHDC. At the time of writing there is no reason to believe that the targets set out in the 2050 Plan, as well as the visions, aims, objectives and policies of that Plan will not be replicated at a District level in order to meet national carbon reduction targets. Consequently, our arguments in respect of the HIF1 scheme undermining such targets remain valid. A similar case was made in respect of the then emerging LTCP. This has been adopted since the Regulation 25 request for further environmental information was made by the applicant to its consultants AECOM. The LTCP refers at various points to "part 2" of the LTCP. This is a reference to a further stage of the LTCP and will include the development of "area and corridor transport strategies". These strategies are referred to explicitly in Policy 52 of the LTCP which states these area transport strategies as a "benefit for people in Oxfordshire", as they will put the transport user hierarchy into practice and deliver schemes that put human health first. The improvement of walking, cycling, public and shared transport infrastructure will help the LTCP to "create healthy communities across Oxfordshire." Clearly, if the HIF 1 scheme is approved this will have the effect of wholly undermining the delivery of part 2 of the LTCP and the aspirations of Policy 52.

134. In addition, the Government has very recently announced that it is dropping housing targets set by central government, permitting local planning authorities to set their own targets. A revised version of the NPPF is currently subject to consultation and it is anticipated that it will be adopted in Spring 2023. The consultation draft includes proposals to review Housing Delivery Tests, and a relaxation of 5year Housing Land Supply (HLS) targets, whilst placing greater emphasis on sustainability in all areas, including housing and infrastructure. It was noted in our previous interim objection that the VoWHDC has reviewed its housing figures resulting in a 32% reduction across the district. SODC is due to review its housing figures in 2025. In light of the Government's announcement, it is highly likely that this review will now need to be brought forward. A substantial reduction in housing over the plan period will have significant bearing on the purported justification for HIF1 and the calculations upon which the Transport

Assessment (TA) are based. A 32% reduction in housing across the scheme area significantly reduces the need for the scheme, whilst simultaneously increasing the 5 year housing land supply in both districts, enabling the district authorities to meet housing targets more easily without the scheme. Any reduction in housing figures will also have impacts on the traffic modelling of the scheme. 32% less new dwellings should result in a pro rata reduction in vehicle movements. This reduction has not been factored into the TA, which is now clearly out-of-date. At the very least the model should be re-run using the new housing figures available. For these reasons this scheme should be refused on the grounds of prematurity, or at the very least put on hold until the District Councils have reviewed their housing targets for the plan periods.

135. Local Transport and Connectivity Plan: The LTCP, was adopted by OCC in July 2022. As such, the LTCP is a material consideration to which significant weight should be afforded in the determination of this current application. Conflict with the aims, objectives and policies set out in the LTCP should result in the refusal of planning permission of the scheme. The adopted LTCP sets out a series of targets. They include: By 2030 to replace or remove 1 out of every 4 current car trips in Oxfordshire; and by 2040 to deliver a zero-carbon transport network and to replace or remove 1 out of every 3 current car trips in Oxfordshire. The Plan aims to achieve these targets through a combination of transport policies focussed on the promotion of walking and cycling, investment in strategic public transport, improving multi-modal travel and making sustainable travel more attractive. The adopted LTCP will be wholly undermined by the HIF1 scheme, as will Part 2 of the LTCP which will involve the development of area wide strategies.

136. Health Impact Assessment: The LTCP requires a Rapid or Full Health Impact Assessment (HIA) to be submitted for larger-scale infrastructure proposals in order to deliver health benefits and to mitigate any negative impacts. No HIA has been submitted with this application, as the scope of the ES was agreed with OCC as part of the EIA Scoping process. The EIA Scoping process would have been undertaken well in advance of the drafting of the original ES submitted in support of the application, is now out of date and has been superseded by the new LTCP. There is no good reason why an HIA could not have been undertaken and submitted under the Reg 25 response. Public Health England (PHE) published a guide for local authority public health and planning teams entitled "Health Impact Assessment in spatial planning" in October 2020. This sets out clear guidance on why HIAs are necessary, when they should be undertaken and what processes should be followed. Further, the guide is informed by the NPPF and PPGs on healthy and safe communities. Any failure to follow the HIA guidance is equally a failure to comply with the requirements of the NPPF and PPGs. The failure to produce an HIA represents a clear, unequivocal breach of Policy 9 of the LTCP. It is, by extension, a failure to comply with guidance set out in the NPPF and PPGs and further represents a significant defect in the Environmental Impact Assessment of the scheme.

137. Climate Change Position Statement: On 18th February 2022 the Joint Parish Councils requested, inter alia, that a Climate Change Position Statement be produced to accompany the planning application in order to assess the climate change related impacts of the scheme having regard to the cumulative effects of

Greenhouse Gas emissions of the scheme. In its response dated 23rd March 2022 AECOM stated that:
"a Climate Change Position Statement comprising a cumulative impact assessment of greenhouse gas emissions is not required." Notwithstanding this, on 26th April 2022 OCC requested that this information be provided (see OCC Regulation 25 request), setting out the further information required in detail, including measures to reduce embodied carbon emissions during construction and operation. AECOM has now, albeit reluctantly, produced what purports to be a Climate Change Position Statement, Appendix K. Para 2.2 of App K makes reference to mitigation measures that should, if implemented, result in reductions of embodied carbon and emissions. However, it then states: *It should be noted that currently, and at the point of submitting the ES, a Principal Contractor (PC) has not been appointed and it has not been confirmed if these measures are deliverable."* Such a stance is wholly unacceptable, and completely negates the purpose of the Reg 25 request. The effect of failing to confirm the deliverability of mitigation measures prior to planning permission being granted flies in the face of government policy on climate change and is a clear breach of the requirements of the EIA Regulations 2017. It also represents a clear breach of Policy 27 of the LTCP.

138. Principle of the Development and Local Plans: The adopted Development Plan (DP) comprises the South Oxfordshire Local Plan 2036 (SOLP) and the Vale of White Horse Local Plan 2031 (VoWHLP). The Planning Statement (PS) submitted by AECOM in support of this application lists the relevant DP policies at pages 29-32. It is not proposed to repeat that list here. In normal circumstances planning applications should be determined in accordance with the DP unless material considerations dictate otherwise (see NPPF para 47). Whilst it is acknowledged that a number of adopted plan policies support the principle of the HIF1 scheme, including TRANS3 of the SOLP and Core Policy 18 of the VoWHLP, these policies now need to be considered and afforded due weight in the context of a radically different policy environment. LTP4 which was heavily relied upon by OCC to provide policy justification for the scheme, but this has now been replaced by the LTCP, and the previous LTP cannot be afforded any weight in planning terms.

139. Whilst it is trite to state that Development Plans and national policy guidance such as the NPPF should be taken as a whole, it should be borne in mind that specific proposals should be considered against the policy context taken as a whole. There will be tensions and conflicts between DP policies and many development schemes will not fully meet policy requirements. The planning balancing exercise is therefore unavoidable, and if harms outweigh benefits even in cases where land has been safeguarded for a particular purpose such as here, then planning permission must be refused. In any event, a safeguarding policy is precisely that, it is prohibitive of development that could prejudice development identified in an adopted plan, but it does not provide either in principle support for a specific planning application or a presumption in favour of development simply by dint of the fact that a scheme falls within the broad scope of a safeguarding policy. Both Local Plans make numerous references to the need to reduce carbon emissions significantly over the plan period.

140. Traffic Modelling: The shortcomings of the Paramics model utilised by AECOM are not repeated here. In addition to the failure to assess the impacts of induced traffic, a significant number of other impacts have also not been picked up by the model, having been "scoped out" at an early stage. These flaws are set out in detail in two documents submitted alongside this objection. As these documents show, as long ago as February 2022 the Parish Councils submitted a number of detailed questions to OCC regarding the scope of the modelling and impacts upon the transport network likely to be affected by the HIF1 scheme. As the reviews illustrate, a number of stretches of the B4016 through Sutton Courtenay and Appleford have not been assessed, Nuneham Courtenay has been scoped out of the assessment completely, together with the Golden Balls Roundabout and impacts on Abingdon and the town centre remain unclear. At the time of writing the modelling undertaken does not appear to have been subject to any other further independent third-party review, such as the audit by the JCT consultancy in January 2022. No comments from OCC's Transport Development Control appear to be available either. In the event that further documents emerge in respect of traffic modelling, the Parish Councils reserve the right to comment on such prior to any determination of this application.

141. Review of Assessment of Alternatives: The NPC-JC has commissioned a report to review OCC's treatment of alternatives to the HIF1 scheme and compliance of that treatment with the Department of Transport's (DfT) Transport Analysis Guidance (WebTAG) published in 2014. The full report was appended to the JPC-JC's response.

142. Green Belt & Landscape: The County Council acknowledges that the proposed scheme is a departure from the Development Plan and despite some limited policy support for the scheme as considered above, the scheme is nevertheless regarded as inappropriate development in the Green Belt in that it would permanently encroach into the countryside, would not protect the setting of historic towns, and would not preserve the openness of the Green Belt. The prohibition on inappropriate development in the Green Belt can only be overcome by OCC establishing that any harm arising from the scheme is clearly outweighed by other considerations which constitute "very special circumstances". (See NPPF paras 147 – 148). An expert report on Landscape and Green Belt issues has been commissioned by the PCs and is attached to this document as Appendix 2. The report is highly critical of the ES Landscape and Visual Appraisal (LVIA) submitted by AECOM in support of the planning application.

143. The assessment of the landscape impacts of the scheme is "disingenuous". The correct application of WebTAG guidance on landscape impacts should have concluded that overall, there will be a "large adverse" impact on landscape, despite suggested mitigation. The openness of the Green Belt will not be maintained and consequently the scheme will cause harm to the Green Belt. With regard to the landscape impacts of specific sections of the scheme, the Report highlights that even after 15 years the impact on the Thames Path National Trail will remain "Major and Large Adverse". It is "difficult to understand" why, given that the loss of tranquillity resulting from the Clifton Hampden by pass section of the scheme is one of the major effects of the scheme, that loss will purportedly be reduced over a period of 15 years from "Large adverse" to "Slight adverse".

Loss of tranquillity is loss of tranquillity. The assessment of impacts caused by the viaduct at the gravel lakes to the South of the Thames is described in the Report as a "travesty" for the reasons set out in the Report.

144. The apparent acceptance by the applicants of significant adverse effects on local residents of the elevated section of the scheme at Appleford Sidings is described as "beyond comprehension". Consultation responses from SODC and the Vale dated 23 December 2022 and 22 December 2022 respectively have now been published, and it would appear that the views of the Councils' professional officers concur with Mr James' analysis in many respects. The professional officers from both local authorities set out a number of concerns that remain, despite the submission of the Reg 25 further information, and conclude that the HIF1 scheme conflicts with a significant number of Local Plan Policies and guidance as set out in the NPPF.

145. Local Impacts on Air Quality and Noise: Appleford PC has produced two documents which are appended to this objection, the contents of which are not repeated here. In summary, given that the projections for air quality and noise are based on a fundamentally flawed assessment of traffic impacts on the villages affected by the scheme, effects on residential amenity have been significantly underestimated in the ES. Some of these shortcomings have been accepted by the officers of the District Councils, as set out above in their consultation responses, giving rise to a number of Local Plan Policy conflicts.

146. Financial Viability and Deliverability: Whilst it is accepted that purely financial considerations, per se, are not material planning considerations, the financial viability and deliverability of projects are accepted as being relevant material planning considerations, particularly where Compulsory Purchase Orders (CPOs) will be necessary, as is the case here. The conclusions of a recent CPO decision, The Vicarage Fields CPO (APP/PCU/CPOP/Z5060/3278231), dated 4 October 2022, warrant consideration. The Inspector found (see Inspector's Report paras 372 et seq.) that as there was a lack of tangible and substantive evidence on the viability of a scheme, there was no reasonable prospect that the scheme would proceed. Consequently, CPOs could not be justified as being in the public interest. With regard to the HIF 1 scheme, overall cost estimates have increased substantially since the planning application was submitted in November 2021 and are very likely to increase further given current inflationary pressures, particularly in respect of construction costs and materials.

Proposed Additions to Regulation 25 Request June 2022

147. In June 2022, The NPCJC proposed that the LPA's Regulation 25 request was supplemented by requests for further information related to options assessment, traffic modelling including for alternative strategies, additional noise monitoring locations, and a Noise Action Plan for three areas identified by DEFRA as Noise Important Areas.

Detailed Response on Noise May 2022

148. In May 2022, the NPC-JC submitted a detailed objection on noise grounds. It was stated that the application should be refused because it fails to comply with SOLP Policy ENV12 and DES6. No noise assessment has been undertaken to convincingly demonstrate that there are no significant adverse cumulative noise impacts to adjacent communities along the length of the proposed road, such as Clifton Hampden and Nuneham Courtenay. The proposal also fails to comply with VoWH P2 Development Policies 23 and 25 because the proposal will generate significant adverse noise effects to neighbouring uses, notably at Appleford, Clifton Hampden and Nuneham Courtenay. Proposed noise barriers to ameliorate the severity will result in an unacceptable visual impact in terms of being overly dominant and intrusive in the landscape. The noise assessment fails to demonstrate that all existing and proposed background noise sources have been included in the assessment. In the instance of Appleford Sidings, the combination of mainline rail, industrial rail sidings, bridge and road traffic has not been included in the assessment. No provision of mitigation acceptable in noise, landscape and visual terms has been proposed to meet identified adverse noise effects.

149. The application fails to meet the requirements of paragraph 185 of the NPPF because noise impacts will be significant and are under-estimated within the design. Tranquil areas impacted by the scheme have not been identified and protected. It also fails to comply with the Noise Policy Statement for England 2010.

150. Noise has already reached a critical level in Appleford, which DEFRA has identified as a "Noise Important Area". OCC has a duty to recognise and seek to control future noise. The ES disregards this obligation and there is no cumulative assessment of noise that would result from the main line rail, freight shunting and unloading at Appleford Sidings, reverberant effect of the proposed Appleford Sidings Bridge, and the imposition of road noise with HGV traffic. The noise assessment is criticised further including that it fails to identify tranquil areas including the Millennium Common, Appleford recreation ground, the wetlands area on the south bank and the Thames Path on the north bank of the River Tames, the countryside east of Culham Site Centre and north of Clifton Hampden and the woodland of the adjacent Nuneham Courtenay Estate, that the methodology and assumptions are flawed, that the study area should have included the Golden Balls roundabout and Nuneham Courtenay, and that further monitoring should have been carried out in settlements near to the development. It is stated that the potential impacts on noise are not properly understood and that the proposed mitigation (noise barriers) would have adverse impacts on landscape and visual amenity.

Initial Response April 2022

151. An initial response from NPC-JC was received in April 2022 which stated that technical experts had been commissioned to assess the planning application, which had resulted in a number of questions relating to the adequacy of the ES. In the absence of the further information requested, the ES fails to satisfy the requirements of the EIA Regulations. It was noted and agreed that the development proposed is EIA development and requires full Environmental

Impact Assessment. It was further noted and agreed that the development proposal is contrary to the adopted Development Plan and is therefore properly regarded by the County Council as a Departure Application. The NPC-JC formally requested that the County Council submit, pursuant to Regulation 25 of the EIA Regulations, a request for further information and evidence. This further information should be produced and made available for further public consultation prior to any grant of planning permission. We would remind the Council that, pursuant to Regulation 3 of the EIA Regulations, failure to fully comply with the requirements of the Regulations means that planning permission cannot lawfully be granted by the Council. Pending receipt of this further information and evidence, it was confirmed that the NPC-JC object to the planning application on the following grounds, which are set out in summary form:

- The application conflicts with a significant number of policies in the adopted Development Plan. Full details will be set out pending receipt of the further information and evidence requested.
- The application conflicts with national planning guidance as set out in the National Planning Policy Framework (NPPF) as revised in 2021 and Planning Policy Guidance (PPGs). Full details will be set out pending receipt of the further information and evidence requested.
- The application, if approved, will have the effect of undermining legally binding national targets for significant reductions in carbon emissions and carbon neutrality.
- The application, if approved, will have the effect of undermining policies and targets set out in the emerging Joint Strategic Spatial Plan (JSSP), the Oxfordshire Plan 2050.
- The application, if approved, will conflict with policies in the emerging Local Transport Plan – the Local Transport and Connectivity Plan January 2022 (LTCP).
- No Habitats Regulation Assessment (HRA) appears to have been undertaken in breach of the requirements of the Conservation of Habitats and Species Regulations 2017. No planning permission may be granted until an HRA has been undertaken.
- A Climate Change Position Statement should accompany this planning application, given concerns relating to the cumulative impacts of the scheme.
- The Environmental Statement submitted with the planning application fails to comply with the Environmental Impact Assessment Regulations 2017.

152. The response included a number of detailed questions and requests for documents and information in relation to the consideration of options and alternatives prior to the application being submitted, the approach to traffic modelling at specific points on the network, and the landscape assessment.

153. It is stated that there are substantial concerns taken to the traffic modelling including the following:

- Concern about the reassignment of traffic from the A34 and clarification as to whether junction reassignment has taken place with visual results of demands along the HIF alignment in 2034.

- Query whether comparative modelling could be undertaken to demonstrate the effects of calming and speed restrictions on B4016 Drayton Road through Sutton Courtenay and B4016 Main Road Appleford and to evaluate traffic density within Sutton Courtenay along Drayton Road, High Street and Church Street, and Appleford to prove whether traffic will increase or decrease through Sutton Courtenay under the proposal.
- Concerns that there has been a lack of investigation of the traffic on existing local roads, including named points on the new river bridge, the A415, A4074, B4016. It is requested that modelling is undertaken to demonstrate effects and information is provided about proposed housing developments in the area and the impact on traffic.
- Clarification over the assumed number of HGVs, light commercial and car traffic anticipated to travel through Sutton Courtenay and Appleford both with and without the development and confirmation these have taken into account HGV traffic from the Sutton Courtenay Minerals and Waste Complex.
- Clarification over traffic demand at Culham Science Centre.
- Clarification over how the assessment at considered the Golden Balls roundabout and Nuneham Courtenay.

154. The landscape issues raised include: how landscape issues have been considered in option identification, route selection and option refinement; clarification as to whether the development is inappropriate development in the Green Belt; query over whether alternative options were considered for the Thames Crossing; concerns about transparency of the assessed landscape and visual effects of the Appleford Sidings Bridge; and the lack of assessment of the impact on users of existing roads.

Appleford Parish Council

155. Appleford Parish Council objects to the application and has submitted detailed comments in respect of Health and Wellbeing and Air Quality. Those comments are summarised as follows:

156. Health & Wellbeing: The application should be refused because it fails to comply with SODC policy EN12. The ES fails to adequately investigate and present the impact of noise and air pollution on local communities living close to the proposed development. The development will also fail to meet the net zero carbon by 2030 objective within the SODC corporate plan because it will increase carbon emissions (embodied and by increasing vehicle journeys), it fails to prioritise sustainable transport mode, and fails to prioritise development of existing rail services between Didcot, Oxford and beyond including the commuter link to Culham Science Centre.

157. The application also fails to comply with VoWH P1 core policy 16b because it provides a dual carriageway between the A34 and east Oxford/M40 and will increase reliance on vehicle use for both commuting and freight handling. It does not provide exclusive access for active travel, zero carbon modes, and public transit systems. It fails to integrate the existing rail connection between Didcot Oxford and intermediate stations.

158. The Oxfordshire Health and Wellbeing Strategy 2018-2023 seeks to promote community health and wellbeing, by encouraging active travel and protection from the impact of poor air quality (amongst other factors) on health. The development by facilitating more vehicle use is counter to the health and wellbeing objectives of Oxfordshire. In particular, elevating the HIF1 road over the rail sidings at Appleford will increase the distribution of road emissions downwind over the dwellings in Appleford.

159. Detailed comments are made about the Population and Human Health Chapter of the submitted ES. It is stated that the chapter does not follow the guidance of a HIA as stated in the LTCP, does not take into account local issues, and fails to assess the impact on businesses at Manor Farm, Appleford, various commercial receptors in Sutton Courtenay, and Burcot and Clifton Hampden. It is stated that the ES fails to assess the impact on the BOAT PRoW number 4 crossing at Appleford level crossing which is a historic and continuous byway and provides a direct connection between Appleford and Sutton Courtenay and fails to assess the impact on access to community and other facilities in Appleford and Sutton Courtenay. The cumulative effect of development at Appleford Sidings would cause an intolerable and severe impact on an extremely sensitive area. This area is classified by DEFRA as a Noise Action Plan Important Area.

160. The ES fails to recognise the dependence in Appleford on convenient access to facilities in Sutton Courtenay and Abingdon. The development will impede access along the B4016 by splitting this road with two junctions and adversely affecting the PRoW that runs along the B4016 road link.

161. It is also states that the assessment of air quality and noise and vibration is deficient.

162. The intrusive scale and height of the viaduct approach to the Thames and River Thames bridge could not be mitigated by tree planting. These structures would remain dominant in the Green Belt landscape and local viewpoints. The height of the structure, and lack of separation ground between the Appleford Sidings bridge and adjacent dwellings in Appleford severely limit the ability to use landscape to mitigate the dominance of this structure over the dwellings.

163. Air Quality: The application should be refused because it does not comply with SOLP Policies EP1 in so far as the Air Quality Assessment for this significant development is inadequate and it fails to account for cumulative impact; and ENV12 because the development will result in significant cumulative impact on health and amenity in the Didcot to River Crossing section. It also does not comply with VoWHLP Development Policy 23 in so far as the development will result in significant adverse cumulative impacts on Appleford Village in respect of visual intrusion, noise, emissions and road lighting and Development Policy 26 because the Air Quality Assessment is inadequate and has not demonstrated that it has been designed to minimise the impact on air quality in the adjacent community of Appleford.

164. District and County Council policies identify the need for HIA to be conducted for all strategic developments to determine how the development will improve health and well-being but no HIA has been provided. The proposal is not based on analysis to minimize pollution and emissions at existing communities adjacent to the proposed road, to be demonstrated through an HIA.

165. The Air Quality Assessment contains inaccuracies and limitations that render it unreliable to assess the impact of the proposal on public health. Recently updated WHO guidelines (2021) are based on the evidence that toxic particles and gases harm human health at much lower concentrations than previously thought. Current WHO guidelines for annual emissions limits pollutant concentrations to 5 mcg/m3 for particulates PM 2.5 and 10 mcg/m3 for nitrogen dioxide NO2. It is now recognised that UK legislation is no longer adequate to assess the impact of new road proposals. The permitted emissions assumed in the HIF1 Air Quality Assessment exceed the current WHO guidelines by 500% for PM2.5 and 400% for NO2.

166. Appleford village is one community lying closest to a new section of the proposed road. It is reasonable to position the road in relation to Appleford to ensure that the road does not, in itself, create toxic emissions in excess of the WHO guidelines. There have been no adequate measurements of the current levels of NO2 and PM2.5 at property boundaries for critical areas in Appleford. A single roadside measurement at a junction of the village Main Road and Church Street indicated an annual NO2 mean of 25.5 µg/m3. Unfeasibly this appears to exceed all roadside values measured at the busy A4130 between the A34 and Didcot. This single measurement, possibly in error, cannot be relied upon to characterise the current air quality in Appleford.

167. With insufficient local air quality monitored data for Appleford, the air quality dispersion model cannot be calibrated to real data. Existing pollutant concentrations from specific local activities have not been included in the assessment, e.g. rail aggregate handling at Appleford Sidings, asphalt works at Appleford Sidings, landfill and HGV movements immediately south west and upwind from Appleford. The modelled pollutant concentrations at "public exposure receptors" along Main Road in Appleford are not based on credible traffic flows. Due to extensive errors and omissions in the Air Quality Assessment the true magnitudes of the resulting emissions in communities close to the proposed road have not been established and are likely to be under reported. Moreover, the modelling is for a ground level road, at this location. Pollutants will distribute more widely from the proposed elevated HIF road which will be above roof level as it passes Appleford dwellings. The total pollution load and extend of distribution is likely to be well in excess of these figures.

Sutton Courtenay Parish Council

168. Sutton Courtenay Parish Council objects to the application for the following reasons:

169. Inadequate Consultation: Members of the Parish Council feel extremely frustrated by the lack of substantive responses to queries raised by Sutton about

the development since 2019 and do not feel their concerns have been addressed in amendments made to the planning application. Consultation in this case feels like a tick-box exercise and ignores the fact that consultees may be able to offer particular insights or detailed information which is relevant to the consideration of the application. In essence, therefore, the Parish Council does not feel that its concerns/comments/questions have been adequately addressed during the consultation process, including in the Regulation 25 Response.

170. Traffic Modelling: There remains a lack of modelling data in the public domain with no sight of validated traffic modelling assessments, that clearly demonstrate that having a junction between the B4016 (Appleford Road) with the proposed 'Didcot to Culham' Road, will reduce or indeed increase, the traffic impact through Sutton Courtenay. The application makes no allowance for the induced traffic that this junction and the scheme as a whole will attract. To date the evidence provided, has failed to demonstrate:

- That traffic (both through and local) in Sutton Courtenay and Appleford will be eased by the HIF1 improvements.
- The resilience and robustness of the proposed new road network against gridlock in Sutton Courtenay due to untoward traffic incidents and future (planned and unplanned) growth. Traffic incidents are not unknown on the A34 around the Harwell to Milton Interchange to Abingdon sections and result in grid lock of Sutton Courtenay. The inclusion of a junction on the B4016 will most certainly exacerbate the grid lock through Sutton Courtenay during A34 accident conditions. No test of reassignment has been conducted.
- That the proposed junction on the Appleford Road (B4016) will ease traffic flow through Sutton Courtenay even with the cumulative impact of 15,500 new homes (3,300 already built), that the HIF1 is supposed to support.

171. Despite frequent requests, the applicant has ignored the Parish Council's recommendations on traffic mitigation measures, including: derating of the B4016 through Sutton Courtenay; termination of the Hanson and FCC routing agreements and traffic calming through the village.

172. The application fails also to demonstrate that increasing the road network connectivity, including the junction, will *not* result in Induced Traffic Demand and create further congestion or a rat run through Sutton Courtenay.

173. Alarmingly, the application acknowledges the congestion will return to current levels in eight to ten years. However, estimates, which include 'Induced Traffic', indicate that it could be as short as two years. Either timeframe raises questions over the scheme's benefits and value for money and whether the funds could not be better used with a more modern approach to sustainable traffic, which could be more effective in meeting the HIF1 aim of 'future proofing local infrastructure provision'. All that is not to mention the upheaval the construction of the current scheme will involve.

174. It should also be noted that the HIF1 road is an arterial development from the A34 to the B4025 close to Nuneham Courtenay and a few miles from M40. It will, therefore, bring significant commercial traffic to the area.

175. In addition to the above, we are concerned with the lack of comparative assessment of alternative options. Most have been arbitrarily dismissed with no proper assessment of alternatives carried out.

176. Conflict with Policies and Other Issues: NPC-JC comprehensive response has been fully endorsed by the Parish Council and is not repeated here. However, it is stated that the development conflicts with a significant number of planning and internal policies, in particular the LTCP, legally binding national targets for significant reductions in carbon emissions and carbon neutrality, and financial constraints may compromise Didcot Garden Town's emerging Local Cycling and Walking Infrastructure Plan (LCWIP) as the design is pruned to meet budgetary constraints.

177. Other points of note are: No Health Impact Assessment (HIA) has been submitted, despite the specific policy requirements of LTCP Policy 9. Although a Climate Change Position Statement has now been submitted it fails to meet the requirements of LTCP Policy 27. The HIF 1 scheme fails to comply with the Department for Transport's Transport Analysis Guidance (WebTAG) in its assessment of alternatives to a new road. The Parish Council considers the claim of benign impact on air quality is unrealistic and has not been demonstrated. Levels of NO2, PM10, PM 2.5 in the ES are based on computer predicted values and no evidence is provided that the values reflect the expected local distribution of pollutants for local communities. The area borders an active landfill and gravel works, with specific environmental conditions which have not been assessed. The Noise Assessment has been arbitrary with no measurement of traffic noise on the Drayton Road in Sutton Courtenay. This a busy road with heavy volumes of traffic and failure to measure noise impact is a major omission

178. Financial Viability: The original HIF1 budget is acknowledged to be a considerable underestimation and potentially any further costs largely falling on local taxpayers, which raises very serious doubts on whether the project can be delivered, particularly given current levels of inflation. Whether a scheme is viable and deliverable within the given budget is a material planning consideration and should lead to this project being withdrawn. The applicant hopes to prevent escalating costs by reviewing the scheme and applying 'value engineering', which is likely to reduce support for more sustainable transport provisions such as cycleways, walkways and links to footpaths. The demand for increased funding is also likely to mean that only part of the scheme would be completed. Given that Sections B (Science Bridge), C (Didcot to Culham) & D (Clifton Hamden bypass) are interrelated, the objectives claimed cannot be achieved.

Didcot Town Council

179. In the first and second rounds of consultation, Didcot Town Council stated its support for the planning application, but asked that OCC acknowledge the existing problems with the cycleways in Didcot, and work to address these in

future with any other new projects, alongside this one. It was stated that a public exhibition should have taken place regarding this application, due to the amount of material associated with it.

180. In the third round of consultation, Didcot Town Council stated full support to the planning application. It was stated that the HIF1 project is necessary to relieve congestion and support the existing and new developments throughout Didcot, such as Valley Park, Didcot Northeast (along with Willington Down Farm, Ladygrove Farm and the Miller Homes site), and the Ladygrove East development. It was also stated that the Town Council has some reservations regarding the impact on air quality, as well as the policing of the road in terms of speeding and traffic offences.

Harwell Parish Council

181. Harwell Parish Council has no comments on the application

Berinsfield Parish Council

182. Berinsfield Parish Council queried what would happen to traffic from the development once it arrives at the Golden Balls roundabout.

Long Wittenham Parish Council

183. Long Wittenham Parish Council supports this planning application. The Parish Council favours plans for a new road west of the railway line linking Didcot and the Culham Science Centre with a river crossing. This new link will ease traffic flows passing through Long Wittenham as the expansion of Ladygrove north-east of Didcot gathers pace. However, the Parish Council has some reservations about the proposed new road. It is suggested that it must include a link from the new Ladygrove expansion on the Didcot- Culham Science Centre road. Without a link to this road the Parish Council fears that a large proportion of traffic from the new homes would still pass through Long Wittenham when travelling north. Year by year the village sees an exponential rise in vehicle movements and this is likely to increase as large scale housing developments continue in the Didcot area.

184. The Parish Council is also in favour of other infrastructure improvements proposed by the County Council to help ease traffic volumes and congestion in the district. A bypass for Clifton Hampden will be necessary to cater for the increased flow of vehicles from new development areas at Didcot and Culham seeking a route to Oxford and to the M40 and beyond. Also of immense value will be the proposed dualling of the A4130 Didcot to Milton Interchange road leading to the A34. The Parish Council believes improvements to the A4130 will help cater for extra traffic from the expanded Ladygrove and Great Western housing developments. A Science Bridge will also bring benefits to the area. The Parish Council also believes that to improve safety and capacity it is essential that there is significant investment on improvements to the A34 trunk road.

185. The Parish Council is aware that neighbours in Appleford are very concerned about the visual impact of the bridge over the rail sidings on its residents. The bridge has a large area of redundant deck due to its very simplistic design. It has been designed as an almost "square" deck which means that approximately 1/3rd of the deck area is not used and almost ½ of the substructure and piles are only needed to support the redundant deck area (the two large triangles either side of the road). If a slightly more sophisticated design were employed the bridge could be reduced in scale and the large redundant triangle of deck projecting approximately 12m towards the homes in Appleford would be significantly reduced. There are approximately 11 exposed concrete columns in this part of the bridge which will be very unsightly to look at. A more sophisticated "skew" design would significantly reduce the visual impact on Appleford residents and also enable a much more pleasant and aesthetic design overall. Although this would be slightly more complicated to design it would be a much more efficient structure and reduce an enormous amount of wasted concrete piling into the bargain. With OCC's drive for green initiatives this design is extremely lazy and wasteful of resources which could be significantly reduced by an improved design. The amount of concrete in the bridge could probably be halved by changing to a skew design from this very simplistic and lazy 'square' design.

186. The Parish Council is very concerned that there may be an initiative to implement traffic signals at the existing Appleford Rail Bridge. This bridge has always operated very successfully as two-way traffic and the Parish Council would be very concerned if traffic signals were installed as this would seriously delay traffic from the new 2000 homes on Ladygrove Development accessing the new road.

Nuneham Courtenay Parish Council

187. In the second round of consultation, Nuneham Courtenay Parish Council confirmed it objects to the application because It would cause a vast increase in traffic through Nuneham Courtenay where noise, vibration and air pollution already exceed WHO safe guidelines. This traffic could only increase the severity of these issues. No mitigation is possible, with the resultant risk to the health of the residents. The scheme has not been fully costed (CPOs) and rising costs and a worsening economy mean that even if started it is likely there will be insufficient funds to complete the project as planned. This means any mitigation for affected communities is likely not to be installed, with the resultant harm to quality of life, health and well-being of the residents in those communities. The damaging environmental impact of the projected new bridge, as documented by the EA, BBOWT and other agencies is unacceptable. The project contravenes OCCs own policies on CO2.

188. In the first round of consultation, Nuneham Courtenay Parish Council confirmed it is a member of the Joint Committee of Parishes and objects to the application for all of the reasons submitted by the JCP members so far, along with the objections raised by the EA and others. No EIA surveys have been carried out on traffic movements, noise pollution, air quality, or vibrations in Nuneham. Additionally, the parish has had no communication relating to this matter. It appears that no consideration as to the likely impacts of the HIF1 scheme on Nuneham has been given. If this road is built it will have the potential to funnel

vastly extra traffic from Milton and the A34 to Golden Balls Roundabout, and inevitably through Nuneham which will cause even greater loss of wellbeing and further damage to the foundations of properties on the main road through Nuneham as well as the A4074. Additionally, a key question is how OCC values a “conservation area” or the “green belt” or is concerned about the health and well-being of its communities or the harm caused by noise and vehicle exhaust pollution. The failure to carry out proper traffic surveys and modelling is equally of concern.

Garsington Parish Council

189. Garsington Parish Council objects to the application. Concern was raised about the impact on the Golden Balls roundabout and that it would add pressure to the A4074 to Oxford and the B4015 which connects with the B480 to Garsington and Stadhampton. Local councils have all declared climate emergencies and HIF1 would undermine their net zero targets by increasing emissions at the very time we need to be urgently reducing them. The project conflicts with the LTCP which was recently adopted by the County Council and requires a reduction of 1 in 4 car trips by 2030, and a further reduction of 1 in 3 car trips by 2040 to deliver a net zero transport network. HIF1 will result in increased car trips as evidence shows that new roads actually induce further demand. We understand that the current scheme promoted by Oxfordshire County Council would cost at least £300 million and that the County will need to borrow at least £30 million, likely costing £1.8m annually (6% interest) to pay for it. It will also need to divert a further £26 million from local sources that could be put to better uses, to make up the balance. This seems entirely inappropriate when that money could be spent on improved public transport and active travel infrastructure to better connect our towns and villages. Oxfordshire's green spaces are already under heavy pressure. A major new road cutting across open countryside and wildlife habitats will make matters much worse and open up further areas of Greenbelt for development. There is already an adequate supply of housing land (over 5 years) in both the Vale and SODC to meet local housing plans.

East Hendred Parish Council

190. East Hendred Parish Council initially objected to the proposed development on the following grounds:

- Induced traffic will exacerbate congestion problems at the Milton Interchange and roads to the west. Traffic modelling fails to assess the impacts of induced traffic. The Parish Council has made formal requests to OCC Highways and the HIF1 team to obtain copies of the modelling work and this has not been provided.
- The development does not deliver national or local carbon emissions reductions targets and makes them harder to achieve.
- The development is contrary to and undermines the LTCP which has a target to replace or remove 1 out of every 4 current car trips in Oxfordshire by 2030. Policy 7 of the LTCP is specifically referenced.
- The development poses a significant financial risk to the County Council due to inflation. Whilst we are aware that financial considerations are not

material to planning, we consider that this impacts the viability and deliverability of the scheme, which are material planning considerations.

191. During the third round of consultation, East Hendred Parish Council maintained its objection and stated the following grounds:

- The proposals refer to The Vale Local Plan Part 1 Policies. But Policies CP33 & CP34 only support sustainable transport, promoting the use of public transport, cycling & walking. There are no Local Plan Proposals for a Thames Crossing outside the District.
- The Vale Local Plan Part 2 Infrastructure Delivery Plan only identified the A4130 widening & Science Bridge. The latter proposals blight the redevelopment of Didcot Power Station for mixed uses including a potential Didcot Rail Freight Terminal, supported by the Network Rail & Highways England Report on East Midlands to Southampton.
- The South Oxfordshire Local Plan Policy TRANS 3 only safeguards land for a crossing. More detailed appraisals would be necessary to justify a scheme that had not been fully designed or costed. East-West movements were considered the key issue at Didcot, to justify the A4130 widening & Science Bridge only
- Traffic growth within Oxford & Cambridge has been avoided by traffic management over limited bridge crossings. Avoiding additional road capacity across the River Thames is the simplest way to restrict traffic growth between the A417 Reading Road through East Hendred & the A415 Abingdon Road. That approach would comply with the Local Transport & Connectivity Plan (LTCP) objective to reduce traffic levels.
- The benefits of the road scheme are short-lived, with the Goodwin Report showing that the Systra forecasts reduce peak average speeds below 2020 levels by 2034, whilst the 2015 costs have increased from £40m for a Thames crossing, £26m for Science Bridge & £14m for A4130 widening to c.£300m today.
- The Value for Money has thus reduced.
- A comparison is drawn with the Greater Cambridge Partnership Making Connections proposals, which it is stated are to transform the bus network, invest in sustainable travel, and create a sustainable travel zone by charging vehicles to fund improvements. It is stated there is a lack of evidence and analysis undertaken to support the approach taken by the applicant.
- Reference is made to the Goodwin Report, which concluded that the development would have short lived benefits, relied on inaccurate baseline traffic data, ignores other factors (such as climate change targets), induced demand would have a negative impact, and carbon emissions reductions may be overstated. It is stated that Oxfordshire is not alone in inheriting major road schemes from a previously controlled authority and it is noted that Wales has decided to pause them.

Elected Members

192. No comments have been received from any elected members of the County Council.

Natural England

193. During the first round of consultation, Natural England made the following comments:

194. The closest designated site to the proposals would be the Little Wittenham SAC & SSSI, which is ~3.1km to the southeast of the northern end of the works at Clifton Hampden. Given the designation at this site is for Great Crested Newts and having checked this internally there is unlikely to be any fragmentation caused by the proposed works to the roads in this application so impacts can be ruled out. It is welcomed, within the BNG Assessment that there has been an assessment made using the Biodiversity Metric 3.0 and that there is a full understanding and commitment made to ensuring a minimum 10% gain. The variety of recommendations made within the above document with regard to in particular the linear (river) habitat units would be welcomed in order to ensure that 10% is reached for that particular metric as this is rightly identified as lacking currently. Given the number of crossings this route includes, whether they be over fields, rivers or near ponds, there is plenty of further opportunity to action enhancements that would bring the required additional improvements for that maximum net gain target to be reached and hopefully exceeded.

195. The route itself is outside the North Wessex Downs AONB however is just 1.8km outside so the input of the AONB board should certainly be sought as they will have the best understanding of the local area and whether any particular issues would need addressing locally.

196. The usual use of a Construction Environmental Management Plan (CEMP) for the various elements of the proposed works would ensure that standard considerations are put in place for works both before, during and after construction.

197. During the second round of consultation, Natural England confirmed it has no comments to make on the additional information submitted. It was stated that Natural England has not assessed this application for impacts on protected species but referred the LPA to standing advice on this matter as well as on ancient woodland and veteran trees. It was stated that the lack of comment from Natural England does not imply that there are no impacts on the natural environment, but only that the application is not likely to result in significant impacts on statutory designated nature conservation sites. It is for the local planning authority to determine whether or not this application is consistent with national and local policies on the natural environment.

198. Natural England responded to the third round of consultation to state that it had no additional comments to make.

Historic England

199. During the first round of consultation, Historic England confirmed that it does not object to this scheme on heritage grounds, but it was commented that the adverse effect of the scheme on the scheduled monument known as Settlement Site North

of Thames would be moderate adverse and not 'slight adverse not significant' as assessed in the ES. This monument consists of the archaeological remains of enclosures, pits and trackways which are of probable prehistoric and Roman date and are known from aerial photographs.

200. Suitable species should be planted and maintained to minimise the impact that lighting the by-pass could have on the experience of the rural settlement of Clifton Hampden and registered landscape Nuneham Courtenay. The new road may increase and change noise levels to the Clifton Hampden Conservation Area through sound carried on prevailing westerly winds. However, we expect the road would also reduce the amount of traffic that travels directly through Clifton Hampden, which would improve the experience of the Conservation Area.

201. Other than the points made above the Cultural Heritage Chapter of the Environmental Statement submitted is a reasonable assessment of significance of heritage assets and the predicted impacts on them, whether adverse or beneficial. The application is therefore broadly compliant with para. 194 of the National Planning Policy Framework (NPPF) 2021.

202. In determining the application, your planning authority should balance the less than substantial harm from the scheme against public benefit, as required by the NPPF, para. 202.

203. In December 2022, Historic England provided a second comment stating that it does not have anything to add to advice above, other than that with regard to undesignated archaeological remains the application is still not satisfactory. The further information submitted includes an Archaeological Evaluation Report on trial trenching, but the revised Cultural Heritage Chapter of the ES has not been updated to include the information from the Evaluation work. Appendix 7.2, Archaeological Desk-based Assessment, has also not been updated for this new material. The new information should be incorporated into the ES and interpreted both for its own significance and in relation to other heritage assets including scheduled monuments.

204. During the third round of consultation, Historic England identified some errors or inconsistences in the submitted Cultural Heritage chapter of the ES and stated these should be updated prior to determination. Previous advice on the assessment of heritage impacts was reiterated and it was stated that there are no objections to the application on heritage grounds.

National Highways

205. National Highways is concerned with proposals that have the potential to impact on the safe and efficient operation of the Strategic Road Network (SRN), in this case the A34. In this case, it is not considered that the proposals would result in a severe impact on the SRN. To ensure this is the case, a pre-commencement condition requiring the submission of a CEMP is required. During the second round of consultation, National Highways reviewed the Technical Note submitted by the applicant addressing a minor labelling error in the TA which confirmed that the modelling data and conclusions of the TA remain valid. National Highways stated there is no suggestion that the impact on the SRN would be any different

from what has already been judged to be acceptable subject to the condition requested. National Highways responded to the third round of consultation in June 2023 confirming that none of the submitted information changed the advice comments previously provided.

Environment Agency

206. The Environment Agency initially objected to the application because it would pose an unacceptable risk to the environment and would be contrary to paragraphs 165, 174 and 180 of the NPPF, SOLP policies ENV1, ENV3, ENV4, ENV12 and EP4, and VOWHLPPP1 Core Policies 42, 43, 46 and VOWH P2 Development Policy 30. It was recommended that planning permission should be refused due to concerns about flood risk, nature conservation and biodiversity, and water quality and the Water Framework Directive.

207. In the second round of consultation and having reviewed further information submitted, the EA stated that that it no longer objected on flood risk and water quality and the Water Framework Directive, but the objection on the grounds of nature conservation and biodiversity was maintained. In the third round of consultation, the Environment Agency confirmed that it no longer had any objections to the application subject to conditions. Detailed comments were made as follows:

208. Nature Conservation and Biodiversity: Previously, the EA had concerns that insufficient attempts to provide enhancements throughout the scheme on local watercourses within the application area had been provided. Having considered the additional information submitted, we acknowledge the constraints the applicant has outlined in relation watercourse enhancements in areas beyond their control. Whilst we remain disappointed that additional physical improvements to the Moor Ditch have not been forthcoming, we recognise that landscape and biodiversity enhancements are being proposed including protection and enhancement of water features where feasible; a small biodiversity net gain in river units; off-site compensation; protection and enhancement of areas along the river Thames, alongside additional landscaping measures as now proposed within the revised landscape masterplan. On balance, while we remain disappointed that further enhancements to local watercourses are absent from the proposal, we acknowledge that the applicant has done enough to satisfy the majority of policy requirements and therefore withdraw our outstanding objection.

209. Flood Risk: The previous objection on flood risk arose because the applicant had not demonstrated to our satisfaction that fluvial flood risk has been sufficiently assessed and proposals made to manage identified risk to ensure the development was safe, without increasing flood risk elsewhere. We have reviewed the Flood Risk Technical Note: Additional Information Addendum dated 08/12/2022 Rev 3. The report confirms that additional testing was undertaken in relation to the area of land referred to in the report as the “area of concern” (on the south bank of the river Thames). This is the area that we previously identified as being at increased flood risk due to the scheme that we could not attribute to model tolerance. We are now satisfied with the evidence presented within the applicant’s report and the conclusions made in relation to this area of land. The

additional work carried out by the applicant has now identified an area adjacent to the scheme on the north bank of the river Thames where increased flood levels ranging between 10mm – 20mm are likely as a result of scheme as shown in Figure 12 of the report. The applicant has confirmed that this area of increased flood risk is included within the planning application boundary and is proposed to be incorporated within the flood risk compensation and mitigation strategy. Based on this additional information, in combination with the flood compensation and mitigation measures previously identified, we withdraw our flood risk objection to this proposal.

210. Water Quality & Water Framework Directive: We previously objected to the proposal as the applicant had not submitted a full WFD assessment in accordance with the EIA scoping report. We have reviewed the amended WFD assessment submitted as Appendix 14.2, dated December 2022. We are satisfied with the findings and recommendations of this assessment, and we therefore withdraw our objection on these grounds.

211. Conditions are required to cover the implementation of measures set out within the FRA, the submission of a scheme of level-for-level compensatory storage prior to commencement, the submission of a remediation strategy in the event that unexpected contamination arises, prior approval to be obtained for any infiltration of surface water to the ground, and a CEMP.

212. Advice was provided to the LPA on the sequential and exception tests. In the first round of consultation, the EA also confirmed it raised no objections on contaminated land or the navigation of the River Thames, subject to conditions.

213. The EA also stated that it supported the single span bridge design structure to the River Thames crossing and that no permanent works or structures are proposed in the river or directly on the river banks. It was stated that any permanent works, piers, piles, bank protection works, structures etc added into future changes in plans would require a licence under Section 60 of the Thames Conservancy Act 1932. Support was also given to the delivery of sufficient headway of 4.10 metres for boats passing underneath the bridge to ensure there would be no detriment to the maximum available air draft for boaters. It was stated that it is difficult to tell from the current plans if the parapets of the bridge have been designed so as to discourage bridge jumping. At the very least warning signs, warning of the dangers of bridge jumping should be installed on the bridge. Currently there is little light pollution in this area so a boater's eyes will be adapted to dark conditions, and we consider that lighting has been carefully designed to avoid affecting the night vision of any boaters passing underneath. We do however recommend that consideration should be given to improvements that could be made for boaters, such as the creation of some short stay moorings as part of the scheme.

Lead Local Flood Authority (LLFA)

214. The LLFA initially asked for a number of points of clarification on the details set out within the Scheme Wide Drainage Report, the Highway Drainage Strategy and the Climate Change Assessment. Further information was provided in

November 2022 and an updated comment from the LLFA is awaited. Subsequently, the LLFA confirmed there are no objections subject to conditions requiring the submission of a detailed drainage strategy prior to commencement, and a SuDS compliance report prior to completion of the development. The LLFA confirmed no additional comments were to be made during the third round of consultation.

OCC Archaeology

215. The Archaeologist originally noted that the application site is located in an area of considerable archaeological interest as set out in the submitted desk-based assessment and therefore a programme of archaeological evaluation would be required in line with NPPF para. 194. Whilst an archaeological geophysical survey had been submitted, a trial trenched evaluation report had not been provided and was formally requested as additional information.

216. Further comments were provided by the Archaeologist in January 2023 following receipt of the full archaeological evaluation report. It was stated that the ES contains a number of errors and has not been adequately amended to incorporate the outcome of the archaeological evaluation report. As such, it was not possible to agree that the ES and this additional information appropriately assesses the impact of this proposed development on the known archaeological interest of the site as recorded by the HER, geophysical survey and the trenched evaluation. The Archaeologist requested that an addendum to the ES is provided that appropriately incorporates the results of the evaluation in the assessment and addresses other identified errors.

217. During the third round of consultation, the Archaeologist stated that the applicant has now submitted the report for the archaeological evaluation and submitted an addendum to the Environmental Statement to revise the assessment of the impact on archaeological heritage assets based on the results of this evaluation. This evaluation has demonstrated that archaeological deposits do survive along the proposed route of the new road. These deposits are not however of sufficient significance to require physical preservation but will be impacted by this proposed development. These archaeological features will therefore require further archaeological mitigation to fully record them in advance of this impact. This can be secured through an appropriately worded conditions.

OCC Public Health

218. The Public Health Officer initially confirmed he had consulted with the UK Health Security Agency and noted the applicant's conclusion that there would be no significant risk to human health and that industry control standards would be applied as part of the CEMP. It was requested that a dust management plan (DMP) is provided through condition and that there were no additional reasons from an air quality and human health perspective as to why this application should not go ahead if an adequate DMP is produced.

219. Further, more detailed, comments were provided in January 2023. In those comments it was noted that at the time of the scoping review for the

environmental impact assessment in 2020, there was no requirement for a separate Health Impact Assessment to be undertaken of major infrastructure schemes. However, the relevant chapters in the environmental statement provide sufficient information for an assessment of the impacts of the scheme, positive, negative and neutral, on health and wellbeing. The following detailed comments were made:

220. Air Quality: The applicant confirms that there are no AQMAs within the study area, although there are potentially some concerns about neighbouring areas such as the Abingdon AQMA (3 km away). The AQA identifies sensitive receptors and states that these were chosen based on the areas where pollutant concentrations were likely to be highest. As no receptors are predicted to experience an exceedance of the objective for annual mean NO2, a conclusion of no likely significant air quality effects is recorded for the construction traffic impacts. However, due to the scale of the Scheme and the presence of public exposure receptors close to the Site boundary, e.g., residential properties and education facilities, there is potential for adverse air quality effects during the construction of the Scheme in relation to construction dust and plant equipment. *Proposed mitigation measures must be implemented in full – see below.*

221. Noise & Vibration: The Scheme would result in changes to the levels of traffic congestion on the road network through the redistribution of traffic. The assessment provides detailed information on how the redistribution of traffic will change the air quality and ambient noise environments at different receptors across the study areas resulting in a positive, negative or neutral outcome on the health of local communities. The assessment concludes that in total, 187 residential buildings are anticipated to experience a minor, moderate or major increase in traffic noise levels in the opening year, and 1,862 a decrease, based on the façade with the greatest magnitude of change. There will remain a number of properties which will experience a significant adverse impact from this scheme but will not benefit from the Noise Insulation Regulations 1975. Given that one of the receptors is negatively affected both during the construction and operational phases is a nursery, additional information is requested to identify any additional mitigations that are possible to reduce adverse impacts on air quality and noise in the short and long term on Culham Science Centre Nursery and Preschool.

Mitigation

222. During the construction phase, a number of properties have been identified that will suffer Significant Observable Adverse Effect and vibration annoyance. A Construction Environmental Management Plan (CEMP) is mentioned as a way of minimising any air quality related effects of the dust and to reduce noise and vibration impact generated during construction. Given that the population health assessment has identified that a number of sensitive receptors will be adversely impacted during the construction phase, it is essential that effective monitoring is undertaken to ensure that the Noise and Vibration Management Plan (NVMP) and the Dust Management Plan are being fully implemented and adhered to in order to mitigate potential noise and vibration impacts. *It is recommended that the results of surveys including physical measurements and observational checks and audits to ensure that BPM should be publicly accessible.*

223. Physical Activity: The Scheme will provide new footpaths/ cycleways and aims to improve safety along the road. In order to maximise use of this cycling and walking infrastructure, trees, shrubs and hedges should visually separate the road from the cycle and pedestrian paths alongside the road. It is recommended that current levels of planting need to be enhanced to make this cycling and walking environment more attractive and to ensure that the local population increase active travel and participation in recreational activities. It is noted that temporary closure of multiple sections of PRoW will reduce the amount of opportunities to undertake physical exercise. In order to minimise the negative outcomes on health during the construction phase, clear signage of rerouting of PRoWs and advance publicity regarding these changes is essential.

224. Access to green and public spaces: This is important for both physical health and mental wellbeing. Construction of this scheme will result in the loss of over 50,000m2 tree cover and no detail is provided relating to the impact on hedgerows and other planting. In addition, although green infrastructure is mentioned as a way of mitigating air pollution, the applicant does not provide any detail as to how any proposed green infrastructure will affect air quality. It is recommended that the level of planting is enhanced in order to minimise adverse impacts on biodiversity, improve air quality and encourage use of new active travel infrastructure.

225. Connectivity and Climate Change Mitigation: This proposal will deliver key transport infrastructure, relieve congestion and improve connectivity and will support new housing and employment growth. As such it has the potential to improve human health. It is noted that where temporary or permanent access to private property or housing, community land and assets including open space and nature; community recreational and healthcare infrastructure as well as development land, and businesses, is severed as a result of the Scheme, appropriate alternative temporary or permanent access will be provided. In order to ensure that the scheme positively mitigates against climate change it is important that the scope and biodiversity of planting is maximised.

Transport Development Control

226. In January 2023, TDC confirmed it had no objections subject to conditions to secure the following:

- Submission of a Construction Traffic Management Plan
- Submission of details of signage (NB that the TDC Officer later advised that these details would be secured through S278 and S38 highway approval processes and therefore this condition was not required)
- Footpaths, footways and cycleways to be opened in advance of completion of carriageway works to encourage modal shift
- The development to be constructed in accordance with approved drawings
- Visibility splays to be provided in accordance with approved drawings.

227. Prior to this, a number of comments had been provided by TDC. Interim comments were initially provided in January 2022, which did not make a

recommendation but sought to clarify a number of technical matters whilst work was ongoing to assess the modelling via a third-party review. Subsequently, in March 2022, a holding objection was issued pending the receipt of further information. It was stated that TDC did not object in principle to the proposal and that the holding objection would be reviewed when further information as received. Detailed comments were then provided in July 2022 which included details of the third-party review of the TA model. The July 2022 comments from TDC are summarised as follows:

228. The development is designed to improve access to and between future housing and employment growth in the local area, including enabling improved connectivity by walking, cycling and public transport. The scheme package is backed within Local Plans for both SODC and VoWH and is also identified in OCC's LTCP 2022-2050 and is the cornerstone of mitigation for planned growth in the area. The HIF1 package is essential for the economic and social prosperity of Science Vale UK, one of the first Enterprise Zones, in addition to other newer Enterprise Zones in the area. The HIF1 infrastructure will help to ameliorate the transport network issues resulting from historic housing and employment growth, as well as the future planned growth. The development will unlock and support the delivery of circa 18,000 new homes in the area including affordable homes, and planned employment growth of circa 20,000 new jobs.

229. As described in the TA, the railway and the River Thames create severance to effective travel movement and barriers to connectivity between homes, jobs and amenities. That coupled with existing congestion has already resulted in OCC objecting to the applications of even single dwellings, which have been upheld at appeal. It should be noted that it is not appropriate that the HIF1 schemes address every problem on the transport network in Didcot. HIF1 is part of a wider strategy in the town and wider Science Vale area, including the Didcot Northern Perimeter Road Phase 3, Didcot Central Corridor, Golden Balls junction improvements, the Didcot Local Cycling and Walking Infrastructure Plan, the Science Vale Active Travel Network as well as strategic public transport enhancements, which will work together to alleviate the impacts of increased traffic generated by the large amount of growth in the area. It will also allow more active travel focussed and public transport schemes to be delivered within Didcot itself and the wider area.

230. The County Council's view of the soundness of South Oxfordshire and Vale of White Horse's Local Plans is predicated on the assumption that the HIF1 schemes are delivered. If the progress of allocated and permitted residential development is stymied by a delay to the delivery of the HIF1 schemes or in a scenario that they are not delivered at all, this will fundamentally undermine the delivery of the of the locally planned growth and five-year housing land supply will be affected.

231. TDC is satisfied that the approach to modelling including development of the base traffic model is robust and meets the necessary compliance, and reasons for this conclusion are set out in the full response. It is explained that the model for the 2034 scenario assumes 100% demand of existing trips present in the 2017 base (it assumes existing residents in the model area do not change their travel

patterns) and 80% of demand for new growth associated with new development, This approach is justified because it aligns with the approach taken for other recent planning applications in the area and it allows for modal shift to occur later in the plan period as non-motorised user infrastructure is delivered and good spatial strategies are achieved in new developments. The 2034 'without HIF' scenario is run at 70% of total demand of everything as this enabled the model to run without gridlock. Data is then factored back up to 100% to identify how many vehicles would have wanted to go through each junction if the network had not been gridlocked. It is stated that this emphasises that OCC cannot plan for 100% demand at residential development sites and it is essential to plan for growth in active travel modes as well as increased public transport use. It also demonstrates the critical situation that the highways network in and around Didcot would be in without the HIF1 schemes, but with the existing and planned residential and employment growth in the area.

232. 15 junctions within the proposed development and 14 off-site junctions have been modelled. The modelling shows that there is evidence of a high level of congestion through parts of the existing highway network, most notably on the A4130, on the existing crossings between Didcot and Culham/Clifton Hampden and within Clifton Hampden itself. The River Thames and the railway line act as barriers to connectivity and the existing infrastructure cannot keep pace with the demands being places upon it from development in the area. The additional queue length data from the Paramics model used to support the analysis of the existing river crossing at Culham and Sutton Courtenay shows queues of almost 1.2km long in the AM peak through Sutton Courtenay. Outputs of the model on the modelled junctions in 2024 and 2034 are set out in the full response document. A consistent issue arose in the roundabout modelling, which was the unequal lane balancing, however, it was concluded that even if this were refined in the modelling, the junctions in question would still operate to a level acceptable to OCC. It is also accepted that despite some junctions operating at overcapacity in the future years, HIF1 is part of wider strategy to mitigate the impact of growth across a wide area which can only be delivered incrementally as funding becomes available, either through government grants or developer funding. The report raised a discrepancy at the OFF13 junction, which must be clarified.

233. JCT were commissioned by OCC to audit the modelling undertaken for the purposes of the planning application, which have been taken into account by TDC is the preparation of their response. It is stated that after a thorough review of the HIF1 TA and the submitted audit, the junction capacity modelling is accepted by TDC and no further modelling is required. It is also stated the HIF1 scheme allows the A4130 eastbound to operate more efficiently, meaning there is a reduction on queueing back through the Milton Interchange. This in turn reduces blocking back that causes the queuing on the A34 slip roads, this improving A34 journey times. The TA demonstrates that the total car journey time for all routes is significantly reduced with the HIF1 scheme in both 2024 and 2034 and this would also apply to bus services using the same routes. There is a significant increase in journey times in 2034 without the development caused by increases across all routes, but predominantly PM eastbound routes along the A415, created by significant delays at the Clifton Hampden signalised junction and Culham Science Centre entrance. Total journey times in 2034 with the development are also slightly lower

than those in 2020, showing that the HIF1 scheme helps to enable the planned growth whilst also allowing the road network to operate similarly to the base scenario.

234. The TA shows that, in the AM peak, four years of growth from the 2020 base (2024), without the HIF1 scheme, is modelled to increase average journey times by over two minutes (139 seconds). This is significantly worsened with an additional ten years of growth to 2034, with an average journey time increasing by over 24 minutes, compared to the 2020 base. In 2024, the HIF1 scheme reduces average journey times compared to the 2020 base by over one minute (-73 seconds). In 2034, the HIF1 scheme has enabled 14 years of growth with an average journey time increase of just over 4 minutes. The average journey time with the HIF1 scheme in 2034 is less than half of that without HIF1. The HIF1 scheme enables the 2034 network to operate similarly to 2024 without HIF1.

235. In the PM peak, four years of growth from the 2020 base (2024), without the HIF1 scheme, is modelled to increase average journey times by three and a half minutes (213 seconds). This is significantly worsened with an additional ten years of growth to 2034, with an average journey time increasing by almost twelve and a half minutes (732 seconds) compared to the 2020 base. In 2024, the HIF1 scheme reduces average journey times compared to the 2020 base by almost one minute (-44 seconds). In 2034, the HIF1 scheme has enabled 14 years of growth with an average journey time increase of just over three minutes (188 seconds). The average journey time with the HIF1 scheme in 2034 is less than two thirds of that without HIF1. The HIF1 scheme enables the 2034 network to operate similarly to 2024 without HIF1.

236. Impacts upon Abingdon: The Paramics Model covered the highway network just to the west of the existing Culham River Crossing. In discussion with TDC, Abingdon was not included within the modelling for this planning application because it is considered that changes in traffic flow to/from Abingdon would arise from growth in housing and employment rather than the HIF1 proposal and would be required to mitigate their own effects. The proposed development also delivers new walking and cycling routes in the area, and improve bus journey times, which it is stated would help engender modal shift away from private car use and increase bus passenger numbers. Abingdon is subject to an AQMA. Traffic signals are used to manage traffic flows in the town centre to prevent excessive emissions. The signals hold vehicles outside the centre of town to enable it to operate without gridlock. This, in part, creates queueing on the peripheral approaches to Abingdon. Until the vehicle fleet change away from petrol/diesel vehicles to enable to removal of the AQMA, there is little that can be done to remove vehicle queuing on the approaches to Abingdon Town Centre. It is also stated that the A34 Lodge Hill scheme at North Abingdon would enable rerouting of trips in Abingdon.

237. Design and Layout of the Development: The development adheres to the Design Manual for Roads and Bridges (2020) and LTN 1/20 Cycle Infrastructure Design (2020). Any departures from standards have been agreed. As set out, TDC currently has a holding objection pending further information in relation to some elements of the proposal.

238. Walking and Cycling: The development includes high quality off-road pedestrian and cycle facilities along its length, which will help to increase opportunities for active travel and help the County move closer towards its carbon reduction aspirations. The development will include the direct delivery of approximately 10km (6.5miles) of new or improved walking and cycling facilities, whilst also enabling other improvements in the area which will be delivered by the planned housing and employment growth. Direct provision will make active modes more attractive between various settlements and employment locations, for example the direct, segregated cycle route between Didcot and Culham Science Centre would equate to a 20-minute bike ride.

239. Public Transport: There are currently limited opportunities for bus routes to offer good journey time reliability north/south in this area due to the severance created by the River Thames, the Great Western Mainline, and the historic road network. The proposed development will create opportunities for better public transport access and will improve journey time reliability and attractiveness of bus services in the area. At least twelve bus services connect Didcot with key destinations in the area. The journey time reliability of all these services, and therefore their attractiveness and to some degree commercial viability, is impacted by congestion in the AM and PM peaks within the town and its surrounding area. The alleviation of these congestion issues that would result from the HIF1 scheme would in turn bring about improvements to the journey time reliability of these bus services. In addition, 18 new bus stops are being proposed as part of the scheme, which will increase the accessibility and catchment of existing bus services in this area. The success of new bus services that are to be introduced to serve allocated developments is to a significant degree dependent on the delivery of the HIF1 scheme.

240. The development will also help to support planned improvements to the frequency of rail services at Culham Stations, as they are predicated on the residential and employment growth planned at and adjacent to Culham Science Centre.

Environment Consultants: Biodiversity, Landscape, Arboriculture, Climate, and Agriculture and Soils

241. During the first and second rounds of consultation, further information was requested to enable a full assessment of the impact of the development on biodiversity, landscape, arboriculture, climate and agriculture and to amend the proposed development to reduce the adverse effects to trees, landscape, and visual impact. Additional information was provided by the applicant in November 2022 and April 2023, which has been reviewed by the County Council's Consultants. Updated comments are summarised by topic below.

242. Biodiversity: During the second round of consultation, the advisor stated that the Biodiversity Assessment is considered suitable to support the planning application. The assessment has been informed by a number of protected and notable species surveys. It is acknowledged that there will be some long-term impacts in respect of vegetation establishment however overall it is accepted that impacts can be avoided and mitigated in line with the mitigation hierarchy and

that biodiversity net gains can be achieved. However, clarification was required as to how the metric has been applied to the Bridge Farm Quarry restoration area and how biodiversity net gain for river units is to be delivered.

243. During the third round of consultation, in June 2023, the Advisor stated that the previous consultation response provided by the applicant addressed the majority of the issues raised, with the exception of those issues relating to Biodiversity Net Gain (BNG). An updated BNG report, including the metric spreadsheets, was provided by the applicant for review in May 2023. The updated assessment in the BNG report submitted in May 2023 took full account of the losses and subsequent potential issues of post construction shading at the Hanson Restoration Area. The updated assessment included the changes and clarifications requested, which result in a slight increase of terrestrial habitats from a 23.13% net gain to a 23.25% net gain with hedgerows units and rivers units remaining unchanged at + 40.90% and +1.26% net gain respectively. It is concluded that the concerns have been addressed and the BNG assessment is now deliverable.

244. In respect of a 10% net gain in river units, the updated BNG Assessment clearly shows that this is not possible within the site boundary. The BNG Assessment clearly sets out what can be achieved within the site boundary and it is considered that all realistic opportunities have been considered. Therefore, to achieve an overall 10% net gain in river units off-site enhancements must be considered. The applicant has provided written confirmation from Trust for Oxfordshire's Environment detailing the costs required to provide an offsite 8.74% net gain in river units. Therefore, the applicant has demonstrated that with the implementation of offsite enhancements an overall 10% net gain in river units can be achieved.

245. On balance it can be confirmed that with appropriate conditions, the scheme is now considered acceptable in terms of biodiversity and complies with relevant planning policy. If the application is approved, conditions will be required to secure the following:

- Construction Environmental Management Plan (Biodiversity)
- Handover Environmental Management Plan
- Landscape and Ecological Management Plan
- Detailed lighting scheme
- Updated protected species surveys
- Detailed mitigation measures
- Protected species licensing
- Biodiversity Net Gain

246. Landscape & Visual Impact: Previous consultation responses states that the LVIA presented a reasonable assessment of the potential effects of the scheme on landscape character and visual amenity. However, there were concerns regarding localised loss of vegetation and missed opportunities for more extensive replacement planting. A mark-up of the Landscape Masterplan was issued to the applicant noting areas to be reviewed to reduce the loss and maximise the retention of individual mature trees, groups of trees, and hedges

and to provide more extensive replacement planting of trees and hedgerows across the scheme.

247. Most areas noted for review have been amended to include more hedgerow, trees or other vegetation as appropriate and no trees with TPO status are now affected. It is also now understood that in various other locations, amendments and additional planting is not possible due to constraints of the topography; constraints of underground utilities; extent of land owned by the applicant within the redline boundary; the extent of land required temporarily for construction only which will be reinstated to its original condition and returned to the current landowner; and interfaces with adjacent proposed developments.

248. Accounting for the site constraints noted above, the amended masterplan presents a Scheme that is more integrated into the landscape and avoids areas of highest value. There are however areas that remain a concern or where it is considered more can be done. These areas are:

- Tie in at B4015: The Applicant states the tie-in here cannot be adjusted to avoid tree and hedge loss as it would not conform to DMRB standards. The new Landscape Masterplan does not show any replacement planting of hedgerow or the large trees that are required to be removed from either side of the B4015. Replacement planting needs to be provided.
- Plans should make clear that all trees with TPOs should be retained and protected and, where additional vegetation beyond that already identified is removed during construction, it must be replaced with similar like for like habitat.
- Hill Farm: better screening has been provided for this property, however, there still seems to be more being removed than necessary and none being replaced to the garden and side boundaries. This is possibly due to land being handed back to owner, but confirmation should be provided as to what state the land is being returned to the landowner.
- Where space allows, consideration should be given to proposing low growing grass to central reserve areas.
- Consideration should be given to the LEMP noting future management could allow development of natural regeneration of planting on the science bridge embankments
- Further exploration of should be given to planting more hedges or trees closer to edges of swales e.g. as is proposed at the bat hop-over at Clifton Hampden.
- It is accepted that the mature, well-managed existing beech hedge at CSC entrance cannot be retained in situ but should be considered for translocation elsewhere on site.
- Consideration should be given to whether more hedgerows could be included, e.g. at attenuation ponds.

249. It is considered that the above could be addressed as part of the conditions. On balance, the Scheme is now considered acceptable in landscape and visual planning policy terms, subject to the following conditions set out below.

- Detail Design for Bridges
- Detail Design for Noise Barriers
- Detailed Landscaping Scheme: *Note that the hedgerow and trees to the B4016 tie in should either be retained or replaced. The detailed landscape scheme should also give consideration to planting hedges and trees to edges of swales, low growing grass to central reserves and translocation of the beech hedge at CSC*.
- Protection of Retained Vegetation: *All plans must make clear that no trees with TPO status are to be removed and must be protected for the duration of the works in accordance with the AIA and AMS. In addition, plans should note that, where vegetation beyond that already identified is removed during construction, it must be replaced with similar like for like habitat*.
- Implementation of Approved Landscaping Scheme
- External Lighting
- Landscape Management and Maintenance Plan (LEMP): *The LEMP should also include consideration of future management to allow natural regeneration of trees and shrubs on the science bridge embankments*
- CEMP (Construction Environment Management Plan) (Landscape)
- Handover Environmental Management Plan (HEMP).

250. Arboriculture: The Arboricultural Impact Assessment (AIA) report and supporting plans prepared by the applicant have been developed in line with *British Standard 5837:2012 Trees in relation to design, demolition, and construction – Recommendations* (BS5837) BS and are considered suitable to support the planning application. Trees are a material consideration in planning decisions and associated planning policies seek for the retention of higher quality trees.

251. The extent of tree removals is detailed within the summary tables provided in section 5 of the AIA and further tables submitted as part of the Arboricultural Impact Assessment Addendum. The scheme design will result in the loss of individual trees and tree groups across a total combined area of 12.13 ha as provided in the updated AIA Addendum. The updated Addendum notes this is approximately 600m2 less than the original assessment. *The figure previously provided as part of the Regulation 25 responses in November 2022 was 12.04 ha although this figure is believed to be a mistake and the updated AIA Addendum states the original assessment was 12.19 ha*. The vast majority of removals are moderate quality (BS Category B) or low quality (BS Category C), with a single high quality (BS Category A) individual tree identified for removal. Hedgerow removals are quantified at 5.67km, with replacement hedge planting totalling 3.84km. Further trees losses may result once tree positions and their associate Root Protection Areas (RPA are confirmed on site. Additional unknowns include third party ownership, trees identified for removal outside the redline boundary, the impact of part removal on remaining tree groups, and the cumulative impact of ash die back.

252. The Applicant has sought to limit the impacts on high amenity value trees (Cat A) with only one such tree identified for removal (this being tree T534 which has been identified for further survey to confirm its position by the Applicant). This complies with local planning policies through the retention and protection of high amenity value trees. One veteran tree (T424) lies within the scheme boundary. The drainage design has been adjusted and now illustrated on Tree Protection Plan (TPP) sheet 54 rev P03 as being outside of the root protection area/buffer zone of the tree. These works now comply with National and Local Planning Policies, and in line with the Standing Advice from Natural England.

253. The impacts on TPOs and Conservation Area trees has been mitigated through further design and none have been identified for removal as part of the proposed works. Clifton Hampden Conservation Area (CA): proposed works now being limited to re-surfacing operations and trees within CA now to be retained, updated TPP sheet 58 rev P03 illustrates a construction working area hatch where tree crowns extend into works area, but no removals. Culham Railway Station TPO 137/2009: Updated TPP sheet 48 rev P03 illustrates changes to proposed works to enable the retention of the TPO trees reference numbers T237, G262, T352, G355, G318 & G327 within the AIA. T237 – no proposals now within RPA. Revised general arrangement has been delivered to accommodate changes. G262 – cellular confinement system is now proposed to construct new hard surface turning head within extents of TPO group. However, there is an existing gap in vegetation in this area that is not represented by the polygon shape of the TPO. The proposals will now make use of this gap and therefore no removals of G262 are assumed. T352 & G355 – design amendments made to swale, therefore, no RPA encroachments. G318 & G327 – are to be retained. They have a construction working area hatch where tree crowns extend into works area. No removals proposed.

254. It is acknowledged that the constraints of the redline boundary limit the area available for replacement planting and therefore all opportunities to retain existing vegetation and maximise new planting should be taken as part of design development. The introduction of species other than ash will be seen as a benefit for the locality given the presence of ash dieback. The Applicant refers to enhancement works as part of their BNG calculations. This enhancement of existing retained groups of trees would be seen as beneficial, however, details of these works would need to be confirmed and agreed with the LPA prior to the commencement of the works.

255. On balance the Scheme is now acceptable in terms of Arboriculture and complies with relevant planning policy. It is recommended that the Scheme should be Approved with the following conditions set out below.

- Tree Survey
- Arboricultural Method Statement (AMS)
- Clerk of Works Supervision
- Tree Risk Management Strategy
- Consultation
- CAVAT analysis
- Construction Environmental Management Plan (Arboriculture).

256. The following additional conditions are recommended to also be included:

- Condition: T424 to be specifically referenced within an Arboricultural Method Statement with a clear auditable trail of mitigation measures to ensure the protection of the tree. This is to include pre-works, during works and post works operations.

- Condition: G454 to be specifically referenced within an Arboricultural Method Statement with a clear auditable trail of mitigation measures to ensure the protection of this tree group. This is to include pre-works, during works and post works operations. Should trees require removal from this group then these shall be subjected to a CAVAT analysis in line with Policy TP8 of the OCC Tree Policy 2019.

- Condition: Trees subject to TPO 137/2009 to be specifically referenced within an Arboricultural Method Statement with a clear auditable trail of mitigation measures to ensure the protection of the trees that fall within TPO extents. This is to include pre-works, during works and post works operations. Should any of the trees subject to TPO 137/2009 require removal or sustain significant damage then these shall be subjected to a CAVAT analysis in line with Policy TP8 of the OCC Tree Policy 2019.

257. Climate Emissions: An assessment of the impact of the development on climate in terms of potential emissions has been completed by the applicant and is considered suitable to support the planning application. The assessment has shown that overall the scheme is expected to have an overall carbon saving as a result of a reduction in traffic congestion. This reduction in emissions is in line with national, regional and local policy, specifically the Climate Act, transport decarbonisation plan, the NPPF, LTCP, and the Climate Action Plans for VoWHDC and SODC, as well as VOWH P1 Core Policy 43 and SOLP policies DES7 and DES8. It is therefore considered unlikely that the scheme would have a significant adverse effect on climate.

258. The applicant notes in the Climate Position Statement that the scheme is also expected to encourage modal shift to cycling and walking which is in line with VOWH P1 Core Policies 33 and 35 and the LTCP.

259. There are no objections on climate emissions grounds subject to conditions covering:

- Traffic monitoring, to ensure reductions are in line with expectations
- Pre-commencement Carbon Management Plan

260. Climate Vulnerability: An assessment of the vulnerability of the scheme to climate change has been completed by the applicant and is considered suitable to support the planning application. Although it is not fully evidenced by the applicant in the assessment, it is expected that significant climate vulnerability impacts would be avoided on this scheme by good design practice and adherence to

appropriate standards. The conditions imposed will provide confidence that the applicant has included mitigation to avoid significant climate vulnerability impacts.

261. There are no objections on climate vulnerability grounds subject to conditions including:

- Submission of an updated Climate Vulnerability Risk Assessment Annex containing details of mitigation measures for each climate hazard during operations
- Details of mitigation for extreme weather events during construction

262. Agriculture & Soils: An assessment of potential impacts on soil resources, agricultural land and agricultural land holdings has been completed by the applicant. The assessments are compliant with legislation and policy and mostly reflect assessment guidelines considered suitable to support the planning application. The Scoping Opinion and Responses in Chapter 11, Table 11.1 of the ES relating to the loss of BMV land have been addressed.

263. It is noted that no comments were received from any other consultees on the planning application and Regulation 25 response concerning impacts of the proposed scheme on agricultural land and holdings.

264. Whilst the assessments of the impact of the scheme on agricultural holdings is considered to be sufficiently detailed to support this planning application, it is considered that the applicant has overestimated the residual effect assigned to two of the farms, which would be substantially less if the correct thresholds were applied. Taking this into consideration, and the assumption that substantially less BMV and agricultural land is impacted than the applicant has estimated in their assessment as indicated above, it is recommended that there is no objection subject to conditions. This is noting that it is acknowledged for a linear infrastructure scheme of this nature that engineering considerations of agricultural land impacts usually make it impractical to change the route alignment to avoid areas of BMV land.

265. No objections subject to a condition requiring the submission of a soil handling and management plan prior to commencement.

OCC PRoW Officer

266. During the first round of consultation, the PRoW Officer made some detailed comments about the survey approach for the Walking, Cycling, Horse Riding Assessment and Review (WCHAR) but concluded that the results of the survey are broadly sufficient and no further information was requested. The officer advised that no changes to the PRoW legally recorded direction or width must be made without first securing appropriate temporary or permanent diversion pursuant to the provisions under Section 257 of the Town and Country Planning Act 1990 or a Side Roads Order. PRoW that will be unchanged still require protection and mitigation throughout construction such as through fencing off and stand-offs and surfacing, or additional mitigation to be identified in the CTEMP.

267. The officer noted that there is consideration of public rights of way uses and that overall, access for non-motorised users would increase. Both these provisions are welcomed as addressing localised direct impacts of the scheme. Despite the mitigation proposed, there may be additional demand for access for recreational and leisure users. The Countryside Access Team would therefore monitor the impact of the development on the area access network and would seek to secure funds from all sources for necessary improvement, extension and upgrades on highways and with 3rd party landowners in line with the aims of the adopted Rights of Way Management Plan aims. A number of detailed comments were also made on each of the 19 General Arrangement drawings.

268. During the second round of consultation, the officer made no further comment on the merits of the proposal and confirmed there are no objections to it from a PRoW perspective.

Sport England

269. Sport England initially considered the site to include land that constituted playing field, or land last used as playing field, as defined in The Town and Country Planning (Development Management Procedure) (England) Order 2015 and therefore considered itself to be a statutory consultee. Further information was requested, and a holding objection was issued until that information was received.

270. The further information requested was provided by the applicant in November 2022. Sport England reviewed this information and confirmed that it is now satisfied that the application is a non-statutory planning application for Sport England. Sport England has assessed the application against the NPPF and its own planning objectives, which are to protect, enhance and provide sports facilities. There is only one part of the scheme which Sport England has concerns with, which results in the loss of former playing field at the RWE site to the north of Didcot. Sport England state that the current VoWH Playing Pitch Strategy (PPS) is out of date and a new one was recently commissioned and is due to be completed in August 2023.

271. Sport England has consulted the County Football Association/Football Foundation (FA/FF) who raised concerns about the loss of the disused playing field stating the previous evidence base identified a shortfall of football pitches in the local area and that there is no up-to-date evidence to suggest there is now a surplus. The proposed development would remove the ability for the football pitch to be brought back into use. Sport England considers that the application conflicts with Objective *Protect* in that it results in the loss of a full-size football pitch. In light of the above and the lack of evidence of any exceptional circumstances Sport England objects to the application. Sport England stated that it would reconsider its position if the playing field lost was to be replaced elsewhere which would meet our planning policy exception E4.

272. In the third round of consultation, Sport England confirmed that the previously stated objection is maintained.

Office of Nuclear Regulation

273. The Office of Nuclear Regulation does not advise against this development.

MoD Safeguarding

274. The application site falls within the statutory height, technical and birdstrike safeguarding zones surrounding RAF Benson. The application has been reviewed and there are no MOD safeguarding objections.

National Grid

275. During the first round of consultation, National Grid initially raised holding objections pending the receipt of mapping data. Subsequently (on receipt of the data), National Grid confirmed it did not raise any objections to the proposal and confirmed there was no conflict with gas or electricity assets. During the second round of consultation, National Grid again raised a holding objection pending the same mapping data due to its proximity to overhead and underground electricity transmission lines and cables. The mapping data was re-provided to National Grid in early 2023 to enable them to confirm the original response of 'no objection' still stands, however to date and despite your officers following this up repeatedly, no response has been received. National Grid has however confirmed it has no objection in respect of gas assets.

Oxfordshire Fire & Rescue

276. The road works would need to withstand the weight of Fire Service vehicles to ensure emergency service vehicle access is maintained

Southern and Scottish Electricity (SSE)

277. SSE do not have any objections to the proposal providing the necessary steps are taken to divert our equipment as part of the various works carried out. There are a lot of documents in the application, but there are utility diversion plans so this looks to be in order.

Southern Gas Networks (SGN)

278. SGN operates gas apparatus within and in the vicinity of the planning application boundary. All reasonable measures must be taken prior to the implementation of any works to ensure the apparatus is properly protected. Such measures may include agreeing protective measures and relocating the apparatus at the sole cost of the applicant.

Crime Prevention Design Advisor

279. There is a proven link between road environment/character and driver's speed. If the speed limit it is not accepted as realistic it will quickly be abused and be the source of constant demands for police action.

Network Rail

280. Network Rail reviewed the proposal for impacts on the rail system including: The Didcot Science Bridge crossing of the Great Western Main Line; the Appleford

Sidings bridge; the interface with Appleford Level Crossing; and the road crossing of the Oxford to Didcot main line at Culham. Comments are also made in respect of the use of the railway for construction purposes.

281. The highways scheme interfaces particularly with the Didcot to Oxford rail corridor which is a key strategic route for both passenger and freight traffic and is a regional priority for electrification. Network Rail is generally supportive of any transport schemes that support access to the stations located on this route, however there are relevant aspects for the existing and future operation of the railway that also need to be highlighted.

282. Didcot Science Bridge: Network Rail are currently engaged via a Basic Asset Protection Agreement with OCC for the design of the Science Bridge, with approval in principle in place and a letter of 'no objection' being issued to OCC in October 2021. A Bridge Agreement and Easement (with Heads of Terms agreed) for the air rights over the railway will need be put in place prior to the works being undertaken.

283. Appleford Sidings Bridge: The operations at the sidings utilise hopper and box wagon types that would not require a high degree of gauge clearance. However, based on wider policy aspirations towards decarbonisation, it would be appropriate to allow for this under future proposals. Therefore, we recommend that the crossing design allows for W12 gauge clearance of the railway, to facilitate a wider variety of rail freight traffic to serve the site. Network Rail does not itself own the Appleford Sidings or its access, and it is recommended that consultation is undertaken with the landowner, Hanson.

284. Appleford Level Crossing: Clarification is requested as to how the development would impact the level crossing. If access is to be cut-off to housing, alternative provision across the railway would be required. It is Network Rail policy to close level crossings where possible. Consequently, we are keen to review any opportunities for the closure of this crossing.

285. A415 Abingdon Road Crossing of Railway: While there appears to be no proposals directly impacting the bridge, it is expected that the scheme will significantly increase flows of road traffic over this rail crossing. We are keen to understand any assessments that have been carried out for the changes in traffic and pedestrian flows that are expected in this area, as these relate to both the A415 crossing and the adjoining minor road south of Culham Station.

286. Rail Transport of Construction Materials: Oxfordshire benefits from a number of active railheads, including at Appleford, which are used for receiving aggregates in support of construction projects, and these would be well located relative to this scheme. The CTMP details the high levels of HGV traffic that will be generated by the scheme, however it is disappointing to note that no consideration has been given to the use of rail transport for the construction phase of the scheme. Network Rail is keen to work with the applicants to develop a Materials by Rail strategy, to incorporate the use of rail in supporting construction.

287. Asset Protection: Any works on Network Rail land will need to be undertaken following engagement with Asset Protection.

Oxford Preservation Trust

288. The development is part of the wider plans for this part of the County, which were based on the assumption that the Oxford to Cambridge Arc would deliver significant growth within Oxfordshire. In 2021 plans for the Arc were revised and plans for a major new road to link the two cities dropped. This reflects the Government's commitment towards tackling climate change, and their obligation to reach net zero emissions by 2050, with the focus moving to improved public transport, and active travel options. At a local level, the County Council published Climate Action Framework in 2020 in which they committed to a net-zero future for Oxfordshire, and with the ambitious aim of operating at net-zero carbon by 2030. The Trust is pleased to support both the Government and the Council commitment to carbon neutrality, and as part of this, to reduce car usage.

289. With all this in mind we question whether it is necessary to create a new road network across existing open countryside. If the ambitious targets set are to be met plans for new road and bridge building across the County should be stopped. Recent local press articles have drawn attention to, and indeed, praised the County for their commitment to reducing car use and into alternative forms of transport. We are at a loss to see how this can be claimed when this scheme remains on the table. The extensive housebuilding programmes taking place offers many opportunities to provide green energy alternatives, to design more environmentally friendly residential areas, and to offer alternative modes of transport for residents. We urge the Council to rethink this road and bridge building programme and find a greener way.

Friends of the Earth Oxford

290. In their first comment, FoE Oxford objected to the development and their comments are summarised as follows: Oxfordshire County Council (OCC) has committed to delivering a net-zero transport system, particularly in LTCP, which requires the carbon emissions from potential transport schemes to be quantified and compared against Oxfordshire's carbon budget. Based on research by the Tyndall Centre at the University of Manchester, the fair share of the carbon budget for transport (i.e. one in which transport's share of emissions does not increase) is 6.2MtCO_2. If annual transport emissions return to 2019 levels, this carbon budget will be used up in around three and a half years. Therefore, rapid and immediate cuts in emissions are required. It is within this context that Oxfordshire needs to assess whether the Scheme is aligned with the county's policy goals.

291. To support its planning application, OCC commissioned AECOM to estimate the Scheme's emissions. The resulting report:

- estimates that while there will be some emissions from construction of the Scheme, there will be lower emissions from road users due to lower congestion; and

- calculates that emissions only account for less than 0.04% of the UK's national transport carbon budget, and concludes that "no significant effects are expected to occur to the scheme in respect of climate change."

292. These analyses are based on a number of flawed assumptions, according to new research commissioned by Oxford FoE and conducted by an expert economist (provided as an appendix to the response). The flawed assumptions can be summarised as follows. The AECOM assessment:

- compares the Scheme's emissions against national rather than local carbon budgets, as required by the LTCP; this inevitably leads to the conclusion that the Scheme's emissions are immaterial, as national emissions are several order of magnitudes larger than local projects. However, when compared to Oxfordshire's transport carbon budget, the Scheme's emissions are significant.
- does not assess the additional demand generated by increased road capacity (known as 'induced demand'), thus it has not considered the additional and substantial emissions likely to be generated by the extra traffic resulting from the Scheme.
- mistakenly assumes that people will travel the same amount regardless of the level of congestion. In fact, people travel less when there is high congestion, and more when there is lower congestion. This means the report overestimates the level of congestion without the Scheme, and overestimates the improvement in congestion with the Scheme. Therefore, it overestimates the potential carbon savings from reduced congestion.

293. When we account for these issues, our research finds that the Scheme could emit around 514ktCO_2 in the period up to 2050, which on its own consumes around 8% of Oxfordshire's remaining transport carbon budget. This figure takes into account expected improvements in vehicle efficiency and electric vehicles uptake in the 'Core scenario' of the Department for Transport's National Road Traffic Projections 2022, which includes firm and funded government policies. Even if we assume there is a rapid uptake of electric vehicles, the Scheme could still emit around 287ktCO_2, or 5% of Oxfordshire's transport carbon budget. These emissions are greater than the carbon savings that would be made if Oxfordshire managed to reach the cycling targets it has set in the LTCP (to increase cycling trips from 600,000 to 1 million by 2030).

294. Therefore, we recommend that OCC follows the example of the Welsh government, which has implemented a freeze on new road building, to review the planned road investments and assess whether these are aligned with its climate ambitions. This review should not only consider each proposed road project in isolation, but needs to assess their impact in collectively enabling car-dependent lifestyles, and to properly explore less damaging and less costly alternatives. OCC should then assess how to support connectivity for new developments while decarbonising transport and reducing car use. The experience of other successful European cities suggests measures that both discourage car use and encourage sustainable transport modes will be needed to engender a shift away from car use.

295. During the third round of consultation, FoE Oxford submitted a further objection which echoed and/or supported the comments made by the NJCPC as set out above in paragraphs 94-112 on the following topics:

- Concerns over the deliverability of the development and unrealistic construction timetable
- Flaws in the handling of uncertainty in the ES
- Climate impacts and carbon emissions
- Noise and vibration
- Landscape
- Arboriculture and biodiversity
- The Appleford Sidings Bridge

Gardens Trust

296. Gardens Trust has considered the application and liaised with Oxfordshire Gardens Trust. No comments are made on the proposals, however the Trust emphasises that this does not signify approval or disapproval of the proposals. This position was restated in both the second and third rounds of consultation.

CPRE South Oxfordshire & CPRE Vale of White Horse (Combined Response)

297. CPRE objects to the application for the following reasons:

Impact on the Countryside

298. This scheme would include development on the Green Belt, which it considered to be non-compliant with NPPF and Local Plan policy and are strongly opposed to any further erosion of the Green Belt. The road, cutting across green field sites around Didcot, Appleford, Sutton Courtney and Clifton Hampden will ruin the landscape and settings for these communities and all those who enjoy access to this countryside. The scheme will also have a detrimental impact on local wildlife.

Financial Viability

299. Our understanding is that the full costs of the scheme are now well beyond the money received via the HIF allocation and will incur £30m plus of council debt, which will escalate with inflation, interest and overruns. This, during a period of austerity and budget cuts will jeopardise service provision in other critical areas.

Failure to meet current carbon emission targets

300. This scheme is out of date specifically in relation to the councils own transport and climate commitments. All local councils have declared a climate emergency and set carbon emission reduction policies and targets which this scheme does not achieve. This leaves councils open to legal challenge.

Unacceptable carbon and environmental costs

301. The carbon and environmental costs of the proposals would be significant and have been downplayed in the assessments. Concerns raised by others are supported, including those which identify shortcomings in the ES and a failure to assess all the impacted localities, to consider viable alternatives and the lack of appropriate mitigation measures. CPRE also supports NPC-JC's conclusions on deficiencies in the ES on Air Quality.

302. Non-Compliance to the LTCP which seeks to develop a zero-carbon transport system which prioritises walking and cycling and reduces car journeys.

Impact on Local Villages

303. It is stated that the proposal will have a detrimental impact on local villages and the rural character of the area and will turn villages into "rat runs". The impact on communities beyond the immediate scheme needs greater consideration. Whilst HIF1 may possibly facilitate traffic movement as far as the Golden Balls roundabout, it seems likely it would then 'drop' a significant amount of traffic onto rural roads leading across to the M40. The electorate has already made clear its views on an OxCam Expressway and does not want to see such a financially and ecologically costly project introduced by stealth. It would have a detrimental impact on the health and wellbeing of residents due to increasing noise and air pollution. The mitigating landscaping and planting is adequate. It is quite clear that the local communities that would be impacted by the HIF1 scheme do not support the proposals and do not want their places to look and feel as if they are being formed around a road-building agenda.

Overstating/Undeliverable Scheme Benefits

304. The largest and most pressing existing problem, traffic congestion in Didcot, will not be solved by this scheme. New roads have generally been shown to increase traffic and rarely deliver the promised benefits, as outlined in CPRE's 2017 report - '*The end of the road? Challenging the road-building consensus'. (https://www.cpre.org.uk/resources/the-impact-of-road-projects-in-england/).*
The primary objective of the HIF1 road is to support housing development, yet it has been designed as an arterial link road, which will not meet this objective and instead bring large volumes of new and additional commercial traffic, impacting existing villages. Additionally, and importantly, we contend that any new housing development should be designed from the outset to be zero carbon and be truly sustainable and not be dependent on cars and private road traffic. This is, of course a basic vision and aim of Oxfordshire's Local Transport and Connectivity Plan.

305. CPRE believes the entire HIF1 project should be shelved in order for a full assessment is done of how these roads fit into (or not) into a future vision for Oxfordshire (as outlined, for example in the LTCP5 and PaZCO strategies) and focus should be on emerging Local Plans within the county.

306. During the first round of consultation, CPRE also provided comments on the walking, cycling and horse-riding provision. It was noted that surveys were only undertaken in one week in autumn and may not be reflective of all these activities when the weather may be more conducive to horse-riding in particular. It was stated that Pegasus crossings should be installed where road crossings are provided for equestrians, that routes should be correctly signed as multi-user routes where applicable, and that surfacing for bridleways should be safe for horses. Comments were also made on the need for regular maintenance of verges and swales, the design of floating bus stop shelters, and the impact of lighting on the Clifton Hampden Bypass.

RSPB

307. RSPB has no comments on this application but recommends that BBOWT is consulted.

North Wessex Downs AONB Board

308. No comments received.

BBOWT

309. BBOWT objects to the application on the following grounds:

- The proposed development raises serious concerns about the negative impact on breeding and wintering birds across the whole scheme including disturbance during construction and operation and accidental mortality from collision with vehicles.

- The proposed development raises serious concerns about the negative impact on the final scheme proposed for the Hanson restoration area at Bridge Farm Quarry including:

    a) Impact on priority habitat: The proposed nature reserve at the Hanson restoration area would in time, allow for the creation of high value priority habitats including wet woodland, reedbed, eutrophic standing water and, potentially, lowland meadow and the application must therefore be assessed in the context of the loss of this priority habitat.

    b) Impact on birds and other wildlife: The scheme will impact on the potential use of the site by a wide range of species, including breeding and wintering birds as well as many other species groups, which would otherwise have expected to colonise the site following the completion of the restoration scheme.

    c) Impact on the nature reserve for the visiting public: It would be reasonable to assume that the proposed scheme will have a negative impact on the nature conservation land use at the Hanson restoration area for the visiting public, both because of the adverse impact of the scheme on habitat and wildlife as outlined above, and because of the visual, noise and general disturbance impact of the scheme on the nature reserve.

  BBOWT contends that the application should be treated as if it was impacting on nature conservation land use including a variety of habitats rich in wildlife and with provision for visitors as proposed by the Hanson Aggregates Sutton Courtenay - Bridge Farm Revised Restoration Scheme. It is quite possible that the restored site would ultimately become a site of Local Wildlife Site quality and therefore it is BBOWT's opinion that the application should be assessed in that context. If the authority was to decide that this scheme should go ahead we would suggest that the applicant should provide an additional nature reserve of

appropriate size and quality in order to compensate for the loss of priority habitat which will result from the proposed scheme.

- BBOWT has also raised some concerns about the applicant's biodiversity net gain metric assessment. In the third round of consultation BBOWT noted that changes have been made to the Biodiversity Net Gain Assessment in relation to the Hanson Restoration Area. The applicant's revised Biodiversity Net Gain Assessment indicates that 532 urban trees are to be planted and these have been assumed to be 'Medium' sized urban trees in 'Moderate' condition taking 29 years to reach the target condition and delivering 61 habitat units. To qualify as Medium size in the Urban Street tree part of the metric then there has to be a reasonable certainty of the tree being 30cm in diameter at 30 years after planting. The new Defra 4.0 User Guide states: *"8.3.13: Size classes for newly planted trees should be classified by a projected size relevant to the project timeframe. Most newly planted street trees should be categorised as 'small'. Evidence is required to justify the input of larger size classes".* We therefore consider it would be reasonable to suggest that the 532 individual trees should be categorised as 'small' within the metric or evidence should be provided to justify the use of 'medium' size in this instance.

Further detail setting out the concerns raised are included within the full response.

Annex 5 – Representations Summary

- Impact on Appleford residents, including air quality, noise and health effects
- The noise environment around Appleford is already poor and will be made worse by the proposed development and the raised Appleford Sidings Bridge
- The Appleford Sidings Bridge will have a harmful visual and landscape effect and a blight on the landscape.
- The Appleford Sidings Bridge would overshadow properties
- Lighting on the Appleford Sidings Bridge will be intrusive and harm the character of the area
- The road is too close to Appleford. Alternatives to move the Appleford Sidings Bridge further away from residents have not been properly explored
- No mitigation will be effective in reducing the effects to Appleford residents because of the height and proximity of the Appleford Sidings Bridge to the village
- The Appleford Sidings Bridge is a poorly designed and over-engineered concrete structure which has unnecessary bulk and mass. No attempts have been made through design or materials to reduce the impact on the local area.
- The river crossing will harm areas of restored quarry working which now provide rich habitats for wildlife
- The development, and the associated loss of trees, open space, and biodiversity assets is contrary to the climate emergency
- There is an alternative solution to connect Didcot and Culham that will have less impacts via investing in the Didcot to Culham railway
- The development is contrary to the need to move away from private vehicles use towards active and sustainable travel modes
- Building new roads encourages additional traffic by providing an alternative route for pent-up demand
- The development will result in more HGVs travelling through rural villages
- The proposed river crossing will be a physical barrier between the communities of Appleford and Sutton Courtenay, impacting on community links
- The proposal would increase traffic through Sutton Courtenay and Drayton
- Concern on impact to children travelling to and from nursery and school
- The proposed roundabout at the entrance to Culham Science Centre is too large, unnecessarily complicated, and over-engineered
- The Culham Science Centre roundabout would be at an elevated level and would impact on the privacy of properties near Culham Station.
- The Clifton Hampden Bypass route is in Green Belt where development is rightly restricted
- The Clifton Hampden Bypass would destroy trees, woodland and fields causing harm to wildlife
- The development would have cumulative effects due to recent and planned housing and employment growth in the area
- The application will cause pollution and harm the environment and human health
- The Clifton Hampden Conservation Area would be harmed when it should be protected from development

- The Clifton Hampden Bypass would be too close to houses and gardens
- Traffic congestion will not be eased but would be moved from one place to another
- The development would have a harmful effect on Golden Balls Roundabout
- The development would increase traffic and congestion through Nuneham Courtenay
- The Clifton Hampden Bypass would affect people using footpaths and enjoying the local area for recreation
- There has been insufficient consultation with the local community. Community views have not been taken into account.
- The proposal will destroy the peace and tranquillity of the countryside
- Concern that the development would increase flooding
- There are too many documents in the planning application to be able to fully understand the application
- The proposal would be harmful to many different protected and rare species
- Property values will be reduced
- Traffic modelling data is insufficient and unconvincing. The underlying data behind the modelling should be provided.
- The scheme represents a fundamental change to the historical landscape character
- The new Sutton Courtenay Roundabout and T-Junction to Appleford are too close together and will be accident hotspots.
- The development is an Oxford-Cambridge Expressway being delivered by stealth
- There is no evidence that the proposal is still needed post-Covid and post-Brexit
- The scheme would result in the loss of much needed agricultural land
- The development would be an arterial link between the A34 and M40 and bring large amounts of commercial and HGV traffic through local villages.
- The impact on traffic movement within Sutton Courtenay has not been properly assessed
- The cumulative impacts of the development have been under-estimated
- The development is contrary to the Local Transport and Connectivity Plan and the Council's own climate change policies which supports a zero-carbon transport network, tackles inequality, and promotes health and wellbeing
- The proposal would increase greenhouse gas emissions and damage the climate
- The development fails to acknowledge, or take advantage of, innovation and improvements in technology and modes of travel. It is an outdated solution for the car-dominant society of the past.
- The cost-benefit-analysis does not stack up.
- The development will cause increased traffic congestion into and within Abingdon.
- The construction period would cause immense disruption and prevent residents from accessing work and services
- The development would cause severe harm to the Culham Science Centre Nursery through noise and vibration and no mitigation has been proposed.
- The mature trees at the entrance to the Culham Science Centre should be retained.

- The application undermines the policy objective of modal shift
- The application is contrary to national and local policies, including those that seek to protect the Green Belt, the environment and mitigate climate change.
- The proposal would only bring short term relief. Traffic congestion will be back to current levels within 10 years.
- The Clifton Hampden Bypass is located as far away from the village as possible, but there should be an island to enable pedestrians to cross the road
- Traffic management measures in villages (e.g. Sutton Courtenay) should be delivered alongside the plans
- The impact on rights of way is not clear
- A safe cycling route from Abingdon to Culham Science Centre, and ideally on to Berensfield, should be an integral part of the scheme
- The parallel crossings and 'default to green for cycling' signals are supported. Well-placed and frequent zebra/parallel crossings for pedestrians also look to have been achieved
- Pedestrian/cyclist crossings on roundabouts need to be designed to ensure safety and priority of movement
- The cycle path along the A415 should be extended into Abingdon.
- The delivery of the development will need to respect other planning permissions in the area, for example the Roadside Services consent on land to the south of the proposed Backhill Roundabout.
- It is not clear how the existing Hanson railway siding operation and FCC minerals and waste development would be affected by the proposed Appleford Sidings bridge, river crossing, and construction of the scheme.
- It is not clear if and how the approved restoration and aftercare schemes at the Sutton Courtenay Minerals and Waste complex would be delivered in accordance with approved plans, including the restored 'Finger Lakes' area.
- It is not clear what the impact of the development would be on the settlement of the restored '90-acre field' site
- Construction noise effects to a number of properties are substantial over a duration of months or years and no mitigation is proposed. This will include night working and is not acceptable.
- Increased flood risk must not be permitted
- There is a risk of fly-tipping, overflow parking, unauthorised encampments and antisocial behaviour on the part of the A415 that would be closed, adjacent to Fullamoor properties.
- The existing pedestrian traffic island on the A415, to the east of the Culham No.1 site is proposed for removal. This should be replaced to enable residents to walk/cycle to Culham Railway Station without having to take a circuitous route.
- It is not clear what the planned timetable is for the construction of the development.
- The development would have an adverse noise impact on the Premier Inn Hotel near Milton Interchange and no mitigation has been proposed.
- Investment should be made in clean, environmentally friendly technologies rather than a new road
- The assessment of the impact of the development on the Grade II Listed Fullamoor Farmhouse is insufficient. The Council has a statutory duty to

protect heritage assets as set out in the Planning (Listed Buildings and Conservation Areas) Act 1990.

- The development will result in increased traffic, and therefore traffic noise, to properties in close proximity to the A415.
- The introduction of lighting in the vicinity along the route of the proposed Clifton Hampden Bypass will change the character of the area and have impacts for local residents and wildlife.
- The loss of trees has not been appropriately mitigated.
- The application makes no account of induced traffic demand.
- The carbon emissions from the development, including embodied carbon used in the construction process, is unacceptable
- The proposal is not a good use of public money
- Alternatives have not been properly considered
- The ES submitted with the application is deficient
- It is not clear if the permitted use of the Didcot A Power Station site has been taken into account in the baseline junction capacity assessment
- The development is not financially viable
- The infrastructure is desperately needed to reduce travel times between Didcot and Culham, including the river crossing through Appleford
- The existing infrastructure has no resilience to issues and therefore there is frequent and very bad congestion
- The dualling of the A4130 is needed to support the Valley Park development
- The development will provide opportunities for people to walk and cycle which are not there at the moment
- The poor quality of the infrastructure at present harms the economy and quality of life
- The baseline landscape around Appleford is a train line and quarry, it is not an area of outstanding natural beauty
- A few residents in Appleford would be affected but most Oxfordshire residents would benefit
- The development would reduce pressure on the A34
- The proposal provides improved infrastructure to enable active travel and provide sustainable links to new housing developments and employment at Milton Park
- The harms of the development significantly and demonstrably outweigh the benefits
- Induced demand would exacerbate problems on surrounding A roads and at Milton Interchange
- Additional cycle and pedestrian links to surrounding areas, including Oxford, are needed to make any meaningful difference in movement patterns.
- There has been inadequate assessment of alternative options, including options that do not require road building
- There is a lack of consideration of effects on Abingdon and Milton Interchange
- The development is not feasible or deliverable.
- The bridge over the railway should be where it is in a cutting rather than on an embankment.

Annex 6 – European Protected Species

The Local Planning Authority in exercising any of their functions, have a legal duty to have regard to the requirements of the Conservation of Species & Habitats Regulations 2017 (as amended) which identifies 4 main offences for development affecting European Protected Species (EPS).

1. Deliberate capture or killing or injuring of an EPS
2. Deliberate taking or destroying of EPS eggs
3. Deliberate disturbance of a EPS including in particular any disturbance which is likely
    a) to impair their ability –
        i) to survive, to breed or reproduce, or to rear or nurture their young, or
        ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
    b) to affect significantly the local distribution or abundance of the species to which they belong.
4. Damage or destruction of an EPS breeding site or resting place.

Our records and the habitat on and around the proposed development site and ecological survey results indicate that a European Protected Species is likely to be present.

The proposed development is likely to result in an offence under the Conservation of Species & Habitats Regulations 2017 (as amended).

Officers therefore have a duty to consider whether the proposal would be likely to secure a licence. To do so the proposals must meet with the three derogation tests which are:

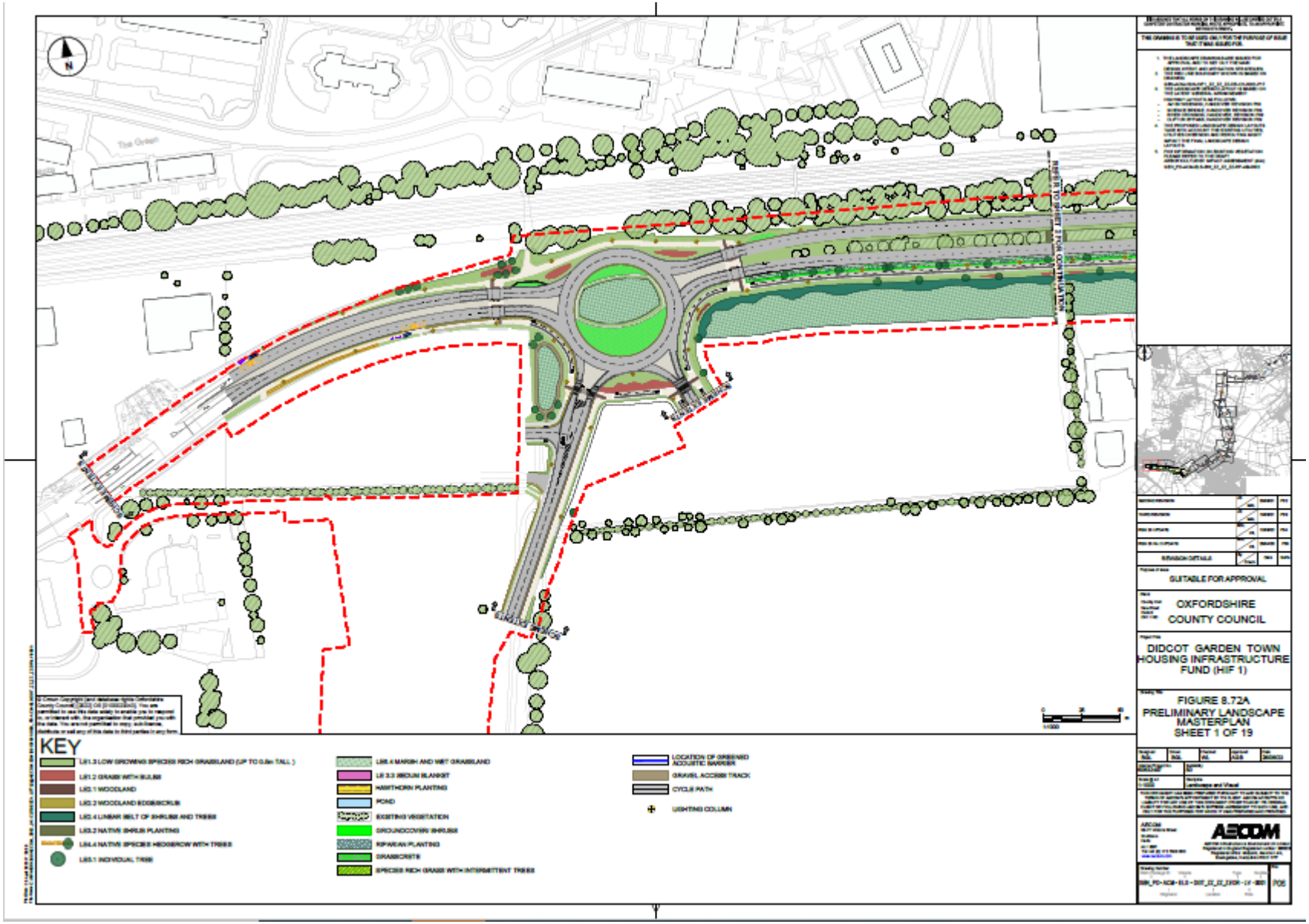
- There are imperative reasons of overriding public interest (e.g. health and safety, economic or social)
- There is no satisfactory alternative
- The action will have no detrimental impact upon population of the species concerned e.g. because adequate compensation is being provided.

Your officers are of the opinion that the submitted evidence satisfies the three derogation tests because the works will be undertaken under licence and the mitigation measures outlined in the Environmental Statement will be implemented in full which will not result in an effect on the conservation status of the local bat population.

The recommendation:

The evidence submitted clearly demonstrates that the three derogation tests are likely to be met and given this, your officers are of the opinion that Natural England are likely to grant a licence. As such the LPA do not need to consider this matter further. It is however recommended that a note be appended to the decision advising the applicant as to the need to secure a licence before commencing development.

Annex 7 – Preliminary Landscape Masterplan Drawings 1-19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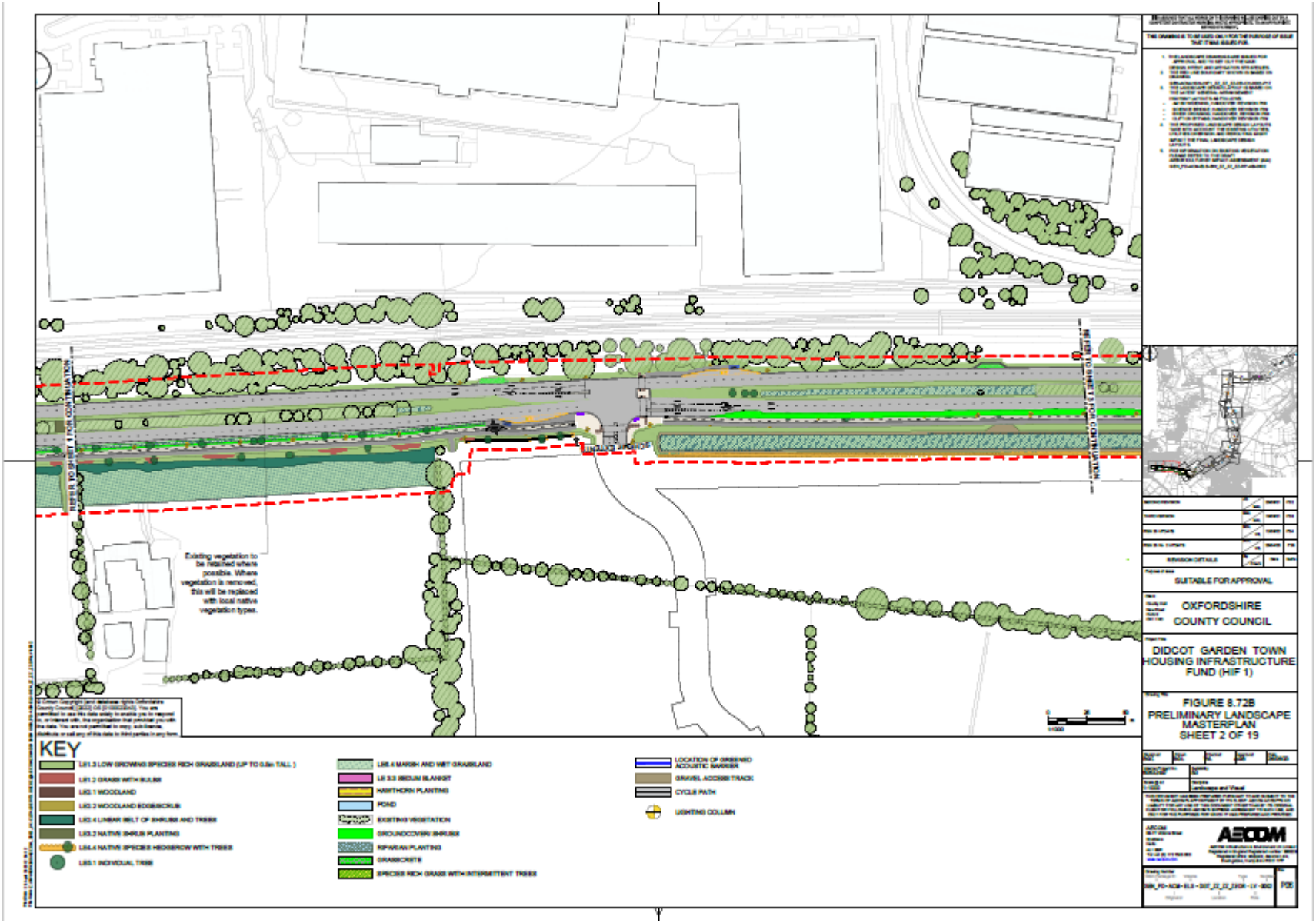
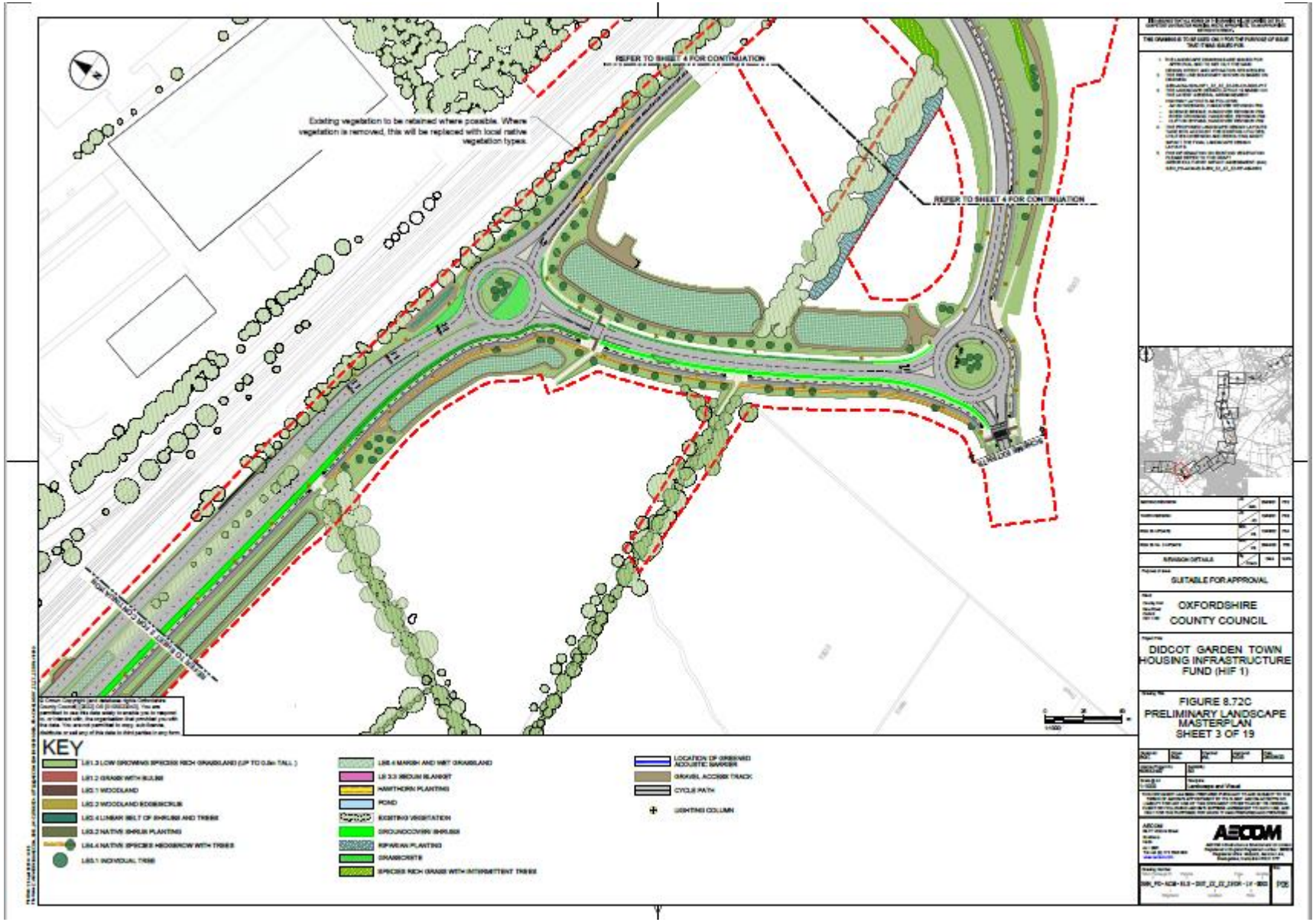
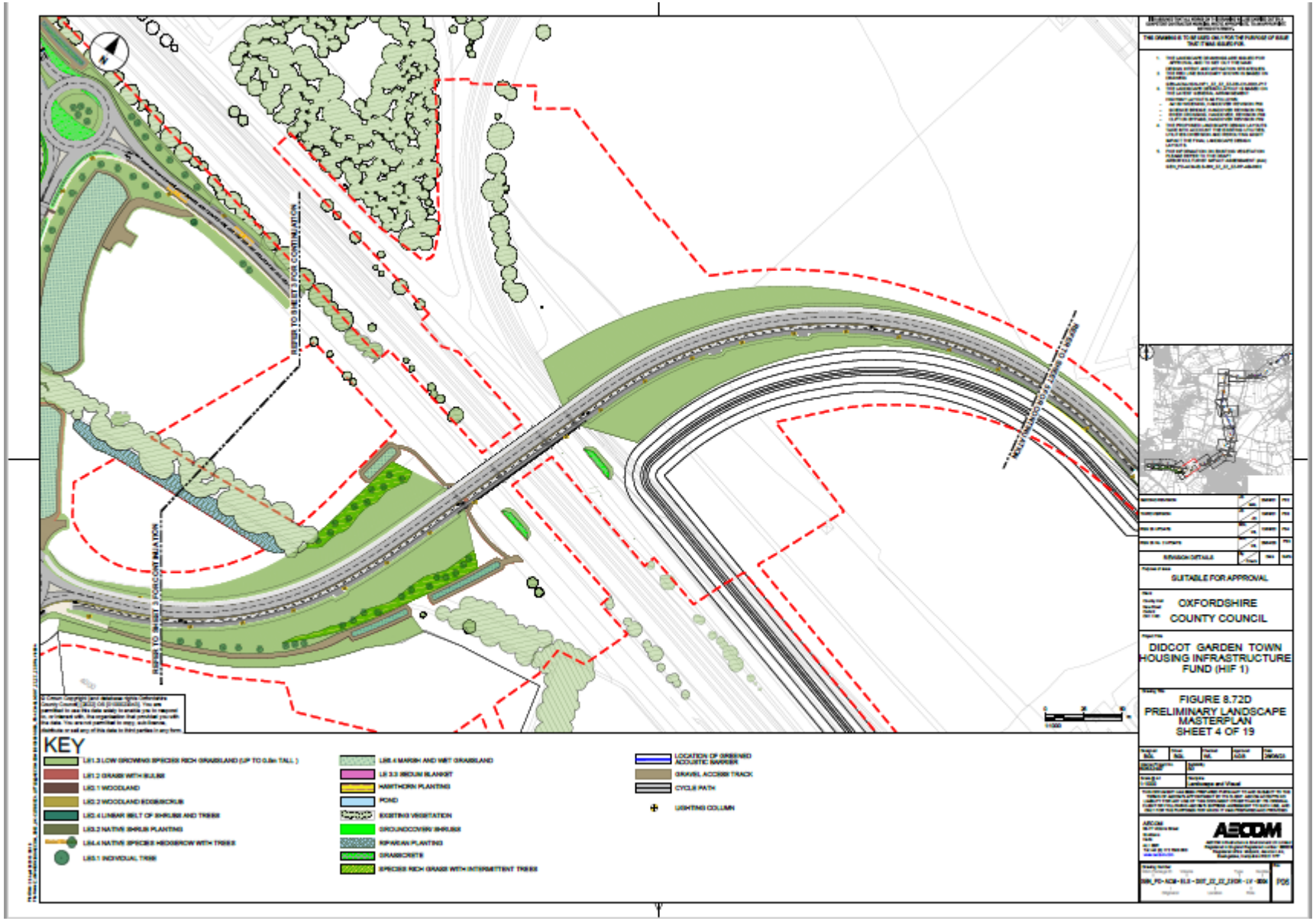
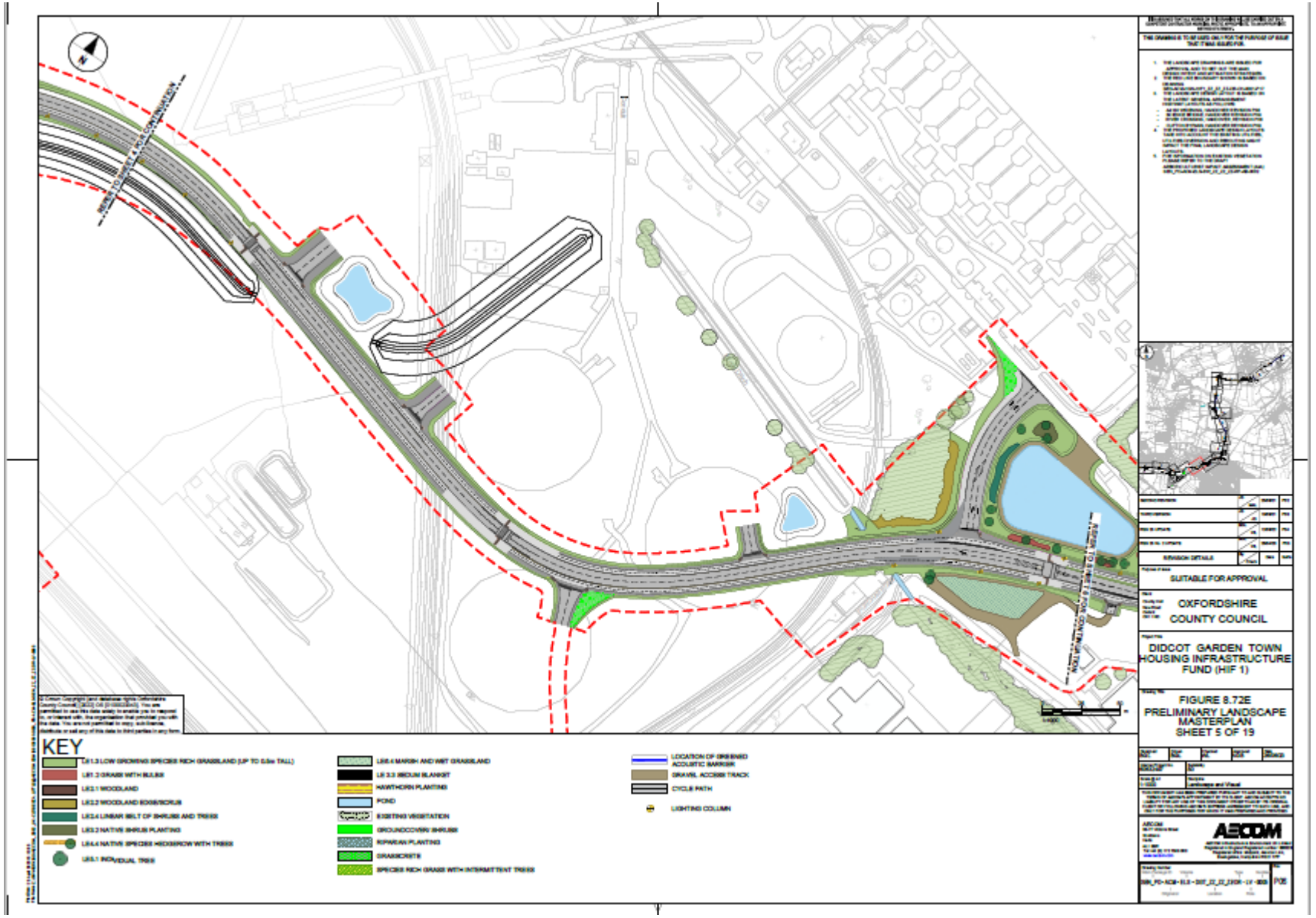
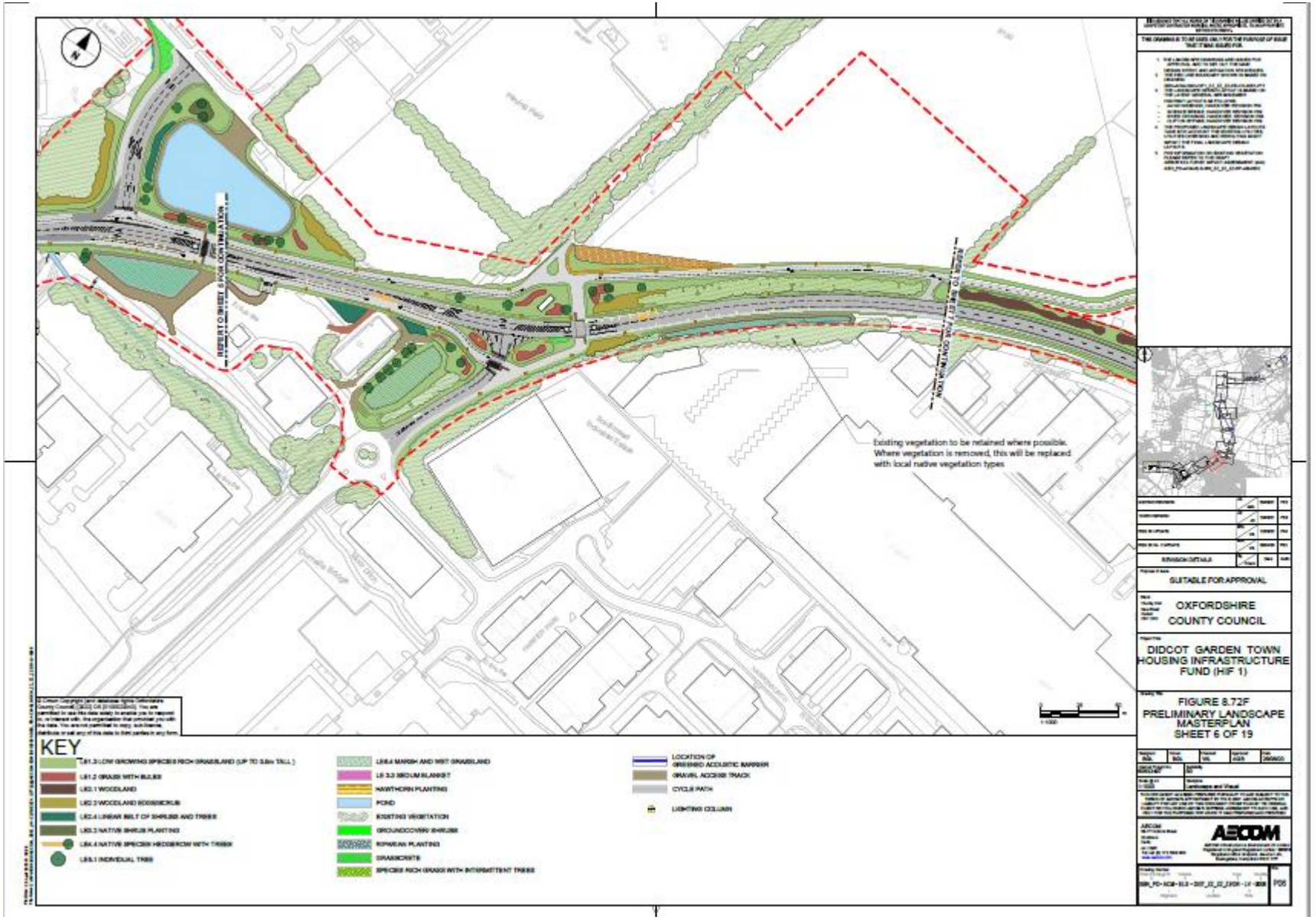
SUITABLE FOR APPROVAL
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72A
PRELIMINARY LANDSCAPE MASTERPLAN
SHEET 1 OF 19
AECOM

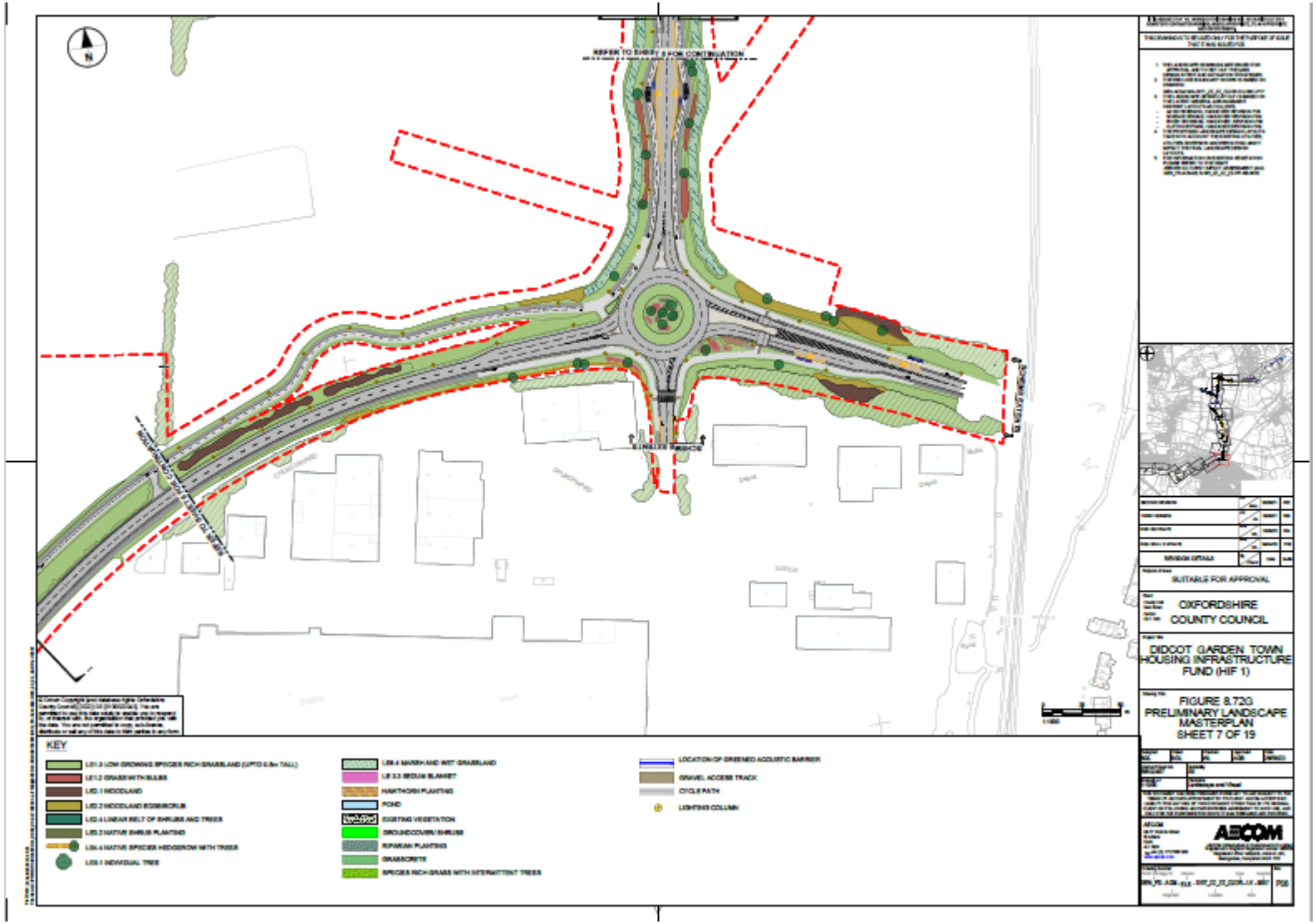

REFER TO SHEET 11 FOR CONTINUATION
REFER TO SHEET 13 FOR CONTINUATION
Existing vegetation to be reached where possible. Where vegetation is removed, this will be replaced with local native vegetation types.
KEY
LS1.3 LOW GROWING SPECIES RICH GRASSLAND (UP TO 0.8m TALL)
LS1.2 GRASS WITH BULBS
LS2.1 WOODLAND
LS2.2 WOODLAND ECOSHRUBS
LS2.4 LINEAR BELT OF SHRUBS AND TREES
LS3.2 NATIVE SHRUB PLANTING
LS4.4 NATIVE SPECIES HEDGEROW WITH TREES
LS5.1 INDIVIDUAL TREES
LS6.4 MARSH AND WET GRASSLAND
LS 3.3 WOLIN BLANKET
HAWTHORN PLANTING
POND
EXISTING VEGETATION
GROUNDCOVER/ SHRUBS
RIPARIAN PLANTING
GRASSCRETE
SPECIES RICH GRASS WITH INTERMITTENT TREES
LOCATION OF GREENKO ACOUSTIC BARRIER
GRAVEL ACCESS TRACK
CYCLE PATH
LIGHTING COLUMN
SUITABLE FOR APPROVAL
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72B
PRELIMINARY LANDSCAPE MASTERPLAN
SHEET 2 OF 19
AECOM

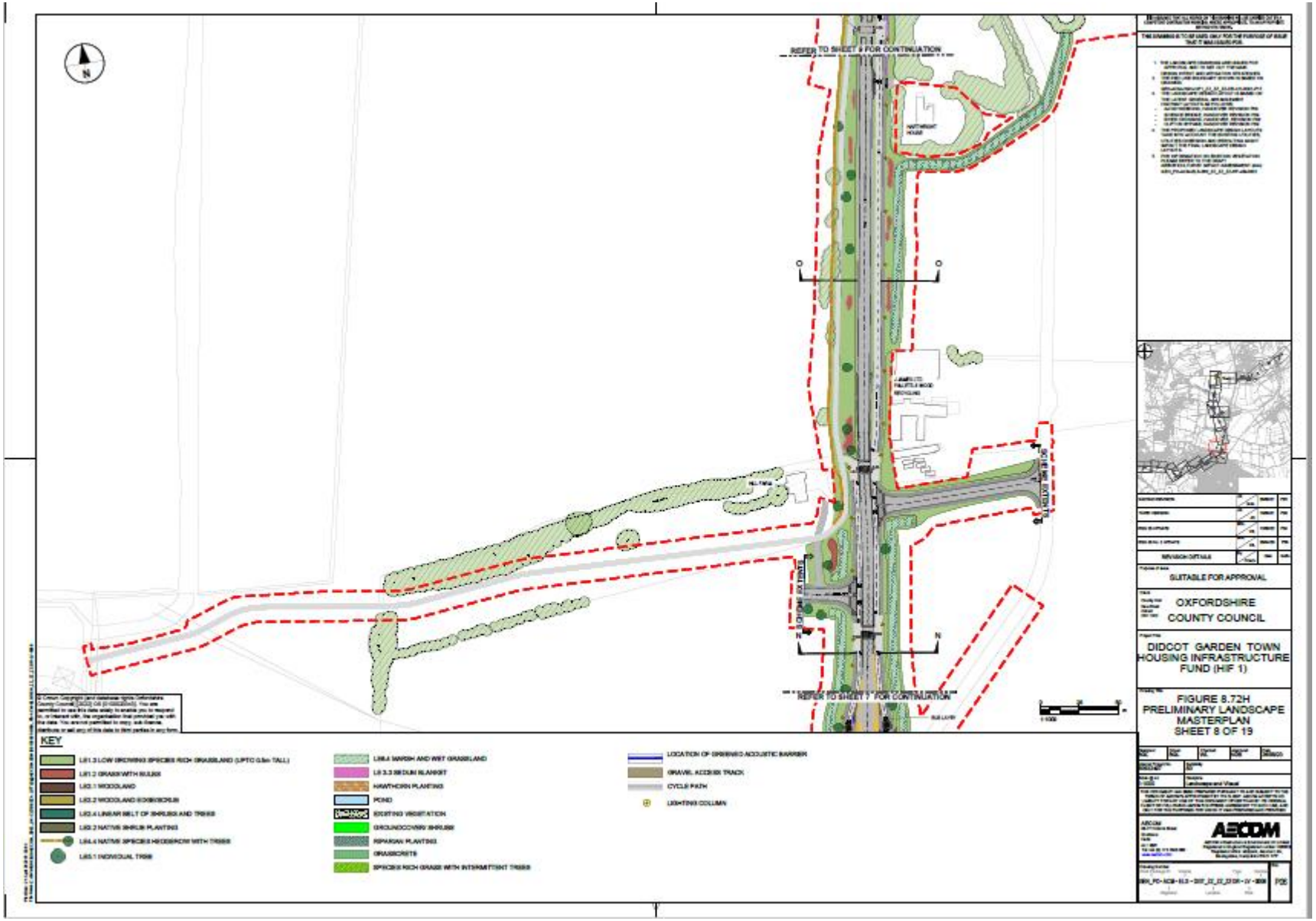

REFER TO SHEET 4 FOR CONTINUATION
REFER TO SHEET 4 FOR CONTINUATION
Existing vegetation to be retained where possible. Where vegetation is removed, this will be replaced with local native vegetation types.
KEY
LB1.3 LOW GROWING SPECIES RICH GRASSLAND (UP TO 0.5m TALL)
LB1.2 GRASS WITH BULBS
LB2.1 WOODLAND
LB2.2 WOODLAND ECOSHRUBS
LB2.4 LINEAR BELT OF SHRUBS AND TREES
LB3.2 NATIVE SHRUB PLANTING
LB4.4 NATIVE SPECIES HEDGEROW WITH TREES
LB5.1 INDIVIDUAL TREE
LB6.4 MARSH AND WET GRASSLAND
LB 3.3 WILDFLOWER MEADOW
HAWTHORN PLANTING
POND
EXISTING VEGETATION
GROUNDCOVER SHRUBS
RIPARIAN PLANTING
ORNAMENTS
SPECIES RICH GRASS WITH INTERMITTENT TREES
LOCATION OF GREENARD ACOUSTIC BARRIER
GRAVEL ACCESS TRACK
CYCLE PATH
LIGHTING COLUMN
SUITABLE FOR APPROVAL
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72C
PRELIMINARY LANDSCAPE MASTERPLAN
SHEET 3 OF 19
AECOM

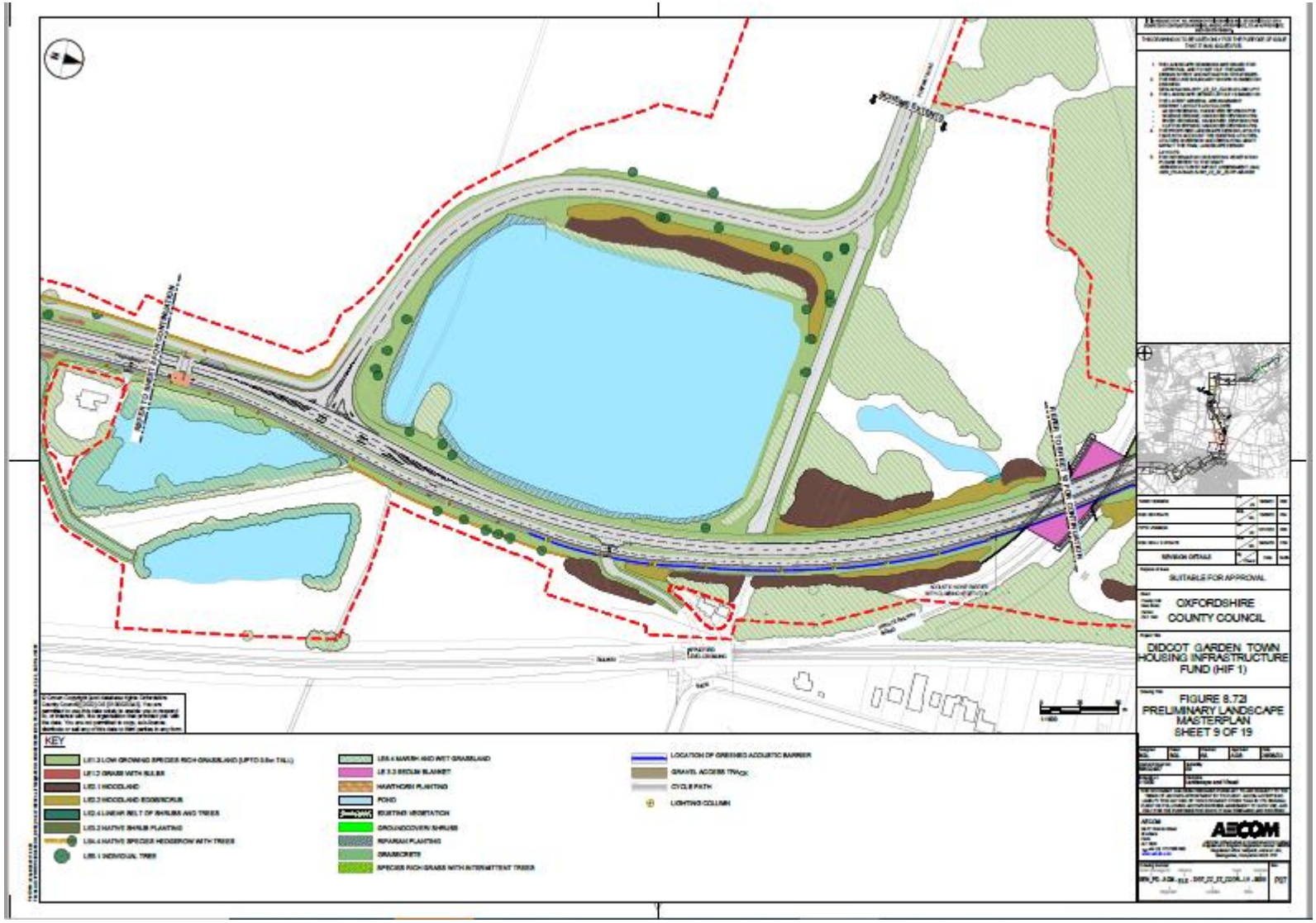

KEY
REFER TO SHEET 3 FOR CONTINUATION
REFER TO SHEET 3 FOR CONTINUATION
SUITABLE FOR APPROVAL
OXFORDSHIRE
COUNTY COUNCIL
DIDCOT GARDEN TOWN
HOUSING INFRASTRUCTURE
FUND (HIF 1)
FIGURE 8.72D
PRELIMINARY LANDSCAPE
MASTERPLAN
SHEET 4 OF 19
AECOM

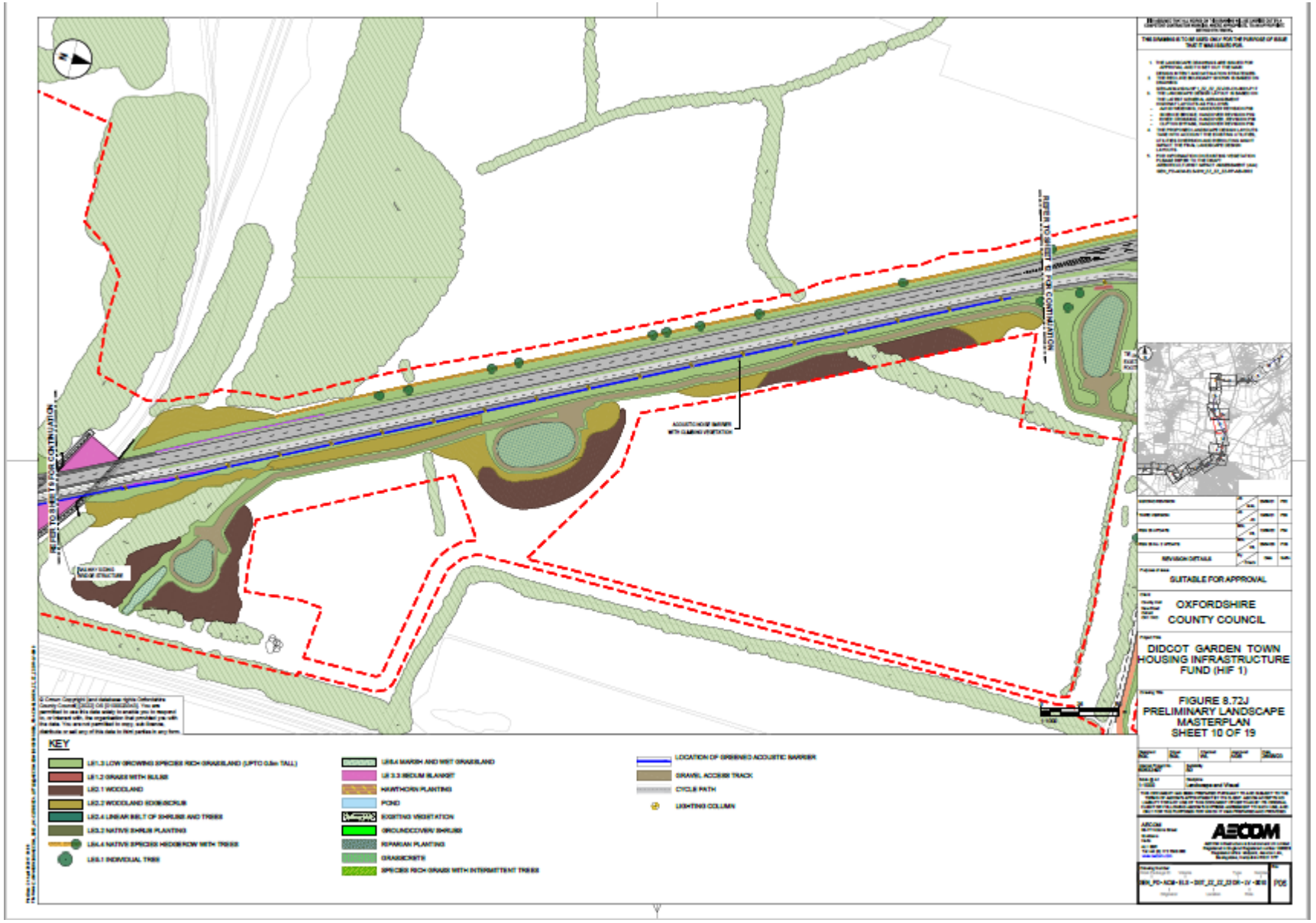

KEY
LE1.3 LOW GROWING SPECIES RICH GRASSLAND (UP TO 0.5m TALL)
LE1.2 WOODLAND EDGE/SCRUB
LE2.1 WOODLAND
LE2.4 LINEAR BELT OF SHRUBS AND TREES
LE3.2 NATIVE SHRUB PLANTING
LE4.4 NATIVE SPECIES HEDGEROW WITH TREES
LE5.1 INDIVIDUAL TREE
LE4.4 MARSH AND WET GRASSLAND
LE 3.3 RECLAIM BANKSIDE
HAWTHORN PLANTING
POND
EXISTING VEGETATION
GROUNDCOVER/ SHRUBS
RIPARIAN PLANTING
GRASSCRETE
SPECIES RICH GRASS WITH INTERMITTENT TREES
LOCATION OF GREENED ACOUSTIC BARRIER
GRAVEL ACCESS TRACK
CYCLE PATH
LIGHTING COLUMN
SUITABLE FOR APPROVAL
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72E
PRELIMINARY LANDSCAPE MASTERPLAN
SHEET 5 OF 19
AECOM

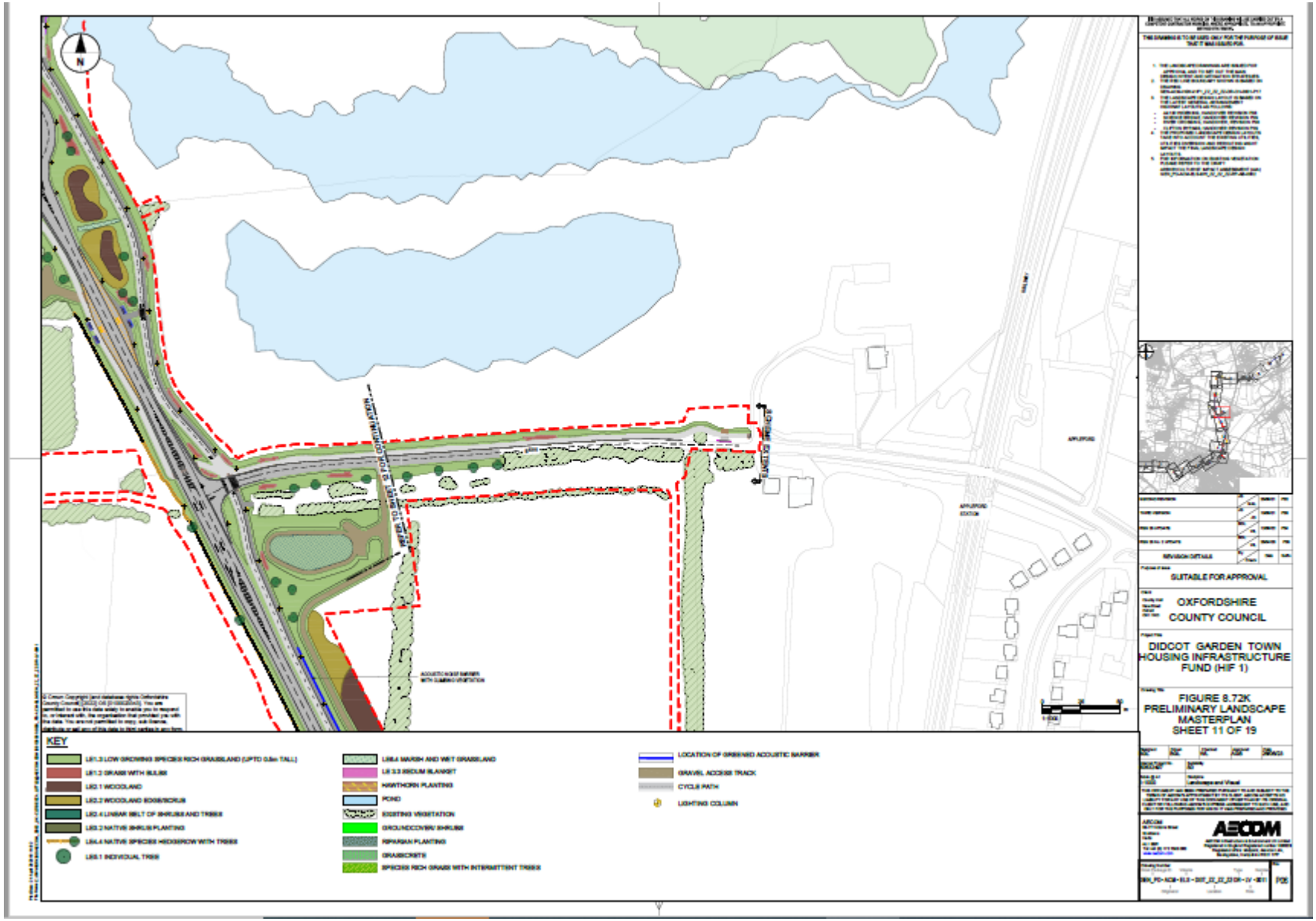

REFER TO SHEET 5 FOR CONTINUATION
REFER TO SHEET 7 FOR CONTINUATION
Existing vegetation to be retained where possible. Where vegetation is removed, this will be replaced with local native vegetation types
KEY
LB1.3 LOW GROWING SPECIES RICH GRASSLAND (UP TO 0.8m TALL)
LB1.2 GRASS WITH BULBS
LB2.1 WOODLAND
LB2.2 WOODLAND ECOSECKLIB
LB2.4 LINEAR BELT OF SHRUBS AND TREES
LB3.2 NATIVE SHRUB PLANTING
LB4.4 NATIVE SPECIES HEDGEROW WITH TREES
LB5.1 INDIVIDUAL TREE
LINEA MARSH AND WET GRASSLAND
LB 3.3 MEDIUM BLANKET
HAWTHORN PLANTING
POND
EXISTING VEGETATION
GROUNDCOVERING SHRUBS
RIPARIAN PLANTING
GRASSCRETE
SPECIES RICH GRASS WITH INTERMITTENT TREES
LOCATION OF ORNAMENTAL ACOUSTIC BARRIER
GRAVEL ACCESS TRACK
CYCLE PATH
LIGHTING COLUMN
SUITABLE FOR APPROVAL
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72F
PRELIMINARY LANDSCAPE MASTERPLAN
SHEET 6 OF 19
AECOM

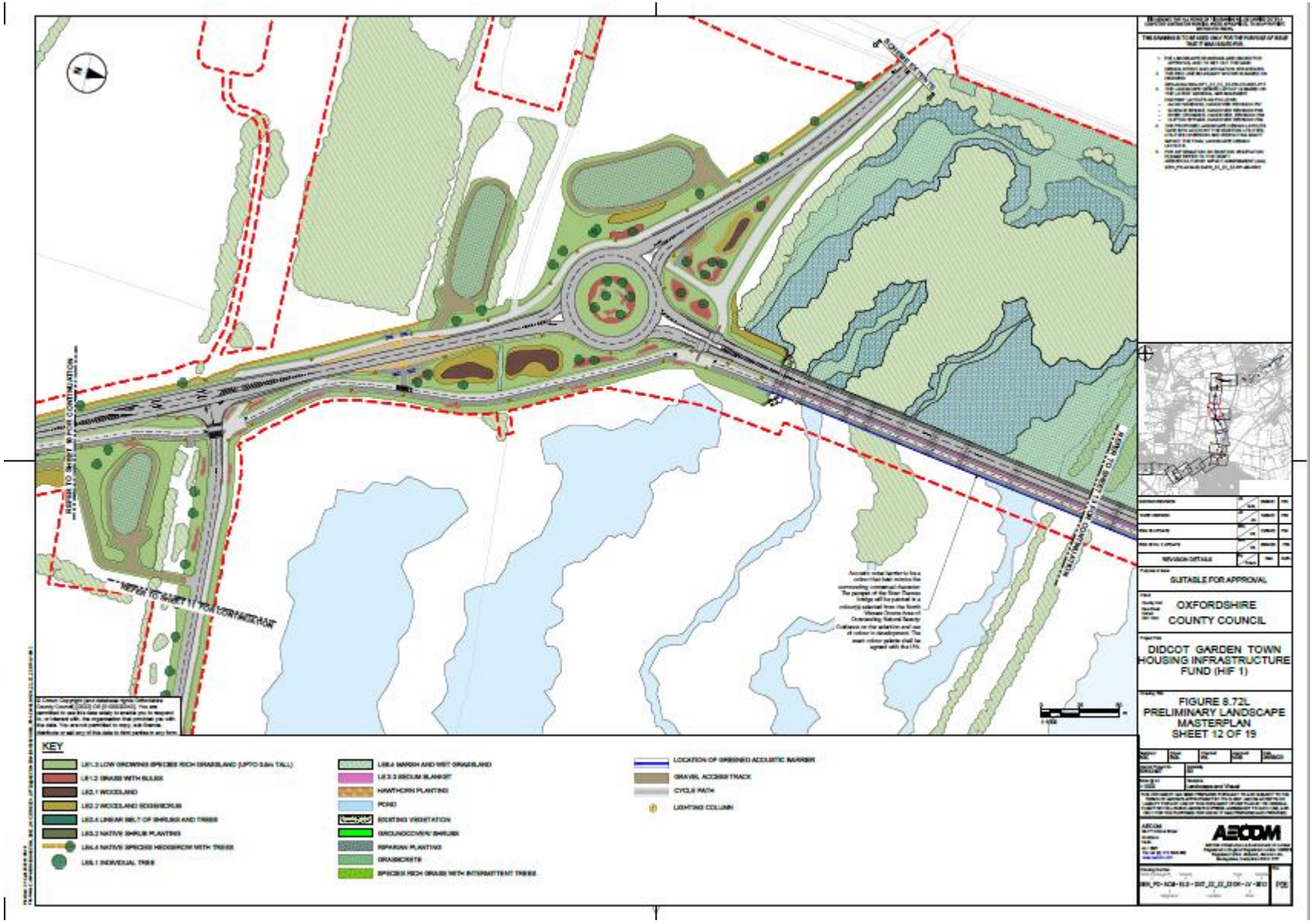

REFER TO SHEET 8 FOR CONTINUATION
KEY
SUITABLE FOR APPROVAL
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72G
PRELIMINARY LANDSCAPE MASTERPLAN
SHEET 7 OF 19
AECOM

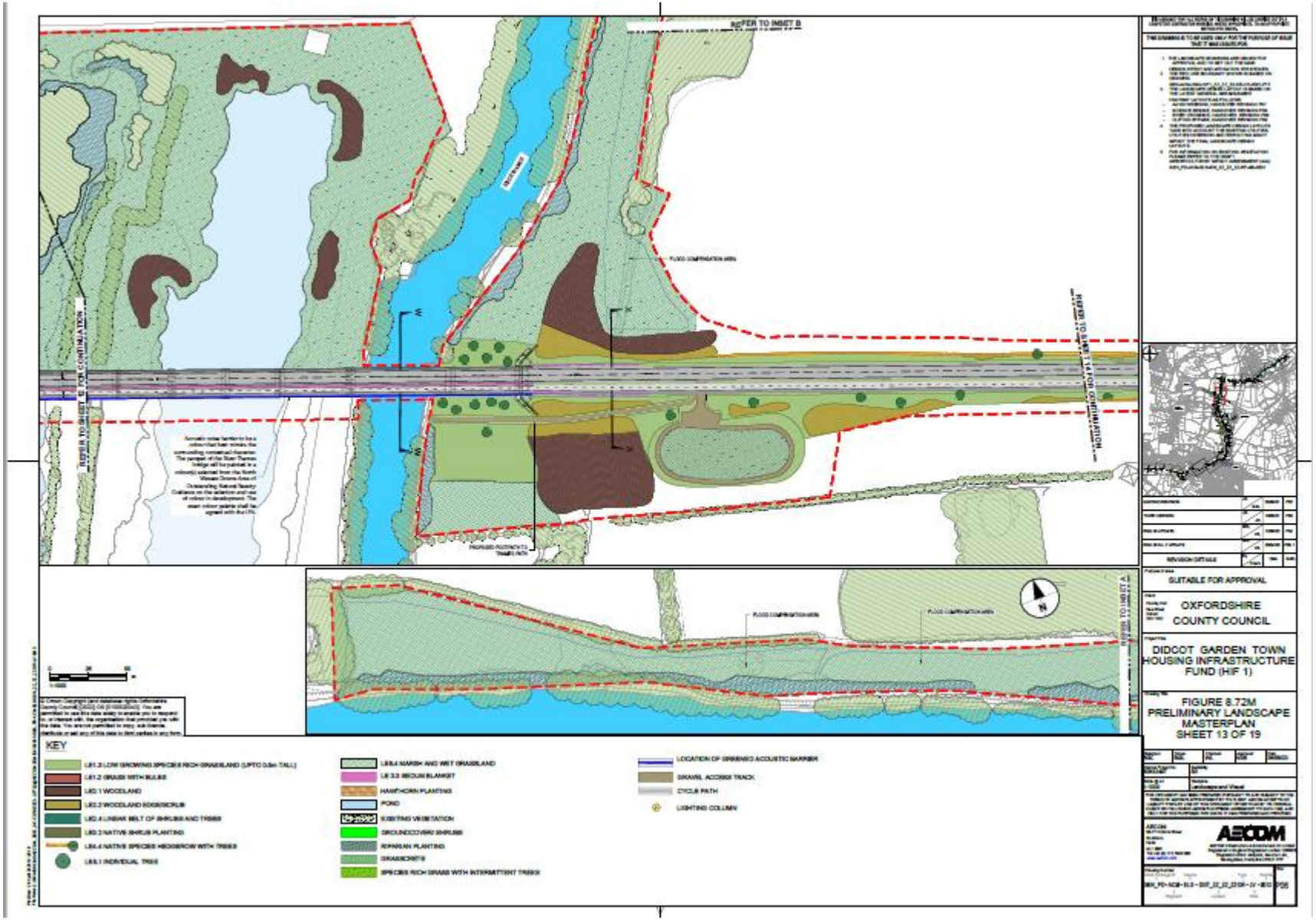

REFER TO SHEET 9 FOR CONTINUATION
REFER TO SHEET 7 FOR CONTINUATION
SUITABLE FOR APPROVAL
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72H PRELIMINARY LANDSCAPE MASTERPLAN SHEET 8 OF 19
KEY
LOCATION OF GREENED ACOUSTIC BARRIER
GRAVEL ACCESS TRACK
CYCLE PATH
LIGHTING COLUMN
HAWTHORN PLANTING
POND
EXISTING VEGETATION
RIPARIAN PLANTING
GRASSCRETE
AECOM

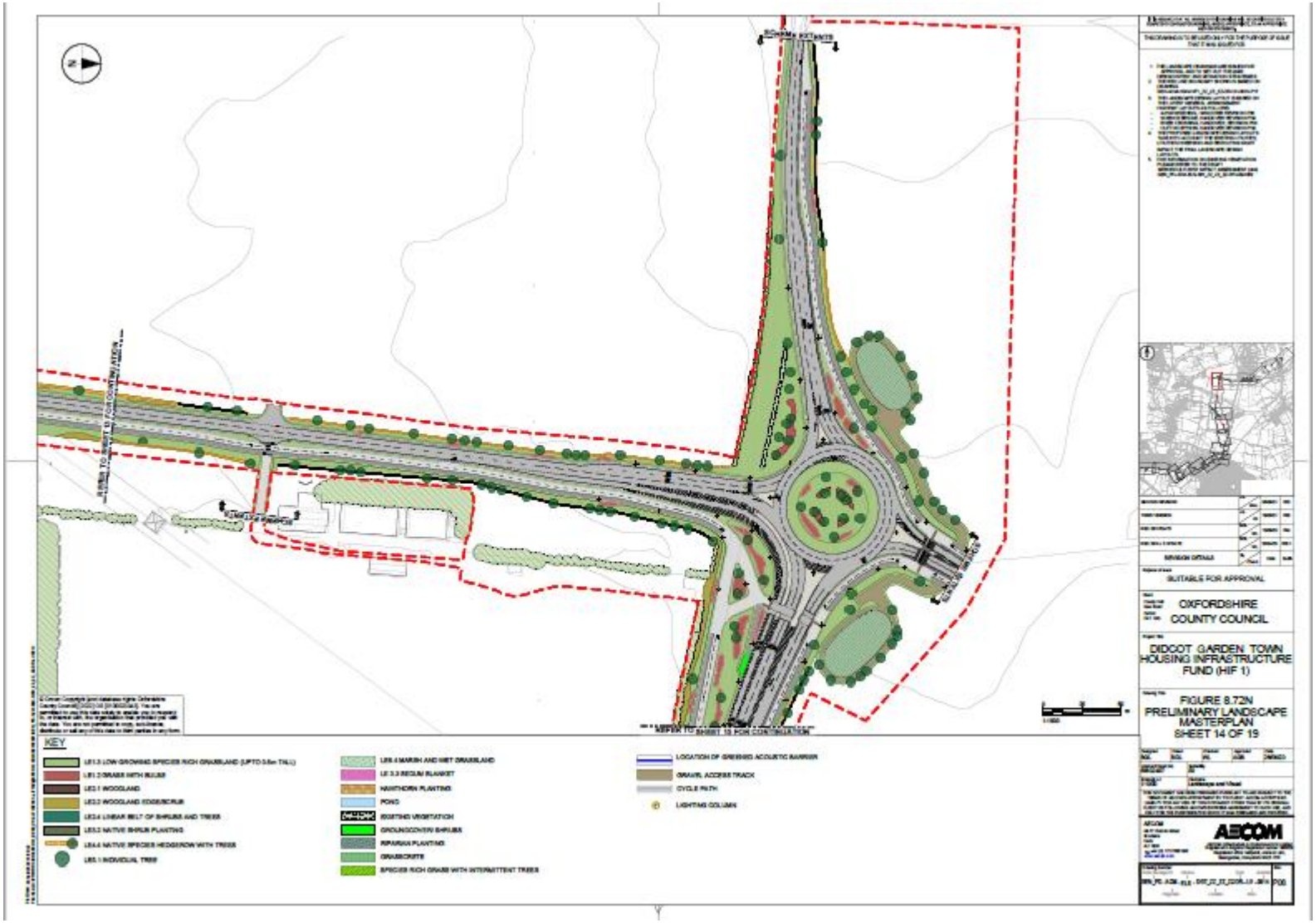

KEY
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.7J PRELIMINARY LANDSCAPE MASTERPLAN SHEET 9 OF 19
SUITABLE FOR APPROVAL
AECOM

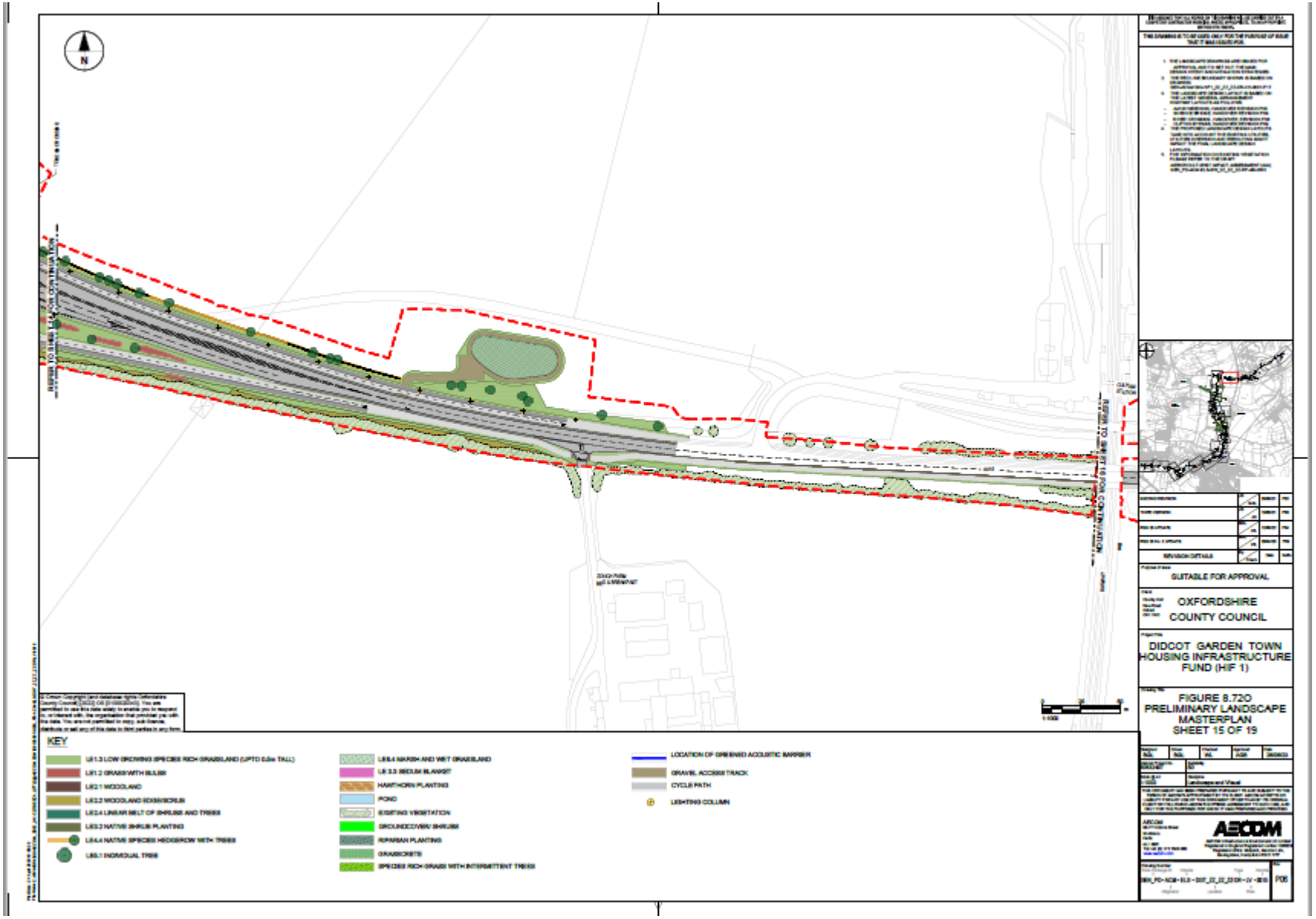

KEY
LE1.3 LOW GROWING SPECIES RICH GRASSLAND (UPTO 0.8m TALL)
LE1.2 GRASS WITH BULBS
LE2.1 WOODLAND
LE2.2 WOODLAND EDGE/SCRUB
LE2.4 LINEAR BELT OF SHRUBS AND TREES
LE3.2 NATIVE SHRUB PLANTING
LE4.4 NATIVE SPECIES HEDGEROW WITH TREES
LE5.1 INDIVIDUAL TREE
LE5.4 MARSH AND WET GRASSLAND
LE 3.3 BECIUM BLANKET
HAWTHORN PLANTING
POND
EXISTING VEGETATION
GROUNDCOVER/ SHRUBS
RIPARIAN PLANTING
GRASSCRETE
SPECIES RICH GRASS WITH INTERMITTENT TREES
LOCATION OF GREENED ACOUSTIC BARRIER
GRAVEL ACCESS TRACK
CYCLE PATH
LIGHTING COLUMN
SUITABLE FOR APPROVAL
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72J PRELIMINARY LANDSCAPE MASTERPLAN SHEET 10 OF 19
AECOM


N
KEY
LS1.3 LOW GROWING SPECIES RICH GRASSLAND (UPTO 0.5m TALL)
LS1.2 GRASS WITH BULBS
LS2.1 WOODLAND
LS2.2 WOODLAND EDGE/SCRUB
LS2.4 LINEAR BELT OF SHRUBS AND TREES
LS3.2 NATIVE SHRUB PLANTING
LS4.4 NATIVE SPECIES HEDGEROW WITH TREES
LS5.1 INDIVIDUAL TREE
LS6.4 MARSH AND WET GRASSLAND
LS 3.3 SEDUM BLANKET
HAWTHORN PLANTING
POND
EXISTING VEGETATION
GROUNDCOVER/ SHRUBS
RIPARIAN PLANTING
GRASSCRETE
SPECIES RICH GRASS WITH INTERMITTENT TREES
LOCATION OF GREENED ACOUSTIC BARRIER
GRAVEL ACCESS TRACK
CYCLE PATH
LIGHTING COLUMN
SUITABLE FOR APPROVAL
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72K
PRELIMINARY LANDSCAPE MASTERPLAN
SHEET 11 OF 19
AECOM

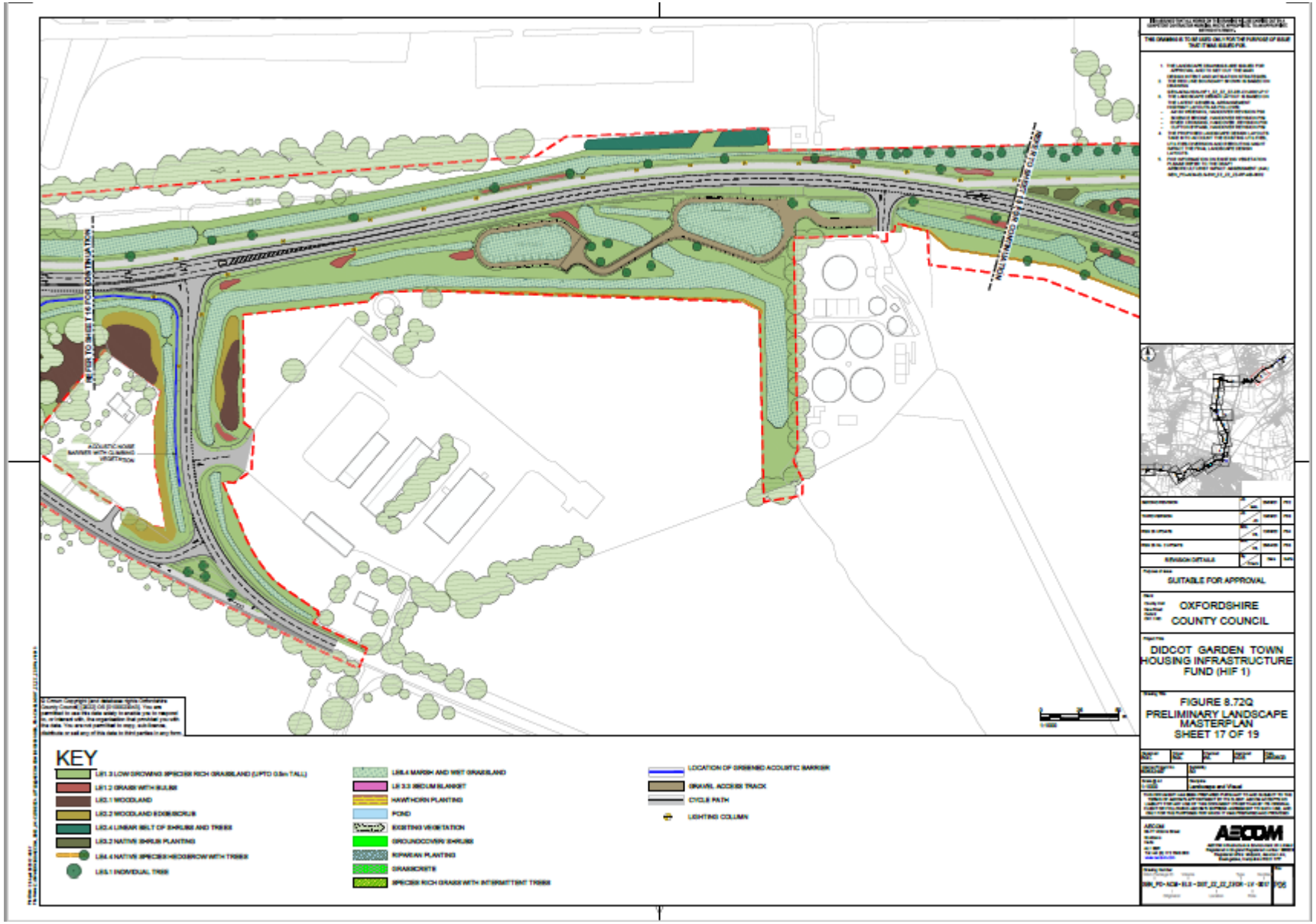

KEY
LS1.3 LOW GROWING SPECIES RICH GRASSLAND (UPTO 0.6m TALL)
LS1.2 GRASS WITH BULBS
LS2.1 WOODLAND
LS2.2 WOODLAND EDGE/MIX
LS2.4 LINEAR BELT OF SHRUBS AND TREES
LS3.2 NATIVE SHRUB PLANTING
LS4.4 NATIVE SPECIES HEDGEROW WITH TREES
LS5.1 INDIVIDUAL TREE
LS6.4 MARSH AND WET GRASSLAND
LS 3.3 SEDUM BLANKET
HAWTHORN PLANTING
POND
EXISTING VEGETATION
GROUNDCOVER/ SHRUBS
RIPARIAN PLANTING
GRASSCRETE
SPECIES RICH GRASS WITH INTERMITTENT TREES
LOCATION OF GREENED ACOUSTIC BARRIER
GRAVEL ACCESS TRACK
CYCLE PATH
LIGHTING COLUMN
SUITABLE FOR APPROVAL
OXFORDSHIRE
COUNTY COUNCIL
DIDCOT GARDEN TOWN
HOUSING INFRASTRUCTURE
FUND (HIF 1)
FIGURE 8.72L
PRELIMINARY LANDSCAPE
MASTERPLAN
SHEET 12 OF 19
AECOM

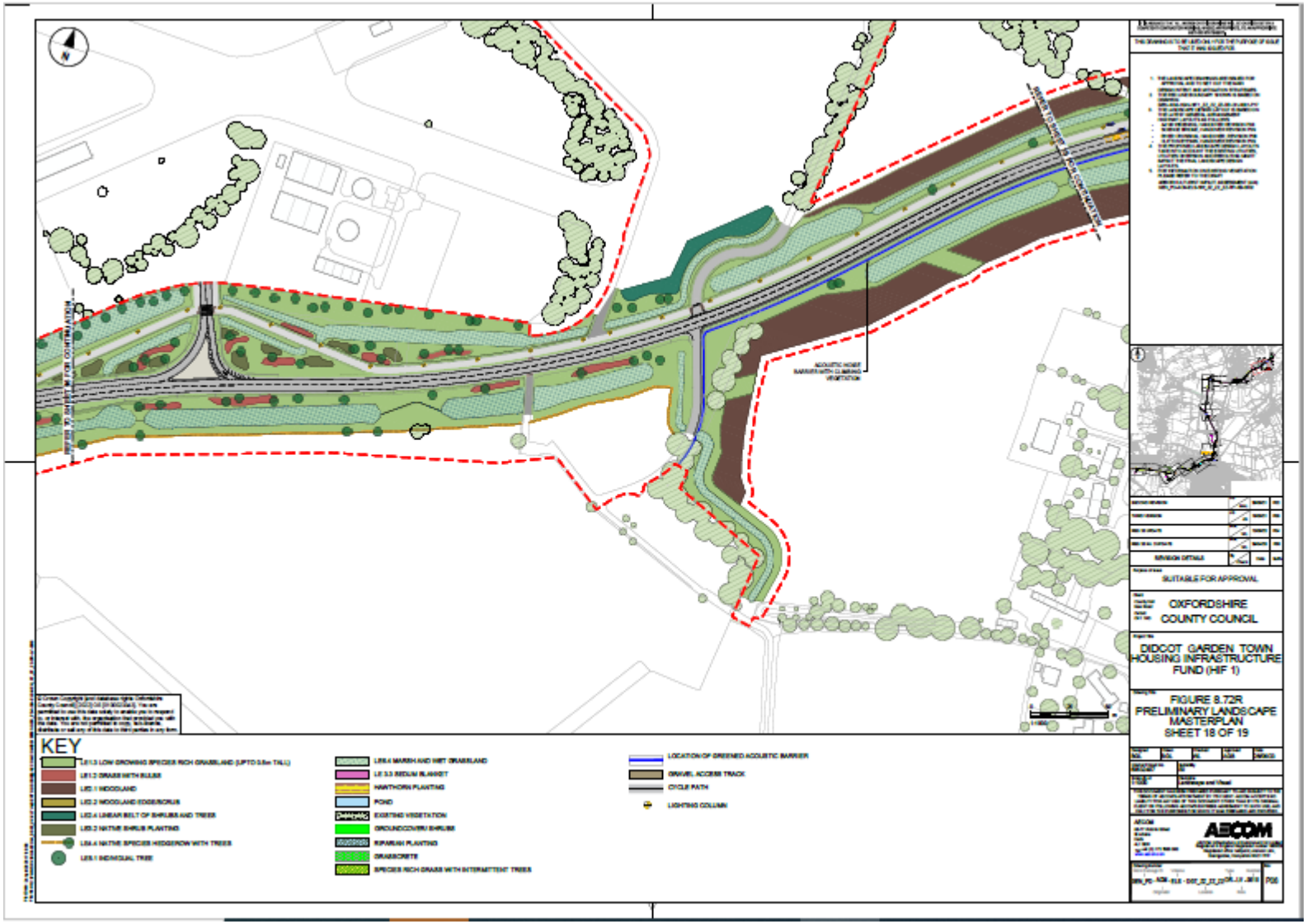

REFER TO INSET B
REFER TO SHEET 12 FOR CONTINUATION
REFER TO SHEET 14 FOR CONTINUATION
REFER TO INSET A
FLOOD COMPENSATION AREA
PROPOSED FOOTPATH TO TRAIN PATH
SUITABLE FOR APPROVAL
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72M PRELIMINARY LANDSCAPE MASTERPLAN SHEET 13 OF 19
AECOM
KEY
LE1.3 LOW GROWING SPECIES RICH GRASSLAND (UPTO 0.5m TALL)
LE1.2 GRASS WITH BULBS
LE2.1 WOODLAND
LE2.2 WOODLAND EDGE/SCRUB
LE2.4 LINEAR BELT OF SHRUBS AND TREES
LE2.3 NATIVE SHRUB PLANTING
LE2.4 NATIVE SPECIES HEDGEROW WITH TREES
LE3.1 INDIVIDUAL TREES
LE3.4 MARSH AND WET GRASSLAND
LE 3.3 WILDFLOWER BLANKET
HAWTHORN PLANTING
POND
EXISTING VEGETATION
GROUNDCOVER SHRUBS
RIPARIAN PLANTING
GRASSCRETE
SPECIES RICH GRASS WITH INTERMITTENT TREES
LOCATION OF GRASSCRETE ACOUSTIC BARRIER
GRAVEL ACCESS TRACK
CYCLE PATH
LIGHTING COLUMN

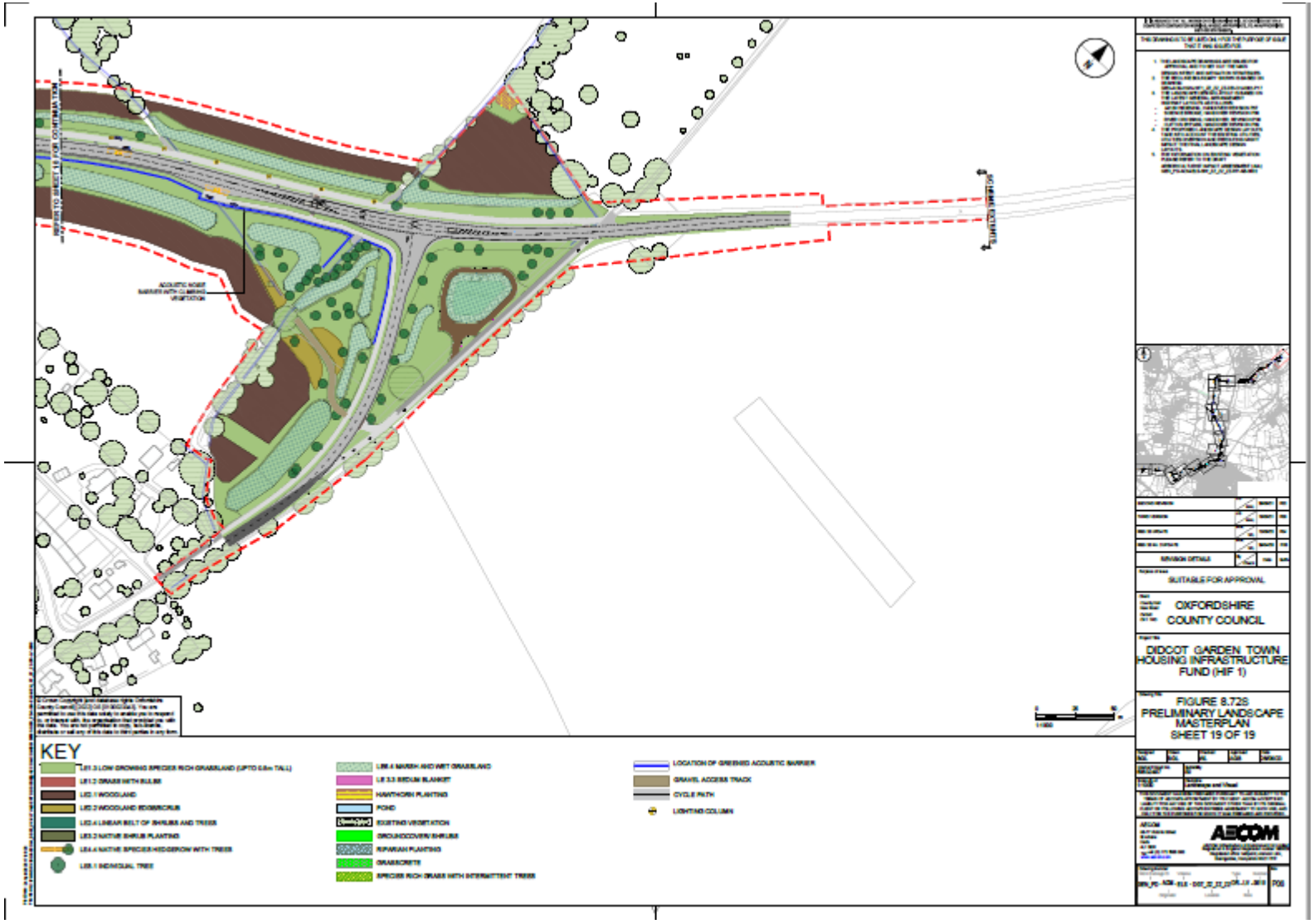

KEY
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72N PRELIMINARY LANDSCAPE MASTERPLAN SHEET 14 OF 19
SUITABLE FOR APPROVAL
AECOM


N
KEY
LE1.3 LOW GROWING SPECIES RICH GRASSLAND (UPTO 0.5m TALL)
LE1.2 GRASS WITH BULBS
LE2.1 WOODLAND
LE2.2 WOODLAND MOSAIC/SCRUB
LE2.4 LINEAR BELT OF SHRUBS AND TREES
LE3.2 NATIVE SHRUB PLANTING
LE4.4 NATIVE SPECIES HEDGEROW WITH TREES
LE5.1 INDIVIDUAL TREE
LE5.4 MARSH AND WET GRASSLAND
LE 3.3 MEDIUM BLANKET
HAWTHORN PLANTING
POND
EXISTING VEGETATION
GROUNDCOVER/ SHRUBS
RIPARIAN PLANTING
GRASSCRETE
SPECIES RICH GRASS WITH INTERMITTENT TREES
LOCATION OF GREENED ACOUSTIC BARRIER
GRAVEL ACCESS TRACK
CYCLE PATH
LIGHTING COLUMN
SUITABLE FOR APPROVAL
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.720 PRELIMINARY LANDSCAPE MASTERPLAN SHEET 15 OF 19
AECOM


KEY
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72P
PRELIMINARY LANDSCAPE MASTERPLAN
SHEET 16 OF 19
SUITABLE FOR APPROVAL
AECOM


KEY
LEGEND
SUITABLE FOR APPROVAL
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72Q
PRELIMINARY LANDSCAPE MASTERPLAN
SHEET 17 OF 19
AECOM


KEY
OXFORDSHIRE
COUNTY COUNCIL
DIDCOT GARDEN TOWN
HOUSING INFRASTRUCTURE
FUND (HIF 1)
FIGURE 8.7ZR
PRELIMINARY LANDSCAPE
MASTERPLAN
SHEET 18 OF 19
SUITABLE FOR APPROVAL
AECOM


KEY
LE1.3 LOW GROWING SPECIES RICH GRASSLAND (UPTO 0.6m TALL)
LE1.2 GRASS WITH BULBS
LE2.1 WOODLAND
LE2.2 WOODLAND ECOMARCHLIS
LE2.4 LINEAR BELT OF SHRUBS AND TREES
LE3.2 NATIVE SHRUB PLANTING
LE4.4 NATIVE SPECIES HEDGEROW WITH TREES
LE5.1 INDIVIDUAL TREE
LE4.4 MARSH AND WET GRASSLAND
LE 3.3 SEDUM BLANKET
HAWTHORN PLANTING
POND
EXISTING VEGETATION
GROUNDCOVER SHRUBS
RIPARIAN PLANTING
GRASSCRETE
SPECIES RICH GRASS WITH INTERMITTENT TREES
LOCATION OF GREENED ACOUSTIC BARRIER
GRAVEL ACCESS TRACK
CYCLE PATH
LIGHTING COLUMN
SUITABLE FOR APPROVAL
OXFORDSHIRE COUNTY COUNCIL
DIDCOT GARDEN TOWN HOUSING INFRASTRUCTURE FUND (HIF 1)
FIGURE 8.72S
PRELIMINARY LANDSCAPE MASTERPLAN
SHEET 19 OF 19
ABCOM