

Didcot Garden Town HIF 1 Scheme

EIA Regulation 25 Response (April 2023)

Oxfordshire County Council

April 2023

Quality information

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1. Introduction

- 1.1 Oxfordshire County Council (OCC) provided a formal request for further information (otherwise known as a Regulation 25 Request) under Part 5, Regulation 25(1) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 on the 26th of April 2022 in relation to the Environmental Statement submitted as part of planning application R3.0138/21. The applicant provided a Regulation 25 Response document and an ES Addendum in November 2022, these documents provided additional environmental information to OCC as Local Planning Authority (LPA). Following a statutory consultation period, additional requests for further information were raised and have been summarised into a further formal request for further information (dated 31st of March 2023). This request for further information is provided in Appendix A.
- 1.2 This Regulation 25 Response document (April 2023) should be read in conjunction with the Regulation 25 Response document submitted in November 2022. This will provide context to the March 2023 request for further information.
- 1.3 This Regulation 25 Response document provides a response to each relevant line of the request for further information, from the sub-heading 'General Information'. Each detailed Regulation 25 comment is set out in "*green, italicised text*" in order to clearly identify comments from responses, which are provided below in black, non-italicised text.

ES Addendum

- 1.4 Where comments in the Regulation 25 Request have necessitated a change to the Environmental Statement (ES), this is presented within an ES Addendum. Where this is the case, a cross reference to the ES Addendum will be provided in the response below.
- 1.5 An ES Addendum was submitted to OCC as LPA in November 2022, therefore, a new ES Addendum has been submitted alongside this Regulation 25 Response document. It may be necessary to read the ES and the ES Addendum (November 2022) in conjunction with the ES Addendum (April 2023).

2. Noise

"An addendum to the Noise Assessment should incorporate the results of the further assessment work undertaken to assess noise effects at the Premier Inn Hotel near to the A4130 Milton Interchange that were listed in the document entitled EIA Regulation 25 Response and submitted in November 2022. The same document provided information about the effectiveness of the proposed noise mitigation and this should also be included in the ES Addendum."

- 2.1 Chapter 10: Noise and Vibration of the ES has been amended and is provided in the ES Addendum (April 2023). In summary changes to the chapter include:
 - the removal of the significant operational traffic noise adverse effect at the Premier Inn near Milton Interchange. In the original ES, a worst case approach was adopted, and a significant adverse effect was identified at the hotel based on a moderate increase in traffic noise on the southern façade of the hotel. The Scheme is located to the north of the hotel. To the south is an access road associated with a proposed commercial development. The access road has full planning permission and the associated buildings outline permission. The Scheme is not linked to or dependent on the Scheme. Refinement of the traffic modelling of the access road within the proposed adjacent development, resulted in a reduction in the magnitude of the traffic noise change at the Premier Inn to minor and therefore the removal of the significant effect; and

- provision of further information on the potential for additional noise mitigation in the vicinity of the receptors identified as experiencing a potentially significant adverse effect due to the operation of the Scheme.

“Please also provide further information about the effectiveness of alternative mitigation measures and why these have been discounted as viable options to reduce noise effects further, including but not necessarily limited to speed reductions, road surfacing, noise barriers of different dimensions (length and height) and materials, additional planting, and alterations to the proposed land profile such as false cuttings.”

- 2.2 The noise predictions presented in Chapter 10: Noise and Vibration assume that the specification and installation of noise barriers will ensure sound insulation at a specified level is achieved. Other factors such as the choice of material are largely irrelevant to the noise assessment and are determined by other factors such as landscape and visual impacts and engineering requirements. Therefore, the choice of barrier material is not discussed within the revised chapter.
- 2.3 With regard to additional planting and its potential to mitigate the visual impact of noise barriers, this is discussed in the landscape response below. Planting is not an effective noise mitigation measure and is not considered in the standard UK traffic noise prediction methodology, therefore it is not discussed in the ES Addendum (April 2023).

3. Cultural Heritage

“Please provide an addendum to the Cultural Heritage chapter of the ES, which incorporates the results of the trial trench evaluation into the assessment of effects on archaeological remains. The addendum should also address the errors identified by the Lead Archaeologist.”

- 3.1 The trial trench evaluation has been incorporated into ES Chapter 7: Cultural Heritage, which is provided in the ES Addendum (April 2023).

“The Cultural Heritage chapter should also be updated to address the concerns raised by the Conservation Officer about the assessment of effects on the Grade II Listed Fullamoor Farmhouse and Clifton Hampden Conservation Area by providing further information about the effectiveness of mitigation against lighting and visual effects, including the visual effect of the proposed noise barrier to the north of Clifton Hampden. The effectiveness of planting to mitigate the loss of parkland trees and other landscaping within the setting of the Listed Building should also be clearly explained in the assessment.”

- 3.2 The ES Chapter has been updated to include the detail requested, see paragraph 7.10.36 and 7.10.48. In addition, a new figure (Figure 7.3) has been created to show the lux levels from the proposed lighting at the Culham Science Centre roundabout. This shows that lighting levels reduce quickly as distance from the column increases. Light levels reaching Fullamoor Farmhouse would equal less than 1 lux. Figure 7.3 and the revised ES Chapter 7: Cultural Heritage are provided in the ES Addendum (April 2023).

4. Geology and Soils

“In the ES Addendum, please clarify the figures shown in tables 11.13 and 11.14 in the Geology and Soils chapter of the ES. These tables identify a total of 376ha of agricultural land within the scheme area, however the site area for the application is stated to be 155ha.”

- 4.1 Table 11.13 in ES Chapter 11: Geology and Soils refers to classification of agricultural land classification within the area surveyed by Reading Agricultural Consultants, see Appendix 11.2 of the ES. The ES Chapter has been amended to make this clear and is provided in the ES Addendum (April 2023).

- 4.2 Table 11.14 in ES Chapter 11: Geology and Soils is erroneous and compares permanent and temporary loss of agricultural land with all land surveyed, which is larger than the site area. Table 11.14 has been amended in the revised chapter provided in the ES Addendum (April 2023). This does not affect the conclusions in relation to significance of effect reported in the ES Chapter, as they are determined by total permanent and temporary loss of Best and Most Versatile (BMV) land, not the percentage of BMV land lost. The percentage is provided for context only. Therefore, the conclusions of the ES in this regard remain the same.

5. Construction Timetable

“The ES Addendum should clarify whether or not the proposed construction programme remains valid. In the event that the construction programme is anticipated to be delayed beyond the dates set out in the ES, further information should be provided to demonstrate any implications this may have for the conclusions on environmental effects. Any identified implications should be addressed in the ES accordingly. In the event that the construction programme is not anticipated to change, this request relates only to a point of clarification and no further environmental information is requested in relation to the proposed construction timetable.”

- 5.1 An estimated construction programme was set out in Chapter 2: The Scheme of the ES, paragraph 2.3.11, which stated *“construction of the Scheme is anticipated to commence in 2023, subject to securing planning permission, land acquisition and the Compulsory Purchase Order (CPO). It is anticipated that the Scheme will become operational in 2024/25”*. This set out that as a worst case construction could last up to 36 months i.e., January 2023 to December 2025. Appendix 4.2: Outline Environmental Management Plan (which has been subsequently amended – see Section 6 of this Regulation 25 Response) set out that construction could last up to 35 months i.e., from February 2023 to December 2025 (within the 36 months set out in Chapter 2: The Scheme). However, these timeframes were based on the assumption that determination of an EIA development would take 16 weeks. Currently the application is in its 17th month of determination, and it is unlikely that a decision will be issued for at least another three months.
- 5.2 Assuming a positive decision is reached within the next few months, the applicant believes that construction could begin in July 2024 and that the Scheme would then be open to traffic at the end of 2026. This represents a similar but reduced construction time period of up to 30 months. Whilst the possible date for the commencement of construction has moved forward by approximately one year, the overall time period is now expected to be shorter.
- 5.3 However, all of the assessments reported in the ES assumed a worst-case scenario i.e., that construction would take 36 months. Although construction would start later than anticipated at the time of writing the ES, the reported environmental effects remain the same. The ES has used broad assumptions about how the Scheme would be constructed and be operated, in accordance with the principles laid down by the Rochdale Envelope decision¹. These have guided the assessments therein; therefore, moving the start date of the construction would not change any of the conclusions regarding the significance of likely environmental effects as the overall time period has not increased, nor the nature of the work proposed changed.
- 5.4 Additionally, it must be recognised that the ES is prepared based on best available knowledge at the time of writing. A Rochdale Envelope approach is taken to avoid the need to update the assessment every time an assumption is refined: for example, the reduction of the construction period in this instance.

“The planning application has been submitted as a single development however you have indicated that (if planning permission is granted) it may be delivered in ‘parts’. This would have potential implications for the construction of conditions and the subsequent discharge of applications pursuant to those conditions. On a non-prejudicial basis, please therefore provide further information about the delivery programme and a drawing (or drawings) showing

¹ <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-nine-rochdale-envelope/>

subdivision of the development into parts to support the drafting of conditions. The boundary between the parts should be clearly defined.”

- 5.5 It is envisaged that the Scheme would be constructed in three construction delivery packages; consisting of the A4130 and Didcot Science Bridge, Didcot to Culham river crossing, and the Clifton Hampden Bypass. A drawing is provided in Appendix B which shows the three parts. Each part would have been procured as a separate package, likely with a different construction contractor delivering the work. Therefore, OCC as the applicant would be discharging conditions relevant to each part of the Scheme when the information has been prepared by the relevant contractor. Crucially, all three parts would be constructed within the revised construction timeframe outlined above.

6. Mitigation

“The ES Addendum should include a summary table of the proposed mitigation measures that have been taken into account in the assessment of environmental effects. For each of the identified mitigation measures, please clarify any perceived deliverability issues with the implementation of the mitigation. NB: Where there is any doubt over the deliverability of the proposed mitigation measures, such measures should not be relied upon in the assessment of environmental effects and the ES should be updated accordingly. This information is required as there are some instances throughout the ES and ES Addendum where mitigation is proposed but where it is stated the measures cannot be relied upon due to uncertainty such as the working practices of contractors.”

- 6.1 Whilst mitigation is set out in each of the technical chapters, mitigation from each technical discipline is collated into ES Appendix 4.2 Outline Environmental Management Plan (OEMP). Note that this employs language defined DMRB GG 101: Introduction to the Design Manual for Roads and Bridges, page 4, Verbal forms. This states that:
- *“The verb ‘must’ indicates a statutory or legislative requirement.*
 - *The verb ‘shall’ indicates a requirement of the Overseeing Organisation.*
 - *The verb ‘should’ indicates advice expressed as a recommendation.*
 - *The verb ‘may’ indicates advice expressed as a permissible approach.”*
- 6.2 The purpose of this OEMP is:
- To satisfy the DMRB’s requirement to define mitigation measures which are proposed to be included during Scheme construction, operation and maintenance, including all of those considered in the ES;
 - Provide the “blueprint” for the more detailed Construction Environmental Management Plan (CEMP) to be prepared by the Principal Contractors; and
 - To enable the relevant planning authority to identify mitigation measures proposed by the Scheme which are secured within this OEMP.
- 6.3 Minor changes have been made to ES Appendix 4.2 OEMP to remove any uncertainty, see ES Addendum (April 2023). There will be a contractual stipulation between the applicant and the Principal Contractor to prepare a CEMP and undertake the works in accordance with the requirements set out therein. The LPA will be consulted during the production of the CEMP and it is anticipated that the LPA will attach a pre-commencement planning condition to any planning permission that will be tied to the production of the CEMP.

7. Landscaping

“Further information and revised landscape drawings are required in response to concerns raised by the Landscape Advisor and others over the lack of planting and landscape mitigation throughout the proposal. In general, all opportunities should be taken to enhance tree, hedgerow and other planting including along highway boundaries, in areas of leftover space within the red line, and to attenuation basins wherever feasible. Where there are constraints or contextual issues that prevent further planting or that you consider should be taken into account in our assessment of the planting proposals, these should be clearly explained.”

- 7.1 Marked-up landscape masterplans have been provided by Atkins, who is working on behalf of the LPA as a landscape architect, these include a number of comments on each sheet of the now superseded landscape masterplans. We have responded directly to these comments for clarity, see the Marked-up Landscape Masterplans available in Appendix C. Note these are based on the previous landscape drawings and therefore do not show any amendments, which are shown on the Revised Landscape Masterplans, see Appendix D. Whilst not all opportunities to provide landscaping in-line with Atkins comments can be taken due to a number of different constraints (as explained in Appendix C), substantially more landscaping is now shown across the Scheme. It is believed that this represents the most landscaping that can be reasonably and practicably provided.
- 7.2 Key comments made by Atkins on the Marked-up Landscape Masterplans are summarised below, as well as associated responses:

- Landscaping should be provided in all locations within the redline boundary.

A number of areas on the Landscape Masterplans (Appendix D) show areas of white space between the redline boundary and the proposed landscaping. These areas cannot be used as they represent areas of temporary land take, required for construction. Once the Scheme has been constructed, these areas will be handed back to landowners in their original state. The applicant would therefore have no control over this land to ensure that landscaping is maintained in perpetuity. Consequently, these areas cannot be used for landscaping.

In areas where proposed species rich grassland is already shown or within proposed landscape planting areas that are already visible in the Landscape Masterplan as per Appendix C, we have where possible introduced proposed hedgerows, woodland scrub, woodland or additional proposed individual trees where these do not have physical constraints. These are now shown in the revised Landscape Masterplan in Appendix D. Where possible, this includes more planting around the proposed drainage ponds.

- Some areas of the Scheme, for example along sections of the A4130 and north of Didcot Science bridge, show minimal landscape planting.

One of the main purposes of the Scheme is to facilitate planned development within Didcot and the Science Vale. As such there are a number of allocated sites, which are safeguarded in the Local Plans for Vale of the White Horse District Council and South Oxfordshire District Council (see Vale of the White Horse District Council Local Plan Part 1 and South Oxfordshire District Council Local Plan 2035), that have been taken into account when designing the Scheme and associated landscaping. Some of these allocated sites have approved planning applications or Local Development Orders, moreover, some parts of these sites have been built. In some locations, such as north of Didcot Science Bridge, the presence of allocated/ approved development sites has meant that space for the Scheme is very limited and landscaping beyond that shown in Appendix D is not possible. However, the Scheme will adjoin landscaping that will be provided by these allocated/ approved development sites. Additionally, during the design of the Scheme, the applicant has held conversations with the developers and promoters of these various sites to understand the interaction with the Scheme. To aid with the context of these allocated/ approved development sites a number of landscape plans, masterplans and parameter plans have been collated and are provided at the rear of Appendix C.

References to these sites are included in the responses to comments on the Marked-up Landscape Masterplans (see Appendix C).

Please note that in selected locations such as Milton Roundabout, and parts of the eastern area of the Valley Park Development where it does not conflict with our site area or pose physical constraints, additional proposed hedgerows, individual trees or extended species rich grasslands have been provided where this is feasible. These are now shown in the revised Landscape Masterplan in Appendix D.

- Screening at Hill Farm and Hartwright House should be increased.

The hedgerow originally proposed north of Hill Farm has been extended to increase the level of screening for this property. However, it is considered that Hartwright House has sufficient screening within its own boundary, additional planting has therefore not been provided.

- Can low-level lighting columns be provided, as opposed to 5m high lighting columns.

OCC's highways operations team have indicated that they will only adopt 5m high columns (see OCC Street Lighting and Illuminated Assets Policy, Policy SLP9). Therefore, 5m high columns have been included. Lighting is required to make the non-motorised user provision more attractive. Lighting will be dimmed to 75% output between the hours of 00:00 and 06:00, will be direction and will include LEDs to limit light spill.

- The proposed green parapet of the River Thames crossing is likely to stand-out from the landscape context, could a graded colour scheme be utilised.

The colour of the parapet will use a colour scheme from the North Wessex Downs Area of Outstanding Natural Beauty: Guidance on the selection and use of colour in development. It is considered that this can be discussed and agreed with OCC planning via condition.

- Landscape planting at the Culham Science Centre roundabout must be increased.

Proposed landscape planting at this roundabout has been increased through the inclusion of more hedgerows along the alignment of the A415 (for example opposite Fullamoor Farmhouse), more woodland edge planting and additional individual trees were possible. However, this area is highly constrained as a result of numerous utilities that are present in this area. The majority of these utilities serve the Culham Science Centre, which contains delicate machinery such as experimental nuclear fusion technology. Landscape planting such as woodland cannot be planted above utilities, in particular water based utilities, as the associated root growth would likely cause damage to these utilities. Woodland edge planting, which has been proposed in this area, will contain shallow rooting species however, due to the presence of these utilities severely limits an additional landscape planting above that shown in Appendix D.

- Please note that for the woodland edge planting proposed to the southern part of the A415, the choice of shrub and groundcover mixes will be dependent on the utility constraints at this location which will be subject to further validation on a case by case basis. It is expected that this can be reviewed and secured as part of CEMP, see Section 6 above for further information on the purpose of the CEMP. Can woodland north of Clifton Hampden be moved closer to the proposed highway and the drainage ponds be moved south of the woodland.

The drainage scheme has been designed so that swales are located close to the highway. Moving the swale would require the drainage scheme to be completely redesigned, which would have multiple knock-on effects for the Scheme, possibly including more or different habitat loss.

In regard to the proposed woodland adjacent to the north side of Clifton Hampden, as stated in the meeting held on the 21st of March with the LPA and representatives from Atkins, this woodland has a typical width of 10m to 20m (in some locations it is wider) which is a substantial width to provide effective visual screening of the new carriageway, and therefore assist in safeguarding the existing landscape character of this conservation

area. The drainage swales are not part of the character of the conservation area, and this is the rationale behind the current proposal.

- Can the alignment of the tie-in between the B4015 and the Scheme be amended to avoid tree loss.

We have investigated reducing the size of the tie-in between the Scheme and the B4015, however, the tie-in needs to be this size as shown so that the correct geometry can be achieved thereby conforming to DMRB standards and guidance. As a result, tree loss is unavoidable. Additional individual tree planting has been added to compensate for this loss.

7.3 It should also be noted that substantial improvements were made to the Landscape Masterplans as consequence of the Regulation 25 Request provided by the LPA on the 26th of April 2022. For clarity these changes included²:

- The majority of acoustic barriers will incorporate the potential for climbing vegetation³.
- At Clifton Hampden, at the far north-east of the Scheme, the bat connection corridor was enhanced across the existing watercourse, by providing additional woodland edge scrub and additional native individual trees to provide enhanced habitat connectivity north and south. The width of the proposed woodland buffer on the northwest side of the link road was increased.
- At Culham Science Centre (CSC) roundabout, the density of the native individual tree planting was increased to provide visual screen mitigation from the link road. The amount of proposed woodland and woodland scrub has been increased to improve green connectivity.
- At the Abingdon Road roundabout, the quantity of native individual tree planting was increased to provide additional visual mitigation for the adjacent future housing development and to reinforce the gateway road exit to Culham. To the south of the roundabout, an additional line of individual trees was included to provide visual mitigation for farm buildings to the east.
- On the northern side of the River Thames the area of riparian vegetation was increased and sedum blanket planting was proposed on the bridge crossing itself on the central reservation to provide some degree of greening on the bridge. It was proposed to colour the acoustic barrier/ bridge parapet green, but a colour palette from the North Wessex Downs Area of Outstanding Natural Beauty: Guidance on the selection and use of colour in development will now be used.
- At the Appleford Sidings Bridge, a sedum blanket was proposed on either side of the crossing (to be located in areas of concrete which forms the roof of the structure, either side of the road), to help soften the appearance of the structure and provide intrinsic biodiversity value.
- Additional trees were provided at the Didcot Science Bridge to further reinforce visual mitigation on the south-west and south-east side of the structure.
- A low growing species rich grassland seed mix, which will include flowering species and will have a maximum height of 0.5m, was proposed and will replace all former amenity grassland.
- All proposed woodland, woodland scrub and proposed hedge locations, where feasible, were increased in size area and extents to provide additional improvements to the landscape mitigation proposals.

7.4 Owing to the above, we consider that every opportunity has now been taken to enhance tree, hedgerow and other planting including along highway boundaries and at attenuation basins.

² Regulation 25 Response document (November 2022) should be consulted for the full explanation of changes to the landscape masterplans in response to the request for further information provided in April 2022.

³ A range of treatments are available can be agreed via condition - <https://www.grammbarriers.com/our-products/acoustic-noise-barriers/ecosoundblok/>

8. Arboriculture

“The application should be reviewed/amended to address the comments raised by the Arboriculture Advisor, particularly in relation to the need to protect veteran tree T424, trees that are subject to Tree Preservation Orders, and trees within the Clifton Hampden Conservation Area. You are reminded that the NPPF, para 180(c) states that any development that would result in the loss or deterioration of veteran trees should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists. In the event that you are unable to prevent incursion into the root protection area of Tree T424, you must outline the wholly exceptional reasons that you consider are present to justify any deterioration or risk of loss and provide a suitable compensation strategy.”

8.1 Impacts on trees in these areas has been reviewed with the following outcomes:

- Veteran Tree (T424): The drainage design has been amended (see Appendix E) to move the connection between the two swales shown either side of this tree, so that it does not enter the Root Protection Area (RPA).
- A shared cycleway/ footway to the east of Culham Station has been removed from the Scheme (see the revised General Arrangement drawings in Appendix F). This avoids the removal of T237 which is subject to a Tree Preservation Order (TPO). The lighting design has also been amended in this area due to revision to the shared cycleway/ footway (see Appendix G).
- The turning head shown to require the loss of G262 has been reviewed. We consider that there is sufficient room to avoid the physical loss of trees, which are subject to TPO (see Appendix F). To avoid impacts on roots, a 3D Cellular Confinement System will be used to construct the new hard surface without excavation using a no dig methodology. Loss of G262 is no longer assumed.
- A swale has been reduced in length and slightly widened to maintain its required volume (see Appendix E). This avoids incursion on T352 and G355 which are covered by a TPO. Additionally, the tie-in between the Scheme and the existing road network within the Culham Science Centre has been shortened to avoid impacts on trees within the same TPO. The lighting design has also been amended in this area due to changes to the tie-in (see Appendix G).
- A tree located at the northern end of the Clifton Hampden Conservation Area and adjacent to the B4015 (part of G454) has been shown as retained after a review of the proposed works in this location. Works will only include re-surfacing of the existing B4015, therefore, this tree can be retained.

8.2 Following these design changes, no trees subject to TPO or within a Conservation Area are to be removed to facilitate the Scheme and no veteran trees are subject to RPA incursion.

8.3 An Arboricultural Impact Assessment Addendum has been produced and is provided in Appendix H. This includes revised Tree Protection Plans that illustrate the above changes.

9. Biodiversity Net Gain

“The Biodiversity Net Gain Assessment must be revised to update the baseline of the Finger Lakes restoration area to ‘good’ condition and to consider the impact of shading from the proposed viaduct...”

9.1 The Biodiversity Net Gain (BNG) Assessment has been revised to update the baseline conditions of the Finger Lakes restoration area as ‘good’ condition and considers the impact of shading from the proposed viaduct, see Appendix I. Whilst these changes have negatively affected net gain figures for area based habitats, changes to the metric in other aspects now

indicate that the Scheme will achieve 23.13% net gain for area habitats as opposed to 20.00% as previously calculated. Previous net gain figures for linear habitats (40.90%) and riparian habitats (1.26%) remain the same.

“...Additionally, further information is required to demonstrate how a 10% biodiversity net gain of river units would be achieved. All on-site opportunities should be considered in the first instance (including those watercourses referred to by the Environment Agency). Where off-site provision is required in order to achieve a 10% net gain, information must be provided to demonstrate deliverability (e.g., through confirmation from an off-setting provider that the units can and will be delivered). Please include the updated metric spreadsheet as an application document.”

- 9.2 It is considered that all attempts have been made to enhance watercourses within the redline boundary, and thus in control of the applicant (more information on this has been provided in response to the Environment Agency’s comments, which has been submitted at the same time but separately to this Regulation 25 Response (April 2023)). Working with the Trust for Oxfordshire’s Environment (TOE) the applicant has secured riparian habitat offsetting on land outside of the redline boundary which will enable the Scheme to achieve 10% net gain for riparian habitats (the quote from TOE to the applicant has been submitted as a Confidential document due to the inclusion of financial information).
- 9.3 A response to all Environment Agency BNG comments has been produced and is provided separately from this Regulation 25 Response (April 2023).

10. Lighting

“Please provide further clarification to support the proposed cycle path lighting proposals, particularly in the parts of the site to the north of Collett Roundabout that currently experience darker skies. Whilst the need to support and encourage active modes of travel is acknowledged, this needs to be balanced against landscape, amenity and biodiversity effects, and it is not clear why lower-level bollard or ground lighting cannot be delivered as an alternative to 5m high columns in the Didcot to Culham River Crossing and Clifton Hampden Bypass sections of the Scheme. This needs to be clarified...”

- 10.1 The Lighting and Electrical Design Report submitted with the application sets out the rationale for the proposed lighting and its design. Page 12 states: *“In liaison with the OCC HIF1 team it was agreed that the Non-Motorised Users (NMU) cycle path provisions will be lit to lighting class P3. These provisions will be lit for the entirety of the Scheme with the exception of sections of the River Crossing structure, Appleford Sidings Bridge and the Didcot Science Bridge even through the carriageway, other than at junctions, will be otherwise unlit. These NMU cycle paths are to be lit to encourage their use as they are expected to be key commuter routes”.*
- 10.2 The following is also stated on pages 17-18, sections 6.2-6.4:

“Section 6.2: Didcot Science Bridge

Whilst there are no specific ecological requirements for the Didcot Science Bridge scheme extents, there are however various environmental considerations with regards to the railway and site users. Whilst the NMU provisions are being lit, the main carriageway is not being lit on the bridge approach embankments and the Didcot Science Bridge structure Lighting is to be kept away from the central section and will not be located directly over rail lines or Network Rail land. This should reduce any visual impact of the lighting in the area as well as minimise any light spill on the railway below.

Keeping lighting equipment off the central section of the bridge also removes the potential for equipment to fall onto rail lines during maintenance.

Section 6.3: Didcot to Culham River Crossing

Much of the Didcot to Culham River Crossing site passes through private fields with various environmental considerations including ecological constraints. There are several areas of quality habitat for bats along with buildings supporting numerous roosts. In addition, there is high bat foraging activity over the large body of water just south of the Appleford Level Crossing.

The extent of lighting at the junction is being kept to a minimum with most of the link sections remaining unlit apart from the required cycleway lighting equipment. Lighting stops just north of the Sutton Courtenay Roundabout and does not start again until the approach to the Abingdon Roundabout. The bridge crossing over the river is one of the most sensitive area of this section where there has been bat activity monitored along the river. Therefore lighting terminates here with a 10m flange plated Valmont Stainton Avon conical tapered lighting column mounted on a blister set on the side of the bridge and has not been included here for the remaining carriageway or the cycleway / footway.

There are three stand-alone crossings north of the junction with the A4130 that require lighting. Lighting is required here for safety reasons but is kept to the lowest practicable level along with the use of lower mounting heights (6m) and G6 glare rated lanterns to minimise potential spill light. In addition, there is a crossing point south of the Appleford junction on the access road to Appleford itself. The lighting equipment used here is the same type and height (10m) as used elsewhere on the scheme.

Section 6.4 Clifton Hampden Bypass

A small amount of the initial section of the Clifton Hampden Bypass passes over existing highway at the A415 but the remaining new highway will run through fields and areas with environmental considerations and some ecological constraints. The northern section of the bypass (east of the T junction with the A415 Abingdon Road) has bat activity. Whilst this section of highway will remain unlit, lighting is required to the shared use path for cyclists and pedestrians throughout this section. Whilst the scheme already utilises 3000k colour temperature lanterns due to the extent of ecological constraint in this section, a warmer white 2700K colour temperature has been proposed.”

- 10.3 In terms of the proposed lighting, the lighting strategy was developed following numerous discussions with OCC's maintenance team and to comply with OCC's Street Lighting Policy. The maintenance team would have no objection to studs but as set out in policy SLP9 low level bollards would not be adopted. Solar studs were not progressed as they only provide a low level of lighting, i.e., they will provide an indication of the route (e.g. similar to a runway), they will not light the route to improve the feeling of safety through natural surveillance and encourage the use of the route after dark.

“...Please also provide drawings to illustrate the effect of light spill from the proposed lighting to Hill Farm, Hartwright House, Level Crossing Cottage, Fullamoor Farmhouse and Barns, Fullamoor Cottages, the closest properties to the development to the north of Clifton Hampden, and Coppice House.”

- 10.4 Light spill drawings for select sections of the Scheme are provided in Appendix J. These sections include:

- Appleford Level Crossing.
- Coppice House and Clifton Hampden Conservation Area.
- Culham Science Centre.
- Hill Farm and Hartwright House.

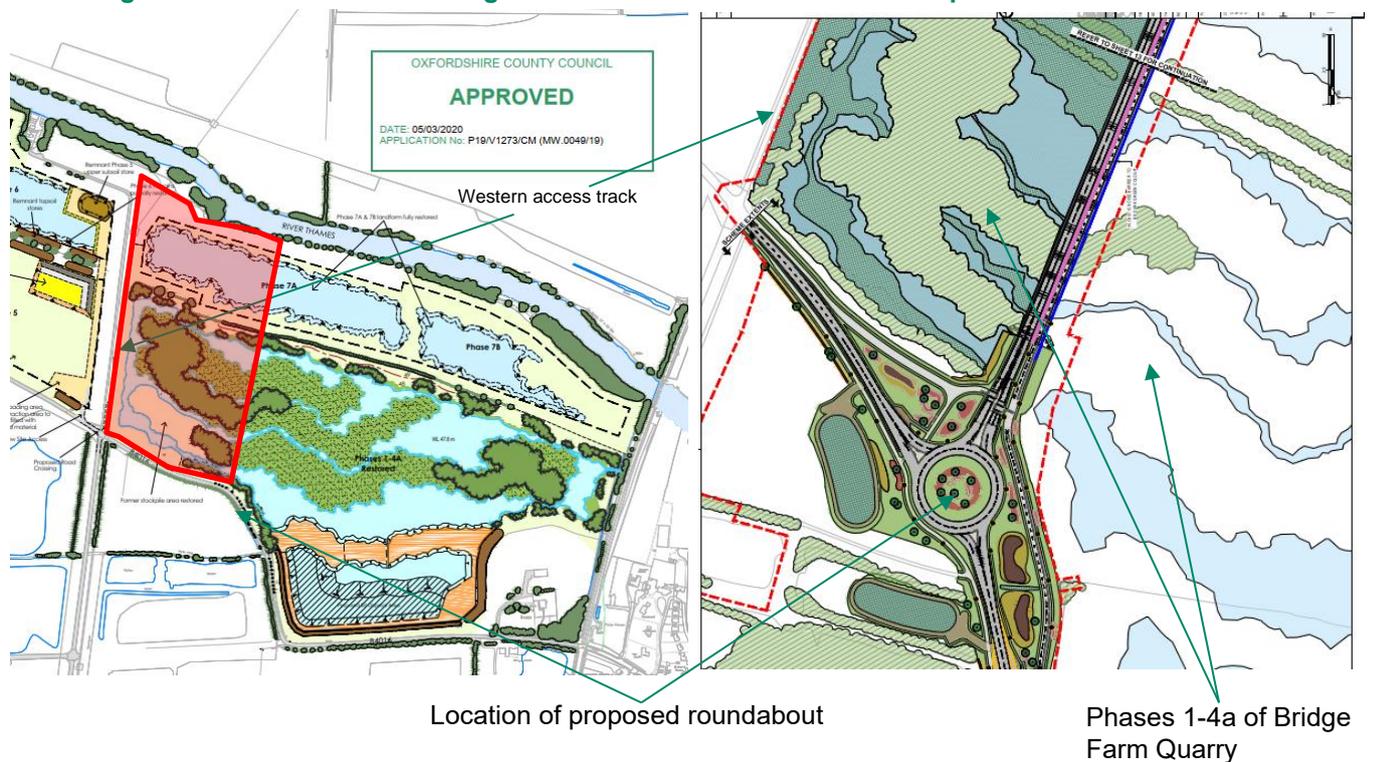
11. Minerals and Waste

“Further information is required to show the potential impact of the Scheme on the restoration of Sutton Courtenay Landfill Site and Bridge Farm Quarry. Drawings should be provided which illustrate how the approved restoration schemes could be revised to include the Scheme. Information should also be provided to clarify the roles and responsibilities for delivering the revised restoration schemes, and measures to protect against the potential that revised restoration schemes do not secure planning permission or are not capable of delivery.”

Bridge Farm Quarry

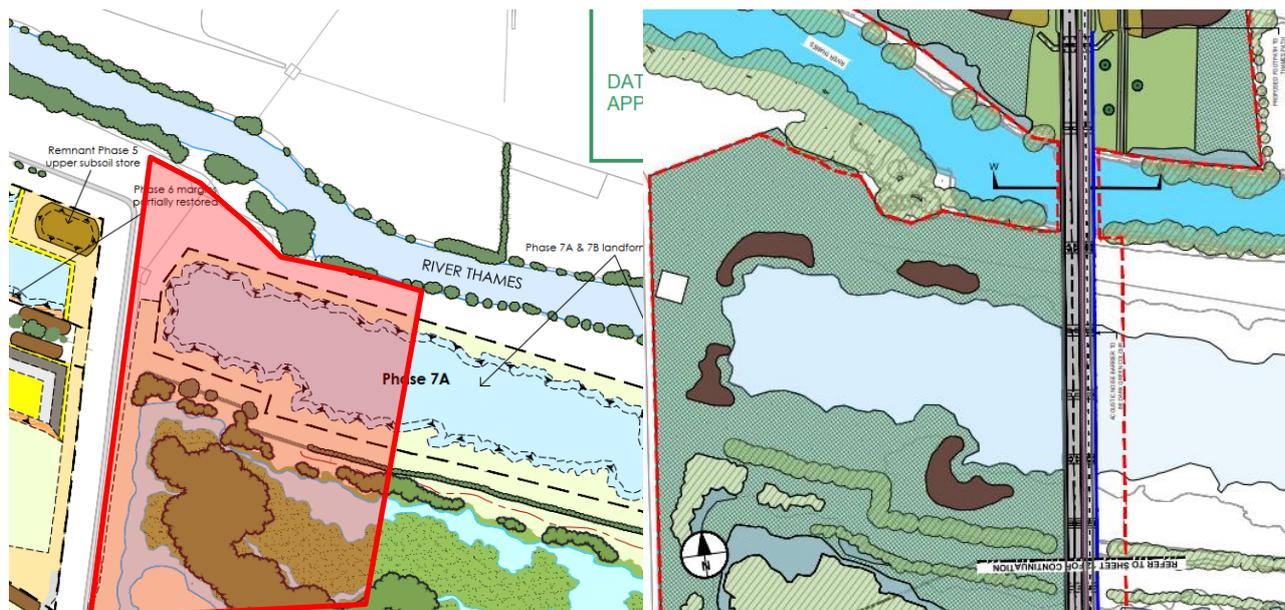
- 11.1 Landscape GA Sheets 12 and 13 show the proposed landscaping for the Scheme where it crosses the approved restoration area associated with Bridge Farm Quarry. It is our understanding that the latest permission for Bridge Farm Quarry is MW.0049/19 and drawing S3/HAN/14/26 Rev B is the latest restoration drawing for the permission (See Appendix K).
- 11.2 The Scheme is located within Phases 1-4a and 7a of the Bridge Quarry Farm restoration area. The western site boundary of the Scheme is adjacent to the track which connects into the existing B4016 to the south and provides access to the RWE pumping facility on the River Thames. Phases 5, 6 and 7b of the approved restoration area are outside of the site’s red line boundary and will not be affected by the Scheme.
- 11.3 Figure 1 below provides annotations across Bridge Farm Quarry drawing S3/HAN/14/26 Rev B and Landscape GA Sheet 12. The red area shows the approximate location of where the Scheme overlaps within the Bridge Farm Quarry restoration area.

Figure 1: Extracts from drawings S3/HAN/14/26 Rev B and Landscape GA Sheet 12



- 11.4 Figure 2 below provides an extract from drawing S3/HAN/14/26 Rev B and Landscape GA Sheet 13, with red area showing the approximate location of the Scheme within the Bridge Farm Quarry Restoration area.

Figure 2: Extract from drawing S3/HAN/14/26 Rev B and Landscape GA Sheet 13



11.5 In terms of delivering the Bridge Farm Quarry restoration area, all of the restoration area outside of the Scheme's site boundary will be delivered by Hanson under application reference MW.0049/19. Where the Scheme overlaps the approved Bridge Farm Quarry restoration area, the Scheme seeks to maintain the proposed habitats which were approved as part of the Bridge Farm Quarry Restoration area but factors in the new interventions to deliver the River Thames Crossing. This can be seen through comparing the extracts from MW.0049/19 and Landscape GA Sheets 12 and 13 in Figures 1 and 2.

Sutton Courtenay Landfill

- 11.6 Landscape GA Sheets 9 and 10 show the proposed landscaping for the Scheme where it crosses the proposed restoration area associated with Sutton Courtenay Landfill. It is our understanding that the latest permission for Sutton Courtenay Landfill is MW.0039/15 and drawing 427R220F Rev F is the latest restoration drawing for the permission (See Appendix L).
- 11.7 The Scheme is located to the east within the Sutton Courtenay Landfill area, located within the eastern area of Phase 4 and crosses the 90 Acre Field.
- 11.8 Figure 3 overleaf shows drawing 427R220F Rev F adjacent to Landscape GA Sheets 9 and 10 which have been stitched together to show the approximate alignment of the Scheme through the Sutton Courtenay Landfill. The Scheme's red line boundary has been illustratively drawn onto the FCC restoration drawing (427R220F Rev F) to show the approximate overlap between the two sites.
- 11.9 The 90 acre field site has been fully restored to agricultural grassland/rotational crops and this is considered within the baseline for the application.
- 11.10 Phase 4 of the Sutton Courtenay Landfill is still operational and the Scheme would re-route the haul road to the FCC/Hanson sites around the southern and eastern edges of the balancing pond. Minor revisions are proposed to the habitats within this area, including woodland, woodland scrub/edge, riparian planting, species rich grassland and individual trees. These habitats predominantly replace rough grassland/woodland margins, native reed planting, agricultural grassland/rotational crops along with what appears to be a mud bank but it is not clear as the drawing and legend are not 100% consistent.
- 11.11 The Scheme also traverses the Appleford Sidings where rough grassland/woodland margins and oak woodland/shrub planting is proposed on FCC drawing 427R220F Rev F. The Scheme will replace these habitats with the road itself and woodland, woodland edge/scrub and species rich grassland. Areas that are white/blank within the red line boundary are only required for the

construction phase and will be returned to FCC for restoration in accordance with their approved restoration plan.

Figure 3: Extracts from drawing 427R220F Rev F and Landscape GA Sheets 9 and 10



Revision to Existing Planning Permissions

11.12 It is envisaged the existing planning permissions for Bridge Farm Quarry and the Sutton Courtenay Landfill will be revised through Section 73 Applications to reflect the Scheme, i.e., the approved restoration will be removed from their restoration plans where the permanent development is proposed and approved under this planning permission. We can give no certainties that any planning applications submitted to revise the restoration areas will be approved, this is a matter for the Local Planning Authority determining the applications.

11.13 The exact detail of the applications will be agreed with Hanson, FCC and OCC Planning as part of the applications.

Delivery of the Restoration

11.14 The Applicant will deliver the restoration within the red line boundary where it is proposed as part of this planning application. Where land is white/blank within the red line boundary, this is land that is only required for construction and will remain within the ownership of FCC and Hanson. As such, the white/blank areas will be restored by Hanson and FCC in accordance with their approved restoration plans. Hanson and FCC will continue to deliver their approved restoration plans outside of this planning applications' red line boundary.

11.15 The Applicant has discussed the restorations areas extensively with FCC and Hanson and will continue to do so, there is not current reason why revisions to the restoration areas will not be deliverable.

12. Appleford Sidings Bridge

“Please provide a non-technical explanation of why the proposed Appleford Sidings Bridge, and further information considered and the reasons they were discounted.”

12.1 A non-technical memo has been produced to summarise the development of the proposed Appleford Sidings Bridge in a non-technical context. The memo discusses the alignment optioneering which led to the proposed alignment and Bridge location. It also covers the structure options proposed given the existing land and operational constraints and alternative options considered. This memo is available in Appendix M.

Appendix A Regulation 25 Request

Appendix B Construction Parts

Appendix C Marked-up Landscape Plans with Applicant Responses

Appendix D Revised Landscape Masterplans

Appendix E Revised Drainage Design (Sheets 16 and 18)

Appendix F Revised General Arrangement Drawings (Sheets 8, 13, 16, 17 and 18)

Appendix G Revised Lighting Design (Sheet 16)

Appendix H Arboricultural Impact Assessment Addendum

Appendix I Revised Biodiversity Net Gain Assessment Report

Appendix J Light Spill Drawings

Appendix K Drawing S3/HAN/14/26 Rev B – Bridge Farm Quarry Restoration Plan

Appendix L Drawing 427R220F Rev F – Sutton Courtenay Landfill Restoration Plan

Appendix M Non-technical Appleford Sidings Bridge Memo

