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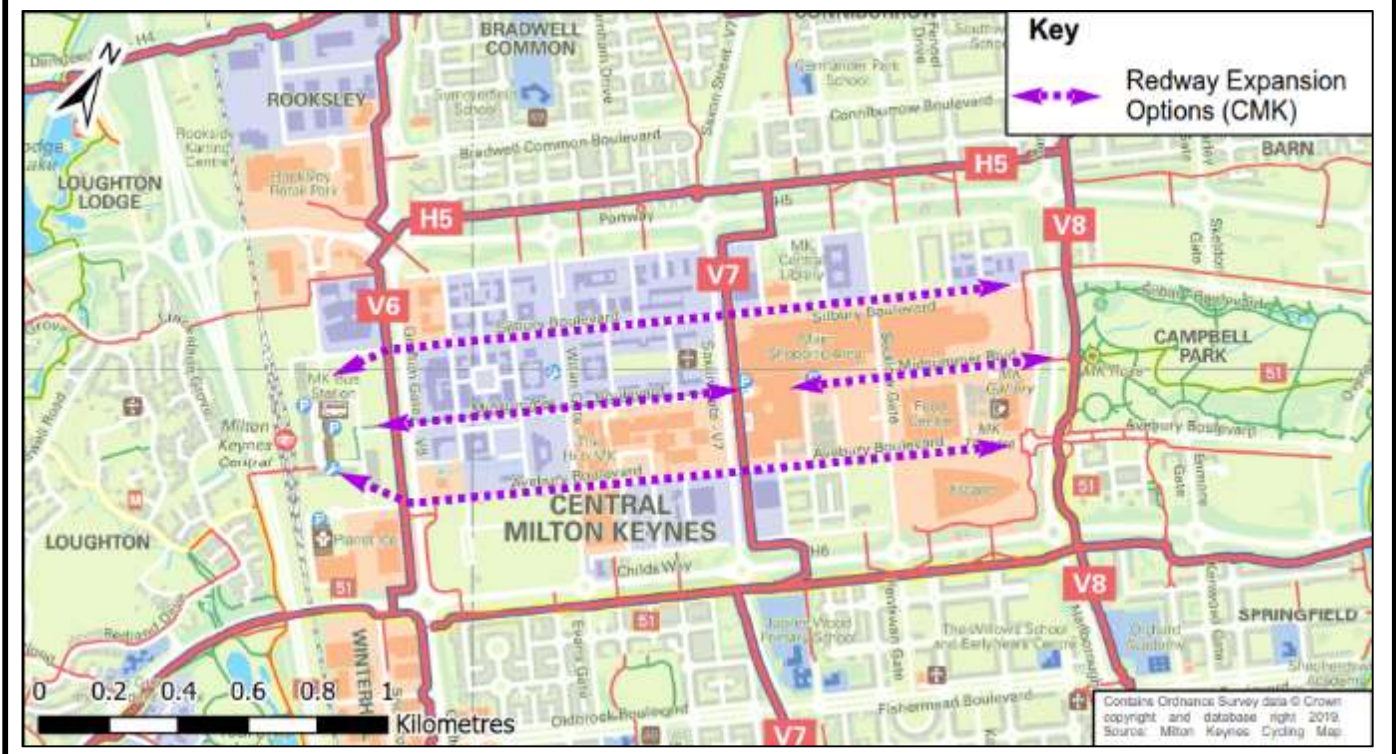
CONCEPT TYPE

Active Travel

CONCEPT NAME

1. Redway Expansion within Central Milton Keynes

INITIAL OPTION SKETCH



DESCRIPTION

Expansion of the existing Redway cycle routes into Central Milton Keynes. The extensions would provide direct, high-quality segregated cycle routes into Central Milton Keynes, and can be packaged with access to High-Quality Destination Cycle Parking (*Option 59*). Potential Redway expansion options include east-west segregated cycle routes connecting Milton Keynes Central Railway Station with Centre:MK / Intu Milton Keynes shopping centres and Campbell Park along Silbury Boulevard, Midsummer Boulevard or Avebury Boulevard.

<p>BENEFITS</p> <ul style="list-style-type: none"> ▪ Encourages modal shift within Milton Keynes with dedicated high-quality cycle facilities ▪ Improves access and connectivity to key employment, leisure and travel hubs ▪ Can be packaged with, and support, other Active Travel options 	<p>DISBENEFITS</p> <ul style="list-style-type: none"> ▪ Segregated cycle routes require adequate space, possibly at the expense of other road-users and potentially the removal of surface car park provision ▪ Potential for disruption within Central Milton Keynes during construction of Redway links
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<p>PROGRAMME</p> <ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<p>FUNDING OPTIONS</p> <ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ S106 Funding
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CONCEPT TYPE

Active Travel

CONCEPT NAME

3. New urban Redway Super Route links to fill gaps in the network

INITIAL OPTION SKETCH



Plan of Urban Redway Super Route Expansion Options overleaf

DESCRIPTION

The Redway Super Routes are 13 direct commuter routes (closely aligned to the grind network) linking key destinations. This option looks to continue the Redway Super Routes programme and provide additional links. Enhancements to the network include: improving wayfinding; cycle priority at junctions / side roads; surface quality enhancements; improving lighting (Council's city-wide LED street lighting programme); providing CCTV and taking opportunities to improve junction safety, reduce the number of crossings and remove street furniture obstructions.

BENEFITS

- Encourages modal shift within the urban areas with dedicated high-quality cycle facilities
- Reduces severance and improves connectivity to existing and planned growth areas
- Provides a continuous, high-quality network which would be an attractive option for users

DISBENEFITS

- Cycling infrastructure requires adequate space, possibly at the expense of other road-users

PROGRAMME

- Short term (1-5 years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- Central Government Funding Bids
- S106 Funding

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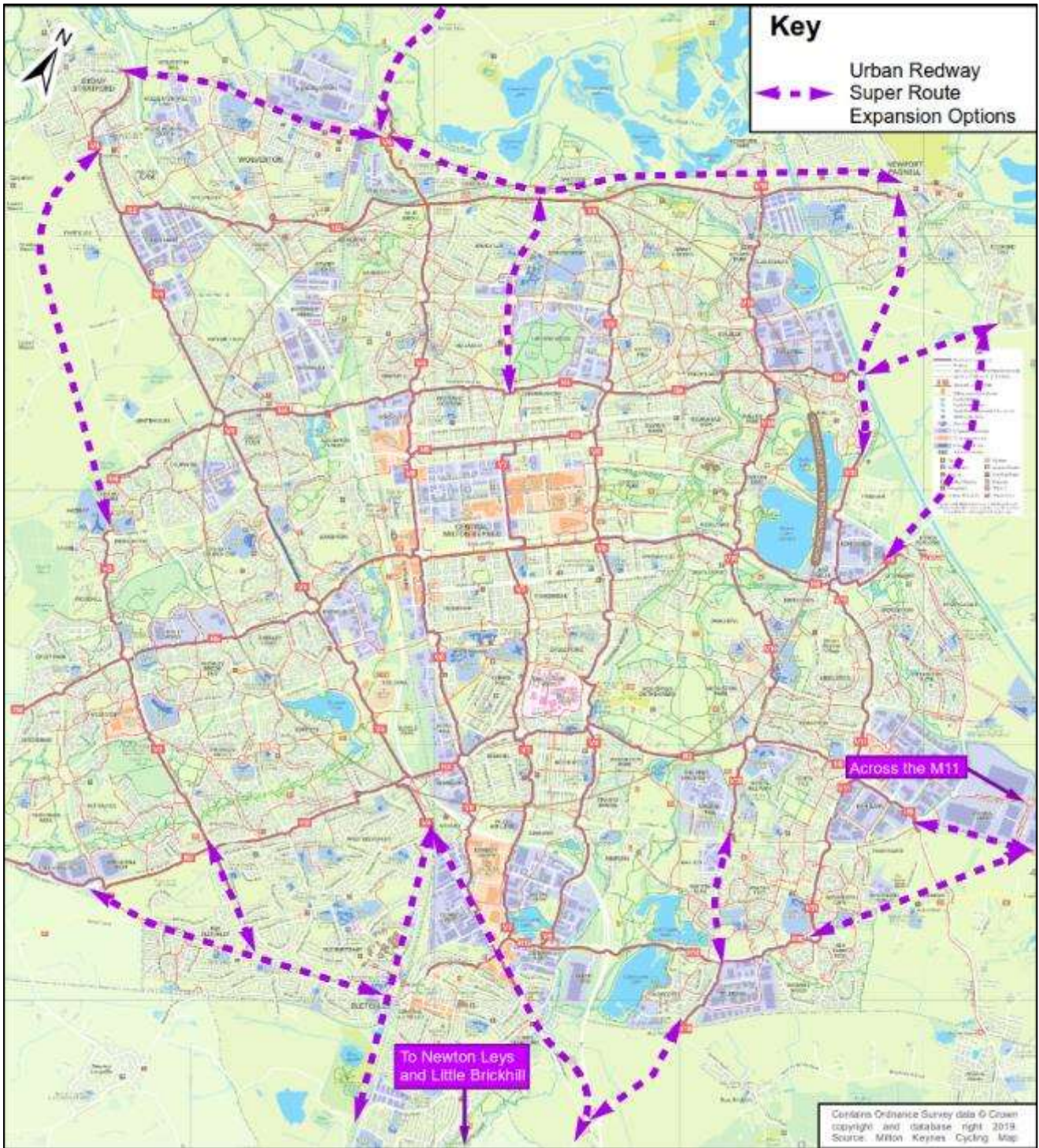
CONCEPT TYPE

Active Travel

CONCEPT NAME

New urban Redway Super Route links to fill gaps in the network – Option Plan

INITIAL OPTION SKETCH



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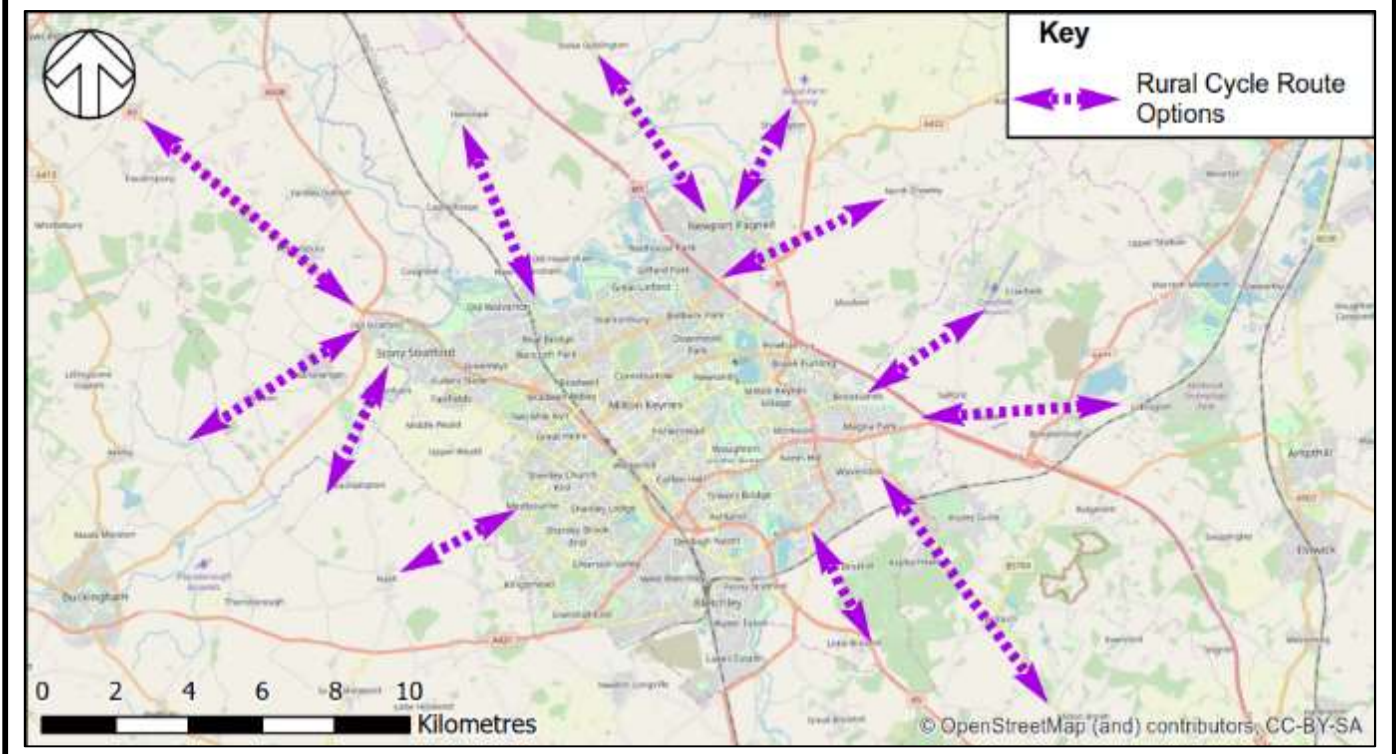
CONCEPT TYPE

Active Travel

CONCEPT NAME

4. New rural cycle routes connecting to villages / rural employment centres

INITIAL OPTION SKETCH



DESCRIPTION

Expansion of existing cycle routes, beyond Milton Keynes, to provide a network of longer-distance cycle routes connecting to villages and rural employment centres and encourage the uptake of cycling. Potential rural cycle route corridors include: Wolverton to Hanslope; Newport Pagnell to Stoke Goldington; Newport Pagnell to Sherington; Brooklands to Cranfield; Magna Park to Lidlington; Wavendon to Milton Bryan; Bow Brickhill Railway Station to Little Brickhill; Stony Stratford to Beachampton and from Old Stratford along the A5.

<p>BENEFITS</p> <ul style="list-style-type: none"> ▪ Encourages modal shift within the rural areas with dedicated high-quality cycle facilities ▪ Improves safety, connectivity and journey quality for cyclists in rural areas 	<p>DISBENEFITS</p> <ul style="list-style-type: none"> ▪ Uptake of cycling in rural areas may be limited due to distances required to travel to key attractors
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<p>PROGRAMME</p> <ul style="list-style-type: none"> ▪ Medium-term (5-10 years) 	<p>FUNDING OPTIONS</p> <ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ S106 Funding
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CONCEPT TYPE	
Active Travel	
CONCEPT NAME	
5. Redway Maintenance	
INITIAL OPTION SKETCH	
DESCRIPTION	
<p>Increase the level of maintenance of the Redway routes to uphold the attractiveness to users. Maintenance measures would include: surface quality enhancements to provide a smoother journey; cutback of overhanging and overgrown vegetation to recommended heights improving visibility and safety and implementing new approaches to prioritise maintenance, cleaning, resurfacing and winter gritting for the Redway routes.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Encourages modal shift by providing an attractive, well-maintained cycle network Improves safety, visibility and journey quality across the Redway network for users 	<ul style="list-style-type: none"> Requires a programme of maintenance to be funded and implemented on a regular basis Requires a continuous, high-quality network throughout to be an attractive option for users
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Short-term (1-5 years) 	<ul style="list-style-type: none"> Milton Keynes Council
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CONCEPT TYPE

Active Travel

CONCEPT NAME

6. Redway Network Upgrades (all routes)

INITIAL OPTION SKETCH



Image source: <https://segd.org/cycle-trail-signage-and-environmental-graphics>

DESCRIPTION

Upgrade the existing Redway network to increase the attractiveness to users. Potential measures include: improving wayfinding; increasing the width of heavily utilised sections to 5m; cycle priority at junctions / side roads; surface quality enhancements; improving lighting (Council’s city-wide LED street lighting programme); providing CCTV and taking opportunities to improve junction safety, reduce the number of crossings and remove street furniture obstructions.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift by providing an attractive, high-quality cycle network ▪ Improves safety, wayfinding and journey quality across the Redway network for users 	<ul style="list-style-type: none"> ▪ Requires a continuous, high-quality network throughout to be an attractive option for users

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ S106 Funding

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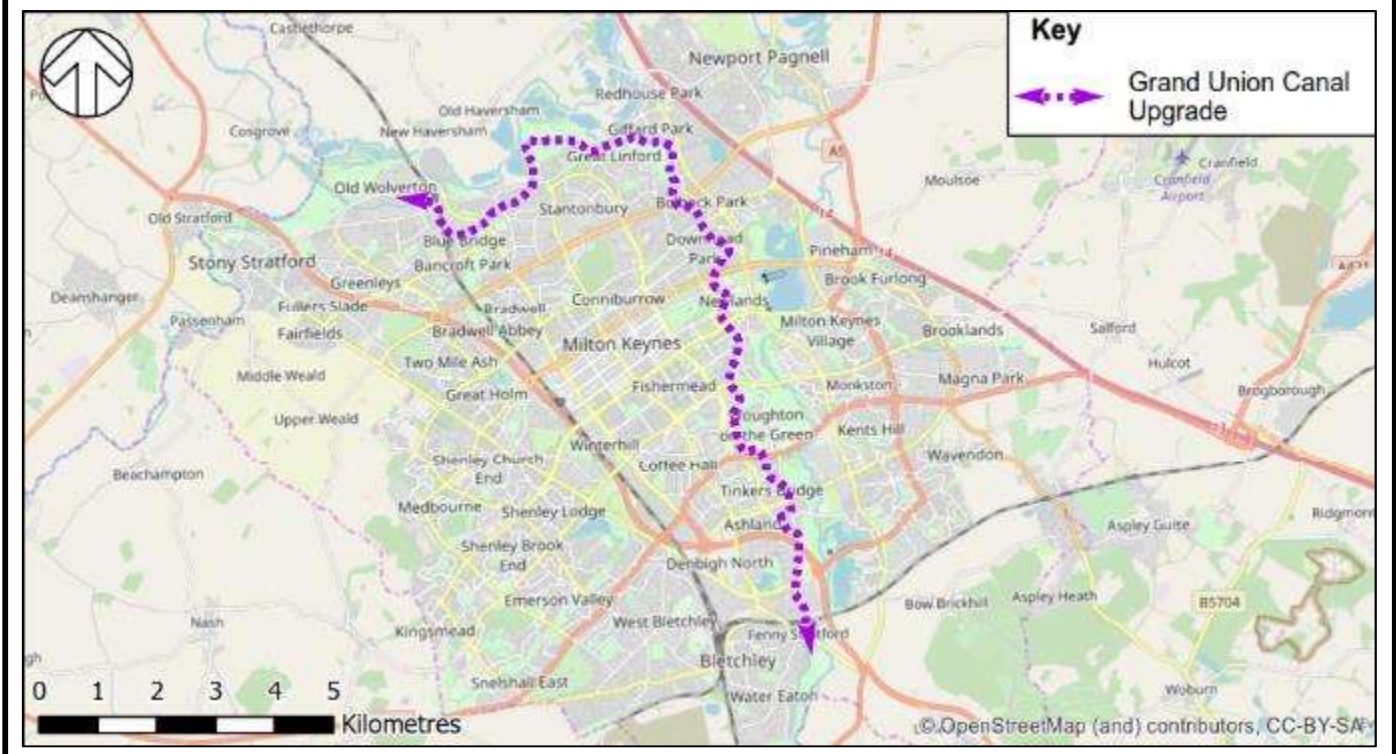
CONCEPT TYPE

Active Travel

CONCEPT NAME

7. Grand Union Canal (Wolverton) Upgrade

INITIAL OPTION SKETCH



DESCRIPTION

Upgrade the quality of the Grand Union Canal towpath, through Milton Keynes to Wolverton Railway Station, in order to improve connectivity and accessibility and encourage walking and cycling. Potential upgrade measures include: surface quality enhancements to provide a smoother journey; cutback of overhanging and overgrown vegetation; improving lighting and providing CCTV along the route for safety purposes.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift by providing an attractive, off-road alternative route for non-motorised users ▪ Improves journey quality and safety for non-motorised users along the towpath 	<ul style="list-style-type: none"> ▪ Requires a continuous, high-quality route throughout to be an attractive option for users ▪ Potential to increase conflict between pedestrians and cyclists with greater usage

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Canals Trust

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CONCEPT TYPE

Active Travel

CONCEPT NAME

8. Milton Keynes Council Cycle Loan Scheme

INITIAL OPTION SKETCH



Image source: <https://www.lewisham.gov.uk/myservices/transport/cycling/Pages/Cycle-loan-scheme.aspx>

DESCRIPTION

Introduction of a cycle loan scheme (implemented and operated by Milton Keynes Council or a partner organisation). The scheme would include a range of cycles to suit all individuals, including adapted cycles and e-Bikes. The cycles can be located at Park & Ride Sites (*Option 32*), Park & Pedal Sites (*Option 12*) and Travel Hubs (*Options 25-27*), or be available direct from the scheme provider. Initiatives, such as trial periods, free hire to the unemployed and reduced prices for low-income groups could be implemented to encourage greater uptake.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift by providing access to an affordable alternative mode of transport ▪ Improves the relationship between Milton Keynes Council and members of the public 	<ul style="list-style-type: none"> ▪ Requires packaging with cycle route / infrastructure improvements to encourage uptake ▪ Potential to compete with other cycle schemes within Milton Keynes reducing uptake

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ Charity ▪ Community Company

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CONCEPT TYPE

Active Travel

CONCEPT NAME

9. Expand Santander Cycle Scheme

INITIAL OPTION SKETCH

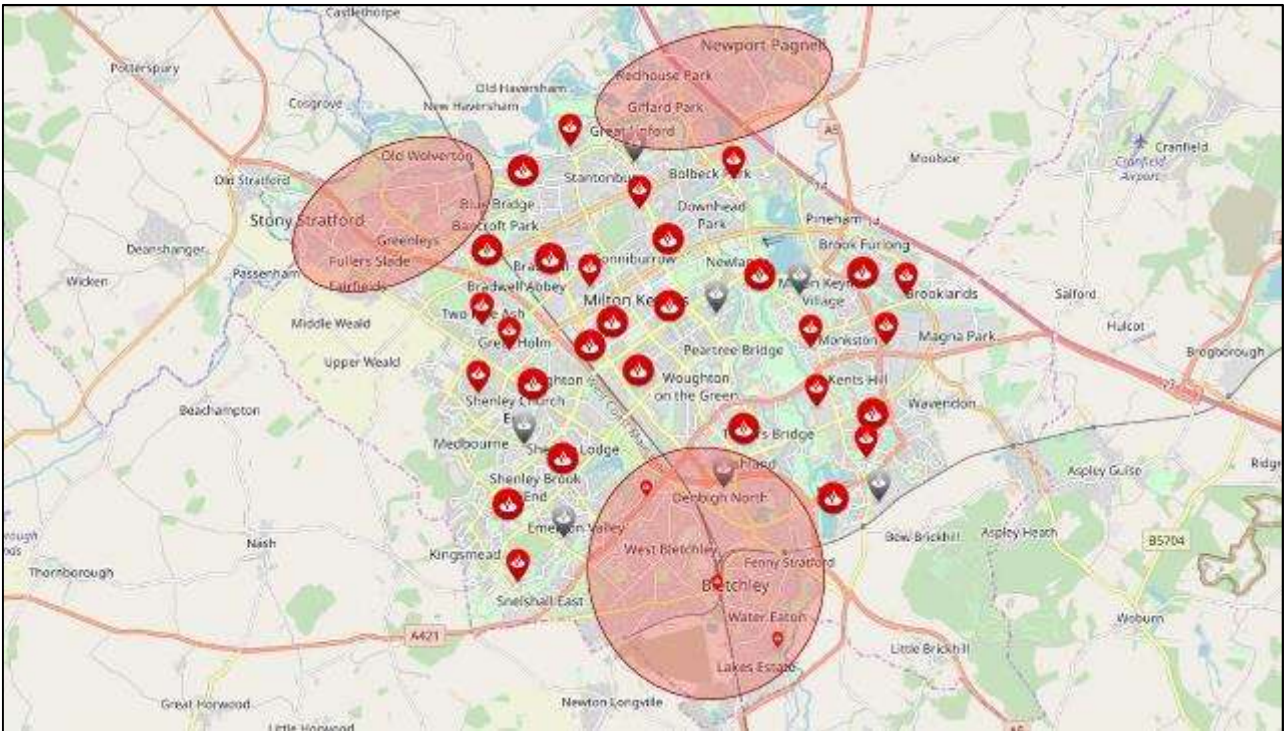


Image source: <https://www.santandercycles.co.uk/find-a-bike>

DESCRIPTION

The Santander Cycle scheme is a commercially operated docked bike hire scheme. Currently, the scheme has over 40 docking stations and 300 cycles across Milton Keynes. This option looks to expand and promote the existing scheme to cover a larger area, whilst also developing the scheme further to offer e-Bikes. The scheme could be expanded in conjunction with the introduction of Park & Ride Sites (*Option 32*), Park & Pedal Sites (*Option 12*) and Travel Hubs (*Options 25-27*).

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift by providing access to an affordable alternative mode of transport ▪ Potential to expand and support other transport infrastructure and growth areas 	<ul style="list-style-type: none"> ▪ Requires packaging with cycle route / infrastructure improvements to encourage uptake ▪ Requires investment and backing from cycle scheme operators

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<ul style="list-style-type: none"> ▪ Santander / Scheme Operator

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CONCEPT TYPE	
Active Travel	
CONCEPT NAME	
10. Encourage Dockless Cycle Schemes	
INITIAL OPTION SKETCH	
<small>Image source: http://www.oxfordtoday.ox.ac.uk/news/2017-08-23-dockless-bikes-arrive-oxford-and-theyre-free</small>	
DESCRIPTION	
<p>Introduction of dockless cycle hire schemes, for example, MoBike and Ofo. The scheme would require registration via a smartphone application, with the ability to locate and track the cycles. The scheme could also include a strategy for geofencing (the use of GPS to create a virtual geographic boundary), enabling software to trigger a response when a cycle leaves the scheme area. The scheme could be expanded in conjunction with the introduction of Park & Ride Sites (<i>Option 32</i>), Park & Pedal Sites (<i>Option 12</i>) and Travel Hubs (<i>Options 25-27</i>).</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Encourages modal shift by providing an accessible and affordable alternative mode of transport Potential to expand and support other transport infrastructure and growth areas 	<ul style="list-style-type: none"> Requires packaging with cycle route / infrastructure improvements to encourage uptake Requires investment and backing from dockless cycle operators
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Short-term (1-5 years) 	<ul style="list-style-type: none"> Scheme Operators
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CONCEPT TYPE	
Active Travel	
CONCEPT NAME	
11. Electric Scooter Schemes	
INITIAL OPTION SKETCH	
 <p><small>Image source: https://www.brisbanetimes.com.au/politics/queensland/authorities-warn-electric-scooter-users-could-be-fined-10-000-20181114-p50g1f.html</small></p>	
DESCRIPTION	
<p>Introduction of shared electric scooter hire schemes, for example, Lime. The scheme would require registration via a smartphone application, with the ability to locate and track the scooters. The scheme could also include a strategy for geofencing (the use of GPS to create a virtual geographic boundary), enabling software to trigger a response when a scooter leaves the scheme area. Currently, scooters are defined as ‘power transporters’, which can only be used legally on private land.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Encourages modal shift by providing access to an affordable alternative mode of transport Potential to expand and support other transport infrastructure and growth areas 	<ul style="list-style-type: none"> Requires legislation changes as currently scooters can only be legally used on private land Safety concerns with potential conflicts with pedestrians and other road users
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Medium-term (5-10 years) 	<ul style="list-style-type: none"> Scheme Operators
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CONCEPT TYPE	
Active Travel	
CONCEPT NAME	
12. Park & Pedal Sites	
INITIAL OPTION SKETCH	
 <p style="text-align: right; font-size: small;">Image source: https://www.jackfm.co.uk/news/oxfordshire-news/commuters-in-oxford-encouraged-to-get-on-their-bikes/ Plan of Park & Pedal Sites Zone overleaf</p>	
DESCRIPTION	
<p>Implementation of Park & Pedal facilities at the existing Coachway Park & Ride site and any future Park & Ride Sites (<i>Option 32</i>), Travel Hubs (<i>Options 25-27</i>) or as standalone facilities. Potential Park & Pedal Sites would be located on the periphery of the city, where suitable car parking provision is available, and in close proximity to a Redway. The infrastructure would include: secure cycle parking for privately owned or hired cycles; lockers; changing facilities; showers; cycle maps; tools and pumps.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift by providing high-quality facilities for cyclists along key corridors ▪ Potential to expand and support other transport infrastructure and growth areas 	<ul style="list-style-type: none"> ▪ Requires packaging with cycle route / infrastructure improvements to encourage uptake ▪ Requires significant infrastructure and continual maintenance to ensure the upkeep of the facilities
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium-term (5-10 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids
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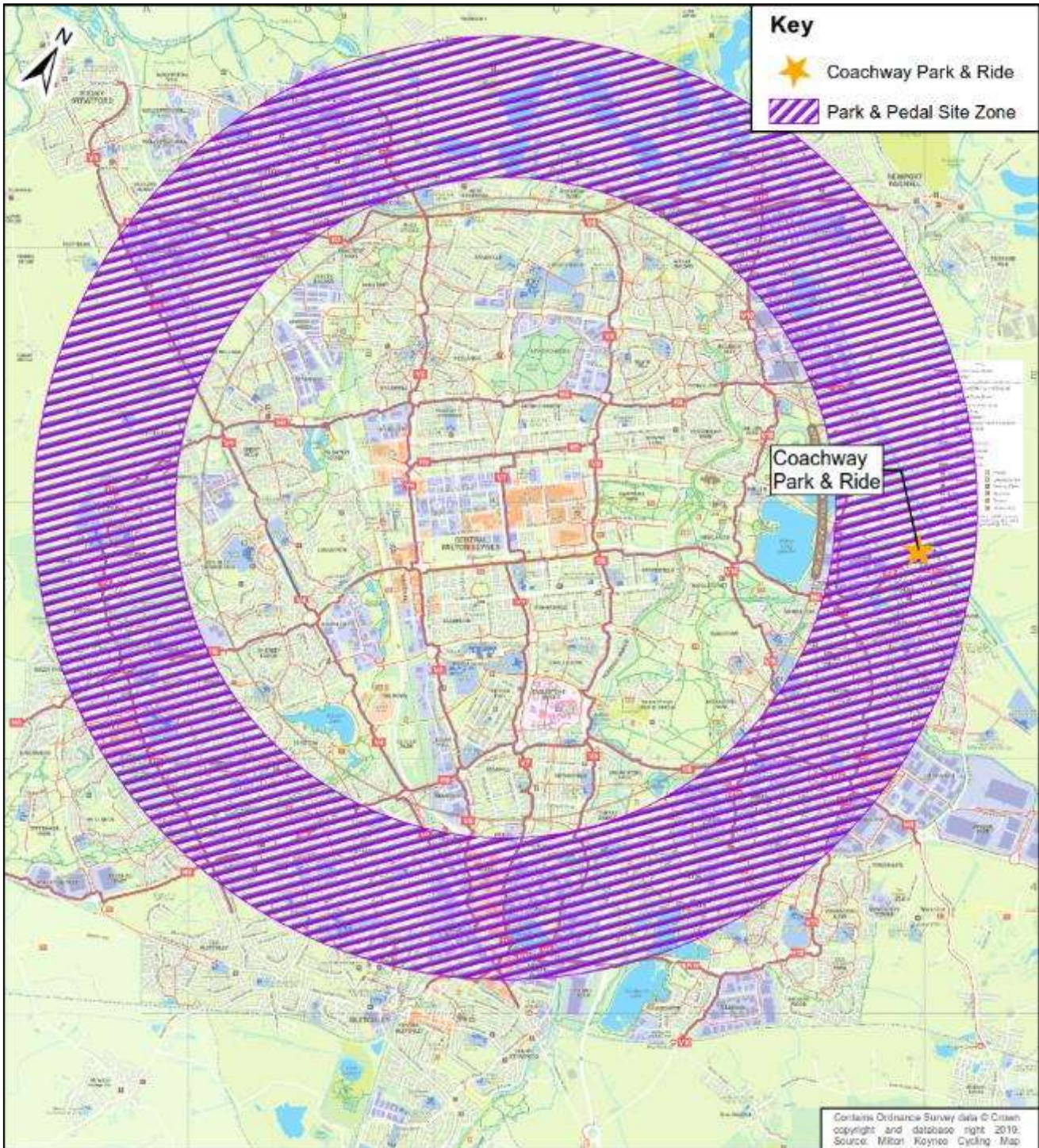
CONCEPT TYPE

Active Travel

CONCEPT NAME

Park & Pedal Sites – Option Plan

INITIAL OPTION SKETCH



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CONCEPT TYPE	
Active Travel	
CONCEPT NAME	
13. Cycle Training	
INITIAL OPTION SKETCH	
<p style="text-align: right; font-size: small;">Image source: http://www.outspokentraining.co.uk/bikeability</p>	
DESCRIPTION	
<p>Fund cycle training for businesses, schools and local communities through the Bikeability programme. The programme looks to provide trainees with an understanding of how to cycle on roads safely, whilst learning the practical skills to gain confidence in cycling on the road. The programme has a variety of levels which take trainees from the basics of balance and control, to planning and undertaking an independent journey.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift by educating and developing cycling skills ▪ Programme has the ability to reach a wide demographic and is readily available ▪ Increases cycle user safety, awareness and confidence 	<ul style="list-style-type: none"> ▪ Requires participation from businesses, schools and location communities to be successful ▪ Requires packaging with cycle loan / hire schemes to encourage uptake
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ Charity ▪ Community Company
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CONCEPT TYPE

Active Travel

CONCEPT NAME

14. District Centre Public Realm Improvements

INITIAL OPTION SKETCH



Image source: <http://www.crossrail.co.uk/news/articles/first-crossrail-public-realm-improvements-delivered>

DESCRIPTION

Improve the quality of the public realm in key destinations, including Central Milton Keynes, Wolverton and Bletchley town centres to facilitate and encourage active travel. Improvements could include pedestrianisation as a way to reduce the dominance of the car and create a friendly environment for non-motorised users. Improving the public realm, particularly in Central Milton Keynes will encourage walking and could increase retail footfall and open-up opportunities for al-fresco dining, pop-up events and community space.

BENEFITS

- Encourages modal shift by reducing the dominance of cars within key destinations
- Creates a friendly, safe and healthy environment for users with the potential to drive economic growth

DISBENEFITS

- Improvements for pedestrians / cyclists requires space, possibly at the expense of other road-users
- Potential to increase conflict between pedestrians and cyclists if shared spaces are introduced

PROGRAMME

- Medium-term (5-10 years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- Central Government Funding Bids
- S106 Funding

CONCEPT TYPE

Active Travel

CONCEPT NAME

15. Wayfinding

INITIAL OPTION SKETCH



Image source: <https://www.atkinsglobal.com/en-gb/projects/legible-london>

DESCRIPTION

Implementation of a comprehensive wayfinding strategy, for example, Legible London. The wayfinding strategy would provide a consistent set of information totems with local maps, walking and cycling times and directions to key local destinations. The wayfinding markers would be situated in key strategic locations on the main pedestrian and cycle routes (Redways). The strategy should be integrated with other modes of transport so that users can quickly identify a route to their destination.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift by providing standardised information for non-motorised users ▪ Improves safety, wayfinding and journey quality across the network for users 	<ul style="list-style-type: none"> ▪ Requires a comprehensive and consistent strategy across the network to operate effectively ▪ Requires packaging with cycle route / pedestrian improvements to encourage uptake

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ S106 Funding

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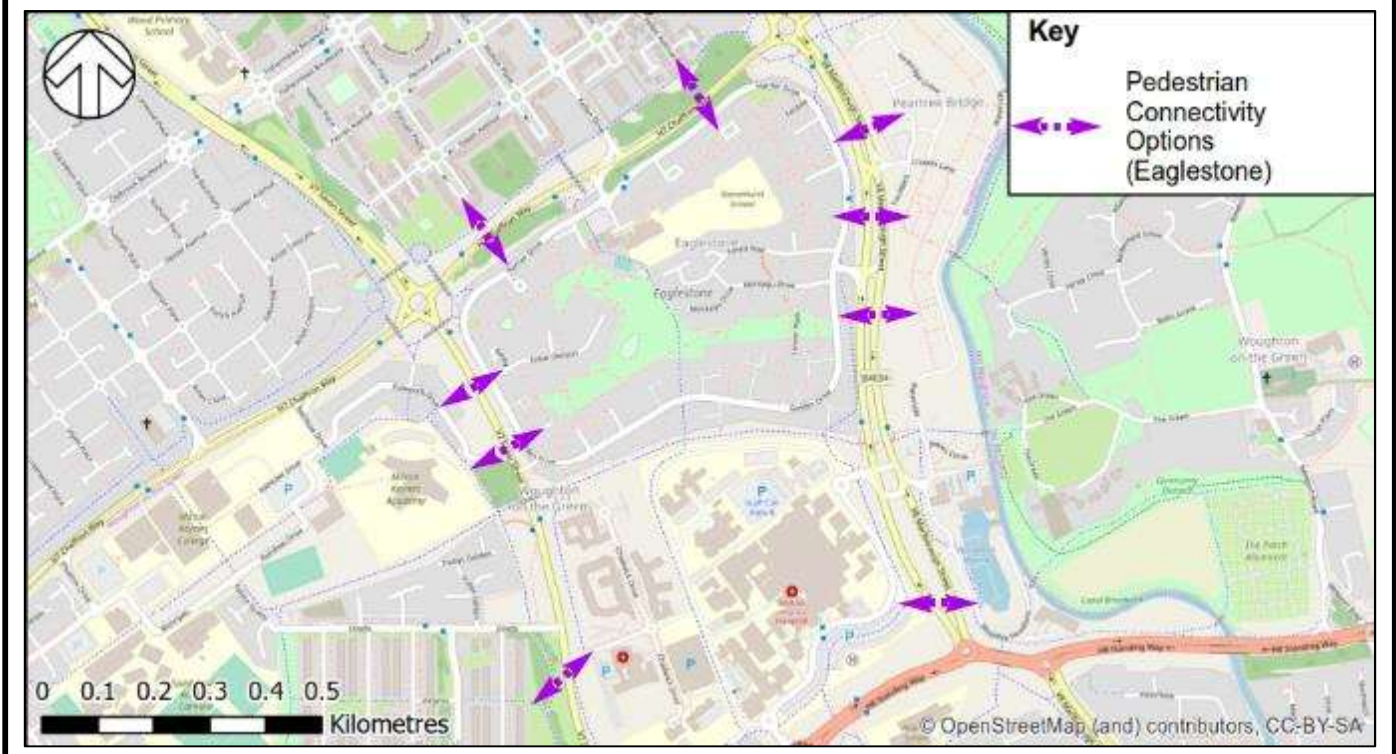
CONCEPT TYPE

Active Travel

CONCEPT NAME

16. Local Pedestrian Community Connectivity Improvements

INITIAL OPTION SKETCH



DESCRIPTION

Implementation of a permeable network of direct, open and overlooked pedestrian routes that embrace the principles of the Manual for Streets. The pedestrian routes would be attractive to users by providing local connectivity to schools, shops, adjacent residential areas and communities and high quality public transport. The pedestrian network would provide high-quality surface crossings that reduce the existing severance caused by the grid road network between neighbouring communities.

<p>BENEFITS</p> <ul style="list-style-type: none"> Encourages modal shift by providing an attractive, well-maintained pedestrian network Reduces severance and improves connectivity to residential, leisure and employment areas 	<p>DISBENEFITS</p> <ul style="list-style-type: none"> Walking infrastructure requires adequate space, possibly at the expense of other road-users Requires a continuous, high-quality network throughout to be an attractive option for users Introduces at-grade crossings on the grid-road network
<p>PROGRAMME</p> <ul style="list-style-type: none"> Medium-term (5-10 years) 	<p>FUNDING OPTIONS</p> <ul style="list-style-type: none"> Milton Keynes Council South East Midlands Local Enterprise Partnership Central Government Funding Bids S106 Funding

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CONCEPT TYPE

Active Travel

CONCEPT NAME

17. Cycling Centre of Excellence and Sports Facilities

INITIAL OPTION SKETCH



Image source: <http://www.etrnow.com/news/2012/4/adlib-installs-sound-system-for-bmx-centre-at-national-cycling-centre>

DESCRIPTION

Construction of a new facility to cater for all types of cycle sport, including: cyclo-cross; road BMX; mountain biking and more. A centre of excellence and sports facilities for cycling could promote cycling as a sustainable mode of transport, as well as increasing activity of local communities creating health benefits. The provision of cycle sport facilities in new developments is also encouraged as well as providing local facilities for Cycle Training (*Option 13*).

BENEFITS

- Encourages modal shift by providing high-quality dedicated facilities linked to active travel modes
- Improves community facilities with multi-purpose use and promotes a healthier lifestyle

DISBENEFITS

- Requires an initial substantial funding investment to construct the centre
- Limited to cycle sports reducing the potential usage compared with a multi-purpose sports centre

PROGRAMME

- Short term (1-5 years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- British Cycling
- Sport England

CONCEPT TYPE

Active Travel

CONCEPT NAME

18. Bedford to Milton Keynes Waterway

INITIAL OPTION SKETCH

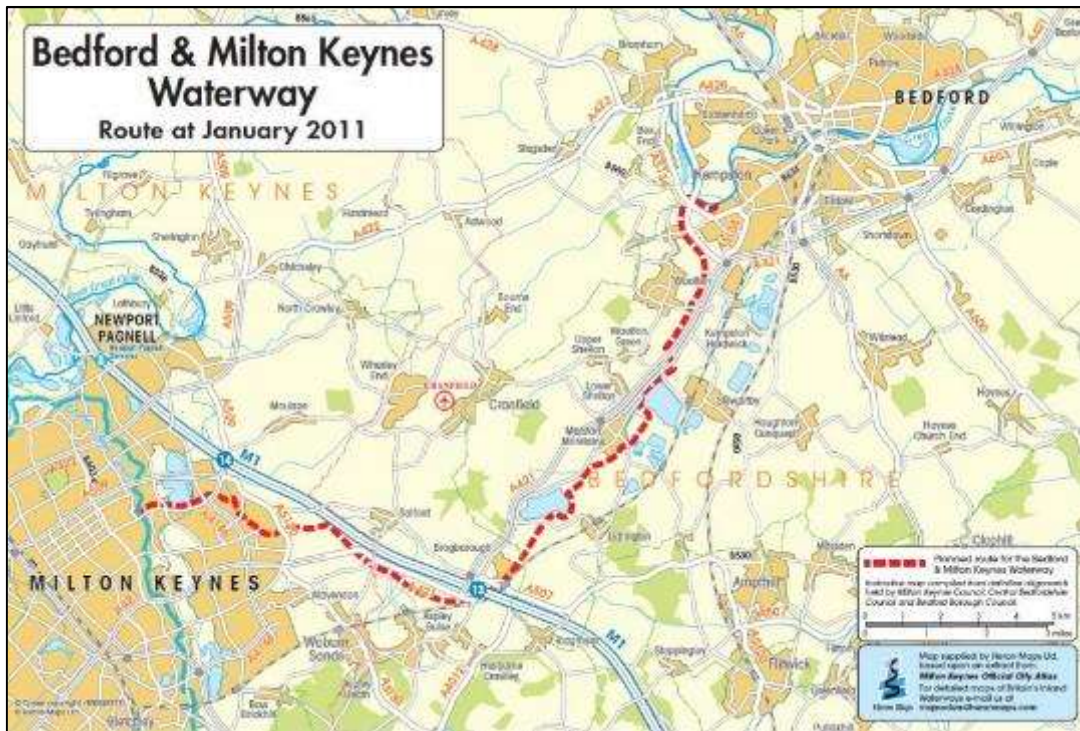


Image source: <http://www.b-mkwaterway.org.uk/the-waterway/route/>

DESCRIPTION

Delivery of a new twenty-mile waterway to connect the River Great Ouse at Bedford to the Grand Union Canal at Milton Keynes, creating a permanent green / blue corridor through Bedfordshire. The route would provide high-quality walking and cycling routes including standardised wayfinding totems, lighting and CCTV along the route for safety purposes. This option would encourage active travel whilst preserving and enhancing the natural environment. The scheme requires a culvert under the A421 which is currently unfunded.

BENEFITS

- Provides an attractive walking and cycling route and enhances the local environment
- Supports economic growth through the provision of jobs to locals and tourism

DISBENEFITS

- Requires infrastructure to traverse the A421 which is currently unfunded
- Requires a continuous, high-quality and well-maintained route to be an attractive option for users

PROGRAMME



- Long-term (10+ years)

FUNDING OPTIONS

- Councils (Bedford, Central Bedfordshire & MK)
- South East Midlands Local Enterprise Partnership
- Central Government Funding Bids

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CONCEPT TYPE	
Behaviour Change	
CONCEPT NAME	
19. Employment Travel Planning	
INITIAL OPTION SKETCH	
<small>Image source (top): https://www.travelplanplus.org.uk/employer-news1/travel-plan-plus-steering-group Image source (bottom): https://www.travelplanplus.org.uk/tp-steering-group.html</small>	
DESCRIPTION	
<p>Provision of a dedicated Travel Plan team that engages with local businesses to promote sustainable travel for employees and deliveries. This can include working with employers to implement, monitor and update Travel Plans and develop measures through stakeholders and working with public transport operators. The offer can be to individual businesses, but can also be up-scaled to cover business parks, through the development and implementation of area-wide Travel Plans, providing park-wide measures and monitoring.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Encourages modal shift to more sustainable modes of travel reducing congestion and journey times Economic growth from reduced business costs associated with deliveries and business travel 	<ul style="list-style-type: none"> Requires ongoing monitoring and management resulting in staff costs Businesses will require specific travel plans tailored to their employees and delivery needs
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Short-term (1-5 years) 	<ul style="list-style-type: none"> Milton Keynes Council Business Contributions
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CONCEPT TYPE	
Behaviour Change	
CONCEPT NAME	
20. School Travel Planning	
INITIAL OPTION SKETCH	
 	
<p>Image source (top): https://www.modeshiftstars.org/stars-awards/ Image source (bottom): http://sustainable-schools-alliance.org.uk/modeshift-stars-awards/</p>	
DESCRIPTION	
<p>Provision of a dedicated Travel Plan Team that engages with schools to promote sustainable travel for staff and pupils. This will involve working with individual schools to develop a bespoke Travel Plan, implement measures and monitor their success. This could be linked to a policy requirement for all schools to implement a ModeStars Travel Plan and undertake annual monitoring. This option can also be linked to improved cycle routes (<i>Options 1-6</i>), High-Quality Destination Cycle Parking (<i>Option 59</i>) and reviewing school vehicle access and parking restrictions.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift to more sustainable modes of travel reducing congestion and journey times ▪ Promotes a healthier lifestyle for younger people 	<ul style="list-style-type: none"> ▪ Requires ongoing monitoring and management resulting in staff costs ▪ Schools will require specific travel plans tailored to their pupil and staff needs
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ School Contributions
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CONCEPT TYPE	
Behaviour Change	
CONCEPT NAME	
21. Mass Personalised Travel Planning	
INITIAL OPTION SKETCH	
<i>Image source: http://business.liftshare.com/products/workplace-travel-planning/</i>	
DESCRIPTION	
<p>Implementation of personalised residential travel planning. This involves conducting door-to-door interviews in residential areas and providing targeted Personalised Travel Plans, tailored to individual needs and requirements. The strategy is then followed up with monitoring surveys to assess the success of the plan. Personalised travel planning can be targeted at areas with high car dependency or low income. To be effective, this option needs to be linked with good quality sustainable travel options.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift to more sustainable modes of transport due to personalised strategies ▪ Promotes a healthier lifestyle and community for the targeted area 	<ul style="list-style-type: none"> ▪ Requires high-quality sustainable travel options within the targeted area ▪ Requires significant time and effort to gather data and implement individual travel plans
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids
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CONCEPT TYPE

Behaviour Change

CONCEPT NAME

22. Residential Travel Planning

INITIAL OPTION SKETCH



Image source: <https://www.smartertravel.uk.com/travel-information-packs-hopkins-homes/>

DESCRIPTION

Provision of a dedicated Travel Plan team that implement Residential Travel Plans for existing areas and review, monitor and enforce Travel Plans for new residential developments. This will involve working with developers and planners to ensure robust Travel Plans are secured, attractive infrastructure and sustainable transport options are delivered, post-implementation monitoring is completed and Travel Plans are reviewed.

BENEFITS

- Encourages modal shift to more sustainable modes of transport and reduces single occupancy car trips
- Development of accessible, connected and inclusive communities

DISBENEFITS

- Requires ongoing monitoring and management resulting in staff costs
- Requires specific travel plans tailored to each development with support from the developer

PROGRAMME

- Short-term (1-5 years)

FUNDING OPTIONS

- Milton Keynes Council
- S106 Funding

CONCEPT TYPE	
Behaviour Change	
CONCEPT NAME	
23. Sustainable Travel Incentives Scheme	
INITIAL OPTION SKETCH	
<p style="text-align: right; font-size: small;"><i>Image source: http://www.travelcambs.org.uk/</i></p>	
DESCRIPTION	
<p>Provision of a dedicated Travel Plan team that offers an extensive range of professional services, tools and resources designed to support and incentivise sustainable travel for residents and workers city-wide. This would be similar to the subscription-based 'Travel4Cambridgeshire' service that provides Travel Plan support, a car-sharing database, postcode mapping, annual web-based travel surveys, cycle training and maintenance incentives, journey planning and discounts on rail travel, cycle purchases and sports shops.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift to more sustainable modes of transport through attractive incentives ▪ Provision of a multi-use service that can be easily accessed by all residents and workers 	<ul style="list-style-type: none"> ▪ Requires technological services and applications which could result in significant economic costs ▪ Requires high-quality sustainable travel options / incentives within the across the city
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ Transport Operators ▪ S106 Funding
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CONCEPT TYPE

Behaviour Change

CONCEPT NAME

24. City-Wide Car / Cycle Share Scheme Database Tool

INITIAL OPTION SKETCH



DESCRIPTION

Implementation and promotion of a city-wide car-share / cycle-share scheme, by providing a free web-based matching service for both car and cycle journeys, for everyone who lives, works and travels in and around Milton Keynes. The database tool will also have the capability to match experienced cyclists with those less experienced who are keen to try cycling.

BENEFITS

- Reduces the number of single-occupancy car trips and reduces congestion and journey times
- Encourages a change in travel behaviour by providing a user-friendly, accessible tool
- Cost savings for scheme users

DISBENEFITS

- Potential to change travel behaviour limited due to rigidity of sharing modes of transport
- Concerns over personal safety and flexibility if circumstances change during the day

PROGRAMME

- Short-term (1-5 years)

FUNDING OPTIONS

- Milton Keynes Council
- Liftshare
- Private Operators

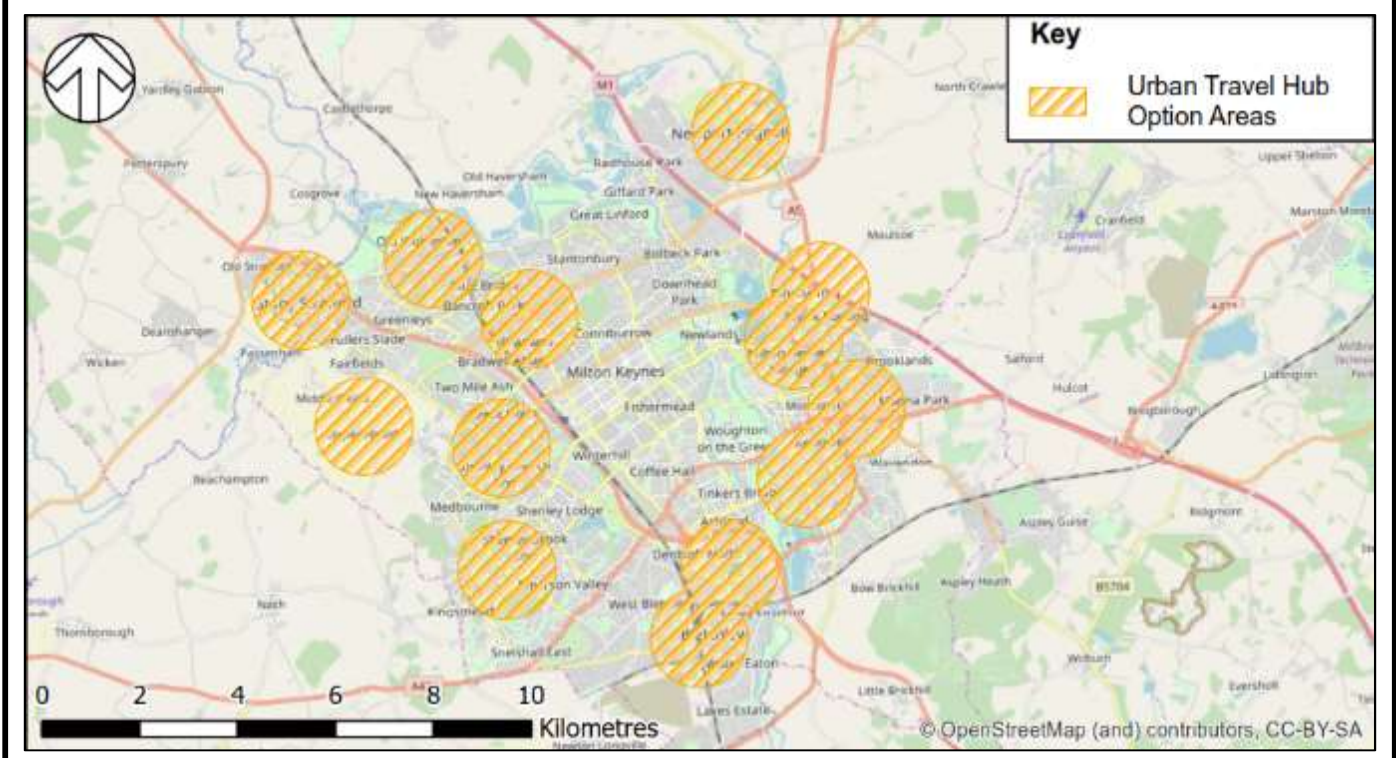
CONCEPT TYPE

Behaviour Change

CONCEPT NAME

25. Multi-Modal Urban Travel Hubs (edge of Milton Keynes urban area)

INITIAL OPTION SKETCH



DESCRIPTION

Implementation of multi-modal travel hubs in the urban communities providing access to sustainable transport options at local interchanges (could be achieved by combining Park & Ride Sites (*Option 32*) and Park & Pedal Sites (*Option 12*)). The urban travel hubs would provide: access to bus and Redway routes / expansions; car parking; cycle facilities (lockers, cycle parking) and real-time travel information. This option could also provide car-club vehicles, car-share points, cycle-share points, electric cycles and Demand Responsive Transit pick-up points.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift through improved public transport facilities ▪ Improves access to cycle infrastructure and increases local travel options 	<ul style="list-style-type: none"> ▪ Requires packaging with sustainable transport infrastructure to encourage use ▪ Cost of construction and management of a multi-modal travel hub is likely to be relatively high

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium-term (5-10 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ S106 Funding

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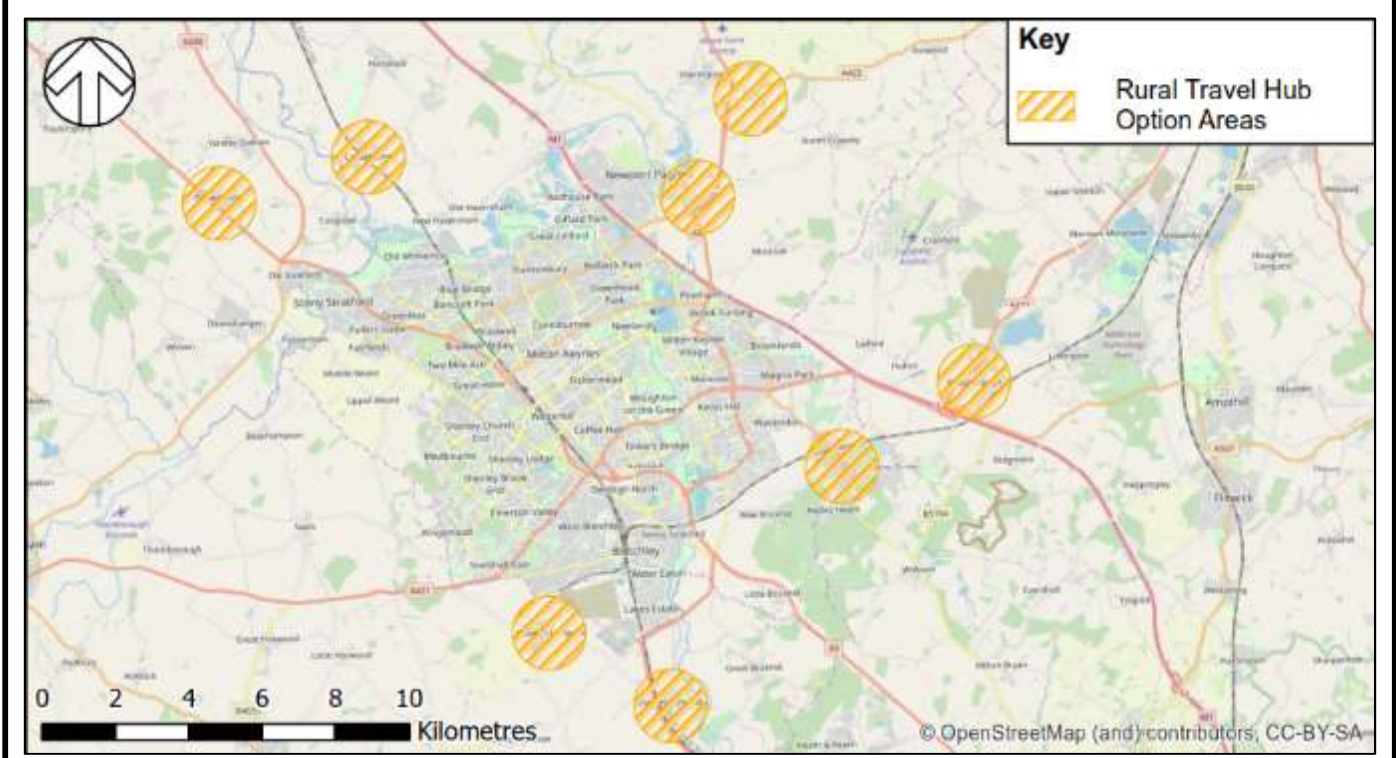
CONCEPT TYPE

Behaviour Change

CONCEPT NAME

26. Multi-Modal Rural Travel Hubs (villages around Milton Keynes district)

INITIAL OPTION SKETCH



DESCRIPTION

Implementation of multi-modal travel hubs in the rural settlements close to Milton Keynes, in order to intercept car trips and provide access to sustainable transport options at small, flexible transport interchanges. The rural travel hubs would provide: access to bus and Redway routes / expansions; car parking; cycle facilities (lockers, cycle parking) and real-time travel information. This option could also provide car-club vehicles, car-share points, cycle-share points, electric cycles and Demand Responsive Transit pick-up points.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift through improved public transport and cycle facilities ▪ Improves connectivity of rural settlements to Milton Keynes by sustainable modes 	<ul style="list-style-type: none"> ▪ Requires packaging with sustainable transport infrastructure to encourage use ▪ Cost of construction and management of a multi-modal travel hub is likely to be relatively high

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium-term (5-10 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ S106 Funding

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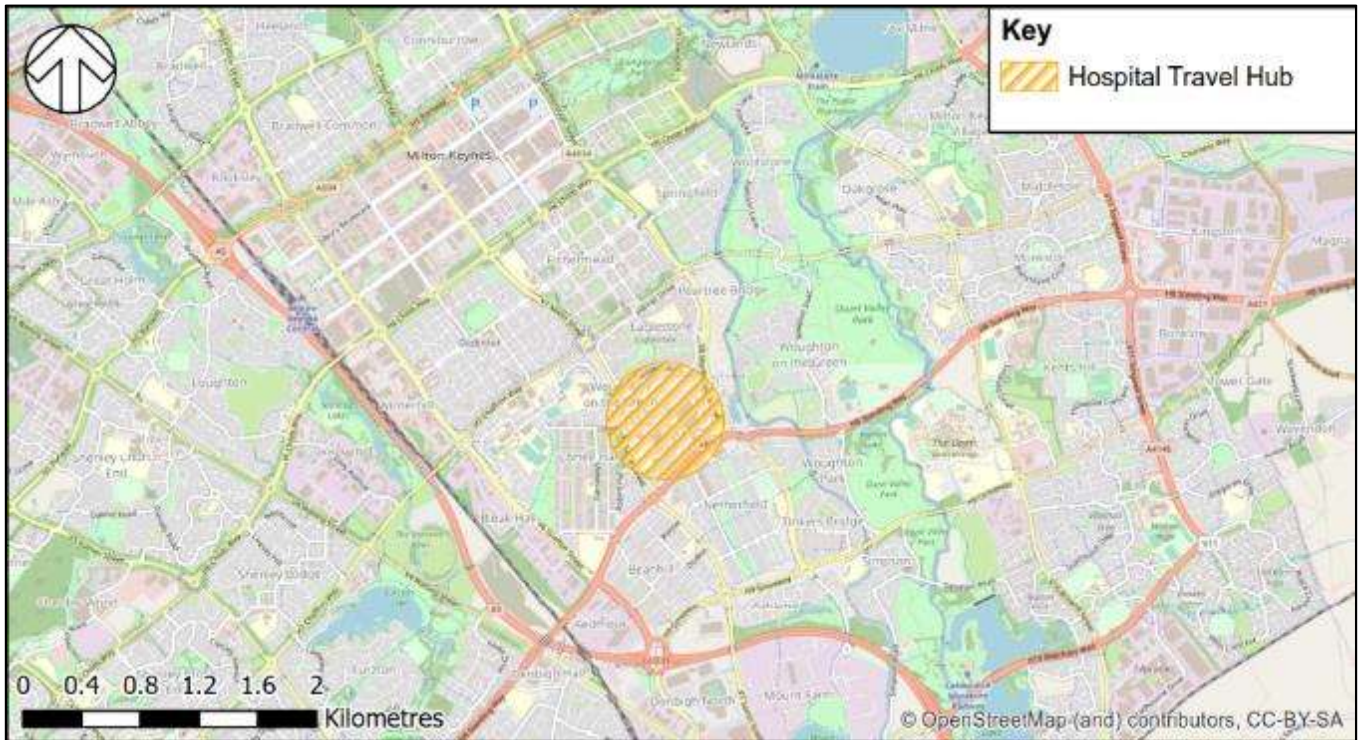
CONCEPT TYPE

Behaviour Change

CONCEPT NAME

27. Multi-Modal Hospital Travel Hub

INITIAL OPTION SKETCH



DESCRIPTION

Implementation of a multi-modal travel hub at Milton Keynes University Hospital providing access to sustainable transport options. The Travel Hub would provide: a bus interchange; high-quality waiting facilities; cycle-share points; cycle parking; car-share points and Demand Responsive Transit pick-up points.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift through improved public transport facilities ▪ Improves connectivity to public transport and sustainable modes at a key trip generating site 	<ul style="list-style-type: none"> ▪ Requires packaging with sustainable transport infrastructure to encourage use ▪ Cost of construction and management of a multi-modal travel hub is likely to be relatively high

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium-term (5-10 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ S106 Funding

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CONCEPT TYPE

Behaviour Change

CONCEPT NAME

28. Urban Car Clubs

INITIAL OPTION SKETCH



Image source: <https://como.org.uk/project/bristol-car-clubs/>

DESCRIPTION

Introduction of new and / or expansion of existing car clubs in Milton Keynes, located at new developments, community centres, employment locations, and Central Milton Keynes. Car clubs are a cheaper alternative to owning your own vehicle, and only require a membership to a car club company to get started. Use of the vehicles is carried out through online booking systems or on the telephone.

BENEFITS

- Potential financial savings for individuals and a reduction in the number of privately-owned vehicles
- Improves the local environment due to efficient and technologically advanced vehicle models

DISBENEFITS

- Reduces flexibility due to the requirement to book a vehicle in advance
- Requires a large fleet of car club vehicles to encourage a substantial change in behaviour

PROGRAMME

- Short term (1-5 years)

FUNDING OPTIONS

- Scheme Operators
- S106 Funding

CONCEPT TYPE

Behaviour Change

CONCEPT NAME

29. Rural Car Clubs

INITIAL OPTION SKETCH



Image source: <https://www.shopperpoints.co.uk/2017/10/18/zipcar-london-now-get-24-free-credit-plus-free-membership/>

DESCRIPTION


Introduction of a car club outside the built-up area of Milton Keynes. Rural car club schemes are typically run by Community Interest Companies (CIC), charities or Trusts, and provide a cheaper alternative to owning your own vehicle, and only require a membership to a car club company to get started. Use of the vehicles is carried out through online booking systems or on the telephone. Rural car clubs could make an important contribution to rural accessibility and reduce social exclusion.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Potential financial savings for individuals and a reduction in the number of privately-owned vehicles ▪ Improves the local environment due to efficient and technologically advanced vehicle models ▪ Improves rural accessibility and reduces social exclusion 	<ul style="list-style-type: none"> ▪ Reduces flexibility due to the requirement to book a vehicle in advance ▪ Requires a large fleet of car club vehicles to encourage a substantial change in behaviour ▪ Funding a lower use rural scheme

PROGRAMME	FUNDING OPTIONS
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<ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<ul style="list-style-type: none"> ▪ Scheme Operators ▪ S106 Funding
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CONCEPT TYPE	
Behaviour Change	
CONCEPT NAME	
30. Workplace User Charging	
INITIAL OPTION SKETCH	
	
<p><i>Image source: Parking Strategy for Central Milton Keynes (Milton Keynes Council, November 2013)</i></p>	
DESCRIPTION	
<p>Introduction of a workplace user car parking charge to encourage modal shift to more sustainable modes of travel for commuting and business journeys. Employers are responsible for paying the car parking charge, acting as an incentive for employers to manage their workplace parking provision. The revenue generated is then invested into sustainable transport measures.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Encourages employers to manage parking provision and support the use of sustainable transport modes Creates a direct revenue source that can be invested into sustainable transport measures 	<ul style="list-style-type: none"> Potentially detract from business investment in the local area due to charging enforcement Requires simultaneous funding for major transport infrastructure initiatives Costs associated with implementing, enforcing and processing payments
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Long-term (10+ years) 	<ul style="list-style-type: none"> Milton Keynes Council
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CONCEPT TYPE

Behaviour Change

CONCEPT NAME

31. Zero Emission Zone

INITIAL OPTION SKETCH



DESCRIPTION

Introduction of a Zero Emission Zone across Central Milton Keynes, banning the use of all petrol and diesel vehicles from the designated area. This option could be implemented in phases, excluding the most polluting vehicles from a smaller area initially, before increasing the area and vehicle types excluded from the central area as electric vehicle ownership and technology advances.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Creates a friendly, safe and healthy environment for Central Milton Keynes employees and residents Potential to expand and support other transport infrastructure and growth areas 	<ul style="list-style-type: none"> May require road network upgrades / car parking changes to facilitate vehicle redistribution Would have a substantial impact on current travel patterns / access to Central Milton Keynes

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Long-term (10+ years) 	<ul style="list-style-type: none"> Milton Keynes Council South East Midlands Local Enterprise Partnership Central Government Funding Bids

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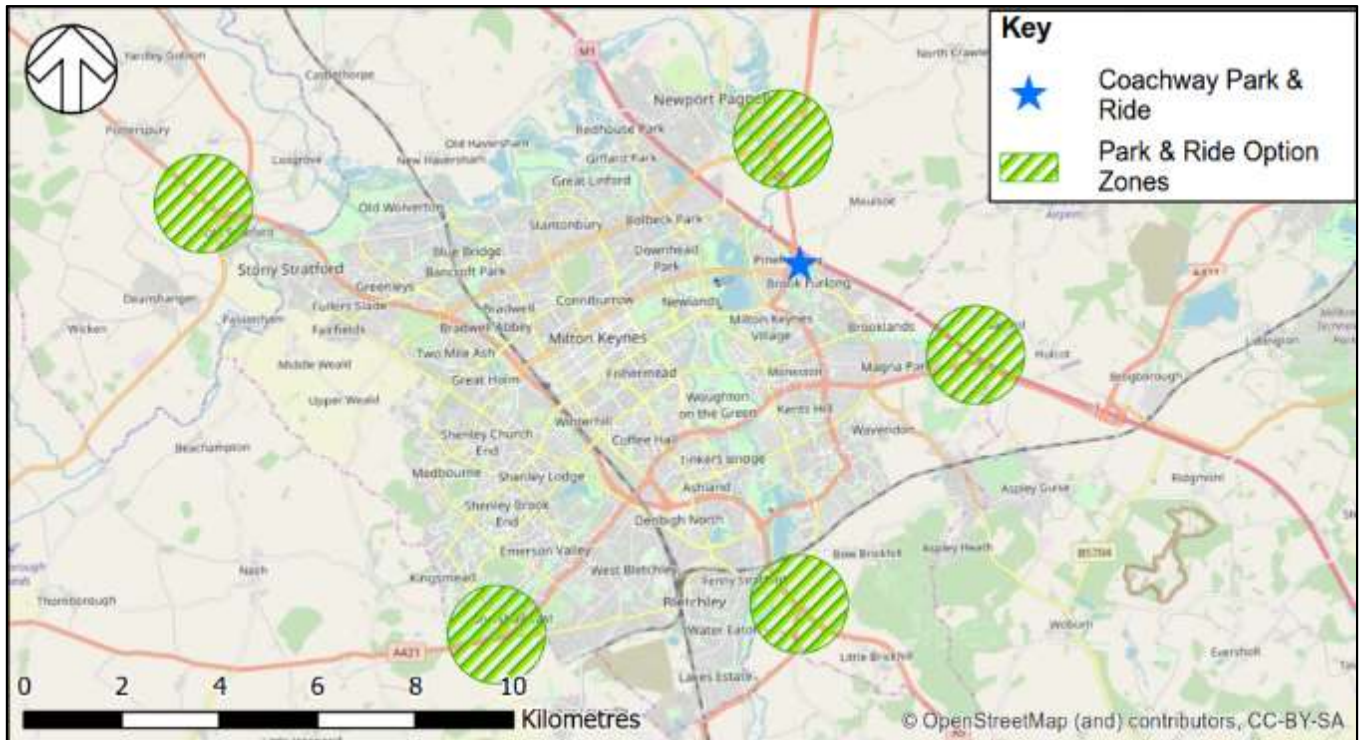
CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

32. Park & Ride Sites

INITIAL OPTION SKETCH



DESCRIPTION

Implementation of a network of Park & Ride sites strategically located at key radial locations into Milton Keynes. The sites could provide free parking for users of the service and charge a fee for transit into the city centre, with commuter ticketing options available. Potential Park & Ride sites include: the A5 north (South Northants) and south (Kelly’s Kitchen Roundabout) of Milton Keynes; the A509 / east M1 growth site (linked to a Mass Rapid Transit route); the A421 west and east of Milton Keynes and east of the M1 Junction 13.

BENEFITS

- Encourages modal shift by providing access to an affordable alternative mode of transport
- Reduces the number of vehicles in the city centre, increasing capacity and reducing journey times

DISBENEFITS

- Encourages car usage by providing free parking on the outskirts of the city centre
- May require road network upgrades to provide improved public transport priority
- May require alterations to the cost and availability of parking in Milton Keynes to be financially viable

PROGRAMME

- Medium term (5-10 years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- Central Government Funding Bids
- S106 Funding

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CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

33. Sub-Regional Advanced Very Rapid Transit

INITIAL OPTION SKETCH

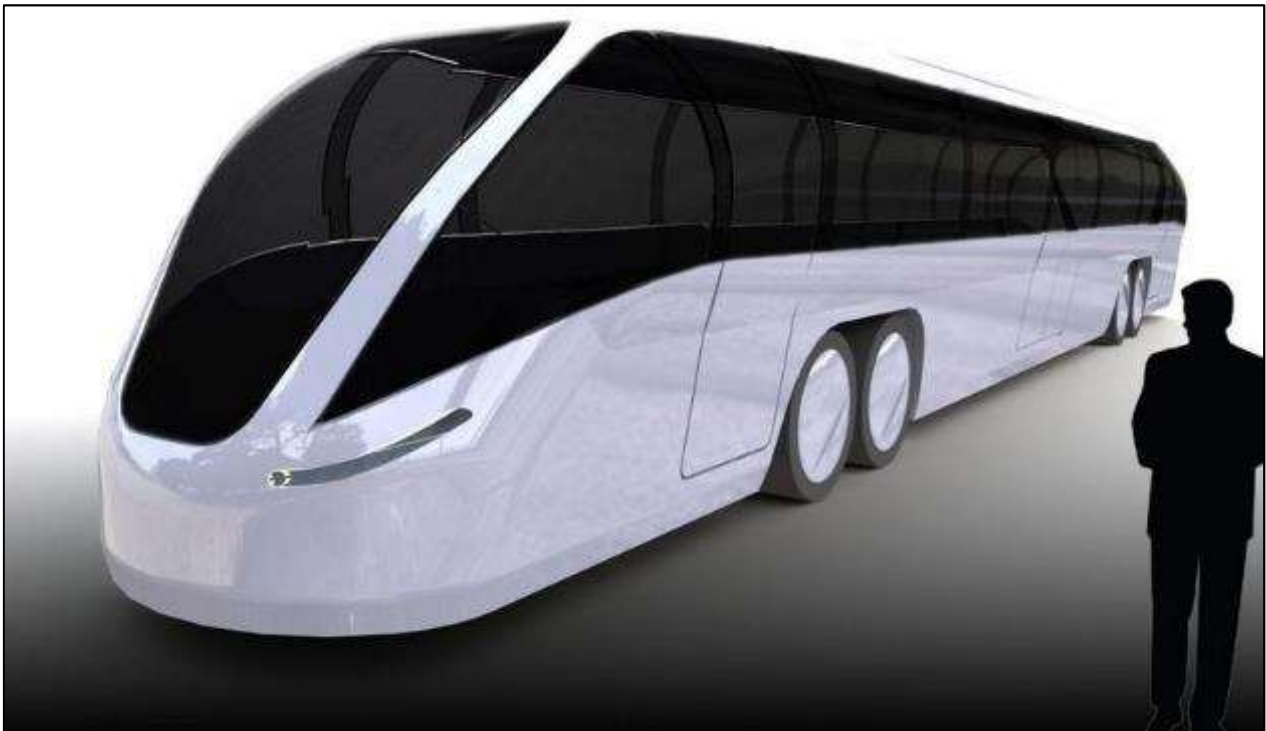


Image source: <https://www.cambridge-news.co.uk/news/futuristic-high-speed-driverless-avrt-12688976>

DESCRIPTION

Implementation of an Advanced Very Rapid Transit (AVRT) scheme (as identified in the Milton Keynes Council National Infrastructure Commission submission 'Strategy for First Last Mile Travel'). This would include the delivery of five core routes through Milton Keynes, including: Bletchley to Central Milton Keynes; Winslow to Central Milton Keynes and the east M1 growth site to Central Milton Keynes. The routes would also connect to the wider sub-region (Northampton, Oxford, Bedford). This would create a limited stop sub-regional transport system.

BENEFITS

- Provides an attractive sub-regional public transport system
- Provides a clean, reliable and modern mode of transport reducing the need for car ownership
- Supports regional development

DISBENEFITS

- May require road network upgrades to facilitate prioritised AVRT access
- Significant investment required to facilitate the creation of the routes and development of fleet
- Requires substantial cross-boundary co-ordination

PROGRAMME

- Long term (10+ years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- England's Economic Heartland
- Central Government Funding Bids

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CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

34. Milton Keynes Demand Responsive Transit

INITIAL OPTION SKETCH



Image source: <https://www.intelligenttransport.com/transport-news/72944/viavan-milton-keynes/>

DESCRIPTION

Implementation of a city-wide Demand Responsive Transit (DRT) bus service, operated on a commercial basis. DRT is a form of micro-mass transit, whereby shared minibuses are booked, on demand, using a smartphone application, through an internet portal or by telephone. The shared minibus is then routed to collect passengers and take them to their destinations. A trial is currently in place in Milton Keynes with ViaVan, which, if successful, could be expanded across a larger area to include urban and rural communities.

BENEFITS

- Provides a local, accessible and inclusive mode of transport that allows travel flexibility
- Reduces the number of vehicles on the network reducing carbon emissions

DISBENEFITS

- Requires more marketing effort and promotion compared to conventional bus operations
- Potential to have a high cost per passenger threatening financial viability
- Requirement to pre-book could make the service unattractive to potential users

PROGRAMME

- Short term (1-5 years)

FUNDING OPTIONS

- Scheme Operators

CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

35. Milton Keynes Micro-Metro

INITIAL OPTION SKETCH



Image source: <https://www.cambridge-news.co.uk/news/cambridge-news/cambridge-metro-really-ever-going-14229407>

DESCRIPTION

Implementation of a micro-metro transit system that delivers a fast and attractive, rubber-wheeled tram service (either driven or autonomous), along dedicated routes across Milton Keynes, potentially linked to Park & Ride Sites (*Option 32*) and Travel Hubs (*Options 25-27*). The system will provide: dedicated bus lanes; bus priority at junctions; distinctive stops with real-time passenger information; cashless payment systems and network branding.

BENEFITS

- Encourages modal shift by providing access to a fast and attractive alternative mode of transport
- Potential to expand and support other transport infrastructure and growth areas

DISBENEFITS

- Reallocation of carriageway space could constrain capacity for other modes of transport
- Significant investment required to facilitate the creation of the routes and development of fleet
- May require alterations to the cost and availability of parking in Milton Keynes to be financially viable

PROGRAMME

- Long-term (10+ years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- England's Economic Heartland
- Central Government Funding Bids

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CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

36. Milton Keynes Bus Rapid Transit

INITIAL OPTION SKETCH



Image source: <https://www.belfasttelegraph.co.uk/news/northern-ireland/belfast-rapid-transit-system-faster-buses-in-belfast-and-a-train-to-the-airport-30286938.html>

DESCRIPTION

Implementation of a high-quality Bus Rapid Transit (BRT) delivering a fast and attractive service on dedicated routes across Milton Keynes, potentially linked to Park & Ride Sites (*Option 32*) and Travel Hubs (*Options 25-27*). The system would provide: dedicated bus lanes; bus priority at junctions; distinctive stops with real-time passenger information; cashless payment systems and network branding. Potential routes include: Central Milton Keynes to Eaton Leys, Central Milton Keynes to Woburn Sands and east of the M1 (pre-2025) and city-wide post 2025.

BENEFITS

- Encourages modal shift by providing access to a fast and attractive alternative mode of transport
- Potential to expand and support other transport infrastructure and growth areas

DISBENEFITS

- Reallocation of carriageway space could constrain capacity for other modes of transport
- Significant investment required to facilitate the creation of the routes and infrastructure
- May require alterations to the cost and availability of parking in Milton Keynes to be financially viable

PROGRAMME

- Medium-term (5-10 years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- England's Economic Heartland
- Central Government Funding Bids

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CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

37. Milton Keynes Light Rail Transit

INITIAL OPTION SKETCH



Image source: <https://www.toronto.com/opinion-story/6719240-dreschel-lrt-full-steam-ahead/>

DESCRIPTION

Implementation of a high-quality Light Rail Transit (LRT) system delivering a fast and attractive tram service (either driven or autonomous), along dedicated routes across Milton Keynes, potentially linked to Park & Ride Sites (*Option 32*) and Travel Hubs (*Options 25-27*). The system would provide: dedicated tram lines (segregated and mixed traffic); tram priority at junctions; distinctive stops with real-time passenger information; cashless payment systems and network branding.

BENEFITS

- Encourages modal shift by providing access to a fast and attractive alternative mode of transport
- Potential to expand and support other transport infrastructure and growth areas

DISBENEFITS

- Reallocation of carriageway space could constrain capacity for other modes of transport
- Significant investment required to facilitate the creation of the routes and infrastructure
- May require alterations to the cost and availability of parking in Milton Keynes to be financially viable

PROGRAMME

- Long term (10+ years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- England's Economic Heartland
- Central Government Funding Bids

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CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

38. Autonomous People Movers

INITIAL OPTION SKETCH



Image source: <https://insideevs.com/autonomous-navya-arma-shuttle-lease/>

DESCRIPTION

Trial and introduce micro-autonomous people movers for short local trips. The transit vehicles can be personal, or shared. Example journeys that could be undertaken using autonomous people movers include: movements between shopping centres in Central Milton Keynes; movements between key employment centres and travel hubs (Milton Keynes Central Railway Station); movements between Central Milton Keynes and key trip attractors such as the Milton Keynes University Hospital, Stadium MK and Bletchley.

BENEFITS

- Encourages modal shift by providing access to a fast and attractive alternative mode of transport
- Potential to expand and support other transport infrastructure and growth areas

DISBENEFITS

- Potential safety risks associated with autonomous vehicles in urban areas
- Requires technological infrastructure to ensure vehicles are connected

PROGRAMME

- Medium-term (5-10 years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- Central Government Funding Bids
- Scheme Operators

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CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

39. Pinch Point Junction Bus Priority Improvements

INITIAL OPTION SKETCH



Image source: <https://www.somersetcountygazette.co.uk/news/17206426.council-cashes-in-on-16k-of-bus-gate-fines-following-fatal-m5-crash-in-september/>
 Plan of Pinch Point Junctions for Bus Priority Improvements overleaf

DESCRIPTION

Delivery of physical improvements and changes at junctions on the road network, where bus movements are delayed by general traffic congestion, to allow priority movements for public transport modes. Potential improvements include: junction reconfiguration and widening to accommodate public transport movements; junction signalisation with priority for bus movements and the implementation of bus lanes.

BENEFITS

- Encourages modal shift through improved public transport routes
- Improves efficiency, journey times and reliability of public transport modes

DISBENEFITS

- Reallocation of carriageway space could constrain capacity for other modes of transport
- Current highway boundaries could restrict potential solutions at pinch-point junctions

PROGRAMME

- Medium-term (5-10 years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- Central Government Funding Bids

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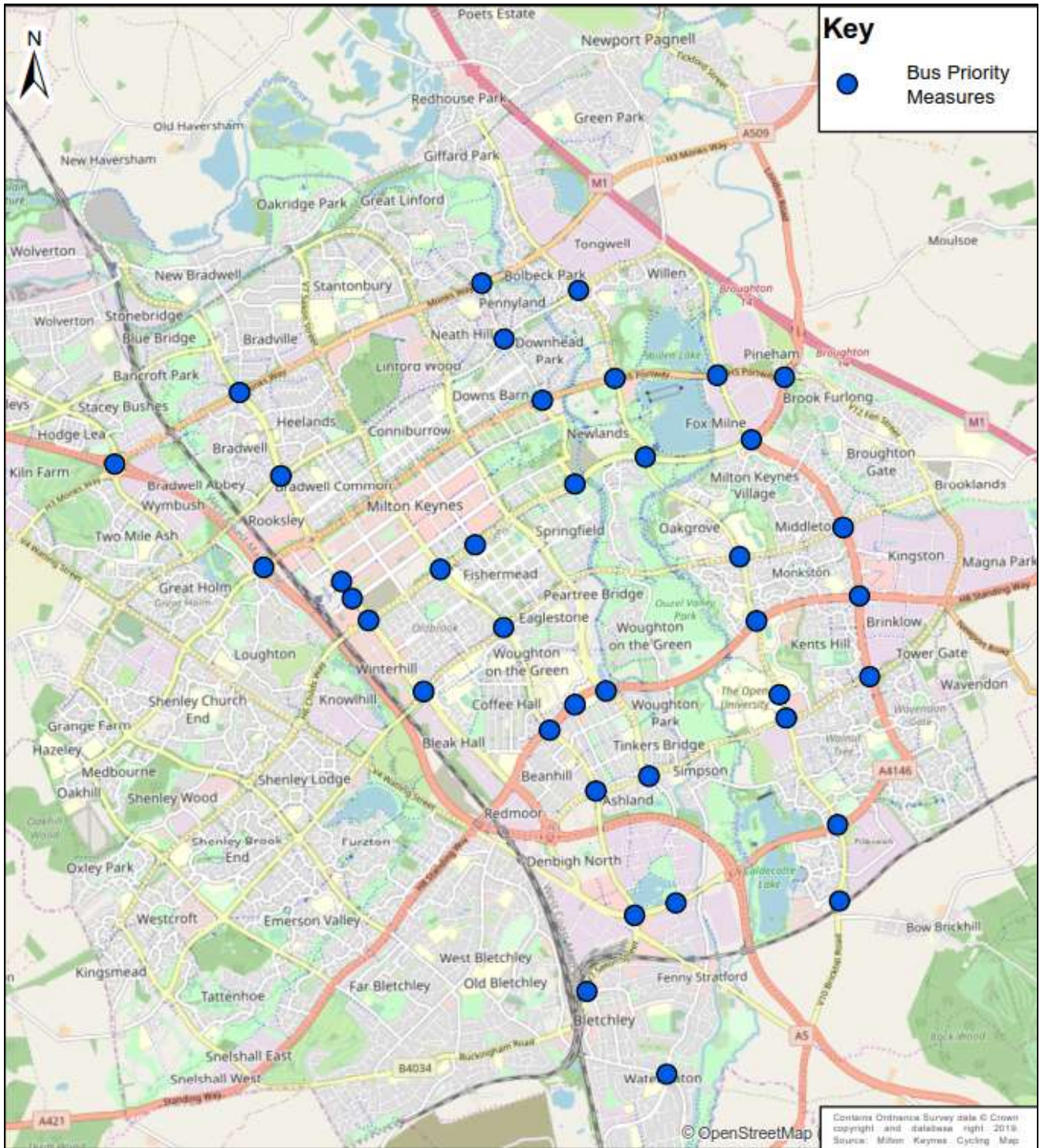
CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

Pinch Point Junction Bus Priority Improvements – Junction Plan

INITIAL OPTION SKETCH



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CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

40. Bus Priority Corridors

INITIAL OPTION SKETCH



Image source: <https://www.thejournal.ie/river/busconnects-2473660-Jun2018/?offer=4079433>

Plan of Bus Priority Corridor Options overleaf

DESCRIPTION

Delivery of physical improvements and changes at junctions on the road network to provide full route public transport priority for existing bus routes / services. Potential improvements include: introduction of traffic signals; junction widening and the implementation of extensive bus lanes / segregated routes. This investment can be linked to improved bus frequency and vehicle quality.

BENEFITS

- Encourages modal shift through improved public transport routes
- Improves efficiency, journey times and reliability of public transport modes

DISBENEFITS

- Reallocation of carriageway space could constrain capacity for other modes of transport
- Requires a connected network of corridors to provide an efficient and attractive option for users

PROGRAMME

- Medium-term (5-10 years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- Central Government Funding Bids

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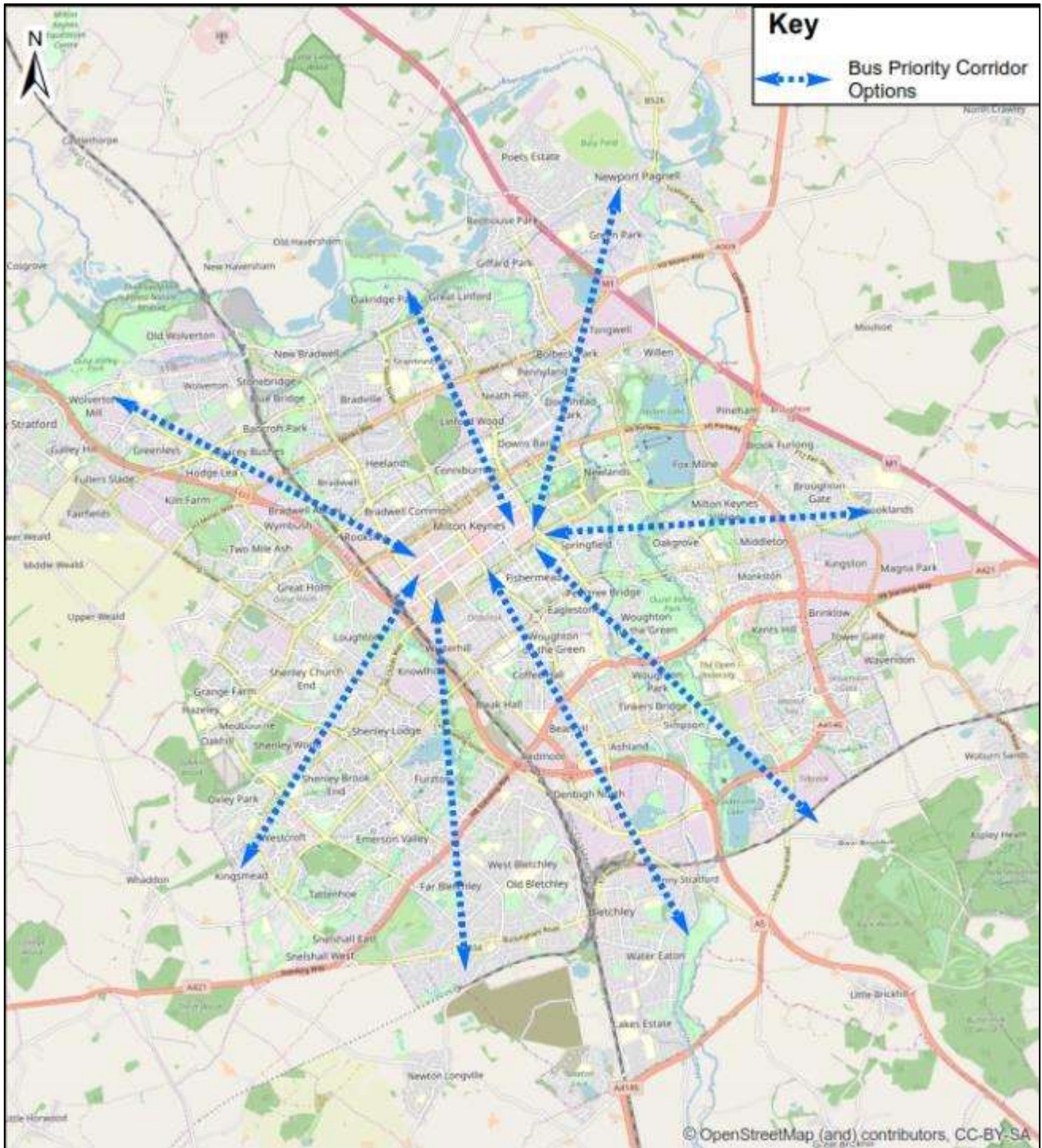
CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

Bus Priority Corridors – Option Plan

INITIAL OPTION SKETCH



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CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

41. Premium Bus Network

INITIAL OPTION SKETCH



Image source: <http://clondoner92.blogspot.com/2017/05/update-on-route-branding-for.html>

DESCRIPTION

Implementation of a premium urban bus network, through upgrading and updating the existing core bus routes. This would be achieved by providing higher frequency services (every 10-15 minutes), operating throughout the week from early in the morning to late at night. The premium bus network would be branded, for example, Citi Services, and use high-quality (Wi-Fi and leather seats), potentially electric, vehicles. The success of this option is associated with Bus Priority Corridors (Option 40), SMART Sensors (Option 89) and Integrated Ticketing (Option 91).

BENEFITS

- Encourages modal shift by providing access to a high-frequency, attractive service
- Improves efficiency, journey times and reliability of public transport modes

DISBENEFITS

- Requires packaging with sustainable transport infrastructure to encourage use
- Requires upgrades to existing public transport fleet which requires operator backing

PROGRAMME

- Short-term (1-5 years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- Central Government Funding Bids

CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

42. Central Milton Keynes Shuttle Bus Trial

INITIAL OPTION SKETCH



Image source: <https://citiblog.co.uk/2018/12/03/my-bus-free-employee-shuttle-bus-launched-in-central-milton-keynes/>

DESCRIPTION

Review the new shuttle bus trial provided by the Business Improvement District for employees. The bus operates on weekdays and makes stops across the city-centre at key employment locations from Milton Keynes Central Railway Station, including: the shopping centres and leisure districts; the Civic Offices; The Hub and 12th Street. If successful the scheme would be implemented on a permanent basis, with upgrades to the service being implemented as technology advances, for example, Autonomous People Movers (*Option 38*).

BENEFITS

- Encourages modal shift by providing access to a fast and attractive alternative mode of transport
- Reduces the number of vehicles on the road network reducing carbon emissions

DISBENEFITS

- Potential to become an oversubscribed service which minimises behavioural change
- Discourages active travel for short journeys

PROGRAMME

- Short term (1-5 years)

FUNDING OPTIONS

- Milton Keynes Council
- Business Contributions

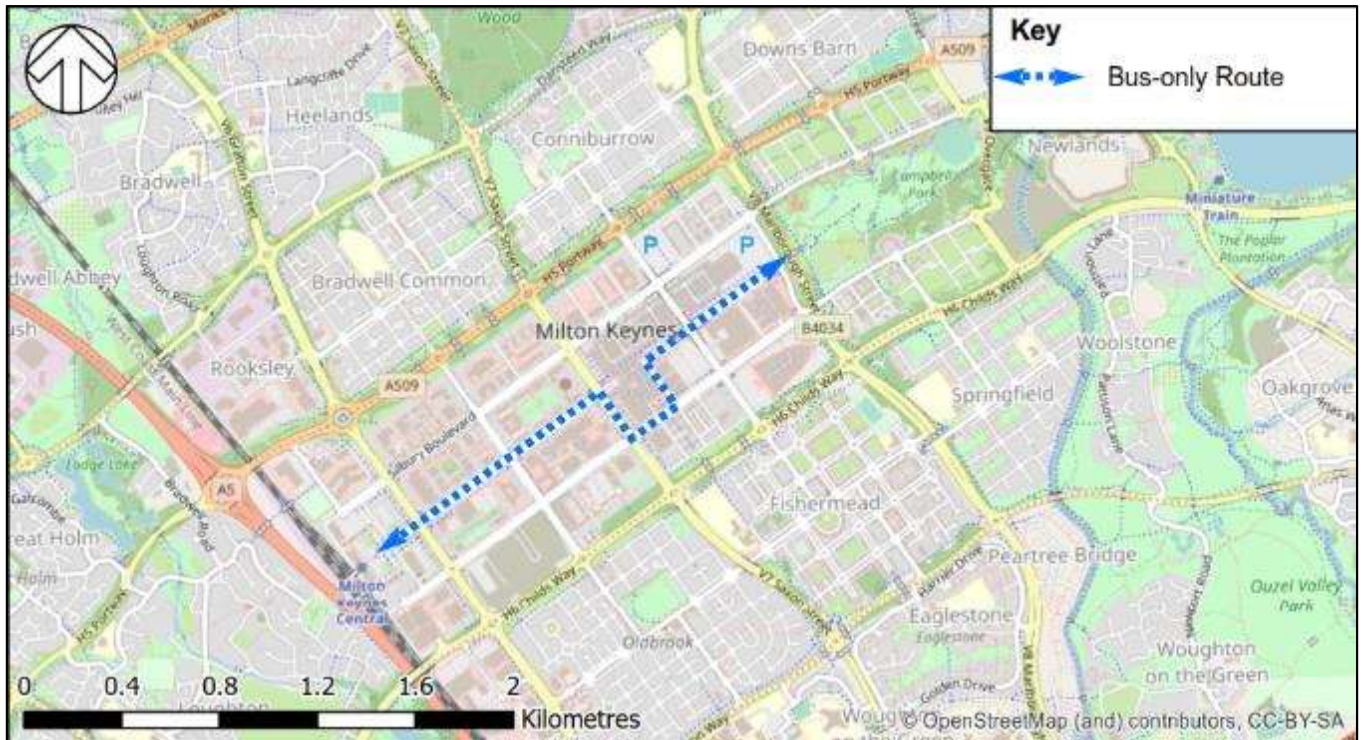
CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

43. Central Milton Keynes Bus-Only Route

INITIAL OPTION SKETCH



DESCRIPTION

Creation of a public transport spine road through Central Milton Keynes, utilising Midsummer Boulevard (banning all car access). As technology advances, the use of Midsummer Boulevard, as a public transport spine road, could be made accessible to other public transport modes, for example, Autonomous People Movers (*Option 38*).

<p>BENEFITS</p> <ul style="list-style-type: none"> ▪ Encourages modal shift by providing access to a fast and attractive alternative mode of transport ▪ Improves efficiency, journey times and reliability of public transport modes in Central Milton Keynes 	<p>DISBENEFITS</p> <ul style="list-style-type: none"> ▪ May require road network upgrades to facilitate the redistribution of vehicle movements ▪ Requires packaging with sustainable transport infrastructure to encourage use
---	--

<p>PROGRAMME</p> <ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<p>FUNDING OPTIONS</p> <ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids
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CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

44. Bus Stop Infrastructure

INITIAL OPTION SKETCH



Image source: <https://www.designweek.co.uk/issues/march-2014/tfl-trials-touch-screen-bus-stop-with-real-time-mapping/>

DESCRIPTION

Delivery of improvements and upgrades to bus stop infrastructure throughout Milton Keynes. Improvements would include: the introduction of real time passenger information; interactive travel dashboards for live bus tracking; cashless ticket payment; access for people with reduced mobility and cycle parking facilities.

BENEFITS

- Encourages modal shift by providing high-quality facilities for public transport modes
- Provides connectivity and accessibility between modes of transport at each stop

DISBENEFITS

- No direct improvement to bus frequencies or capacity of the public transport network

PROGRAMME

- Short-term (1-5 years)

FUNDING OPTIONS

- Milton Keynes Council

CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

45. Taxibus

INITIAL OPTION SKETCH



Image source: <https://www.carolinespelman.com/news/mp-launches-petition-her-campaign-protect-taxibus-service>

DESCRIPTION

Provision of Taxibus services throughout Milton Keynes, similar to Project Black Bus in London. The service would operate on fixed routes, providing connections between main trip attractors, including Milton Keynes Central Railway Station and key employment, leisure and social destinations. The service can be shared by multiple passengers, but unlike buses, users can alight anywhere on the route.

BENEFITS

- Provides a local, accessible and inclusive mode of transport that allows travel flexibility
- Reduces the number of vehicles on the network reducing carbon emissions

DISBENEFITS

- Requires more marketing effort and promotion compared to conventional bus operations
- Potential to have a high cost per passenger threatening financial viability
- Requirement to pre-book could make the service unattractive to potential users

PROGRAMME

- Short-term (1-5 years)

FUNDING OPTIONS

- Scheme Operators

CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

46. Central Milton Keynes Bus Interchange

INITIAL OPTION SKETCH



DESCRIPTION

Replacement of the existing Central Milton Keynes bus stops (Lower Ninth Street and Midsummer Boulevard) to facilitate central regeneration and encourage bus use. The new interchange would provide access to bus routes and Redway routes / expansions, cycle facilities (lockers, cycle parking) and real-time travel information. The location and design of the new interchange needs to be future-proofed to facilitate the introduction of a mass transit scheme.

BENEFITS

- Encourages modal shift by providing high-quality facilities for public transport modes
- Improves connectivity for public transport users and facilitates central regeneration

DISBENEFITS

- No direct improvement to bus frequencies or capacity of the public transport network
- Design needs to accommodate future introduction of mass transit schemes

PROGRAMME

- Medium-term (5-10 years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- Central Government Funding Bids
- S106 Funding

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CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

47. Orbital Bus Routes

INITIAL OPTION SKETCH



Image source: <https://www.mkfm.com/news/local-news/concerns-raised-over-proposed-changes-to-bus-services-in-milton-keynes-area/>
Plan of Orbital Bus Route Options overleaf

DESCRIPTION

The existing network of bus routes are largely radial from Central Milton Keynes. This option will therefore review the existing bus routes, and assess the opportunity to introduce an orbital bus service to improve connectivity between radial services, and better serve journeys that are not to, or from, Central Milton Keynes.

BENEFITS

- Encourages modal shift by offering improved public transport routes and services
- Increases orbital connectivity and connectivity to key attractors outside of Central Milton Keynes

DISBENEFITS

- Dependent upon public transport operators reviewing and altering routes if necessary
- Orbital routes may struggle to be financially viable

PROGRAMME

- Short-term (1-5 years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- Central Government Funding Bids
- S106 Funding

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CONCEPT TYPE

High-Quality Public Transport

CONCEPT NAME

Orbital Bus Routes – Overview Plan

INITIAL OPTION SKETCH



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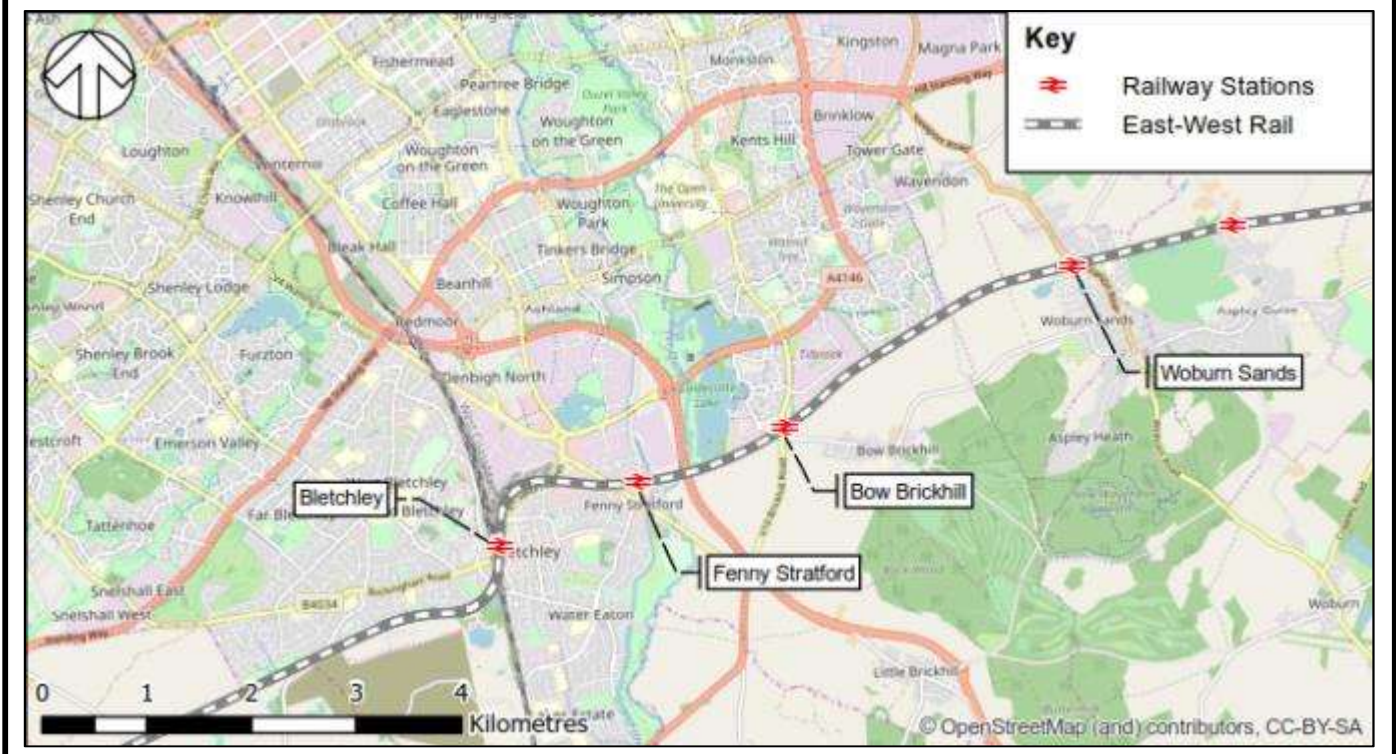
CONCEPT TYPE

Rail

CONCEPT NAME

48. East-West Rail Connections

INITIAL OPTION SKETCH



DESCRIPTION

Enhancing connectivity to the railway stations on the western section of the East-West Rail route (particularly along the Marston Vale Line). Train services on the East-West Rail route will follow the existing Marston Vale Line from Bletchley to Bedford, and connect to Milton Keynes via the West Coast Mainline. Enhancements at stations along the Marston Vale Line would provide access to bus routes and Redway routes / expansions, cycle facilities (lockers, cycle parking) and real-time travel information.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift by enhancing connectivity to sustainable modes of transport ▪ Provides modern and attractive inter-modal interchange facilities 	<ul style="list-style-type: none"> ▪ Provides no direct improvement to the capacity or frequency of rail services ▪ Requires packaging with sustainable transport infrastructure to encourage use

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<ul style="list-style-type: none"> ▪ Central Government (EWR Company)

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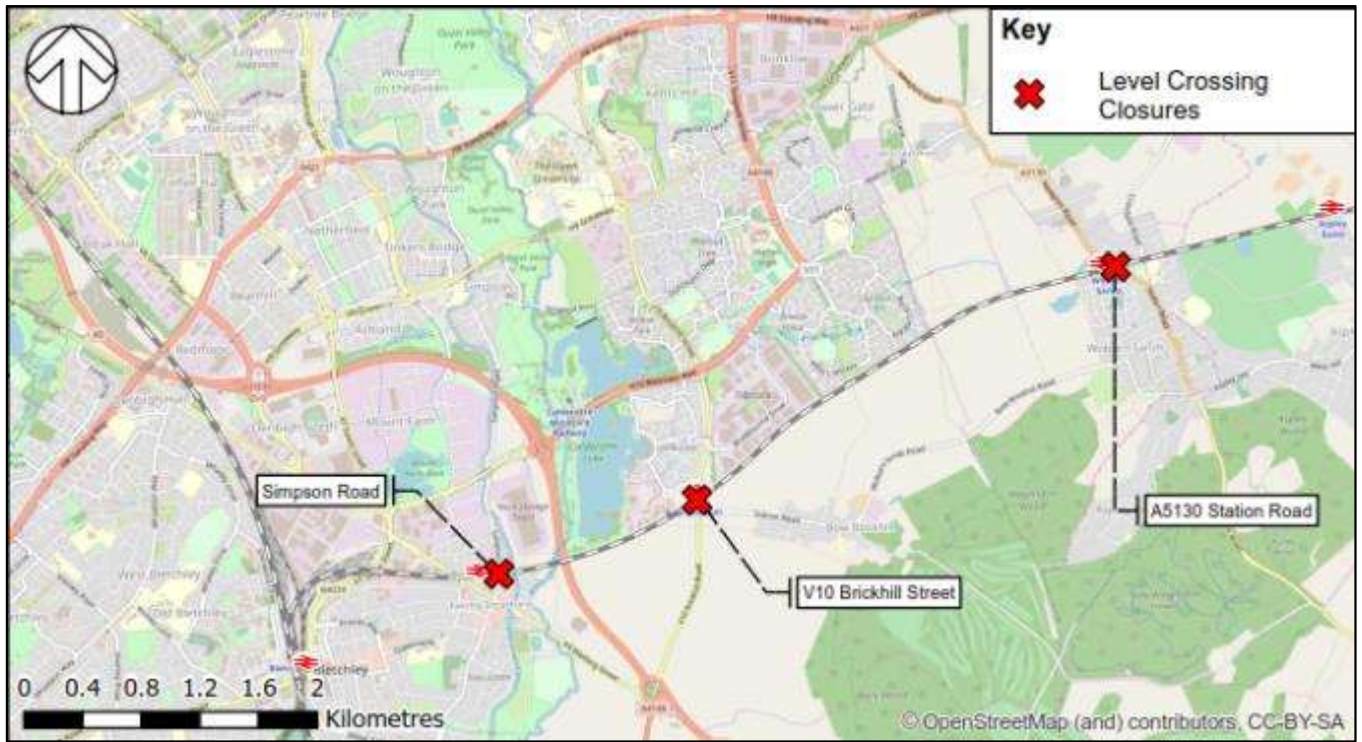
CONCEPT TYPE

Rail

CONCEPT NAME

49. Marston Vale Level Crossing Closures

INITIAL OPTION SKETCH



DESCRIPTION

Closure of a series of at-grade level crossings along the Marson Vale Line (Bletchley to Bedford), due to the increase in rail frequency anticipated as a result of East-West-Rail. Locations where level crossings are proposed to be closed include: Simpson Road, V10 Brickhill Street and A5130 Station Road.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Increases safety due to reduced interaction between rail and road users 	<ul style="list-style-type: none"> Requires packaging with sustainable transport infrastructure to maintain connectivity May require substantial road network upgrades to provide alternative direct access routes

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Long-term (10+ years) 	<ul style="list-style-type: none"> Central Government (EWR Company)

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CONCEPT TYPE

Rail

CONCEPT NAME

50. Wolverton to Olney Rail Link

INITIAL OPTION SKETCH



DESCRIPTION

Re-opening of the rail link between Wolverton and Olney, via Newport Pagnell. From Wolverton Railway Station the line would route east, running parallel to Newport Road / Wolverton Road, before crossing the M1, into Newport Pagnell. The alignment would then route north towards Olney, running parallel to the A509.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift through the provision of a new rail link between Wolverton and Olney ▪ Improves connectivity between Milton Keynes northern periphery areas and West Coast Mainline 	<ul style="list-style-type: none"> ▪ Expensive to implement and would require backing from Network Rail and train operators ▪ Provides no direct connections to Milton Keynes Central and key trip attractors ▪ Impacts on existing cycle route that utilises part of the old track bed
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Long term (10+ years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Network Rail

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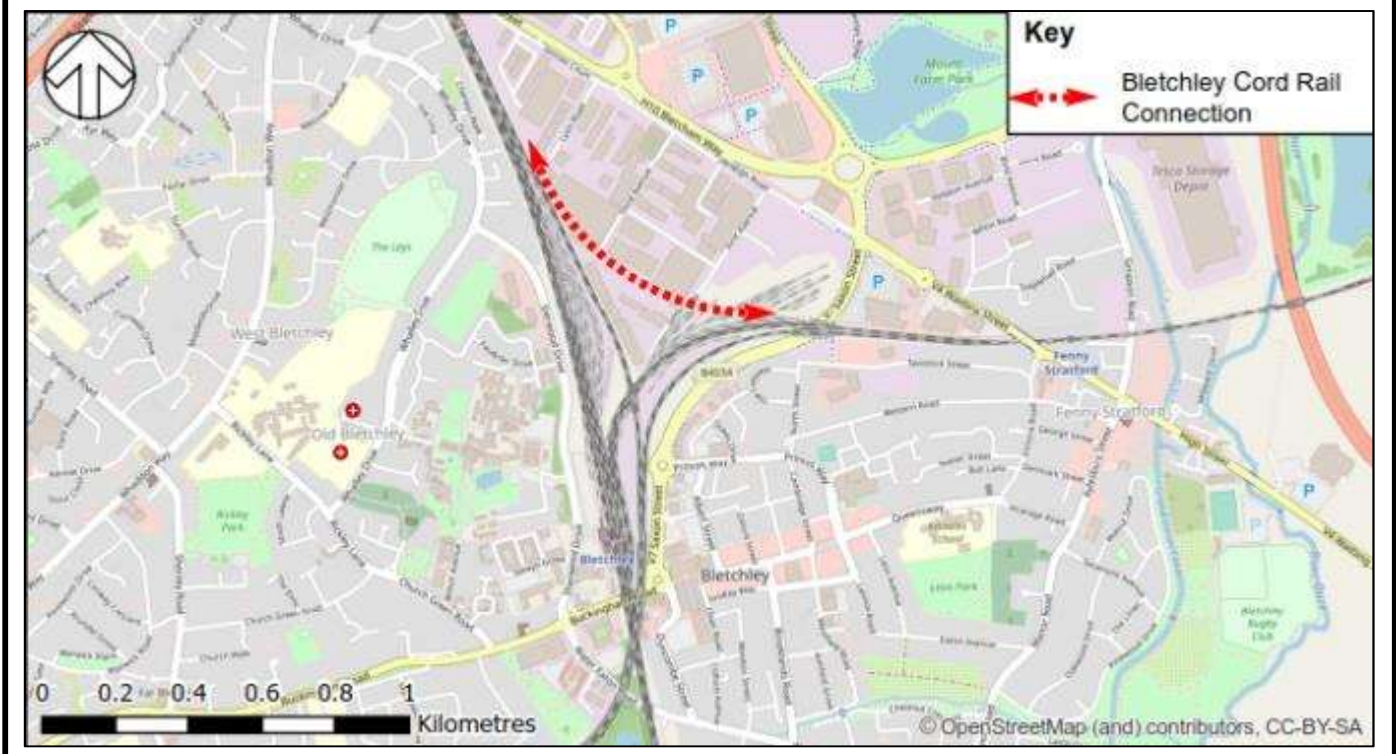
CONCEPT TYPE

Rail

CONCEPT NAME

51. Bletchley Chord Rail Connection

INITIAL OPTION SKETCH



DESCRIPTION

Provision of a new, direct rail connection between the Marston Vale Line and the West Coast Mainline, enabling direct services from Bedford to Milton Keynes Central. This option could be implemented as an extension to, and linked with, East-West Rail. The provision of an extra and direct service into Milton Keynes Central may require an extra rail line into Milton Keynes Central.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift through the provision of a new, direct rail route and services ▪ Improves connectivity between Milton Keynes eastern periphery areas and West Coast Mainline 	<ul style="list-style-type: none"> ▪ Expensive to implement and would require backing from Network Rail and train operators ▪ New infrastructure required at Milton Keynes Central could cause disruption

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium-term (5-10 years) 	<ul style="list-style-type: none"> ▪ Central Government (EWR Company) ▪ Network Rail

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CONCEPT TYPE

Rail

CONCEPT NAME

52. Relocate Woburn Sands Station

INITIAL OPTION SKETCH



DESCRIPTION

Relocation of the Woburn Sands Railway Station in order to support the delivery of new longer-term development in south-east Milton Keynes. The location and design of the new station needs to be future-proofed and facilitate access to bus routes and Redway routes / expansions, cycle facilities (lockers, cycle parking) and real-time travel information. This option could also provide car-club vehicles, car-share points, cycle-share points, electric cycles and Demand Responsive Transit pick-up points.

<p>BENEFITS</p> <ul style="list-style-type: none"> ▪ Encourages modal shift through improved public transport facilities ▪ Supports economic growth and the delivery of new development in south-east Milton Keynes 	<p>DISBENEFITS</p> <ul style="list-style-type: none"> ▪ Expensive to implement and would require backing from Network Rail and train operators ▪ Provides no direct improvement to the capacity or frequency of rail services
<p>PROGRAMME</p> <ul style="list-style-type: none"> ▪ Long term (10+ years) 	<p>FUNDING OPTIONS</p> <ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Network Rail

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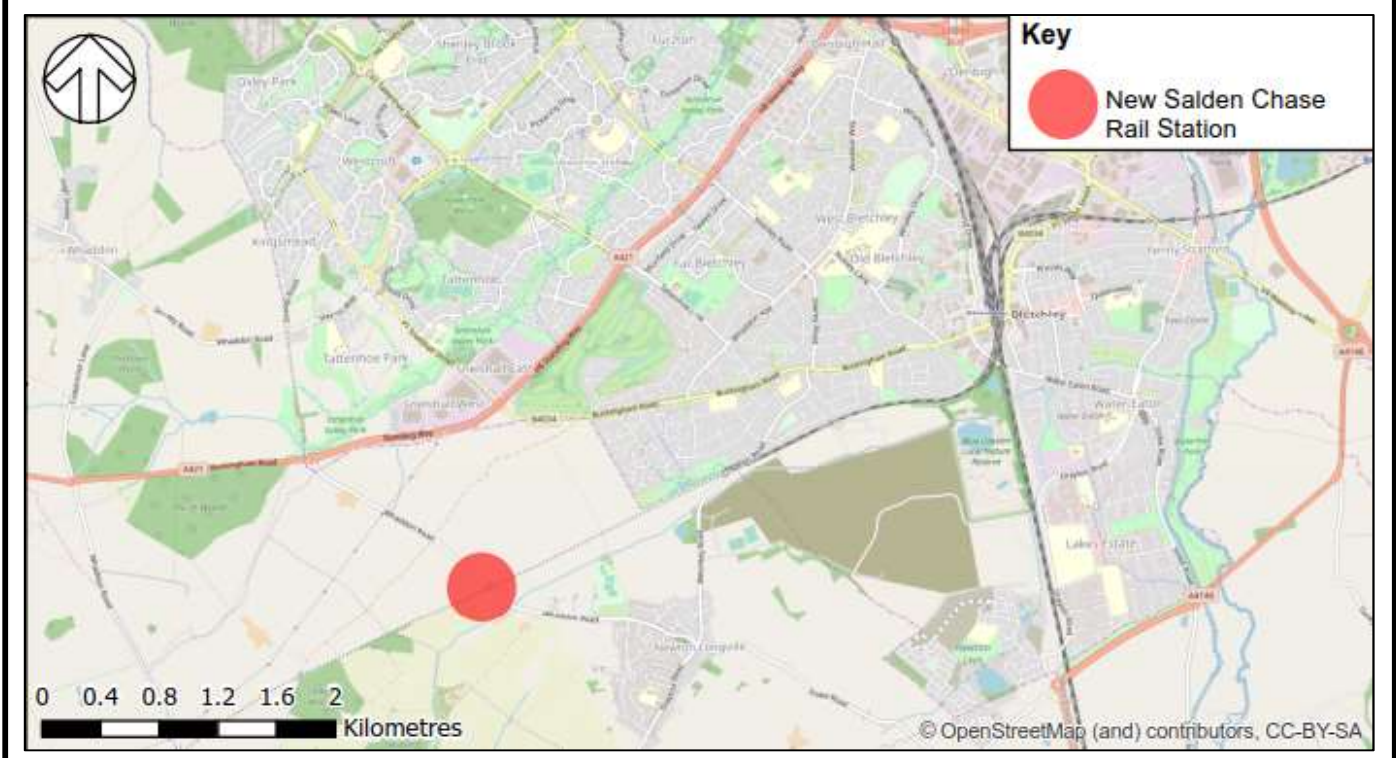
CONCEPT TYPE

Rail

CONCEPT NAME

53. New Salden Chase Rail Station

INITIAL OPTION SKETCH



DESCRIPTION

Provision of a new railway station at Salden Chase (on the East-West Rail route) in order to support the delivery of new development in south-west Milton Keynes. The location and design of the new station needs to be future-proofed and facilitate access to bus routes and Redway routes / expansions, cycle facilities (lockers, cycle parking) and real-time travel information. This option could also provide car-club vehicles, car-share points, cycle-share points, electric cycles and Demand Responsive Transit pick-up points.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift through improved public transport facilities ▪ Supports economic growth and the delivery of new development in south-east Milton Keynes 	<ul style="list-style-type: none"> ▪ Expensive to implement and would require backing from Network Rail and train operators ▪ Provides no direct improvement to the capacity or frequency of rail services

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Long term (10+ years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Network Rail

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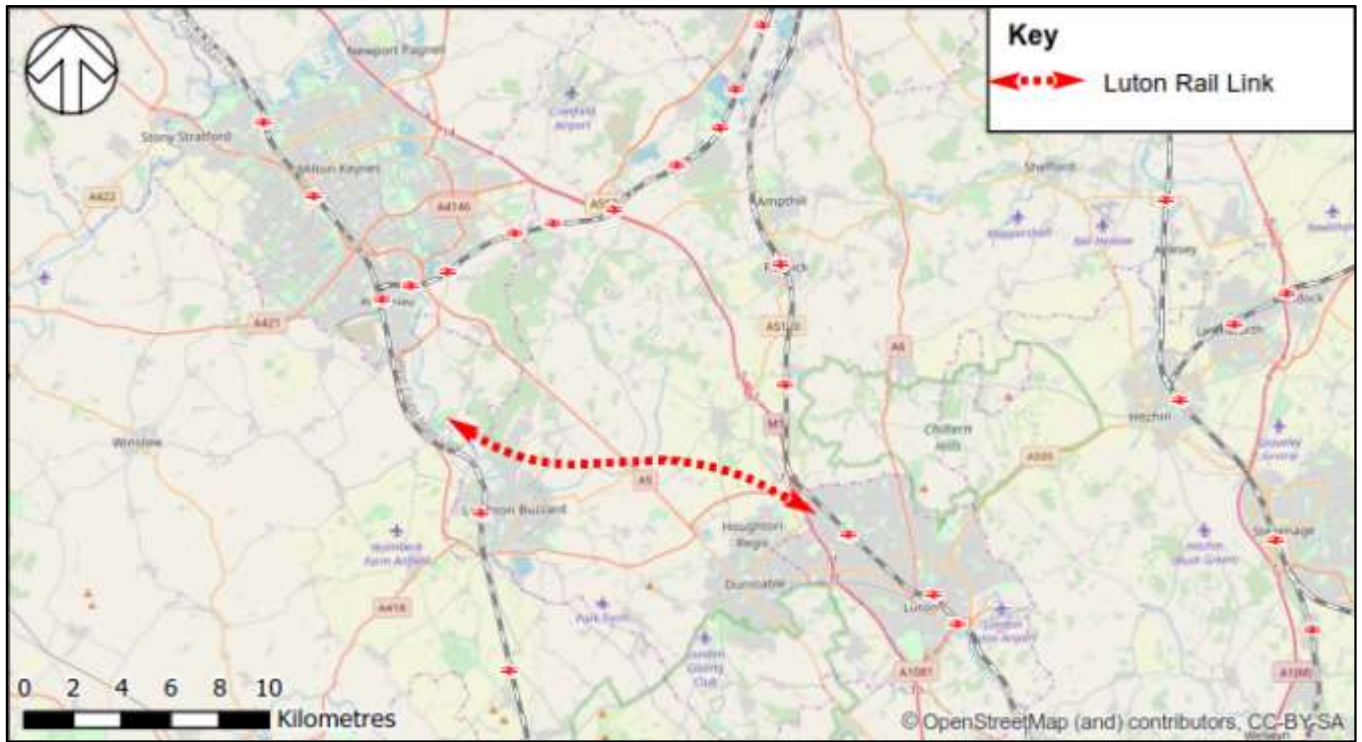
CONCEPT TYPE

Rail

CONCEPT NAME

54. Luton Rail Link

INITIAL OPTION SKETCH



DESCRIPTION

Provision of a new, direct rail connection between Luton (Midland Main Line) and Milton Keynes Central (West Coast Mainline). The provision of an extra and direct service into Milton Keynes Central may require an extra rail line into Milton Keynes Central.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift through the provision of a new rail link between Luton and Milton Keynes ▪ Improved connectivity between Milton Keynes and Luton via the West Coast and Midland Mainlines 	<ul style="list-style-type: none"> ▪ Expensive to implement and would require backing from Network Rail and train operators ▪ New infrastructure required at Milton Keynes Central could cause disruption

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Long term (10+ years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council & Luton Borough Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Network Rail

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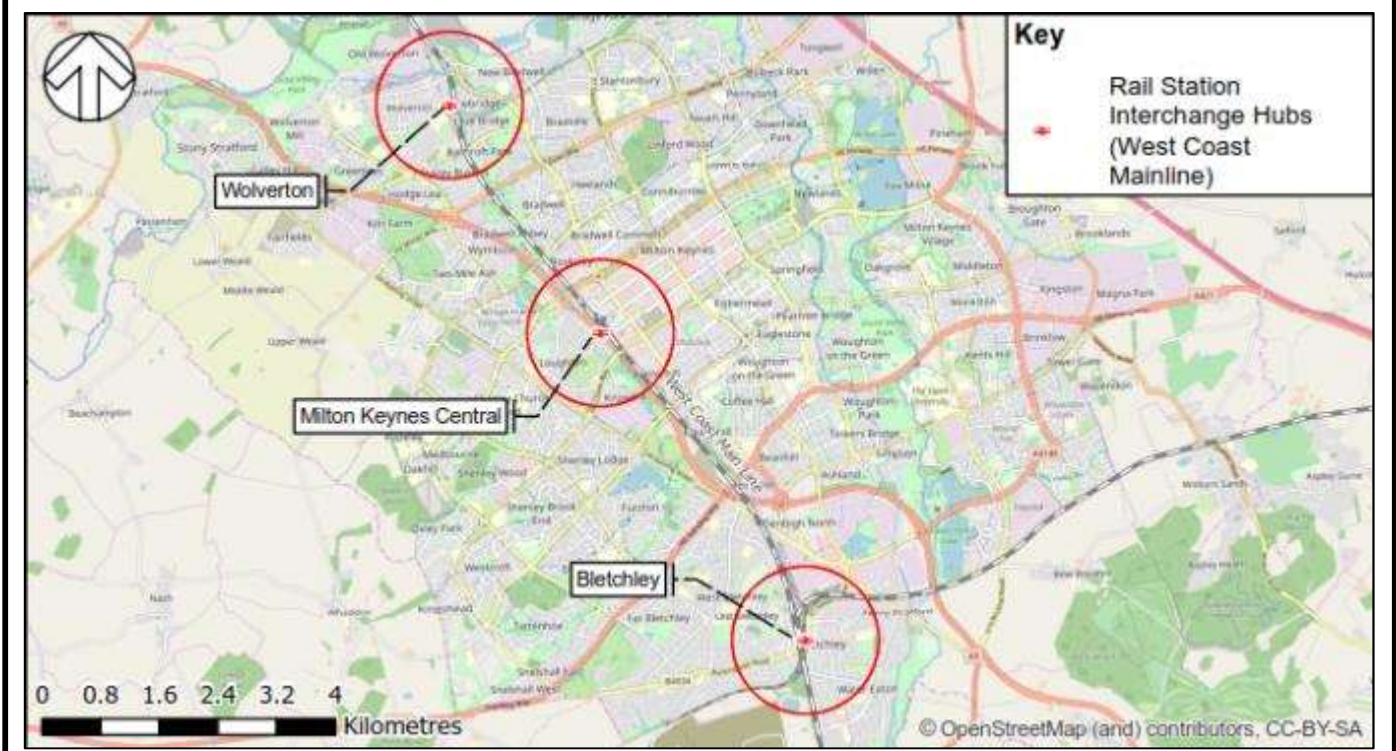
CONCEPT TYPE

Rail

CONCEPT NAME

55. Rail Station Interchange Hubs (West Coast Mainline)

INITIAL OPTION SKETCH



DESCRIPTION

Enhance and improve the facilities and sustainable access to local railway stations along the West Coast Mainline. This option would provide: improved cycle access to the stations through cycle lanes; high-quality cycle facilities (lockers, cycle parking, tools and pumps); high-quality bus and taxi interchange facilities and real-time travel information. This option could also provide car-club vehicles, car-share points, cycle-share points, electric cycles and Demand Responsive Transit pick-up points.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift by enhancing connectivity to sustainable modes of transport ▪ Provides modern and attractive inter-modal interchange facilities 	<ul style="list-style-type: none"> ▪ Provides no direct improvement to the capacity or frequency of rail services ▪ Requires packaging with sustainable transport infrastructure to encourage use

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Train Operators

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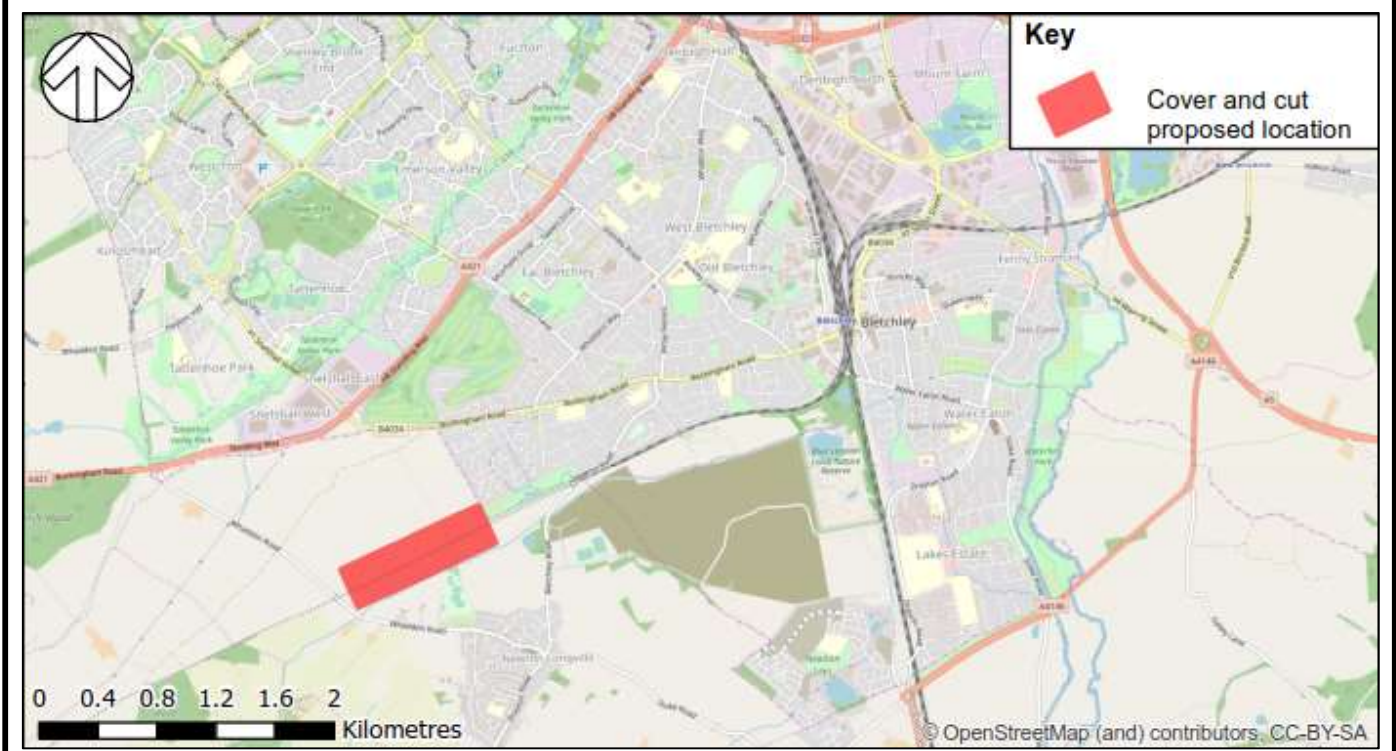
CONCEPT TYPE

Rail

CONCEPT NAME

56. Cover and cut East-West Rail at Bletchley / Salden Chase

INITIAL OPTION SKETCH



DESCRIPTION

Cut and cover the East-West Rail line in the Bletchley / Salden Chase area. This would enable strategic housing development in Milton Keynes and encourage future growth to the south of the city by freeing up space at ground-level.

BENEFITS	DISBENEFITS
-----------------	--------------------

- | | |
|---|--|
| <ul style="list-style-type: none"> ▪ Supports economic growth and the delivery of strategic housing in Milton Keynes ▪ Increases safety along the East-West Rail Line due to underground section of track | <ul style="list-style-type: none"> ▪ Expensive to implement and would require backing from Network Rail and train operators ▪ Provides no direct improvement to the capacity or frequency of rail services |
|---|--|

PROGRAMME	FUNDING OPTIONS
------------------	------------------------

- | | |
|---|--|
| <ul style="list-style-type: none"> ▪ Long-term (10+ years) | <ul style="list-style-type: none"> ▪ Central Government (EWR Company) |
|---|--|

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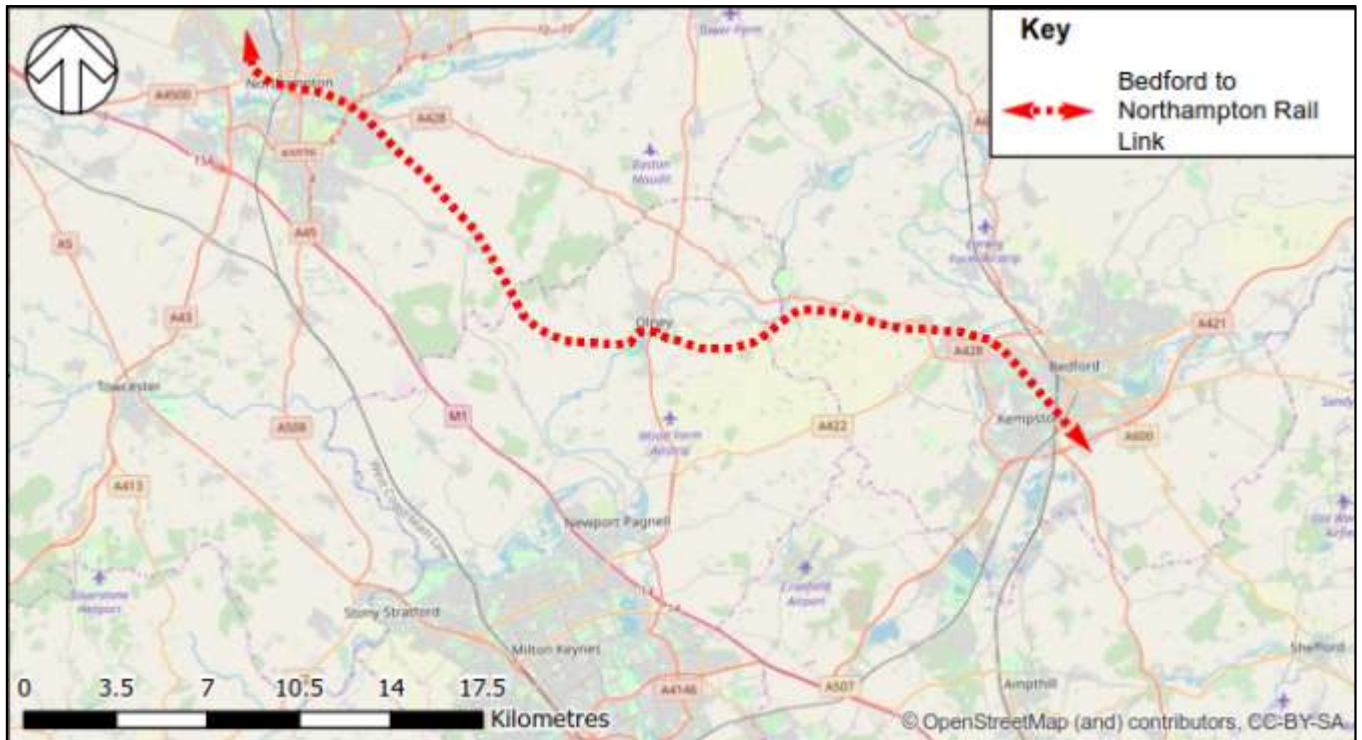
CONCEPT TYPE

Rail

CONCEPT NAME

57. Bedford to Northampton Rail Link

INITIAL OPTION SKETCH



DESCRIPTION

Re-opening of the rail link between Bedford and Northampton, via Olney (the Cobbler Line). This would enable more efficient and quicker journeys between the West Coast Mainline and Midland Mainline and provide a direct route between four key airports. The route would follow the existing line from Northampton Station south-east out to Brackmills Industrial Estate before continuing towards Olney. The route would then cross the A509 and route east towards Bedford, crossing the A248 and joining the Midland Mainline to the north of Bedford.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift through the provision of a new rail link between Bedford and Northampton ▪ Improves connectivity between the Midlands and West Coast Mainlines and four key airports 	<ul style="list-style-type: none"> ▪ Expensive to implement and would require backing from Network Rail and train operators ▪ Provides no direct connections to Milton Keynes Central and key trip attractors

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Long term (10+ years) 	<ul style="list-style-type: none"> ▪ Central Bedfordshire Council & Bedford Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Network Rail

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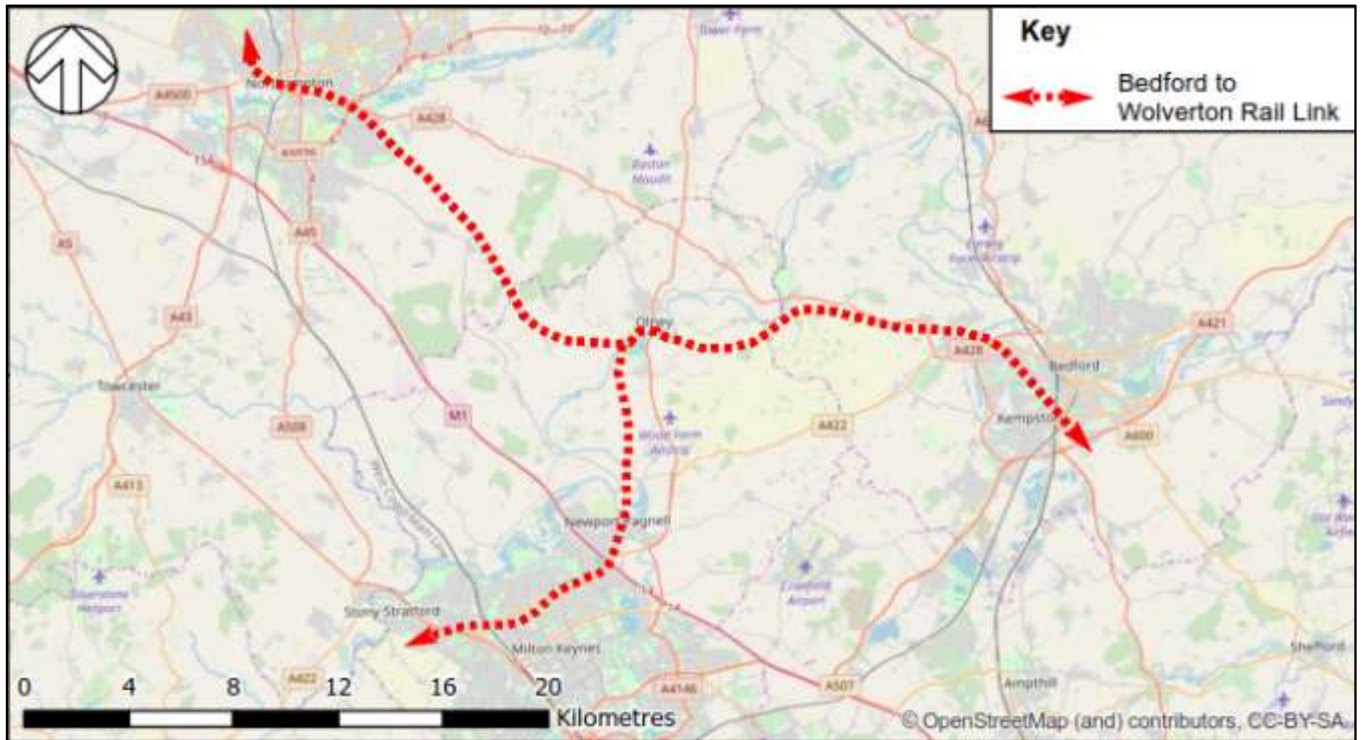
CONCEPT TYPE

Rail

CONCEPT NAME

58. Bedford to Wolverton Rail Link

INITIAL OPTION SKETCH



DESCRIPTION

Provision of a new rail link between Bedford and Wolverton, via Olney (combining *Option 50* and *Option 57*). From Wolverton Railway Station the line would route north-east to Olney, via Newport Pagnell. From Olney, the new route would then follow the alignment of the Cobbler Line (linking Bedford to Northampton) to Bedford. It would enable more efficient and quicker journeys between the West Coast Mainline and Midland Mainline and fill a strategic gap in the existing rail network.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift through provision of a new rail link between Bedford and Wolverton ▪ Improves connectivity between the Midlands and West Coast Mainlines 	<ul style="list-style-type: none"> ▪ Expensive to implement and would require backing from Network Rail and train operators ▪ Provides no direct connections to Milton Keynes Central and key trip attractors

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Long term (10+ years) 	<ul style="list-style-type: none"> ▪ Councils (Bedford, Central Bedfordshire & MK) ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Network Rail

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CONCEPT TYPE	
Parking	
CONCEPT NAME	
59. High-Quality Destination Cycle Parking	
INITIAL OPTION SKETCH	
DESCRIPTION	
<p>Implementation of secure, high-quality cycle parking at key existing destinations including: regional centres; Central Milton Keynes; schools; nurseries and employment sites. The cycle parking should be secure, well-overlooked and provide for a range of cycles – including specific infrastructure and facilities for e-Bike charging. At key sites, this should include Cycle Hubs (transport interchanges) with electronic access and a payment system.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Encourages modal shift with dedicated high-quality cycle facilities at key destinations Improves accessibility and connectivity to key employment, leisure and travel hubs 	<ul style="list-style-type: none"> Requires packaging with cycle route / infrastructure improvements to encourage uptake Requires adequate space for infrastructure to be implemented
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Short-term (1-5 years) 	<ul style="list-style-type: none"> Milton Keynes Council South East Midlands Local Enterprise Partnership Central Government Funding Bids S106 Funding
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CONCEPT TYPE

Parking

CONCEPT NAME

60. Powered Two-Wheeler Parking

INITIAL OPTION SKETCH



Image source: <http://wakefield.mag-uk.org/localmag.html>

DESCRIPTION

Implementation of secure high-quality powered two-wheeler (scooters and motorcycle) parking at key existing destinations including: regional centres; Central Milton Keynes; and key employment sites. The powered two-wheeler parking should be secure (hoops for locks), well-overlooked and provide for a range of powered two-wheelers.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift with dedicated high-quality powered two-wheeler facilities at key destinations ▪ Improves access and connectivity to key employment, leisure and travel hubs 	<ul style="list-style-type: none"> ▪ Reallocation of available parking space could constrain capacity for other modes of transport ▪ Requires adequate space for infrastructure to be implemented

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council

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CONCEPT TYPE

Parking

CONCEPT NAME

61. Increase Public Car Parking Provision in Central Milton Keynes

INITIAL OPTION SKETCH



DESCRIPTION

Increased car parking provision at key destinations throughout Milton Keynes – including Central Milton Keynes and key business centres – to accommodate strategic growth and provide for the requirements of these sectors. The infrastructure provided would predominantly be multi-storey car parking.

<p>BENEFITS</p> <ul style="list-style-type: none"> ▪ Creates a direct revenue source that can be invested into transport measures ▪ Increases car parking allocation through maximisation of space with multi-storey car parks 	<p>DISBENEFITS</p> <ul style="list-style-type: none"> ▪ Increased car parking provision will not encourage modal shift to sustainable travel modes ▪ May require road network upgrades to facilitate access to car parking facilities
<p>PROGRAMME</p> <ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<p>FUNDING OPTIONS</p> <ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ Car Park Operators ▪ S106 Funding

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CONCEPT TYPE

Parking

CONCEPT NAME

62. Capped Public Car Parking Provision in Central Milton Keynes

INITIAL OPTION SKETCH



DESCRIPTION

Cap car parking provision (at the current level) at existing key destinations throughout Milton Keynes – including Central Milton Keynes and key business centres – in order to control and manage congestion at peak times and encourage modal shift to more sustainable travel modes.

<p>BENEFITS</p> <ul style="list-style-type: none"> ▪ Encourages modal shift to more sustainable modes of travel due to maintained car parking provision ▪ Potential to maintain existing levels of congestion on the local network during peak commuting hours 	<p>DISBENEFITS</p> <ul style="list-style-type: none"> ▪ Potentially detract from business investment and tourism in the local area due to parking provision ▪ Requires packaging with sustainable travel options / infrastructure to change travel behaviour
<p>PROGRAMME</p> <ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<p>FUNDING OPTIONS</p> <ul style="list-style-type: none"> ▪ Milton Keynes Council

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CONCEPT TYPE

Parking

CONCEPT NAME

63. Reduced Public Car Parking Provision in Central Milton Keynes

INITIAL OPTION SKETCH



DESCRIPTION

Reduced car parking provision at existing key destinations throughout Milton Keynes – including Central Milton Keynes and key business centres – in order to control and reduce congestion at peak times and encourage modal shift to more sustainable travel modes. The existing infrastructure used for car parking would be sold for development of enhanced for public uses.

<p>BENEFITS</p> <ul style="list-style-type: none"> ▪ Encourages modal shift to more sustainable modes of travel due to limited car parking provision ▪ Potential to reduce congestion on the local network during peak commuting hours 	<p>DISBENEFITS</p> <ul style="list-style-type: none"> ▪ Potentially detract from business investment and tourism in the local area due to limited parking ▪ Requires packaging with sustainable travel options / infrastructure to change travel behaviour
<p>PROGRAMME</p> <ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<p>FUNDING OPTIONS</p> <ul style="list-style-type: none"> ▪ Milton Keynes Council

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CONCEPT TYPE

Parking

CONCEPT NAME

64. Central Milton Keynes Car Park Management

INITIAL OPTION SKETCH

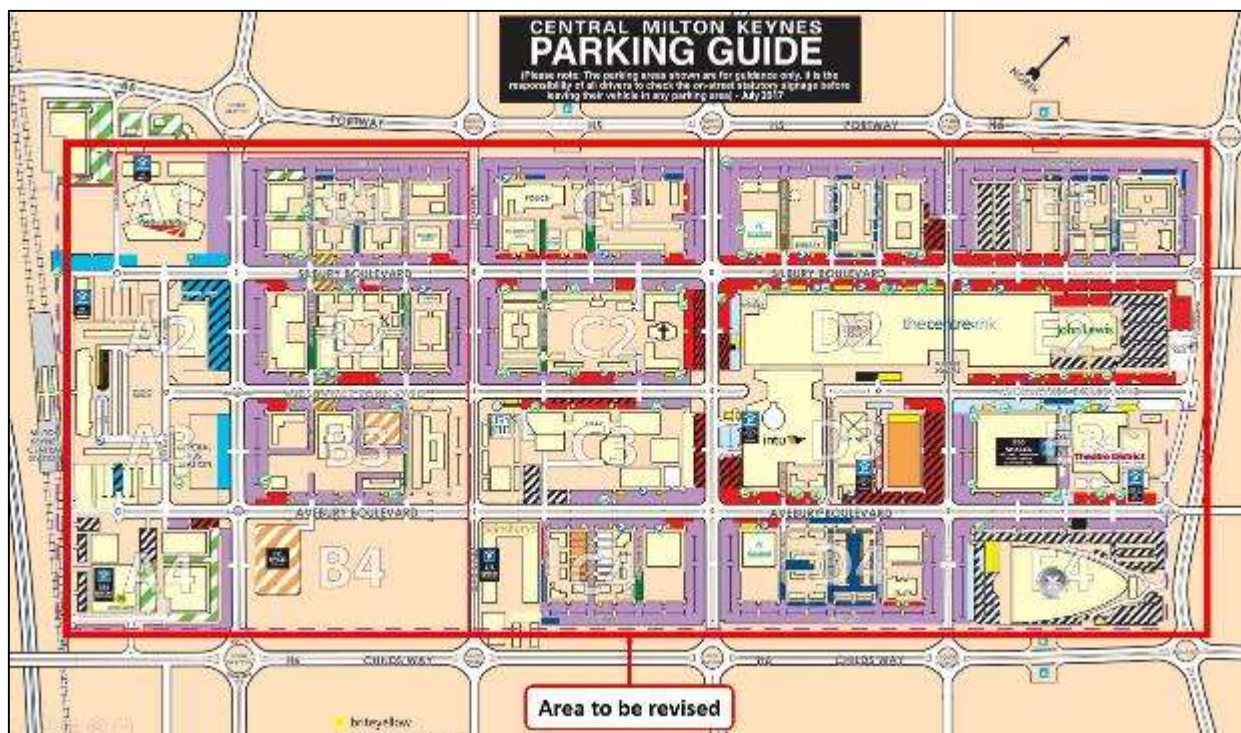


Image source: <https://www.milton-keynes.gov.uk/highways-and-transport-hub/parking/parking-maps-for-central-milton-keynes>

DESCRIPTION

Review and revise the Central Milton Keynes car parking strategy. This would include the simplification of car parking types, reviewing car parking charges and adopting a data-led approach to demand management (increasing electric vehicle spaces). This could include a dynamic supply / demand charging regime.

BENEFITS

- Simplifies management strategy and results in better user experience and understanding
- Encourages modal shift to more sustainable modes of travel due to limited car parking provision

DISBENEFITS

- Car park management fails to encourage modal shift to sustainable travel modes
- Potentially detract from business investment and tourism in the local area due to limited parking

PROGRAMME

- Short-term (1-5 years)

FUNDING OPTIONS

- Milton Keynes Council
- Car Park Operators

CONCEPT TYPE

Parking

CONCEPT NAME

65. Expansion of Electric Vehicle Charging Points

INITIAL OPTION SKETCH

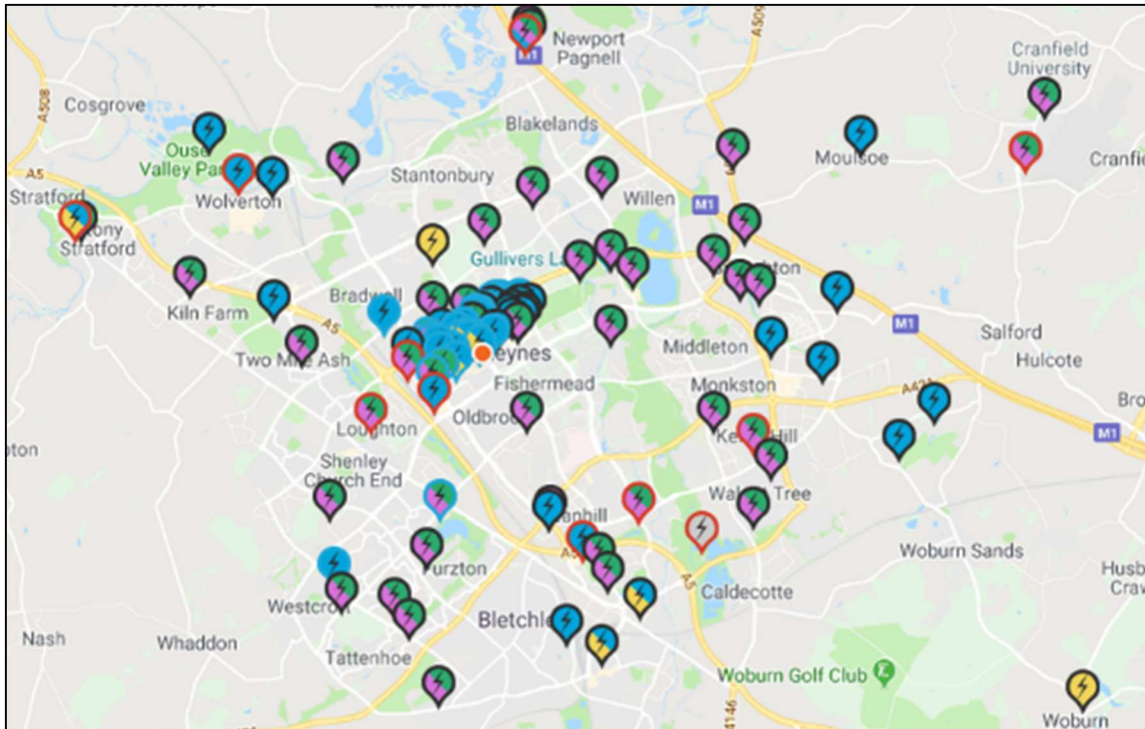


Image source: <https://www.zap-map.com/live/>

DESCRIPTION

Increase the supply of electric car charging points across Milton Keynes to encourage the use of a more sustainable mode of car travel. Additional charging infrastructure would be installed at key locations and trip attractors throughout Milton Keynes – including Central Milton Keynes, new development sites and employment sites – to increase accessibility to charging facilities for all users.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages the use of electric vehicles due to increased charging infrastructure availability ▪ Improves the local environment due to electric vehicles reducing emissions 	<ul style="list-style-type: none"> ▪ Additional charging infrastructure fails to encourage a reduction in private vehicle trips ▪ Reduces the number of parking spaces available for non-electric vehicle users

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Charger Operators

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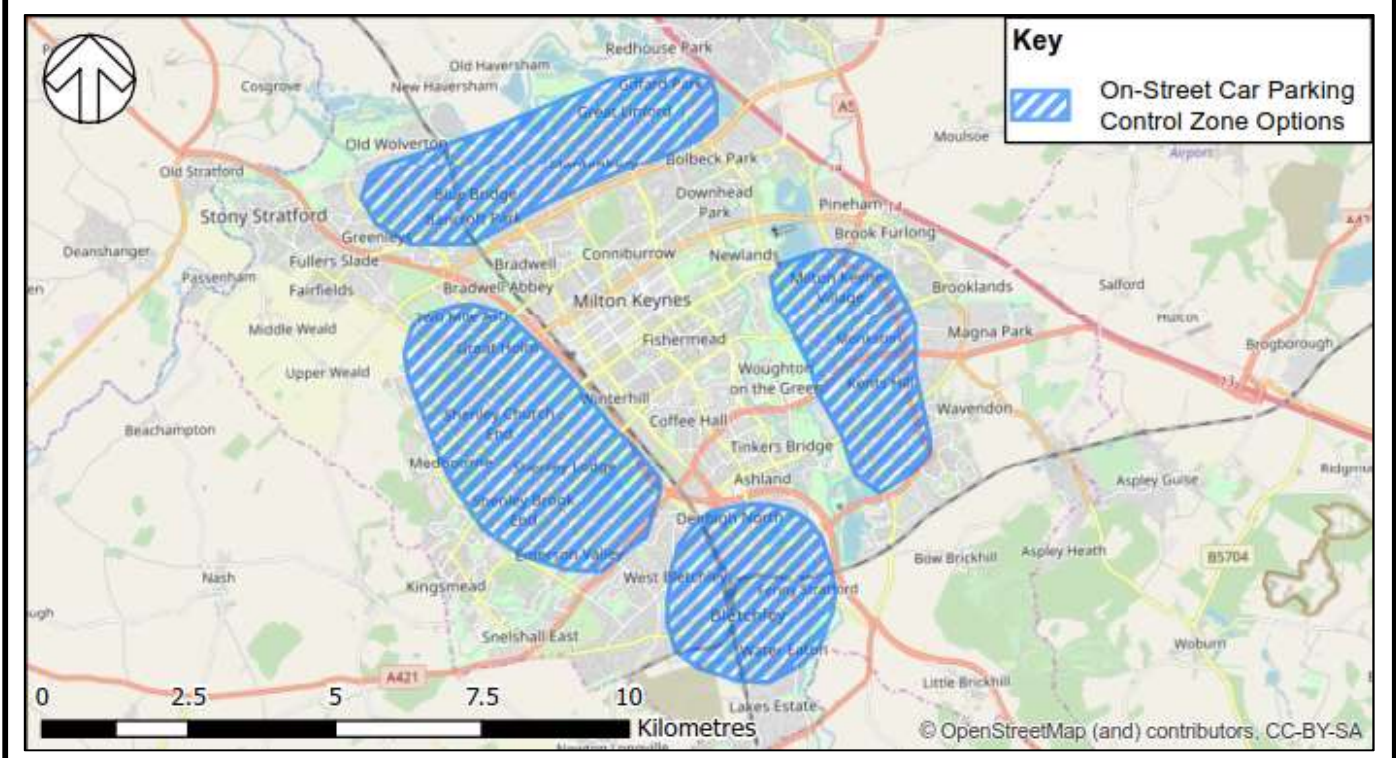
CONCEPT TYPE

Parking

CONCEPT NAME

66. On-Street Car Parking Controls

INITIAL OPTION SKETCH



DESCRIPTION

Implementation of on-street parking controls in locations that suffer from high-levels of on-street parking stress, in order to control and manage parking and encourage modal shift to more sustainable travel modes. To improve parking provision for local residents, a permit based system could be introduced.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift to more sustainable modes of travel due to car parking controls ▪ Reduces on-street parking stress with parking available to residents via permits 	<ul style="list-style-type: none"> ▪ Requires packaging with sustainable travel options / infrastructure to change travel behaviour ▪ Cost of residential permits may be unaffordable for some residents

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council

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CONCEPT TYPE	
Road	
CONCEPT NAME	
67. Pinch Point Junction Capacity Improvements	
INITIAL OPTION SKETCH	
DESCRIPTION	
<p>Delivery of physical highway capacity improvements at junctions identified as pinch points on the road network in and around Milton Keynes. Enhancements could include the introduction of traffic signals to regulate traffic flows and junction widening, within the existing highway boundary extent, to provide additional approach lanes to junctions. The purpose of these physical measures is to reduce congestion and vehicle delays at junctions.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Increases capacity at junctions and improves operational efficiency Reduces congestion, delay and journey times and improves journey time reliability 	<ul style="list-style-type: none"> Potential to shift congestion to other junctions on the network Benefits are limited to individual junctions and provides no direct link capacity enhancements
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Medium-term (5-10 years) 	<ul style="list-style-type: none"> Councils (Bedford, Central Bedfordshire & MK) South East Midlands Local Enterprise Partnership Central Government Funding Bids S106 Funding
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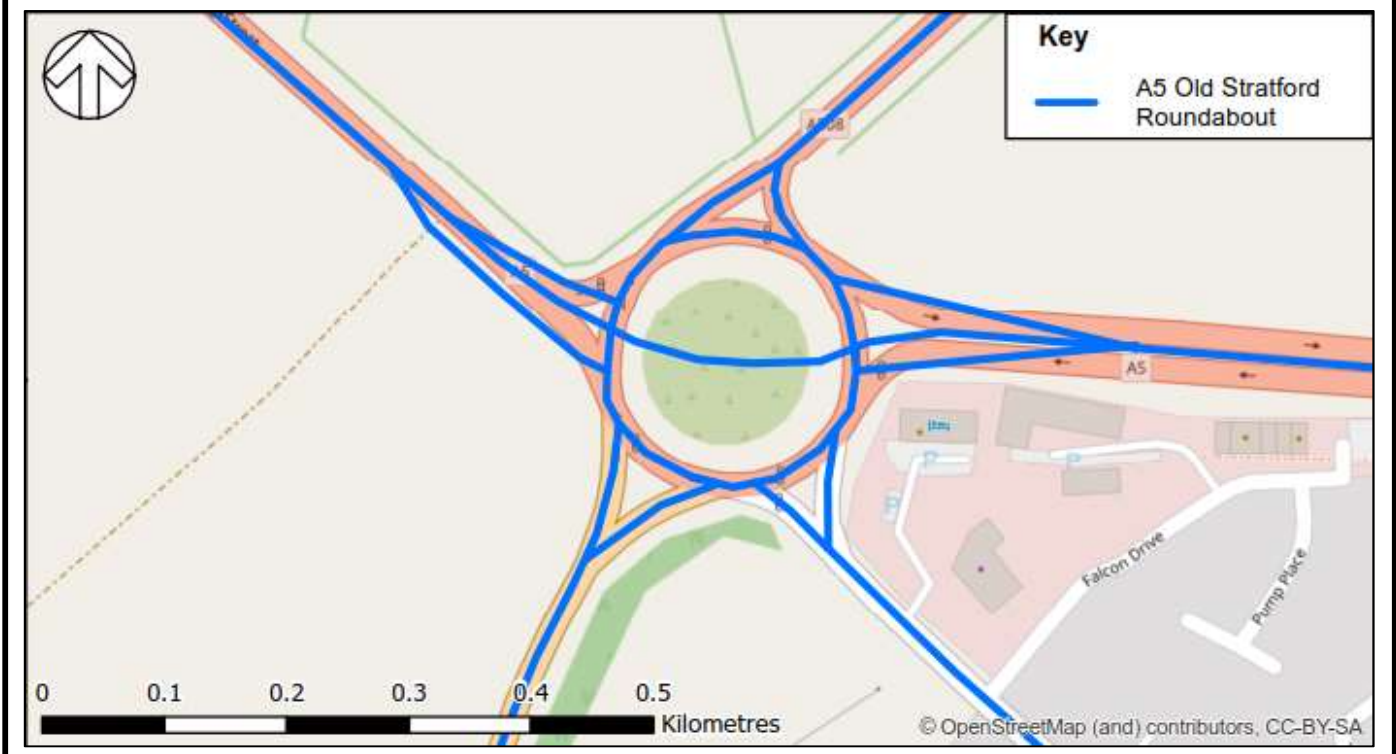
CONCEPT TYPE

Road

CONCEPT NAME

68. A5 Old Stratford Roundabout

INITIAL OPTION SKETCH



DESCRIPTION

The A5 Old Stratford Roundabout is currently an at-grade five-arm roundabout, where the A5 meets the A508 and A422, which were historically diverted around Old Stratford, and Towcester Road. This option looks to upgrade this roundabout to a grade-separated junction allowing the A5 to be free-flow with on / off-slips.

<p>BENEFITS</p> <ul style="list-style-type: none"> Increases capacity at the junction and improves operational efficiency Reduces congestion, delay and journey times and improves journey time reliability 	<p>DISBENEFITS</p> <ul style="list-style-type: none"> Requires widening of the A5 Watling Road (north-western arm) to dual carriageway standard Benefits are limited to the A5 Old Stratford Roundabout
<p>PROGRAMME</p> <ul style="list-style-type: none"> Long term (10+ years) 	<p>FUNDING OPTIONS</p> <ul style="list-style-type: none"> Councils (Bedford, Central Bedfordshire & MK) South East Midlands Local Enterprise Partnership Central Government Funding Bids Highways England

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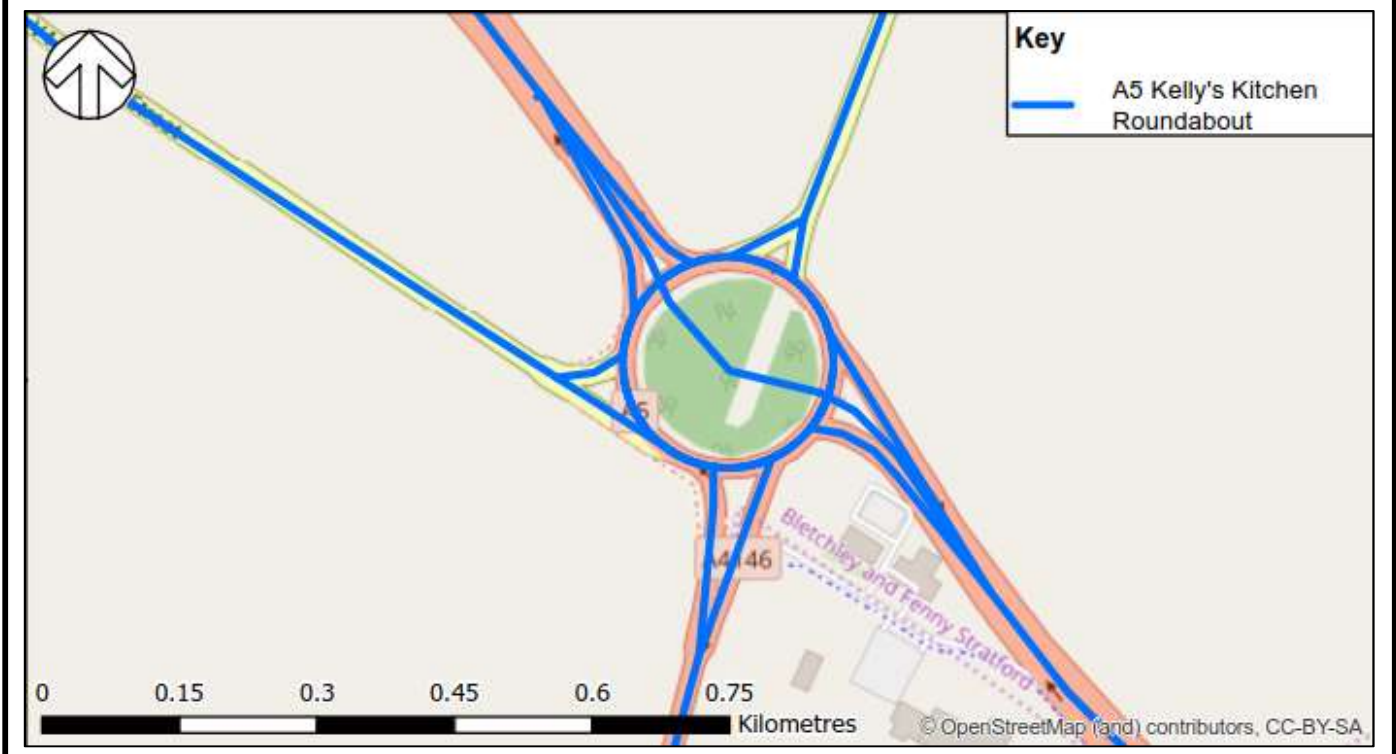
CONCEPT TYPE

Road

CONCEPT NAME

69. A5 Kelly’s Kitchen Roundabout

INITIAL OPTION SKETCH



DESCRIPTION

The A5 Kelly’s Kitchen Roundabout is currently an at-grade five-arm roundabout, where the A5 meets the V10 Brickhill Street, A4146 and Watling Street. During the peak periods this junction is often congested. Access to the services from the A5 (south), connecting to the A4146, provides a potential rat-run for users to access the roundabout. This option looks to upgrade this roundabout to a grade-separated junction allowing the A5 to be free-flow with on / off-slips.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Increases capacity at the junction and improves operational efficiency ▪ Reduces congestion, delay and journey times and improves journey time reliability 	<ul style="list-style-type: none"> ▪ Potential to shift congestion to other junctions on the network ▪ Benefits are limited to the A5 Kelly’s Kitchen Roundabout

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium-term (5-10 years) 	<ul style="list-style-type: none"> ▪ Councils (Bedford, Central Bedfordshire & MK) ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Highways England

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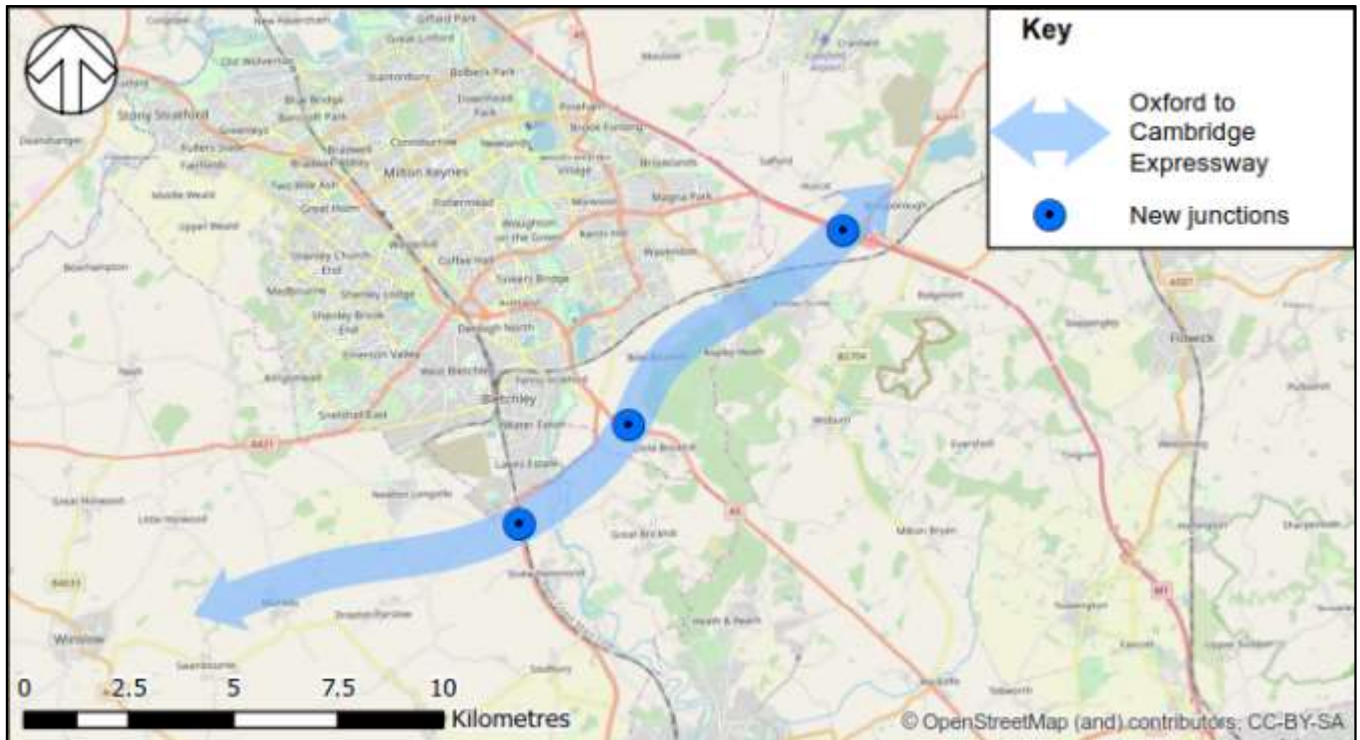
CONCEPT TYPE

Road

CONCEPT NAME

70. Oxford to Cambridge Expressway

INITIAL OPTION SKETCH



DESCRIPTION

The Oxford to Cambridge Expressway is a dual carriageway proposal by Highways England broadly aligned with the East-West Rail route. Working with Highways England and wider stakeholders, benefits of the proposed Expressway can be maximised for local residents and businesses. This option includes: identifying potential junction locations with the Major Road Network and A-Roads (for example, the A4146 and A5); unlocking strategic growth sites and taking opportunities to deliver Park & Ride Sites (*Option 32*) and Travel Hubs (*Options 25-27*).

BENEFITS

- Enhances east-west connectivity by providing fast, reliable and safe connections
- Supports and unlocks economic growth by facilitating employment, productivity and housing

DISBENEFITS

- The scheme is currently undergoing public consultation and may be subject to change
- Potential to adversely impact on the local environment and wildlife along the route
- Requires a co-ordinated transport strategy, to manage the potential private car increase

PROGRAMME

- Long term (10+ years)

FUNDING OPTIONS

- Highways England

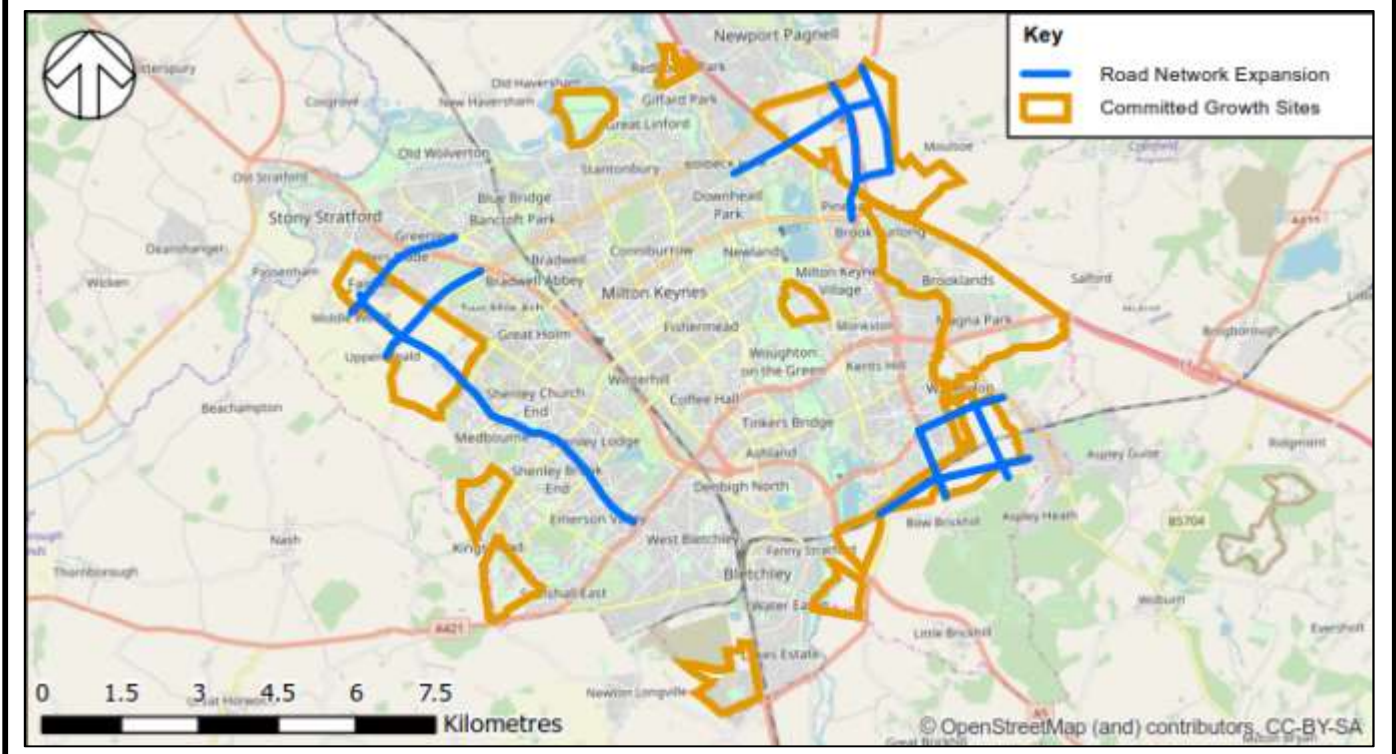
CONCEPT TYPE

Road

CONCEPT NAME

71. Milton Keynes Grid Road Expansion

INITIAL OPTION SKETCH



DESCRIPTION

Expansion of the Milton Keynes grid road system – a network of direct, high-capacity roads and junctions – into the strategic growth sites allocated in Plan:MK (preferred strategy for meeting the Borough’s development needs until 2031). Locations where the grid road system could be implemented includes: land east of the M1; South East Urban Extension; Eaton Leys; Western Expansion Area; Westcroft and Newton Leys. The routes would also cater for bus routes and provide Redway extensions.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Supports economic growth by providing direct, high-capacity grid road networks at growth sites ▪ Reduces congestion, delay and journey times and improves journey time reliability ▪ Can be packaged with, and support, other Active Travel options 	<ul style="list-style-type: none"> ▪ Development of grid road system may encourage high levels of private car use ▪ May require road network upgrades to facilitate additional volume of vehicles ▪ Could result in local community severance

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium-term (5-10 years) 	<ul style="list-style-type: none"> ▪ Councils (Bedford, Central Bedfordshire & MK) ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ S106 Funding

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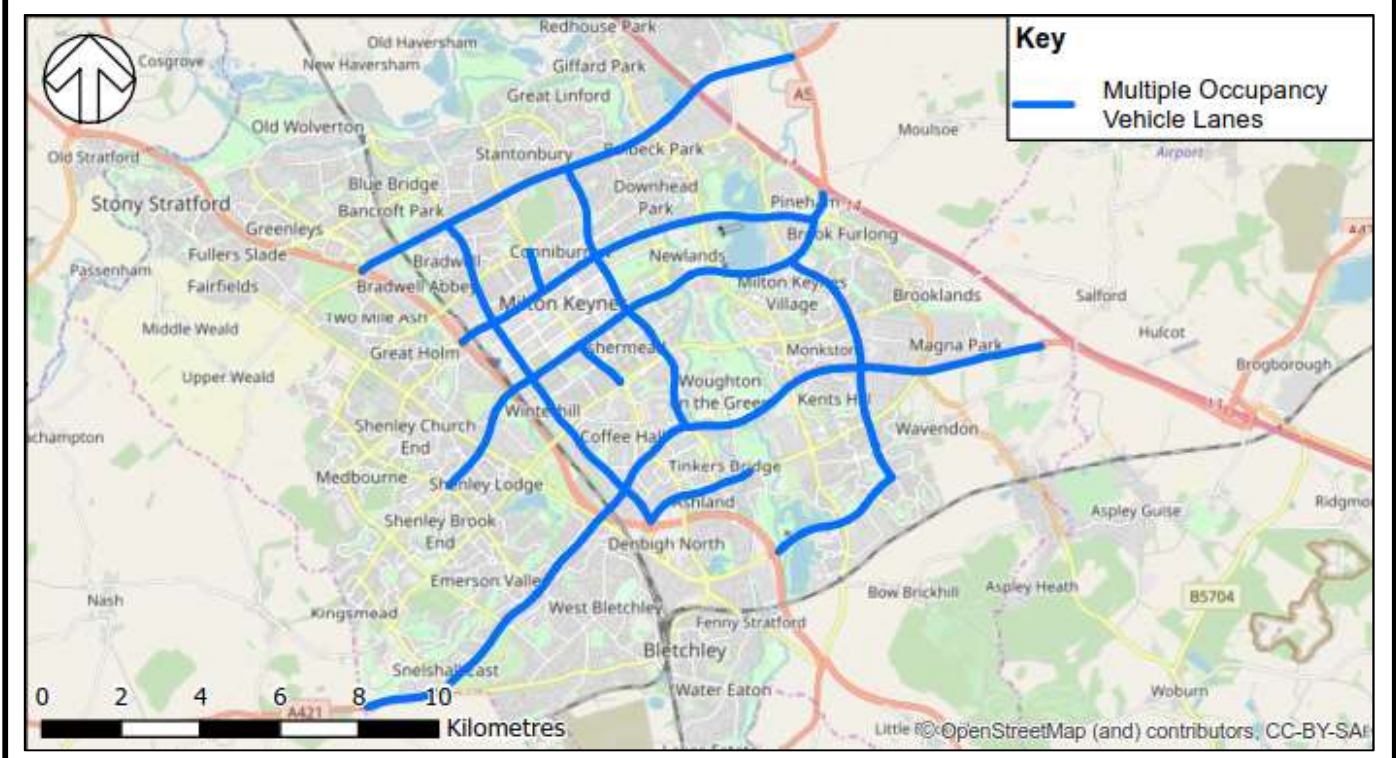
CONCEPT TYPE

Road

CONCEPT NAME

72. Multiple Occupancy Vehicle Lanes

INITIAL OPTION SKETCH



DESCRIPTION

Implementation of multiple occupancy vehicle lanes on the dual carriageway grid road network throughout Milton Keynes, restricting the type of users that can use these lanes. Vehicles carrying more than one person would be permitted to use the lanes, to encourage vehicle sharing. This option can also be adapted to permit other modes of transport (for example, buses, taxis and powered two-wheelers) to use the lanes if required.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages multiple occupancy modes of travel due to improved journey times and reliability ▪ Offers flexibility to expand the lane occupancy permissions to include additional modes of transport 	<ul style="list-style-type: none"> ▪ Reallocation of carriageway space could constrain capacity for other modes of transport ▪ Requires enforcement to ensure the lanes are only used by authorised vehicles

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids

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CONCEPT TYPE

Road

CONCEPT NAME

73. Fleet Operator Training

INITIAL OPTION SKETCH



Image source: <http://www.transportengineer.org.uk/transport-engineer-news/aecom-awarded-five-year-contract-to-manage-fors/72493>

DESCRIPTION

Promotion and encouragement for fleet operator training schemes (for example, the Fleet Operator Recognition Scheme). The scheme provides training and education for bus, coach, van and truck fleet operators in order to implement best practices and improve road safety, driving standards (ensure legal compliance) and environmental practices (reduced fuel consumption and emissions).

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Increases safety on the road network due to education of fleet operators ▪ Improves the local environment due to fleet operators implementing environmental best practice 	<ul style="list-style-type: none"> ▪ Fleet operator training fails to encourage a reduction in private vehicle trips ▪ Requires fleet operators to invest in the scheme to be effective

PROGRAMME	FUNDING OPTIONS
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<ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<ul style="list-style-type: none"> ▪ Scheme Operators
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CONCEPT TYPE

Road

CONCEPT NAME

74. A422 to Watling Street Link Road

INITIAL OPTION SKETCH



DESCRIPTION

Provision of a new link road between the A422 and Galley Hill Roundabout in the north-west quadrant of Milton Keynes in order to relieve congestion on the A5 Old Stratford Roundabout and provide greater access opportunities from the A422 corridor into Milton Keynes. The new link road would connect the H1 Ridgeway / Watling Street (from Galley Hill Roundabout) to the A422 east of Deanshanger, crossing the River Great Ouse, south of Stony Stratford.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Relieves congestion and vehicular pressure on the A5, A422 and at the A5 Old Stratford Roundabout ▪ Improves connectivity and access to Milton Keynes via the north-west quadrant 	<ul style="list-style-type: none"> ▪ New road link fails to encourage modal shift to sustainable travel modes ▪ Potential to shift congestion to other junctions and links on the road network

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium term (5-10 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ S106 Funding

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CONCEPT TYPE

Road

CONCEPT NAME

75. H1 Ridgeway Extension

INITIAL OPTION SKETCH



DESCRIPTION

Extension of the H1 Ridgeway to connect the existing links either side of the A5, in the north-west quadrant of Milton Keynes, in order to relieve congestion on Watling Street and provide greater east-west vehicle connectivity. The new link road would provide a connection over the A5 between the H1 Ridgeway / Featherstone Road junction (north of the A5) to the H1 Ridgeway / Galley Hill junction (south of the A5). This option is linked to the delivery of A422 to Galley Hill Roundabout Link Road (*Option 74*).

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Relieves congestion and vehicular pressure on Watling Street and H2 Millers Way ▪ Improves east-west connectivity over the A5 into Milton Keynes from the north-west quadrant 	<ul style="list-style-type: none"> ▪ New road link fails to encourage modal shift to sustainable travel modes ▪ Requires packaging with A422-A5 Link Road to provide wider strategic connectivity

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium term (5-10 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ S106 Funding

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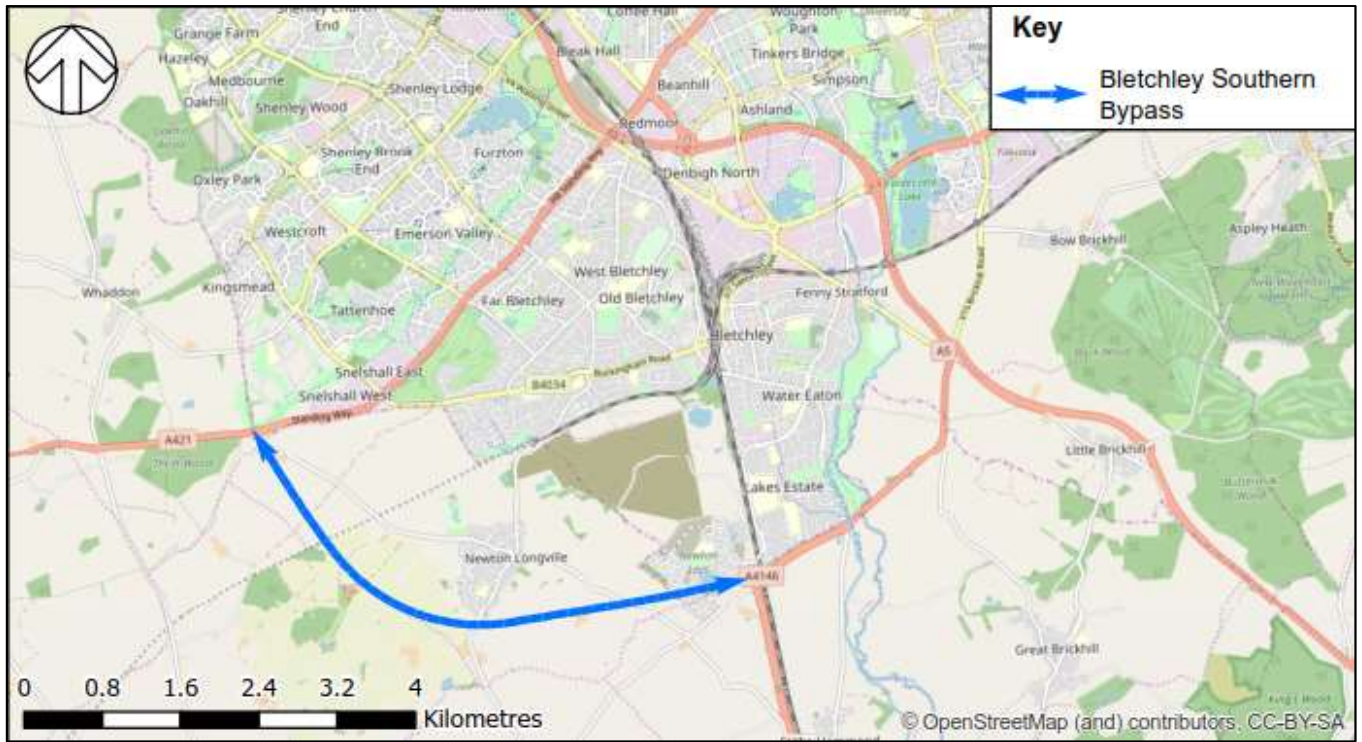
CONCEPT TYPE

Road

CONCEPT NAME

76. Bletchley Southern Bypass

INITIAL OPTION SKETCH



DESCRIPTION

Delivery of the Bletchley Southern Bypass linking the A421 and A4146 to provide congestion relief to the A421 and Buckingham Road and support the delivery of strategic growth in the southwest. The indicative route for the Bletchley Southern Bypass would connect the A4146 Stoke Hammond Bypass to the A421, west of Bletchley.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Relieves congestion and vehicular pressure on the A421 and Buckingham Road ▪ Supports economic growth and the delivery of new development in south-west Milton Keynes 	<ul style="list-style-type: none"> ▪ New road link fails to encourage modal shift to sustainable travel modes ▪ Potential to shift congestion to other junctions and links on the road network

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium term (5-10 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ S106 Funding

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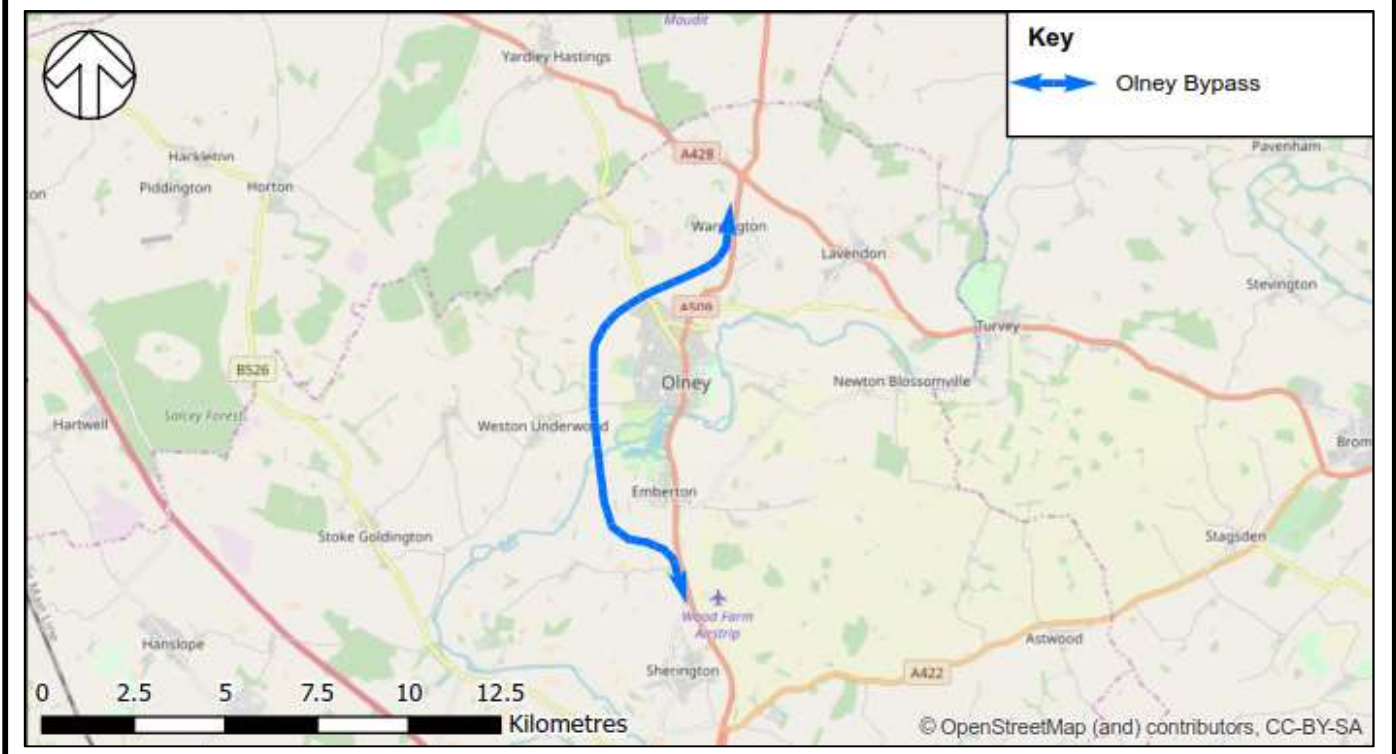
CONCEPT TYPE

Road

CONCEPT NAME

77. Olney Bypass

INITIAL OPTION SKETCH



DESCRIPTION

Provision of a north-south bypass of the A509 to the west of Olney in order to relieve congestion on the A509, a key radial route to and from Milton Keynes, and support the delivery of strategic growth to the north. The new bypass could route to the west of Emberton before heading north to cross the River Great Ouse south-west of Olney. The alignment would then cross the B5388 Yardley Road and re-join the existing A509, near Warrington.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Relieves congestion and vehicular pressure on the A509, a key radial route, through Olney ▪ Supports economic growth and the delivery of new development north of Milton Keynes 	<ul style="list-style-type: none"> ▪ New road link fails to encourage modal shift to sustainable travel modes ▪ Local environmental impacts along the route of the bypass

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium term (5-10 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ S106 Funding

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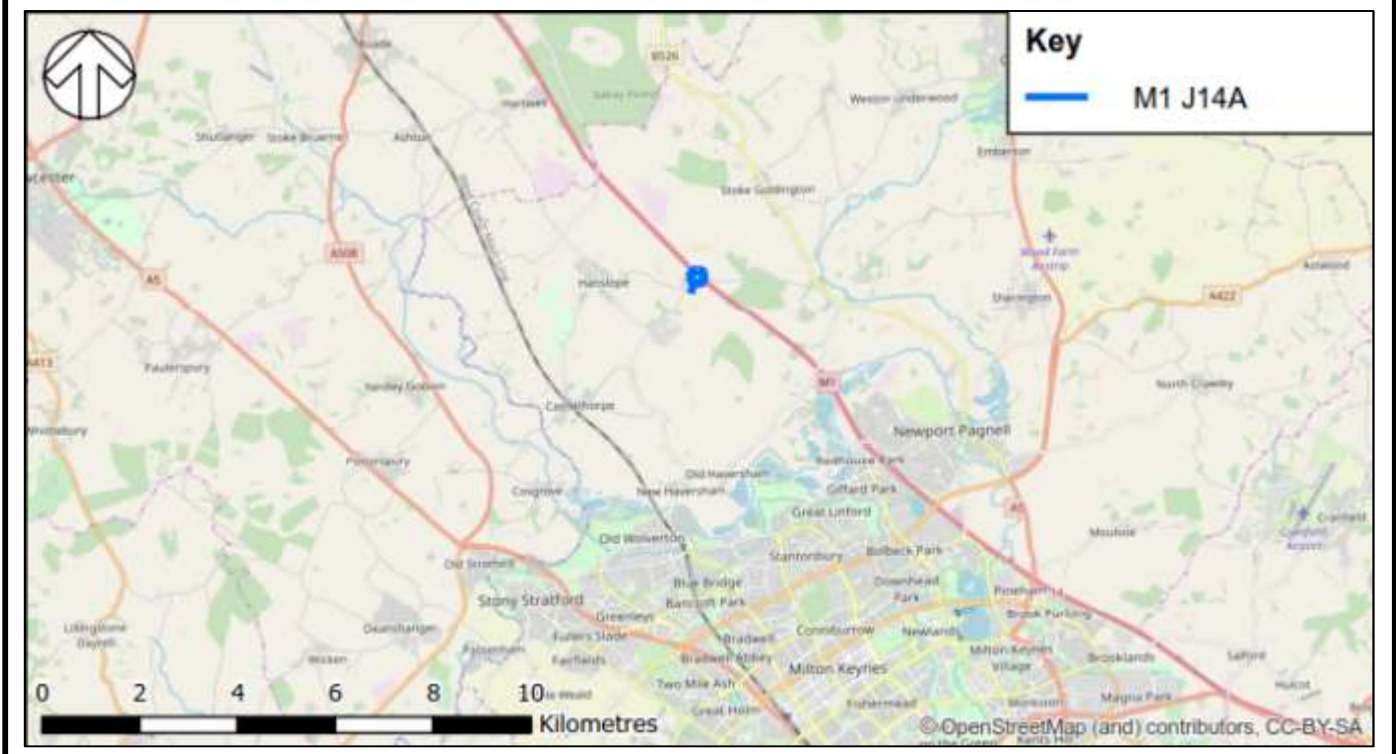
CONCEPT TYPE

Road

CONCEPT NAME

78. M1 Junction 14A

INITIAL OPTION SKETCH



DESCRIPTION

Construction of a new grade-separated junction on the M1 (Junction 14A) to the north of Milton Keynes, in order to support strategic development and relieve the pressure and impacts of the development on existing villages and rural lanes. The new junction would also provide a connection to the A509 to A5 Link Road (Option 79), providing a strategic east-west route to the north of Milton Keynes.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Improves connectivity to Milton Keynes from the M1 relieving congestion and pressure on other junctions ▪ Supports economic growth and the delivery of new development north of Milton Keynes 	<ul style="list-style-type: none"> ▪ Requires packaging with the A509-A5 Link Road to provide strategic connectivity ▪ New road infrastructure fails to encourage modal shift to sustainable travel modes

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium term (5-10 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Highways England

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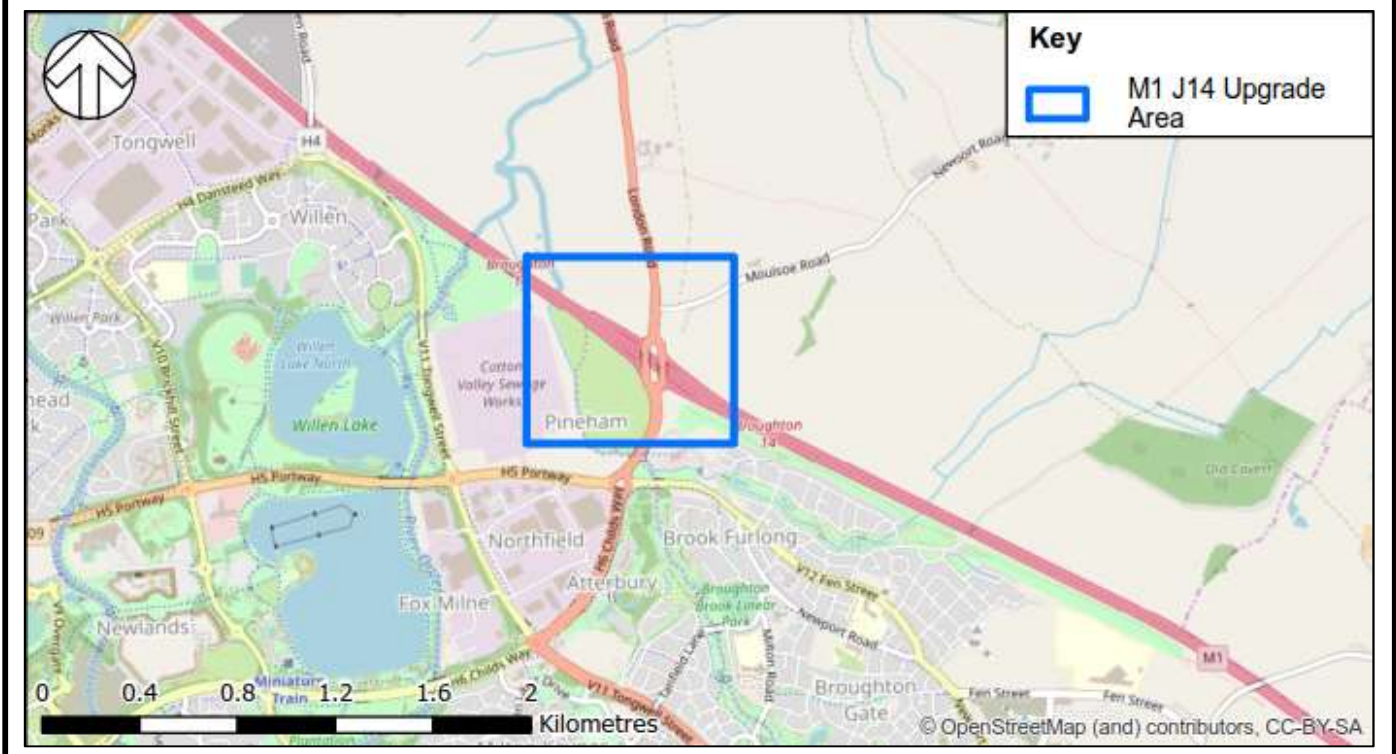
CONCEPT TYPE

Road

CONCEPT NAME

79. Upgrade of M1 Junction 14 to support Strategic Growth

INITIAL OPTION SKETCH



DESCRIPTION

The M1 Junction 14 (Broughton) is currently a grade-separated roundabout, where the M1 meets the A509, with on / off slips to the M1. This junction provides a key access into Central Milton Keynes from the east. This option looks to upgrade this roundabout to provide greater capacity (signalisation / additional approach or circulatory lanes) in order to support strategic growth.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Increases capacity at the junction and improves operational efficiency ▪ Reduces congestion, delay and journey times and improves journey time reliability 	<ul style="list-style-type: none"> ▪ Potential to shift congestion to other junctions on the network ▪ Enhancements required to upgrade the M1 Junction 14 could cause disruption

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium term (5-10 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Highways England

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CONCEPT TYPE

Road

CONCEPT NAME

80. A509 to A5 Link Road

INITIAL OPTION SKETCH



DESCRIPTION

Provision of a new link road between the A509 and A5 to the north of Milton Keynes, in order to support long-term strategic development and relieve the pressure and impacts of the development on existing villages and rural lanes. The new link road would provide a connection from the A5 to the M1 Junction 14A (*Option 78*) with an additional branch from the link road crossing the M1 and connecting with the A509 at Cricheley Hill Roundabout. The link road would provide a strategic east-west route to the north of Milton Keynes.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Improves east-west connectivity to key radial routes reducing congestion within Milton Keynes ▪ Supports economic growth and the delivery of new development north of Milton Keynes 	<ul style="list-style-type: none"> ▪ Requires packaging with the M1 Junction 14a to provide strategic connectivity ▪ New road infrastructure fails to encourage modal shift to sustainable travel modes

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Medium term (5-10 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ S106 Funding

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CONCEPT TYPE	
Road	
CONCEPT NAME	
81. Realigned A5	
INITIAL OPTION SKETCH	
DESCRIPTION	
<p>Realignment of the A5 in order to relieve congestion on the A5, a key radial route to and from Milton Keynes, and provide a junction connection to the A509 to A5 Link Road (<i>Option 80</i>) increasing east-west connectivity. The new alignment would divert off the A5 prior to the Old Stratford Roundabout crossing the A508 before connecting with the A509 to A5 Link Road (<i>Option 80</i>). The A5 realignment would then continue north-west to create a bypass of Potterspurty before re-joining the existing carriageway.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Reduces congestion, delay and journey times and improves journey time reliability on the A5 Supports economic growth and the delivery of new development north-west of Milton Keynes 	<ul style="list-style-type: none"> Requires packaging with the A509-A5 Link Road to provide strategic connectivity New road infrastructure fails to encourage modal shift to sustainable travel modes
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Medium term (5-10 years) 	<ul style="list-style-type: none"> Milton Keynes Council South East Midlands Local Enterprise Partnership Central Government Funding Bids Highways England
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CONCEPT TYPE

Road

CONCEPT NAME

82. One-Way Gyratory

INITIAL OPTION SKETCH



Image source: <http://nationalconversation.uk/milton-keynes-how-the-built-environment-affects-the-way-we-think-about-immigration/>

DESCRIPTION

Fundamentally change the operation of the grid road network to a one-way operation, in order to improve network capacity and efficiency. The grid road has the potential to form a gyratory system around Central Milton Keynes (or city-wide) with the aim of reducing direct vehicle access to key destinations.

BENEFITS

- Increases capacity and operational efficiency on the road network
- Increases safety along the road network due to reduced conflicting movements

DISBENEFITS

- Reduces connectivity to key destinations resulting in greater distances travelled
- Potential to increase congestion on the road network due to directional travel

PROGRAMME

- Long term (10+ years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- Central Government Funding Bids

CONCEPT TYPE	
Road	
CONCEPT NAME	
83. Grid Network Speed Reduction	
INITIAL OPTION SKETCH	
DESCRIPTION	
<p>Speed reduction on the urban grid road network to ensure safe operation. This would entail a 10mph reduction on both dual carriageways and single carriageways currently subject to national limits, resulting in speed limits of 50pm or 60mph.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Improves road safety throughout the urban area of Milton Keynes for residents and employees Improves journey reliability with greater network efficiency from lower traffic speeds 	<ul style="list-style-type: none"> Requires packaging with additional infrastructure (cameras, speed humps) to enforce the speed limits Increases journey times due to slower speeds which is likely to be exacerbated at peak times
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Short-term (1-5 years) 	<ul style="list-style-type: none"> Milton Keynes Council
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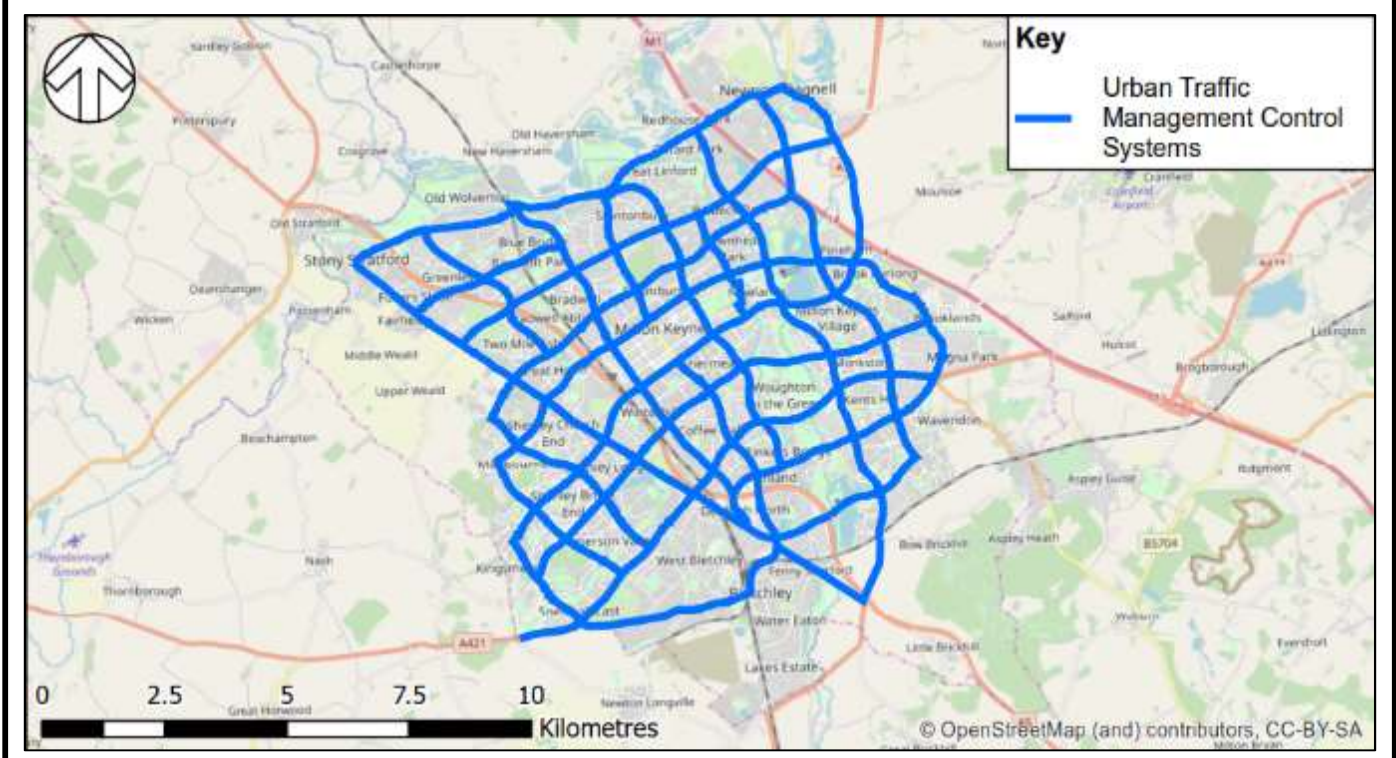
CONCEPT TYPE

Technology

CONCEPT NAME

84. Expansion / Development of Urban Traffic Management Control System

INITIAL OPTION SKETCH



DESCRIPTION

Development / expansion of an Urban Traffic Management Control System. This will include signalised bus priority measures at key pinch-point junctions, signalisation at junctions utilising different signal types – Split Cycle Offset Optimisation Technique (SCOOT) / Microprocessor Optimised Vehicle Actuation (MOVA) – CCTV, and traffic and cycle counters. This option aims to gather data and maximise junction efficiency with the ability to monitor success.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Dynamic management system to improve network capacity and operational efficiency ▪ Encourages modal shift by implementing a control system favouring sustainable travel modes 	<ul style="list-style-type: none"> ▪ Can only be implemented at signal controlled junctions ▪ Requires a connected, high-quality control system network throughout to be an effective solution

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids

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CONCEPT TYPE

Technology

CONCEPT NAME

85. Clean Freight Vehicles

INITIAL OPTION SKETCH



Image source: <https://www.engadget.com/2018/05/09/ups-electric-trucks-arrival/?guccounter=1>

DESCRIPTION

Encourage the use of low-emission / electric delivery vehicles. This could be linked to the use of Freight Consolidation Centres (*Option 101*) and Urban Logistics Network (*Option 102*) with the provision of Collection Hubs (Click and Collect). Using more carbon efficient vehicles and routing patterns would enable efficient last mile delivery.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Improves the local environment due to freight operators using low-emission / electric vehicles ▪ Supports the use of consolidated deliveries to enable efficient last mile delivery 	<ul style="list-style-type: none"> ▪ Requires packaging with other freight / delivery logistic options to be an effective option ▪ Requires investment and backing from freight operators to upgrade their fleet

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Innovation Funds

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CONCEPT TYPE

Technology

CONCEPT NAME

86. Milton Keynes Council Clean Vehicles

INITIAL OPTION SKETCH



Image source: <https://corporate.thameswater.co.uk/Media/News-releases/Plug-for-first-Thames-Water-electric-vans>

DESCRIPTION

Replacement of the existing Milton Keynes Council's vehicle fleet with electric vehicles – for waste collection, maintenance vans and pool cars. A cycle pool could also be introduced to the Council fleet. This will demonstrate Milton Keynes Council's commitment to making the city greener, whilst providing an example to other Councils and members of the public and demonstrating that an all-electric fleet is possible.

BENEFITS

- Improves the local environment due to Milton Keynes Council using electric vehicles
- Improves reputation of Milton Keynes Council to the public and other organisations

DISBENEFITS

- Implementing an electric fleet does not reduce the number of vehicles on the road network
- Requires widespread charging infrastructure to ensure fleet efficiency

PROGRAMME

- Short term (1-5 years)

FUNDING OPTIONS

- Milton Keynes Council

CONCEPT TYPE

Technology

CONCEPT NAME

87. Electric Public Transport

INITIAL OPTION SKETCH



Image source: <http://www.cbi.org.uk/insight-and-analysis/milton-keynes-wirelessly-charged-electric-buses/>

DESCRIPTION

Encourage the introduction of an electric taxi and bus fleet through Quality Partnership agreements and funding bids. The introduction of electric buses and taxis can help to improve air quality in the city centre and an increased frequency of bus services could help to break the reliance on personal vehicles.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift to more sustainable modes of transport ▪ Improves the local environment due to bus / taxi operators using electric vehicles 	<ul style="list-style-type: none"> ▪ Requires investment and backing from public transport operators to upgrade their fleet ▪ Requires widespread charging infrastructure to ensure fleet efficiency

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids ▪ Innovation Funds

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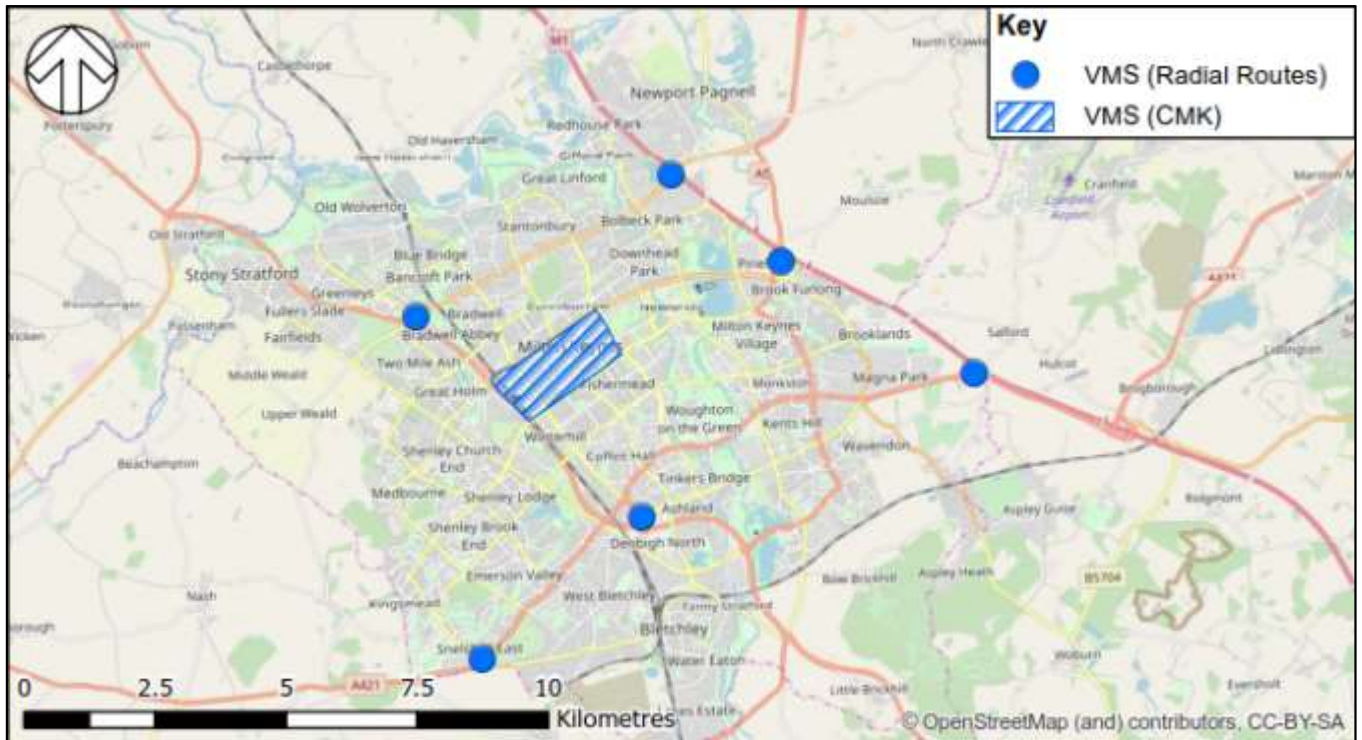
CONCEPT TYPE

Technology

CONCEPT NAME

88. Variable Messaging Signs (Parking Signage)

INITIAL OPTION SKETCH



DESCRIPTION

Provision of city-wide Variable Messaging Signs (VMS) located on the main radial routes into Milton Keynes and throughout Central Milton Keynes, in order to encourage efficient usage of the existing car parking provision and engage with the maximum number of driver possible.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Increases available information allowing users to make informed routing decisions to destinations ▪ Potential to reduce congestion on the local road network during peak commuting hours 	<ul style="list-style-type: none"> ▪ Additional information of parking provision fails to encourage a reduction in private vehicle trips ▪ Potential to increase distances travelled to access car parking provision with availability

PROGRAMME	FUNDING OPTIONS
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<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council
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CONCEPT TYPE

Technology

CONCEPT NAME

89. SMART Sensors

INITIAL OPTION SKETCH

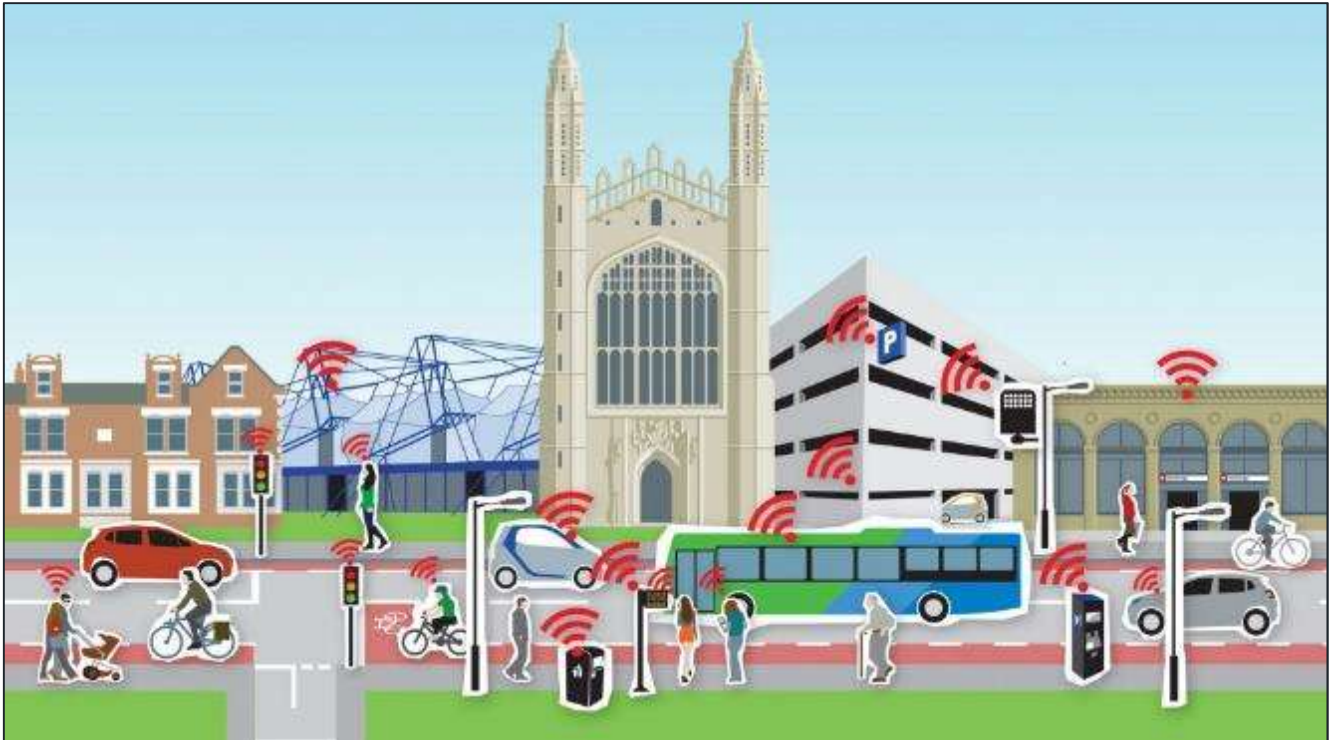


Image source: <https://www.cambridgefilmworks.com/smart-cambridge->

DESCRIPTION

Installation of SMART Sensors covering roads, Redways and parking spaces to enable the collection of real-time information. This data can then be linked to transport models, monitoring transport scheme impacts, network resilience, air quality, traffic conditions, asset maintenance, emergency planning, and providing open data to transport network users via a SMART Milton Keynes Travel Portal (*Option 93*) including car parking space availability, bus locations and dynamic vehicle routing.

BENEFITS

- Allows users to make informed decisions about how and when they travel
- Provides data that can be used to inform future transport infrastructure investment

DISBENEFITS

- SMART Sensors create a complex network which requires significant technological infrastructure
- Requires packaging with an accessible portal for users to access open data

PROGRAMME

- Short-term (1-5 years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- Central Government Funding Bids
- Innovation Funds

CONCEPT TYPE

Technology

CONCEPT NAME

90. Cashless Bus Tickets

INITIAL OPTION SKETCH



Image source: <https://www.intelligenttransport.com/transport-articles/65007/smarter-ticketing-changes-bus-industry/>

DESCRIPTION

Introduction of cashless ticket payment capability across all bus operators, on all buses and provide ticketing stations at bus stops. This option would encourage contactless card payments at bus stops and / or onboard buses and would enable the use of Apple Pay or Google Pay using smartphones.

BENEFITS

- Encourages modal shift by providing greater freedom and ease of ticket purchase
- Reduces journey times and increases journey reliability due to faster payments at stops / on-bus

DISBENEFITS

- Requires upgrade to vehicle fleet and bus stops to ensure continuous service of cashless payments
- Potential to increase social exclusion for members of the public without payment cards

PROGRAMME

- Short-term (1-5 years)

FUNDING OPTIONS

- Milton Keynes Council
- Bus Operators

CONCEPT TYPE

Technology

CONCEPT NAME

91. Integrated Ticketing

INITIAL OPTION SKETCH



Image source: <https://www.standard.co.uk/news/transport/tfl-urged-to-release-223-million-left-by-passengers-on-oyster-cards-a3312656.html>

DESCRIPTION

Introduction of fully integrated, universal ticketing across rail, bus and cycle hire travel modes using contactless card payments (for example, Oyster Cards). This would provide a more efficient and user-friendly public transport network for users and encourage greater patronage of public transport modes. This would need to be agreed between each commercial operator.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift through improved accessibility across public transport modes ▪ Reduces journey times and increases journey reliability due to universal public transport ticketing 	<ul style="list-style-type: none"> ▪ Dependent upon cooperation and support from public transport operators ▪ Potential to increase social exclusion for members of the public visiting Milton Keynes

PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council ▪ Public Transport operators ▪ South East Midlands Local Enterprise Partnership ▪ Central Government Funding Bids

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CONCEPT TYPE	
Technology	
CONCEPT NAME	
92. Mobility as a Service	
INITIAL OPTION SKETCH	
DESCRIPTION	
<p>Implementation of a Mobility as a Service (MaaS) scheme (for example, Whim in Birmingham) by a private operator. MaaS schemes combine public and private transportation methods into a unified platform as services, where trips can be managed. MaaS schemes provide an application service which provides integrated access to public transport, taxis, cycle share schemes, Demand Responsive Transit (DRT), car clubs and car hire schemes on a pay as you go and monthly plan basis.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Encourages modal shift to sustainable modes of transport by providing a unified platform Reduces journey times and increases journey reliability and flexibility of travel to all locations 	<ul style="list-style-type: none"> Potential to increase social exclusion for members of the public without a smartphone device Requires investment and cooperation with private application developers and transport operators
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Short term (1-5 years) 	<ul style="list-style-type: none"> Scheme Operators
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CONCEPT TYPE

Technology

CONCEPT NAME

93. SMART Milton Keynes Travel Portal

INITIAL OPTION SKETCH

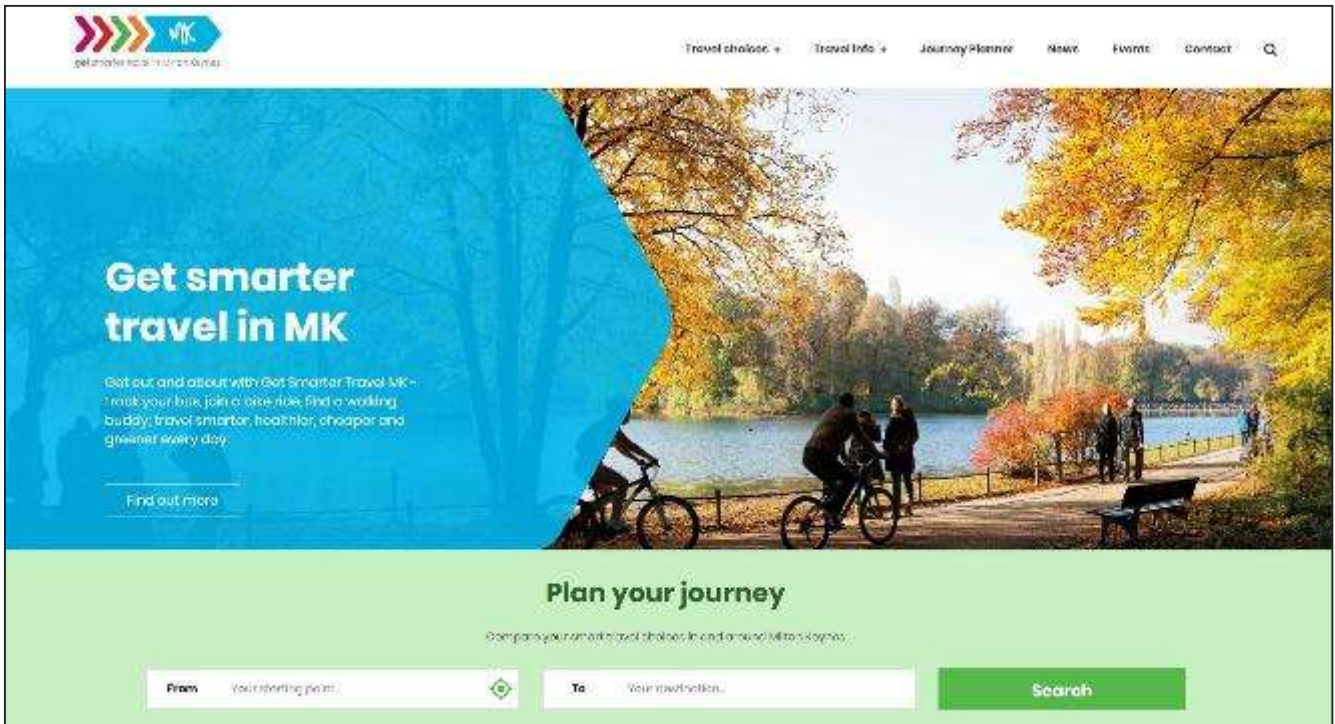


Image source: <https://www.getsmartertravelmk.org/>

DESCRIPTION

Creation and promotion of a SMART Milton Keynes web-based travel portal that provides users with real-time travel information, in conjunction with a network of SMART Sensors (*Option 89*). This can include: parking data (space availability); live bus tracking; bus timetables; train departures; traffic maps; weather forecasts; incident messages; car club availability; cycle scheme availability; air quality and journey planning.

BENEFITS

- Allows users to make informed decisions about how / when they travel
- Reduces journey time and delay for users by providing real-time travel information

DISBENEFITS

- Travel portal does not directly influence travel behaviour and reduce single occupancy trips
- Requires packaging with a network of SMART Sensors across Milton Keynes to provide open data

PROGRAMME

- Short term (1-5 years)

FUNDING OPTIONS

- Website Operator
- Milton Keynes Council

CONCEPT TYPE

Technology

CONCEPT NAME

94. Superfast Broadband

INITIAL OPTION SKETCH

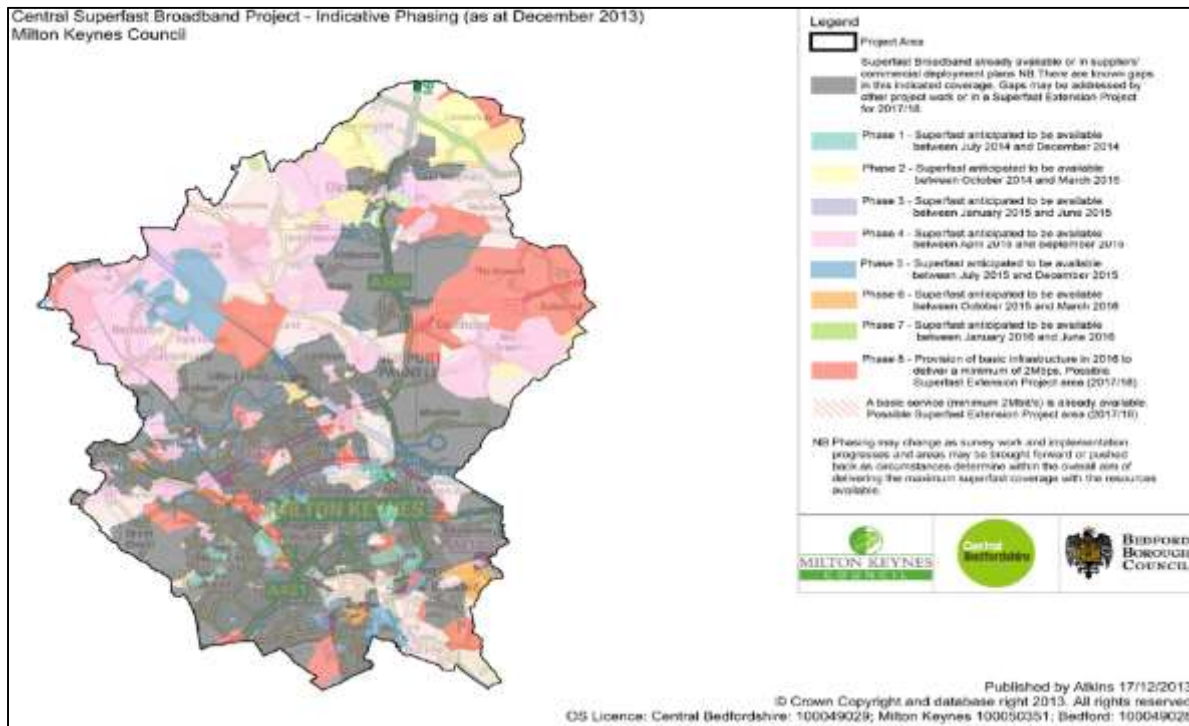


Image source: Superfast Broadband Update, Newport Pagnell North & Hanslope Area Forum (Milton Keynes Council, May 2015)

DESCRIPTION

Support for the delivery of superfast broadband across Milton Keynes, to encourage Mobility as a Service (MaaS) schemes (*Option 92*), access to application and web-based services and home working. The majority of Milton Keynes benefits from superfast broadband, and working with neighbouring councils, Milton Keynes Council are looking to extend fibre coverage throughout. Broadband Delivery UK 1 (2014-2016) extended fibre coverage to approximately 97% of premises in the Borough.

BENEFITS

- Reduces the need to travel, relieving pressure on the local transport network
- Encourages modal shift by supporting access to web-based services for real-time information

DISBENEFITS

- Requires a consistently reliable network to reduce travel need and provide real-time information
- Requires investment and cooperation from broadband suppliers

PROGRAMME

- Short-term (1-5 years)

FUNDING OPTIONS

- Broadband Providers

CONCEPT TYPE

Technology

CONCEPT NAME

95. Personal Autonomous Vehicle Solution

INITIAL OPTION SKETCH



Image source: <https://medium.com/@DonotInnovate/mind-blowing-driverless-future-fcc5197d509>

DESCRIPTION

Implementation of a widescale personal autonomous vehicle solution for Milton Keynes. The technology allows users to have larger amounts of time available for work, play or to socialise, as they no longer need to be in control of the vehicle. Autonomous vehicles could also allow those who cannot currently operate a vehicle, to gain a new independence, as they no longer need to rely on driving themselves to destinations.

BENEFITS

- Autonomous technology enables more time to be used for work, play and socialising
- Potential to increase social inclusion by providing greater independence for non-motorists

DISBENEFITS

- Potential safety risks associated with autonomous vehicles in urban areas
- Personal autonomous vehicle solution fails to encourage modal shift to sustainable travel modes
- Requires widespread technological infrastructure to ensure vehicles are connected

PROGRAMME


- Long-term (10+ years)

FUNDING OPTIONS

- Scheme Operators
- Government Funding Bids
- Milton Keynes Council

CONCEPT TYPE	
Technology	
CONCEPT NAME	
96. Shared Autonomous Vehicle Solution	
INITIAL OPTION SKETCH	
 <p style="text-align: right; font-size: small;">Image source: https://www.intelligenttransport.com/transport-news/24259/shared-autonomous-vehicle-first-group/</p>	
DESCRIPTION	
<p>Implementation of a widescale shared autonomous vehicle solution for Milton Keynes. The technology allows riders to have larger amounts of time available for work, play or to socialise, as they no longer need to be in control of the vehicle. Autonomous vehicles could also allow those who cannot currently operate a vehicle, to gain a new independence, as they no longer need to rely on driving themselves to destinations.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages modal shift by providing an accessible and affordable mode of transport ▪ Potential to increase social inclusion by providing greater independence for non-motorists 	<ul style="list-style-type: none"> ▪ Potential safety risks associated with autonomous vehicles in urban areas ▪ A shared autonomous vehicle solution fails to encourage active travel ▪ Requires widespread technological infrastructure to ensure vehicles are connected
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Long-term (10+ years) 	<ul style="list-style-type: none"> ▪ Scheme Operators ▪ Government Funding Bids ▪ Milton Keynes Council
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CONCEPT TYPE	
Policy	
CONCEPT NAME	
97. Bus Lane Usage	
INITIAL OPTION SKETCH	
<small>Image source: http://www.anfieldcommunitycorner.co.uk/?p=2833</small>	
DESCRIPTION	
<p>Exploration of the opportunity to allow electric vehicles to utilise bus lanes and Multiple Occupancy Lanes (<i>Option 72</i>) in order to encourage modal shift to more sustainable vehicles. This option can also be adapted to allow other modes of transport to use the lanes if required, for example, autonomous vehicles and powered two-wheelers.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Encourages modal shift to more sustainable modes of transport by incentivising routes Offers flexibility to expand the lane occupancy permissions to include additional modes of transport 	<ul style="list-style-type: none"> Reduce attractiveness of bus travel due to availability to use by other modes Requires enforcement to ensure the lanes are only used by permitted vehicles
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Short-term (1-5 years) 	<ul style="list-style-type: none"> Milton Keynes Council
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CONCEPT TYPE	
Policy	
CONCEPT NAME	
98. Parking Policy	
INITIAL OPTION SKETCH	
	
<p><small>Image source: Parking Strategy for Central Milton Keynes (Milton Keynes Council, November 2013)</small></p>	
DESCRIPTION	
<p>Review and update the Milton Keynes Council Local Plan Parking Policy. This would include the implementation of infrastructure for electric vehicles and passive electric vehicles in new developments, reviewing the existing car parking provision and utilisation and developing a simplified management strategy.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Encourages the use of electric vehicles due to increased charging infrastructure availability ▪ Potential to link with other sustainable transport options (car club, car share, cycle parking) 	<ul style="list-style-type: none"> ▪ Parking policy does not directly influence driver behaviour and reduce single occupancy trip ▪ Requires enforcement to ensure the policy provides an effective solution to parking
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Milton Keynes Council
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CONCEPT TYPE	
Delivery Partnerships	
CONCEPT NAME	
99. Freight Quality Partnership	
INITIAL OPTION SKETCH	
<p>Image source (top left): http://www.apse-archive.org.uk/presentations/08/05/may08_Scottish_fleet_waste_grounds/Mike%20Slinn.pdf Image source (top right): https://www.centrallondonfqp.org/central-london-fqp/ Image source: (bottom left): https://www.centrallondonfqp.org/other-london-fqp-s/south-london/ Image source (bottom right): http://www3.lancashire.gov.uk/council/meetings/displayFile.asp?FTYPE=M&FILEID=41488</p>	
DESCRIPTION	
<p>Establishment of a Milton Keynes Freight Quality Partnership with membership from industry, freight operators, police, neighbouring authorities and other key stakeholders. This would provide the opportunity to develop an understanding of freight, delivery and servicing issues and solutions that reconcile the need for access to goods and services in the context of local economic, environmental and social factors.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Provides an understanding of the current and future freight, delivery and servicing requirements Encourages economic growth with engagement and partnership with freight operators 	<ul style="list-style-type: none"> Potential solutions need to be implemented, where possible, to ensure the partnership see progress Potential for conflicting objectives resulting in stagnation of freight solutions
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Short-term (1-5 years) 	<ul style="list-style-type: none"> Group Members
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CONCEPT TYPE	
Delivery Partnerships	
CONCEPT NAME	
100. Sub-Regional Transport Group	
INITIAL OPTION SKETCH	
<p>England's Economic Heartland Strategic Alliance 3.45 million people 175,000 businesses £92.5 billion current Gross Value Added 12,000 square km</p> <p>Heartland Membership Bedford Borough Council Buckinghamshire County Council Cambridgeshire County Council Central Bedfordshire Council Luton Borough Council Milton Keynes Council Northamptonshire County Council Oxfordshire County Council Peterborough City Council South East Midlands Local Enterprise Partnership (SEMLEP) Northamptonshire Enterprise Partnership (NEP) Oxfordshire Local Enterprise Partnership (OXLEP) Buckinghamshire Thames Valley Local Enterprise Partnership (BTVLEP)</p>	
Image source: http://www.EnglandSEconomicHeartland.com/Documents/EEH_Landscape%20map.pdf	
DESCRIPTION	
<p>Engagement with England's Economic Heartland (EEH) to provide input into the Regional Transport Strategy, in order to identify and plan cross-border and cross-region transport infrastructure projects. This option would also support the establishment of a Sub-National Transport Body.</p>	
BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> Provides an understanding of the current and future transport requirements at a sub-regional level Encourages economic growth with targeted transport strategy with input from transport groups 	<ul style="list-style-type: none"> Potential for conflicting objectives resulting in stagnation of transport development Sub-regional transport group would focus on strategic connections only
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> Short term (1-5 years) 	<ul style="list-style-type: none"> Group Members Central Government
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CONCEPT TYPE

Freight

CONCEPT NAME

101. Freight Consolidation Centres

INITIAL OPTION SKETCH



Image source: <https://www.transportxtra.com/publications/local-transport-today/news/52797/relaunch-of-consolidation-centre-mooted-as-council-axes-grant/>

DESCRIPTION

Implementation of a series of Freight Consolidation Centres at strategic locations on the Milton Keynes periphery (for example, close to the M1 and Oxford to Cambridge Expressway). All local deliveries for retail, parcel / courier services will be consolidated at the centre and thereafter delivered to customers / residents in Milton Keynes using more carbon efficient vehicles and routing patterns enabling efficient last mile delivery.

BENEFITS	DISBENEFITS
<ul style="list-style-type: none"> ▪ Reduces the quantum of delivery vehicle fleet on the road network, increasing capacity ▪ Improves the local environment due to the use of carbon efficient vehicles and routing patterns 	<ul style="list-style-type: none"> ▪ Requires support from the delivery companies / logistics companies to use the infrastructure ▪ Potential to increase time between item purchase and delivery due to consolidation process
PROGRAMME	FUNDING OPTIONS
<ul style="list-style-type: none"> ▪ Short-term (1-5 years) 	<ul style="list-style-type: none"> ▪ Scheme Operators

The contents of this document are confidential to Milton Keynes Council. All options shown are draft for illustration purposes for the Milton Keynes Transport Infrastructure Plan and will be subject to further investigation and consultation which may lead to design changes.

CONCEPT TYPE

Freight

CONCEPT NAME

102. Urban Logistics Network

INITIAL OPTION SKETCH

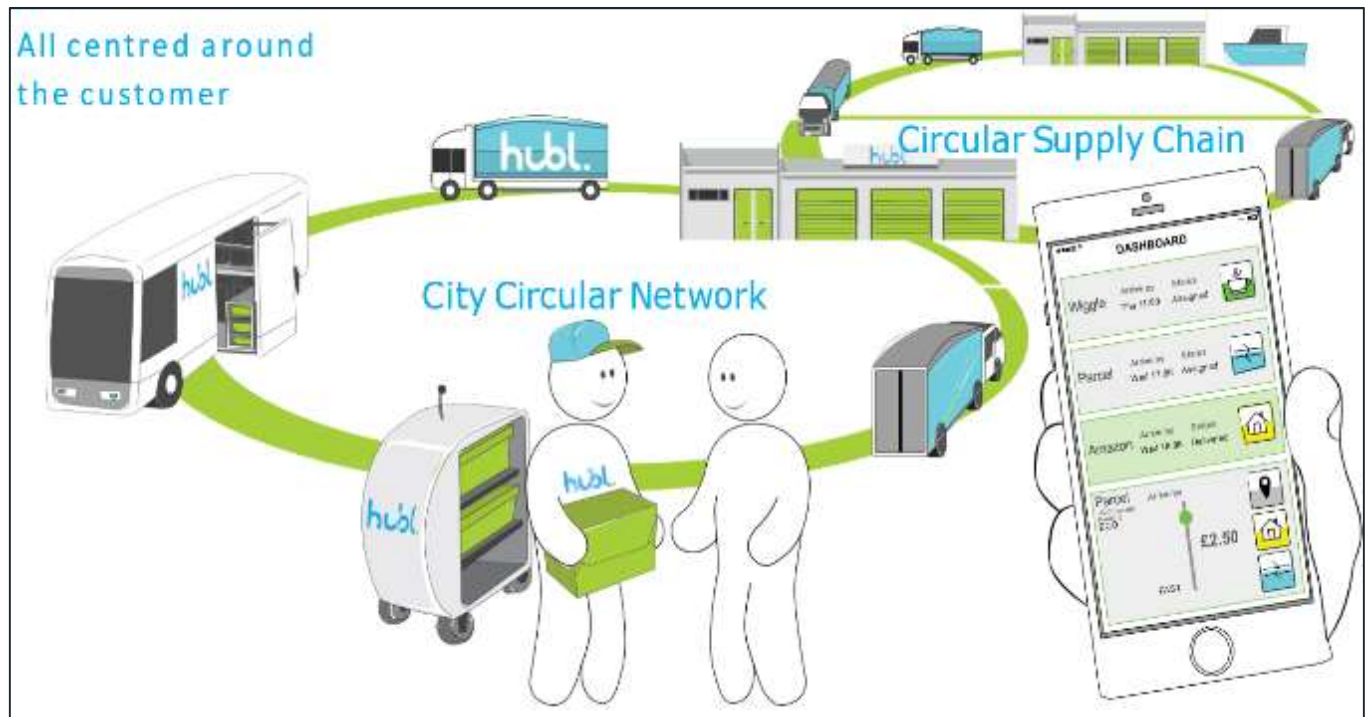


Image source: <http://www.hubl.co.uk/what-we-do/>

DESCRIPTION

Implementation of a first-last mile goods delivery infrastructure. This option can be combined with Freight Consolidation Centres (*Option 101*) and includes the provision of Collection Hubs (Click and Collect) that allow customers to send and receive goods at convenient locations, for example: railway stations, Park & Ride Sites (*Option 32*), town centres and regional centres. Deliveries to the Collection Hubs can be made by consolidated delivery vehicles and electric low emission vehicles (vans / cargo bikes).

BENEFITS

- Provides a convenient and attractive method of parcel collection for customers
- Improves the local environment due to the use of carbon efficient vehicles and routing patterns

DISBENEFITS

- Requires support from the delivery companies / logistics companies to use the infrastructure
- Requires packaging with other freight infrastructure to provide an efficient service

PROGRAMME

- Medium-term (5-10 years)

FUNDING OPTIONS

- Milton Keynes Council
- South East Midlands Local Enterprise Partnership
- Central Government Funding Bids
- Innovation Funds

CONCEPT TYPE

Freight

CONCEPT NAME

103. Autonomous Deliveries

INITIAL OPTION SKETCH



Image source: <https://weburbanist.com/2016/07/18/the-brave-new-world-of-robotic-pizza-delivery-is-almost-here/>

DESCRIPTION

Expansion of the autonomous 'last mile' delivery trial across Milton Keynes. The Co-op are currently trialling the use of hi-tech six-wheeled driving machines to deliver groceries ordered on a smartphone to customers. The use of autonomous / remote-controlled robot delivery vehicles could be expanded to other companies / services, including; pharmaceuticals, library services, groceries and electronic commerce (for example, Amazon deliveries).

BENEFITS

- Reduces the quantum of delivery vehicle fleet on the road network, increasing capacity
- Increases economic growth through reduced business delivery costs

DISBENEFITS

- Potential safety risks associated with autonomous vehicles in urban areas
- Requires technological infrastructure to ensure vehicles are connected

PROGRAMME

- Long-term (10+ years)

FUNDING OPTIONS

- Scheme Operators