

MILTON KEYNES:

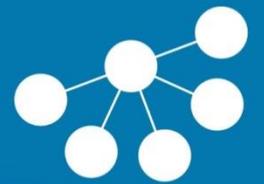
**MAKING A
GREAT CITY
GREATER**

Commission Working Paper 10
Transport and Structure of the City

Shared Intelligence

Milton Keynes Futures 2050 Commission





SHARED INTELLIGENCE

CPW10 Transport and the Structure of the city

JUNE 2016

TRANSPORT AND STRUCTURE OF THE

CITYCOMMISSION WORKING PAPER 10

1. This Commission Working Paper identifies the strategic transport choices facing Milton Keynes (MK). It draws on the evidence prepared for Plan: MK including the topic paper on transport, Local Transport Plan 3, and earlier transport studies and strategies. It considers the potential offered by innovations in transport technology to shape the strategic transport choices, and some of the implications for the structure of the city. This paper should be read in conjunction with Commission Working Paper 11, Intelligent On Demand Mobility prepared, by Arup.
2. This Working Paper comprises four sections:
 - Future Trends in Transport
 - Transport in MK: the Journey
 - Plan:MK, Intelligent Mobility and the Existing City
 - Improving Mobility: Key Choices to 2050
3. The final section sets out matters the Commissioners might wish to consider in building alternative scenarios for the future of MK and a preferred vision. In particular, Commissioners may wish to consider whether (or not) MK needs a new “Strategy” comprehensively addressing the matters considered in the original Plan for Milton Keynes. This idea was proposed by stakeholders in some of the early consultations with Commissioners. The “**strategy**” could either complement the statutory planning process or be embedded in it.
4. It would be helpful if Commissioners read Plan:MK Strategic Development Directions Consultation (January 2016) and the Plan:MK - Topic Paper: Transport and Travel.

FUTURE TRENDS IN TRANSPORT AND BIG TRANSPORT CHALLENGES FACING ENGLAND

FUTURE TRENDS IN TRANSPORT

5. Effective transportation is a pre-condition for economic success. Industry needs access to supply chains and workers access to their places of employment. Commercial and retail areas require access to high volumes of people to have enough demand for their services and shops. Improving access generally makes further development and business growth possible. Across the globe, more and more investment in future transport system is being shaped by the world wide recognition that climate change and air pollution are fundamental challenges that must be addressed. The Paris Agreement 2015 to take action to limit the rise in global average temperatures to 2C is starting to provide strong incentives to do this. Key trends include:
6. The move to de- carbonisation of transport from heavily polluting modes of transport to more environmentally friendly ones is already taking place. The Government has set a target that all cars and vans should be zero emissions by 2040. The market is responding with the electrification of transport, ranging from the development of public ‘charging’ infrastructure alongside further electrification of the railways, alongside the mass marketing of electric cars and buses which produce no CO². These vehicles themselves are designed to be more energy efficient, and there is a trend to move to alternative fuels, including Liquefied Natural Gas and hydrogen, especially in ports and other logistical sectors.

7. Another key trend has been the integration of smart technologies in transport. For example, this can be seen in the new managed motorways in the UK and similar technologies to manage traffic flows in cities. This enables the speed and access to motorways to be varied at peak times and different journey types to be prioritised. In Westminster (and MK) this extends to using technology to identify available parking spaces. Across the nation, many cities (including MK) offer live updates on bus arrival times at bus stops. Most car drivers now rely on their satellite navigation systems (and/or) smart phones to guide their journeys.
8. Two other trends have been the adoption of whole city transport strategies and concerted efforts to make multi-modal journeys (often including cycles) more attractive than and cheaper than the use of private vehicles. In Cambridge, for instance, this combines park and ride with physical barriers to car traffic in the city centre and priority use of space for buses, cycling, and walking. In London, Transport for London (TfL) integrates bus, underground, over ground rail, river, cable car and cycling into a single system. The congestion charge makes using a private motor car in central London considerably more expensive. Journey planning tools cover all modes and the Oyster card covers all the journeys save cycle hire and the river boat.

INTELLIGENT MOBILITY

9. The impact of the digital revolution on how people communicate, shop and work is widely recognised and, as above, is starting to have an impact on transport provision. In the medium term 'Intelligent Mobility' – the smarter, greener, and more efficient movement of people and goods – is dramatically shifting how we plan for transport within our towns and cities, with their hinterlands, and beyond. It is shifting from being “modal centric” - how to switch passenger transport from car to public transport to reduce congestion and pollution - to being “user centric” – understanding key journey requirements and how best to facilitate them.
10. The Intelligent Mobility Traveller Needs and UK Capability Study published by the Transport Systems Catapult in October 2015 was based on interviews with 10,000 respondents, 100 experts and 50 companies. It shows the UK traveller is ready for innovations in how they travel:
 - 53% always look for ways to optimise their journeys;
 - 72% have smartphones; over half of respondents see it as essential to their travel;
 - 57% would not mind sharing their data to improve services;
 - 39% would consider using driverless cars if they were available;
 - 31% of journeys made today in the UK would not have been made if alternative means were available that did not necessitate physical travel (i.e. 'virtual mobility').
11. The study also shows that UK travellers are seeking significant improvements to their journeys. 75% of all journeys made in the UK are subject to negative experiences (i.e. pain-points). Above all, it is multi-modal journeys that are perceived as particularly troublesome, calling for significant improvements in integration and end-to-end mobility.
12. The National Policy Planning Framework has 12 underpinning principles. It asks local planning authorities to actively manage patterns of growth to make the fullest use of public transport, cycling and walking and focus significant development in locations which are or can be sustainable. This has led to a resurgence of interest in the original garden cities and new towns models with housing shopping and jobs within reasonable proximity. More generally, it is widely

recognised that to be competitive in the 21st century, all new development should have powerful, high capacity digital infrastructure to reduce the need to travel.

TRANSPORT IN MK: THE JOURNEY

13. In selecting the location for MK – almost equidistant from London, Birmingham, Oxford and Cambridge – Government chose one of the best locations in the UK for a new successful regional city. The town is located on the Britain's historic strong north/south transport axis (on the old Watling Way, now the A5) adjacent to the M1, and astride the West Coast Mainline railway. Moreover, east-west links rail and roads links are gradually being improved with development of the rail link between Oxford and Cambridge underway with plans to upgrade the A421 to become a new expressway.

THE ORIGINAL PLAN FOR MILTON KEYNES

14. The original Plan for Milton Keynes sought to take full advantage of the City's location, setting out a framework of grid roads to enable congestion free journeys by car throughout the city. In a radical departure from the design of earlier new towns, and from traditional cities which grew organically, the Plan for MK distributed employment areas throughout the city. Employment would not be overly concentrated in the city centre. It was envisaged that this would even out peak hour pressures on the grid road system and minimise the risk of congestion on road junctions serving the centre. The Plan proposed relatively low gross and net residential and employment densities.
15. From the outset, it was envisaged that the grid road network would have substantial additional capacity. Whilst some links in the grid were constructed originally as dual carriageways, many links were single carriageway with space being left to dual the link if required. All grid roads were constructed in very wide, landscaped reservations (although the width of the reservation gradually decreased in later years). One of the reasons for these wide reservations was to cater for the possibility that a fixed rail transit system would be introduced alongside some reservations. The original Plan did not envisage that all grid road junctions would be roundabouts, or indeed even be fully grade separated junctions, but some would be controlled by traffic lights.
16. In the early 1970s, Buckinghamshire County Council and the Milton Keynes Development Corporation (MKDC) decided that all grid road junctions would be grade- separated roundabouts. However, it was recognised that, in time, it would be necessary to introduce traffic signals at some junctions as traffic increased. Government decided that the speed limits on most of the dual carriageway grid roads should be 70mph and 60mph on the single carriageway links.
17. In the mid-1970s, MKDC decided to develop a completely segregated cycleway network (the Redways) and this is still the largest segregated network in the UK.
18. From the outset, MKDC found it difficult to plan and work with bus operators to provide a high quality public transport service. Catchment populations were too small to support viable services on many routes. Moreover, the low residential densities, and the dispersal of employment locations, which enabled the grid road system to work well for car travel, made it difficult to provide viable bus services. In the 1970s, the first "Dial A Bus" demand responsive small bus services were introduced but this proved too costly and inefficient to operate. MKDC normally provided heavy subsidies for stage carriage bus services, but the frequency and quality of the

service regularly attracted severe criticism. When MKDC was wound up in 1992, the burden of subsidizing bus services fell back to the local authorities.

19. As the city developed, more employment located in Central Milton Keynes (CMK) than was originally envisaged and more warehousing (with lower job densities) was developed on the employment areas. This made it easier to provide better public transport services to CMK but even more difficult to provide good bus services to each employment area from throughout the city. Generally, car ownership has increased faster than originally envisaged, and public transport used less. In recent years, key grid road junctions (and the A5 junctions) are heavily congested at peak periods. Even though the Redway system covers the entire city, fewer cycle to work or shop than would be expected.

TRANSPORT PLANS AND INFRASTRUCTURE CHANGES

20. MK Council recognised many of these challenges in their first Local Transport Plan in 1999 and they commissioned a Long Term Public Transport Vision in 2003. This strategy recommended the strengthening of the strategic corridors into central MK – the “floppy cross.” It also recommended higher densities and the introduction of “city streets,” to replace the grid roads in the Eastern and Western Expansion areas. It also set out proposals to strengthen the public transport network. These were adopted by the Council and informed future transport strategies and the development briefs for the expansion areas.
21. A Citizen Advisory Group on Transport (CaGOT) established by the Council published a review in 2008. It recommended the retention and continuation of the grid road system, the adoption of innovative design solutions to the congestion problems, a substantial increase in the provision of public transport so it matched the availability of private transport. It also recommended improved utilisation of the Redways to keep a separation between car borne traffic and cyclists, reduced speed limits and the benchmarking of parking charges with comparable towns.
22. These recommendations fed into the 2009 Transport Strategy for Growth, which placed an emphasis on creating high capacity corridors to serve CMK and identified a series of highway capacity improvements to support cross city movement to/from CMK and junction capacity improvements to address traffic as it got closer to the city. This programme of junction improvements is being taken forward. The cycling strategy (2013) identified express cycle routes as a concept to provide more direct routes especially linked to national cycle route 51. There is little evidence that either the high capacity public transport corridors or the express cycle routes are being created.
23. Milton Keynes subsequently produced its Third Local Transport Plan, a Transport Vision and Strategy for Milton Keynes. The Vision states that ‘By 2031 Milton Keynes will have the most sustainable transport system in the country where there will be a real transport choice to encourage more sustainable travel behaviour. The transport system will provide fast and efficient movement of people and goods, and everyone will have access to key services and amenities. Milton Keynes will be an exemplar for the latest developments in technology and new forms of transport’.

24. This was underpinned by 7 key objectives designed to ensure its delivery. These were:

- Provide real and attractive transport choices to encourage more sustainable travel behaviour as Milton Keynes grows.
- Support the economic growth of the borough through the fast, efficient and reliable movement of people and goods.
- Reduce transport based CO2 emissions to help tackle climate change.
- Provide access for all to key services and amenities in Milton Keynes, including employment, education, health, retail, and leisure.
- Improve safety, security and health.
- Contribute to quality of life for all Milton Keynes residents, strengthening linkages between communities.
- Establish a development framework, that embraces technological change, in which Milton Keynes can continue to grow, pioneer and develop.

25. The Plan identified key issues of concern in terms of the capacity of the grid roads and public transport. In the case of the former it identified that at current rates of population growth, there was estimated to be a 57% increase in journeys by car at peak travel times (2001 to 2031). The concern was that the city will only be able to provide an extra 25% capacity at peak times through junction improvements and other “engineering” measures. Take up and provision of public transport was historically poor. The step change required to make a switch from the car to other modes of transport was to be delivered through the ambitious and innovative interventions laid out in the strategy. They include the development of a high frequency bus network along core routes, building on the good work delivered by the council and its partners, and ultimately a transition to a rapid transit network. Rural services, feeder services, and Park & Ride were to be put in place to support the network; and interchange facilities, information provision and ticketing were to become first class.

26. The Plan included an investment and funding analysis for the first four years of the plan. This identified capital and revenue shortfalls each year, ranging from £1.7m to £8.4m per annum for capital and £1.2m to £2.7m per annum for revenue. No long term funding plan has been subsequently identified. Whilst it is clear that progress has been made, key elements of which are outlined below, it is not possible to assess how much progress has and can be made and what level of risk this presents to MK’s future prosperity.

27. The plan set out the “MK star concept” which introduced a hub and spoke concept that focussed on creating a network to support demand, particularly by public transport, with the key hub being CMK. The current CMK transport strategy looks to deliver this part of MK star by creating the central public transport interchange in CMK and at Station Square and a central transit spine. Discussions with Arriva, the main bus service provider have started to create that network of key routes, with a high capacity service on the main east west route, and electric buses on the north south route. It is intended to continue this focus on improving the public transport spine when considering regeneration and growth proposals.

28. The amount of progress can be gauged by the shape of the CMK Neighbourhood Plan. CMK is the city centre for Milton Keynes and a major regional shopping and leisure and employment centre. A Business Neighbourhood Plan, which was prepared under the provisions of the Localism Act 2011 was adopted at Full Council in June 2015. This means its provisions need to be taken into

account alongside those of Council's planning policies when considering planning application in this area

29. The plan sets out a vision for the growth and future prosperity of the town centre. This includes the following transport-related ambition: 'one of the most accessible city centres in the UK, pioneering, sustainable yet convenient transport choices for workers, visitors and residents'. The plan recognises that high levels of car use, and provision of car parking, are features of the current transport infrastructure for CMK but that these are not scalable nor sustainable for the future. The detail of this part of the plan focusses on how to achieve this ambition, with a strong emphasis on a shift to public transport, and more use of sustainable transport options, recognising that this transition may take time and that provision of public transport in low density area can be problematic. Whilst both plans converge in their intentions, there has to be a concern that the funding shortfalls will impact on their achievement.
30. Conversely, it should be noted that planned Government capital investments in national rail and road networks will bring important benefits to MK. These include High Speed2 (HS2), which will free up capacity on the West Coast mainline, the Government's confirmation of its commitment to delivering all of the East-West Rail links from Oxford to Cambridge via Bletchley, and Milton Keynes to London Marylebone via Aylesbury. This was confirmed in Sir Peter Hendy's review of the nationwide Railway Upgrade Plan on 25th November 2015. His report confirms that the second phase of the Western Section of East West Rail will go ahead with development work continuing and delivery starting as soon as possible before March 2019 for completion in the following five-year railway control period or CP6.
31. Milton Keynes is also set to benefit from the Government's approach to improving the strategic road network. This includes proposals to upgrade the A421 to Expressway status. This is defined as creating dual carriageway roads matching the quality and safety of motorways. The proposal is for an Expressway Link between Milton Keynes and Cambridge and a Strategic Study to examine the case for linking existing roads to create a high quality link between Oxford and Cambridge via Milton Keynes. The outcome of these measures will be to create strong east to west linkages for MK, opening up new opportunities for economic growth and alternative transport options for businesses and residents. It is also anticipated that the M1 between junction 13 and Junction 19 (M6 interchange) will be upgraded within the next 10 years.

SUSTAINABILITY AND INTELLIGENT TRANSPORT SYSTEMS

32. As well as improving public transport and cycling provision MKC has focussed on persuading car owners to switch to low emission vehicles. The 2011 census shows that cars are still the predominant form of transport (62%) for the journey to work. Given this will take time to change, reducing the environmental impact of those journeys has become an objective. A number of approaches have been adopted including providing a nationally funded charging network to facilitate use of electric cars. In January 2016 the Council was awarded £9m by the Office for Low Emissions to achieve a step change in the use of such vehicles. It plans to do this by establishing a centre to demonstrate what is available and offer low cost loans, free parking in all council car parks, access to bus priority lanes and extensions to that network. This is in addition to the city already having the UK's most advanced charging infrastructure for electric vehicles. Milton Keynes has 170 charging posts and a further 50 rapid charging stations have recently been installed across the city.

33. MKC is currently consulting on its draft Intelligent Transport Systems Strategy.¹ An Intelligent Transport system (ITS) is the integration of information and communication technology with the transport infrastructure, vehicles and users. It enables information to be collected and shared in order to help people make more informed travel choices, improve journeys and reduce the demand on the infrastructure. ITS is seen as one of the means of meeting the congestion challenge. Current predictions suggest that if planned growth increases journeys by 60%, some 25 to 30% could be accommodated through traditional interventions and the ITS could help close the remaining gap. This consultation closes on the 22 February 2016.

PLAN: MK, INTELLIGENT MOBILITY, AND THE EXISTING CITY

34. The preparation for Plan: MK², the new local plan for Milton Keynes, started in 2014 with the publication of 12 Topic Papers including a Topic Paper on Transport and Travel. In January 2016, MK Council published Plan: MK Strategic Development Directions Consultation. Both of these are summarised below.

35. In addition, on behalf of MK Council's Task and Finish Study Group, Arup prepared an Intelligent Mobility Solutions: Research and Technology Review. This was superseded by the Commission in March asking Arup to prepare a CWP: Intelligent on Demand Mobility. All of this work has important implications for the existing, as built, city and some of these are discussed below.

PLAN: MK TOPIC PAPER -TRANSPORT AND TRAVEL

36. This Topic Paper starts with the national "direction of travel," in transport policies: to enable the nation's economic development, to plan for population and economic growth and to reduce carbon emissions. Policy also aims to reduce the need to travel, and to ensure that there are more sustainable modes of travel available. One of the main way of doing this is by providing larger mixed use developments where facilities can be accessed by cycling and walking. For MK, this would mean planning for additional growth in fewer locations, with each location providing a mix of use in walkable locations. It should be noted that larger scale developments can also take longer to start develop out and can reduce the amount of developers in a local market.

37. The Topic Paper shows that the car is still the predominant mode (62% in 2011) for the journey to work in MK and most vehicles are occupied by a single occupant. Working at home, and travel by bus and rail to work have all increased in recent years whilst cycling has declined from 3% in 2001 to 2.8% in 2011. There is a view that the traffic speed on the grid roads and concerns about safety in the underpasses act as a deterrent to cycling. The 2011 census³ reported that 44,500 people commuted to work from outside the Borough and 27,800 commuted out to work elsewhere.

38. It then reports the results from the tests of the capacity of the grid road network to accommodate the planned growth in the approved Core Strategy to 2026. If all the proposed economic and housing growth set out in the Core Strategy is realised by 2026, traffic will increase by some 60% (this (57%) was outlined in 2009 Transport strategy for Growth and LTP3) Essentially, these traffic model tests show that increases in demand of up to 25% can be accommodated, but there would

¹ Milton Keynes Council. Milton Keynes Intelligent transport systems Strategy. Consultation draft November 2015

² <http://www.milton-keynes.gov.uk/planmk>

³ ONS census 2011

be congestion hotspots. Without “interventions”, all junctions around CMK would be over capacity by 2026. This should not prohibit growth but will require creative thinking about how to accommodate it, and how people might move about in the future.

39. It then further explores some of the implications from these tests. It suggests that some recent developments in MK have not provided easy access to public transport,⁴ and asks what can be done to ensure that this does not happen in the future. The Topic Paper notes that one in five households in MK do not have a car and argues that alternative modes of sustainable transport are key to enabling more households to gain access to jobs and community facilities in the city. This in turn requires bus routes to be an integral part of the infrastructure at the start of any development any the bus companies to be confident about passenger numbers – a real challenge in low density developments. It reports the results of opinion surveys on how to increase cycling and walking to work. It identifies the ‘Super Redways’ proposed in the Cycling Strategy as commuter cycling routes and as an option that could be extended to other non-car commuting. Furthermore, the various transport innovations being trialled or considered by MK Council may lead to changes in travel behaviour (as discussed below).
40. The completion of the East-West rail link between Oxford and Cambridge through Bletchley provides very significant opportunities for MK, although there is still some uncertainty about when this will be fully operational and how best to link with CMK. The proposals to upgrade the A421 as a major east-west expressway through MK will also help to make MK a more attractive investment location.
41. The Topic Paper, and the subsequent summary of the comments on the Topic Paper provide a good overview of the fundamental transport challenges facing MK going forward. The preferred option stage of the plan will set out how it is intended to respond to them and the LTP will provide a policy framework for transport going forward.

PLAN:MK STRATEGIC DEVELOPMENT DIRECTIONS CONSULTATION ⁵

42. In The Council published Plan:MK Strategic Development Directions Consultation in January 2016 seeking views on the following vision for the future:

In the longer term MK could become a Place:

- That has grown and developed in a sustainable way that respects its original concepts whilst embracing innovation and change.
- That provides quality of life through opportunity and choice for all (a place for everyone).
- That has succeeded in achieving easy movement and access for all.
- That is recognised internationally as a prosperous and competitive economy benefiting from a wide ranging skill base.
- That has taken advantage of growth and change to benefit the citizens of Milton Keynes and the surrounding area.
- Where infrastructure needs have been met through the smart use of resources and technology.
- With an international profile and reputation as an attractive and forward thinking, ‘can do’ place.

⁴ Paragraphs 69 70 71 travel and transport topic paper.

⁵ www.milton-keynes.gov.uk/PlanMK

- With a variety of people belonging to diverse communities across the urban and rural area
43. The Consultation paper raises the possibility of introducing an integrated transport system serving CMK and beyond, perhaps using a light rail, tram, or monorail system, on the grid road reservations or elsewhere. It sets out the need to improve links between all key transport destinations and nodes in the city, including shopping, leisure and offices in the city centre, the hospital, the stadium, CMK rail/bus station and Bletchley rail station. This reflects its future role as an interchange with the East-West Rail Line. The paper also raises the need to address the implications of the further development of a logistics hub at Junction 13 of the M1.
44. The Consultation sets out four future growth options for consideration. These are:
- Direction of Growth 1: To the west, southwest, and/or south east of the city;
 - Direction of Growth 2: To the east of the M1 motorway (out of Borough);
 - Direction of Growth 3: One or more satellites settlements in MK's rural areas; and
 - Direction of Growth 4: Intensification and Redevelopment in the urban area.
45. Direction of Growth 1 option would lead to, and support, increases in the utilisation of the new East Rail service and might accelerate the regeneration of Bletchley. It would rely on upgrading the A421 to "expressway" standards and it is likely that there would be severe pressures on various grid road junctions. The same would apply to roads on the south east side of Milton Keynes and further investment would be required.
46. Direction of Growth 2 option could be summarised as the creation of a "mirror settlement," complete with its own community infrastructure on the east of the M1. This would require the creation of new road connections and would be served by stations on the East West rail line. It could provide an opportunity to demonstrate how a fully integrated public and private transport infrastructure could work. Most of this development would be in Central Bedfordshire not Milton Keynes.
47. Direction of Growth 3 option comprises one or more satellite settlements in the rural area of Milton Keynes. The option that is being tested is the creation of one or more satellite settlements of up to 15,000 homes which could have some dependence on neighbouring urban centres. In principle, these would be large enough to meet the daily and weekly needs of their residents. It is likely that many residents would commute to CMK to work.
48. Direction of Growth 4 focuses on the intensification and redevelopment of the existing urban area. This is unlikely to provide sufficient capacity alone if MK carries on seeking to develop 1,750 homes per annum through to 2050. With this option, it is not clear how much future employment growth would be accommodated alongside the necessary housing. However, by 2050, significantly increasing the density of the built up area would provide a much larger catchment population to support much better, low carbon public transport provision. But the improvement is unlikely to be sufficient to prevent a requirement for very substantial investment in the grid road system to accommodate the additional traffic.
49. The Consultation paper sets out, at a very high level, some of the transport and other implications of each of the options. Moreover, in many respects these options are not mutually exclusive and other options could easily be defined. As they are offered as four very high level options, they do not really address how investment could be attracted to MK to finance the introduction of

new transport innovations, and more generally how each of these options could improve the mobility for existing residents.

INTELLIGENT ON DEMAND MOBILITY – COMMISSION WORKING PAPER 11

50. This paper was prepared by Arup for the Commission. The report identifies the growing use of technology in active traffic management. It considers how intelligent systems help to enable low carbon transport systems. It shows how this depends on having a suitable infrastructure in place (the provision of charging points for electric vehicles). It assesses the prospects for various different “disruptive” technological innovations such as autonomous vehicles, on-demand shared services and “bullet trains.” It considers the potential for MK to introduce proven concepts such as city mobility and ride sharing applications for smart phones, parking information systems and public bicycle hire schemes. It considers the results of various pilots to promote the use of public transport and cycles.
51. Overall, illustrates that as a city, MK faces a fork in the road. If it chooses to do so, it can secure investment in the transport technologies that are already in use elsewhere, or are coming down the road, to enable the city to transition to a more sustainable, integrated transport system providing **mobility for all**. Or, it could build a reputation as a city which does not succeed in translating its numerous pilot schemes into coherent permanent improvements in mobility.

MOBILITY FOR ALL: IMPLICATIONS FOR THE AS BUILT, EXISTING CITY

52. The achievement of the vision as set out in the Plan: MK documents, and the introduction of new transport technologies will require new investment to enhance the existing, already built up city. In making these investments, it is absolutely essential to recognise, and then strengthen the city’s unique qualities – particularly the city’s parks and lakes (the linear park system, Campbell Park, the local parks etc.), the landscaped grid road network, the structure of Central Milton Keynes, and many others.
53. Yet, ensuring that MK over the long-term enables **mobility for all**, not just those with access to a private vehicle, will require boosting the **density of public transport catchments**, regardless of the technology. (As set out above, the low overall density of most residential areas has severely hampered efforts to provide high quality public transport so far.) In MK, this is a particularly sensitive issue which, in part, flows from a lack of recognition that even though gross densities in MK are low, net densities in some parts of the existing city are much higher. As parts of the city are redeveloped, through careful design, it will be possible to increase gross densities and thus boost public transport catchments without, in any way, damaging the unique qualities of MK.
54. MK Council has already recognised several opportunities to boost the density of the existing built city. The various city wide transport plans have highlighted the value, in principle, of promoting public transport corridors along certain grid roads. Also, MK Council recognises that the detailed plans for the seven estates included in the MK Regeneration programme are likely to feature a significant increase in the number of dwellings in these seven grid squares. The CMK Business Neighbourhood Plan recognises that the redevelopment of the older office buildings, and new office and residential buildings will be at higher densities.
55. In addition to seizing the opportunities to boost public transport catchments to provide mobility for all, there are at least two other implications for the “as built “city area. First, it will be necessary to consider, very carefully, the **locations for future employment growth** in order to

make the provision of better public transport possible. This will include recognising that **CMK is the city's "jewel in the crown"** offer to potential entrepreneurs and inward investors and considering whether job growth will have to take priority over housing in CMK itself. This also means recognising that one of the central premises of the original Plan for Milton Keynes – the dispersed employment areas throughout the city enabling more even peak time flows on the grid road network – has not been fully realised in practice. The city is, and will continue to be, **more reliant on the jobs provided in CMK** than was originally envisaged. MK has had the strongest growth of all UK city centers between 1998 and 2008.⁶ There may be some scope for promoting the redevelopment of some of the older employment areas for housing.

56. Second, there will be an ongoing need for very significant **investment in the grid road system and cycleway systems**. As well as the need for ongoing expenditure in maintenance and repairs, an ambitious programme of grid road junction improvements, and possibly even further dualling of some links, will be required to enable the network to operate efficiently. Of equal importance, investments to improve the nation's most extensive completely segregated cycleway stem to enable many more to use it, every day, for the journeys to work, to learn, and to shop, are urgently required. This will include building new links in the network in more visible locations to replace those which are seen as too isolated.

IMPROVING MOBILITY: KEY CHOICES TO 2050.

57. In building their alternative vision and a preferred vision, the Commissioners may wish to consider the following:
- How will the Commission's preferred vision celebrate, and protect, the city's **unique qualities** which are key to the City's success?
 - Does the Commission wish to accord particular priority to ensuring **mobility for all** in the way that MK fails to do so at present?
 - What are the implications of aspiring to mobility for all for the evaluation and selection of the **locations for the expansion** of MK and for **investment in the as built, existing city**?
 - Does the city need a new **"strategy for 2050?"**

58. Taking each of these in turn:

A UNIQUE VISION

59. MK Council's vision for the future of MK (as set above) is a sensible starting point. However, as written, this vision could describe anywhere in Europe, or beyond. Yet MK is truly unique and in offering a vision for MK to 2050, the Commissioners have an opportunity to celebrate the city's unique qualities. The Commissioners may wish to define these qualities themselves as well as feature the views of those advising the Commission through the engagement events now underway. In particular, Commissioners may wish to consider featuring improved "mobility for all" in their preferred vision.

DELIVERING MOBILITY FOR ALL

⁶ ONS 2013 Business Structure Database).

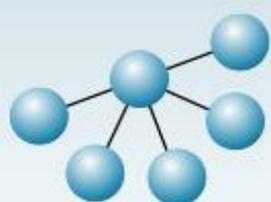
60. Often, it is difficult to translate a vision into policies, investments, and other actions which demonstrate how a vision will be realised. MK's experience over the past 40 years has shown it is not easy to secure lasting improvements in public transport, encourage the use of cycling, (and since 2000) even ensure that the grid road system offers congestion free motoring for all those with access to the car. It will be no less easy in future incremental implementation of existing policies at current levels of investment will see mobility decline.
61. If the Commissioners' vision features, "mobility for all," the Commissioners may also wish to be confident that their vision provides very clear pointers to how this will be realised. Of course, the Commission will not be offering a comprehensive transport plan for MK, but it can offer a set of principles which will guide delivery. The Commissioners may wish to define these principles.

IMPLICATIONS FOR THE NEW LOCATIONS FOR GROWTH AND THE AS BUILT EXISTING CITY

62. Some of these principles may refer to the new locations for growth. Others will refer to the "as built" city. For example, featuring "mobility for all" in the selection of new locations for growth would mean locations would be identified/configured in ways which directly contributed to creating public transport corridors, perhaps along the route of east-west rail, the A421 upgrade, and/or other transit proposals focused on CMK. Similarly, delivering a "mobility for all" concept across the "as built" existing city would mean encouraging development and redevelopment in the MK Regeneration estates, and along potential public transport corridors more generally. The Commissioners may wish to consider whether they wish to address the challenge of realising "mobility for all" in the selection of new locations for growth and in guiding investment in the as built existing city.

A NEW "STRATEGY TO 2050?"

63. Some stakeholders have already advised the Commission that the city needs a new Strategic Framework similar to the original comprehensive Plan for Milton Keynes, particularly if the city is going to continue to expand through to 2050. They see the Commission's work as potentially the start of the process of preparing such an approach and question whether the Plan:MK statutory planning process will provide the new comprehensive plan they envisage, particularly if much of the new development will take place in Aylesbury Vale and Central Bedfordshire.
64. The Commissioners may wish to consider such views are valid, whether a new "Strategy to 2050" is required and, if so, what should be addressed in it. For instance, the issues identified around infrastructure and mobility in this report will require considerably more detailed development. As part of building their preferred vision, the Commissioners could work with MK Council to specify the brief for such a strategy and agree how these could be addressed in the Plan:MK process.



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