

6 November 2015

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protect and enhance a beautiful,
thriving countryside for everyone to
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CPRE Oxfordshire response to Investing in the A40 Consultation, November 2015

Following the decision of Oxfordshire County Council to approve the Local Transport Plan 'Connecting Oxfordshire', the present consultation seeks views on a number of medium to long term options for transport infrastructure investment and seeks to relate these to the decision already taken to spend some £35 million on minor improvements to junctions, relocation of Park and Ride car parking to the Eynsham area and a bus lane or lanes along A40.

However, it is impossible for CPRE to take an informed view on both the need for and practicality of these options. The proposed transport plan inevitably impacts on the Oxford Green Belt and has conservation implications and clear overall benefits would need to be demonstrated for the sub-region, not merely for Oxford City, to justify the adverse effects on the environment of any of the possible schemes.

Our current position can be summarised as follows:

1. Decisions on the most appropriate strategy to accommodate planned growth in the sub-region needs to be based on an informed analysis, which is not yet available.
2. A comprehensive land use / transport study for the sub-region is essential now, before effects of alternatives can be compared.
3. Whilst development of public transport is fully supported in principle and a tram/train would appear to be likely to achieve the maximum transfer of car commuter traffic from roads, this only applies to employment in Oxford; drivers may still choose to drive to other employment opportunities in the wider area.
4. The consequences of not maintaining adequate road capacity to accommodate the essential needs of planned land uses are likely to include severe damage to the environment of communities lying along secondary main roads, diversion of trips to employment opportunities outside the immediate Oxford area such as Swindon, and high levels of atmospheric pollution from traffic on overloaded roads.
5. If a tramway could attract sufficient Witney-Oxford commuters, it is the preferred option.
6. However, alternatives appear to require much more detailed technical study before any reliable cost comparisons and cost benefit analysis can be made.

Oxfordshire Growth Strategy

All the proposals for the A40 should be seen in the light of Oxfordshire County Council's plans for significant urbanisation of our rural county, based on an aggressive growth strategy developed by the Oxfordshire Local Enterprise Partnership. This includes adoption of the Oxfordshire Strategic Housing Market Assessment 2014 figures that outline a 40% growth in housing by 2031.

CPRE Oxfordshire remains opposed to this *forced* growth strategy, which we believe will fundamentally change Oxfordshire's rural nature, without addressing key issues such as affordable rural housing, rural services and infrastructure and countryside protection.

However, for the basis of this analysis, we have taken these imposed growth targets as the starting point. If funding for infrastructure identified as needed to support this growth is not available and guaranteed up front, then it is clear that the growth targets must be revisited.

Traffic and Modal-shift forecasting

The first requirement is for the effect of each proposal to be quantified. The A40 Oxford - Witney Corridor Strategy - Baseline Statement only presents data about present traffic. It does not quantify future needs, in particular the effect on travel demand arising from the Oxfordshire Strategic Housing Market Assessment (SHMA) targets for housing largely accepted by the District Councils in their local plans and in the Local Transport Plan, together with the associated assumptions on the distribution of growth of employment in the sub- region. We believe that it would be wrong to plan to relieve existing problems in the A40 corridor without a realistic estimation of journeys to be generated by planned development in the sub-region and the extent of achievable modal-shift. This will require sophisticated interactive Land Use /Transportation modelling.

Significant new choices

Two major differences from previous planning for Oxford commuters need to be considered.

Firstly, the Department for Transport through Highways England have indicated that they wish to develop a national network of Freeways including the A34 and have recently commissioned a study for the Oxford - Cambridge route extending to the M4. The declared intention is for traffic on these routes to be free flowing (60 mph with speeds of around 50 mph for maximum capacity) and to use management techniques to achieve this. In practice this will mean that local traffic will be held back at interchanges to prevent queuing and traffic jams on the A34. On the other hand, once traffic is admitted to the route it will flow freely and quickly and be given priority at its exit interchange to prevent tail backs on the through carriageways. This will facilitate distribution along The Knowledge Spine outside Oxford.

Secondly, unlike Oxford City where in the past traffic generated by land use decisions has been accompanied by severe traffic restraint measures enabling commuting traffic to be transferred to Park and Ride buses, in future the growing populations in places like Witney and Carterton will have much greater choice of work locations outside the city and will not therefore be so easily constrained.

Present Strategy

The short term strategy to accommodate planned growth in the Northern Gateway area of Oxford is to increase the capacity of the Sunderland Avenue roundabouts, and then to transfer traffic that uses the A40 and the Peartree Park and Ride bus service to and from the city centre, to a new Park and Ride site in the Eynsham area. The number of vehicles affected is not known.

This un-quantified relief of severe congestion on A40 would accommodate some additional traffic to the Northern Gateway development area, and possibly reduce delays and allow traffic diversion back to the route. But this is likely to be insignificant if new commuting traffic from the Witney area to A34 for distribution along the A34 and to Oxford has to be accommodated.

It is acknowledged that at Witney/Carterton economic development is compromised by poor transport links and whilst housing development has proceeded apace, the objective of reducing pressure on Oxford is being frustrated by under provision of housing in the city and instead use of available land for employment. The consequence has been an almost unmanageable growth in car commuting into Oxford.

Generated and Diverted traffic

There are fears that traffic will be generated by new infrastructure and a belief that traffic appears to grow without cause. However, people make choices to travel further afield to take advantage of opportunities if alternative routes become available without adding significantly to travel time. Apparent growth arises from redistribution of traffic between routes and generators, the consequence both of congestion and land use decisions to accommodate population growth and commercial development. The cost of and time spent travelling varies with individuals but follows well established patterns. These phenomena are clearly apparent with the redistribution of traffic within the A40 corridor to the detriment of the environment of communities along secondary routes. Traffic has dispersed to the A4095 for Bicester instead of using A40 / A34 / A41; to the B4044 (former A40) up to the capacity of the toll bridge; and to the A415 via Standlake and Marcham. This is not merely an Oxford and A40 problem.

Transport modelling can reliably predict consequences of such planned changes based on gravity type algorithms and re-iterative network assignment techniques. Models based on generalised travel cost that combines the effect of distance and time form the basis for predictions of modal-shift. Such models depend on reliable predictions of door-to-door journey times, not just individual link journey times as presented in the consultation.

Traffic restraint

To reduce car travel, restraint through parking restrictions as well as public transport priority measures has been found to be crucial. Nevertheless, traffic congestion in central Oxford has not reduced. Where uncontrolled Private Non Residential (PNR) Parking exists it is fully utilised in preference to Park and Ride bus services, principally because door-to-door travel times are still not competitive. Except in new developments, control of private non-residential parking is difficult, limiting the ability of transport planners to bring about desirable modal shift. It is probable that overall door-to-door journey times to Eastern Oxford from Witney and Carterton using planned new bus services will be unattractive. The scope for bus priority on existing streets in East Oxford is limited. Only modelling will show the extent to which traffic is likely to transfer to bus services or redistribute to other employment opportunities further afield over time.

Journey times from the Witney area to Oxford are already about an hour at peak time and this places other locations such as Swindon and Bicester within that travel time. Travel from Carterton and Witney to employment opportunities in the East Swindon growth area and The Knowledge Spine (Bicester - Oxford - Science Vale) is likely to be comparable to that of East Oxford employment areas. Even with heavy reliance on public transport to cater for movement in and out of Oxford, there is therefore a strong possibility that traffic problems will increase in the A40 corridor, including the lesser main roads through villages, as car users choose to work in other towns.

Through Traffic

The A40 remains a primary route carrying through traffic to and from the west, particularly from areas north east of Oxford. The alternative trunk road link between M4 and M5 via A417/A419 carries 34,000 vehicles per day, comparable to the 30,000 vehicles per day carried by A40 at Oxford. This alternative trunk route possibly provides some relief for London area based traffic. However, despite pressure from Gloucestershire County Council and Local Enterprise Partnership the missing 5 km link at Birdlip is still single carriageway. Although longer distance, through traffic is a minor component of the A40 corridor problem in the peak hours; an improved A40 link to A34 at Peartree could remove through traffic from North Oxford and this needs to be quantified.

Atmospheric pollution

The effect of pollution from traffic on both human health and on the ecology needs to be studied. Emissions from stationary and slow moving vehicles far exceed that from free flowing traffic. Present emission levels from A40 traffic exceeds that from traffic flowing freely on a dual carriageway for large parts of the day. The effect on the Oxford Meadows SAC is of particular concern.

Segregated public transport

Railways offer the highest speeds but generally at lower frequency and so are particularly suited for longer distance commuting that is not a particular objective in this corridor. Trains are not particularly useful for services requiring frequent stops and so would not be first choice now that simpler semi urban electric tram/train operation is possible.

Trams operate at slightly lower speeds than trains but at higher frequency providing good door-to-door travel times. The recent agreement to operate trams and trains on the same tracks at Sheffield opens up exciting new opportunities. **If a tramway could attract sufficient Witney-Oxford commuters, it is the preferred option.**

The route could be converted to joint use if full rail operation became possible later. The simplicity of automatic sprung points at frequent passing places makes a single-track tramway a possibility. Dual or parallel use of the railway from Yarnton to Oxford is feasible with much of the land for separate track alongside Port Meadow still available. Stops could serve the villages, the Northern Gateway, Wolvercote, King Edwards School, Jericho etc, with extension to the Cowley branch.

Any tram/rail route should follow existing transport corridors as far as possible to ensure minimal landscape and environmental damage.

Following the closure of railways in the 1960s, proposals to turn railways into roads failed because the typical 6.5 m formation width or a twin track railway is

approximately half that of a modern two lane road. The Witney branch was only constructed as a single track. Guided bus was invented to allow automatically steered buses to pass through narrow railway bridges abutments. This is not a consideration in this corridor as there is only one bridge between Yarnton and Witney. Furthermore, the Cambridge bus way project has demonstrated the need for a maintenance road alongside the two-track concrete bus-way troughs thus requiring as much or more land as a new road. This idea was promoted at Oxford to give near monopoly to the major bus company excluding smaller operators running school and country services and did not progress. **A guided bus is therefore not considered an acceptable option.**

The advantages of options using bus lanes, or a segregated bus way appear to relate to decisions already taken to build bus lanes as far as Eynsham, but would be inferior to fully segregated rapid transit. As an interim measure, use of one lane for peak period public transport use needs to be evaluated.

Dualling A40

The case for a dual carriageway road is also more complex than merely accommodating traffic in and out of Oxford. The present corridor flow has hardly changed since 1988 at around 46,000 vehicles per day with some transfer from A40 to the A4095 and B4044 to the detriment of the environment of communities along those routes. Some traffic between Witney and Abingdon and Didcot presently using A415 via Standlake, New Bridge and Marcham could use A40 and A34 if capacity was available. Traffic in the immediate corridor is already in excess of the 39,000 vehicles per day capacity of a dual carriageway. Traffic likely to be generated by development at Witney/Carterton and in the Knowledge Spine, together with the potential for further traffic returning back to the route from more minor main roads, means that fears of generation of new traffic from further afield are likely to be unfounded. With limited capacity through north Oxford, traffic seeking East Oxford destinations is also likely to use the southern and eastern bypasses. **The LTP strategy does not support a case for a new northern bypass at Cutteslow and this would be resisted. On the other hand, an improved link from A40 to A34 and M40 could well have a material effect on traffic flows and needs to be studied further.**

Cost estimates

Costings for all of the non-road options appear unrealistic and bear little relationship to actual costs of recently completed projects elsewhere. Engineering of the former Witney railway right of way is not complicated and probably less costly than other recently implemented rapid transit schemes elsewhere.

The tramway option requires more detailed study particularly between Yarnton and central Oxford.

The environmental impact and cost of diversion of A40 from its present alignment needs to be compared with retention on its existing route with enhanced junctions and appropriate local traffic management.

If a link from A40 to A44/A34 in the Oxford Green Belt is likely to be needed in any medium to long term, options and costs need to be included in an overall package of measures for the corridor.

It may also be necessary to revisit plans for single carriageway bypasses on the A415 at Standlake, New Bridge and Marcham.

Future decision making

Once probable usage of alternatives can be established, cost benefit comparisons can be made that will then influence the availability of grants, loans and the required third party funding from development. A major decision of this importance should not be based on cost alone.

Yours sincerely

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