



Oxfordshire Strategic Rail Freight Interchange

Response to non-statutory consultation

June 2022

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Introduction

1. These written representations are made by Oxfordshire County Council in response to the non-statutory consultation (9th May to 4th July 2022) undertaken by Oxfordshire Rail Freight Limited, for a Development Consent Order for a rail-served warehousing and freight interchange facility.
2. The proposed site is located to the east of the former Upper Heyford Air Base, South of the Chiltern railway line and southwest of Junction 10 of the M40 motorway. All the works covered by the Development Consent order are contained within the administrative area of Oxfordshire County Council.
3. Oxfordshire County Council will continue to engage in pre-application discussions with the promoter to ensure that the impacts of the development are fully, and accurately assessed and suitable mitigation proposed. It should be noted that officers' comments should not be interpreted as representing the views of parish councils, local elected members or people living in the vicinity of the development, all of whom have been separately consulted by the promoter.
4. As part of the non-statutory consultation, the promoter has published a number of supporting documents including plans, a briefing document, and Environmental Statement to support their consultation. We note that this published consultation information is preliminary and further work is required, so this response sets out the interim position statement of Oxfordshire County Council in this matter.
5. These representations are variously made by the County Council:
 - In respect of Key Issues as local planning authority;
 - In respect of Compulsory Acquisition as landowner;
 - In respect of Highways as highway and local transport authority;
 - In respect of Archaeological impact as local planning authority;
 - In respect of Flood Water Management and Drainage as lead local flood authority;
 - In respect of Public Health as local planning authority;
 - In respect of Minerals and Waste as Minerals and Waste authority;
 - In respect of Ecology as local planning authority;
 - In respect of Landscape as local planning authority;
 - In respect of Climate Impact as local planning authority.

Key Issues

1. This is an interim position statement in response to this initial non-statutory consultation period prior to the submission of a Development Consent Order (DCO) application to the Planning Inspectorate (PINs). The Project is at an early stage so as the process moves forward, we will revisit and amend our interim position statement.

The need for the development at this location

2. The National Policy Statement for National Networks (NPSNN), published in December 2014, sets out the need for SRFIs and policies to guide and deliver NSIPs on the national road and rail network in England.
3. The NPSNN seeks to create a network of Strategic Rail Freight Interchanges (SRFIs) which shifts the focus from road to rail. The County Council recognises the importance of securing jobs and the potential contribution towards the local economy.
4. The following is a list of all Nationally Significant Project applications that are planned to be submitted, under examination and those that have been decided (Sourced 24/05/22):
 - Daventry International Rail Freight Limited;
 - East Midlands Gateway Rail Freight Interchange;
 - Hinckley National Rail Freight Interchange;
 - Northampton Gateway Rail Freight Interchange;
 - Oxfordshire Strategic Rail Freight Interchange.
5. No information has been provided that clarifies whether the other Interchanges are at capacity, and nor has there been any consideration of the overlap of the Northampton Gateway with the proposed Ox SRFI proposal.

Suitability of the site

6. The proposed site is situated between the B430 and former Upper Heyford Airfield and immediately south of the Chiltern Main Line. It consists of an area of land that is predominantly agricultural land that is not allocated within the Adopted Cherwell Local Plan.
7. Given the proximity of the Oxfordshire Strategic Rail Freight Interchange (Ox SRFI) proposals to the M40 motorway and Junction 10, the impact on the County's local highway network needs to be assessed alongside Highways England's assessment of the impact on the strategic road network.
8. There is a Severn Trent Green Waste site within the Ox SRFI area boundary, which is a safeguarded waste site. The proposal includes an alternative site for the Severn Trent Green Waste facility, but the proposal would need to show that this proposed site is appropriate and sustainable as a replacement for the existing facility.

9. The detailed officers' comments set out later in this report identify the need for a number of further evidence studies that need to be undertaken to assess the potential impacts of the proposal and the suitability of the site.

Alternative sites

10. The County Council considers it necessary to review whether or not there exists alternative sites that perform as well as, or better than the Ox SRFI proposal in meeting the Government's aim of creating a national network of SRFIs.
11. This review should also consider the Graven Hill site (Policy Bicester 2) as allocated in the Cherwell Local Plan under Policy SLE 4 which supports rail freight at Graven Hill. The Graven Hill site could also support policy BIC 1 in the Oxfordshire Local Transport Plan 2015-31 which proposes a South East Perimeter route linking the A41 at Graven Hill with the A41 south of Bicester, close to Junction 9 of the M40, through the provision of this route as embedded infrastructure.

Cumulative impacts

12. We have not seen the consideration of other strategic developments coming forward in the local area and recommend that the promoter assesses the potential cumulative impacts of the SRFI, combined with the other strategic development proposals that are coming forward around Junction 10.

Oxfordshire Plans and Strategies

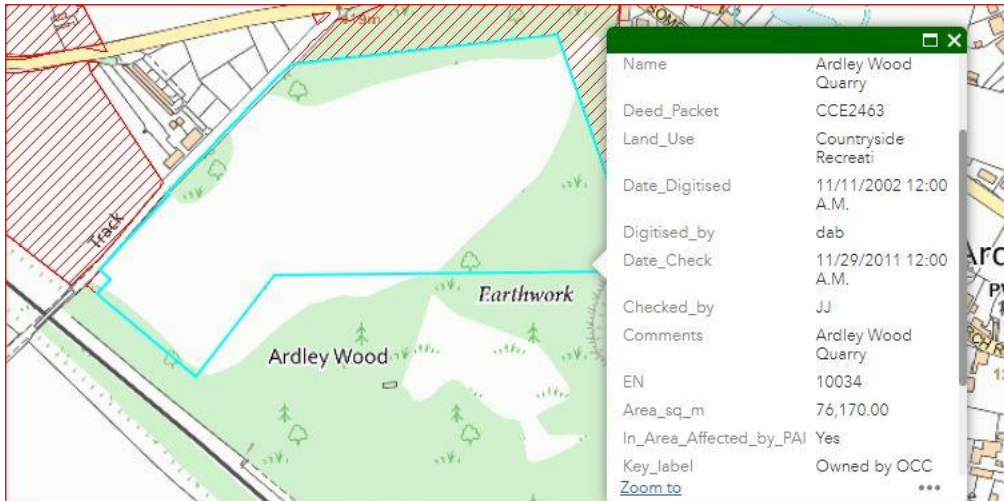
13. A number of Oxfordshire Plans and Strategies should be referenced in the process including Oxfordshire County Council's Local Transport Connectivity Plan 5 (LTCP5) which includes supporting strategies for freight, Oxfordshire Plan 2050, Adopted Cherwell Local Plan, and the emerging Cherwell Local Plan Review.

Detailed officer comments

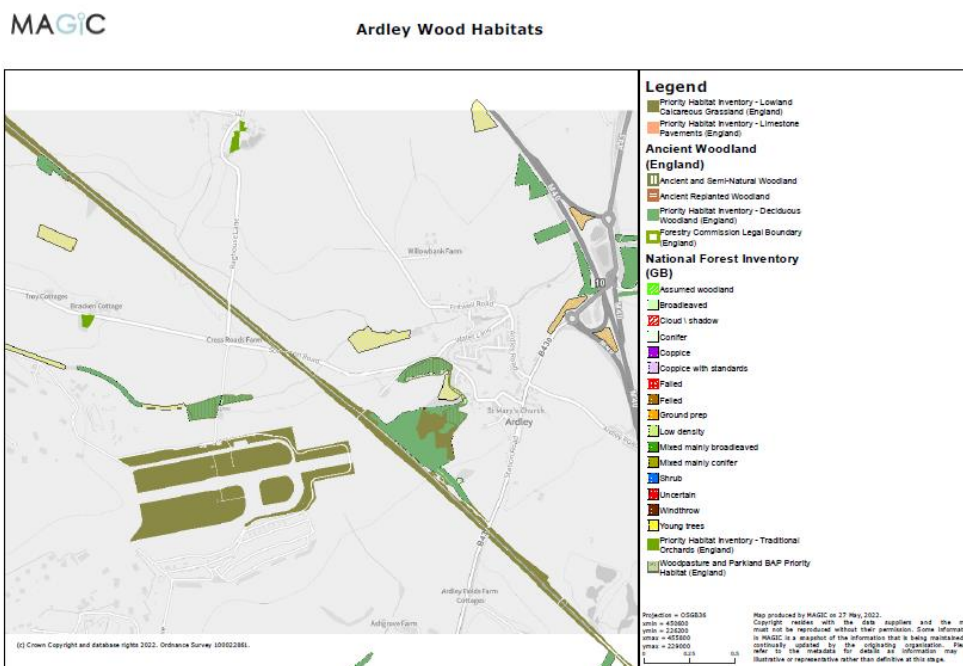
1) Compulsory Acquisition

Land owned by Oxfordshire County Council

14. There is one area of Oxfordshire County Council (OCC) land that appears to be affected (other than highway land) and that is part of the Ardley Wood Quarry site (See below OCC land ownership plan for Ardley Wood, and the scheme works plan with the works area No 26 circled in blue that affects the OCC land).



15. We would like to seek clarification of the purpose of the new access (Works No 26) and remind the applicant that the land is held for countryside / recreation purposes and contains a variety of Priority Habitats (See map below from the Government's 'Magic.gov.uk' website) which may not be compatible with the use for which the land is held.



2) Highways

Introduction and scope

16. Oxfordshire County Council continues to engage in pre-application discussions with the promoter. This engagement is welcomed, and OCC will continue to work to ensure that the impacts of the development are fully, and accurately assessed and suitable mitigation proposed. This ongoing engagement is referenced throughout the consultation documents. It is vital that the transport assessment and environmental statement work is completed before the statutory consultation, to provide sufficient information for consultees to comment.
17. The response discusses the need for the development and the suitability of the location in transport terms and provides the county council's highways and transport related comments on the plans, drawings and relevant chapters of the draft environmental statement provided for consultation. These are primarily Chapter 3, Transport, but also some observations on Chapter 4 (Air Quality), 5 (Noise and Vibration), and 6 (Ecology including Arboriculture), on which other officers within the county council and/or Cherwell District Council will comment more fully. Comments are also provided on the need to consider transport innovations.
18. Comments are not provided on the draft Development Consent Order document and Draft Explanatory Memorandum included in the consultation documents at this stage, other than to note that the Highway Authority will in due course seek legal agreement(s) referred to in Article 20.
19. It should be noted that the officer comments should not be interpreted as representing the views of parish councils, local elected members or people living in the vicinity of the development, all of whom have been separately consulted by the applicant.

Key issues

The need for the development at this location

20. To qualify as an NSIP, the site must be capable of handling four trains per day and there must be capacity on the rail network for these trains. The proposal is that this could be increased to twelve trains per day, which is dependent on rail capacity being achievable.
21. However, while it would be a requirement of the DCO that the rail freight terminal is provided, this ongoing use of the site cannot be enforced, and there is a risk that rail handling could remain a very minor or even negligible part of the operations of what is in effect, a large logistics park with the added benefit of freight handling if desired. If this were to be the case, then it means the environmental benefits of the development are overstated.
22. We have not seen in this consultation much evidence that this location is an optimal place for an SRFI. Oxfordshire Rail Corridor Study (ORCS): Strategic

Report - How can the rail system in Oxfordshire best support economic growth? – June 2021, Network Rail et al - provides an evidence-based set of rail outputs and enhanced train services required to support forecast passenger and freight growth in the short-term to 2024; in the medium term to 2028 and the long-term (2033). This identifies, at a high level, the railway system interventions required to enable the enhanced indicative train service to be provided to accommodate this future growth up to 2033. However, it does not seem to identify a need for an SRFI in this area on the Chiltern Line.

23. It is stated in the consultation materials as being not yet known which ports would be the origin/destination of containers handled at the site, which suggests that the demand is uncertain. Also, which markets are being served: i) what locations are goods to be loaded on to rail coming from; and ii) where are goods coming off of rail going to? This also impacts traffic modelling assumptions in that there is a danger of under-estimating likely road-based trips (i.e., two-way HGV trips not involving the rail terminal at all) because the rail opportunities are lower at Ox SRFI compared to other SRFIs.
24. It is also not clear whether the Chiltern Line is or is planned to be a key freight corridor. Two maps published by Network Rail do not show it as such. [Freight UK Base Map - Rail Freight Commodities Final v1.0_PDF \(networkrail.co.uk\)](#); and [Network Rail freight map - intermodal sector \(with gauge clearance\)](#).
25. Furthermore, a government report 'Understanding the UK Freight Transport System, Future of Mobility: understanding the UK Freight Transport System' (publishing.service.gov.uk), set out that SRFIs need to be located on main lines with a loading gauge that can accommodate cost-effective intermodal trains and located close to the strategic highway network and close to major urban conurbations; the latter provides both consumers for the cargo passing through them and a local source of labour. We question whether the site could be considered close to major urban conurbations.
26. Finally, the selection of this site could be pre-empting the evidence base being developed by Network Rail and National Highways as part of their 'Solent to the Midlands Multimodal Freight Strategy – Phase 1': Solent to the Midlands Multimodal Freight Strategy; Phase 1, June 2021 (networkrail.co.uk).
27. It is noted that a Rail Report is proposed to be included in the Statutory consultation but is not included with this consultation. OCC request that this information is provided as soon as possible.

Consideration of alternative sites

28. No information is provided in the draft ES about the alternative sites that were considered. It is stated that this will follow with the next consultation. We trust that this will include Graven Hill. The Cherwell Local Plan states that the Graven Hill site (Policy Bicester 2) has the major potential to capitalise on upgrading the national freight network (Para B.80), and Policy SLE 4 supports rail freight at Graven Hill. The Graven Hill site could also support policy BIC 1 in the Oxfordshire Local Transport Plan 2015-31 which proposes a South East

Perimeter route linking the A41 at Graven Hill with the A41 south of Bicester, close to Junction 9 of the M40, through the provision of this route as embedded infrastructure.

Possible future passenger rail station

29. Whilst there are no policies currently regarding the reopening of Ardley railway station, we reiterate our request that the proposals do not rule out this possibility as a future opportunity. We have heard that the plans do not affect the footprint of the former Ardley railway station, but further information should be provided to demonstrate how a passenger station could be accommodated alongside the freight terminal. We further request that the land required, including access, is safeguarded.

Significant new road building

30. Whilst it is important for the transport assessment to be realistic, and we acknowledge the need to ensure that local communities do not suffer from the traffic impacts of the development, the embedded infrastructure proposed is very significant. Free flow links are being provided at M40 J10 which will provide capacity over and above that required to mitigate the impact of the development, and there is a risk that provision of additional capacity will induce additional car journeys.

Dominance of car travel

31. The rural location and likely dispersed workforce mean that the majority of employees are likely to travel to work by private car. The trip generation assessment has been based on 92% single car occupancy and while this provides a robust assessment of the impact of the development, it leads to an assumption of need for the significant additional highway infrastructure proposed, which is at odds with the 'Decide and Provide' approach set out in the [Oxfordshire Local Transport and Connectivity Plan \(LTCP5\)](#), which was approved by Cabinet on 21 June 2022.

32. The stated ambition of the development's travel plan is to reduce single occupancy car modal share by 10%, which in our view is insufficiently ambitious when set against the headline target of the emerging LTCP5 to remove 1 out of every 4 current car trips in Oxfordshire by 2030 and 1 out of every 3 by 2040.

The need for further mitigation

33. The draft ES acknowledges that further off-site mitigation measures could be required for the traffic impacts of the development. These will be established through the further traffic modelling as part of the development of the transport assessment, but it should be noted that the need for measures may be generated by a range of environmental factors rather than solely for highway safety or to relieve congestion. The applicant should carry out local engagement on any proposed schemes.

34. OCC will seek Requirements and a S106 agreement as necessary once mitigation is established. Mitigation is likely to include Mitigation likely to include contributions to provide bus services, travel plan and travel plan measures, schemes to mitigate off site traffic impacts, and improvements to public rights of way in the vicinity.

Public rights of way and non-motorised user connectivity

35. The developer has considered most aspects for non-motorised users of roads and public rights of way and has proposed a wide range of mitigation measures that seem wide ranging and inclusive. The detail of these needs to be worked up and agreed. However, there is not yet any walking, cycling and horse-riding assessment and review to consider so full endorsement cannot be provided. This must be carried out as soon as possible so that OCC can assess it.

36. A commitment to providing wide green access and landscape corridors, better connectivity, and full year-round accessibility for all NMUs for new and upgraded routes needs to be built in at early stages, along with provision for ongoing maintenance and replacement costs. There also needs to be a contribution towards offsite (beyond DCO limits) mitigation measures focused on NMU safety, accessibility, and connectivity.

37. The detail of crossings, underpasses, diversions, widths, surfaces, and furniture needs to be agreed at earliest stages. Likewise, for potential environmental and amenity improvements like seating and viewing points, information panels, landscape, biodiversity, and habitat enhancements. Any proposals for diversions and replacement routes, including temporary ones, will benefit from early engagement with OCC countryside access colleagues.

38. Additional measures are required where bridges separate bridleway routes, requiring NMUs to join the carriageway to cross the bridge. These are the subject of ongoing discussion with the promoter, as are the types of crossing to be provided at each point where a PRow crosses highway. Details of proposed underpasses will be required.

39. The highway proposals at Junction 10 have provided a welcome opportunity to create links between Ardley and the public rights of way network to the northeast of the M40, which are currently severed by the M40.

Comments on highway plans and draft Environmental Statement

40. These are provided in Table 1 below.

Innovation

41. A considerable amount of change is likely to be experienced from innovation over the next ten years and the SRFI briefing documents do refer to many of these. If planning and construction proceeds as planned, the site may be fully operational

in 2031, by which time a new horizon with other innovations will be in sight. The designs therefore need to retain flexibility and be 'futureproofed' for innovations in the medium to long term. Some of these are considered below.

Vehicle charging capacity

42. The Dft report 'Decarbonising Transport' considers that by 2030 larger zero emission vehicles will be increasing in numbers on our roads and that by 2035 sales of non-zero emission HGVs under 26 tonnes will cease. In addition, by 2040 non-zero HGVs over 26 tonnes will no longer be sold. Trials are underway of alternative ways of powering HGVs including pure battery; hydrogen; and power from overhead lines picked up by a pantograph – the 'electrified road'. Assuming a need for HGVs to 'refuel' at the SRFI, this will have an implication for energy supplies and space at the operational site.
43. Either onsite electrolysis to generate hydrogen, or, perhaps more likely, 1000 kW DC chargers for each HGV charging station will be needed. Either way, the electricity required is not insubstantial. If 'electrified roads' become the norm, then HGV batteries will be smaller and charging capacity less demanding. Electric site service vehicles will further increase the charging capacity required. It should also be noted that the Oxfordshire Electric Vehicles Infrastructure Strategy (OEVIS) requires at least 25% of all new vehicle parking spaces to be provided with electric charging – this is an increase from the 10% mentioned in the consultation documents. Public transport to and from the site will also be electrified, adding to the charging load.

Local power generation

44. It may be that additional locally generated, renewable power with battery storage and smart network connectivity is needed to supplement the planned photo voltaic (PV) cell installation for warehouse and building base needs, to meet the needs of the electric charging load described above. It is noted that the Viridor Ardley Energy Recovery plant is nearby and that may provide a possible source of power.

Communications

45. Communications networks will be essential to innovation in transport and the built environment and will be more cost effective if planned for the SRFI and highways at the outset. 5G is already being rolled out and 6G is set to become available to the public by 2030. 5G and 6G require the same infrastructure as each other, but differ from previous generations, since the wavelengths used cannot travel as far. This means that a greater level of small-scale infrastructure is required to support their update.

Monitoring sensors

46. Provision for monitoring sensors should be considered for counts of movement for all types of transport modes including cycling and walking. Also, for air quality

and noise measurement (including noise quality). These can be used for reporting and to learn and make improvements.

Changes in modes of transport

47. Consideration should be given to the impact of changes in the modes of transport that are expected, such as connected and autonomous vehicles (CAVs) and unmanned aerial vehicles (UAVs). It is anticipated that the initial growth of CAVs will be in shared, public use and so this will need to be considered as part of the flexible public transport approach outlined in the consultation document. Targets in the Oxfordshire Local Transport and Connectivity Plan (LTCP) are to replace or remove 1 out of every 4 car trips in Oxfordshire by 2030 and 1 out of every 3 by 2040. Therefore, consideration should be made for space initially allocated for private car parking to be flexible enough to be repurposed in the longer term.

Table 1: Detailed comments on documents and plans

Ref	Plan/Document/Para	
001	Development Parameters Plan (Main Site)	<ul style="list-style-type: none"> • Limits of deviation for roads – these appear to be incomplete and do not allow for protected visibility splay at the relocated waste facility access. • Parameter’s plan should be updated to show pedestrian/cycle routes.
002	Principal Access Roundabout General Arrangement SK018-S1-P03	<ul style="list-style-type: none"> • Signalised crossing facilities for pedestrians and cyclists will be required – the drawing does not currently show any crossing facilities. • Segregated left turn should be single lane according to CD 116 6.2. • Streetlighting would be required. • Roundabout must be designed to CD116. Geometric parameters, forward visibility etc should be added to the drawing to demonstrate compliance. • The proximity of the roundabout to the existing access to Ardley landfill site and Household Waste Reception Centre may affect visibility at that junction. A drawing should be provided showing both junctions in order to assess this. Improvements may be required at the HWRC junction. • Cycle paths will need to be designed in accordance with LTN 1/20 • Design may require change, subject to capacity assessment and road safety audit. • Extent of future adoption by OCC to be confirmed. Further detail required on measures to prevent HGVs turning right out of the site. The height restriction would need to be outside

		the adoptable area. ANPR camera monitoring will also be required.
003	Heyford Park Link Road west GA SK023 -S1-P03	<ul style="list-style-type: none"> • We are concerned about safety at the junction of the new waste facility – visibility from the junction and forward visibility to right turning traffic. • Have the designers considered a roundabout junction incorporating this access and the secondary site access? • Tie in with Chilgrove Drive/Camp Road: Requirements will need to cover eventuality of Heyford Park works not being triggered by the time works are required for SRFI. Further detailed discussion required. • Footway/cycleway between the site and Heyford Park must be segregated to LTN 1/20 standards – verge separation looks too narrow. • Beyond Heyford Park unsegregated would be acceptable, as there are likely to be very few pedestrians, but again, verge separation looks too narrow for high-speed road. • How would the secondary access be enforced as bus only? • Cycle/ped crossing point should be set back, with the route cutting the corners rather than hugging the radii – see LTN 1/20 examples.
004	Middleton Stoney Relief Road SK025-S1-P03	<ul style="list-style-type: none"> • See comments relating to public rights of way strategy • Form of crossing on Middleton Stoney arm of roundabout will need to be appropriate to the traffic flow. • Pedestrians and cyclists on Middleton Road need to be considered • Cycle facility could ‘cut the corner’ instead of hugging the roundabout. • Suitable crossing should be provided for PRow • Lower speed should be considered.
005	Signalised junction arrangements on B430	<ul style="list-style-type: none"> • How many separate sets of signals will cyclists and pedestrians need to wait at? Would it be better to take cycle route along E side of B430 between the junctions? • The number of lanes may be providing too much capacity. Capacity assessments following traffic modelling will need to justify this level of provision. • Is it possible to simplify the arrangement and reduce the amount of infrastructure?

006	Ardley bypass	<ul style="list-style-type: none"> • Will this road be lit? • See PRow comments for treatment of bridleway over Ardley Road Bridge. • Tie in of Ardley Road not shown at eastern end. Will access to Ardley Boarding Kennels be affected, including visibility? • Plans need to be extended to include the existing bridge of Ardley Road over the M40 – see PRow comments for treatment of bridleway over bridge. • OCC will need to be involved in engagement with Network Rail regarding the bridge over the Chiltern mainline and sidings. OCC is not expecting to adopt these structures, just the surface of the road over the top – discussions are needed to establish the detail. • Capacity assessment of Ardley Roundabout required as part of further transport modelling. Details of traffic signals required. We are expecting that these will all be within NH control but please confirm. • There is no mention of any treatment to the existing B430 through Ardley, e.g., to downgrade the road and make it more attractive for walking/cycling, decommissioning of signalised crossings etc. Further discussion is required. • Archaeological investigations on the alignment of this road have not been concluded. Dependent on the outcome, this could be a constraint on the design.
007	M40 J10 proposed layout	<ul style="list-style-type: none"> • The works are very significant, and we question whether the cost would be viable for the development. The creation of excess capacity over and above that required to make the development acceptable could induce demand. • Cycle/ped route from Ardley across M40: This is welcomed as it allows a safe connection over the motorway to the facilities the village relies on at Cherwell Valley MSA. As the B430 north of Ardley Roundabout is still likely to carry a significant amount of traffic, the off-carriageway facility should be continued south to Ardley Road. • Cycle ped route should be separated from the carriageway more where space allows, i.e., it does not need to follow the kerb.

		<ul style="list-style-type: none"> • Options to enable cyclists to cycle over the motorway bridge without dismounting should be explored. • The connection into the existing bridleway leading to Stoke Woods is welcomed, as is the new proposed bridleway leading southeast running parallel to the M40. • Direct connection into the MSA should be sought. • Why is the Ardley approach to the roundabout not signalised? Needs consideration of safety, given the flows. • Very tight turn for HGVs leaving the M40 northbound and turning left onto the Ardley bypass. • Free flow links between A43N and M40S – will these need to be lit? • The applicant will be aware of the planning applications for development either side of the A43, which would be affected by this development. The additional roundabout at Baynards Green would conflict with the proposed access arrangements. However, it has been suggested that access could be gained from Padbury Roundabout. • It is noted that the arrangement at Baynards Green is substantially different from the improvement scheme proposed there (the ‘Growth Deal’ scheme) • It is not clear from the details, but OCC would expect the additional roundabout at Baynards Green to be within NH control as it will effectively form part of the Baynards Green junction. • The layout would be extremely intimidating for cyclists using the B4100. Cycle facilities should be provided through the junction to allow them to negotiate it off carriageway. • There is a high risk of local traffic travelling E-W along the B4100, accidentally taking the free flow link, and ending up on M40S. The layout, with the number of lanes and short distance between the roundabouts, could make it difficult for people to get into the correct lanes. • Retention of woodland within the free flow link loop would be welcomed.
008	Highway works - general	Sustainable drainage methods should be used to drain new highway. No indication is given of swales, balancing ponds etc. for which sufficient

		land must be included. See LLFA comments provided separately.
009	Highway works - general	The draft order makes provision for a highways legal agreement. OCC will seek this agreement, in order to secure provisions to replicate S278 Highways Act 1980 and other legislation that is replaced by the Development Consent Order.
010	Draft ES - Ch 2 – Description of Development and Alternatives	2.5.7 states that 'detail on alternative locations ... will be included for the Stage 2 Public Consultation process'. Given that work to select the location must have been carried out already in order to select the chosen site, it is disappointing that no details are provided here. A key question being asked by local people and councillors is 'why here?'. Rather than wait till the next consultation stage, a statement should be provided to the county council and made public on the project website. See policy section.
011	ES Chapter 3 – Transport	See comments listed by paragraph number below.
012	ES Ch 3 3.1.2	The document acknowledges that the detailed assessment work is ongoing, and the definition of the study area is subject to the outputs from the strategic modelling work.
013	ES Ch 3 3.2.2	The document acknowledges that engagement with the councils and National Highways will continue throughout the remainder of the preapplication period. This is welcomed.
014	ES Ch 3 Appendix 3.1	The file for this is incorrectly titled. It is in fact Technical Note 2 – Transport Modelling Methodology. (Referred to in para 3.2.3 of Ch 3) Comments: 3.7 It is noted that the simulation network of the Bicester Transport Model extends southwest along the A34 but not quite as far as the A40. It is not entirely clear which junctions north of Oxford are included. Depending on the proportionate impact on the A34 (which will be established through the modelling) there may be a need for assessment of junctions on the A34 beyond the edge of the simulation network, for which a methodology will need to be agreed. It should also be noted that the impacts of traffic from the development may be significant in Northamptonshire. 4.11 The table sets out the various modelling scenarios to be carried out. Additional scenarios may be required to establish the phasing of embedded highway mitigation. The 'with Albion

		Land sensitivity test' DS4 is welcomed. A sensitivity test may also need to be considered for DS1 to agree suitable phasing of embedded highway mitigation if appropriate.
015	ES Ch 3 3.2.10	States that strategies to address access via sustainable transport are being developed, but what assumptions are being made in the modelling of traffic impact?
016	ES Ch 3 – 3.2.15	IEMA Guidance is now 29 years old. The role of cycling in policy has changed in that time. While IEMA considers pedestrian delay and amenity, it does not specifically consider cyclist delay and amenity. This should be added as an environmental effect.
017	ES Ch 3 – 3.2.28	Identification of sensitive receptors should be established through engagement with communities, but is likely to be wider than this list, for example including churches and sporting facilities if not covered under community facilities. Private/business equestrian facilities should also be considered. Also, even modest pedestrian movement should be considered, including enjoyment of public rights of way.
018	ES Ch 3 – 3.3	Policy context section should refer to Cherwell Local Plan transport related policies and the Oxfordshire Local Transport and Connectivity Plan (LTCP 5) which is expected to be approved by Cabinet in June 2022.
019	ES Chj3 – 3.4.38	States that trains at Lower Heyford run between Banbury and Bicester – this is incorrect – they run between Banbury and Didcot Parkway.
020	ES Ch 3 3.5.55	Public transport strategy. Detailed comments are not provided here, as development of the strategy is ongoing in consultation with officers. The potential for a mobility hub should be explored.
021	ES Ch 3 – 3.5.65	What evidence is there for the shift times? As this paragraph says, there could be some variation depending on individual occupier requirements.
022	ES Ch 3 – 3.5.66	No information is provided on the capacity of the rail network to accommodate 12 trains per day, nor evidence of demand. How important is this volume to the business case for the development?
023	ES Ch 3 – 3.5.70	I am assuming the average maximum through-put of containers of 984 per day (12 trains) relates to two-way movements. The figures quoted in this paragraph for HGV trips/mileage savings assume the development is operating at full capacity, whereas to qualify as an NSIP, rail capacity for only 4 trains per day is the minimum requirement.

		Therefore, the HGV trips/mileage savings could remain at one third of that quoted (or even less if the demand isn't there). There is no guarantee that rail capacity will be available for any more than 4 trains per day. Also, the savings should be considered in the context of background HGV trips on the network.
024	ES Ch 3 – 3.5.72	States that many of the remaining HGV trips would already be present on the highway network. This may be true to some extent for trips on the M40 or A43 but not for trips on the B430.
025	ES Ch 3 – 3.5.74	States that to ensure the full impact of the proposed development is modelled in the vicinity of the site, the transport modelling will assume that all HGV trips would be new trips to the highway network. This may be realistic for the B430 and B4030 and other local roads but given that many of the HGV trips would already be on the strategic road network (M40 and A43) this could mean that the impact on M40 J10 is considerably over-estimated, leading to the provision of excess capacity through the proposed works to J10. This additional capacity would induce additional traffic and would conflict with the targets in the emerging Oxfordshire LTCP5 to remove 1 out of every 4 current car trips in Oxfordshire by 2030 and 1 out of every 3 by 2040.
026	ES Ch 3 – 3.5.77	The trip generation assumptions of a single occupancy vehicle rate of 92% are perhaps realistic for the rural location and dispersed workforce in 2022, but in the context of declining car use and the sustainable transport strategy for the site, it could be considered inappropriate to plan for this modal share, as it will lead to overcapacity in the highway network and induce additional traffic. Furthermore, faster journey times by private car will not incentivise the use of sustainable transport.
027	ES Ch 3 – 3.5.88	The significant capacity improvements at M40 J10 are stated to be a permanent beneficial impact of very large significance with regard to highway operation. However, in terms of environmental impact generally, they represent a huge amount of construction, with significant lengths of new carriageway and additional bridges, with consequent negative environmental impacts, only some of which can be mitigated. The scheme provides up to 63% additional capacity on some elements of the junction, which must surely be over-provision for the development, and needs to be justified.

028	ES Ch 3 – 3.5.84	It is acknowledged that the HGV traffic from the development on the B430 would present an unacceptable environmental impact on Ardley village, therefore the Ardley bypass is considered necessary to make the development acceptable.
029	ES Ch 3 – 3.5.86	The impact of the Middleton Stoney Relief Road and the proposed bus gate requires further investigation following the traffic modelling. Nevertheless, it is acknowledged that the proposed cycle facility alongside the relief road, and carrying on alongside the B4030 to Bicester, is necessary to mitigate the impact of the development by providing opportunity for sustainable travel.
030	ES Ch 3 – 3.5.91	No information has been provided yet on phasing or construction access. Early discussions are recommended with local communities and the highway authority, ahead of inclusion of this information in the next round of consultation. The impact of construction traffic has the potential to be very significant.
031	ES Ch 3 – 3.6.2	A 10% modal shift from single occupancy car use, from a base of 92%, will still leave a very high SOV modal share. This is not consistent with the emerging Oxfordshire LCTP target of removing 1 out of every 4 current car trips in Oxfordshire by 2030 and 1 out of every 3 by 2040.
032	ES Ch 3 – 3.6.8 and 9	States that reducing congestion and journey time reliability at M40 J10 will help contribute to targets on reducing greenhouse gas emissions. Further evidence is required to support this claim, as providing additional capacity at the junction is likely to induce more traffic.
033	ES Ch 3 – 3.8.6	We look forward to working with the TWG to identify additional mitigation measures that may be required. The promoter should carry out engagement with the community on any proposed measures.
034	ES Ch 4 – Air Quality	The impact on the Air Quality Management Area on the A34 at Botley, Oxford may need to be considered in the ES, depending on the outcome of the traffic modelling.
035	ES Ch 5 -Noise and Vibration Appendix 5.3	It is noted and welcomed that consultation will be undertaken with council officers and National Highways regarding the noise surveys already undertaken, the proposed Highway Works and whether any additional monitoring is required.
036	ES Ch 6 – Ecology and Arboriculture	Attention is drawn to the County Council's newly adopted Tree Policy for Oxfordshire, which should be listed in the policy section. Tree Policy for

		Oxfordshire . In transport terms, with particular relevance to trees within the highway boundary.
037	ES Ch 8 – Lighting	This chapter does not appear to cover the impact of lighting emitted from embedded highway infrastructure, which must be covered in the ES.
038	Draft Public Rights of Way Strategy Plan	<p>The detail of this is still the subject of discussion with officers . The following points have been raised:</p> <ul style="list-style-type: none"> • WCHAR needs to be carried out as soon as possible to allow OCC to comment before next consultation stage. • The detail of crossings, underpasses, diversions, widths, surfaces, and furniture needs to be agreed at earliest stages. Likewise, for potential environmental and amenity improvements like seating and viewing points, information panels, landscape, biodiversity, and habitat enhancements. • Any proposals for diversions and replacement routes, including temporary ones, will benefit from early engagement with OCC countryside access colleagues. • Additional measures are required where bridges separate bridleway routes, requiring NMUs to join the carriageway across the bridge. These are the subject of ongoing discussion, as are the types of crossing to be provided at each point where a PRoW crosses highway. Details of proposed underpasses will be required. • A safe crossing point will be required on the B430 to provide a link between the onside NMU route around the south of the site to bridleway 109/27 opposite. • A bridleway connection is required to connect existing bridleway 109/20 to the proposed new bridleway leading to the bridge across the northern end of the railway sidings. Improvements to the existing bridleway through the quarry will be required to ensure it is safe and convenient to all users. • The highway proposals at Junction 10 have provided the opportunity to create links between Ardley and the public rights of way network to the northeast of the M40, which are currently severed by the M40.

3) Archaeological impact

48. The site is located in an area of considerable archaeological interest adjacent to the line of Aves Ditch, a prehistoric tribal boundary. A number of Iron Age banjo enclosures have been recorded along the line of this boundary including one within the proposed site itself. A further banjo enclosure is located within the proposed access road from Ardley.
49. The proposed site also contains a number of archaeological settlement sites identified from aerial photographs and Middle to Late Iron Age settlement has been recorded along Aves ditch in the vicinity of the proposed site. Roman cremations and burials have also been recorded within the site and a number of further burials have been recorded in the vicinity. A possible Anglo-Saxon cemetery has been recorded in the area of the site, but this was recorded in 1865 and the exact location is uncertain.
50. A geophysical survey has been undertaken on the main site and parts of the site have been subject to an archaeological evaluation. This however was not able to investigate the full extent of the site due to ecological constraints and a further programme of evaluation is likely to be required in these areas ahead of the determination of any permission for this development.
51. Although the fieldwork for the evaluation of the accessible parts of the main area has been completed the report has not yet been completed and has not been agreed with County Archaeological Services as set out in the agreed written scheme of investigation. This evaluation did record a number of archaeological sites within the development area including a possible Roman building or villa with a tile roof and a well-preserved Banjo enclosure.
52. Once this evaluation report has been agreed then it will be used to assess the significance of these sites in order to provide appropriate advice as to whether or not the impact of this development on the significance of these sites is acceptable. This evaluation report will also need to be used to inform the assessment of the impact of this development on these features within the cultural heritage chapter of the EIA.
53. The applicant has submitted a draft cultural heritage chapter which does include assessments of the significance of these features, but we would highlight that this should be based on the findings of the evaluation report once agreed and is therefore premature at this stage.
54. A geophysical survey has been undertaken along the routes of the original proposed new roads into the site, but these have since changed and so does not include the full extent of these new roads. A programme of archaeological evaluation will need to be undertaken along these proposed roads in advance of the granting of any permission for this site so that the impact of this development on surviving heritage assets can be appropriately assessed and take into account in any decision.

55. This must be carried out by a professionally qualified archaeological organisation and should aim to define the character and extent of the archaeological remains within the application area, and thus indicate the weight which should be attached to their preservation. This evaluation must be undertaken in line with the Chartered Institute for Archaeologists standards and guidance for archaeological evaluation including the submission and agreement of a suitable written scheme of investigation.
56. Once these evaluation reports have been agreed then the cultural heritage chapter, including the assessment of significance, will need to be updated based on the results of the evaluation.

4) Flood Water Management and Drainage

57. Oxfordshire County Council is Lead Local Flood Authority in Oxfordshire, responsible for managing local sources of flood risk. The detailed design of the surface water drainage scheme will need to be submitted to and approved by the County Council in order to ensure it provides adequate mitigation.

5) Public Health

58. The Healthy Place Shaping team acknowledges that the proposals include a dedicated access into the main site for bus, pedestrian and cycles. While it is welcomed that transport methods alternative to the private car will be enabled, it is important that this infrastructure is promoted through a range of activation methods. This may be in the form of workplace travel plans, the provision of secure cycle storage, lockers, and shower facilities, and with careful consideration as to the bus routes which will use this route so as to maximise the ability for users of the proposed site to reach home destinations. Given the proximity of the site to residential areas at Heyford Park, Ardley and Middleton Stoney, specific cycle routes should be provided to support sustainable active travel from these locations to the site for work purposes.
59. It is welcomed that the proposals include a reference to Public Rights of Way which include improving existing routes as well as providing new ones. Due to the rural location of the proposed development, there will naturally be a lack of major transport infrastructure that would normally be present in towns and cities, so it is vital that opportunities to travel sustainably to the site are provided. A site management plan should consider how the site will manage and maintain public rights of way within the site and which connect to it; these include legible signage, vegetation cutback and other hazard removal.
60. The proposal includes new landscaping and planting across all elements of the scheme, including habitat creation to deliver a net gain in biodiversity. These plans should carefully consider areas for people to stop and rest, especially when walking or cycling considerable distances to and from the site. This should tie in with strategic planting to deliver shade and cooling from the sun on hot days. Planting within the site should consider the mental wellbeing of those who might use the area during breaks. This should also include canopy shading and shrubs

that give seasonal interest.

61. Given the proximity of the development site to residential housing at Heyford Park, it is important that the detailed assessment of operational phase road traffic emissions on local air quality identifies any potential impact on the nearest housing units to the development. It is noted that a construction phase dust assessment will be included; a construction phase dust management plan should also be provided.
62. The applicant's commitment to the climate emergency by providing EV charging points and solar PV energy generation is noted. There should be a sufficient number of EV charging points to meet future demand and charge points should be free to use in order to make electric vehicle ownership more appealing.
63. Within the key documents accompanying this consultation, there are chapters on a number of Public Health issues, such as air quality, climate change and socio-economic factors. Given that this is a Nationally Significant Infrastructure Project (NSIP) and as such, the proposals will be subject to an application for a Development Consent Order (DCO), a Health Impact Assessment will need to be completed as part of the planning application; please see here for guidance on the methodology to be used for such an assessment. The results of the HIA should be reported in a specific healthy place shaping chapter.

6) Minerals and Waste

General Comments

64. There is a Severn Trent Green Waste site within the SRFI area, which is a safeguarded waste site. Policy W11 of the Oxfordshire Minerals and Waste Local Plan Part 1 – Core Strategy (OMWCS) states that development that would prevent or prejudice the use of a safeguarded site will be not be permitted unless, among other things, an equivalent waste management capacity can be appropriately and sustainably provided elsewhere. The proposal includes an alternative site for the Severn Trent Green Waste facility, but the proposal would need to show that this proposed site is appropriate and sustainable as a replacement for the existing facility.
65. The site is in close proximity to an existing Household Waste Recycling Centre, Energy from Waste Plant, and a former landfill site to the east. The proposal should demonstrate that it would not prevent or prejudice the operation of the Household Waste Recycling Centre or the EfW plant.
66. The site is within a mineral safeguarded area (crushed rock). Policy M8 of the OMWCS states that development preventing or otherwise hindering future mineral development of safeguarded areas will not be permitted unless:
 - The site has been allocated in an adopted local plan or neighbourhood plan;
 - The need for the development outweighs the economic and sustainability considerations relating to the mineral resource; or
 - The mineral will be extracted prior to the development taking place.

- The site is not an allocated site, there is no proposal to extract the mineral prior to the development taking place, and so it is necessary to demonstrate how the development outweighs the mineral considerations.

In relation to Chapter 13 of the Environmental Statement

13.2.15

This refers to a “minimal level” of mineral being required. This is a large site and so even a minimal level could be significant. If the proposal is to use mineral from the cut and fill operations, it should be included in the ES as this would be relevant to policy M8 of the OMWCS.

13.2.51

If climate change is not going to be covered in this part of the ES it should reference where it has been considered,

Table 13.9

Good to see that mineral safeguarding will be considered in the ES, but it’s not clear why this is in the waste section.

13.2.55

We welcome this approach as prevention is at the top of the waste hierarchy.

13.2.56

It would be worth mentioning in this section that inert waste used in the restoration of an unrestored quarry is considered to be recovery. This should be used in preference to landfill at a site that does not require restoration.

13.3.13

The proposed SRFI is being determined as a Nationally Significant Infrastructure Project. Therefore, it is right to think of the waste as being the project’s rather than that of Oxfordshire’s community. Having said that, in the interest of reducing the transport effects on climate change, proximity should be considered in the waste management options.

13.3.27

It is also worth saying here that Policy W6 of the OMWCS states that “Priority will be given to the use of inert wastes that cannot be recycled as infill material to achieve the satisfactory restoration and after use of active or unrestored quarries.”

13.3.28

The policy in the OMWCS that relates to the disposal of wastewater and sewage sludge is policy W10, so this should be referred to in the OMWCS section.

13.4.2

Policy W11 of the OMWCS safeguards existing waste facilities such as the Severn Trent IVC facility. This should be referred to here and in the OMWCS section.

13.4.8

The latest Local Aggregates Assessment (2021) should be used.

Table 13.14

This refers to the District Council as the Local Authority. In this case it is the County Council that is the Local Planning Authority, and it would therefore be sensible to refer to the County authority in each case. Buckinghamshire is now a unitary authority. The exception in Oxfordshire's case is the Blenheim Palace permission which was granted by West Oxfordshire District Council. In all cases, the latest information from the Authority Monitoring Reports, and the Waste Data Interrogator should be used.

13.4.17

The review of waste management facilities is restricted to the two Oxfordshire Districts of Cherwell and West Oxfordshire. However, some areas of South Oxfordshire are closer to the proposed site than parts of West Oxfordshire. Waste is in any event a County Matter, so it would more sense to refer to counties with or without a radius around the SRFI site.

13.6.28

Depletion of finite mineral resources is also caused by sterilisation. This proposal would cause a loss of workable mineral deposits, and this should be considered in the ES.

7) Ecology

Habitats

67. The proposed SRFI will result in the partial loss of Ardley Cutting & Quarry Site SSSI, a site notified for its geological and ecological interest. The geological interest concerns Jurassic rock exposures whilst the ecological interest refers primarily to the calcareous grassland, but also the scrub, ancient woodland and wetland habitats, and part of a great crested newt population. Sites of Special Scientific Interest (SSSI's) are sites of National level importance. It's' most recent condition assessment was 'unfavourable – recovering'. The sustained recovery of the habitats is reliant on the appropriate management being carried out, which seems to be undertaken to a limited extent by Network Rail.
68. It is estimated that about 1.36ha (approx. 11%) of the SSSI will be permanently lost and another 1.46ha subject to temporary disturbance. It may also be adversely affected by construction impacts such as dust, noise and pollution. A detailed botanical survey of Ardley Cutting & Quarry Site SSSI found that whilst none of the calcareous grassland communities on site matched any of the specific communities noted in the SSSI citation, nor any specific published National Vegetation Community (NVC), they were still representative of the species-rich calcareous grassland for which the site is partly designated. As such it is considered that the site remains of national significance. Further detailed botanical surveys are planned for this summer.
69. Ardley Trackways SSSI lies partly within the application area but is designated for it is geological interest only.

70. The main part of the application area lies almost entirely within the Ardley & Heyford Conservation Target Area (CTA). The targets for this CTA include calcareous grassland, great crested newts, and geological conservation. There will also be some habitat loss from Ardley Fields Quarry Local Wildlife Site (LWS), an area of species-rich grassland, ponds, and wet ditches, adjacent to the site.
71. Ardley Road Verge Nature Reserve (RVNR) lies adjacent to the main site and will be partly impacted (although none of the grassland itself will be lost) by the creation of a new footpath/cycleway. Whilst lacking the most appropriate management it still supports some species-rich areas of calcareous grassland and a population of the nationally scarce species meadow clay. Therefore, this RVNR is considered to still be of County level importance.
72. Within the main application site, none of the hedgerows were found to meet the criteria to be classified as Important under the Hedgerow Regulations 1997. However, three hedgerows potentially impacted by the highways works meet the criteria.

Species

73. There are three great crested newt (GCN) metapopulations around the main site, one of which spans the railway line, and the works have the potential to cause loss of habitat and disrupt migration to breeding ponds. The large size of these populations means they are of County level importance. No evidence of GCN was found in the three ponds within the main site. Two attenuation basins within the highway works areas were found to support GCN. Further survey works in 2022 will confirm whether or not a fourth metapopulation is present within the area of the Ardley bypass.
74. Two bat roosts have been confirmed at a farmhouse and outbuilding, both of which are proposed for retention and refurbishment; therefore, a licence will be required to undertake these works. No tree roosts have yet been confirmed. Small populations of reptiles (common lizard, grass snake and slow worm) were found within the main site. The railway embankments could not be surveyed but provide excellent habitat for reptiles and they will almost certainly be present in and around the SSSI in good numbers. Low numbers will likely also be present in the highway works areas.
75. The breeding bird assemblage was as expected for the habitats on site, with the exception of spotted flycatcher, which if confirmed breeding makes it of County level importance for the species. Two probable barn owl nesting/roosting sites will be lost. The overwintering bird assemblage was of local value, with the exception of skylark and yellowhammer, which were recorded in high numbers. If these kinds of numbers are recorded in three out of the past five years, the main site could meet the criteria for a LWS for wintering birds (this data is not yet available). These two species are associated with open field habitats and as such the proposed development will have a significant impact on them.

76. The badger survey report was not available to comment on, but they will be present within the main site.

77. The grassland and scrub habitats within the Ardley Quarry & Cutting SSSI provide excellent habitat for invertebrates, most notably the rare Duke of Burgundy butterfly; further butterfly surveys are scheduled for this summer.

78. No evidence of otter or water vole was found on the Gaggle brook.

Biodiversity Net Gain

79. The Environmental Statement (Ecology 6.5.9) states that an Impact Assessment using the DEFRA 3.0 metric has been carried out, which demonstrated the scheme could deliver more than a 10% net gain. The calculations have not been made available and as such I cannot comment further on this aspect.

80. Once all the additional surveys have been carried out this year the Impact Assessment should be re-calculated using the latest 3.1 version of the metric.

Mitigation/compensation

81. Since updated/further surveys are required for many of the species, the existing mitigation proposals are fairly general. They will be required for bats, badgers, GCN, birds, reptiles as well as the SSSI grassland and also possibly invertebrates. A Farmland Bird Strategy is proposed. Measures to prevent and reduce construction and long-term impacts on the SSSI and nearby LWS's will need to be covered in greater detail in a Construction and Environment Management Plan (CEMP).

82. Overall, from the information currently available, I cannot say whether the mitigation and compensation are sufficient and/or appropriate.

8) Landscape

NPPF (2021)

83. Para 174 requires planning policies and decisions to contribute to:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and enhance the natural and local environment by recognising the intrinsic character and beauty of the countryside.

Cherwell Local Plan 2011-2031 (Part 1)

- a) Policy ESC10 (Protection and Enhancement of Biodiversity and the Natural Environment) states amongst other things that the protection of trees will be encouraged, with the aim to increase the number of trees in the District
- b) Policy ESD13 (Local Landscape Protection and Enhancement) seeks the restoration, management and enhancement of existing landscapes, features, and habitats. It further requires development to respect and enhance local landscape character, securing appropriate mitigation where damage to local landscape character cannot be avoided. Proposals will not be permitted if they cause amongst other things an undue intrusion into the open countryside, cause undue harm to important natural landscape features, are inconsistent with local character, impact on areas of high tranquillity, harm the settings of settlements or harm the historic value of the landscape.
- c) ESD 15 (The Character of the Built and Historic Environment): Amongst other things this policy requires development to contribute positively to an area's character and identity by creating or reinforcing local distinctiveness and respecting local topography and landscape features, including skylines, valley floors, significant trees, historic boundaries, landmarks, features or views, in particular within designated landscapes within the Cherwell Valley and within conservation areas and their setting.

Landscape Character Context

- 84. The site is not located within an Area of Outstanding Natural Beauty, or its setting.
- 85. The Oxfordshire Landscape and Wildlife Study (OWLS) shows the site to be located in the Landscape Types 'Farmland Plateau' and 'Wooded Estate lands' and the Local Character Areas 'Fritwell' (CW/57) and 'Middleton Stoney' (CW/59).
- 86. Landscape guidelines for the Farmland Plateau landscape type seek amongst other things the conservation of the open and spacious character of the landscape, the environmentally-sensitive maintenance and management of hedgerows, the strengthening of field patterns by planting-up gappy hedges, the conservation of the remaining areas of semi-improved and unimproved grassland, the retention of the sparsely settled rural character of the landscape, the protection of the exposed character of the plateau from visually intrusive developments, the use of local building materials and the appropriate restoration and after uses of quarries.
- 87. Landscape guidelines for this Wooded Estate lands landscape type seek amongst other things the conservation of semi-natural and ancient semi-natural woodland, the environmentally-sensitive maintenance and management of hedgerows, the strengthening of field patterns by planting-up gappy hedges, the conservation of parklands, the strengthening of the character of tree-lined water courses, the use of judicious planting of characteristic trees and shrubs to minimise the visual impact of intrusive land uses and to assist the successful integration of developments into the surrounding countryside.

88. The Cherwell Landscape Character Assessment (LCA) identifies the site to be part of the 'Oxfordshire Estate Farmlands' and 'Upper Heyford Plateau' Landscape Character Areas.

Landscape & Visual chapter

- a) The LVIA is at a Draft stage and does not yet include definite findings on the impact of the scheme in landscape and visual terms. I have not reviewed the document in detail but have the following observations:
The proposed assessment criteria in appendix 7.1 look rather simplistic and might not provide sufficient detail to allow and sufficiently nuanced assessment of the scheme.
- b) The methodology does not include information on the method to be used for photography and for photomontages. Visualisations should be in accordance with the Landscape Institute Technical Note TGN 06/19 - Visual Representation of Development Proposals.
- c) The LVIA chapter does so far not include any information on the extent of the study area considered as part of this assessment. This should be determined by a computer generated ZTV (Zone of Theoretical Visibility), which should be refined by site visits. Without this is it difficult to judge whether the appropriateness of the proposed viewpoints outlined on the viewpoint plan
- d) The viewpoints plan includes some viewpoints to assess the highway infrastructure but the Draft LVIA seems to predominantly focus on the main site. The varying road infrastructure schemes associated with this development are major developments in their own right and will need to be adequately assessed in landscape and visual terms. More viewpoints might potentially be required.
- e) Proposed mitigation measures include the integration of some of the existing mature vegetation into the scheme and the provision of 132ha (44% of the main site) of land for landscaping and green infrastructure including ponds/swales, perimeter mounding and new public access routes. Most of the landscape treatment is focussed on screening the site with bunds and/or vegetation. Although there are some green corridors through the site, they look rather narrow and will be dwarfed by the scale of the buildings. I have not been able to find information on the treatment of these, but the Illustrative Masterplan suggests that landscaping might be rather formal and therefore unlikely to offer the ecological and visual benefits one would hope to see considering the site's context of nature conservation designations.
- f) The assessment of construction and operational effects in Draft LVIA is unspecific at this stage making it difficult to get a sense of the impact of the development in views. However, it recognises that the landscape character of the site will permanently change, which I would agree with.
- g) I note that lighting is addressed separately but the impacts of lighting should also be considered in the context of the LVIA. The LVIA does currently only assess impacts on landscape character, characteristic elements, and views but it should also assess effects on tranquillity and dark skies.
- h) There is a lot of development in the area - the LVIA should take account of indirect, secondary, and cumulative effects. As such the LVIA should also assess the effects on tranquillity caused by increases in car and HGV movements in the wider area.

- i) In line with GLVIA3 it is important that the design process and assessment process are interactive and that the LVIA is used to inform the scheme design, e.g., what road alignment option is chosen, layout of the main site, height and bulk of the buildings, materials, landscape design approach etc. More detail is required to understand to what degree the LVIA has influenced the layout and appearance of the proposal.

Illustrative Masterplan

89. I have not been able to find information on the size, height, and design of the buildings but the Illustrative Masterplan and consultation boards suggest that the development is of a design, bulk and height that is not in keeping with the surrounding landscape character and is expected to be visible in the landscape. The proposed highway infrastructure works are also substantive and are major developments in their own right. Both the main site and highway works will by their scale and nature have an urbanising major effect on this rural landscape character. Although other large developments such as Dewars Quarry and ERF exist in the vicinity, these developments are in comparison smaller and of a temporary nature, which will assist in reducing their impact in landscape character and visual terms in the long-term.
90. The Illustrative Masterplan suggests that the development is proposed to be screened by vegetated bunds. This is a rather utilitarian approach to screening as bunds are often uncharacteristic, engineered features in the landscape that are not in keeping with the landscape character. I am unconvinced about the appropriateness and effectiveness of these, and I expect parts of the large warehouse buildings to remain visible in views.
91. The draft layout proposes to retain existing mature vegetation within the site, which is welcomed but these areas are dwarfed by the development. The briefing document suggests that 44% of landscape and green infrastructure will be provided but it is unclear what areas are included in this calculation.
92. Overall, the impression is that the landscape proposals focus on screening bunds and landscape treatments along the roads but limited green infrastructure within the site and the wider area to provide comprehensive measures that provide ecological connectivity and offer landscape improvements.
93. Green infrastructure works on all scales and should include the provision of sufficiently wide landscape corridors for the benefits of landscape and ecological connectivity, and with sufficient space for meaningful planting. For a scheme of this size and importance I would also expect green roofs and green walls as well as solar panels to be an integral part of the design. Green roofs and walls could not only assist in reducing the impact of the development in views but could also deliver benefits for biodiversity, Sustainable Urban Drainage (SUDS) and energy efficiency.
94. It is unclear whether or how environmental considerations have influenced the design, but the draft layout suggests a planting approach typically associated with business parks with little regard to existing landscape character. Whilst the development might not affect any landscape designations the main site will

adversely affect a number of statutory and non-statutory nature conservation sites, such as a Scientific Interest (SSSI), Local Wildlife Sites (LWS) and District Wildlife Sites (DWS). It is also located in a Conservation Target Area (CTA) and within the Draft Nature Recovery Network (NRN) highlighting the importance of this area in nature conservation terms. Whilst these are predominantly ecological and geological considerations, they also influence the landscape character, value, and sensitivity, and should guide the approach to the landscape treatment.

95. In addition to the effects associated with the main site, the proposed highway works are substantive and raise landscape and visual concerns in their own right. The development is expected to increase the number of trains, HGVs, and cars on the access roads, all of which are likely to cause increases in views, noise, and activity. The proposed landscape treatment around the extended junction 10 and the bypasses looks minimal and does not deliver any wider landscape benefits. In addition, the development might also result in an increase in vehicle movements in the wider area, which in turn has the potential to adversely affect the tranquillity of villages and the landscape beyond the immediate site context. An appropriate assessment of impacts on tranquillity for the wider area should be provided.

In summary:

96. The landscape approach shown on the Illustrative masterplan appears to focus on the need for screening to address adverse visual effects rather than considering how a scheme of this nature could be successfully integrated into the landscape overall. A scheme of this magnitude and importance should not only seek to address mitigation of immediate impacts but should aim to deliver wider landscape and ecological benefits in line with the recommendations of the local landscape character assessments and ecological guidance. This could for example include the provision of substantial nature conservation corridors, woodland planting and additional hedgerow planting and management in the wider landscape area.
97. The draft LVIA suggests that proposed mitigation measures are unlikely to be fully effective in mitigating landscape and visual effects and that residual adverse effects would remain. The development (main site and enabling highway works) by its nature, extent, size, and bulk will have an urbanising effect on the local landscape and will cause an adverse change in the landscape character. Views are also expected to remain adversely affected but the level of impact is yet to be assessed. Indirect adverse effects on tranquillity, dark skies and noise also need assessing.
98. Notwithstanding that the design and assessment process are ongoing; the proposed development raises serious concerns in landscape and visual terms. At this stage it is difficult to judge the level of impact of the development and whether the scheme can be made acceptable in landscape planning policy terms.

9) Climate Impact

99. The County Council notes the OxSRFI Proposed Development seeks to *'contribute to the Government's ambition for more freight to be moved by rail*

rather than by road and help to create a low carbon sustainable transport system. The transfer of freight from road to rail has a significant role to play in a low carbon economy, helping to address climate change. The proposals will also contribute to Oxfordshire's economic growth and create new employment opportunities'.

100. Within the development's vision are the climate related guiding principles:
 - the proposals will play a direct role in enabling the transition to a more sustainable economy with rail freight being around 73% more carbon efficient than road freight – It is stated that each freight train can remove up to 76 HGVs from our roads, lowering carbon emissions and reducing congestion;
 - the scheme will deliver a significant net gain in biodiversity;
 - committing to achieve net-zero carbon in construction whilst also seeking to maximise capabilities for customers operationally;
 - the scheme will include sustainable energy consumption and production with a net zero carbon ambition – It is stated that the site will deliver low carbon development with renewable energy generation and buildings which meet at least BREEAM 'Excellent' standards.

101. The Preliminary Environmental Information (Work in Progress) Report (PEIR) Draft Environmental Statement includes Chapter 15: Climate Change, which presents the preliminary work undertaken as part of the ongoing preparation of the Environmental Statement (ES) to assess the potential effects of climate change on the Proposed Development and the effects of the Proposed Development on climate change.

102. Being 'preliminary', this draft chapter includes details of the scope and methodology of the above assessments which will be undertaken and presented in the final draft ES chapter (at the 'Stage 2' consultation process). Oxfordshire County Council expects more scrutiny will be applied to the final draft of this ES chapter, specifically on operational and construction emissions, and subsequent mitigation measures.

103. As stated in paragraph 15.2.43, the GHG Assessment will not be restricted by geographical area but instead assess any increase (or decrease) in emissions as a result of the Proposed Development. The chapter lists the following sources of GHG emissions from this Proposed Development:
 - Emissions relating to on-site construction activities (such as plant use on-site);
 - Operational emissions from site maintenance activities;
 - Operational end user traffic – a comparison has been made between GHG emissions between the 'Do-minimum' (without the Proposed Development) and 'Do-something' (with the Proposed Development) scenarios provided by a GHG assessment based on data from the traffic model and guidance from the Department of Transport;
 - Construction and operational emissions relating to the manufacturing, transport, and disposal of materials, which may be some distance from the location of the Proposed Development (for example, emissions associated with the manufacture of cement and steel).

104. Table 15.2 summarises likely Significant GHG Emissions sources.

Table 15.2: Summary of Significant GHG Emissions Sources

GHG Emissions Sources	Description
Occupiers (Transport)	User behaviour during the operational phase, including heavy duty vehicles (HDV's) associated with general operation/functionality.
Transport	Employee commuting and other vehicular trips that start or end within the Main Site.
Construction (qualitative)	Direct sources of GHG emissions associated with vehicle and plant movements and function.

105. Table 15.3 outlines which emission sources will be included in the final draft ES Assessment. We note direct emissions from operations (including vehicular) is included. In this assessment we would expect to see included the emissions from vehicles as a result of reduced congestion of the highways, and evidence of how this will not induce further demand from private vehicles.

106. We also note in Table 15.3 that emissions from the construction phase are not to be included in the ES Assessment. We strongly encourage these sources (particularly embodied carbon and energy from construction) to be included in order to ensure mitigation measures are considered early and built into the Proposed Development's design and contract conditions.

Table 15.3: GHG Emissions Sources Included in / Excluded from the GHG Assessment

GHG Emissions Sources	Description	Included?	Stage of Assessment
Construction Phase			
Direct GHG (Energy)	Construction energy – On-site fuel combustion (e.g. construction plant)	X	ES
Indirect GHG (Construction)	Embodied carbon associated with construction (materials, construction process, in-use building component maintenance and eventual demolition)	X	ES
Solid Waste	Waste arising during construction	X	ES
Water	Water demand associated with construction works	X	ES
Operational Phase			
Natural Capital	Green and blue infrastructure (e.g. soft landscaping, water bodies, sustainable drainage features)	X	N/A
Direct GHG (Energy and vehicles)	Operational energy – On-site fuel combustion (e.g. gas, biomass, solar provisions, vehicular emission)	✓	ES
Indirect GHG (Energy)	Operational energy – Off-site generation (e.g. Grid electricity, heat and steam).	X	N/A
Water	Water demand associated with the non-domestic buildings	✓	ES
Solid Waste	Waste arising from building occupants and visitors (non-domestic buildings and different housing typologies)	✓	ES