

Time to change course:

Reasons to reject the HIF1 road scheme

Oxford Friends of the Earth

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Five reasons to reject the HIF1 road scheme

There is a strong case for Oxfordshire County Council (OCC) to reject the HIF1 road-building scheme on the grounds that it:

- 1. Is contrary to key development plans and policies** **p. 2**
- 2. Will not reduce road congestion (and is likely to make it worse)** **p. 4**
- 3. Directly undermines OCC's Local Transport and Connectivity Policy and Net Zero goals** **p.6**
- 4. Will alter the landscape, character, and nature of the areas along the route forever** **p.8**
- 5. Is a major financial risk.** **p.10**

Introduction

In 2021, OCC commissioned consultancy firm AECOM to appraise the HIF1 scheme. Since then, questions have been raised about inaccuracies in AECOM's assessment, strongly suggesting that the scheme is unlikely to reduce rush-hour traffic congestion, conflicts with OCC's Local Transport and Connectivity Plan (LTCP), and risks becoming increasingly costly in the current and near-future financial context.

Oxford Friends of the Earth carried out new research to analyse the AECOM report and provide updated data on the HIF1 road scheme and its likely impact. The full report can be read here: www.oxfoe.co.uk/hif1-oxford-foe-objection-pdf/

This summary report outlines key areas of concern and evidence that the road-building scheme is a high-risk proposition for OCC that is unlikely to deliver the proposed benefits.

The Government recently announced that it would delay several planned road schemes in the second and third national roads programmes (RIS2 and RIS3). This follows the Welsh Government's decision in February to delay, change or abandon all their major new roads schemes, to assess their contribution to carbon emissions. OCC is urged to follow suit by reconsidering the HIF1 scheme in relation to national and local policies, net-zero targets and financial priorities.

1. The HIF1 scheme violates key development policies

These include:

Vale of White Horse District Council (VWHDC) Local Plan 2031

Building the proposed HIF1 road would be contrary to the VWHDC Local Plan, **Part 1 (see Core Policies 33 and 35)**, which:

'...seeks to encourage sustainable modes of transport and a reduction in the need to travel...reduce the need to travel, improve accessibility, to reduce the impact of transport on the environment and help tackle climate change.'

Those parts of the Plan supporting the proposed road (e.g. Core Policy 17) are out of date and insufficient to override these fundamental principles.

The proposed road would also be contrary to **Policy CP16b of the Local Plan 2031, Part 2**, which requires proposals for development within the **Didcot Garden Town Masterplan** area to demonstrate how they positively contribute to the achievement of the Didcot Garden Town Masterplan Principles. The **Didcot Garden Town Delivery Plan** is also a material consideration. Both Plans seek to reduce travel by private motor vehicle and encourage more sustainable modes of travel, including journeys by public transport, cycling and walking.

Local Transport and Connectivity Plan (LTCP)

Building the proposed new road would be contrary to the policies in the **Local Transport and Connectivity Plan (LTCP)**, which aims to deliver a net-zero Oxfordshire transport and travel system that enables the county to thrive while protecting the environment and making Oxfordshire a better place to live for all residents. This is to be done by reducing the need to travel, discouraging individual private vehicle journeys and making walking, cycling, public and shared transport the natural first choice.

The HIF1 road scheme would also be contrary to the **LTCP** goal to reduce emissions, enhance air quality and support transition to a low-carbon economy, and to:

- Objective 5: Minimise the need to travel
- Objective 6: Reduce the private car proportion of journeys and make public transport, walking and cycling more attractive
- Objective 7: Maximise the use of existing and planned sustainable transport investments through influencing the location and layout of developments, and
- Objective 8: Reduce carbon emissions from transport in line with the UK government targets.

National Planning Policy Framework (NPPF) 2021

Building the proposed new road would be contrary to national planning advice in the **NPPF 2021**, including the presumption in favour of sustainable development. For decision-taking, this means refusing applications for development where any adverse impacts would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole. These policies include realizing opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, to specifically promote walking, cycling and public transport. The proposed road would not accord with the national advice with respect to sites allocated for development.

Oxfordshire County Council (OCC) as Highway Authority

Building the HIF1 road would conflict with the advice being given by OCC as Highway Authority, which is looking towards 'decide and provide', as opposed to 'predict and provide'. OCC does not favour larger capacity to be provided in this area, but for people to look towards the cycle infrastructure and public transport. It is also essential to plan for a reduction in the demand on the highway network and therefore traffic levels. The traffic modelling and assessments have been carried out on the basis of 'predict and provide' rather than a decision not to build a new road and to then concentrate on sustainable modes of travel. Any increase in traffic flow implies more and not fewer vehicles rather than a policy-compliant 25% reduction.

National Planning Practice Guidance 2016

Finally, the proposed road scheme fails to take into account the changes that are occurring to road transport, including: electrification (cars and bicycles), autonomous vehicles, car sharing and working from home, which are likely to significantly affect demand. The new road would conflict with National Planning Practice Guidance 2016 and the Government intention to:

- encourage sustainable travel
- lessen traffic generation and its detrimental impacts
- reduce carbon emissions and climate impacts
- create accessible, connected, inclusive communities
- improve health outcomes and quality of life
- improve road safety, and
- reduce the need for new development to increase existing road capacity or provide new roads.

2. The scheme will not solve rush-hour traffic congestion

The most pressing local problem – rush-hour traffic in Didcot – will not be solved by the HIF1 road scheme.

The assessment of the scheme by AECOM argued that the Scheme would help relieve congestion, but its modelling:

- does not account for induced demand, and
- overestimates how much congestion there would be without HIF1.

New roads lead to more traffic

OCC's Local Transport and Connectivity Plan (LTCP) states:

“We have found that road schemes often generate new demand and quickly reach capacity again. It is therefore not a sustainable long term solution for Oxfordshire’s transport network.”

AECOM explicitly acknowledges that their assessment of the HIF1 scheme did not account for the fact that additional road capacity will lead to additional cars on the road – known as ‘induced demand’.

Professor Phil Goodwin, Emeritus Professor of Transport Policy at University College London, describes this as the “most important weak point” in AECOM’s analysis. The result is that the flawed analysis does not capture well-established passenger behaviour whereby traffic will be suppressed or deterred if traffic conditions are bad, and that additional traffic will be generated if it is improved.

Induced demand has been long-known and widely accepted by transport planners. For instance, a 1994 report for the Secretary of State for Transport (SACTRA) states:

“ ... the economic value of a scheme can be overestimated by the omission of even a small amount of induced traffic. We consider that this matter is of profound importance to the value for money assessment of the Road Programme.”

Research by Transport for Quality of Life suggests that in areas with road capacity expansions, traffic grows by 47% relative to comparable areas without road capacity expansions. The widening of the M25 London Orbital showed that traffic increased much more than expected, leading to high levels of congestion that canceled out the scheme’s benefits.

The benefits of HIF1 have been overestimated.

AECOM’s modelling also overestimates how much congestion there would be without HIF1. For example, AECOM modelled journey times on a 4.5-mile road on the A415 that connects to the A4074. **The model predicts that without HIF1 in 2034, it would take an implausible 15 hours to complete the journey due to a gridlocked network. It would be 10 times faster to walk this distance.**

For these reasons, the benefits of HIF1 in terms of reducing congestion are overestimated. Even with these flaws, AECOM's own modelling shows that journey times by 2034 with HIF1 will be lower than current speeds by around 20-25%. Therefore, the proposed scheme does not provide a sustainable solution to alleviating congestion.

Our conclusions are supported by Professor Phil Goodwin's assessment, which concludes that the OCC's traffic assessment shows that:

"Without the scheme, an unrealistically high amount of traffic will be forecast to travel, at unrealistically low speeds. With the scheme, an unrealistically low amount of traffic will be forecast at unrealistically high speeds. The effect is to exaggerate the difference "with" case and the "without" case, overstating the travel time benefits and underestimating the additional carbon emissions."

3. The HIF1 scheme directly undermines OCC's local transport policy and net-zero goals

Two of the main sources of carbon emissions from road schemes are embodied emissions (from the construction and materials used) and emissions from induced demand (from the additional road users, as described in the previous section).

The assessment OCC commissioned from AECOM did not account for emissions from induced demand, which represents a significant share of the potential emissions from the scheme in both the medium and long term. To fill this gap, Oxford Friends of the Earth commissioned an analysis that drew on a methodology developed by Transport for Quality of Life (TfQL) and compared it against Oxfordshire's transport carbon budget (as calculated by the Tyndall Centre at the University of Manchester, which is based on the Paris agreement). It estimates that the HIF1 scheme could emit around 514ktCO₂. This compares to Oxfordshire's transport carbon budget of 6192ktCO₂.

The additional carbon from HIF1 could therefore consume 8% of Oxfordshire's remaining carbon budget, at a time when emissions need to be quickly reduced. Even if there was rapid uptake of electric vehicles, the research estimates that HIF1 would consume 5% of the county's transport carbon budget.

Emissions from the HIF1 scheme would consume a large amount of the county's carbon budget

OCC has committed to delivering a zero-carbon transport system through its Local Transport and Connectivity Plan (LTCP). Notably, it aims to replace or remove 1 out of every 4 current car trips by 2030 and 1 out of every 3 trips by 2040. These targets recognise that while electric vehicles will be an essential part of decarbonising transport, they do not reduce emissions fast enough to limit global warming to less than 1.5°C.

Therefore, rapid and immediate cuts in emissions are required. To deliver this, the LTCP sets out various policies, one of which requires the carbon emissions from potential transport schemes to be quantified and compared against Oxfordshire's carbon budget. To date, OCC has not accurately quantified the emissions likely to result from the HIF1 scheme, and has not set out what carbon budget it will use.

The new road would increase car journeys and negate gains made from increased cycling and active transport

To put this in context, the estimated emissions from the HIF1 scheme (514ktCO₂) are equivalent to the transport emissions of 350,000 South Oxfordshire residents for a whole year. Put another way, estimated emissions from the proposed road would be greater (by 1.7 times) than the carbon savings that would result if Oxfordshire met its target of increasing the number of cycling trips from 600,000 to 1 million trips per week. In other words, it would be one step forward, two steps back, in terms of meeting our net-zero commitments and reducing private road journeys. The analysis from Oxford Friends of the Earth shows that the HIF1 scheme is incompatible with the policies in the LTCP, and OCC's aim to reach net zero.

CO₂ emissions from the scheme would be much higher than claimed

The predicted CO₂ emissions resulting from the construction and operation of the HIF1 scheme are contained in the Environmental Statement Volume 1, Chapter 15, September 2021, with subsequent Regulation 25 responses. We note that OCC Environment Team commissioned a review of these documents by SNC-Lavalin / Atkins, dated 15th February 2023.

A significant conclusion of the Environmental Statement is that there will be a reduction in operational CO₂ emissions if the HIF1 road is built due to reduction in traffic congestion and journey times.

This is based on flawed assumptions, which were detailed in a report – *“The HIF1 road proposal: Is this plan compatible with Oxfordshire goals?”* -- and summarised by Oxford Friends of the Earth in a submission to the Planning Department on the 19th of January 2023, as a response to R3.0138/21. This remains the most accurate and comprehensive assessment of the flaws in the Environmental Statement on CO₂ emissions, which are, in brief, that the traffic modelling:

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

The Environmental Statement overestimates the level of congestion without the Scheme and overestimates the improvement in congestion with the Scheme. It therefore overestimates the potential carbon savings from reduced congestion. Using best available data, the operation of the HIF1 scheme would lead to increases in carbon emissions estimated at 359kt CO₂ by 2050.

4. The HIF1 scheme will alter the landscape and nature of the area forever

The National Planning Policy Framework (NPPF) requires that decisions should ensure “a new development is appropriate to its location taking into account the likely effects including cumulative effects of pollution, on health, living conditions and the environment.”

Yet the the visual impact of the bridges, viaduct and flyover that comprise the HIF1 scheme will change the nature and character of localities along the route of the road – from a rural country area to an urban district.

The scheme will affect 383 acres (155 hectares) of land. The loss of 383 acres to the natural environment for road use coupled with significant removal of trees (160+), tree canopy (30%) and hedgerow (3 miles), with the consequent impact on biodiversity is significant. The lasting damage to the environment and climate will not be mitigated by small-scale tree planting and remediation, and there is no adequate explanation for how the loss of 383 acres and of so many trees and hedgerows can result in a biodiversity net gain, as claimed.

5. The construction timetable is unrealistic and unworkable

The HIF1 scheme was originally agreed based on a 36-month timeline, but it is now proposed to be completed in 30 months – six months earlier than previously forecast, with no justification given.

The Major Infrastructure Capital Programme information presented at Cabinet on the 24th of January 2023, the “Latest Forecast” for HIF1 representing project expenditure and timings, showed a project timeline of 36 months and expected completion by December 2026 (open to traffic). The consultants, AECOM, fail to provide a viable ‘project management plan’ for delivering this scheme within 30 months.

The construction work for the £27 million expenditure originally forecast in 2023-24 will fall into a more compressed time period, leaving 9 months after the funding deadline (31st of March 2026) to finalise the project. Work in this latter period will be at OCCs risk. The work on the project is compacted and increases the risk of delay and delivery failure.

In the absence of explanation it appears that the 30 months delivery time is driven by the government funding deadline.

In addition, the three constituent parts of the scheme – the Didcot area and the Science Bridge, the Didcot to Culham section, and the Clifton Hampden bypass – are to be constructed simultaneously by separate contractors. There is no evidence to show how OCC are planning to manage such a complex project under a tight timeline involving multiple contractors.

6. The scheme is a £296 million gamble with public funds

Since its inception in 2014, the costs of the HIF1 Scheme have increased by more than a quarter to £296 million – an increase of £62 million (26%), which, of which the attributes the increased

costs to new regulations, increased scheme complexity, inflation, land and cost area increases above the original business case and landowner and access issues.¹

The £296 million figure does not reflect the high rates of inflation seen in the past year and which are expected to continue in the near term. With inflation and overruns, this figure is likely to rise, diverting funds away from other priorities such as social care.

Oxfordshire County Council bears the financial risk

Homes England has provided the bulk of the funding for the HIF1 scheme. It is contributing a fixed amount that needs to be spent by the 31st March 2026 on infrastructure supporting new homes (not just roads, but also, for example, public transport). As stated in the OCC's own budget book, subject to re-negotiating terms with the Government, OCC bears the risk for cost overruns and any costs incurred after the 31st March 2026.²

Adding to this risk is that insufficient funds – only £27 million – have been made available to account for inflation. It is unclear when the £296 million figure was calculated and which inflation assumptions were used. However, the Cabinet approved the re-negotiation of the Grant Determination Agreement at the Cabinet meeting of the 15th March 2022, at which point the £296m figure was already known. This means that the cost of the programme does not reflect the high rates of inflation in 2022 and 2023 and which are expected in the short and medium term.

Using the latest data on inflation, and the Bank of England's most recent inflation forecasts,³ our research estimates that around £65 million is needed to account for the effects of inflation, which exceeds the £27 million set aside for inflation, meaning that there is a shortfall of £38m. The OCC has set aside £52 million for contingency. Without any additional budget, inflation will use up most of this, leaving only a remaining contingency of £14 million, or 5% of the budget.

¹<https://mycouncil.oxfordshire.gov.uk/documents/s59417/Budget%20and%20Business%20Planning%20-%20Section%205%20-%20Capital%20Budget%20Strategy.pdf>, paragraph 58.

²<https://mycouncil.oxfordshire.gov.uk/documents/s59417/Budget%20and%20Business%20Planning%20-%20Section%205%20-%20Capital%20Budget%20Strategy.pdf>, paragraph 56.

³ <https://www.bankofengland.co.uk/monetary-policy-report/2023/may-2023>, CPI inflation forecasts based on market interest rate expectations, other policy measures as announced.

The HIF1 scheme is highly likely to exceed its budget

Two-thirds of road-building projects exceed their budgets by at least 10%, according to an analysis of 200+ projects conducted by the Department for Transport (DfT). Using the DfT's own methodology, there is only about a 20% chance that HIF1 would stay within its budget of £296 million.

Furthermore, Andrew Bailey, the governor of the Bank of England, has recently stated that inflation is "taking a lot longer" than hoped to come down. This means that the likelihood that the HIF1 scheme will be completed on budget is even lower than our analysis above suggests.⁴

Most local authorities are now planning to abandon or review major road projects due to rising costs, according to a survey from the County Councils Network (CCN). This confirms that inflation, which is averaging around 9%, is set to add at least £514 million to roads and infrastructure budgets in county areas this year and next. Construction costs have risen by up to 25% for highway projects. In light of these developments, OCC is urged to closely reconsider the financial risks of the HIF1 scheme.

It's time to reject the HIF1 road-building scheme

The HIF1 road scheme is shaping up to be a financial and environmental disaster for Oxfordshire, and its approval will clearly violate existing policies and plans.

OCC would need to find c.£60 million to add to national funding. With inflation and overruns this figure could rise and divert funds away from other priorities.

OCC has committed to delivering a net-zero transport system, and this unnecessary road scheme will generate 514,000 tonnes of additional CO₂ by 2050. This will seriously undermine Oxfordshire's ability to play its role in limiting global heating and fulfilling its commitments.

⁴ <https://www.ft.com/content/69632bc0-dec9-4a67-a9d0-cd64c4bd832c>

Moreover, the permanent damage to the visual landscape, character and nature of the affected areas runs counter to existing policies, and the proposed mitigation efforts, such as small-scale tree planting, cannot begin to address the impact of this project on the environment and the residents of Oxfordshire.

Oxford Friends of the Earth calls on OCC to follow the UK and Welsh governments by freezing the HIF1 scheme now. This would provide breathing space to reassess how to support connectivity for new developments while decarbonising transport and reducing car use, without taking major financial risks.

Consider the alternatives:

HIF1 funds do not need to be used to construct new roads

Oxford Friends of Earth is not against the provision of new housing and supporting economic development within Oxfordshire. However, the infrastructure to support this development needs to be sustainable.

HIF1 funds can be used for any infrastructure that supports new housing development, such as public transport. The LTCP policy 36, as quoted in Appendix K para 3.5 final bullet, is that OCC will “Only consider road capacity schemes after all other options have been explored”. There is strong evidence that alternatives have not been adequately considered in the HIF1 scheme, but it’s not too late to change course.

The experience of other successful European cities suggests measures that both discourage car use and encourage sustainable transport modes will be needed to engender a shift away from car dependent lifestyles. OCC has, in the LTCP, committed to change. The HIF1 road scheme is an outdated and retrogressive plan being proposed at a time when other counties and cities are focusing on innovation and sustainable solutions. ***It is not too late to fix this mistake.***

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