

**Called-in Planning Application**  
**at Land between A34 Milton Interchange**  
**to B4017 north of Clifton Hampden.**  
**CASE REF: APP/U3100/V/23/3326625.**

**FINAL Draft Proof of Evidence**

**On Matters 1-4 on whether the Transport Modelling:**

- i) is robust,**
- ii) takes account of significant impacts in the wider area &**
- iii) would make an acceptable provision for sustainable travel.**

**On Matter 14 on other policy matters & the overall planning balance.**

**of Roger Turnbull for East Hendred Parish Council.**

**25<sup>th</sup> January 2024.**

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## SUMMARY

1. **East Hendred Parish Council supports the OBJECTION to the HIF1 scheme of the POETS & Appleford, Culham, Burcot & Clifton Hampton, Nuneham Courtney & Sutton Courtney Parish Councils**, on the grounds that the transport modelling is not robust, it does not fully assess impact on the area, including West of the A34 (Rowstock, East Hendred & Wantage), & does not make an acceptable provision for sustainable travel.
2. **Section 2 on the Need, & local Objectives, for the Scheme**, concludes that:
  - i) Whilst sustainable development is “at the heart of the Framework,” it is not at the heart of the appeal proposals.
  - ii) Even if the Inspector finds that the proposals are consistent with Government policies on the supply of homes (Chapter 5), & a competitive economy (Chapter 6), matters that the Sec. of State wishes to be informed about, that would not necessarily mean that the proposals “were in accordance with the development plan, unless material considerations indicated otherwise.”
  - iii) It is concluded that even if full weight was given to the out-dated 2016 Vale Local Plan Part 1 Policy CP17, the appeal proposals would be inconsistent with its Strategic Objectives S08/09, Strategic Policies CP33, CP34 & CP35, & Part 2 Policies 15b, 16b, & 18a (Inspector’s Amendment MM11) on sustainable travel.
  - iv) The 2023 NPPF, paragraph 226, gives weight to emerging Local Plans that have reached Regulation 18 stage. The emerging Reg 18 Joint Local Plan reduces the housing requirement, based on the Standard Method, & housing supply has been reduced to a 4-year requirement. Weight should be given to sustainable travel in Policies SP3, HOU1 & IN2, on settlement pattern, housing & infrastructure.
  - v) **The Need for Intervention is based on the Targets of The Local Transport & Connectivity Plan 2022 pages 31-33, to replace or remove 1 in 4 car trips by 2030, based on its Vision:**
    - DECARBONISATION is the “Key overriding challenge.”  
Needed to reach net-zero to achieve Government Decarbonisation Plan 2021.
    - REDUCING THE NEED TO TRAVEL by better walking, cycling, digital connectivity.  
The growth in car use has negative impacts on congestion & the environment.
    - SCALE OF FUTURE GROWTH needs more radical solutions to improve transport.
    - To tackle INEQUALITY, HEALTH, INCLUSITIVITY, ROAD SAFETY.
    - TO ENHANCE OUR ENVIRONMENT.

- vi) It considers the year of opening (2024), & design year (2034) to be unrealistic.
  - vii) The Modelling Area should be wider, based on the Science Vale Map (Local Plan 1 page 26), the Access to Science Vale Report, the 2009 SCOTS Study, & the Relief to Rowstock scheme (in which new bus & cycleways increase journey times on the A4130 West of the A34), & my transport modelling experience, esp. for river crossings & where c.40% of journeys to work are of more than 10kms.
  - viii) My reply to the 2023 LPA/Origin Note, is that the 52% increase in A415 Abingdon traffic is the difference between the Do Minimum & Do Something, not housing. Changes in the direction of traffic affect junction capacity at the Golden Balls roundabout. The 2021 Transport Assessment is based on the “Predict & Provide” approach in the 2013 Oxford Strategic Model, (with similar results).
  - ix) The HIF1 Assessment pre-dated **the 2022 LTCP Transport User Hierarchy “Decide & Provide” approach**. The scheme prejudices the delivery of short-term schemes in the Science Vale Strategic & Didcot Active Travel, Cycleway network & LTWIP schemes. It is unlikely to meet national or local net-zero carbon targets in the LTCP Monitoring Report, based on two research reports.
3. **Section 3 refers to Baseline Conditions.** I consider that the implications of the 2021 Census Journey to Work tables, including Working from Home, have been ignored.
4. **Section 4, I consider that reliance on the 2013 Oxford Strategic Model’s out-dated National Road Traffic Projections (NRTP),** should be superseded by the Behaviour Scenario in the 2022 NRTP projections for external trips, because they better reflect more recent changes in behaviour, a Decide & Provide approach, reduce car travel by car, & meet zero-carbon objectives.

5. **Section 5 proposes Alternative Net Zero Carbon Options based on interventions that meet the following locally-based Needs & Objectives in the LTCP:**
- i) **Reducing the need to travel** by digital connectivity e.g. Working from Home.
  - ii) **Supporting Equality, Health & Well-being** by Active Travel measures to enhance mobility to walk, cycle, & access to rail & bus travel, as attractive modes to achieve a step-change in Active Travel & public transport.
  - iii) **Improving road safety** by implementing the Strategic & Science Vale Cycle Network & Dec. 2023 Didcot Garden Town Walk & Cycle Infrastructure Plan,
  - iv) **A Public Transport-led Area Transport Strategy for Culham Campus** & new housing, with a rail journey time of 6 mins to Didcot, & 12 mins. to Oxford. It is based on the 2019 Oxford Futures/URBED Wolfson Award-winning Science Spine proposals from Didcot to Kidlington, linked to the 2024 OCC Oxford – Cowley BMW Works rail proposals. This gives access to rail services to London Marylebone, Milton Keynes/Cambridge by East-West rail. A phase 2 proposal includes a new Grove Station, in the Vale Local Plan.
  - v) **Supported by East-West & North-South High-Quality Express bus services**, (5+ buses per hour), between Didcot, Milton Park, Abingdon, Wantage, Harwell Campus, with measures to reduce peak period delays for buses.
  - vi) **Using Innovative Technology** such as new Stadler trains with integrated bus/rail ticketing (used on the Sheffield Supertram tram rail). Using Culham Autonomous Buses (CAB), (as used at Harwell Campus) on a segregated busway to link the Campus, Culham station & within 200m of all new homes.
  - vii) **Providing infrastructure for zero emission**, electric bikes, buses, cars, HGVs.
  - viii) **Network, parking & congestion management**, from bus lanes & for Campus parking controls based on the new OCC Parking Standards.
6. **Sections 6 -9 address how robust evidence, covering impacts across a wider area, would make an acceptable provision for sustainable transport:**
- i) Modelling a wider area covering Abingdon, Wantage, A4074.
  - ii) A housing requirement based on the 2023 NPPF-based “Standard Method,” & applying research/general industry-based trip rates for the Campuses,
  - iii) Applying the 2022 National Road Traffic Projection Behavioural Scenario.
  - iv) Assessing 70% of total vehicular demand for all development.
  - v) Assessing 80% of total vehicular demand for all development.
  - vi) Using HIF1 funding from omitting the most-costly, environmental harmful, schemes with limited benefits, the Science Bridge & River Thames Crossing.

## **1. Qualifications & Experience.**

- 1.1 I have a wide experience of attending public inquiries as an expert witness on Town Planning issues as an ex-Director of Barton Willmore, & present Director of Apt Planning Ltd, Planning Consultants:
- 1.2 Attendance at South Oxfordshire Local Plan Examination, Local Plan housing sessions.
- 1.3 Attendance at Vale of White Horse Part 1 & Part 2 Local Plan Examinations, Harwell Campus sessions.
- 1.4 Appeal into refusal of redevelopment of Esso Research Centre, at Milton Heights, Abingdon, for a Major Distribution Centre.
- 1.5 Milton Keynes Core Strategy & Aylesbury Vale Examinations - major urban extensions for Taylor Wimpey & Aylesbury College.
- 1.6 Acted as Council's Planning Case Officer for planning application for major urban extension at Corby Borough Council.
- 1.7 Regional Plans for South East, East Midlands & Yorkshire.
- 1.8 Roskill Commission on Third London Airport on behalf of Cambridgeshire & Essex County Council.
- 1.9 I have wide Transport Planning experience at Freeman Fox (acquired by Hyder), Steer, & Colin Buchanan, Consulting Engineers:
- 1.10 As Head of Transport Planning, L.B. Lewisham, & at London Docklands Development Corporation, I promoted the River Thames Crossing of Dockland Light Railway to Lewisham as part of the Isle of Dogs Transport Strategy.
- 1.11 Transport modelling of Dockland Light Railway & Sheffield Supertram for South Yorkshire Public Transport Executive.
- 1.12 Development of transport models for West Yorkshire & Wiltshire County Councils, on M1 alignment east of Leeds, Bradford & Swindon Transport Studies.
- 1.13 I have local experience of commenting on planning applications as a Parish Councillor, & as a resident in East Hendred for 35 years (since 1988).
- 1.14 The evidence which I have prepared and provide for this appeal is true and I confirm that the opinions expressed are my true and professional opinions.

## **2. The Need, & local Objectives, for the Scheme.**

**2.1** Whilst sustainable development is “at the heart of the Framework,” it is not at the heart of the appeal proposals.

2.2 When the NPPF is “read as a whole”, as required in Chapter 1, paragraphs 2 & 3, the weight given to achieving sustainable development, in Chapters 2, 5 & 6 & in promoting sustainable transport, in Chapter 9, is clearly a requirement that is “at the heart of the NPPF.”

2.3 Achieving sustainable development & promoting sustainable travel therefore outweighs the need for consistency with Government policies for the delivery of a sufficient supply of homes in Chapter 5, & building a strong competitive economy in Chapter 6.

2.4 Even if the Inspector finds that the proposals are consistent with Government policies on the supply of homes (Chapter 5), & a competitive economy (Chapter 6), matters that the Sec. of State wishes to be informed about, that would not necessarily mean that the proposals “were in accordance with the development plan, unless material considerations indicated otherwise.”

2.5 It is the role of development plans to be consistent with Government policies to meet the need for new homes & jobs, but those proposals need to be in locations, & in a form, that is consistent with local & Government policies to achieve sustainable development & promote sustainable transport.

2.6 It is concluded that even if full weight was given to the out-dated 2016 Vale Local Plan Part 1 Policy CP17, the appeal proposals would be inconsistent with its Strategic Objectives S08/09, Strategic Policies CP33, CP34 & CP35, & Part 2 Policies 15b, 16b, & 18a (Inspector’s Amendment MM11) on sustainable travel.

2.7 The 2023 NPPF, paragraph 226, gives weight to emerging Local Plans that have reached Regulation 18 stage. The emerging Reg 18 Joint Local Plan reduces the housing requirement, based on the Standard Method, & housing supply has been reduced to a 4-year requirement. Weight should be given to sustainable travel in Policies SP3, HOU1 & IN2, on settlement pattern, housing & infrastructure.

**2.8 The Need for Intervention is based on the Target of The Local Transport & Connectivity Plan 2022 pages 31-33, to replace or remove 1 in 4 car trips by 2030, based on its Vision:**

- DECARBONISATION is the “Key overriding challenge.”  
Needed to reach net-zero to achieve Government Decarbonisation Plan 2021.
- REDUCING THE NEED TO TRAVEL by better walking, cycling, digital connectivity.  
The growth in car use has negative impacts on congestion & the environment.
- SCALE OF FUTURE GROWTH needs more radical solutions to improve transport.
- To tackle INEQUALITY, HEALTH, INCLUSITIVITY, ROAD SAFETY.
- TO ENHANCE OUR ENVIRONMENT.

## **2. The Transport Assessment.**

**2.1 There is no explanation why the transport assessment, & Chapter 16 of the Environmental Assessment, relates to the 10- year period 2024-2034, and The Statement of Case Appendix 5, Figs. 2-1 & 2.2, are for the year 2031?**

2.2 The Highway Authority's decision for an opening year of 2024 & a design year to be 2034, is unrealistic. Network Rail has only agreed "in principle" without an agreement on rail bridge design, timetable or costs.

### **DEFINING THE MODEL AREA – EXTENDING TO AREA TO INCLUDE WANTAGE.**

2.3 The Access to Science Vale Report 2018, & 2016 Vale Local Plan Part 1, page 26, defined the area of the Science Vale to include Wantage/Grove. The Local Plan Part 2, Adopted Policy Map for South East Vale, proposes 5,000 new houses in Wantage.

**2.4 I consider that the traffic model area should cover the whole of the defined Science Vale Area, including Wantage, in the Vale Local Plan Part 1, Fig. 2.2, page 26, & in the 2009 Halcrows SCOTS Transportation Study? See Appendix 1.**

2.5 In 2009, OCC approved in principle a strategic transport package to mitigate the impact of growth in the Southern Central Oxfordshire (SCOTS) Transport Study Area, which included Wantage, & proposals for Grove Station, A417, & cycle corridors from Wantage, prepared by Halcrows.

2.5 In May 2021, OCC chose Option 2 with 2-way bus & cycleways for the Relief to Rowstock scheme. ATC traffic counts at the Packhorse Pub on the A4130 northbound in Nov. 2022 show 470 vehicles in the 5-day average AM & PM Peak Hours. The scheme reduces eastbound capacity on the A4130 West of the A34 (Link 10), to a single lane at the Trenchard Avenue junction to Milton Heights, to comply with the Transport Users Hierarchy in the LTCP to promote modal shift towards buses/cycles. AECOM had recommended Option 4, which increased road capacity. With traffic growth constrained, there is less need to increase road capacity on the A4130 east of Milton Interchange (Links 10-13), as part of the HIF1 scheme.

2.6 My experience in traffic modelling in the Swindon Transport Study, South & West Yorkshire, & the DLR Ext. to Lewisham, is that a wider Model Area is required to assess transport impact well beyond the limits of the road scheme, esp. on river crossings, & where in 2021 c.40% of journeys to work are over 10kms in Oxfordshire.

## Traffic Impacts within & beyond the Traffic Model Area.

**Table 1. Environmental Assessment, Chapter 16 on Transport, Figs 16-6 & 16-14.**

(The OCC amended data in brackets)

### Assessed Links with Modelled Traffic Daily Traffic Flows.

	2024	2034 DM	Scenario 5c
- Link 1, A34 north of the Milton Interchange,	71	86(77)	77 (-9)
- Link 3, A34 South of Milton Interchange	50	57(50)	50 -7
- Link 8, A4130 West of Milton Interchange	22	28(26)	25 - 3 (-1)
- Link 10 A4130 East of Milton Interchange	31	39	39 0
- Link 34, Culham Bridge	8	12(10)	4(3) - 8 (-7)
- Link 35, A415 into Abingdon,	11	10	15 +5 (+52%)
- Link 37 A415 Culham station	11	16(13)	30 +14 (+122%)
- Link 39, A415 east of Clifton Hampton	7	13(11)	2 -11 (-81%)
- Link 41, B4015 to Golden Balls roundabout,	9	15(13)	28 +13 (+15) (+116%)

2.7 There is a c.8%-14% growth in daily traffic flows between the 2024 Base Year & 2034 Do Minimum Option, on the A34 (Links 1 & 3), +18% west of the A34 (Link 3), +25% on A41304 (Link 10), & +25% on Culham bridge (Link 34) & +18% at Culham station (Link 37), with increases of +2,000 -8,000 vehicles per day (2024-2034).

My evidence provides the grounds for considering a lower predicted growth rate.

This would reduce the need for the most-costly, environmentally harmful proposals, with the least benefits, i.e. the Science Bridge & River Thames Crossing.

2.8 The Table demonstrates that the proposed scheme is likely to have significant traffic impacts outside the traffic model area, e.g. on the A34, Abingdon, Golden Balls Roundabout & Wantage, which have not been fully assessed.

2.9 In my experience, traffic delays are more commonly due to accidents or road works, than lack of capacity, e.g. between 7.50-8.15 am northbound on Culham bridge. This is shown in Fig. 3.25 on page 50 of the HIF1 Transport Assessment Part 1, & is due to the length of the phasing on the lights. The appeal Inspector on appeal APP/V3120/W/17/3187947, in Appendix 4 of the OCC Statement of Case, in paragraph 9 accepted that queues occurred at peak hours.

## 2.10 TRAFFIC FLOWS ON THE FOLLOWING ROUTES HAVE NOT BEEN ASSESSED.

**On Links 1,3 & 8**, the amended model results show no difference in traffic flows on the A34 & A4130 between the Do Minimum & Scenario 5c Option. That means that the assessment of the Milton Interchange for these options, in paragraph 6.9.1-9 of the Transport Assessment Part 1, is no longer credible or robust evidence.

It argues that there would be a 2-hour journey time delays in 2034 without HIF1 & a slight increase with HIF1 in para 6.9.4. This is not credible with the amended 2034 flows on the A34 & A4130 being the same for 2034 with & without HIF1.

- **On Link 8**, how could there be 4,000 additional trips be generated West of the A34, but 14,000 additional daily trips are predicted on Link 37 to the East of the Model area? This is not credible. The Relief to Rowstock scheme prevents traffic growth.

- **On Link 8**, flows west of the model area to/from on A417 to Wantage, joining the A4130 at Rowstock, should be assessed, based on a larger model area.

- **On Link 10**, how is A4130 Science Bridge justified if predicted traffic remains unchanged?

It provides no benefits from a net reduction in daily trips or mode share by car.

- **On Link 35, Culham Bridge** attracts +4,000 (amended to +2,000) daily trips between 2024 & 2034 DM, what is the projected daily flow on the proposed bridge in DS?

- **On Links 35 & 37**, the Origins & Destinations of the extra 14,000 daily trips should be assessed, to identify the extent of the area impacted by the proposed scheme.

- The projected traffic flows on the roads coloured GREEN, identified in the OCC Statement of Case, Appendix 5, figs 3-3 & 3-4, outside the model area, (in section 8 of this Proof of Evidence), are also required, to see the extent of traffic impact.

## **EXTENDING THE MODEL AREA TO INCLUDE ABINGDON.**

- 2.11 **The LPA Technical Note & Dec 2023 Origin Review & LPA Technical Note** argue that traffic increases in Abingdon are due to additional houses, not HIF1. The Table above, demonstrates that HIF1 Scenario 5c increases traffic on the A415 by 5,000 daily trips (52%), (Fig 16-14 of Chapter 16 of ES), compared to the Do-Minimum Case in 2034.
- 2.12 It is not appropriate for OCC to rely on future planning applications to provide mitigation, as argued by OCC, because there is no certainty on the timetable or costs of any mitigation for additional traffic that has been generated by Scenario 5c.
- The Origin Review, para 2.13, quotes OCC July 2022 Highway Response that mitigation of impact "can only be delivered incrementally as funding becomes available, either through government grants or developer funding." As most of the government grants or developer funding is allocated to HIF1, OCC effectively accepts the lack of certainty in funding mitigation of increased traffic flows into/out of Abingdon, arising from HIF1 Scenario 5c, compared to the Do Minimum option.

## **EXTENDING THE MODEL ASSESSMENT TO INCLUDE GOLDEN BALLS ROUNDABOUT.**

- 2.13 The Origin/LPA argument relating to the Golden Balls roundabout is that the Paramics model included the junction, so the Do-Minimum could be compared with the Do-Something, and although the Scheme would not increase travel through the junction, there would be a change in direction.
- 2.14 **Firstly, it is necessary to assess the interdependence of each of the four schemes.** Clarification is sought on whether the Clifton Hampton by-pass, adding 15,000 daily trips to the B4015, a 116% increase, will require a grade-separated junction? That can only be assessed if the changes of direction through the junction have been assessed for the Do-minimum & Do Something options, because junction capacity depends on changes in turning movements.
- 2.15 **Secondly, the additional 15,000 daily trips on the B4015 exceeds the reduction of 11,000 daily trips on the A415,** so the model predicts that a net increase of 4,000 daily trips.
- 2.16 **Thirdly, clarification is sought on the benefits of the Clifton Hampton by-pass in terms of journey time savings from a change of direction.** These benefits must be compared with the construction costs of a grade-separated junction, or other improvements, without which they would not be realised.



### 3. Baseline Conditions (Chapter 3 of O.C.C. TA).

3.1 Account should be taken of the Travel to Work in Oxford & Oxfordshire 2021 Census results prepared by Oxford City Business Intelligence Unit, Dec 2022. It shows an increasing modal share by car driver, compared to the 2011 census.

Although it took place during the Covid, respondents were asked to give their usual mode of transport before & during Covid. **APPENDIX 2.**

**Table 2: Page 26, Table 3.1 of the TA, provides 2011 Census Journey to Work by Car.**

	2011.	2021.
Mode Share by car driver for Didcot =	66%	
Mode share by car driver for Oxford =	36%	38%
Mode share by car driver for Oxfordshire.	62%.	65%.

3.2 **Mode Share by Walk & Cycle.** The HIF1 scheme does not reflect the walking & cycling objectives for modal shift in its Active Travel Strategy, which are considered to be appropriate objectives for Didcot Garden Town?

(The O.C.C Active Travel Strategy targets are to make walking & cycling the natural first choice for local journeys, with a Cycling target to **DOUBLE the number of cycling trips per week by 2031**).

**Table 3: 2011 & 2021 Census Journeys to Work by Bicycle.**

	Didcot.	Oxford.	Oxfordshire.
2011 Census Mode Share by Bicycle =	5%	19%.	8%
2021 Census		17%	7%

3.3 **Mode Share by Public Transport.** The HIF1 proposals ignore the mode shift to public transport, in the Didcot Garden Town Delivery Plan.

**Table 4: Public Transport Modal Share.**

	Didcot.	Oxford	Oxfordshire
2011 Census			
Bus	4%	17%	8%
Train	7%	3%	3%
2021 Census			
Bus		15%	6%
Train		4%	3%

### 3.4 Baseline Conditions below in 2022 show the failure of trend-based projections:

- i) bus usage in Oxfordshire has fallen from 41m pre-Covid to 34m passengers (-17%),
- ii) rail passengers using Oxford station fell from 8m down to 6.5m users,
- iii) rail passengers using Didcot Parkway fell from 3.3m to 2.3m users,
- iv) Sheffield Supertram passengers fell from 15m to 8m users.
- v) The DLR usage of the Lewisham Ext. fell from 10m to 2m per year,
- vi) The Third London Airport Royal Commission projected the need for 5 runways by 1980, although a 3<sup>rd</sup> runway at Heathrow has yet to be constructed.

**Table 4a: The DfT Domestic Transport Use by Mode table shows:**

**Percentage Decline in Transport Usage on Weds in March 2020 - 2023 & Jan 2024.**

	<b>Car</b>	<b>LGV</b>	<b>HGV</b>	<b>All Vehicles</b>	<b>Rail</b>	<b>Bus</b>	<b>Cycle</b>
Mar 2020	99	104	103	100	94	98	118
Mar 2021	67	89	103	74	20	38	68
Mar 2022	88	107	103	97	68	76	93
Mar 2023	91	113	103	96	81	84	98
Jan 2024	80	94	83	83		67	

The table above shows a slight decline in transport usage between March 2020 & 2023.

The 2018 National Road Traffic Projections clearly failed to take account of this recent DfT data. A larger decline would occur where the percentage Working from Home significantly exceeds the national average. Working from Home in the two Districts (41%-42%) significantly exceeds the England average of 30%.

#### 4. The Traffic Forecasts should reflect changes in behavioural patterns.

**4.1 2021 Census on Working from Home.** The 2021 Census results showed that 41%-42% of those aged over 16 years and economically active usually worked from home in The Vale & South Oxfordshire. The average figure for England is 30%, so the Science Vale figure is exceptionally high. These results have been excluded from the Journey to Work by Mode Share tables. **OCC agreement is sought on 2021 Census results for Didcot on journeys to work, including Working from Home.**

**4.2** Whilst these results need to be considered with care, they reflect a change in behavioural patterns since Covid.

**4.3** The National Road Traffic Projections 2022 Core Scenario projects a 22% change, between 2025 & 2060, a projection over 35 years, at 5-year intervals. It is based on “firm & funded” government policy. (Although government & local policy can change e.g. phasing out petrol & diesel car sales by 2035, & zero-emission zones).

**4.4** A Behavioural Change Scenario assuming increased Flexible-Working, on-line shopping, & reduced licence holders by younger adults, projects an 8% change 2025-2060. A-roads are projected to have a 20% change, with average delays increasing from 21 seconds to 29 seconds.

#### 4.5 The Behavioural Changes in National Road Traffic Projections 2022.

**Table 5: Fig. 8 of the National Road Traffic Projections shows reducing trip rates by 2041.**

<b>Journey Purpose</b>	<b>Percentage Change (%)</b>
Commuting to work	- 39
Business travel	-8
Education	-40
Shopping	-30
Personal business	-41
Recreation/social	-20
Visiting friends & relations	-55
Holiday/Day trip	+19

**4.6** Trip rates in the Behavioural Scenario are reduced until 2041, & then held constant until 2060. They are held constant in the Core Scenario. Covid accounts for car trip making being adjusted downwards to 90% of 2019 trips in 2020-2022, (although Fig 2 indicates a reduction to c.80% of March 2020 road traffic levels, & no account is taken of Covid after 2022). Trip rates in the Behavioural Scenario are adjusted to reflect the mostly downward trends in trip-making shown in Fig. 8.

**4.7** The Latest Flexible Working Index from Flexa, Dec 2023, found that in 48% of 2.8m job searches respondents preferred a 4-day week, whilst 37% sought Part-time work.

**4.8** Research by the British Chambers of Commerce found that only 26% of the 1,000 companies surveyed expected that their staff would be fully in-office staff over the next 5-years. Only 37 % of service industries & 38% of manufacturers expected their staff to be fully in-person working. It concluded that Working from Home is “here to stay.” (The Times articles, 16<sup>th</sup> & 17<sup>th</sup> December 2023).

**4.9** A survey by the Advisory Conciliation & Arbitration Service (ACAS) found that 7 out of 10 employees were unaware that from 6<sup>th</sup> April 2024, they will have a right to request flexible working from their employer from Day 1 of their job.

Source: The Flexible Working (Amendment) Regulations 2023 of the Flexible Working Act, 20<sup>th</sup> July 2023. The Government has made clear of its intention that secondary legislation will be introduced to make flexible working a right from Day 1.

4.9 In paragraph 3.6 of the NRTP 2022, it is accepted that in Feb.2022 traffic levels were 8% lower than in 2019, compared to a typical 3% growth every 2 years. Based on 2022 data, it was accepted that “people have formed new habits & expectations over the last 2.5 years, particularly around working from home & on-line shopping.”

**Table 6: A Comparison of the 2022 NRTP Core & Behavioural Scenarios for A Roads.**

	Core Scenario		Behavioural Scenario 2018 Ref. Projection			
	Cars	Total	Cars	Total	Car	Total
2015	12.5	15.4	12.5	15.5	12.5	15.4
2025	13.1	16.5	11.0	14.5	13.8	17.0
2035	13.7	17.2	10.9	14.5	14.9	18.4
2015-35	+10%	+12%	-13%	-7%		
2025-35	+5%	+4%	-1%	0%		
2022 Behavioural minus 2022 Core Scenario in 2035 =17.2-14.5 = 19% reduction.						
2022 Behavioural minus 2018 Ref. Scenario in 2035 =18.4-14.5 = 27% reduction.						

**4.10 It is considered that a Decide & Provide approach is preferred.**

4.11 In June & October 2023, Draft Revised National Policy Statements for National Networks were published by the House of Commons Climate Change & Transport Committees. The Dept. for Transport accepted that they had not yet taken account of how the effective of Net Zero delivery will be delivered 2033-2037 to meet a Net Zero target by 2050, which had led to legal challenges. In written evidence the Minister for Transport stated that road traffic projections were “not a predict & provide approach”. He rejected the argument by Prof. Phil Goodwin, that road traffic projections were a “predict & provide core, surrounded by decarbonisation lanquage.” Greg Marsden’s Model predicts that only the Behavioural Scenario will reduce traffic by 20% by 2030.

4.12 Consideration of alternative road traffic projections, including those that deliver net zero targets for 2033-37, must therefore be accepted by the Minister, given that the Department states that it does not adopt a predict & provide approach.

- 4.13 **There has been a change in circumstances that justifies a review of the traffic modelling.**
- 4.14 It is understood that OCC traffic modelling was based on 2017 traffic surveys adjusted to 2018 National Road Traffic Projections for 2020 Base Year, 2024 & 2034.
- 4.15 The Parish's Case is that the latest N RTP 2022 Projections Behavioural Scenario 2015-2034 should be used on the grounds that new habits & expectations have arisen in the last 2.5 years around Working from Home & On-line Shopping. This would form a reasonable alternative 2034 option, based on a reduction in total traffic, compared to the out-dated 2018 NRT Projections, see Table above.
- 4.16 In the OCC Technical Note of 14<sup>th</sup> December 2023, Table 4-4, the applicant accepted a 10% reduction in traffic on the A34, 2019-2022, based on National Highways Traffic Counts. The applicant concluded in paragraph 4.7, that "even if the 10% reduction (in am/pm peak traffic flows) remained up to 2034, the conclusions of the Transport Assessment are still considered robust & valid & the HIF1 Infrastructure would still be the required mitigation".
- 4.17 Without additional modelling, the applicant cannot demonstrate the estimated traffic flows on the network in 2020, 2024 & 2034, the changes to the volume/capacity (v/c) junction calculations, or journey time savings, from a reduction in traffic flows from the use of the latest 2022 NRT Projections Behavioural Scenario, in place of the superseded 2018 projections.
- 4.18 A reduction in total demand, has been carried out, as described in the Transport Assessment Part 1, paragraph 5.3.11 & Fig 5.2 which applied a 70% of total demand in a 2034 Without HIF1 (a 30% reduction). Additional work would still be required to assess changes in peak & daily traffic flows, origins & destinations of traffic without a new Culham bridge, modal share, speeds, journey time savings, the benefit to cost ratio & Value for Money.
- I consider the Base Conditions for Public Transport, Walking & Cycling to be poor, require intervention, & the development of alternative options to address them.**
- 4.19 Page 41 of the TA shows only one current hourly service between Didcot & Culham, Service 33, & a peak hour only service, Service 95, across Clifton Hampden Bridge).
- 4.20 An example: Pedestrians/cyclists at A34 Milton Interchange, going between Harwell Campus/East Hendred & Milton/Milton Park, have to use 6 sets of signalised pedestrian crossings & to cross two uncontrolled carriageways, which took 6-7 mins, in a survey carried out on 16<sup>th</sup> December 2023. This makes the A4130 unattractive for walkers & cyclists.

**5. An Alternative Option, based on LTCP Objectives on Transport User Hierarchy, using typical Journey times by Bike, Bus, Train & Car.**

<b>Table 7:</b>	<b>Origins &amp; Destinations.</b>	<b>Bus</b>	<b>Train</b>	<b>Car</b>	<b>Bike</b>
	Didcot to Oxford Station (X32 19 stops)	45-60	15-30	30	
	Wantage to Didcot (X35 32 stops)	40-50		20	60
	(X36 25 stops)	40-50			
	Wallingford to Didcot (23 12 stops)	20-30	20-30	16	30
	(33 13 stops)	20-30			
	Culham to Didcot (D1 8 stops)	30-40	20-30	16	30
	(X2 & 45 25 stops)	50-60			
	Harwell Campus to Didcot (X34 13 stops)	30-40		14	30
	(X35 12 stops)	30-40			
	Culham to Harwell Campus (45 17 stops)	80-90		21	40

Source: Google Maps.

5.1 The results of the table above show that:

- i) Journeys by bus typically take 20-90 mins. compared to 15-20 mins by car, often having 12-32 stops, which increases journey times, & so are unattractive to car users. This limits its attraction to non-car owners.
- ii) Door-to-door Bike trips are likely to be quicker than using bus services. In the Transport Assessment, pages 29-39, paragraph 3.2.23 & Fig 3.4, the low walking & cycle flows over a 7-day period demonstrate how unattractive walking & cycling is alongside the proposed road alignment. On the Didcot & Culham bridge sections, Figs 4.4 - 4.6, there is only 0.5m separation of cyclists from road traffic on sections G-G, H-H, & N-N. The proposed roundabouts & increased traffic, described in Chapter 4 of the Transport Assessment, on the proposed road alignment are major deterrents to walkers & cyclists, as demonstrated at the A34/A4130 junctions, which requires up to six separate signalled crossings to be negotiated, taking 6-7 mins to negotiate, with a 1 min. wait per crossing for a green cycle symbol. The whole purpose of a segregated Science Vale Cycle Network is to separate A-road traffic from walkers & cyclists, & not to by-pass Didcot's shops & services, which is what the proposed scheme does.
- iii) Journeys by train, c.15-30 mins, can compete with journey times by car, esp. during the AM & PM peak periods. Didcot Parkway attracts 2-3m passengers per year, compared to 5-8m passengers at Oxford station.
- iv) The introduction of limited-stop Feeder Buses to Didcot Parkway could reduce the number of bus stops & journey times, to offer a more attractive alternative option for car owners & better connectivity with rail services.

5.2 The AECOM Transport Assessment, page 41, shows the following bus frequencies:

**Table 8. 2021 Existing Bus Frequencies.**

<b>Bus Service</b>	<b>Frequency</b>	<b>Av. Waiting Time</b>	<b>Adjusted Time</b>
X32/X36	30 mins	15 mins	23 mins
33	30 mins	15 mins	23 mins
X2	20 mins	10 mins	15 mins
33 to Culham	60 mins	30 mins	45 mins

So average waiting time for a bus = 10-30 mins (15-45 adjusted mins).

(Actual Waiting time is adjusted upwards by c.50% in transport models to reflect behavioural studies which found that passenger's value of time spent waiting for a bus/train was higher than whilst travelling).

## A Comparison of Journey Times on Existing & Proposed Bus/Rail Services.

5.3 It is concluded from Table 9 below, based on bus/rail timetables, that:

- i) total bus journey times could generally be halved with enhanced frequencies & new bus measures, with savings of 13-50 mins (14-55 adjusted mins),
- ii) between Wantage & Didcot, reduced bus times of 30-50 mins (45-45 adjusted mins) from more frequent bus services, could have similar journey time savings to a new Grove Station, (which increases journey times for existing rail users),
- iii) between Culham & Didcot, increased rail & feeder bus services have more potential to reduce journey times from Culham to Didcot & Oxford, than by bus.
- iv) Between Harwell Campus & Didcot, the lowest reduction in bus journey times would be achieved, because it already benefits from a 15 mins. bus frequency.

Potential journey time savings would exceed those for the Phase 2 Cambridge Biomedical Campus to A11 Granta Park Busway, where c.15 mins savings are projected, at a cost of £160m, largely due to two River Granta river crossings, instead of the use of Phase 1 bus measures on the A1307.

**Table 9: X35/X36 bus or proposed rail services Wantage to Didcot Parkway.**

	Journey Time (mins)	Walk Time (mins)	Wait Time (adjusted) (mins)	Total (adjusted) (mins)
Existing (mins)	35-70	15	15	(23) 65-100 (73-108)
Proposed (mins)	15-30	15	5	(8) 35-50 (38-53)
New Grove station	10	15	15	(23) 40 (48)

**(proposed speed of 20-40 mph for a 10-mile journey length)**

### **33 Bus Services Didcot Parkway to Culham Campus via Milton Park**

Existing (mins)	27	15	30	(45)	72 (87)
Proposed (mins)	12-25	15	5	(8)	32-45 (35-48)

### **By enhanced rail services with feeder bus services to reduce waiting times**

Didcot to Culham	6	10-15	10-15	(15-23)	26-35 (31-43)
Culham to Oxford	12	10-15	10-15	(15-23)	32-42 (37-50)
Didcot-Oxford	18	10-15	10-15	(15-23)	38-48 (43-56)

**(proposed speed of 20-40 mph for an 8-mile journey length)**

### **X34/X35 Bus Services Didcot Parkway to Harwell Campus**

Existing (mins)	28	15	8	(12)	51 (55)
Proposed (mins)	9-18	15	5	(8)	29-38 (32-41)

**(proposed speed of 20-40 mph for a 6-mile journey length)**

### **Cambridge Biomedical Centre to A11 Granta Park, a 7-mile journey length.**

Existing (mins)	15-17	15	15	(23)	45-47 (53-55)
Proposed (mins)	10-12	15	5	(8)	30-32 (33-35)

**(proposed speed of 35-42 mph for a 7-mile journey length).**

Note: Av. Walk trips assumed to comprise a 5 mins (400m) & 10 mins (800m) walk.

- 5.4 **High-Quality Bus Services (HQBS)**, operating a frequency of 6-8 buses per hour, with an average waiting time of 4-5 minutes, (6-8 mins adjusted waiting time), are an objective of the Greater Cambridge Partnership for busways.
- 5.5 **I propose an assessment of an Alternative Option with a high frequency East-West Feeder Bus service between Wantage – Didcot Parkway- Wallingford**, which could attract the support of both bus & rail operators, either segregated where possible from major roads like A417, A415, A4130, with an East-West route adjoining the Great Western Railway a potential alternative option, or with bus lanes.
- 5.6 **Similarly, Science Park owners at Harwell Campus, Milton Park & Culham Campus may be attracted to a jointly-funded (free?) high frequency bus service linking their sites to Didcot Parkway station on a North-South route.** Harwell Campus has recently benefitted from a new 15-minute frequency bus service to Didcot Parkway, & Active Travel plans, funded by service charges raised by Harwell Campus from their tenants.
- 5.7 **In my experience, rail is more likely to attract car trips than infrequent buses on congested roads.** For example, the DLR Extension to Lewisham attracted 10m users in 2018.
- 5.8 In 1987/8, I was asked by the Chief Executive of OCC, (formerly of L.B. Lewisham), under whom I developed the DLR Extension to Lewisham, to report on Light Rail for Oxford. The conclusions recommended converting the freight line for passenger use. The benefits were a c.28 mins. reduction in journey time by bus from Blackbird Leys to Oxford Station from 35 mins to 7-9 mins by rail, at a cost of c.50m. In Jan. 2024, OCC approved £5m to prepare a Business Case. The 2021 Oxfordshire Rail Corridor Study proposed services between BMW Cowley & London Marylebone, as part of a 70% increase in rail services.
- 5.9 **My experience on the impact of river crossings** is also relevant to this Inquiry.
- 5.10 **The Transport Strategy for the Isle of Dogs in London Docklands** was largely influenced by the site for Canary Wharf being an island without a River Thames road crossing. The development of a DLR crossing ensured that an existing public transport 80% modal share in Central London could be retained in the Isle of Dogs.
- 5.11 **In Oxford, limited river crossings limited access to the City Centre to 4 routes**, Botley Road bridges, A4144 St Giles, Magdalen bridge & Folly bridge. This allows a Traffic Filter scheme to be proposed, with 3 city centre filters, 2 east filters & 1 south filter. The Oxford Transport Strategy projected an increase of 13,000 commuter trips 2011-31, with a 10% reduction in car driver trips needed to prevent traffic levels rising. A loss of £150m from the economy was forecast if the growth in traffic levels is not restricted. In 2022, revised proposals included a zero-carbon network based on a Workplace Parking Levy, Traffic Filters & a Zero-Emission Zone (ZEZ).

- 5.12 **Historic River Thames crossings** are at Clifton Hampton (1867), Culham, Abingdon (1422), Folly Bridge (1827), Eynsham (1769), Newbridge (1250) & Tadpole bridge (1784). These crossings are important heritage assets, individually and for their group value.
- 5.13 These provide the opportunity to regulate River Thames crossing traffic flows by Altering the setting of timings on the traffic signalled crossings, in a similar way to that being applied to Oxford City, without the controversial imposition of Traffic Charging or Traffic filters. Traffic levels can be regulated on local roads serving historic villages in the rural area, & those seeking to enter Oxford, a Medieval city not designed for modern day traffic levels.
- 5.14 **Access to Culham Campus is constrained by the River Thames** to the north, west & south, but with north/south rail services, like Oxford. The proposed scheme would increase road capacity across the River Thames. The impact would be to prejudice opportunities to reduce car commuter traffic into Oxford & within Oxfordshire, by reducing existing constraints provided by limited River Thames crossings.
- 5.15 **I propose a Rail & bus-based Transport Strategy for Culham Campus.** Enhanced rail & feeder bus frequencies & Active Travel measures would positively encourage a modal shift towards public transport, supported by a degree of traffic congestion on the A415. Existing rail journeys are 6 mins to Didcot & 12 mins to Oxford, making it the Best Public Transport Connected Campus in the Science Vale, with car trips significantly longer.
- 5.16 **In Didcot Garden Town, the traffic constraint of the Great Western Railway,** separating the employments areas to the north from the residential areas to the south, is similar to Swindon. In 1976, I helped prepare the Swindon Transportation Study for Wiltshire C.C, to meet strategic needs from the projected growth in population. Parking controls at the British Leyland bodyworks encouraged Walking & Cycle trips across railway footbridges to be the predominant travel mode for employees living within Swindon, which reduced peak traffic congestion around the Town Centre. This is relevant to the Culham, Milton Park & Harwell Campuses, where a single owner can enforce a Travel Plan with Parking Controls, to secure a 25% reduction in car travel.
- 5.17 **The Swindon-Didcot-Oxford Connectivity Study by Steer & WSP** reported on the lack of high frequency bus services, the absence of bus priority infrastructure, & the lack of East-West Active Travel infrastructure. The objectives of the study were to seek to achieve net zero by 2040, improve quality of life & wellbeing from a safe, inclusive & sustainable transport system, & to support the regional economy by connecting people & business.
- 5.18 These are the issues & objectives relevant to Didcot Garden Town, which the proposed scheme has not addressed, but should be in an Alternative option.

5.19 The recommended Connectivity Plan was to have:

	STUDY AREA	(MARKET TOWNS & RURAL AREAS)
i)	75,000 fewer journeys by private car,	(-10,000 car trips )
ii)	62,000 more journeys by bus,	(+4,000 bus trips)
iii)	45,000 more trips made by walking & cycling,	(+2,500 walk/cycle trips)
iv)	20,000 more journeys by train.	(+5,000 rail trips)
v)	Reduced car dependency around Oxford by demand management, to present significant public health, wellbeing, air quality, & decarbonisation benefits.	

## 5.20 Conclusions.

### A Net-Zero Carbon Option, with interventions that meet Needs & Objectives in the LTCP:

- i) **Reducing the need to travel** by digital connectivity e.g. Working from Home.
- ii) **Supporting Equality, Health & Well-being** by Active Travel measures to enhance mobility to walk, cycle, & access to rail & bus travel, as attractive modes to achieve a step-change in Active Travel & public transport.
- iii) **Improving road safety** by implementing the Strategic & Science Vale Cycle Network & Dec. 2023 Didcot Garden Town Walk & Cycle Infrastructure Plan,
- iv) **A Public Transport-led Area Transport Strategy for Culham Campus** & new housing, with a rail journey time of 6 mins to Didcot, & 12 mins. to Oxford. It is based on the 2019 Oxford Futures/URBED Wolfson Award-winning Science Spine proposals from Didcot to Kidlington, linked to the 2024 OCC Oxford – Cowley BMW Works rail proposals to access to rail services to London Marylebone, Milton Keynes/Cambridge by East-West rail.
- v) **East-West & North-South High-Quality Express bus services**, (5+ buses per hour), between Didcot, Milton Park, Abingdon, Wantage, Harwell Campus.
- vi) **Using Innovative Technology** such as new Stadler trains with integrated bus/rail ticketing (used on the Sheffield Supertram tram rail). Using Culham Autonomous Buses (CAB), (as used at Harwell Campus) on a segregated busway to link the Campus, Culham station & within 200m of all new homes.
- ix) **Providing infrastructure for zero emission**, electric bikes, buses, cars, HGVs.
- x) **Network, parking & congestion management**, from bus lanes & for Campus parking controls based on the new OCC Parking Standards.

## 6. TRIP GENERATION

6.1 The main impact of the changes in the Dec 2023 NPPF is to reduce the housing requirement to that based on the Standard Method. The revised Dec 2023 NPPF, paragraph 61, says that the Housing Requirement should be informed by a housing need assessment based on the Standard Method.

6.2 The 2016 Vale or South Oxfordshire Local Plan housing requirements are based on the 2014 Strategic Housing Market Assessment (SHMA). No exceptional circumstances are cited for not using the Standard Method. Under paragraph 225, Plans are considered out-of-date if they are not consistent with the Framework. Thus, limited weight should be given to these housing requirements. Under paragraph 226, weight can be given to emerging Local Plans that have reached Regulation 18 stage. The 5-year housing requirement has been reduced to a 4-year requirement, under emerging plans.

6.3 The Jan. 2024 Joint Local Plan Preferred Options Reg.18 Consultation, page 27, has the Vision for “Carbon Neutral Districts for current & future generations.” The transport objective is “for a place where residents can reach facilities... on foot, bicycle, wheeling, public transport or by zero emission & low carbon transport choices.”

6.4 Proposed Infrastructure Policy IN2, page 496, requires development proposals to:

- a) maximise active & sustainable travel opportunities,
- b) the assessment of “viable active & sustainable travel choices &
- c) provide access “in line with the OCC Transport User Hierarchy.”

6.4 Proposed Didcot Garden Town Policy SP3, page 127, “reduces reliance on motorised vehicles, & promotes a step-change towards Active & Sustainable Travel & public transport through the creation of a highly legible, attractive & accessible movement network.”

6.5 Proposed Housing Requirement Policy HOU1, page 142, proposes a 25% reduction in the 2019 Vale Local Plan Part 2 (& S. Oxfordshire) Housing Requirements of 22,000 new homes (& 20,000 new homes) to 14,390 new homes (& 17,000 new homes), 2021-2041, or c.600-800 new homes per year.

## 6.6 VWHDC Housing Land Supply Statement, December 2023.

Trip Generation is determined largely by the Planning input into the model.

The VWHDC's Housing Land Supply Statement sets out the housing requirement. In December 2021, the Council approved a Regulation 10a 5-year review for Part 1, (in accordance with advice in paragraph 74 of the NPPF on out-of-date Local Plans). The review decided that the housing need required up-dating, using the Standard Method, currently 661 homes per year plus 183 homes to meet Oxford's unmet need, 2019-2031, **a Housing Requirement of 844 dwellings per year.**

6.7 The Planning Inspectorate supported this methodology for monitoring the 5-year housing supply in an appeal decision East of Grove on 13<sup>th</sup> March 2023, ref: APP/V3120/W/22/3310788.

### Table 10: House Completions in The Vale.

6.3 In Feb 2023, the Annual Monitoring Report: House Completions = 11,343  
homes, 2011-2022, plus 1,532 homes completed in 2022/23 = 12,875

6.4 The PPG, 011 Ref: ID:2a-011-20190220, states that "the affordability adjustment of the standard method is applied to take account of past under-delivery. The standard method identifies the minimum uplift that will be required & therefore it is not a requirement to specifically address under-delivery separately."

6.5 The Housing Delivery Test over the last 3-years showed a 2021 result of 195%.

6.6 The Housing Delivery Test Measurement Rulebook explains that with an up-to-date adopted housing requirement, the housing requirement will be the **LOWER** of:

- The requirement of a Local Plan older than 5-years old that needs up-dating,
- **OR** the minimum annual local housing need figure, using the Standard Method.

The **LOWER** housing requirement is using the Standard Method.

- (Where the adopted Local Plan is over 5-years old, unless the strategic policies have been reviewed, & found not to require updating, the figure used will be the minimum annual local housing need figure using the Standard Method).

6.7 It is concluded that the 25% reduction in the housing requirement in the emerging Joint Local Plan is likely to reduce the Planning Input into the transport model, & the growth of traffic. Further transport modelling is required to comply with advice in the Dec. 2023 NPPF on the method of assessment of Strategic Housing Need, & in the emerging Reg.18 Joint Local Plan, which would affect trip generation.

6.8 Similarly, the Model assumes a 70,000 sq.m B1 office use trip generation for employment at Harwell Campus, 2024-34. This relates to a withdrawn planning application at Fermi Gate, ref: P20/V1667/O for 70,000 sq.m. floorspce with 40% B1 Office Use, & 60% B2 General Industry use. This assumption over-estimates traffic growth at Harwell. A new application would need to comply with the OCC 2022 Reduced Car Parking Standards for offices, from 1 space per 30 sq.m. to 45 sq.m, & for general industry, from 1 space per 50 sq.m. to 75 sq.m. This would reduce trip generation from an estimated 1,773 parking spaces to 1,182 spaces, a 33% reduction. This would apply to all planning applications for employment uses.

**Conclusions on Trip Generation.**

6.9 A 25% reduction in the housing requirement & a 33% reduction in car parking requirements cannot be accommodated by the current Model trip generation assumptions. Further Modelling is therefore required.

**Table 11: THE HOUSING REQUIREMENT USING THE STANDARD METHOD.**

6.10	<b>The 5-year Housing Need for The Vale 2023-2028</b>	<b>= 4,220</b>
	<b>homes.</b>	
	<b>(with 5% buffer)</b>	<b>= 4,431 homes.</b>
	<b>The Housing Need using the Standard Method 2023/31</b>	<b>= 6,752 homes.</b>
	<b>(844 homes x 8 years 2023/31 = 6,752 homes).</b>	
	<b>(with 5% buffer)</b>	<b>= 7,090 homes.</b>

6.11 **Compared to the VWHDC Local Plan Part 2 requirement of 22,760 homes 2011/31, this represents a reduction of c.2,795 homes, (22,760 homes in Policy 4a, minus 12,875 house completions 2011-22, & a Reg. 10a reviewed housing need 2023-31 of 7,090 new homes).**

6.12 The applicant’s Statement of Case, Chapter 5, page 5, section 2, reviews the housing requirement for South Oxfordshire, with the addition of 3,158 homes at Chalgrove Airfield, (which is to be deleted in the emerging draft Local Plan).

6.13 There is therefore a Case for Reviewing the out-dated VWHDC housing requirement, (set out in the 2014 Strategic Housing Market Assessment, in Appendix 2 of the OCC Statement of Case). In December 2021 the Council’s Regulation 10a review of the 5-year housing requirement, adopted the Standard Method, in compliance with paragraph 74 of the NPPF.

6.14 The OCC Planning Statement, page 10, paragraph 2.1.4, states that HIF1 will directly deliver 11,711 new homes & support delivery of around 18,000 homes. The Statement of Case, Appendix 3, shows a HIF1 Business Case directly unlocking 13,411 new homes in Didcot Garden Town in both Districts. Table 5.1 of the Didcot Garden Town HIF1 Report, page 66, shows sites for 11,713 new homes to be completed 2024-34, (15,825 homes in 2034, minus 4,112 homes in 2024).

- 6.15 East Hendred Parish Council request a review of an out-dated housing requirement in the HIF1, based on the VWHDC Dec 2021 Reg.10a review.**
- 6.16 The 2021 Census shows the number of economically active in the Vale of White Horse from 61,000 employed in 2011 to 69,000 employed in 2021.**
- 6.17 The Parish Council requests the latest data on the growth in the number of jobs in The Vale 2011 to 2021, compared to the assumptions in the traffic model.**

**TRIP GENERATION BASED ON TRAFFIC GROWTH.**

- 6.18 The HIF1 TA Part 2(1) para 2.4.2 states that the Oxford Strategic Model is based on 2013 travel conditions. It includes a Highway Assignment, a Public Transport model & a Multi-modal model to estimate the choice of mode in response to generalised travel costs. Clarification is sought on what use was made of the Public Transport & Multi-modal models in calibrating it to 2020 baseline conditions or in generating or assessing alternative options?**
- 6.19 Clarification is sought on what model assumptions were made to predict a 30%-40% increase in traffic on A4130 to the A34 in the peaks & 50% in the inter-peaks over the 18-year period 2013-2031? The Systra Paramics Model uses a generic trip rate for existing development. It is not a Multi-modal model, & requires modal share to be assessed by proxy. Its results should therefore be carefully assessed with caution.  
(see TA page 70 paragraph 5.3.8).**
- 6.20 For new development, a demand reduction is based on three new planning application sites in Didcot accepted by OCC, which had lower trip rates than those used for existing development. This resulted in the model applying lower trip rates for new development in the 2034 Scenarios, with 80% of the demand of existing development.**
- 6.21 The Parish Council's Case is that occupants of existing development have changed their habits & expectations on Working from Home & on-line shopping, so a 70% to 80% demand adopted for new development , in Table 5.4 on Trip Rates, should be adopted for all development with a trip rate of 0.457 in the AM Peak & 0.423 in the PM Peak, to account for Didcot Garden Town principles for modal shift.**
- 6.22 In the 2034 without HIF1 scenario, the model was run at 70% of total demand, which allowed the model to be run without gridlock, so modelled journeys could be completed, (see TA Fig. 5.2 & paragraph 5.3.11).**

6.23 **The Parish Council seek the results of the modelling data of traffic flows in 2031 & 2034 without the HIF1 Scenario, (i.e. Do Minimum), with the model run with 70% of total demand,** to provide an Alternative Option that addresses the County & District Council’s Sustainable Transport Objectives, the Didcot Garden Town Delivery Plan’s Minimum Modal Split Target & the LTCP Performance Indicators.

6.24 **The 47% traffic growth forecasts between the 2017 surveys, the Base Year 2020 & 2031, (in the OCC Statement of Case, Chapter 5, Table 3-4), is compared to the National Highways data of a 3% growth in traffic on the A4130 east of A43 Milton Interchange 2012-2022, during which 12,000 new homes were completed.**

**Table 12: The OCC Trip Growth Projections.**

This shows:	Base Year (‘000s)	Do Minimum (‘000s)	Scenario 5c (‘000s)
Total Trips	1,431	2,048 (+43%)	2,109 (+47%)
Car Trips	974	1,389 (+43%)	1,422 (+46%)

Table 3-4 shows 617, 000 additional 12-hour trips (+43%) between the Base Year (1,431,000) & Revised Do Minimum (2,048,000), & a further 60,000 trips in Scenario 5c (2,109,000), (an increase of 47%).

**FACTORS AFFECTING TRAFFIC GROWTH OTHER THAN BEHAVIOUR.**

- i) **The National Road Traffic Projections, adjusting for Covid,** Fig 2, shows that car traffic remains below pre-pandemic levels 2015-Feb. 2022, with traffic levels 11% lower than expected if the pandemic had not happened.
- ii) **Adjusting for Economic Growth,** Fig. 3 of the NRTP Report shows that when road traffic did not increase 2015-2022, Real GDP per head aged 16+ years increased from an Index of 100 to 106.4, a 6% increase.
- iii) The March 2022 OBR Economic & Fiscal Outlook of Real GDP growth per head aged 16+ years 2022-2027 shows an Index of 106.4 in March 2022 rising to 112.9 in January 2027, a further 6% increase.  
(Source: OBR Economic Supplementary March 2022, Table 1.5).
- iv) **It is concluded that traffic growth 2022-2027, based solely on Economic Growth, is likely to be similar to 2015-2020, based on these figures.**
- v) **Adjusting for Vehicle operating costs,** these are projected to decline for electric cars & increase for petrol & diesel cars, (i.e. whilst petrol & diesel cars out-number electric cars, vehicle operating costs are projected to increase & reduce traffic growth).

**A COMPARISON OF TRAFFIC SURVEYS & TRAFFIC MODELLED FLOWS.**

6.25 The Parish Council consider the differences in the Daily traffic flows on the A4130 East of the A34 Milton Interchange in 2022, compared to the 2024 modelled trips, has not been explained, & is not based on robust evidence.

<b>Table 13: Daily Traffic Flows on A4130, (East of A34)</b>		<b>2022</b>	<b>2024</b>	<b>Difference.</b>
		(‘000s)	(‘000s).	(‘000s)
i)	A4130, DfT Survey Count Point 8060	22		
ii)	A4130 TA Modelled Link 10-13		26-31	+4 to +9
iii)	% Difference between 2022 & 2024			(+18-41%)

**Table 14: Road Traffic Growth on A4130 East of A34 Milton Interchange to Didcot**

<b>5- Year Intervals Cycles</b>	<b>Car</b>	<b>Buses</b>	<b>LGV</b>	<b>HGV</b>	<b>Total Vehicles</b>	
2002	12	16,040	118	2,266	1,908	20,549
2007	36	15,686	61	2,936	2,021	20,888
2012	55	16,712	137	2,778	1,899	21,611
2017	43	16,544	141	3,782	1,974	22,569
2020	81	12,169	85	3,417	1,832	17,604
2022	59	15,221	115	4,640	2,150	22,250

Change in total vehicles 2017-2022 = - 319 vehicles (-1%)

Reduction in car trips 2017-2022 = - 1,323 car trips (-9%)

(Source: Count Point 8060 A43 – B4493 DfT. Daily Traffic Flows for A4130).

The National Highways data in Table above shows no growth in daily traffic flows 2017-2022 on the A4130, and a 9% decline in daily car trips. The 22,000 vehicles surveyed appears as 26,000 vehicles (+18%) in the transport model 2024 Base Year.

This is evidence indicating that the Transport Model exaggerates current traffic flows, as did Evidence to the recent Esso Research Centre, Milton Heights, Appeal Inquiry. This had the effect of increasing the impact of traffic, because it was from a smaller Baseline Traffic Flow.

6.26 The growth in traffic flows between 2024 & 2034 Do Minimum should have been assessed to see where the need for intervention should be addressed, & inform the generation of alternative options.

## 7. MODAL SPLIT.

7.1 The OCC 2018 Systra Paramatic model was based on 2016/2017 traffic surveys. It covers the area A417 East of East Hendred to A4130 Haddon Hill, & between the A34 Chilton Interchange & the A4074 Golden Balls roundabout.

7.2 It is described as “not multimodal so cannot automatically account for improved NMU infrastructure, therefore demand reduction is used as a proxy” on page 70 of the AECOM Transport Assessment.

7.3 There is no significant difference in the public transport modal share in the Revised Do Minimum option with Scenario 5c in the OCC Statement of Case, Appendix 5, Table 3-4.

**Table 16: Public Transport Mode Share Didcot Oxford Oxfordshire**

2011 Census	11%	20%	11%
2021 Census		17%	9%

**Table 17: AECOM Transport Assessment of Mode Share by Public Transport**

	Didcot
Do Minimum	11%
Scenario 5c	11%

### Results of 12-hour Traffic Modelling (thousand miles).

		By Car	Park & Ride	Bus only	Rail	Total
Base Year 2020	974	6	+	102	30	1,431
Mode share by car	68%			7%	2%	
Revised Do Minimum	1,389	9	+	168	41	2,048
By car	68%			9%	2%	
Scenario 5b	1,432	9	+	159	48	2,102
By car	68%			8%	2%	
Scenario 5c	1,422	10	+	176	49	2,109
By car	67%			9%	2%	

(Source: The Statement of Case, Appendix 5, page 11).

7.4 Scenario 5c offers 6 additional bus services in South Oxfordshire with a 10-30 mins frequency, estimated to provide a 3% increase in public transport share compared to the revise Do Minimum, & grade separated junctions on the A40 & A4074.

The 6 additional bus routes in Scenario 5c appear to increase bus use from 167,000 to 176,000 passengers (+5%), but this does not meet the target for 2031 in the Didcot Garden Town Delivery Plan.

## **8. RESULTS OF TRANSPORT ASSESSMENT – Trip Distribution.**

### **8.1 The Assignment of the 60,655 extra trips in Scenario 5c.**

The OCC Statement of Case, Chapter 5 on Evaluation of Transport Impacts of Scenario 5c over the Do Minimum option, shows in Figures 3-3 & 3-4, the numerous rural roads onto which the Transport model assigned the 60,655 additional trips in Scenario 5c compared to the No Minimum:

#### **i) Between Didcot, Oxford & Watlington.**

- B4015 Clifton Hampden to Chiselhampton
- B480 Cowley, Oxford via Chiselhampton to Watlington
- B4016 Sutton Courtney to Didcot
- B4009 Benson to Watlington
- A40 Headington to Thornbury Park & Ride
- A329 Stadhampton to M40
- A415 Abingdon to Berensfield
- A4070 Oxford to Benson
- A415 East Hendred to Aston Tirrold (? Obscured by key)
- A34 Abingdon to Oxford in a.m. peak hour
- A34 Chilton to Abingdon in p.m. peak hour

#### **ii) Around Didcot**

- A4130 Harwell Campus via Milton Park to Wallingford

## 9 Costs & Benefits.

9.1 Table 16.11 of Chapter 16 of the Environmental Assessment gives a comparison of journey times, which I have converted from seconds to hours. In the absence of further data, based on The Green Book requirements of assessing the economic benefits of schemes, this data is meaningless. **The full Business Case to that submitted in Appendix 3 of the OCC Statement of Case must be provided to the Inquiry so that the claimed costs & benefits of the scheme can be assessed.**

9.2 The OCC Statement of Case uses 2031 as the Design Year, but no data is given for 2031.

9.2 Journey Times on all routes in AM & PM Peak.	Seconds	Minutes	Hours
2020 Base	18,834 =	314 =	5.2
2024 without HIF	30,264 =	504 =	8.4
2024 with HIF	12,987 =	216 =	3.6
2034 without HIF	108,347 =	1,805 =	30.1

9.3 The absence of any cost-benefit analysis to compare journey time savings against estimated costs, based on advice in The Green Book means there is no means of assessing whether the scheme represent poor or medium Value for Money.

9.4 If the Greater Cambridge Partnership can accept WebTAG advice in The Green Book to estimate the benefit to cost ratio of its Busways, & provide an estimated Value for Money, Oxfordshire County Council should also be able to comply.

9.5 The Parish Council concludes that OCC has not demonstrated the full economic costs & benefits of the four separate schemes, either individually or together, to assess whether they represent Good Value for Money.

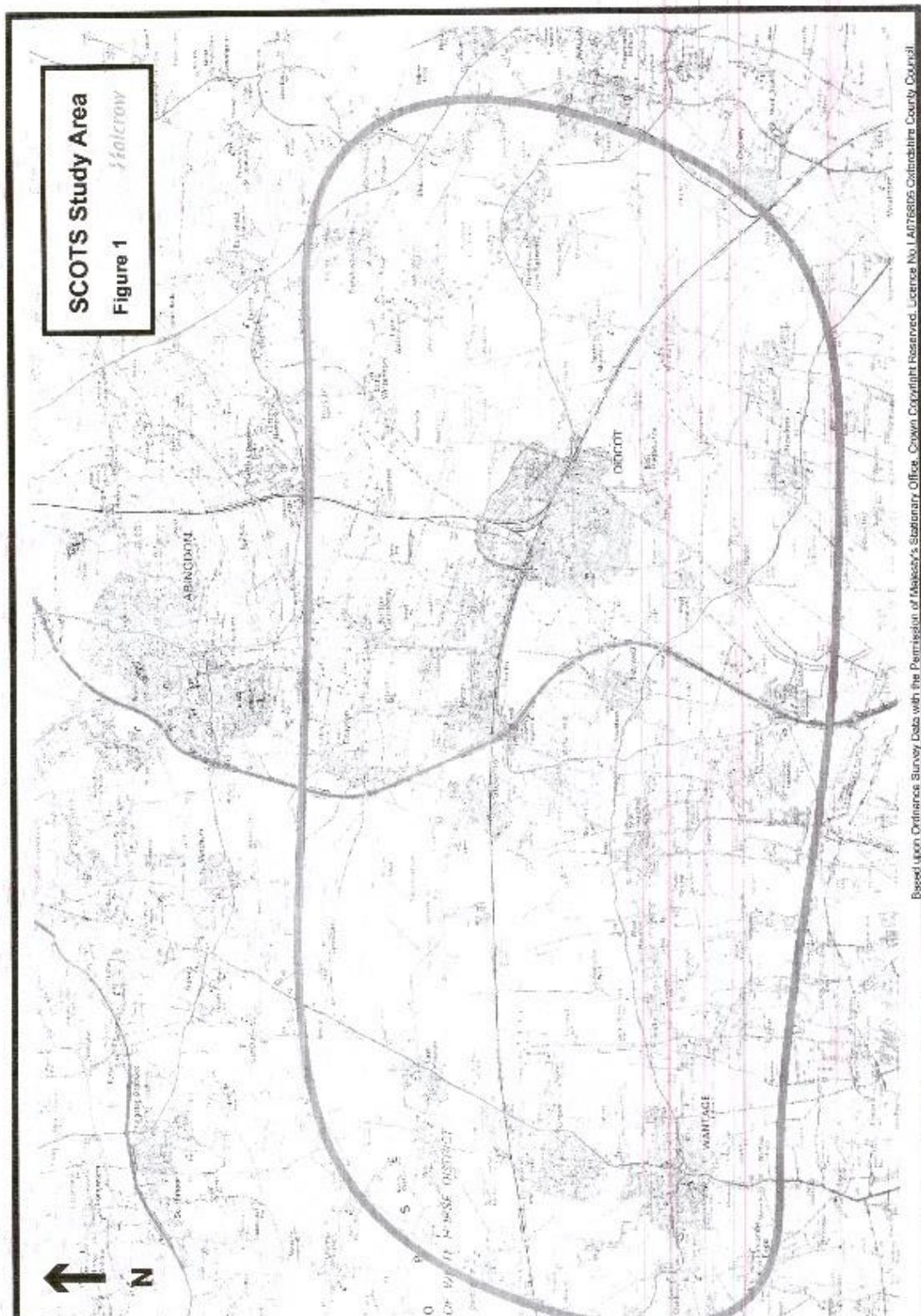
### Conclusions.

**Sections 6 -9 address how robust evidence, covering impacts across a wider area, would make an acceptable provision for sustainable transport by:**

- i) Modelling a wider area covering Abingdon, Wantage, A4074.
- ii) A housing requirement based on the 2023 NPPF-based Standard Method, applying research/general industry-based trip rates for the Campuses,
- iii) Applying the 2022 National Road Traffic Projection Behavioural Scenario.
- iv) Assessing 70% of total vehicular demand for all development.
- v) Assessing 80% of total vehicular demand for all development.
- vi) Using HIF1 funding from omitting the most-costly, environmental harmful, schemes with limited benefits, the Science Bridge & River Thames Crossing.

## APPENDICES

1. Southern Oxfordshire Transportation Study 2009 – Study Area.
2. 2021 Census Journey to Work Tables for Oxford & Oxfordshire.
3. Bridging the Gap by Keith Mitchell, Stantec Consultants.
4. Implications of National emissions reduction plans, Greg Marsden.



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SOUTHERN OXFORDSHIRE TRANSPORTATION STUDY – STUDY AREA.

## Travel to work in Oxford

As part of the latest Census 2021 topic release on labour market and travel to work statistics, the Business Intelligence Unit (BIU) has produced a series of summary reports covering all the supporting information on this topic in detail for Oxford. This summary report covers information on travel to work statistics, including method use to travel to work and distance travelled to work. For more information on this topic, please visit [Labour market and travel to work: Census 2021 in England and Wales](#).

Please note that the Census was taken on 21st March 2021 during which time a government 'stay at home rule' was in place. This recommended that people should continue to work from home where possible and minimise the number of journeys they make. The Census is therefore a snapshot of respondents' travel behaviour at that time.

### Key findings:

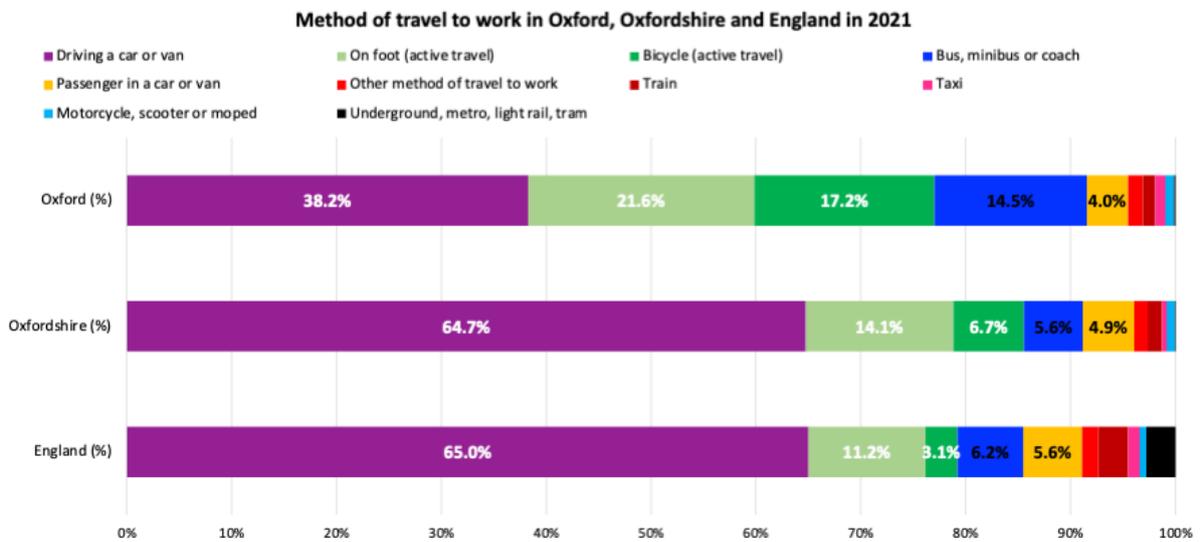
- According to the 2021 Census, the majority of usual residents aged 16 years or over in Oxford used a method of travel to work (61.2%), while 38.8% worked mainly from home. In 2011, 3.6% of usual residents aged 16 to 74 years old worked mainly from home<sup>1</sup>.
- The proportion of those who worked from home in Oxford (38.8%) is higher than both Oxfordshire and England at 37.9% and 31.5% respectively.
- Of those who were commuting to work, 38.8% opted for an active travel method (walk or cycle). This is significantly higher than Oxfordshire (20.8%), and England (14.2%) averages.
- The second most popular method was Driving a car or van (38.2%). This was significantly lower than Oxfordshire and England averages at 64.7% and 65.0% respectively.
- Another popular method of transport recorded was bus, minibus, or coach at 14.5% of the usual population aged 16 years or over who were travelling to work. This was significantly higher than both Oxfordshire and England averages at 5.6% and 6.2% respectively.
- In terms of distance travelled to work, the largest group was made up by those usual residents aged 16 and over and in employment the week before the Census who work mainly from home (38.8%).

<sup>1</sup> Please note the difference in population base for method of travel to workplace data between Census 2011 and Census 2021. In 2011 the population based was 'All usual residents aged 16 to 74', in 2021 it was 'All usual residents aged 16 years and over in employment the week before the Census'. A direct comparison between the two datasets cannot therefore be made.

# census 2021

- Those who travelled 2km to less than 5km made up 19.4%, this is significantly higher than both Oxfordshire and England averages at 9.6% and 12.6% respectively.
- Those travelling less than 2km made up 17.6%, this is higher than Oxfordshire (12.6%) and England (11.0%).

Figure 1. Method of travel to work (excluding those working mainly from home) in Oxford, Oxfordshire, and England in 2021.



Source: Census 2021 - ONS, 2022

## APPENDIX 3 Bridging the Gap Report by Keith Mitchell, Stantec Consultants.

### 8.1 Key Conclusions

8.1.1 TfN's Future Travel Scenarios enable us to better understand which alternative pathways provide the best route to net zero, and to test what else needs to be done to meet surface transport net zero objectives. Bridging the Gap concludes that 'Urban Zero Carbon' is the pathway that achieves the best carbon reduction outcomes, with 'Digitally Distributed' representing the best of the rest, (based on TfN's 2019/ 2020 futures). **A reduction in travel by car, or equivalent, of at least 20%, (30% for DD), is required by 2030 to meet surface transport net zero, assuming the most favourable outcomes from current policies.**

8.1.2 In considering a new development at Elton Reservoir in Bury, both UZC and DD would need to be 'supercharged' with net additional Net Zero Mobility Measures (NZMMs), if a net zero mobility future is to be created. Whilst it is important to promote greater movement by active modes, the key to carbon reduction is the reduction of intermediate trips (between 5 – 30km) which would represent over 60% of the travel distance related to the site.

8.1.3 A high-level vision and validate style assessment of alternative future scenarios has identified technically plausible land use and transport futures capable of meeting net zero mobility objectives. In all scenarios, car restraint policies would need to form part of a solution alongside the provision of convenient alternatives to the car.

8.1.4 In the DD+ future, this could be achieved using a combination of technology-led mobility services within a sub-urban environment, incorporating integrated community and mobility hubs and shared parking areas for EVs with Vehicle2Grid technology. In the UZC+ future, this could be achieved by focussed new urban living around mass transit hubs, streets focussed on active modes with constrained parking in remote parking buildings.

8.1.5 Neither of these alternative futures would provide a system of mobility that would be ready for adoption by society. Concerns about the DD+ world providing for the many and complex

journey destinations and purposes required, and about the nature of urban living in a generally sub-urban environment would leave society anxious about its ability to thrive. Much work would need to be done to develop these visions into something capable of being embraced by society.

8.1.6 An iterative approach which treats community engagement and Societal Readiness Assessment as an integral part of the commercial, technical and operational assessment processes that would need to be adopted to ensure the development of a shared vision of the future that could guide a vision-led planning and design process, and lead to the carbon outcomes envisaged – a 'doughnut mobility vision'?

8.1.7 In assessing the practical implications of pursuing either the DD+ or UZC+ scenarios against a multi-criteria appraisal framework, it can be seen that some elements of each future are unlikely to be capable of implementation in the short timescale needed to meet net zero by virtue of the scale of cost, risk and complexity of projects required.

8.1.8 A hybrid vision begins to emerge which builds on existing plans to improve local transport systems, and focusses on promoting the quickest wins that have the greatest impact on intermediate trips, such as through the provision of new mobility services, and a development plan that uses UZC and DD features where most appropriate.

8.1.9 Critically, this requires a co-ordinated approach to planning and development across the local conurbation which prioritises investment in land use and transport interventions focussed on delivering net zero mobility priorities, and avoids unnecessary or counterproductive investment in providing greater capacity for car movement.

8.1.10 Place-based conversations between government, regional and local authorities, developers, investors and communities are urgently needed to lead this debate.

## **APPENDIX 4. The Implications of National Transport Emissions Reduction Policy, Prof. Greg Marsden.**

### **A Centre for Research into Energy Demand Solutions (CREDS) Report.**

This report shows that pathways which achieve the Government's aims on electrification *could* still be consistent with the CCC's Balanced Pathway if a 20% reduction in road traffic levels were also to be achieved by 2030 relative to current plans. The policy goal in Scotland is for an absolute reduction in car kilometres of 20% by 2030, although progress against the goal is yet to be substantially realised. Such an outcome cannot be wished for; it needs to be made to come about. In 2021, the Centre for Research into Energy Demand Solutions (CREDS) published a series of scenarios, referred to as Positive Low Energy Futures (PLEF). The PLEF transport report set out alternative pathways which could save energy and carbon but still allow society to flourish (Brand et al., 2021). Pathways with reductions in car mileage will require a step change in funding and delivery of alternatives to car travel which are not currently being planned for. However, every year that passes with a business as usual transport delivery mindset, reduces the potential to shift to such pathways.

