



Milton Keynes Council Plan:MK - Infrastructure Delivery Plan



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Document Review

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1. Introduction

1.1 General

- 1.1.1 This Infrastructure Delivery Plan (IDP) has been compiled by Egniol Environmental Limited (Egniol) on behalf of Milton Keynes Council as part of their commitment to producing and delivering an appropriate local plan for the delivery of infrastructure to support the continued expansion of development within the Borough.
- 1.1.2 Milton Keynes Council ('the Council') has produced and submitted for approval their latest local plan. This plan, known as Plan:MK, covers the period up to 2031; once adopted Plan:MK will replace all the existing policies in the Core Strategy (2013) and the Milton Keynes Local Plan (2013).

1.2 Status and Purpose

- 1.2.1 IDP is both a living and now supporting document for Plan:MK. The IDP seeks to cover the new plan up until 2031 although to achieve this its content will require to be expanded and refined to reflect progress in Development Frameworks for new expansion areas and be periodically reviewed to reflect changes in the delivery plans of the Council and other partners.
- 1.2.2 The aim of the IDP is to:
- identify what infrastructure is needed to sustainably support future strategic growth within the Brough of Milton Keynes.
 - It explains the approach the Council has taken to identifying this infrastructure that will serve both employment and housing growth, how it will be delivered, and where possible highlight potential risks associated with doing such development.
 - It seeks to support and inform the Council's policies including those in the new Plan:MK.
- 1.2.3 It is important to note that this IDP reflects a range of growth options across the district and thus presents a strategic picture of requirements. As growth options are refined, so the IDP will be updated with more detail in time, including as a result of further discussions with infrastructure providers.

2. Policy Context

2.1 National policy

2.1.1 The context for this IDP is underpinned within Paragraph 156 of the National Planning Policy Framework (NPPF) which states:

Local planning authorities should set out the strategic priorities for the area in the Local Plan. This should include strategic policies to deliver:

- *the homes and jobs needed in the area;*
- *the provision of retail, leisure and other commercial development;*
- *the provision of infrastructure for transport, telecommunications, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat);*
- *the provision of health, security, community and cultural infrastructure and other local facilities; and climate change mitigation and adaptation, conservation and enhancement of the natural and historic environment, including landscape.*

2.1.2 The IDP also needs to be read in conjunction with the Local Plan (Plan:MK) which contains references to the IDP; this is borne out by Paragraph 174 which states:

Local planning authorities should set out their policy on local standards in the Local Plan, including requirements for affordable housing. They should assess the likely cumulative impacts on development in their area of all existing and proposed local standards, supplementary planning documents and policies that support the development plan, when added to nationally required standards. In order to be appropriate, the cumulative impact of these standards and policies should not put implementation of the plan at serious risk and should facilitate development throughout the economic cycle. Evidence supporting the assessment should be proportionate, using only appropriate available evidence.

2.1.3 Paragraph 162 then advises that planning authorities should cooperate with neighbouring authorities:

Local planning authorities should work with other authorities and providers to:

- *assess the quality and capacity of infrastructure for transport, water supply, wastewater and its treatment, energy (including heat), telecommunications, utilities, waste, health, social care, education, flood risk and coastal change management, and its ability to meet forecast demands and;*
- *take account of the need for strategic infrastructure including nationally significant infrastructure within their areas.*

2.1.4 The approach of the IDP is to assess the needs arising from larger identified sites which individually, or in combination, will contribute towards addressing the strategic objectives of the emerging Local Plan. It is acknowledged that there will also be growth

arising from smaller and non-strategic sites which could be deemed significant in certain areas. Such growth could therefore translate to some additional burden on existing infrastructure networks. However, it is unlikely that such growth will result in the need for additional strategic infrastructure e.g. schools, medical facilities, utilities infrastructure. These smaller and non-strategic sites have not been addressed individually in the IDP, although relevant aspects have been considered cumulatively.

- 2.1.5 At several points, the NPPF notes that Local Plans should be 'deliverable' and 'viable'. The Council should therefore look to manage infrastructure and other requirements to ensure the delivery of the Plan:MK.

2.2 Local Policy

- 2.2.1 Plan:MK, when adopted, will replace all of the existing policies in the Milton Keynes Core Strategy (2013) and the Milton Keynes Local Plan (2013).
- 2.2.2 Within Plan:MK the relevant infrastructure delivery Policy INF1 states that:
- New development that generates a demand for infrastructure, facilities and resources will only be permitted if the necessary on and off-site infrastructure required to support and mitigate the impact of that development is either already in place; or,
 - There is a reliable mechanism in place to ensure that infrastructure, facilities and resources will be delivered in the most appropriate places and at the earliest opportunity, to the required minimum high standards demanded by this Council and its partners. This might include improvements for highway schemes such as bus and rail provisions and enhancement for walking and cycling facilities, or the provision of local health, shopping and recreational facilities.

3. Methodology

3.1 Structure of Document

- 3.1.1 This section sets out the structure of the IDP and approach taken to assess the Borough's infrastructure needs including limitations and exclusions.
- 3.1.2 This document is structured into three sections. It considers the proposed strategic growth areas of the Borough and likely infrastructure requirement, reviews what developer produced information is available and builds up a comparative summary with costs where possible.
- 3.1.3 It is possible to identify three broad categories of infrastructure, as listed below.
- i. Physical infrastructure - e.g. transport (including public transport, cycling and pedestrian paths), water supply and waste management, public realm, energy supply, telecommunications, waste management and flood alleviation;
 - ii. Social infrastructure - e.g. education, health, social care, emergency services, courts and probation services, arts and cultural venues, art and design in the public realm, sport and recreational facilities, community halls and religious facilities;
 - iii. Green infrastructure - e.g. public open space, green space, parks and play space

3.2 Approach

- 3.2.1 In general, the IDP defines 'infrastructure' as 'any facility, service or physical structure that supports or enables proposed development, whether privately or publicly funded; this development could be for society or enterprise.'
- 3.2.2 There are several important principles regarding the approach that should be recognised; these are:
- The IDP does not seek to make up for historic deficits in infrastructure. However, there are instances where supporting growth might most effectively be achieved through the upgrading of existing facilities. This could include, for example, extending existing schools or enhancing current public transport services.
 - Not all housing and employment growth planned for individual sites will attract specific additional infrastructure requirements that can be addressed through the development of that site alone.
 - The IDP, for most infrastructure items, presents the 'gross case scenario' in terms of needs. In the case of social, community, leisure and green infrastructure needs, this is because the methodology or establishing the scale of need is based on calculations per head of the population.
 - It is important to recognise within the public services changing ways of providing services which can make it extremely difficult for an IDP to be definitive about what physical infrastructure might be required to support these in future. Within

most areas of public service there are many options under discussion as to how future services should be provided, and the outcome of these could, therefore, have a significant impact on infrastructure needs and costs.

- 3.2.3 This IDP also recognises that the infrastructure provision can be categorised in priority, although it is recognised that priority can depend on perspective. Some infrastructure is critical and, without which, development cannot commence (e.g.: some transport and utility infrastructure). Other infrastructure is necessary, but the precise timing and phasing is less critical and early stages of development may be able to commence ahead of its provision (e.g.: schools and healthcare). Some infrastructure is important to help build sustainable communities, but timing and phasing is not immediately critical and can be phased over the plan period (e.g.: libraries, green infrastructure provision).

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4. Growth within the context of Plan:MK

4.1 Introduction

- 4.1.1 Plan:MK covers the development period up to 2031, extending the timeframe of the current local plan, the 2013 Core Strategy, by an additional 5 years.
- 4.1.2 Plan:MK identifies further key growth areas as Strategic Urban Extensions; these are broadly consistent with those which had been previously set out within the Strategic Development Directions Consultation Document 2016.
- 4.1.3 A key part of this IDP is to initiate the planned delivery of new infrastructure within these proposed Strategic Urban Extensions. However, recognition is also made of the large ongoing and committed development, primarily within the Eastern Expansion and Western Expansion Areas; these are designated as City Expansion areas. The ongoing developments and future growth areas are considered within the subsequent Housing and Growth section.
- 4.1.4 Plan:MK seeks to address infrastructure provision within the Borough of Milton Keynes boundary. However cross boundary cooperation is expected to become increasingly necessary as Milton Keynes expands towards Borough boundaries, such as at Eaton Leys, and development is proposed in other Local Authority areas adjacent to their boundaries with Milton Keynes, as at Salden Chase/South West Milton Keynes in Aylesbury Vale.
- 4.1.5 Strategic infrastructure delivery cross boundary cooperation has begun, through the South East Midlands Local Enterprise Partnership (SEMLEP), particularly with Central Bedfordshire Council over the A421 dualling scheme linking the M1 corridor at J13 with the Milton Keynes urban area; see Figure 1 showing Borough relationships within the SEMLEP area.



Contains Ordnance Survey data © Crown copyright and database right 2013

Figure 1: Illustration showing Milton Keynes Council boundary with the South East Midlands (SEM) area

4.2 Spatial Strategy

- 4.2.1 In July 2013 the Council adopted the current local plan, the 2013 Core Strategy, following extensive work to adjust its approach regarding spatial strategy following the revocation of the Regional Spatial Strategy in 2010, providing full autonomy in local planning and plan making powers to local councils.
- 4.2.2 Plan:MK adopts a spatial delivery strategy which seeks to deliver land for a minimum of 26,500 new homes within the Borough between 2016 and 2031, principally within and adjacent to the city. It also sets out an intention to work jointly with neighbouring authorities and other key organisations on the planning of any development located on the edge of Milton Keynes (but outside the Borough boundary) so that these areas are integrated with the city and contribute to its role and character.

- 4.2.3 Plan:MK acknowledges the ambitions of the MK2050 Commission Report¹. However, given the uncertainty currently surrounding progress on a number of emerging strategies and infrastructure developments, including progress on East-West Rail and the National Infrastructure Commission's work on the Cambridge-Milton Keynes-Oxford Growth Corridor, and the further MK Futures 2050 work in progress, it was considered to be premature to bring forward an option at this time, based on delivering the full ambition.
- 4.2.4 Similarly, this IDP only seeks to provide direction for the planning of the infrastructure required to deliver Plan:MK and awaits the outcome of the various workstreams identified above which will inform future editions of the IDP and the Council's Local Investment Plan.
- 4.2.5 In terms of existing urbanised area of Milton Keynes, allowing for the Expansion areas already under development, this is constrained to the west and south by the Borough boundary and north by floodplain thus restricting future expansion options. It is evident from Figure 2 that east and south-east expansion is the most appropriate.

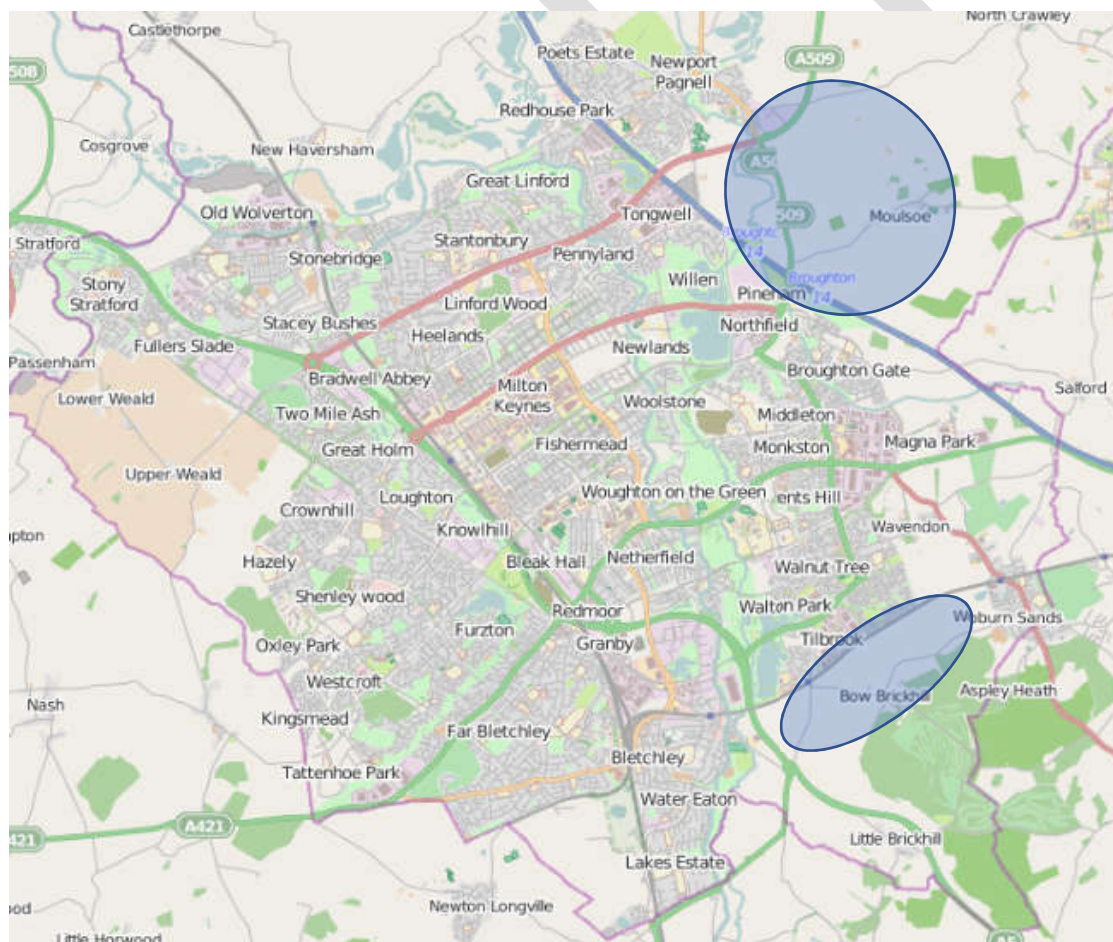


Figure 2: Potential growth zones in Milton Keynes

¹ Source: <http://www.mkfutures2050.com/read-our-report>

- 4.2.6 Noticeably, the potential expansion east of the M1, designated as a strategic reserve, is separated by the M1 corridor, development here relies on the crossing of the M1 motorway and securing suitable grid road connectivity.
- 4.2.7 Both the MK2050 Commission and National Infrastructure Commission recognise the Cambridge to Milton Keynes to Oxford growth potential as a single knowledge-intensive cluster. Figure 3 below illustrates this potential growth corridor and how it sits within the context of the existing growth corridors in the south east.
- 4.2.8 The National Infrastructure Commission (NIC), following their commission by the Chancellor of the Exchequer, have produced their final report 'Partnering for Prosperity: a new deal for the Cambridge-Milton Keynes-Oxford Arc' which concluded 'the Cambridge-Milton Keynes-Oxford arc must be a national priority. Its world-class research, innovation and technology can help the UK prosper in a changing global economy. But success cannot be taken for granted. Without urgent action, a chronic undersupply of homes could jeopardise growth, limit access to labour and put prosperity at risk.'
- 4.2.9 To address this the NIC have proposed that the delivery ambition for new housing across the corridor should be effectively doubled but to do this 'it must maximise the benefits of new infrastructure investments and make the most of existing infrastructure assets.'
- 4.2.10 The Commission also emphasised their support for the two major 'national' infrastructure projects intended to promote development across the corridor, East West Rail and the Oxford-Cambridge Expressway. The ability of these major investments to support the creation of new settlements is suggested 'including the first new towns to be built in over a generation', but the Commission are clear that 'new settlements are only part of the solution. Meeting the Arc's future housing needs will require development in and around existing towns and cities.'
- 4.2.12 To allow this to happen the Commission emphasises that Local Authorities must have the tools, the freedoms, powers and resources to ensure, amongst other things, that infrastructure is planned, funded, and delivered in a way that provides certainty to local communities, to those developing local plans and to those bringing forward proposals for major residential or commercial development.
- 4.2.13 The Commission report further concluded that there was underutilisation of land resources and continued use of outmoded models of development that perpetuated car reliance. This in turn leads to fears that congestion is becoming a threat to economic investment and quality of life as well as increasing levels of air pollution and that growing congestion could limit people's ability to access employment in the arc's key towns and cities.
- 4.2.14 The Commission therefore calls for the development of public transport and active travel options which could make more efficient and effective use of road space in the arc's key cities, reducing the amount of road space required per person and enabling a greater volume of journeys using the existing transport networks. They acknowledge that this will require a collaborative approach from all stakeholders including Department of Transport and Councils.

- 4.2.15 The need for Milton Keynes to adapt its medium and long-term infrastructure planning to support the development of these options is reflected in its current Local Transport Plan (2011-2031) and its emerging Mobility Strategy (2018-2036) both of which are covered in Chapter 5.

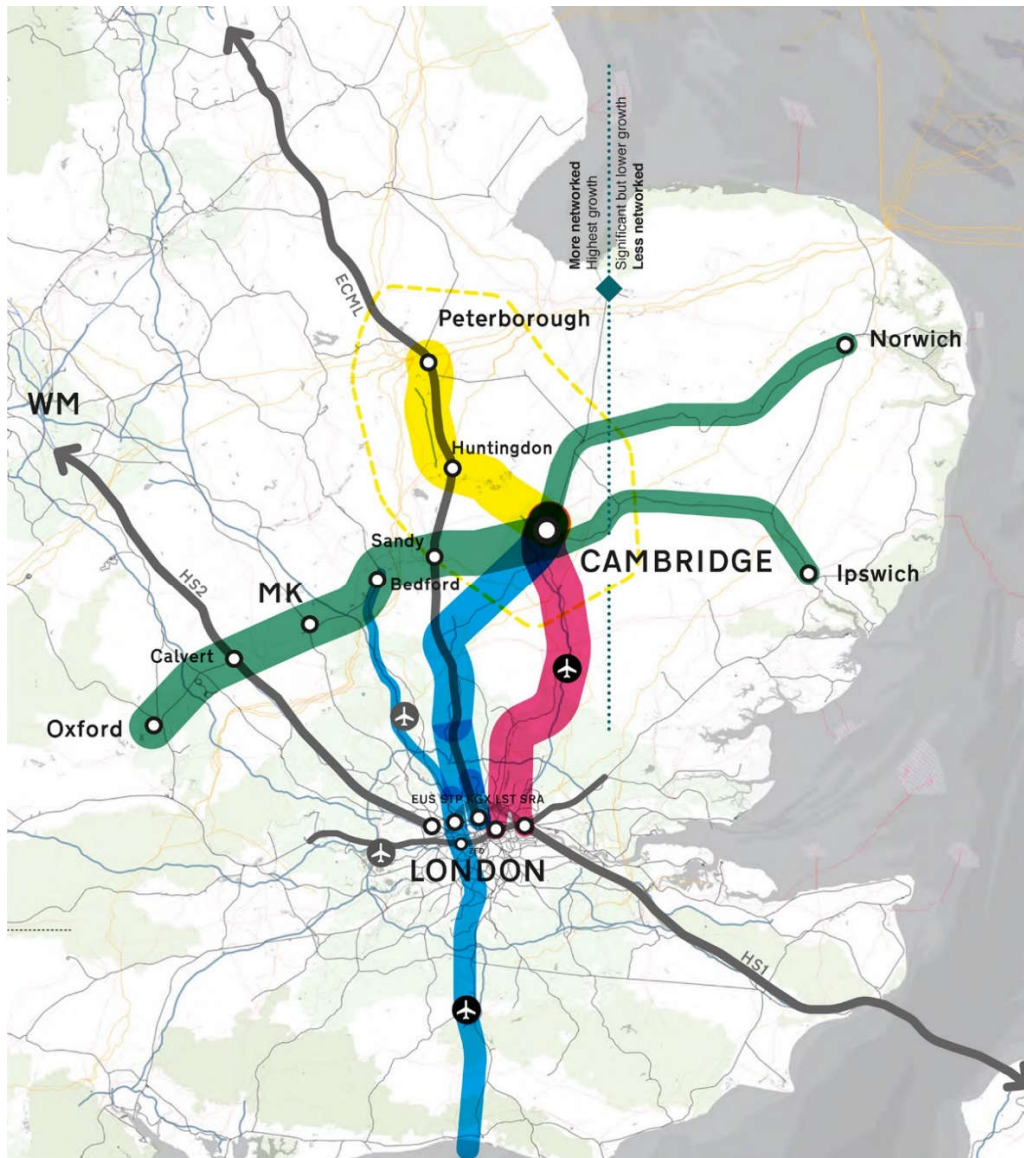


Figure 3: Growth corridors within England (source: NIC <http://www.5thstudio.co.uk/projects/oxford-milton-keynes-cambridge-corridor/>)

- 4.2.16 It is considered that the role of city-regions should be strengthened, as the principal agents of integrated planning of urban, transport and economic development, with co-ordination between these regions focussed on the opportunities of east-west connectivity to address potential gaps in national strategy. However, the Council is not taking the East West Rail Link and Expressway proposals forward yet formally within the Plan:MK until proposals are more defined.

4.3 Housing and Growth

- 4.3.1 Along with the new allocations Plan:MK relies to a large extent (as demonstrated in Table 2) for housing numbers on the existing commitments previously considered under the 2013 Core Strategy and the previous 2005 Local Plan. The major existing commitments are illustrated within Figure 4 below, an extract from the 2013 Local Plan.
- 4.3.2 Plan:MK sets the objectively assessed (housing) need (OAN) as a minimum target; this equates to a total of 26,500 dwellings between 2016 and 2031 whilst the ability of existing commitments to contribute was calculated at 21,850 over the plan period or 20,603 as of April 2017 after allowing for the 1,247 completions during 2016/17.

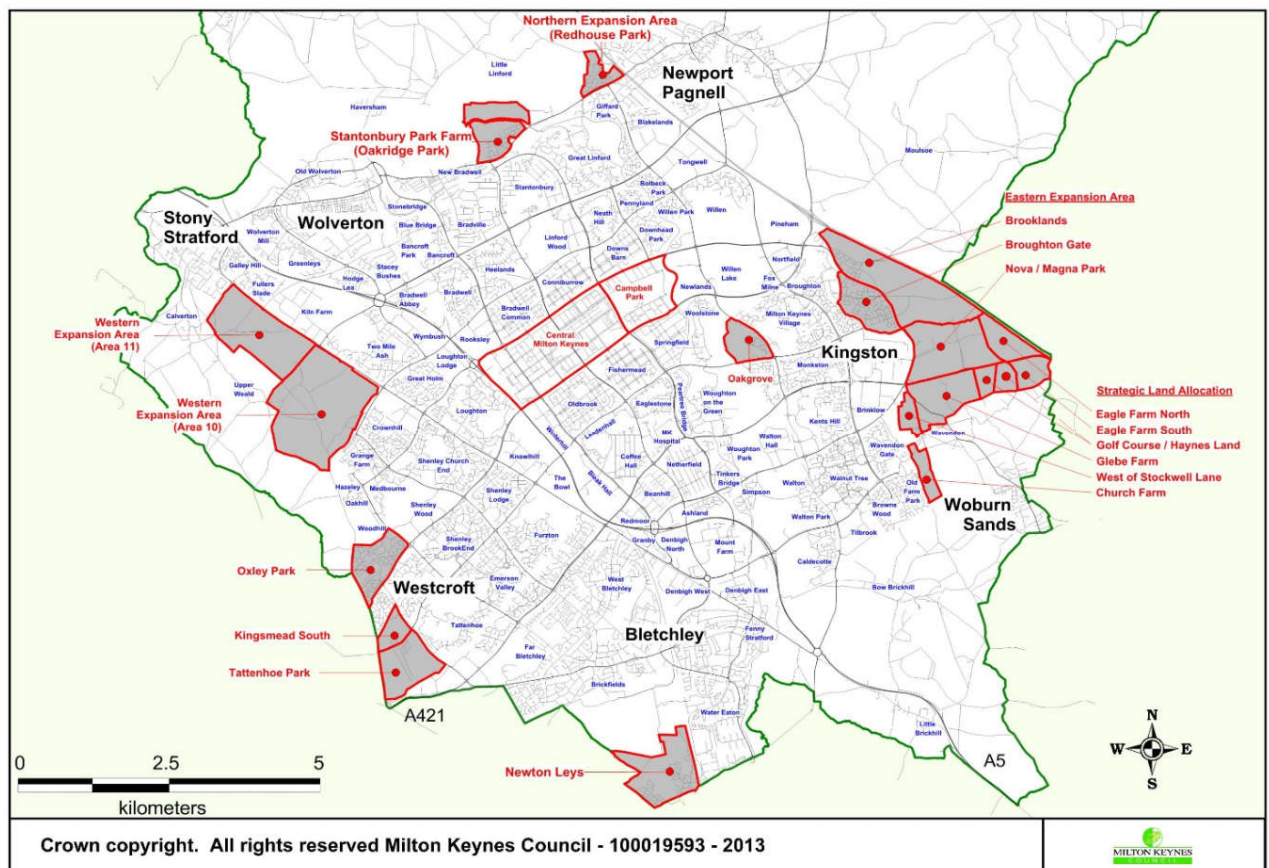


Figure 4: Milton Keynes development sites as included within the 2013 Local Plan (source: Milton Keynes Local Plan - 2013)

- 4.3.3 Additional numbers will come from a variety of sources, identified as:

- South East Milton Keynes SUE 3000 dwellings
- CMK and Campbell Park additional 1900 dwellings
- Brownfield, infill and redevelopment 1000 dwellings
- Windfall urban (840) and rural (490) 1330 dwellings

4.3.4 The strategic growth areas within Plan:MK are illustrated below in Figure 5.

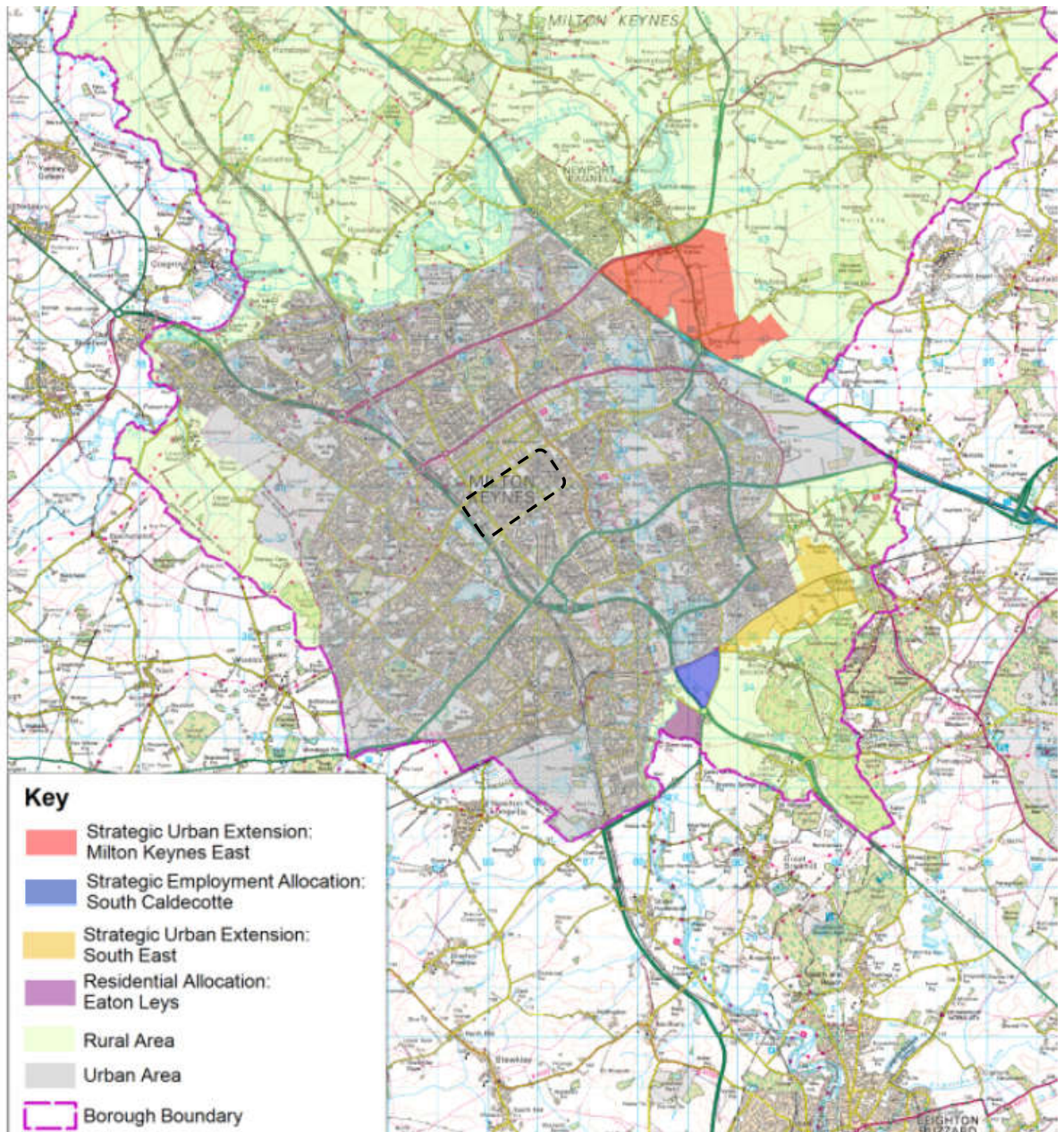


Figure 5: Strategic growth areas in Milton Keynes (source: Plan:MK)

4.3.5 Table 1 shows the areas included within current commitments figure in Plan:MK of 20,603 as of April 2017 which will contribute more than 500 of these dwellings.

Plan:MK Site Allocation	Status	Existing Commitments	Potential further dwellings under Plan:MK	Policy Ref
Central Milton Keynes – Campbell Park	CMK	1,920	1,900	SD3/SD18
Brooklands	EEA	1,549		SD6
Fairfields/White house	WEA	6,009		SD7
Eagle Farm/Glebe Farm/Church Farm and others	SLA	3,079		SD8
Newton Leys	Newton Leys	661		SD9
Tattenhoe Park	Western Flank	1,009		
Eaton Leys	Residential allocation	600		SD15
Tickford Fields - Newport Pagnell	Rural Site	1200		NP Allocation

Table 1: Residential growth areas considered in the IDP (source: Annex A, Plan:MK)

- 4.3.6 Taken together these larger sites will account for 16,027, or approximately 78% of the total to be supplied from existing commitments between 2017 and 2031. The balance of 4,576 dwellings is made up of sites of less than 500 dwellings, as detailed in Appendix A of the Plan:MK submission. Over the 15 years of the Plan:MK period therefore the housing allocations are summarised as follows.

Type of Site	Number of dwellings
Existing commitments	21,850 (including 1,247 completed in 16/17)
South East Milton Keynes	3,000
Additional CMK/Campbell Park	1,900
Windfall sites	1,330
Brownfield, infill and redevelopment	1,000
Reserved site East of M1	
Total potential dwellings	29,080

Table 2: MKC housing commitments and allocations up to 2031 (source: Plan:MK)

- 4.3.7 Plan:MK states under Policy ER15 that New Local Centres will also be required in new residential developments of 500 dwellings or more. Additionally, they should be located so that the majority of all the new dwellings are within 500 metres walking distance of a Local Centre.

4.3.8 The areas most likely to require a New Local Centre are:

- Brooklands (EEA)
- Campbell Park
- Eaton Leys
- Newton Leys
- Glebe Farm (SLA)
- Tattenhoe Park
- Fairfields and Whitehouse (WEA)

4.4 Employment Land

4.4.1 The forecast for employment needs, derived from the updated 2017 Employment Land Study² (ELS), is set out within Plan:MK as per the following table below :

Category of Floorspace	Amount of floorspace in m2	Amount of land in hectares (ha)
Office	250,760	17
Industrial	45,860	12
Warehousing	415,850	104
Total	713,470	132 hectares

Table 3: Forecast Employment Floorspace and Land requirements for 2016-2031 (source: Plan:MK)

4.4.2 Table 3 above shows that the largest requirement at 104 hectares (78.2% of the total requirement) was for warehousing with office development needing 17 ha (12.8%) and industrial requirements forecast at 12 ha (9%). According to the ELS², there is a “need for the Council to top up the supply of large sites for employment purposes to give itself more flexibility in accommodating large development proposals.”

4.4.3 Taking into consideration employment rates for the different commercial types, the figures above suggest that most of future jobs developed on employment land within the Borough will come from office type development rather than warehousing and industrial development.

4.4.4 In order to meet the forecasted numbers, the Council has provided a number of policies including DS3: Employment Development Strategy; Plan:MK also sets out one strategic employment allocation, as shown in Table 4.

² Milton Keynes Employment Land Study [2017]

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Site Allocation	Status	Plan:MK	Policy Ref	Type
Land south of Milton Keynes - South Caldecotte	Strategic Employment Allocation	195,000m ²	SD16	Class B2, B8 and ancillary B1 employment

Table 4: Strategic Employment allocations (source: Plan:MK)

4.5 Retail and Leisure

4.5.1 Similarly, with regards to the equivalent development land associated with retail and leisure sector the Retail Capacity and Leisure Study³ concluded that 'if existing retail commitments are taken up there is no capacity for additional convenience (largely food) floorspace in the Borough until after 2031. Although there is capacity for additional comparison (non-food) floorspace this is only in the period after 2026 up to 2031.'

4.5.2 The food and beverage sector is forecast to grow; additional capacity of between 4,954-12,292m² (gross) by 2022 and 15,268-37,886m² (gross) is forecast by 2031.

4.6 Viability

4.6.1 A key requirement of the NPPF which is also reiterated within the Plan:MK policy is the need for new developments to be both deliverable and economically viable.

4.6.2 The Council's obligation to undertake viability testing has been met by the Whole Plan Viability Study⁴ dated November 2017 which concludes that the deliverability of Plan:MK is not prejudiced by the overall burden of the policies contained within it. The Viability Study has been carried out under the Harman Guidance and in accordance with RICS Guidance and factors in build costs, abnormals, infrastructure costs, policy compliance costs, including Affordable Housing requirements and financial contribution assumptions.

4.6.3 Milton Keynes has used a s106 based Tariff arrangement to successfully fund infrastructure supporting expansion areas, designated since the 2005 Local Plan, and several of the large sites contributing significant housing numbers as 'existing commitments' in Plan:MK are covered by the Tariff mechanism. Following the introduction of the April 2015 CIL Regulations, the possible expansion of the Milton Keynes Tariff or a similar arrangement into new strategic urban extensions has been limited by pooling restrictions.

4.6.4 The Council continues to review its options for future infrastructure funding, including the potential introduction of a Community Infrastructure Levy, but is currently awaiting the Government's response to the 'Supporting housing delivery through developer contributions' consultation. One option under consideration is removal of pooling restrictions for local planning authorities who, like Milton Keynes, generate a significant proportion of their housing numbers from a small number of strategic sites. This may allow the return of a tariff style funding mechanism for new urban extensions.

³ Carter Jonas, Retail Capacity and Leisure Study [March, 2018]

⁴ AECOM, Whole Plan Viability Study [November, 2017]

- 4.6.5 Within the context of strategic growth, the viability report suggests Rural / High Value / Flank and Central Milton Keynes areas are most relevant. Specifically, in terms of residential development, the viability report suggests:
- i. In the Central Milton Keynes area, as in the Rural / High-Value /Flanks area, the Residual Value is well in excess of the Viability Threshold in almost all cases, and in most cases the Residual Value suggests that there is a significant buffer and possibly Policy is not being set at the limits of viability (all subject to further analysis).
 - ii. Caution is expressed in relation to older City Core / Older Centres & City Estates where the ability to bear developer contributions is likely to be limited at higher rates of affordable housing. This is most likely to impact on the brownfield, infill and redevelopment allocation however these developments largely occur in areas already relatively well served by existing infrastructure.
- 4.6.6 Likewise, in terms of the non-residential development the viability report suggests:
- i. The non-residential development is challenging in the current market conditions, but it is improving.
 - ii. Much of the development coming forward in the Borough is 'user-led'; being brought forward by businesses that will use the eventual space for operational uses, rather than for investment purposes.
 - iii. The results are reflective of the current market in the Borough and more widely. The large format office development is shown as viable and is coming forward, however the smaller formats are not.
 - iv. Industrial development is presently not shown as viable.
- 4.6.7 In conclusion, the following is noted:
- i. The Central area and the higher value Rural / High-Value / Flanks include vibrant housing markets with strong house prices that are able to support an active housing market
 - ii. In the current market, the analysis in the viability report confirms that residential development is not put at serious risk by the cumulative impact of the Council's policies and can bear reasonable developer contributions without threatening development in Rural / High-Value /Flanks and Central Milton Keynes.
 - iii. However, in the older City Core / Older Centres & City Estates the ability to bear developer contributions is likely to be limited at higher rates of affordable housing.
 - iv. Whilst some non-residential uses are not viable, they are not rendered unviable by the cumulative impact of the Council's policies, rather by the general market conditions. The Council should be cautious in relation to setting policy requirements for employment uses that would unduly impact on viability.

5. Physical Infrastructure

5.1 Transport

Milton Keynes Transport Vision and Strategy LTP3 2011 to 2031

- 5.1.1 The Transport Vision and Strategy⁵ sets out the Borough's policies and programme for delivering local, sub-regional and national policy objectives. The Strategy centres around the vision that "By 2031, Milton Keynes will have the most sustainable transport system in the country, increasing its attractiveness as a place to live, work, visit, and do business. There will be a real transport choice to satisfy individual preferences and encourage more sustainable travel behaviour. The transport system will provide fast and efficient movement of people and goods, and will be accessible for all. Everyone will have access to key services and amenities, including employment, health, education, retail and leisure." A draft Mobility Strategy⁶ has been prepared to supersede LTP3 and a Mobility Plan is being prepared to support the new draft Strategy⁶.
- 5.1.2 The Strategy⁵ further states that "Transport networks, including the unique grid road and Redway networks, will be expanded and fully integrated into new developments and regeneration areas to support more sustainable communities. Connectivity to local towns, major cities, and international transport gateways and networks will be first class; and Milton Keynes will embrace new technology, being an exemplar for the latest developments in information technology, fuel technology, and new forms of transport. The council will work in partnership with all sectors and the wider community to deliver the transport vision and strategy."

Creating a Sustainable Transport Network

- 5.1.3 The Council will encourage individuals to choose to use more sustainable and lower carbon modes of transport, for example bus, coach, rail, taxi and private hire, community transport, shared mobility, pods & driverless vehicles, walking, and cycling.
- 5.1.4 This will be achieved by:
- Improving superfast broadband service to support agile working
 - Improving integration between active travel and sustainable transport modes
 - Providing incentives for using alternative fuel vehicles, and expanding the coverage of electric charging points
 - Identifying barriers to using sustainable transport
 - Implementing behavioural change programmes to encourage a modal shift
 - Increasing the coverage of the cycle hire scheme, identifying gaps in the cycle network, increasing secure cycle parking and providing a range of parking available for all needs

⁵ A Transport Vision and Strategy for Milton Keynes Local Transport Plan 3 – 2011 to 2031 [April, 2011]

⁶ Draft Mobility Strategy for Milton Keynes 2018-2036 (LTP4) [March, 2018]

- Improving public transport access by improving network coverage and frequency, installing bus priority on key routes, and determining reasons for lack of bus satisfaction and addressing these
- Promoting and improving the provision of cycling and walking routes and facilities in the borough

Public Transport

- 5.1.5 A high quality public transport system is essential to Plan:MK's strategy to promote sustainable travel patterns. The Council recognises the benefits of public transport which could help to maximise the capacity of the grid road network, help to tackle climate change, improve access for everyone and support the regeneration of the city.
- 5.1.6 Improvements to the accessibility and quality of public transport infrastructure are required in order to maximise its use, especially by disabled people, the elderly, young children and others for whom public transport accessibility is a barrier. Improvements to and from public transport nodes (bus stops and stations) are critical in persuading people to use buses and trains.
- 5.1.7 Mass transit routes will serve new developments as soon as new houses and other land uses are occupied. Corridors for new forms of public transport will be defined and protected, and integrated into the spatial plans for the city so that as high capacity transit becomes commonplace across the city, construction is not hampered by land use constraints.
- 5.1.8 Development proposals will be expected to contribute towards new and improved infrastructure where appropriate, including improvements to access and where a development will lead to a cumulative increase in public transport use. The Council will support the development of an East-West Rail link and Oxford to Cambridge Expressway.
- 5.1.9 Milton Keynes has evolved with the focus on accessibility by all forms of transport. Car trips are the dominant mode share and it is recognised that prioritising public transport movements over cars would need to be required to encourage a significant modal shift. Mass transit routes which complement key car-borne routes could influence both the shape and infrastructure requirements of growth areas. The potential routes within the existing urban area would be located within the existing highway corridors on existing grid roads. Work is being undertaken by the MK Futures 2050 team to assess the feasibility of mass transit in the town and, at this stage in Plan:MK, it is important to future-proof growth areas to allow for connectivity.

Low Emission Vehicles

- 5.1.10 Low emission vehicles offer an alternative, more sustainable form of transport, reducing the impacts of air, water, noise and light pollution, and minimising the impact on the environment by reducing energy consumption and CO2 emissions to help tackle climate change. The Council will also encourage taxi and private hire car operators to use low emission vehicles, as they form an increasing part of the public transport service. It will also encourage the use of new driverless technology by heavy goods vehicle operators.

- 5.1.11 The Transport Vision and Strategy⁵ encourages a number of interventions including the promotion of electric and other alternative fuel vehicles and plans to expand electric vehicle infrastructure (e.g. parking spaces with charging points). This policy is continued within the draft Mobility Strategy⁶ through support for emerging fuel technologies and ultra-low emission vehicles and further development of electric vehicle charging infrastructure.

The Grid Road Network

- 5.1.12 Although the grid road system is one of the defining features of Milton Keynes, the generally low gross density of development, circuitous roads within grid squares and dispersed land uses do not lend themselves to efficient and comprehensive public transport provision. Without management, this congestion will increase significantly as the city grows. There are heavy concentrations of traffic leading to and from major gateways, such as the M1 junctions, and to and from Central Milton Keynes, especially during peak periods. Right-hand turns across high speed dual carriageway grid road traffic can be difficult and is perceived a safety hazard, and the Council is going through a process of precluding this manoeuvre in a number of locations.
- 5.1.13 The grid road network will be expanded and fully integrated into the design and layout of new developments and regeneration areas to support more sustainable communities. Where the grid road system is to be extended, proposals should include management and maintenance plans for the grid road reserves and / or landscape corridors which include proposals for this to be funded over the long term.
- 5.1.14 Strategic developments proposed within Plan:MK will be expected to undertake, or contribute to, mitigation works to any junctions that are caused to be overcapacity because of the proposals.

Reference Case

- 5.1.15 The 2031 Reference Case⁷ includes the growth that had been planned in the Milton Keynes District up to 2031, prior to the preparation of Plan:MK. This included approximately 20,000 dwellings and 28,000 jobs in Milton Keynes, along with highways and rail infrastructure in Milton Keynes and its vicinity that is expected to be in place by 2031. Development in Aylesbury Vale (the South West Milton Keynes development, circa 2000 dwellings and 1000 jobs) has also been included in the Reference Case due to its close proximity to Milton Keynes. The Reference Case does not include any increases in travel demand and traffic associated with Plan:MK.
- 5.1.16 A number of transport improvement schemes were included in the Reference Case. These are described in Table 5 and presented in Figure 6 on the next page.

⁷ AECOM, Milton Keynes Multi-Modal Model Update [November, 2017]

Scheme	Programme for Delivery	Funding Mechanism
A421 Dualling	By 2021	DfT / Central Beds Council / MKC
Monkston & Brinklow Junctions	2019	MKC Tariff
Crownhill & Loughton Junctions	2020	MKC Tariff
A5 Improvements	Ongoing	Highways England / Developer
Bletchley Station Highway Improvements	Complete	
Brooklands City Street Phase 2	Complete	
Nova City Street	2019	Developer/Tariff
Calverton Lane / Fairways	2021	MKC Tariff
Kiln Farm Junction	Complete	
Bridge over Broughton Brook	2019	Developer/Tariff
H10 Extension	2018	Developer/s106
V2/H4 Extension	2021	Developer/Tariff
East-West Rail	2024	Network Rail / Private Finance
M1 J13-J16 SMP	By 2031	Highways England
M1 J16-J19 SMP	Complete	
M1 J11a / Dunstable Northern Bypass	Complete	

Table 5: Transport Schemes included in Reference Case (source: AECOM's Milton Keynes Multi-Modal Model Update, November 2017)

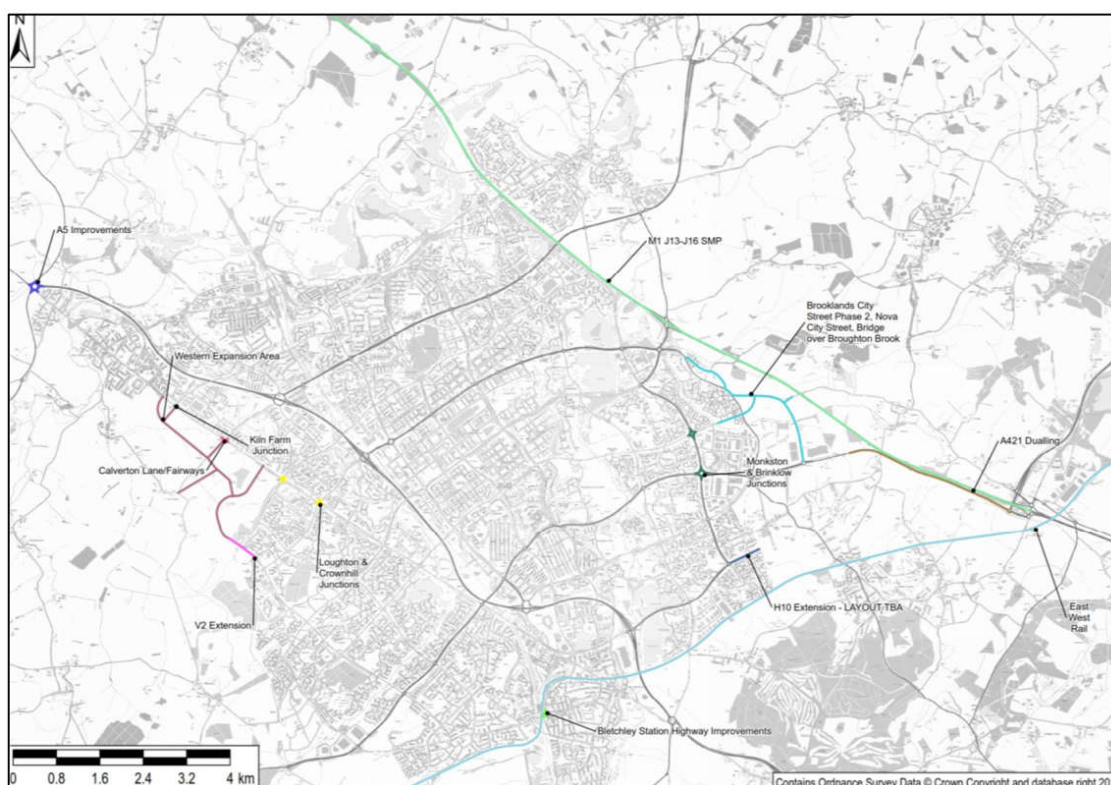


Figure 6: Transport Schemes Included in Reference Case (source: AECOM's Milton Keynes Multi-Modal Model Update, November 2017)

5.1.17 A further junction improvement scheme was included in a revision to the Reference Case in April 2018: proposed works to the Fenny Stratford (Kelly's Kitchen) Roundabout on the A5, to facilitate the residential development proposals at Eaton Leys.

Impacts of Plan:MK

5.1.18 Contributions via Tariff and S106 for Permitted schemes are in place for the Reference Case works. Site-specific highway provision for the significant Committed growth areas are included within the Infrastructure Requirements schedules in Appendix 1.

5.1.19 Plan:MK allocates the following strategic housing and employment sites:

- South East Milton Keynes for a residential-led development
- Land East of the M1 for a mixed residential and employment development
- Land at Eaton Leys for a residential-led development
- Land at South Caldecotte for a strategic employment development site

5.1.20 South East Milton Keynes:

Recently completed upgrade works at the junction between the A5130 and A421 have improved traffic flows and junction capacity easing movement between the site and the M1.

There are level crossings of the Bletchley-Bedford railway line adjacent to Bow Brickhill station and Woburn Sands station. These crossings impact on highway capacity and it is likely that at least one bridge crossing of the railway line will be required.

Outline layout proposals indicate:

- An extended H10 (single carriageway grid road)
- A connection between the A5130 Newport Road and Bow Brickhill Road, which intersects the H10 extension and bridges the railway line
- Potential relocation of Woburn Sands train station

5.1.21 Milton Keynes East (Land East of M1)

To facilitate the Land East of M1 growth a revised road layout is proposed as shown in Figure 7.

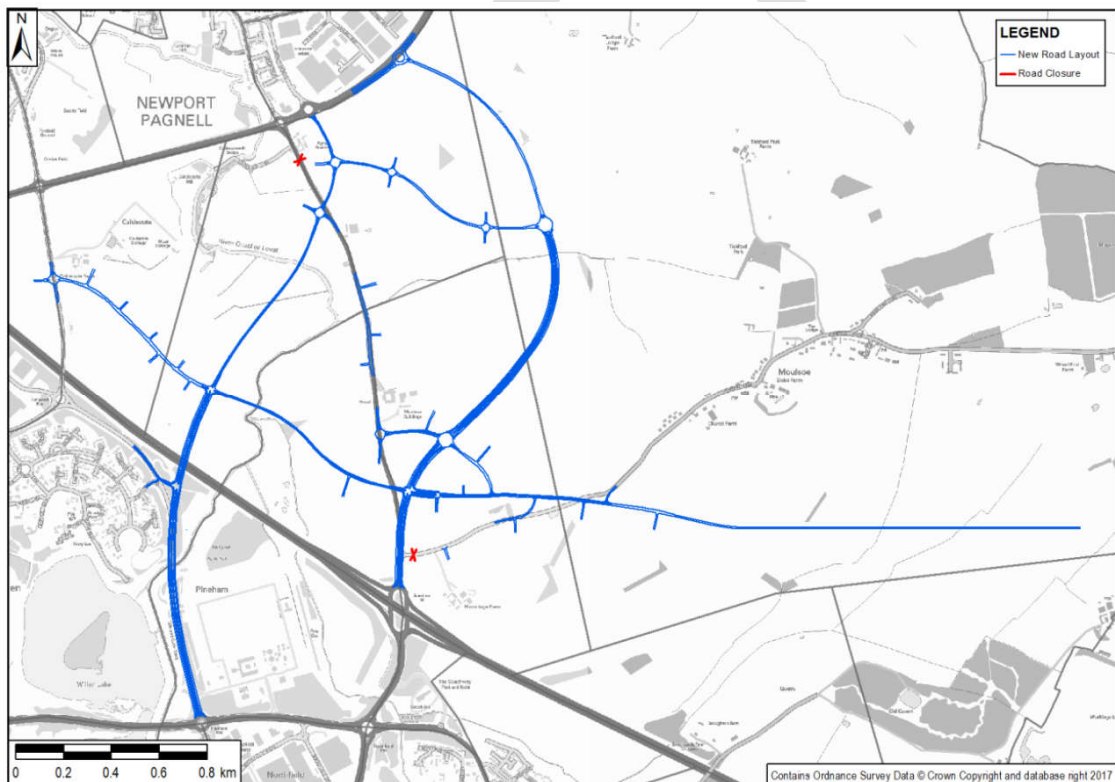


Figure 7: Indicative New Road Network – Land East of M1 (source: AECOM's Milton Keynes Multi-Modal Model Update – Technical Note, April 2018)

It should be noted that approximately 2,000 of the proposed dwellings are planned for delivery after the Plan:MK 2031 horizon year. These outline highway arrangements and background information include:

- A new primary route between the dualled A509 to the south of Interchange Park through to M1 J14.

- A new route from Renny Lodge roundabout bridging the motorway and connecting to Tongwell Street, with the existing A509 between these new routes remaining as access to the development.
- Two east-west links within the site, including one linking Willen Road through to a re-aligned Newport Road.
- The provision of a park and ride site.

The site is the subject of a Council bid for Housing Infrastructure Fund monies for the infrastructure needed for its delivery.

5.1.22 Eaton Leys:

Land at Eaton Leys is allocated and has outline planning permission for a primarily residential development of up to 600 dwellings and associated facilities. The reserved matters highway details show:

- New footbridge over the River Ouzel
- A new priority junction off the A4146 for the first phase; a second junction would be required for the second phase which lies outside the Milton Keynes Borough boundary in Aylesbury Vale and is currently unallocated
- Improvement works to the Fenny Stratford (Kelly's Kitchen) roundabout on the A5

5.1.23 South Caldecotte Strategic Employment Site

Access to the South Caldecotte site is proposed to be provided off the V10 Brickhill Street, via a new roundabout junction located to the north of the Fenny Stratford (Kelly's Kitchen) roundabout. The indicative proposals have been designed to tie in with the improvement works to the junction identified in paragraph 5.1.17. It is understood that these works are designed to accommodate traffic generated by the South Caldecotte proposals.

Network Mitigation Requirements

5.1.24 Site-specific highway provision for the proposed allocations are included within the Infrastructure Requirements schedules in Appendix 1.

5.1.25 Table 6 below identifies forecast congestion issues on the wider network that are caused by Plan:MK.

Junction	Description of Issue (compared to Reference Case)	Primary Source(s) of Additional Traffic
Pagoda Roundabout	Congestion on eastbound approach	East of M1
V10/H6	Congestion on northbound approach	East of M1
Kents Hill Roundabout	Congestion on westbound approach	East of M1 / SE MK
V10/H9 Roundabout	Congestion on westbound and southbound approaches	South East MK
Brown's Wood Roundabout	Congestion on all approaches	South East MK
Walnut Tree Roundabout	Congestion on northbound approach	South East MK
South Witan Roundabout	Congestion on westbound approach	Combined impact
Redbridge Roundabout	Worse congestion on all approaches	East of M1
South Grafton Roundabout	Congestion on all approaches; southbound approach significantly worse	Combined impact
Standing Way/V1/ Buckingham Rd Roundabout	Northbound approach congested	Combined impact
Emerson Roundabout	Westbound and northbound approaches congested	Combined impact
Marina Roundabout	Eastbound approach congested as well as southbound	Combined impact
J14 Southbound On-Slip	Significant worsening of congestion	East of M1

Table 6: Traffic forecast congestion as a result of Plan:MK

5.1.26 Priorities for intervention at the above junctions will evolve and will be dependent on the timetables and progress of the relevant development programmes for the strategic sites.

5.2 Digital Connectivity

5.2.1 The Council places a high importance on digital connectivity within MK; this is reflected within the Economic Development Strategy 2017 – 2027⁸ which highlights digital connectivity as crucial for the local economy. The MK Digital Strategy 2018 – 2025⁹ sets out three main priorities namely connectivity, digital services and digital economy. As a result, the provision of ‘fibre to the premises’ (FTTP) is considered the fourth utility.

5.2.2 Plan:MK identifies the Borough’s requirements. Policy CT9 – Digital Communications stipulates:

- i. The council wishes to see all premises on all new developments served by digital communication services that provide at least superfast broadband speeds, but will give preference to future proofed services providing Ultrafast speeds for all residents and businesses, for example using full fibre “fibre to the premises” (FTTP) technology.
- ii. Developers must make sure that broadband services that meet the ambitions of the Digital Communications Infrastructure Strategy and the Digital Agenda for Europe are available, wherever practicable, to all residents of the development at market prices and are not restricted to one particular service provider.
- iii. Developers are required to work with a recognised network carrier to design appropriate duct infrastructures, wherever practicable, for the development.
- iv. Other forms of infrastructure, such as facilities supporting mobile phones.

5.2.3 Furthermore, Policy D6 Mains and Telecommunications Services sets out that:

Electricity and telecommunications and broadband services to new development within the boundary of Milton Keynes City should be provided underground.

5.2.4 The city is considered within the top 5 in the country for concentration of high tech and digital SMEs and momentum needs to be maintained. The MK Futures 2050 Commission¹ set up in September 2015 is helping to create a long-term vision for the way MK should grow and prosper. Included in this are two key projects, firstly Renaissance: MK which aims to re-develop undervalued or underutilised land or premises within central MK and secondly the development of a new city centre university. In both cases the Council is to finalise outline plans including provision of appropriate fibre connectivity.

5.2.5 The Council has encouraged competition within the fibre sector and as a result there are at least 6 companies actively seeking business within the Borough, some of which have existing backhaul networks in and around the city centre.

5.2.6 All future strategic development sites will be expected to have full FTTP connectivity.

5.2.7 Given the confirmed viability of the strategic growth areas it is expected that the appropriate provision of FTTP will be accommodated within the developers’ planning

⁸ Milton Keynes Economic Development Strategy 2017 – 2027 [July 2017]

⁹ Milton Keynes Digital Strategy 2018-2025

proposals and be self-funded rather than through Council funded schemes such as Broadband Delivery UK (BDUK). It is therefore expected that the fibre sector will by nature (i.e. market drive) seek to provide a mutually satisfactory outcome.

- 5.2.8 The Council will assist in coordination matters in this regard including introductions however it is incumbent upon the developer to seek out an appropriate network provider.
- 5.2.9 To this end, in terms of actual connections and intended providers, developers should engage with network providers from the outset to ensure the needs of the service (including suitable new ducting) can be introduced alongside other on-site infrastructure works as part of new developments to ensure the most efficient and viable approach is taken to securing connectivity. Furthermore, developers shall be required to undertake related upgrading works concurrently in order to avoid constrictions.
- 5.2.10 Key network upgrade requirements which fall beyond the strategic growth areas but highlighted by the Council include the fibre network relocation works to accommodate the dualling of the A421 to Junction 13 on the M1. These upgrade works require the collaboration between the Council and Central Bedfordshire Council.
- 5.2.11 Developers are encouraged to engage with adjacent developers to both ensure the effective installation of the fibre network and to address possible futureproofing matters.
- 5.2.12 Developer's planning proposals should aim to encompass any related digital infrastructure where necessary including mobile network provisions.

5.3 Waste Water Management

- 5.3.1 The Borough is served by Anglian Water Services (AWS), who are tasked to operate and maintain and upgrade where necessary, appropriate foul water treatment facilities and collection systems. Although the Environment Agency (EA) does not have responsibility to provide foul water treatment facilities its role does include setting limits, monitoring and regulating discharges to watercourse in accordance with the Water Framework Directive.
- 5.3.2 The steering committee responsible for coordinating waste water management and associated infrastructure in the borough is thus comprised of the Council, AWS and the EA. And in terms of AWS their role extends to implementation in the form of the five-year regulated Asset Management Periods (AMPs) wherein key infrastructure upgrades are addressed. For the period 2018 to 2031 the primary AMP periods applicable to AWS are AMP 7 (2020 - 2025) and AMP 8 (2025 – 2030).
- 5.3.3 In general, upgrades to Water Recycling Centres (WRCs), where required to provide for additional growth are wholly funded by AWS through their AMP programmes. Foul network improvements are generally funded, or part funded through developer contributions via the relevant section of the Water Industry Act 1991. The cost and extent of the required network improvements are investigated and determined when the water company is approached by a developer and an appraisal carried out.

- 5.3.4 For the water companies to fund specific upgrades arising from the scale of growth it will be necessary to put forward growth schemes for inclusion within future AMPs and for these to be approved planned and funded, as well as signed off by the regulator OFWAT. The other alternative is that developers forward fund this work however, given the potential cost involved, this is unlikely for all but the largest schemes.
- 5.3.5 The key growth areas which are presently uncommitted are South East Milton Keynes (3000 homes) and Land East of M1 (potentially up to 8000 homes). It is expected that, for the Council to achieve its targets of 1766 dwellings per annum, development within these key growth areas is required.
- 5.3.6 Figures from the Office for National Statistics (ONS) suggest that the population of Milton Keynes which AWS supplies with water will grow by at least 15% by 2031. Figures provided within the AECOM Water Cycle Study¹⁰ set the forecasted population as below:

	2017	Projections for 2031
Population	268, 050	310,426
Number of households	110,500	128,426
Calculated occupancy rate	2.43	2.42

Table 7: Milton Keynes forecasted population for 2031 based on ONS data (source: AECOM's WCS, February 2018)

These figures may underestimate the likely population growth, but the Council continues to engage with AWS regarding growth proposals.

- 5.3.7 Present information available regarding the capacity within the 6 number WRCs within the Borough would suggest that wastewater from the strategic growth areas will need to be accommodated by Cotton Valley WRC. With expected growth to 2031, Cotton Valley WRC will be well below its permitted dry weather consent; the residual housing headroom within the WRC is expected to be circa 54,500 based on circa 30,000 new homes during the Plan:MK period¹⁰.
- 5.3.8 Figure 8 below shows the relative location of the 6 number AWS-operated WRCs within the Borough boundary.

¹⁰ AECOM, Water Cycle Study [February, 2018]

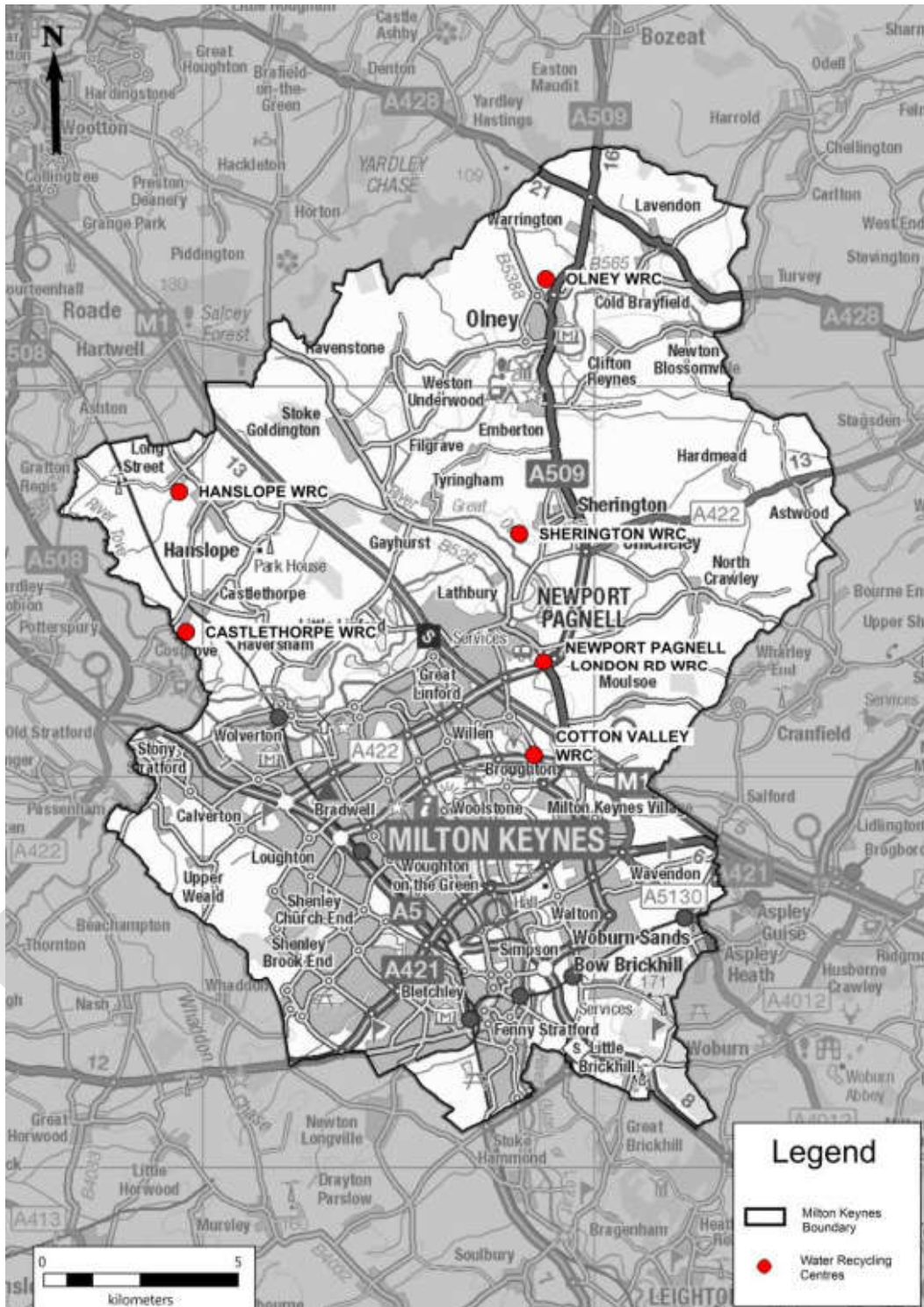


Figure 8: WRCs located within the Borough (source: AECOM’s WCS, February 2018)

5.3.9 All other WRCs are closer to their consented capacity; noticeably with 2031 growth figures both Newport Pagnell and Olney WRCs are likely to exceed their consent. Notwithstanding this all WRCs are likely to require a level of upgrading works to ensure

compliance even Cotton Valley WRC where recent improvement works to the inlet supposedly addressed capacity issues in the network not least Broughton Valley trunk sewer. It is recommended that developers seek approval from AWS at their earliest convenience and make available to the Council such approvals, if there are uncertainties, the Council should consider Grampian conditions¹⁰.

5.4 Potable Water

5.4.1 The Council's policy on water usage for the period up to 2031, Policy SC1, states that:

All newly constructed dwellings will be required to achieve an estimated water consumption of no more than 110 litres/person/day.

Water reuse and recycling and rainwater harvesting should also be incorporated wherever feasible to reduce demand on mains water supply.

5.4.2 The Borough is supplied with potable water by AWS and more specifically the Ruthamford South Resource Zone. AWS is tasked to operate and maintain and upgrade where necessary, the water supply network within its region. It is noted that upgrading works to Graftham WTW in 2016 and Heigham WTW in 2017 has provided further resilience to the network.

5.4.3 In addressing future water supply resilience, AWS policy regarding the challenges of climate change, growth and the need to protect the environment are set out in the Framework for Resilience: PR19 and Beyond¹¹. The Framework seeks to meet Ofwat's resilience planning principles and guidance for the period 2020-2045.

5.4.4 Regarding AWS' water supply assessment, the Water Resources Management Plan (WRMP) states that for the measured household consumption for AWS' Ruthamford South Resource Zone is 126 litres per head per day (l/h/d) up to 2020, reducing to 115 l/h/d between 2020-2029 and reducing further to 114 l/h/d from 2030. In compression the present Building Regulations requirement for new homes built is 125l/h/d¹².

5.4.5 Despite the resilience works, the WRMP concluded that through a combination of high population density and relatively low rainfall, the AWS region is already classed as being in severe water stress.

5.4.6 Moreover, within the next 25 years, the area faces additional challenges from growth in demand and target headroom requirements, climate change and the reductions in deployable output that we will reduce water abstraction to more sustainable levels. Under dry year annual average conditions and without investment to maintain the supply-demand balance, it is forecast that the following resource zones will be in deficit by 2039-40¹².

5.4.7 A primary outcome following the recent WCS and the AWS WRMP is to lower consumption levels. This is to be achieved by adopting a 'twin track' approach whereby water demand in new developments is minimised as far as possible hence the targets

¹¹ Anglian Water Services, Framework for Resilience: PR19 and Beyond [Jan, 2018]

¹² Anglian Water Services, Water Resource Management Plan 2015

set in Policy SC1 (i.e. 110 l/h/d). Whilst at the same time measures are taken to retrofit more water-efficient devices to existing homes and business in conjunction with AWS' leakage reduction programme and water efficiency initiatives. The long-term goal is to try achieve water neutrality.

5.4.8 Figure 9 shows various efficiency scenarios; notably new homes would achieve 80 l/h/d or Projection 4 : high efficiency scenario to reflect the now superseded Code for Sustainable Homes Level of 5 or 6.

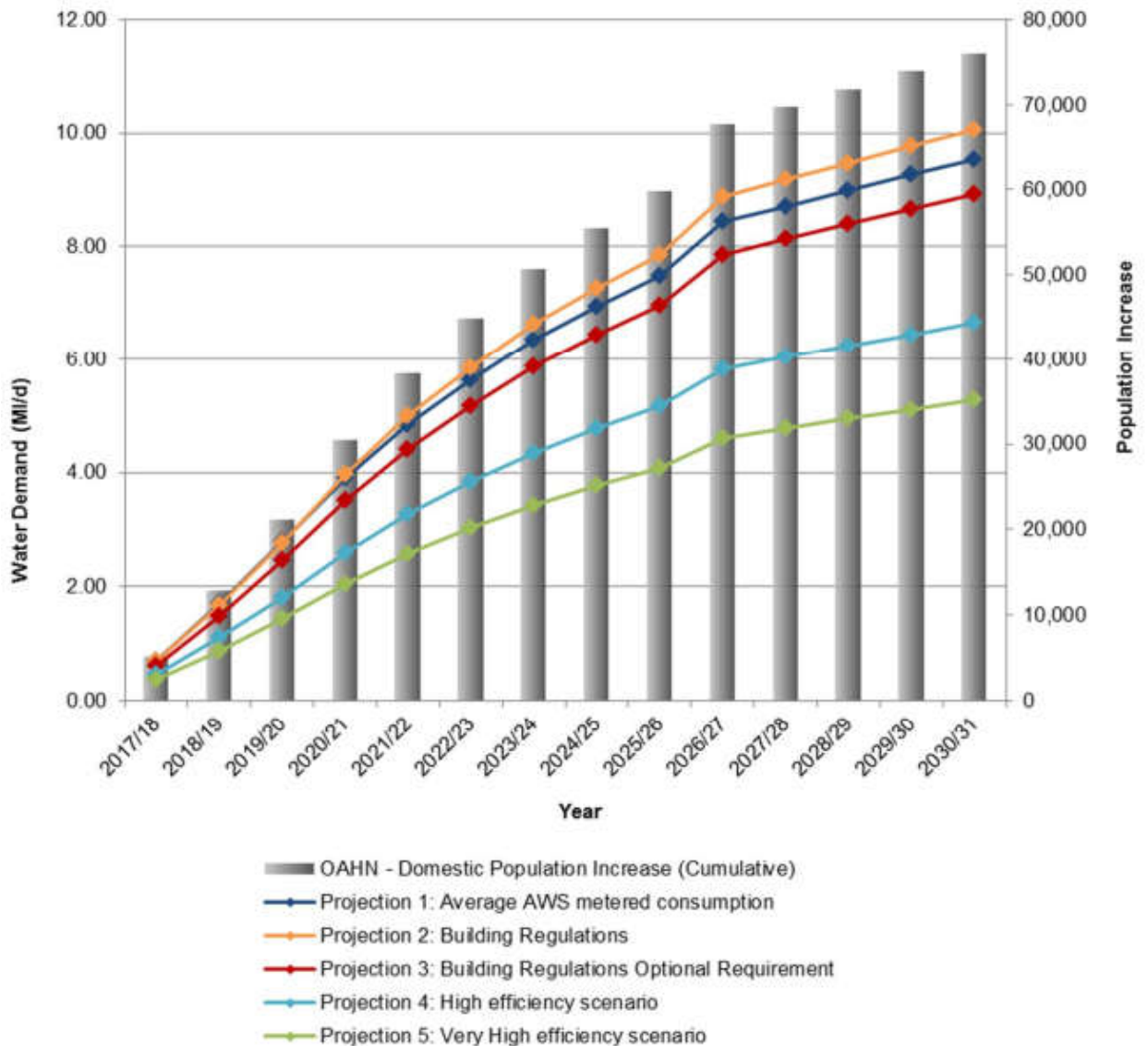


Figure 9: Graph showing water demand (source: AECOM's WCS, February 2018)

5.4.9 In order for developments to attain the preferred water neutral status the Council may have to consider a high efficiency scenario level than that listed in Policy SC1 regarding

water demand usage. Using these projections, the increase in demand for water, due to new developments, could range between 5.28 and 10.07 MI/d by 2031¹⁰.

- 5.4.10 It is noted that the WRMP sets out the preferred Supply Demand Investment Plan which spans AMP 7 to AMP10. Notably under resource AMP8 requires the Ruthamford North RZ transfer and within AMP10 the recommissioning of Ruthamford South RZ reservoir¹².
- 5.4.11 The Council will continue to update AWS on future development phasing and changes to growth allocations to ensure the future supply-demand balance can be appropriately captured in the following AMP periods and corresponding WRMP.
- 5.4.12 Developers are encouraged to engage with AWS in order to commence discussions regarding development proposals, primarily phasing, thereby ensuring clarity on new build water usage, maximise coordination and confirm water main requirements.

5.5 Flood Risk Management

- 5.5.1 The Council expects all new developments to meet the drainage requirements of the following:
- Plan:MK policy FR1 – managing flood risk, FR2 – sustainable drainage systems (SUDS) and integrated flood risk and FR3 – protecting and enhancing watercourses.
 - National policy including the NPPF and related guidelines
 - Non-Statutory Technical Standards for Sustainable Drainage Systems (2015).
- 5.5.2 Other Council specific guidance is captured within the following:
- Milton Keynes Level 1 Strategic Flood Risk Assessment (2015) and associated supporting documents
 - Surface water Drainage; Local Guidance for Planning Applications
- 5.5.3 The Flood and Water Management Act (2010) places a duty on all flood risk management authorities (including the Council) to co-operate with each other. The act also provides lead local flood authorities and the EA with a power to request information required in connection with their flood risk management functions¹³.
- 5.5.4 Under the Flood and Water Management Act (2010) the Council is designated the Lead Local Flood Authority and has a duty to lead and coordinate the management of local flood risk.
- 5.5.5 The Council expects that, for all developments, suitable SuDS are put in place unless these can be demonstrated to be inappropriate. The aim of SuDS is to reduce flood risk, improve water quality and present options for biodiversity and public amenity. Developer's proposals must also set out an approach ensuring SuDS hierarchy.

¹³ <https://www.gov.uk/guidance/flood-risk-management-information-for-flood-risk-management-authorities-asset-owners-and-local-authorities>

5.5.6 Developers will need to meet the Council's policy requirements through the local planning process and via any corresponding Section 106 agreements. Preliminary information received to date on the strategic growth areas is considered below.

5.5.7 South East MK:

Initial masterplan proposals suggest green infrastructure north and south of the rail corridor within the SD13 allocation which shall need to accommodate flood mitigation measures, forming part of the SuDS hierarchy. Surface water disposal will need to be in accordance with Council policy and is assumed to be to local ditchcourses given that discharge to a main river is not viable.

5.5.8 Land East of M1:

Initial masterplan proposals suggest green infrastructure spanning from the M1 corridor to the A422/A509 within the SD14 allocation which shall need to accommodate flood mitigation measures, forming part of the SuDS hierarchy. Proposals shall need to recognise the River Ouzel which dissects the development area; surface water disposal is assumed to be to the main river in accordance with Council policy.

5.5.9 Policy recommendations borne out in AECOM's Water Cycle Study¹⁰ :

- i. "Watercourses should not be culverted or straightened, as these activities cause deterioration of their quality;
- ii. where watercourses have in the past been culverted or straightened, reinstatement to a more natural landscape should form part of the development;
- iii. Each development should enhance the quality of the local watercourse, and
- iv. For main rivers, a minimum easement of 8 meters from the top of bank of a main river is required to allow maintenance of the watercourse. For ordinary watercourses a minimum easement of 3 meters is required to allow for maintenance. Where possible a larger easement should be provided"

5.6 Energy

5.6.1 National Policy is set out in Paragraph 95 of the NPPF:

In determining planning applications, local planning authorities should expect new development to:

- *comply with adopted Local Plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable; and*
- *take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption.*

5.6.2 As stated above, Plan:MK includes Policy D6 Mains and Telecommunications Services which sets out that:

Electricity and telecommunications and broadband services to new development within the boundary of Milton Keynes City should be provided underground.

Electricity

- 5.6.3 Electricity distribution in the Borough is provided by Western Power Distribution (East Midlands) as the primary Distribution Network Operator (DNO). However, the Borough of Milton Keynes does border another DNO to the east, in UK Power Networks.
- 5.6.4 All the strategic growth areas are likely to be within the Western Power Distribution's (WPD) East Midlands region. But developers should note that where development is near to WPD's operational boundary, general guidance to developers will be: for reasons of practicality and network efficiency it will be the case that WPD assets extend into adjoining DNO areas at various locations along the boundary, and for the same reason adjoining DNO's will have electricity networks within the WPD Operational Area at various locations.
- 5.6.5 Embedded electricity infrastructure may be owned by other private companies within the Borough including Independent Power Networks who own electricity infrastructure to the north east corner of Milton Keynes.
- 5.6.6 The allocation of costs for future reinforcement is a complicated mechanism as most DNOs are not permitted by their licence conditions to invest ahead of need or for speculative developments. When reinforcement is required the costs for reinforcement and possible connections is passed to the developer making the request for the new demand. They may receive some funding from the regulatory income DNOs have from OfGEM where existing assets are reinforced or replaced.
- 5.6.7 The Borough of Milton Keynes falls within the SEMLEP area region, and an energy strategy is being progressed by the National Energy Foundation (NEF); a further report update is expected later in the year. Key aims of the strategy are to predict various long-term scenarios of the supply/demand balance for the area and in the short term means to unblock growth.
- 5.6.8 According to the SEMLEP Energy Strategy – Progress Report ¹⁴, growth scenarios to 2030 for Western Power Distribution (WPD) have been produced. These are used for shaping the sub-transmission network to 2030. The growth scenarios looked at variations in demand and distributed generation in the WPD East Midlands licence areas from 2016 to 2030. They also looked at their impact on the WPD sub-transmission network, consisting of electricity supply areas (ESAs) served by grid supply points (GSPs), bulk supply points (BSPs) and the 132kV networks.
- 5.6.9 The forecasts for 33/11kV Primary Substations are aggregated into the upstream BSP forecast. Foresight scenario planning was aligned with the four Future Energy Scenarios (FES) developed by National Grid (2017); these four scenarios are based upon different levels of green ambition and economic prosperity in the United Kingdom¹⁴.

¹⁴ National Energy Foundation, SEMLEP Energy Strategy – Progress Report [March 2018]

- 5.6.10 It is not envisaged that the Borough will experience supply issues over the next 4-5 years despite WPD's challenges in forecasting network capacity. Moreover, it is the Council's intention to base the future plan on the basis of the NEF's strategy when it becomes available. Further recommendations particularly regarding the shaping subtransmission are awaited and related investment options.
- 5.6.11 It is though recommended that developers and promoters of sites engage early with Electricity DNOs in order to carry out the necessary capacity assessments. In the event that developers procure infrastructure from third parties it will be required for these organisations to be accredited under the Lloyd's National Electricity Registration Scheme or similar.
- 5.6.12 And in all cases, it is incumbent on the developer to work as efficiently and effectively in implementing such gas supply schemes, including working with third parties collaboratively to minimise the effects on the local environment in order to maintain the Council's sustainability criteria.

Gas

- 5.6.13 Gas provision to the strategic growth areas will be dealt in a similar fashion to electricity under Policy D6 Mains and Telecommunications.
- 5.6.14 In the UK, gas enters the distribution networks at high pressure; it is then transported through a number of reducing pressure tiers until it is finally delivered consumers.
- 5.6.15 There are effectively six Gas Distribution Network Operators nationwide. The Borough of Milton Keynes straddles the boundary of two of these namely Cadent Gas Ltd (formerly National Grid) and SGN (formerly Scotia Gas Networks). Primarily the areas east of the M1 are served by Cadent Gas Ltd leaving the majority of Milton Keynes urban area within SGN's operational area.
- 5.6.16 Given that most Gas DNO's provide connections on a first come, first served basis, there is no guarantee that this capacity will still be available at the time a connections request is submitted. Installation of new gas infrastructure is funded by developers and DNO. When request for a supply is received, developers are quoted a Connection Charge. If the connection requires reinforcement of the network then reinforcement charge may also be applied. The apportioning of reinforcement costs is split between the developer and Cadent depending on the results of a costing exercise internally.
- 5.6.17 According to the SEMLEP progress report¹⁴, future gas consumption projections, based on Cadent Gas' average forecast growth in East Midlands and East Anglia from 2007 to 2026, suggest overall demand is showing a downward trend that Cadent Gas mainly attributes to increased standards of energy efficiency in buildings both in relation to more energy efficient fabric and services, as well as a to the greater uptake of renewables.
- 5.6.18 It is not presently known if suitable capacity is available for the proposed levels of strategic growth across Milton Keynes up to 2031, however given the realised efficiencies and overall downward trend in consumption there is no expected short-term supply issues expected.

- 5.6.19 In terms of the delivery network it is not clear what level of appropriate reinforcement is required to the current network. It is therefore recommended that developers engage early with Gas DNOs in order to carry out the necessary capacity assessments.
- 5.6.20 In the event that developers procure infrastructure from third parties it will be required for these organisations to be accredited under the Lloyd's Gas Industry Registration Scheme or similar.
- 5.6.21 In all cases, it is incumbent on the developer to work as efficiently and effectively in implementing such gas supply schemes, including working with third parties collaboratively to minimise the effects on the local environment in order to maintain the Council's sustainability criteria.

5.7 Sustainability

- 5.7.1 According to the NPPF a sustainability appraisal is required as part of the plan preparation process; it should meet both the 'requirements of the European Directive on strategic environmental assessments' and consider the likely significant effects on the environment, economic and social factors'.
- 5.7.2 Through Policy MK1, Plan:MK follows NPPF requirements by promoting growth in a fashion that is sustainable. Furthermore, proposals which accord with this sustainable approach will be brought forward and approved without delay. It is therefore in the best interest of developers to accommodate a sustainable when undertaking concept design.
- 5.7.3 The AECOM Sustainability Appraisal¹⁵ demonstrates that Plan:MK should perform well in respect of a number of categories including 'Housing' and then in terms of 'Economy': 'Business, Employment and Economic Growth'. Furthermore, it is likely to perform well in terms of 'Transport' however this is subject to further analysis. Collectively there is the likelihood of significant positive effects on the baseline.
- 5.7.4 Significant negative effects are predicted only in respect of 'Natural Resources' objectives, for the simple reason that the proposed South East MK urban extension would result in significant loss of 'best and most versatile' agricultural land¹⁵.
- 5.7.5 Other potential sustainability issues relate to the South East MK growth area in relation to uncertainty regarding strategic community infrastructure, and a concern regarding cumulative impacts of growth here alongside completion of the Eastern Expansion Area and Strategic Land Allocation. And for East of the M1 there is a risk of separation from central MK given the relative large distance¹⁵.
- 5.7.6 In terms of energy usage, we note that the Committee on Climate Change has set in law the first four carbon budgets covering the period up to 2027. The current budget for the period ending 2020 seeks a reduction in emission of 35% against the base line and 50% by 2025. The Sustainability Appraisal¹⁵ considers that the 2020 target is ambitious, and a high level of effort is required in all areas if the target is to be achieved. It cannot be achieved by energy efficiency alone or by use of renewable

¹⁵ AECOM Sustainability Appraisal of Plan:MK [November, 2017]

energy alone; behaviour change will therefore need to be stimulated in both the domestic and commercial sectors. Specifically, in terms of development, energy companies and developers will have to consider obligations under the 2011 Energy Bill, as part of their proposals.

DRAFT

6. Social Infrastructure

6.1 Introduction

- 6.1.1 Plan:MK creates additional demand for a range of services, therefore putting pressure upon existing facilities and generating need for additional facilities, either through expansion of existing facilities or the provision of new. The Council is committed to ensuring that Milton Keynes is developed as a sustainable community, and that there is a strategic approach in place, to identify the required physical and social infrastructure facilities and services.
- 6.1.2 Individually, the impact of developments on social infrastructure might not be significant and indeed for smaller developments, difficult to quantify. Nevertheless, cumulatively, the impacts could be significant; therefore, a proportionate contribution from developments to social infrastructure will be sought. By identifying the social infrastructure type and quantifying the contribution to be collected from developments, prospective developers will have a clear understanding of the social infrastructure contribution costs associated with new development within the Borough.

6.2 Education

- 6.2.1 Where the scale of development is such to necessitate a new school, the developers will be expected to provide a serviced site free of charge, the building costs, including site infrastructure, and playing fields. A typical one-form entry primary school has capacity for 210 pupils plus nursery provision or 420 pupils for a two-form entry plus nursery provision. Typical secondary schools in Milton Keynes range from eight to twelve-form entry with capacity for between 1,200 and 1,800 pupils, plus further education (sixth form) provision.
- 6.2.2 The Council will expect sites to be delivered in locations that are accessible to new housing development and will particularly encourage the provision of sites located as part of new local or district centres in large developments. Sites will be expected to be provided in a regular shape, level and largely free from building constraints such as underground sewers, trees with Tree Preservation Orders, landfill sites and/or sites with gassing and high noise level areas etc.
- 6.2.3 The site area required for a new school will depend on a number of factors including the expected number of pupils, whether it is primary or secondary and whether nursery/sixth form/special needs provision is required. The Department for Education produce guidelines on the size of new schools which will be discussed with the Milton Keynes Education Department where the need for a new school is identified.
- 6.2.4 Table 8 on the following page below sets out the education provisions that are included within the currently-Permitted / Committed growth areas.

Development	Location	Project	Delivery (Estimate)
Brooklands	Fen Street	Brooklands Farm Primary	Opened Sept 2010 Expanded Sept 2012
Brooklands	Countess Way	Brooklands Farm Second Campus	Opened Sept 2015
Brooklands	Fen Street	Walton High @ Brooklands	Opened Oct 2016
Fairfields	Apollo Avenue	Fairfields Primary	Opened Sept 2017
Whitehouse	Vaynol Close	Whitehouse Primary	Opened Sept 2016
Whitehouse	Barrosa Way	Whitehouse Secondary	Opens Sept 2019
Whitehouse	Adjacent to Calverton Lane	Whitehouse Primary 2	2022/23
Whitehouse	Whitehouse South	Whitehouse Primary 3	2024/25
Strategic Land	Eagle Farm South	St Mary's Primary	Opens 2019
Strategic Land	Glebe Farm	All through combined school	2022/23
Tattenhoe Park	Bronte Avenue	Priory Rise Primary	Opened Sept 2008 Expanded Sept 2104
Newton Leys	San Andres Drive	Newton Leys Primary	Opened Sept 2016
Tickford Fields	Spine Street South	Primary School	2021/22
Eaton Leys	Spine Street South	Primary School	2020/21

Table 8: Education Provision in Permitted / Committed Developments

6.2.5 The work that is currently ongoing to prepare development framework plans for the strategic expansion areas is indicating that the following provisions will be included:

- South East MK: two three-form entry primary schools and one seven-form entry secondary school.
- East of M1: within the plan period, two three-form entry primary schools and one eight-form entry secondary school, with sixth form provision. Beyond the plan period, potentially one or two additional three-form entry primary schools.

6.2.6 Milton Keynes College is proposing to relocate from its two existing sites in Bletchley and Chaffron Way to a single campus in Central Milton Keynes. MK Council is supportive of this move, which will:

- Reduce running costs to help deliver financial sustainability
- Deliver an improved learning environment
- Provide better choice for students with increased access from all areas of Milton Keynes
- Contribute to the strategic vision for Central Milton Keynes
- Improve the linkages between further education and business

- 6.2.7 Plan:MK and the MK Futures 2050 Vision sets out the aspiration for a new 21st century university located in Central Milton Keynes. MK Council is in the process of tendering for the role of lead Higher Education partner. Financial resources have been committed from the MK Tariff on the condition that the partner provides at least a 50% resource match. A Feasibility Study is planned to be commissioned, to be formally reviewed in mid-2019; presently Plan:MK suggests that Central Milton Keynes (Site B4) will be allocated for the university site.

6.3 Health and Social Care

- 6.3.1 Provision of primary care and acute health facilities will be coordinated through joint working with NHS England and the Milton Keynes Clinical Commissioning Group (CCG). Health provision in the Milton Keynes area is currently under review through the NHS Sustainable Transformation Plan (STP) which is considering the future of health services in Milton Keynes, Bedfordshire and Luton.
- 6.3.2 The conclusions of the STP have yet to emerge but are likely to propose greater integration of primary health and social care services and the transfer of some services from acute health settings to primary care facilities. The changes, particularly the move to a 'Hub' model are likely to have significant impact on the nature of health infrastructure required in the future and Milton Keynes infrastructure plans are likely to require to be adjusted accordingly once STP outcomes become clearer.
- 6.3.3 In the interim MK Council in conjunction with the MK CCG and NHS England is delivering a new large-scale health facility at Brooklands in the Eastern Expansion Area to provide access to general practice for existing and new residents from this September. This facility will replace and greatly expand the current temporary facilities at Chaffron Square, Broughton Gate. The Council has also now applied for planning permission for a similar but larger facility at Whitehouse in the Western Expansion Area which is planned to open in March 2020. Between them the new general practice facilities will provide access to primary care services for 45,000 patients.
- 6.3.4 The longer-term programme to expand and consolidate clinical facilities at Milton Keynes University Hospital will also be impacted following completion of the STP. The Hospital has a well formulated long term Estates Strategy and early phases of this, including the completion of an Academic Centre in conjunction with the University of Buckingham and the reconfiguration and expansion of parking provision have already been implemented. The Council is also providing financial support to the Hospital through the Milton Keynes Tariff, to provide a new Cancer Centre on site and work on this project is expected to begin shortly.
- 6.3.5 A growing population will put additional pressures upon the existing healthcare service and facilities in Milton Keynes. Collecting a developer contribution toward healthcare facilities to either providing new or funding improvement to existing facilities to mitigate the impact of new development is therefore considered necessary. The Local Investment Plan (March 2015 Refresh)¹⁶ identifies a total of £94.2m required infrastructure investment for health and related services, for the period between 2016 and 2026.

¹⁶ Local Investment Plan (March 2015 Refresh)

- 6.3.6 Table 9 below identifies health care facilities that are being provided within the currently-Permitted / Committed growth areas.

Development	Location	Project	Delivery (Estimate)
Brooklands	Montague Crescent	Brooklands Health Centre	Opened Sept 2015
Whitehouse	Whitehouse High Street	Whitehouse Health Centre	Opens March 2020
Tickford Fields	Local Centre	Health & Wellbeing Facility	2021/22
Newton Leys	Phase 6 Spine Road	Health Facility (tbc)	2022
Eaton Leys	Spine Street North	Health Facility (tbc)	2021

Table 9: Health Care Provision in Permitted / Committed Developments

- 6.3.7 Physical infrastructure supporting social care provision in Milton Keynes includes day care and housing for older persons and residential homes for children with acute needs.
- 6.3.8 The type of service offered to older people in need of social care support depends on the level of need of the potential service user. In order to assess this, a typical pathway would be to be referred to MKC's Adult Social Care Department for an initial assessment. Adult Social Care may then provide information and advice; signpost to other services, such as those offered by the third sector; or pass on the referral to a social work team for further assessment. This could result in the commissioning of a range of services, including reablement, community-based services (such as home care and day care), or residential based services (such as residential or nursing care).
- 6.3.9 Milton Keynes' population is predicted to have a significant rise in the number of older people over coming years, and it is estimated that the total number of people in Milton Keynes with dementia will increase to 3,250 by 2021¹⁷. Whilst these factors largely result in increasing pressure on the Council's revenue budget the Council also recognises an impending shortage in residential nursing care home provision. To address this the Council is working with private sector partners to identify new provision of at least 300 additional bed spaces by 2022 with the expectation that many of these will be provided in expansion areas.

6.4 Leisure

- 6.4.1 Leisure and sports centre facilities in the Borough are facing significant budget challenges and the Council will continue to need to make savings on the provision of these services in future years. Whilst some facilities have the potential to generate income through memberships and 'pay to use', the need for ongoing investment and the ambition to provide improved and additional facilities will require developer obligations to support facilities within the area local to the development proposed in order to ensure there is adequate provision to accommodate the growth in population.

¹⁷ MK Council Draft Planning Obligations SPD June 2017

- 6.4.2 Community centres offer multi-purpose space that can accommodate a range of sport, leisure, recreation, cultural and entertainment facilities. The Council considers that community centres play an important role in enriching daily life. MKC supports the provision of new and improved social infrastructure, including community halls, as set out in Objective 16 of the Core Strategy. There are over 70 community centres and meeting places in Milton Keynes. New combined sports facility and community centres have recently provided at Broughton Gate and Brooklands, located in the Eastern Expansion Area, and further similar facilities will be provided by the Council at Fairfields and Whitehouse in the Western Expansion Area and at Wavendon in the Strategic Land Area in the next few years .
- 6.4.3 New development will create additional demand for new community centre provision and the enhancement of existing facilities. Obligations will be sought for these from new development either in the form of financial contributions as in the remaining 'New Town' grid squares of Tattenhoe Park, Oxley Park and Oakgrove or as. within the Newton Leys development in the form of direct provision by the developer.

6.5 Emergency Services

- 6.5.1 Emergency services comprise ambulance services, fire services and the police. Police forces and fire services are largely funded by Central Government, whilst ambulance services are largely funded by the NHS. There have been recent reforms to the provision of fire services, and Central Government is now encouraging police, fire and ambulance services to operate more collaboratively. This, alongside the introduction of cost-cutting measures, means that councils are under significant pressure to ensure these services are being provided effectively.
- 6.5.2 Within Milton Keynes, Bucks Fire & Rescue Service, Thames Valley Police and South Central Ambulance Service have come together to plan and deliver a new 'Blue Light Hub' at Ashland in the south of the city. The new development is being financed by planned redevelopment of existing estate, Central Government grant funding with the Council providing additional support through the Milton Keynes Tariff for some elements of the scheme.
- 6.5.3 New development presents opportunities for designing out crime and anti-social behaviour. However, new development also puts pressure on existing police, fire and ambulance services. The LIP¹⁶ identifies an infrastructure investment requirement of £1.8m for the ambulance service, for the period between 2016 and 2026, and £9.5m for the police service. A comparison of required investment against available funding equates to a funding gap of 43.2% of its total expenditure requirement for the ambulance service and 83.5% for the police service.
- 6.5.4 Obligations from developers will be sought to towards the extension of and improvements to existing emergency services facilities and where the Council is involved in the delivery of new buildings, such as the new health centres at Brooklands and Whitehouse in the east and west , it will seek to incorporate appropriate additional facilities for the emergency services.

7. Green Infrastructure

7.1 Green Strategy

- 7.1.1 A Green Infrastructure (GI) Strategy has been produced in March 2018 for Milton Keynes. As a new town, GI was embedded from the outset and has created an almost unique modern urban landscape character. The Strategy sets out a longer-term framework for protecting and enhancing the town's GI.
- 7.1.2 Future growth should protect existing GI assets and each of the strategic growth areas will be expected to be supported by local approaches to GI provision that demonstrate that there is sufficient multifunctional space for the future population and that it is connected in to the existing GI network.

7.2 Open Space

- 7.2.1 All new development of 11 homes or more will be required to provide open space in line with the Fields in Trust population benchmarks. This space should be designed as multifunctional green infrastructure in line with the open space typologies set out in Plan:MK. Where development cannot provide GI on site, an equivalent contribution will be required to help create, enhance and manage other spaces to demonstrate that the additional pressure on GI from the growth can be sustained. Infrastructure Schedules in Appendix 1 set out the landscape and open space provision that is included for all of the major growth areas and proposed allocations within Plan:MK.
- 7.2.2 Most recent new development in Milton Keynes has seen the incorporation of the required local and neighbourhood play provision within the linear park extensions provided by development within their open space commitments. The incorporation of play within the parks promotes greater integrated usage of these spaces across a wider age range and contributes to the amenity of both.

7.3 Habitat

- 7.3.1 Biodiversity underpins robust provision of ecosystem services. Buckinghamshire and Milton Keynes fall behind other English counties in terms of biodiversity resources with a low percentage of land designated as SSSI at 1.4%, compared to a national figure of 7.7% (England)¹⁸; only two of these are within MK. There are several Local Wildlife Sites and Biological Notification Sites, although these are not afforded the same level of protection. The NPPF also highlights that development should avoid impacting on other priority habitats, such as the areas of unimproved grasslands and ancient woodlands that are scattered across the borough.
- 7.3.2 Development pressures, lack of appropriate management and the change of use of natural landscapes such as grassland and heathlands, results in a decline in their biological value. Similarly, the loss of species particularly larger animals in woodland areas has had detrimental impacts on these ecosystems including the natural

¹⁸ Natural Environment Partnership, Buckinghamshire and Milton Keynes Biodiversity Action Plan [2014]

management of rivers and wetlands and the population sizes of dependant species. Farmland birds and arable weeds species are in significant decline due to changes in farming practice and the removal of hedgerows to increase field sizes.

- 7.3.3 Pollinators such as bees, beetles and butterflies are essential for the sexual reproduction of plants including oilseed rape and many wild plants; these species are at risk from 'pesticides, pests and disease, invasive species, land-use intensification, habitat loss, fragmentation and climate change. In the last 40 years we have seen a significant decline in honeybee abundance (most estimates are above 50%)¹⁹.
- 7.3.4 Although there is considerable green space throughout the city, the planned nature of the GI means that much of it is of similar age and frequently of limited diversity of more ornamental species. Vegetation is now well established in a number of areas, and priorities are shifting from the initial planting and establishment phases into one of thinning and creating a more biodiverse understory; such as creating new woodlands rather than just plantations of trees. Similarly, hedgerows and hedgerow trees in rural areas also require protecting and enhancing. The borough lost a lot of hedgerow trees due to Dutch Elm disease and the remaining dominant Ash is susceptible to Ash Dieback.
- 7.3.5 The Parks Trust, which manages the vegetated curtilages of the Grid Roads and many of the town's open spaces, is embarking on plans to improve the biodiversity of these routes through increased active management of thinning and restoration of the understorey in more wooded areas and improving the species mix of ground floras.

Actions to improve the biodiversity of the grid roads could including actions including:

- Thinning or selective coppicing to allow climax species to reach maturity or to provide a more open structure to stimulate growth and increased species diversity within the shrub and field layer;
- Selected clearance within overcrowded planting and woodland blocks creating new ecotones such as glades along with opportunities for new tree planting;
- Clearance of ornamental shrub beds with the aim to provide more natural ecotones from tall to low canopy woodland and woodland edge. The woodland edges will contain a higher percentage of shrub layer species, creating greater diversity within the planting mix along with complementary ecological benefits to the higher canopy woodland;
- Replanting with new stock selected to ensure that the future age and species diversity is able to fulfil the ecosystem services required and provide the grid roads with the resilience to deal with future climate change and future threats from pests and disease; and
- Installation of species-rich grasslands and wildflower plantings linking the woodland blocks, increasing habitats for important pollinators such as insects and invertebrates.

¹⁹ Natural Environment Partnership, Buckinghamshire and Milton Keynes Biodiversity Action Plan [2014]

7.3.6 The GI Strategy has identified a series of important green infrastructure connections that are being considered as part of the strategic growth areas. These include:

- East – The River Ouzel flows through the proposed eastern urban extension East of the M1. It will be important for all development to respect this corridor, providing a buffer from any flood risk and using green space to reduce the risk of pollutant run off into the river. This provides an opportunity to further extend the Linear Park network.
- South – It is important that development within Aylesbury Vale, but adjacent to the town, connects into the overarching green infrastructure network and linking around to the Blue Lagoon nature reserve. MK Council will work with partners at AVDC with the ambition of continuing the liner park network into this area.
- South east – the site at South East MK can play an important role providing links from the town into the extensive areas of woodland and green belt around Woburn.

Appendix 1: Major Sites Infrastructure Requirements Schedules

- 1-1 Brooklands
- 1-2 Fairfields
- 1-3 Whitehouse
- 1-4 Strategic Land
- 1-5 Tattenhoe Park
- 1-6 Tickford Fields
- 1-7 Newton Leys
- 1-8 Eaton Leys
- 1-9 Land East of M1
- 1-10 South East MK and South Caldecotte

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Category	Location	Project	Delivery (Estimate)	Cost (Estimate)	Funding Sources	Delivery Lead
Schools	Fen Street	Brooklands Farm PS	Opened September 2010 Expanded September 2012	£8.2m	EFA Basic Needs/Tariff	MKC
Schools	Countess Way	Brooklands Farm PS Second Campus	Opened September 2015	£6.4m	EFA Basic Needs/Tariff	MKC
Schools	Fen Street	Walton High @ Brooklands	Opened October 2016	£27.5m	EFA Basic Needs/Tariff	MKC
Health	Montague Crescent	Brooklands Health Centre	Opening September 2018	£10m	Prudential Borrowing/Tariff/NHS ETTF (tbc)	MKC
Leisure and Community	Countess Way	Brooklands Combined Community Sports Pavilion	Opened September 2015	£1.67m	Tariff	MKC
Highways	Fen Street /Newport Road	Public Transport Spine phase 1	Completed 2017	£6.5m	Developer Finance/Tariff	Developer (PfP)
Highways	Fen Street / Countess Way	Public Transport Spine phase 2	November 2018	£1.8m	Developer Finance/Tariff	Developer (PfP)
Highways	Fen Street / Salford Road	Public Transport Spine phase 3	2018/2019	£1.8m	Developer Finance/Tariff	Developer (PfP)
Highways	Brooklands to Magna Park	Fen Street connection over Broughton Brook including bridge	2019	£4.94m	Developer Finance/Tariff	Developer (IDI Gazeley)
Landscape and Open Space	Brooklands Meadows	Ridge and Meadows phase 1 (including Ripple and Pebble Play Areas)	Completed	£2.37m (Meadows) £1.4m (Ridge)	Developer Finance/Tariff	Developer (PfP)
Landscape and Open Space	Brooklands Meadows	Ridge and Meadows phases 2&3	Autumn 2018	Included in above	Developer Finance/Tariff	Developer (PfP)

Landscape and Open Space / Leisure and Community	Broughton Brook Linear Park	Brooklands District Park (including Playing Fields, Wave and Droplet Play Areas)	Summer 2018	£1.04m	Developer Finance/Tariff	Developer (PfP)
Landscape and Open Space	Parcel 1D	Graham's Circus	Summer 2018	£101k	Tariff	Developer (PfP)
Landscape and Open Space	Parcel 1B	Newsam Walk and Tompion Square	Autumn 2019	£184k	Tariff	Developer (PfP)
Landscape and Open Space	Brooklands Square	Lautier Park and Cooks Place (including Play Area)	Autumn 2018	£629k	Tariff	Developer (PfP)
Landscape and Open Space	Brooklands Ridge	Mayer Park	2019	£30k	Tariff	Developer (PfP)
Landscape and Open Space	Parcel 2A	Thwaites Place	Winter 2018	£186k	Tariff	Developer (PfP)
Leisure and Community	Adjacent to Secondary School	Allotments	2019	£150k	Tariff	MKC
Landscape and Open Space	Montague Crescent Parcels 7A/B	Knibb & Perigal Swale Parks	2020	£83k	Tariff	Developer (PfP)
Landscape and Open Space	Brooklands Ridge	Quare Place	2019	£205k	Tariff	Developer (PfP)
Landscape and Open Space	Fen Street	Bowden Square	2021	£39k	Tariff	Developer (PfP)
Leisure and Community	Adjacent to Orchard	Allotments	2022	£150k	Tariff	MKC

Category	Location	Project	Delivery (Estimate)	Cost (Estimate)	Funding Sources	Delivery Lead
Schools	Apollo Avenue	Fairfields Primary School	Opened September 2017	£8.12m	EFA Basic Needs/Tariff	MKC
Highways	V4 Watling Street/Apollo Avenue	Kiln Farm Roundabout	Completed 2015	£361k	Developer Finance/Tariff	Developer (BDW)
Highways	Apollo Avenue	Public Transport Spine phase 1	Completing 2019	£1.8m	Developer Finance/Tariff	Developer (BDW)
Highways	Apollo Avenue	Public Transport Spine phase 2	2021-2023	£2m	Developer Finance/Tariff	Developer (BDW tbc)
Leisure and Community	Apollo Avenue	Fairfields Combined Community Sports Pavilion	2019/20	£1.75m	Tariff	MKC
Leisure and Community	Apollo Avenue	Fairfields Playing Fields	2019	£450k	Tariff	MKC
Landscape and Open Space	Apollo Avenue	Local Park 4 (including Local and Neighbourhood Play)	2019	£550k	Tariff	MKC
Leisure and Community	Apollo Avenue	Allotments AL5	Spring 2019	£150k	Tariff	MKC
Landscape and Open Space	Tiberius Drive	Kiln Brook Crescent	Summer 2018	£50k	Developer Finance	Developer (BDW)
Landscape and Open Space	Adjacent to Fairfields Local Centre	Brickfields Local Play Area 5	2020	£160k	Developer Finance/Tariff	Developer (BDW tbc)
Landscape and Open Space	Fairfields Western Flank	Local Park 5 (including Neighbourhood Play)	2021/22	£500k	Tariff	MKC

Leisure and Community	Fairfields Western Flank	Allotments AL4	2021/22	£150k	Tariff	MKC
Landscape and Open Space	Fairfields South West	Kiln Farm Brook Vista	2022/23	£1.3m	Developer Finance/Tariff	Developer (BDW tbc)
Landscape and Open Space	Fairfields South East	Local Play Area 6	2022/23	£180k	Tariff	MKC (tbc)

Category	Location	Project	Delivery (Estimate)	Cost (Estimate)	Funding Sources	Delivery Lead
Schools	Vaynol Close	Whitehouse Primary School	Opened September 2016	£8.12m	EFA Basic Needs/Tariff	MKC
Schools	Barrosa Way	Whitehouse Secondary School	2018/19 (opens September 2019)	£39m	EFA Basic Needs/Tariff	MKC
Schools	Adjacent to Calverton Lane	Whitehouse Primary School 2	2022/23	£8.5m	EFA Basic Needs/Tariff	MKC (tbc)
Schools	Whitehouse South	Whitehouse Primary School 3	2024/25	£9m	EFA Basic Needs/Tariff	MKC (tbc)
Health	Whitehouse High Street	Whitehouse Health Centre	2018/20 (opens March 2020)	£10m	Prudential Borrowing/Tariff/NHS ETTF (tbc)	MKC
Leisure and Community	At Whitehouse Playing Fields	Whitehouse Combined Community Sports Pavilion	2021/22	£1.75m	Tariff	MKC
Leisure and Community	North of Upper Weald	Whitehouse Playing Fields	2021	£450k	Tariff	MKC
Leisure and Community	Whitehouse South	Allotments AL2 and AL3	2023/24	£250k	Tariff	MKC
Highways	V4 Watling Street/Barrosa Way	Whitehouse Roundabout	Completed 2015	£750k	Developer Finance	Developer (Gallagher)
Highways	H4 Danstead Way/Longhorn Drive	Kiln Farm Roundabout	Completed 2016	£349k	Tariff	Developer (Gallagher)
Highways	Barrosa Way	Public Transport Spine phase 1	2015-2020	£1.7m	Developer Finance/Tariff	Developer (Gallagher)
Highways	Barrosa Way to Calverton Lane	Public Transport Spine phase 2	2018-2021	£2m	Developer Finance/Tariff	Developer (Gallagher)

Highways	V4 Watling Street	Junction 26	2020	£800k	Developer Finance	Developer (Gallagher)
Highways	V4 Watling Street/Monks Way H3	Calverton Lane/Fairways Roundabout	2021/22	£1.5m	Developer Finance/Tariff	Developer (Gallagher tbc)
Highways	Barrosa Way	Public Transport Spine phase 3	2021-26	£2.4m	Developer Finance/Tariff	Developer (Gallagher)
Highways	Barrosa Way to WEA Junction 23	Public Transport Spine phase 3	2023-2027	£1.6m	Developer Finance/Tariff	Developer (Gallagher)
Highways	Tattenhoe Street to WEA Junction 23	V2 Extension	2021-26	£2.25m	Developer Finance/Tariff	Developer (Gallagher)
Landscape and Open Space	Longhorn Drive	Whitehouse Park (including Local and Neighbourhood Play)	Opened October 2016	£513k	Tariff	Developer (Gallagher)
Landscape and Open Space	Adjacent to Whitehouse High Street	Lady Margery's Gorse (including Local Play Area)	2018	£628k	Developer Finance/Tariff	Developer (Bovis)
Landscape and Open Space	Adjacent to Heren Lane	Wetlands Nature Area and Local Play Area 3	2019/20	£450k	Developer Finance/Tariff	Developer (Bovis)
Leisure and Community	Adjacent to Playing Fields	Allotments AL1	2021	£150k	Tariff	MKC
Landscape and Open Space	Adjacent to Brook Corridor	Local Park 1 (including Neighbourhood Play)	2020	£500k	Developer Finance/Tariff	MKC (tbc)
Landscape and Open Space	Adjacent to Common Farm	Local Play Area 1	2022	£100k	Tariff	MKC (tbc)
Landscape and Open Space	Whitehouse South	North Bucks Way Corridor	2016-2021	£100k	Developer Finance	

Landscape and Open Space	Whitehouse South	District Park	2024/25	£1.4m	Developer Finance/Tariff	Developer (BDW tbc)
Landscape and Open Space	Whitehouse South	Local Park 3 (including Neighbourhood Play)	2024/25	£550k	Developer Finance/Tariff	Developer (BDW tbc)
Landscape and Open Space	Whitehouse South	Local Play Area 4	2025/26	£100k	Tariff	MKC (tbc)

Category	Location	Project	Delivery (Estimate)	Cost (Estimate)	Funding Sources	Delivery Lead
Highways	A421/Magna Park	Fen Roundabout	Completed 2015	£750k	Developer Finance	Developer (Gallagher)
Highways	A421/Eagle Farm North	Eagle Roundabout	Completed 2015	£750k	Developer Finance	Developer (Gallagher)
Highways	Land West of Newport Road	Groveyway to Stockwell Lane	2019-2022	£1.2m	Developer Finance	Developer (Crest Nicholson)
Schools	Eagle Farm South	St Mary's Primary School	2018/19 (opens September 2019)	£8.5m	EFA Basic Needs/Tariff	MKC
Leisure and Community	Land West of Newport Road	Wavendon Combined Community Sports Pavilion	2020/21	£1.75m	Tariff	MKC
Leisure and Community	Land West of Newport Road	Wavendon Playing Fields	2020	£450k	Tariff	MKC
Landscape and Open Space	Land West of Newport Road	Local Park (including Local and Neighbourhood Play)	2019	£550k	Tariff	MKC (tbc)
Highways	Fen Roundabout to Newport Road (and Golf Course link)	Spine Road phase 1	2018-2023	£2.5m	Developer Finance	Developer (Gallagher)
Landscape and Open Space	Glebe Farm	Grid Road Reserve Corridor	2018/19	£70k	Developer Finance/Tariff	Developer (Gallagher)
Landscape and Open Space	Glebe Farm	Northern Wetland Park phase 1	2018/19	£750k	Developer Finance/Tariff	Developer (Gallagher)
Landscape and Open Space	Glebe Farm	Sensory Island Play Area	2019/20	£316k	Tariff	Developer (Taylor Wimpey tbc)
Landscape and Open Space	Glebe Farm	Wild Wood North and South (including Neighbourhood Play)	2020	£330k	Tariff	Developer (Gallagher tbc)

Landscape and Open Space	Glebe Farm	Northern Wetland Park phase 2	2020/21	£900k	Developer Finance/Tariff	Developer (Gallagher)
Landscape and Open Space	Glebe Farm	Swamp Outpost Play Area	2020/21	£170k	Tariff	Developer (Gallagher)
Leisure and Community	Glebe Farm	Allotments	2021/22	£150k	Tariff	MKC
Highways	Land West of Newport Road	Newport Road link to The Stables	2019	£750k	Developer Finance/Tariff	Developer (Gallagher)
Highways	Eagle Roundabout to Golf Course (and Minton link)	Spine Road phase 2	2018-2023	£2m	Developer Finance	Developer (BDW)
Landscape and Open Space	Eagle Farm South	Grid Road Reserve Corridor	2018/19	£70k	Developer Finance/Tariff	Developer (BDW)
Schools	Glebe Farm	All through Combined School	2022/23	£33m	EFA Basic Needs/Tariff	MKC
Landscape and Open Space	Eagle Farm South	Northern Park (including Neighbourhood Play)	2019/20	£550k	Tariff	Developer (BDW tbc)
Landscape and Open Space	Adjacent to St Mary's School	Local Play Area	2019/20	£150k	Tariff	Developer (BDW tbc)
Leisure and Community	Eagle Farm South	Allotments	2020/21	£150k	Tariff	MKC
Highways	Golf Course Land	Spine Road phase 2	2021-2023	£1.2m	Developer Finance	Developer (tbc)

Category	Location	Project	Delivery (Estimate)	Cost (Estimate)	Funding Sources	Delivery Lead
Schools	Bronte Avenue	Priory Rise Primary School	Opened September 2008 Expanded September 2014	£8m	EFA Basic Needs/Tariff	MKC
Highways	V1 Snelshall Street/Hayton Way	Kingsmead Roundabout	Completed 2007	Completed as part of HE early infrastructure	Developer Finance	Developer (Homes England)
Highways	Hayton Avenue	Public Transport Spine phase 1	Completed 2007	Completed as part of HE early infrastructure	Developer Finance	Developer (Homes England)
Highways	Gateway Square to Local Centre	Public Transport Spine phase 1	2019-2024	£2.5m	Developer Finance	Developer (Homes England tbc)
Leisure and Community	Adjacent to Priory Rise PS	Tattenhoe Park Playing Fields	Completed 2009/10	Completed as part of HE early infrastructure	Tariff	Developer (Homes England)
Landscape and Open Space	Adjacent to Cartington Gardens	'Kingsmead South' Play Area	Completed 2015	£55k	Tariff	Developer (BDW)
Leisure and Community	Adjacent to Playing Fields	Tattenhoe Park Combined Community Sports Pavilion	2018/19	£1.7m	Tariff	MKC
Landscape and Open Space	Adjacent to Playing Fields	Neighbourhood Play Area 1	2019	£250k	Tariff	MKC (tbc)
Landscape and Open Space	Phase 2 (North Central)	Local Play Area 4	2020	£86k	Tariff	Developer (tbc)
Landscape and Open Space	Phase 2 (North Central)	Neighbourhood Play Area 2	2020	£250k	Tariff	Developer (tbc)
Leisure and Community	Phase 2 (North Central)	Allotments and Leisure Gardens	2020/21	£250k	Tariff	MKC (tbc)
Landscape and Open Space	Phase 3 (West)	Local Play Area 1	2021	£50k	Tariff	Developer (tbc)

Landscape and Open Space	Phase 4 (South)	Local Play Area 2	2022	£58k	Tariff	Developer (tbc)
Landscape and Open Space	Phase 6 (South East)	Local Play Area 3	2024	£45k	Tariff	Developer (tbc)

Category	Location	Project	Delivery (Estimate)	Cost (Estimate)	Funding Sources	Delivery Lead
Highways		A5/A4146 Roundabout and A4146 approach	2018/19		Developer Finance	Developer (Gallagher)
Highways	A4146 to Borough Boundary	Spine Street	2019-2022		Developer Finance	Developer (Gallagher)
Schools	Spine Street South	1FE Primary School	2020/21	£3.5m	EFA Basic Needs/s106	MKC
Landscape and Open Space	Ouzel Valley Corridor	Linear Park Extension (to Waterhall Park)	2020/21		Developer Finance/s106	Developer (Gallagher)
Highways	Ouzel Valley Corridor	Pedestrian and Cycle bridge connection to Saffron Gardens/Manor Fields	2020/21		Developer Finance	Developer (Gallagher)
Landscape and Open Space	Linear Park Extension	Combined Local and Neighbourhood Play Area	2021	£330k	S106	MKC (tbc)
Landscape and Open Space	South East	Local Play Area	2022	£80k	S106	MKC (tbc)
Health	Spine Street North	Health Facility (tbc)	2021	£2.4m	Private Finance	Third Party Developer (tbc)

Category	Requirement	Delivery (Estimate)	Cost (Estimate)	Funding Sources	Delivery Lead
Schools	Phase 1 Primary School	2022/23	£8m	HIF Forward Fund / Developer Finance	MKC
Schools	Phase 2 Primary School	2026/27	£8m	Developer Finance/Tariff	MKC
Schools	Phase 2 Secondary School	2026/27	£25m	Developer Finance/Tariff	MKC
Schools	Phase 3 Primary School	2031/32	£8m	Developer Finance/Tariff	MKC
Health	Health centre	2026/27	£10m	Developer Finance/Tariff	MKC
Leisure and Community	Recreation & community facilities	2026/27	£4m	Developer Finance/Tariff	MKC
Highways	Strategic new on-site single carriageway links	Phased delivery	£10.3m	Developer Finance/Tariff	Developer
Highways	Dualling of A509 and Tongwell Street	2021-23	£9.7m	HIF Forward Fund	Developer
Highways	Strategic new on-site dual carriageway links	2022-25	£2.6m	HIF Forward Fund	Developer
Highways	New bridge over M1	2025	£11.1m	HIF Forward Fund	Developer
Highways	New on-site bridges	Phased delivery	£7.1m	Developer Finance/Tariff	Developer
Highways	Park and ride facility	2027-2030	£7.9m	Developer Finance/Tariff	Developer / MKC
Highways	Junction 14 Improvements	Minor mods 2021 Interim improvements 2025	£200,000 £3.4m	HIF Forward Fund	Developer
Highways	New junctions & alterations to other existing junctions	Phased delivery	£7.7m	Developer Finance/Tariff	Developer
Landscape and Open Space	River Ouzel Linear Park	2021/22	TBC	Developer Finance/Tariff	Developer
Landscape and Open Space	Strategic open space including District Park	Phased delivery of 120Ha of open space	TBC	Developer Finance/Tariff	Developer

Category	Requirement	Delivery (Estimate)	Cost (Estimate)	Funding Sources	Delivery Lead
Schools	Primary School 1	2023/24	£8m	Developer Finance/Tariff	MKC
Schools	Primary School 2	2024/25	£8m	Developer Finance/Tariff	MKC
Schools	Secondary School	2026/27	£25m	Developer Finance/Tariff	MKC
Health	Health centre	2025/26	£2.5m	Developer Finance/Tariff	MKC
Leisure and Community	Community hall	2025/26	£2m	Tariff	MKC
Highways	H10 extension	2025	£3.5m	Developer Finance/Tariff	Developer (O&H)
Highways	Bow Brickhill Road – Newport Road link	2025	£5m	Developer Finance/Tariff	Developer (O&H / Gallagher / Gladman)
Highways	Railway bridge	2025	£10m	Tariff	MKC
Highways	New roundabouts / access junctions	2022-25	£4m	Developer Finance/Tariff	Developer (O&H / Gallagher / Gladman)
Highways	New access to South Caldecotte & V10 works	2019/20	£2.5m	Developer Finance/Tariff	Developer (Hampton Brook)
Landscape and Open Space	Green infrastructure including green boundary to Bow Brickhill and extended/new linear parks	Phased delivery of appropriate green infrastructure	TBC	Developer Finance/Tariff	Developer (O&H / Gallagher / Gladman)

Appendix 2: MKC Long Term Asset Capital Investment Needs

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Assessment of Long Term Asset Capital Investment Needs For Milton Keynes Council

Scheme Title	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31 onwards	Total Scheme Cost
	£	£	£	£	£	£	£	£	£	£	£	£	£	£
A421 (west of MK)	0	0	0	0	3,000,000	0	0	0	0	0	0	0	0	3,000,000
A509 dualling/CP M1	0	0	0	0	0	0	0	15,000,000	0	0	0	0	0	15,000,000
H3 other Junctions (2)	0	0	0	0	0	0	250,000	250,000	0	0	0	0	0	500,000
H4 Other Junctions (6)	0	0	0	0	0	0	0	400,000	400,000	400,000	400,000	400,000	400,000	2,400,000
Other Junctions (15)	0	0	0	0	0	0	0	0	0	0	0	0	3,800,000	3,800,000
Total Highways and Transportation	40,159,409	18,027,932	20,912,932	27,724,157	43,044,300	38,414,300	26,814,300	33,214,300	32,204,300	12,024,300	8,784,300	9,274,300	14,724,300	325,073,129

