

three

development  
framework

# development framework

## 3.1 Introduction

3.1.1 The starting point for describing the Development Framework is a generalised 'Concept Plan', which seeks to establish the broad development principles for the EEA. The main land uses, such as housing and employment, and the supporting infrastructure and landscape requirements, are then individually described. Finally, all the elements are brought together in the comprehensive Development Framework Plan and land use budget, presented at the end of the chapter.



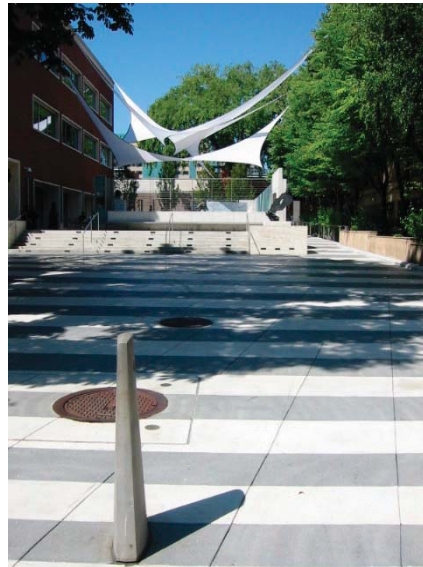
Town Houses



Apartments



Quality Public Space



Secondary and Primary Schools



State of the Art Public Transport



Active Commercial Developments

# concept plan

## 3.2 Concept Plan

3.2.1 The Concept Plan seeks to generate a distinctive 'sense of place' which responds to the site and the character of local urban form (see Figure 3.1). It builds on previous consultation work and the proposals made by groups of developers. In general terms, the concept for the development framework is focused on 5 key objectives;

- the need for a segregated public transport route through the development, with key public facilities and higher density housing located along it
- the creation of one integrated residential community for Broughton Gate and Brooklands, the development of opportunities for large footprint employment
- the creation of a strong landscape and open space structure to develop the 'forest' city and linear park concepts
- the creation of a high quality gateway/entrance to Milton Keynes at Junction 14.

3.2.2 The main spine of the development will be along the 'City Street', which runs the length of the EEA from the A509 in the north to the A421 in the south. It passes through the residential and employment parts of the development and also provides a link to the park and ride site. The 'City Street' comprises a segregated public transport route and a highway for other vehicles. H7 will be extended to the east, also as a 'City Street', to meet the main spine route at the High Street mixed use centre.

3.2.3 At the heart of the development a 'High Street' (mixed use centre) will provide a range of local services and community facilities for the whole EEA community. It will be complemented by some additional facilities and 'corner shop provision', located on the 'City Street'.

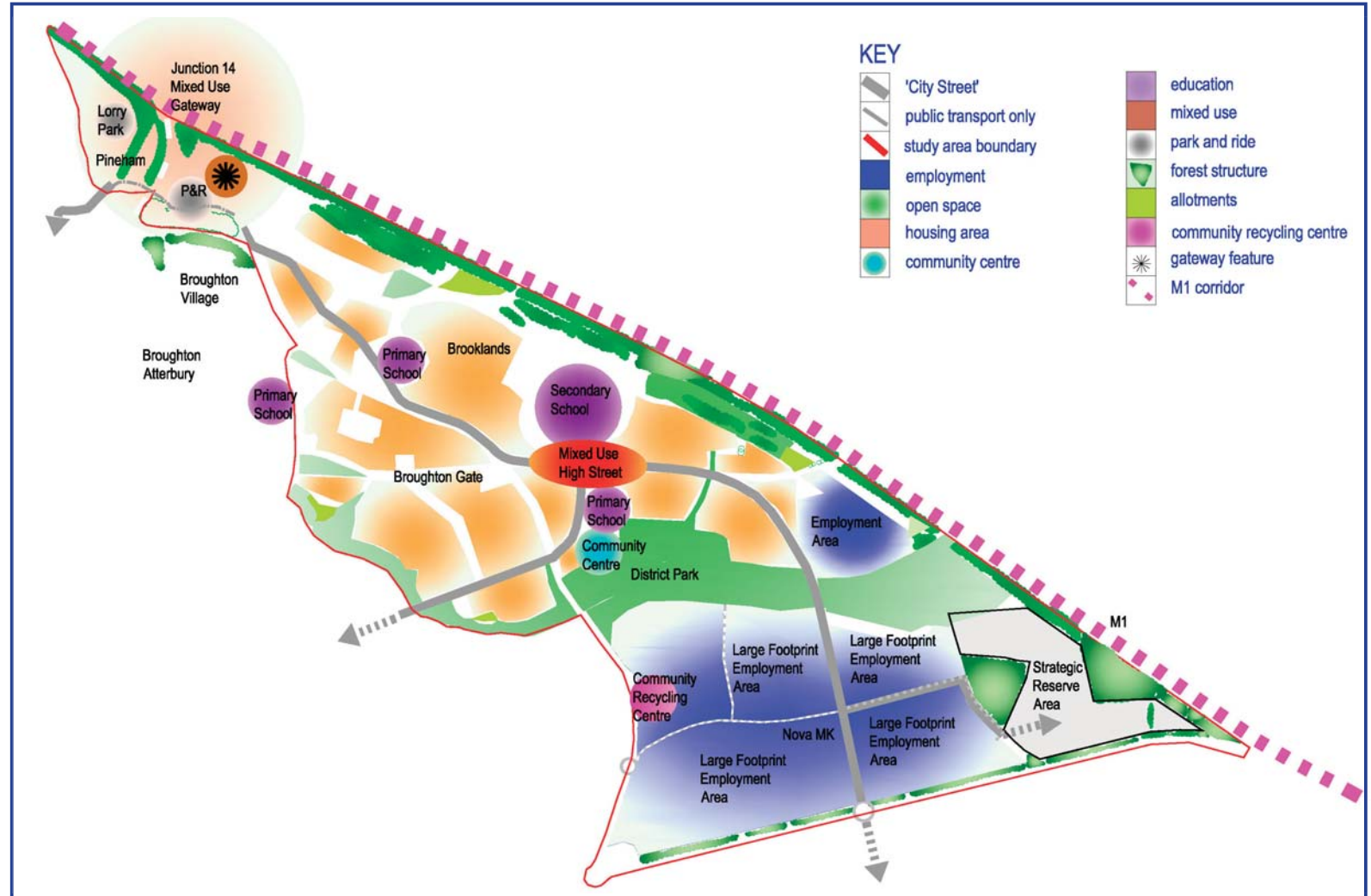


Figure 3.1 Concept Plan



# concept plan

3.2.4 The new development should be carefully designed to fit into the local landscape. In particular it should enable the provision of a central linear landscape corridor along the length of Broughton Brook, providing informal amenity space for new and existing residents within the area.

3.2.5 At a local level, the new area should provide an important shared resource for existing nearby neighbourhoods and benefit from other facilities elsewhere. For example, playing fields and other resources are within easy walking distance of these neighbourhoods and likewise the existing and proposed facilities in Broughton Atterbury are close to the EEA.

## 3.3 Housing

3.3.1 The EEA will make efficient use of land in accommodating approximately 4,000 new dwellings. The overall average net density of the development framework is about 39 dwellings per hectare, slightly above the average of 35 dw/ha required by the Local Plan (Policy H8). This overall average of 39 dwellings per hectare should not be exceeded. For each planning application, housing within each density zone (ie all the parcels within a density range) identified in the framework plan must comply with the relevant average density. This will allow a range of densities at a smaller scale, both above and below the average. There will be three distinct housing density ranges;

- High Density  
average net density 50 dwellings per hectare
- Medium Density  
average net density 40 dwellings per hectare
- Low Density  
average net density 30 dwellings per hectare

3.3.2 The housing areas should respond to the inherent site opportunities and constraints with suitable densities to provide distinctive 'character areas'. A wide range of dwelling type, size and tenure should be provided, creating choice, a varied building form and meeting community needs. 30% of housing should be affordable. Consideration should be given to ways in which new and emerging forms of housing could be provided.

3.3.3 High Density housing should predominantly be located along the 'City Streets' and within the High Street and at other key focal points. Incidental spaces, groups of trees and urban squares should be located along the 'City Street' to provide a variety of attractive spaces.

3.3.4 The medium density housing should be located adjacent to the high density areas and within 400m of the 'City Street'. This housing should form the core of the new urban area and would be characterised by a connected network of streets and squares, punctuated by local play areas.

3.3.5 The low density housing should be principally located along the outer edges of development, particularly along the Broughton Brook linear park.

3.3.6 The earlier housing total of 3,150 dwellings came from the local plan capacity figure of 1,150 for the Broughton Gate site plus the inspector's recommended "around 2,000 dwellings" for the rest of the EEA. These two estimates were deliberately cautious, made before the possibility of this more detailed planning study. Also the relatively recent addition to the EEA of the major east-west PT route has meant slightly higher density assumptions. The currently proposed total of 4,000 dwellings is therefore due to the framework study identifying a higher capacity in the EEA than the previous estimates. It makes sense to comprehensively plan as much of the EEA as possible now but not all the 4,000 dwellings will be built before the plan end date of 2011.



The development framework concept focuses on maximising the catchment of a major new public transport route



A commercial High Street will be the focus of the EEA development framework



Housing areas will be designed to promote walking and cycling as the primary transport mode



Employment opportunities will be created on sites at Fen Farm and Brooklands

## 3.4 Employment

3.4.1 Two main employment areas, comprising about 96 ha, will be located in the EEA, at the Nova MK site at Fen Farm and immediately north of Broughton Brook and close to the M1 in the Brooklands area. Nova MK will accommodate large footprint manufacturing and warehousing development, and the Brooklands area a range of small/medium scale office, and light and general

industrial development (B1/B2) and warehousing (B8). Within the High Street and local centres, smaller scale office uses will be located above ground floor, with retail facilities below.

3.4.2 The 'City Street' will pass directly through the Nova MK employment site and adjacent to the other employment area to provide high quality public transport links.

# junction 14 gateway

## 3.5 Junction 14 Gateway

3.5.1 M1 Junction 14 is one of the main gateway routes into the City of Milton Keynes from the Motorway network. Sites, on either side of the A509 link from Junction 14 to the Northfield roundabout, have been identified as key gateway sites.

3.5.2 The site north of the A509, and to the east of the sewage treatment works (MU1), has been identified as a suitable location for the lorry park. This would be relocated from the employment area at Fen Farm, when this is developed (in line with Local Plan Policy E13).

3.5.3 To the south of the A509, there is the opportunity to relocate and redesign the Milton Keynes Coachway, to increase the size and improve the appearance of the Park and Ride site, to link it with the east / west public transport route, improve pedestrian/cycle access and to develop some other employment/ commercial uses between the old Newport Pagnell road and the Motorway.

3.5.4 It is envisaged that the new Coachway could be developed in conjunction with a complex of commercial uses (MU2 and 3) which would primarily serve visitors, travellers and park and ride users( eg hotel, restaurant) and provide better information to MK visitors. In addition the opportunity for suitable 'gateway' uses such as technology and business facilities (eg meeting rooms/conferences) should also be considered. The Coachway would also need to be closely linked to the public transport route. Improvements to the coachway should include improved pedestrian and cycle access. Residential uses may be an acceptable component adjacent to Broughton Tributary, subject to meeting noise criteria. This area has been identified as having potential for a significant piece of public art. Details of this are discussed in chapter 4.

3.5.5 The Park and Ride site will be improved, by expanding the existing facility adjacent to the public transport route, and providing additional facilities. The public transport route will link from the rest of the EEA and use the existing Broughton Brook underbridge to pass under the A509. It will then require a new bridge across the Brook to gain access to H5 at a new signalised junction at Northfield Drive, so avoiding Northfield roundabout.

3.5.6 Access to the Park and Ride site will be from the A509 and egress will be to the south via A5130 and the Northfield roundabout. This will help relieve traffic congestion on the A509 between Junction 14 and Northfield roundabout.



The Development Framework proposes the redevelopment and upgrading of the Coachway facility



Freight traffic will use the M1 access to Milton Keynes in both the northern and southern parts of the site



The Pineham area



Development of the EEA will take the eastern edge of Milton Keynes up to the M1 corridor

# landscape strategy

## 3.6 Landscape Strategy

3.6.1 The New Town of Milton Keynes is acclaimed for its generous provision of strategic landscaping, parks and open spaces. A major component of the 1970 Plan for Milton Keynes was the continuous nature of the City's Linear Parks: these are coincident with the Watling, Ouse and Ouzel valleys and form a linear open space continuum of some 32 km. All development is within 2 km of this extensive and well landscaped system.

3.6.2 The implementation of the City's Linear Parks was guided by the "string and beads" principle:

- relatively narrow corridors of leisure routes ("strings")
- set within a matrix of grazing, forestry etc.
- with nodes of activity ("beads") such as pubs, cafés arranged at strategic locations.

3.6.3 Since the Linear Parks are valley-parks, the City's balancing lakes are all located within the Linear Park system, as is the Grand Union Canal, which parallels the course of the Ouzel. In the EEA, these strategic Linear Park principles will be extended to embrace Broughton Brook (as highlighted on Figure 3.3). The flood plain within the EEA is much less extensive than that of the Ouzel. The emphasis in the EEA will therefore be to secure an early and high quality landscape impact with strategic and character area planting.

3.6.4 The EEA's landscape and natural opportunities were identified in Section 2.4 and the Development Framework has been designed to respond to them. Most of the ecological interest in the EEA lies close to Broughton Brook and its tributaries, with the adjacent arable land and improved grassland of low importance. The presence of a number of protected species has been confirmed.

3.6.5 The importance of nature conservation is a key objective of the Development Framework in line with Local Plan Policy NE3. An inherent feature of the Development Framework is the protection of an integrated network of wildlife corridors. These corridors should provide ecological and pedestrian links along key natural features. These wildlife corridors are to be designed to reflect the naturalistic character of these areas and are to consist substantially of semi-natural habitat. These corridors have been aligned to follow the principal watercourses through the site and also to create a strategic landscape and wildlife corridor adjacent to the M1. The M1 wildlife corridor should exclude any land take required for motorway widening.

3.6.6 The protection of these corridors allows the potential to develop the 'forest city' concept in the EEA by which development is nested within a strong woodland landscape structure. A number of stands of trees already exist in the EEA. Although New Covert is

shown to be removed in the framework it is expected that compensatory woodland planting is carried out adjacent to the M1, possibly as part of any earth modelling used for noise mitigation. This will also help to extend the 'community forest' concept and link in with the neighbouring Marston Vale Community Forest.

3.6.7 In addition to its biodiversity role, it is proposed to provide key areas of landscape and open space for recreation. By linking the open spaces a circular route for walking and cycling is created, allowing an attractive green transport corridor. Opportunities for recreation should also be taken from the provision of permanent balancing lakes/storage.

3.6.8 The wider countryside to the north, east and south has some landscape value. Consideration needs to be given to protect this wider landscape from visual intrusion. In particular, the impact of the Nova MK development on land to the south should be addressed through ground modelling and planting along the A421, so as to perpetuate the 'green' image of Milton Keynes.

3.6.8 The interface between built form and open space is a key factor in creating quality public spaces. In order to address issues of community safety in relation to greenspace it is critical that all buildings positively address open spaces.

### Open Space

3.6.10 Open Space has been provided in accordance with guidance set out in the Milton Keynes Local Plan. This guidance is summarised in Table 3.1. A proposal for playing fields with associated sports pavilion is being developed for Tanfield Lane in Broughton as referred to in the MKC Playing Pitch Strategy. Appendix L1 of the local plan also requires a minimum of 0.5ha (ideally 10ha) of semi-natural greenspace at 1km nodes. The emphasis of the open space and landscape strategy will, therefore, be to deliver a series of linked open spaces to encourage biodiversity and nature conservation interest through the design of a range of semi-natural greenspaces.

3.6.11 The open space strategy is focussed on the development of a linear parkland following the principal watercourses and the M1 wildlife corridor, and linking the key open spaces in the framework area. Planning applications should also include smaller scale measures to enhance biodiversity, as set out in Local Plan Policy NE3.

3.6.12 The Open Space and Landscape Strategy plan (see Figure 3.2) shows the existing landscape features and proposed open spaces. The Development Framework accommodates a 20ha District Park (DP) which is centrally located along the Broughton Brook. This will provide a number of development wide open space facilities such as playing fields, amenity space and balancing areas. Balancing areas are to be designed primarily to encourage biodiversity and nature conservation interest as well as creating an attractive environment.

Table 3.1 MKC Open Space Hierarchy

	Minimum Size	Catchment Area
Local Play Area	0.2ha	300m
Neighbourhood Play Area	0.6ha	600m
Local Park	1 - 2ha	600m
District Park	20ha	1200m
Playing Fields	1.5ha(gross)per 1,000 population	
Allotments	0.25ha per 1,000 population	
Semi Natural Green space	0.5 ha at 1km nodes	



# landscape strategy

3.6.13 The disposition of Local Parks and Neighbourhood Play Areas seeks to ensure that every home is within 600m of such a facility and they form a key focal point within the immediate locality. Where possible, local parkland/play provision should be planned in association with the new Linear Park. However, additional provision will be needed to serve those areas more remote from the Linear Park. This open space, which should be defined in subsequent Development Briefs, should be deployed to provide memorable, attractive places in focal positions within, and in the vicinity of, the residential fabric.

3.6.14 Local Play Areas are not shown at this scale but it is expected that they will be provided in accordance with the guidance set out above and identified on the more detailed plans.

3.6.15 The Playing Field requirement of 10 hectares is to be met by provision in the District Park consisting of a cricket pitch, adult pitches and a number of junior and mini league pitches as required by the MKC Playing Pitch Strategy. These will be directly associated with changing facilities provided in the community centre, which is located adjacent to the playing fields and in close proximity to the local centre/High Street facilities. The playing fields have been provided on the basis of the Local Plan policy, however it has been assumed that some pitches within the Secondary School will be used for community purposes as well. Recreation facilities in Tanfield Lane are also proposed in the MKC Playing Pitch Strategy 2003.

3.6.16 Allotments are sited throughout the development, mainly within the large structural landscape buffers on the outer edge of the development. The allotments will need to be accessed by minor roads. All associated facilities are to be provided including fencing, topsoil, paths, hard storage areas, services such as water and some parking. Allotments should not be sited within the M1 80m air quality buffer, which is discussed later.



Figure 3.2 Landscape and Open Space Strategy

# transport and accessibility



## 3.7 Transport and Accessibility

### Introduction

3.7.1 The transportation strategy for the EEA takes into account three key factors (see Figure 3.3). Firstly, it is situated between the two main M1 Motorway junctions that provide access to the whole of Milton Keynes, Junctions 13 and 14, which are already heavily congested at times during the day. Secondly, the public transport long term vision for Milton Keynes envisages the development of bus routes along an east /west corridor, which could eventually be upgraded for mass transit use. Thirdly, the EEA is not currently directly served by a grid road, although the A5130 provides a similar form of all-purpose access and there are grid road connections close-by. These issues are discussed in more detail below.

### Main Highways

3.7.2 M1 Junction 14, to the north of the EEA, links the motorway, and the A509 from Newport Pagnell, via a short section of dual carriageway to Northfield roundabout and thence, via H5 and H6, to CMK. The future development of Milton Keynes, and the EEA, will increase the levels of traffic on this already congested section of the network and improvements are essential.

3.7.3 M1 Junction 13, to the south of the EEA, links the motorway with Bedford to the east, via A421, and with Milton Keynes to the west via the A421, a 5 km section of single carriageway which joins the grid road network at the Kingston roundabout at the south west corner of the EEA. The Highways Agency has plans to significantly improve Junction 13, as part of their A421, M1 to Bedford scheme. It also plans to widen the M1 between Junctions 10 and 13. Both schemes are currently planned to be completed by 2011. Milton Keynes Council, and Bedfordshire County Council, intend to dual the section of A421, between Junction 13 and the Kingston roundabout, to coincide with the improvements to Junction 13. MK Council supports a new Junction 13A on the M1, but the Highways Agency has no plans to build one. There is no current plan to widen the M1 north of J13 but will be looked at by the Joint Transport Team (JTT).

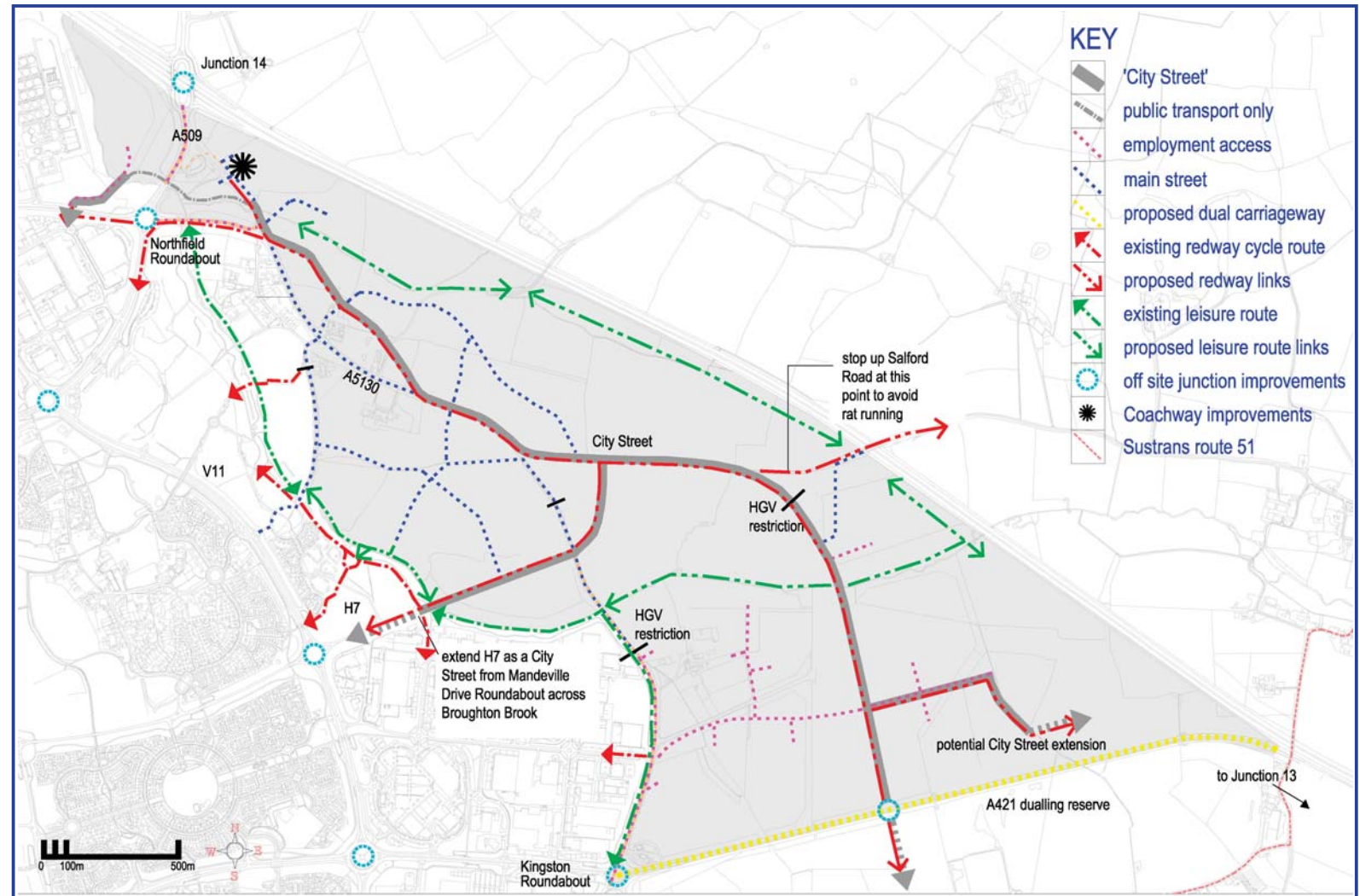


Figure 3.3 Proposed Highway and Transport Network



# transport and accessibility



3.7.4 The A5130 links the Kingston and Northfield roundabouts through the EEA. This is a single carriageway route, which although not designed as a grid road, currently acts as one. It provides all-purpose access to Broughton and Kingston and other farms and businesses in its vicinity. More minor routes connect to the A5130, the most significant being the Salford Road, which provides access to Salford and to the A421 near Junction13, thus providing a potential rat-run. Broughton Road connects the A5130, close to The Broughton Hotel, with the Broughton Atterbury development across Broughton Brook.

3.7.5 The nearest other grid roads are H7 Chaffron Way, which runs as a single carriageway east from V11 Tongwell Street to the Mandeville Drive roundabout access to Kingston grid square, and V11 Tongwell Street which runs north/south as a dual carriageway about 400m west of Broughton Gate.

## City Streets

3.7.6 The main transportation access to the EEA will involve the construction of 'City Streets' rather than grid roads, as despite their great benefits the extension of the grid road network may not deliver the most sustainable approach to transportation in the EEA.

3.7.7 The hallmark of the 'City Street' concept is the prioritization of movement on foot, by cycle and by public transport over the car. This objective will be achieved by a number of means, including designing routes to slow vehicular traffic (to a maximum of 30 mph), dedicating road space to public transport, providing at-grade pedestrian crossings (as in CMK boulevards), incorporating signal-control at the main intersections (rather than roundabouts) and ensuring that routes are overlooked by (rather than isolated from) development.

3.7.8 The 'City Street' will be the main north - south public transportation route through the EEA. It will be designed to allow for the efficient operation of bus services, linking H5 Portway ( or possibly H6 Childs Way) and Pineham in the north, with the Nova MK development area in the south, and will form the main spine for the development. It will be designed so that it can cross the A421 and provide access for the future development of the area to the south. H7 Chaffron Way will be extended to the east, as a 'City Street', from the Mandeville Drive roundabout, across Broughton Brook, to join the north/south 'City Street'. Although initially allowing bus services, the route could eventually become part of a new mass transit system for the city.

3.7.9 The 'City Streets' will converge at a common intersection which will be designed as an at-grade crossroads, with signal control providing public transport, pedestrian and cycle phases. This junction will be the most accessible location in the EEA and will be the focus for the EEA's main facilities.

3.7.10 The 'City Streets' will comprise a dedicated public transport route, a vehicular route, together with a cycleway and pedestrian route in a corridor of about 30 metres width. Selected junctions on the 'City Street' will be signalled to provide bus priority. The transition from a grid road to a 'City Street' will normally take place at a signalised junction or roundabout. More details are given in Section 5.3.

3.7.11 Public transport services will run along the 'City Streets' enabling high quality links to CMK and Kingston District Centre. They will also link the main facilities in the EEA, such as the secondary school, primary schools and facilities. It is envisaged that services will run at least at a 15 minute frequency. It is important that public transport provision is made in advance of each phase of development to establish public transport 'habits' at an early stage. Services to the existing park and ride site at Brook Furlong will also use the 'City Street'.

3.7.12 Bus stops should be no more than 400m from all houses and workplaces, with most within 300m. This will be achieved by planning higher, and medium, density housing along the 'City Streets' and, conversely, arranging lower density housing in less accessible locations towards the edges of the EEA. The bus stops themselves should be integrated with the development, sheltered and closely overlooked. The provision of real time information should be encouraged for the benefit of public transport users.



Existing bus services will be routed along the City Streets before the mass transit vehicles are up and running



The existing A5130

# accessibility diagrams

## Other Highways

3.7.13 A series of vehicular roads, or main streets, will provide the main access to the EEA, linking the 'City Street' and the surrounding highway network with the housing and employment development. New roundabout junctions will be constructed on A421 and A5130 to serve the Nova MK development. The junctions on the A421 will need to take into account the possible extension of the 'City Street', southwards into potential development areas south of the A421 and provision for cycling and pedestrians. Detailed designs will need to be prepared to show how these aims can be achieved.

3.7.14 Access to the Pineham and Brook Furlong area, including the Coachway, Park and Ride and Lorry Park, will need detailed consideration which takes into account any long term improvements to M1 Junction 14 and the surrounding highway network. No new accesses should be constructed on the A509, between M1 Junction 14 and the Northfield Roundabout, and if possible, the existing access should be restricted to 'left in' only.

3.7.15 The 'City Streets', and the main streets, in the EEA will have a 30 mph speed restriction. In other areas 20mph zones will be designated. Highway access to the employment areas will be separated from those to residential areas to prevent HGV's from passing through residential areas. Both employment areas will be served by public transport routes. With the exception of the 'City Streets', all highways will conform to the usual road hierarchy standards applicable elsewhere in Milton Keynes including ensuring adequate access for service and emergency vehicles.

3.7.16 The A5130 should be downgraded to act, in part, as a residential road with no through traffic. Broughton Road should also be designed to prevent rat running. Salford Road should be realigned to minimise the rat running potential through Salford Village. Some parts of both roads would become sections of 'City Street'.

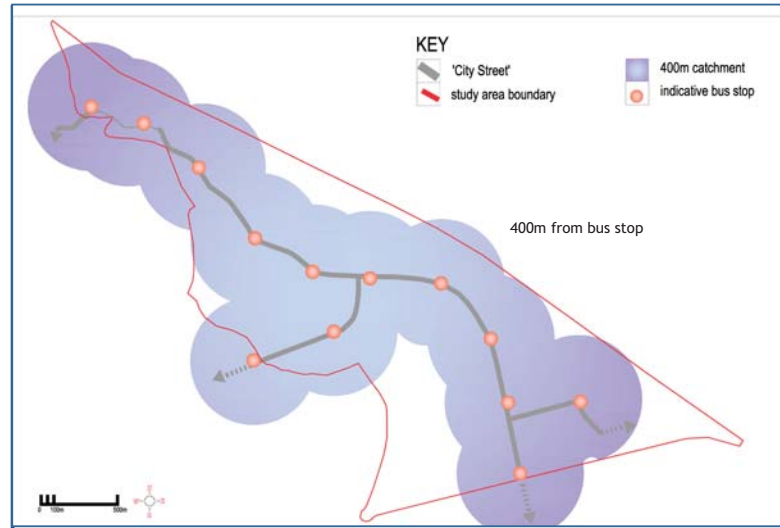


Figure 3.4 400m Accessibility to Public Transport Stops

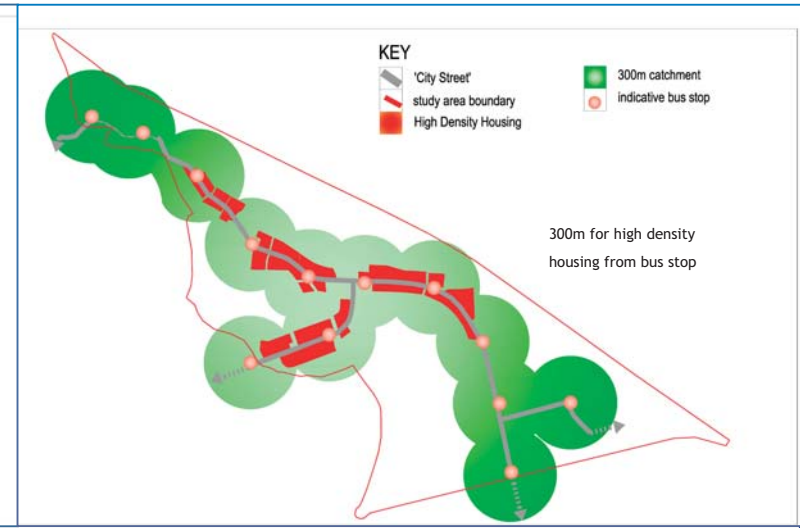


Figure 3.5 300m Accessibility to High Density Housing

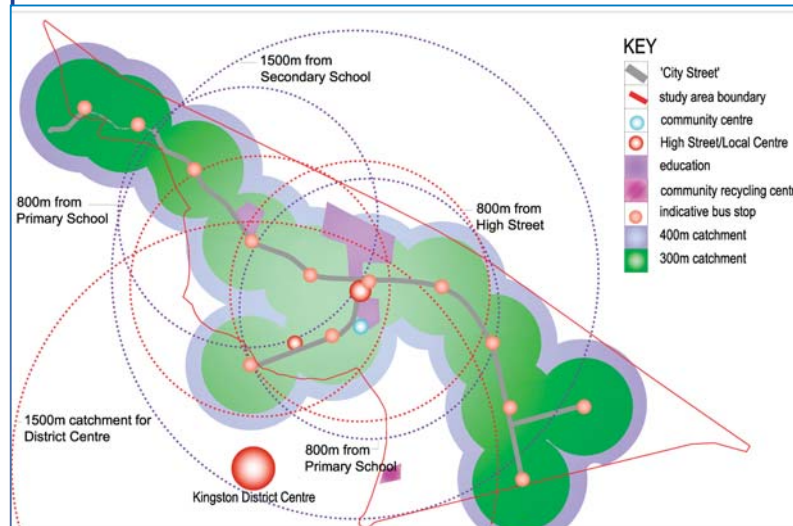


Figure 3.6 Accessibility to Community Facilities

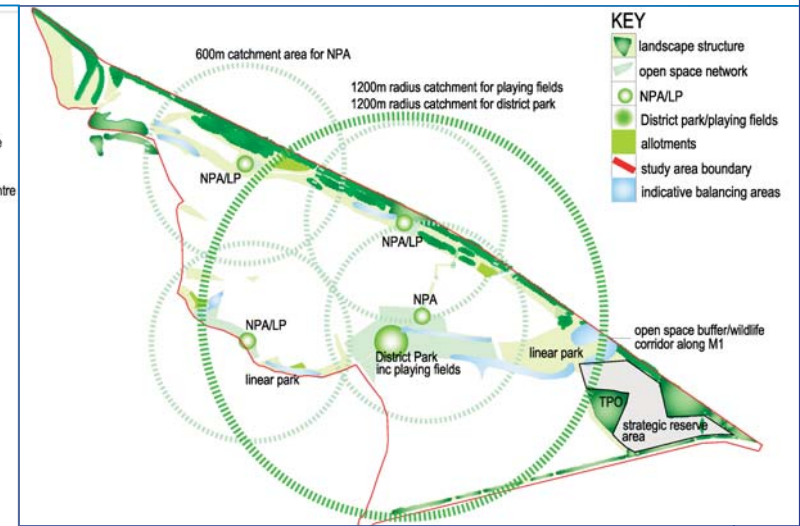


Figure 3.7 Accessibility to green space

# walking and cycling



## Off Site Highway and Transport Improvements

3.7.17 Milton Keynes Council, in conjunction with the Highways Agency and Milton Keynes Partnership Committee, is setting up a Joint Transport Team (JTT) to ensure that infrastructure and transport measures are delivered in tandem with the growth of the EEA and to provide a long term vision of the transport network in Milton Keynes.

### 3.7.18 The JTT will:

- Establish shared transport and traffic models for the Milton Keynes area
- Identify transport measures which are required to support growth
- Ensure that all development contributes to strategic infrastructure delivery
- Set up a costed, phased programme, which coordinates the delivery of the transport measures and development.

3.7.19 A range of possible transport measures will be considered including increased use of sustainable transport modes, traffic management measures, junction and highway improvements and public transport investment. Access to the motorway network is of particular concern and ways of managing this will be investigated, and the possibility of widening the motorway north of Junction13.

3.7.20 Various studies have already been undertaken to consider the implications of the development of the EEA on the wider transport network in Milton Keynes, both in terms of the highway network and public transport services. Preliminary results indicate that off-site highway improvements will be needed at junctions on the surrounding grid road network, as well as at M1 Junctions13 and14, to improve peak period capacity. These include Northfield roundabout, along the A421 (at Kingston, Brinklow and Kents Hill roundabouts) and along V11 (at Pineham, Fox Milne

and Monkston). Improvements at other grid road junctions impacted upon by the development of the EEA should be identified in conjunction with those required by other proposed developments.

3.7.21 In addition to the above, predicted traffic flows on the A421 justify its widening to dual carriageway standard between Junction13 and the Kingston roundabout.

3.7.22 The completion of an east/ west mass transit route between the EEA and CMK is also envisaged in the longer term. This will require alterations to the existing grid road corridors and junctions along H5/ H6. The objective will be to enable quicker, higher quality public transport services to be operated to CMK.

3.7.23 Financial Contributions are therefore likely to be required to fund:

- Public transport improvements between the EEA and CMK.
- Other public transport improvements elsewhere in the City (eg on routes that link to the EEA)
- Off site highway and transport improvements

The means of achieving this are considered in more detail in Chapter 7.

## Walking and Cycling

3.7.24 Sustainable modes of transport should be promoted by creating safe, direct, and attractive routes for pedestrians and cyclists. This should extend to careful consideration of land use location, combined with compact urban forms with increased densities, to maximise the number of residents within easy walking distance of key facilities (see Figures 3.4-3.7).

3.7.25 Road Safety will be of paramount importance throughout the EEA. This will be achieved through restricting speeds in residential areas, traffic calming and physical design, and by creating an overall environment which promotes personal safety (see Section 5.10). The needs of cyclists and pedestrians should be given priority over those of other road users.

3.7.26 Walking and cycling will be encouraged by a primary network of footways and cycleways along the City Streets, separate from the carriageway. The overall objective will be to encourage people to walk or cycle within the neighbourhood by the provision of a primary footpath/cycleway network, located within the street layout but segregated from the carriageway. These routes are to be direct, pleasant and safe to use with highway crossings at grade. Built form and landscaping should be designed to give maximum surveillance along all footpath/cycle routes.

3.7.27 The 'Redway' system, footpaths and bridleways, surrounding the EEA, will be extended into the development primarily following the 'City Streets'. Crossings of the highway network will be facilitated by signalised, at grade, crossings. The routes will be more integrated into the development and in association with the highways and 'City Streets', than elsewhere in Milton Keynes, in order to maximise natural surveillance over these routes. The scheme to improve J14 will consider the needs of cyclists to cross the M1 at this point.

3.7.28 All roads in the EEA should be designed to be safely used by cyclists. In housing areas all streets other than the "City Streets" will be designed to restrict speed to 20mph and for cyclists to safely share the road space with other users, without the need for separate cycleways.



Salford Road



A421

3.7.29 A link should specifically be provided to gain access to Route 51 of the National Cycle Network, which passes just to the south and east of the Eagle Farm Strategic Reserve Area (see figure 3.3).



# sustainable movement

## Park and Ride

3.7.30 There is an existing Park and Ride site close to Junction 14. It is poorly used at present except at peak times. However, the continued implementation of Milton Keynes Council's Sustainable Integrated Transport Strategy (SITS), and possible parking restraint measures in CMK especially for commuter car trips, will require a network of Park and Ride sites around the city. About one third of car journeys to work in Milton Keynes originate from outside the area, and the majority of these have a destination in CMK. Studies have indicated that Park and Ride has the potential to increase the interception of commuter car trips from 0.5% at present to about 11% by 2016.

3.7.31 The Milton Keynes Local Plan identifies five potential sites, two of which are identified within the EEA. The first is an enhancement of the present Park and Ride operation near Junction 14, which has been referred to earlier. The second would be located on the A421 at the eastern end of the EEA and adjacent to the public transport route. Both locations would need to provide around 500 spaces and would each require a 2ha site area. Some earthworks may be required and waiting facilities will also be needed. The public transport route will provide at least a 15min service frequency to CMK from the Park and Ride sites, with a higher frequency at peak times.

3.7.32 In future (post 2011), it is possible that an alternative eastern Park and Ride site could be developed in conjunction with a proposed new railway station near Junction13. If such a facility is brought forward, and accepted by local highway and planning authorities, the second of the sites referred to above could possibly be redeveloped for some other use at a later date.

## Proposed Bedford to MK Canal Link

3.7.33 Milton Keynes Council considered the proposed Bedford to MK Waterway in March 2002, agreeing to support the scheme in principle and expressing a preference for Route 1, which would pass through the EEA. Following a feasibility study, Local Plan policy EA3 included the safeguarding of land within the EEA along the Broughton Brook linear park to enable construction of a section of the waterway (see figure 3.11).

## Rail

3.7.34 Initially, Milton Keynes Council considered that the East / West rail link, as proposed by the Strategic Rail Authority, could influence the future of the EEA. However, following the commissioning of a specialist technical study it is accepted by the Council that it is not feasible to connect the EEA by rail to the East / West rail link.

3.7.35 Residents of the EEA are most likely to use Milton Keynes station in CMK for making rail journeys. The development of the east / west public transport route will greatly facilitate connections to this.

# community facilities

## 3.8 Community Facilities

3.8.1 This section describes the community facilities considered as an essential part of the EEA and which are shown in Figure 3.8.

3.8.2 Kingston District Centre will remain the principal location within East Milton Keynes/EEA for district scale retail facilities. Complementary, local facilities should be provided in the EEA to meet the future inhabitant's requirements. Opportunities should be taken to combine and mix these facilities to minimise the need to travel and to create variety.

### Community Recycling Centre

3.8.3 Local Plan Policy E13 requires that an area of 1.0 ha should be provided in the Large Footprint Employment area for a new community recycling centre. A site of 1.0 hectare, to receive and process domestic waste, should therefore be provided within the Fen Farm area, in a location easily accessible to nearby residential areas.

### Education Requirements

3.8.4 Schools should be provided so that the EEA meets its own educational needs. Provision should be based upon the two tier system of primary and secondary schools. One secondary and two primary schools are required to serve the EEA. Schools provision should be planned in step with residential development.

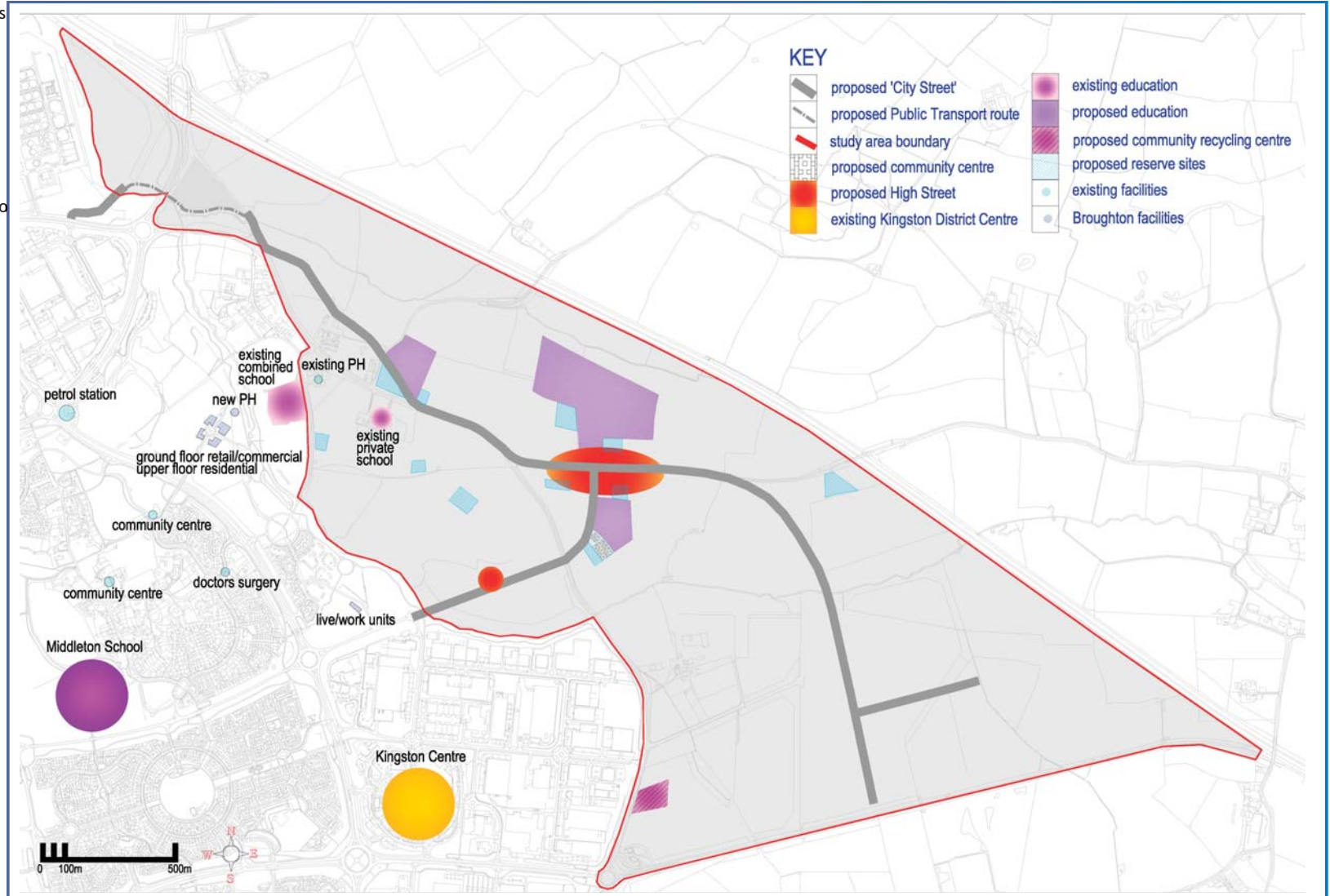


Figure 3.8 Community Facilities Plan

# key facilities

3.8.5 A new secondary school, complete with sixth form provision, is planned to serve East Milton Keynes/EEA. This will be located in the south west of Middleton grid square. This site will be able to serve the EEA in the early years of its development and provides some potential for community use.

3.8.6 Another 1,500 place secondary school is envisaged to serve the whole of the EEA and requires 10.45 ha within the EEA. 8 ha of this would be for playing fields and 2.45 ha would accommodate the school buildings.

3.8.7 The Secondary School will be located directly adjacent to the intersection of the two 'City Street' Public Transport Routes. This is near the centre of the site and within 1500m of the majority of the new housing areas. The Secondary School should form an integral part of the High Street mixed use area to ensure that a wide range of facilities are close to the School.

3.8.8 A new primary school is now open on a site south of Broughton Village (see Figure 3.8). This will meet demand from Broughton Atterbury and will also serve early phases of Broughton Gate and Brooklands.

3.8.9 Two further 'two-form' primary schools, each serving a catchment of 1,500 dwellings and requiring sites of 1.93 ha, must be provided in the EEA.

3.8.10 The two primary schools should be within 400m (5 minutes) walking distance of most of the houses and should both be located on the 'City Street'. Suitable locations are shown on the development framework close to Brooklands Farm and close to the High Street

3.8.11 In addition to the provision of secondary and primary schools, there is also a statutory requirement to cater for pre-school education. These facilities should ideally be provided with primary schools, in which case the land requirement will increase from 1.93 ha to 2.13 ha.



Schools within the EEA should front the City Street and be integrated features of the new community



## Health

3.8.12 Primary care provision should be provided in a 'hub and spoke' format in which several small local units are supported by a bigger hub. Together the hub and spokes make up the organizational unit of health care delivery. Hubs will provide a more extensive range of services than the spokes - e.g. minor surgery, and act as a base for a range of community services including social care, district nursing etc. They also provide an opportunity for co-location of a range of other services e.g. schools - especially primary schools, fitness centres, dentists, and pharmacy. For the 10,000 population proposed for the area, the Primary Care Trust require co-location of a 'spoke' with the primary school PS1 (needing at least 375 sq m), and a second spoke at the primary school PS2, with capacity to expand to become a "hub" in the longer term (needing about 2000sq m). There is potential for most of the parking to be provided in the form of shared public spaces. These facilities have the potential to address a shortage in the supply of such facilities in East Milton Keynes. The possibility of private medical facilities should also be considered (e.g. on a community reserve site).

3.8.13 The facilities must be located along the City Street, in prominent locations, which reflects the importance of such uses. The PS2 site should be provided in phase 1 as there is no capacity to take on any new patients in practices in adjacent grid squares.



# key facilities

## Community Centres and Sports Provision

3.8.14 Meeting Halls are an important focus for local community activities and should be provided on the basis of one hall per 3600 people (Local Plan Policy C3). Suitable sites are located along the 'City Street' close to key facilities such as the High Street, local centres and schools. These sites are included in the framework plan as part of the planned reserve site allocation. MKC require this facility to be provided in a single facility rather than a number of facilities scattered throughout the EEA.

3.8.15 In terms of strategic provision for the area Middleton school, which is located to the west of the EEA, will be a facility for the area and for Broughton Gate and the first phases of west and central Brooklands in the early years of development. A proposal is also being developed for a combined community centre and sports pavilion to serve the playing fields off Tanfield Lane in Broughton.

3.8.16 The MKC Leisure Facilities Strategy does not identify strategic need for any additional meeting halls/community centres beyond Strategic Proposal No. 16. This identifies a need for community facilities in the Brooklands area which is for a combined community centre and sports pavilion, incorporating a main hall minimum 17m x 9m, with badminton height clearance, and a second hall 9m x 9m. MKC's standard brief for this type of development would also include a variety of other ancillary rooms such as kitchen, office and meeting rooms.

3.8.17 This facility is to be provided early in the phased development and should be located close to the H7 'City Street', the High street area and the linear park (see Figure 3.11).

## Reserve Sites

3.8.18 The Local Plan (Policy C9 ) requires that 0.75ha of ' Reserve' sites should be provided for every 1000 people for future local commercial or community uses, amounting to a total of about 7.5ha in the EEA.

3.8.19 About 50% of this provision is likely to come forward as some form of housing, and has been taken into account as such. A further 25% would be used for planned community facilities. The remaining 25% should be provided as small sites throughout the EEA, suitable for commercial or community uses, or as part of buildings in the 'High Street' area. The exact location and size of reserve sites should be identified in planning applications, as individual development areas are brought forward. Details of reserve sites should be agreed at the reserved matters stage. A Section 106 agreement to ensure the transfer of ownership of reserve sites to MKC, or a neutral party, will be needed so that they remain as 'reserve' until such a time as they are needed (or a specified period of time has expired).

## 3.9 High Street Mixed Use Centre

3.9.1 The High Street is located in the centre of the EEA. The High Street will comprise of mixed use developments complemented by high density residential development above ground floor level.

3.9.2 The High Street is also the focus for the public transport route with the central north-south public transport spine meeting the additional east-west link at this point. The street is also accessible to vehicles but will be linked to surrounding communities by pedestrian friendly streets.

3.9.3 The High Street facilities should provide a mix of uses within a 3 ha area, including some of the following:

- Retail units
- Small foodstore
- Offices
- Library facilities
- Community facilities
- DVD hire;
- Hot food - take away;
- Off licence;
- Public house/restaurant/hotel

3.9.4 1 or 2 storey buildings will not be acceptable and no retail unit should exceed 1000m2 floorspace.

## 3.10 Crematorium

3.10.1 The existing crematorium at Crownhill is expected to reach capacity by 2011, so additional provision is needed either by increasing the capacity at Crownhill or by a second crematorium in the EEA. Initial feasibility work has been carried out into the first option, which has identified some issues that require further detailed study. In case this option proves not to be feasible, a potential second site has been identified within the Strategic Reserve Area, adjoining Fox Covert.

## 3.11 Strategic Reserve Area

3.11.1 The Local Plan (Policy EA4) identified an area of land as Strategic Reserve. This would act as a first area of search to meet possible, as yet unforeseen, needs for land uses or development requirements that could not be accommodated elsewhere. The need to release such land for development would need to be fully justified.

3.11.2 Eagle Farm (north) was identified at the Pre Inquiry stage of the Local Plan as part of this Strategic Reserve Area (see Figure 3.9). The Local Plan Inspector suggested that it be allocated for mixed use development and this study has identified that there may be some potential for the following types of uses:

- high technology type uses
- themed business uses (eg internet park)
- commercial uses, that would benefit from its high accessibility, eg a research and testing facility for the motor industry.

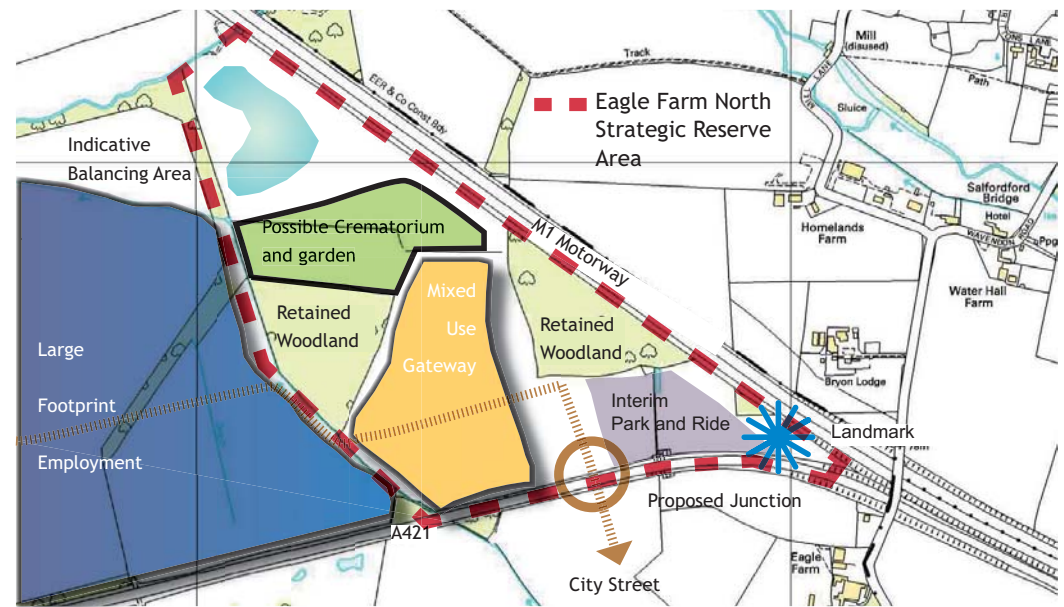


Figure 3.9 Strategic Reserve Indicative Plan

# noise, air quality & services



3.11.3 Given its proximity to the east / west public transport route, the site could be suitable as an interim park and ride site, depending upon decisions relating to the potential park and ride site at Junction13. This should not however detract from the marketing of the whole site as a prestige type use.

3.11.4 MKC however consider that Eagle Farm should remain as Strategic Reserve because:

- Insufficient justification for using this site for the suggested uses
- Adequate land is already allocated for housing, employment, retail, mixed use etc
- Likely conflict with Local Plan policies regarding CMK and town centre development
- Uncertainty about this being a long term entry point into the city
- Uncertainty about the possible construction of a new M1 junction 13A which MKC supports

3.11.5 It has therefore been shown as Strategic Reserve on the Development Framework.

## 3.12 Noise and Air Quality

3.12.1 The noise aspects of the development proposals shall be assessed in accordance with Planning Policy Guidance Note 24 - Planning and Noise, September 1994 (PPG 24) and as detailed in Appendix 4.

3.12.2 It is the policy of Milton Keynes Council that residential development of areas falling within Noise Exposure Categories (NEC) C and D will not be approved. However, where it can be demonstrated that a programme of mitigation measures will produce external noise levels commensurate with residential use, residential development within NEC C will

be considered. As a guide, noise levels considered appropriate for residential development would be 55dB L<sub>Aeq 16 hour</sub> for external private amenity areas (based on WHO Guidelines for Community Noise). Internal noise levels shall adhere to guidance in BS8233.

3.12.3 An extensive noise measurement survey has been carried out to provide the basis for a review of the previous noise modelling. The survey broadly supports the preliminary calculations indicating that the boundary between NEC B and C is located approximately 150m from the site boundary with the M1 motorway.

3.12.4 The mitigation measures may take the form of a bund/ground modelling, a fence, a combination of the two or an alternative method to be agreed in writing with the local authority. Alternatives may include the use of barrier blocks or the provision of non-sensitive development on the edge of the development closest to the motorway. Wherever possible, the proposed mitigation measures should be considered in the context of the site with a view to minimising other impacts. As an example, ground modelling that uses material sourced from earthworks elsewhere on the site would reduce the need for off-site transportation of material.

3.12.5 The use of ground modelling must be sensitively designed. It is essential that the proposed ground modelling is related to, and respects, the local landform. The landform of the EEA is generally flat with sloping areas adjacent to the M1 and watercourses. The relationship of proposed ground modelling with these existing watercourses, proposed water bodies and areas of retained woodland should be carefully considered. Ground modelling should address the whole site so that trapezoidal shapes are avoided. Additional planting in this area will play a significant role in successfully integrating this feature into the EEA landscape.

3.12.6 Air quality is not considered as significant a constraint as noise pollution on the development of the EEA close to the Motorway. Beyond 80m from the Motorway, air quality should not be a constraint on development. Sensitive uses such as residential areas and schools will need to be located outside this 80m buffer zone, although commercial and informal recreational uses can be located closer. However a strategic air quality assessment will need to be undertaken, using the transport model, to demonstrate the cumulative effect of the development and related traffic on the City.

## 3.13 Services Infrastructure

3.13.1 The provision of services to the EEA will require close cooperation with the service providers. Some initial contacts have been made with them which has revealed the following details.

3.13.2 There is a medium pressure gas main along part of the A5130, and Broughton Road, which could support the gas requirements of the EEA.

3.13.3 There is a water main along the A5130 but this does not have the capacity to supply all the developments in the EEA. Significant reinforcement of the system, and extensions to the grid mains, will be required, including a new main between the Northfield and Kingston roundabouts.

3.13.4 The existing electricity system does not have sufficient capacity to provide the estimated total loadings for either the housing or employment areas in the EEA. Extensions to the existing system, and the installation of a number of sub stations, will be required.

3.13.5 There are existing telecom ducts and cables alongside the A5130 but BT has not advised how the development would be served. Broadband or similar

high quality telecommunications should be provided to the developments in the EEA. Provision should also be made for Information and Communication Technology (ICT) infrastructure in the development in line with PPG8.

3.13.6 The Broughton Valley trunk foul sewer, discharging to the Pineham Sewage Treatment Works immediately north west of the EEA, is the main foul drainage system in the vicinity of the EEA. Estimates of existing flows within the trunk foul sewer indicate that it has sufficient spare capacity to accept the total foul water drainage from the EEA, although confirmation is still required from Anglian Water Services. An allowance for the development of the Strategic Reserve Area to the south of the A421 should be included in these calculations.

3.13.7 Broughton Gate can be drained directly to the Broughton Valley Trunk foul sewer. However, a new sewer will be required parallel to Broughton Brook east of Kingston Bridge, to drain Fen Farm/Eagle Farm and Brooklands. A second new sewer will be required along the northern tributary to drain Brooklands North and Brook Furlong. The Strategic Reserve Area south of the A421 should also be drained through Fen Farm/Eagle Farm to the new sewer.

## 3.14 Geotechnical

3.14.1 An Envirocheck report has been carried out for the whole of the Framework Area. Detailed ground investigations will be required for the whole site as more detailed development proposals are prepared. Appendix 2 provides additional information on geotechnical issues.

# infrastructure & drainage

## 3.15 Surface Water Drainage and Flooding

3.15.1 Broughton Brook, and a tributary, drain all the surface water from the EEA, and also from a considerable area to the north east of the M1 and south of the EEA. Broughton Brook, and its tributary, meet at Brook Furlong in the Pineham area close to the Northfield roundabout, before discharging into the River Ouzel just north of both Pineham and the M1. Responsibility for drainage functions in the EEA lies with the Buckingham and River Ouzel Internal Drainage Board (IDB), but the Environment Agency have responsibility for the River Ouzel.

3.15.2 A surface water drainage strategy for the EEA has been prepared by Pell Frischmann. This divides the EEA into five main drainage catchment areas, with the small area of Pineham north of the A509 draining directly into Broughton Brook (see Figure 3.10).

3.15.3 The three main catchment areas draining directly to Broughton Brook comprise Fen Farm/ Eagle Farm, Brooklands south of the Salford Road and Broughton Gate. The two smaller catchments, draining to the tributary, comprise Brooklands, north of the Salford Road, and Brook Furlong south of the A509. Field drainage systems and ditches, with gentle gradients, currently drain the land.

3.15.4 The drainage strategy envisages that surface water discharge from the EEA will, in each catchment, be intercepted by off-line balancing ponds/wetland areas designed to attenuate peak discharge at the return period of 100 years to 3l/s/ha. This approach will allow each drainage catchment to be developed independently.

3.15.5 The approximate storage volumes for each of these ponds/areas, and their preferred location, has been calculated by Pell Frischmann including an allowance of 20% for climate change. Studies have

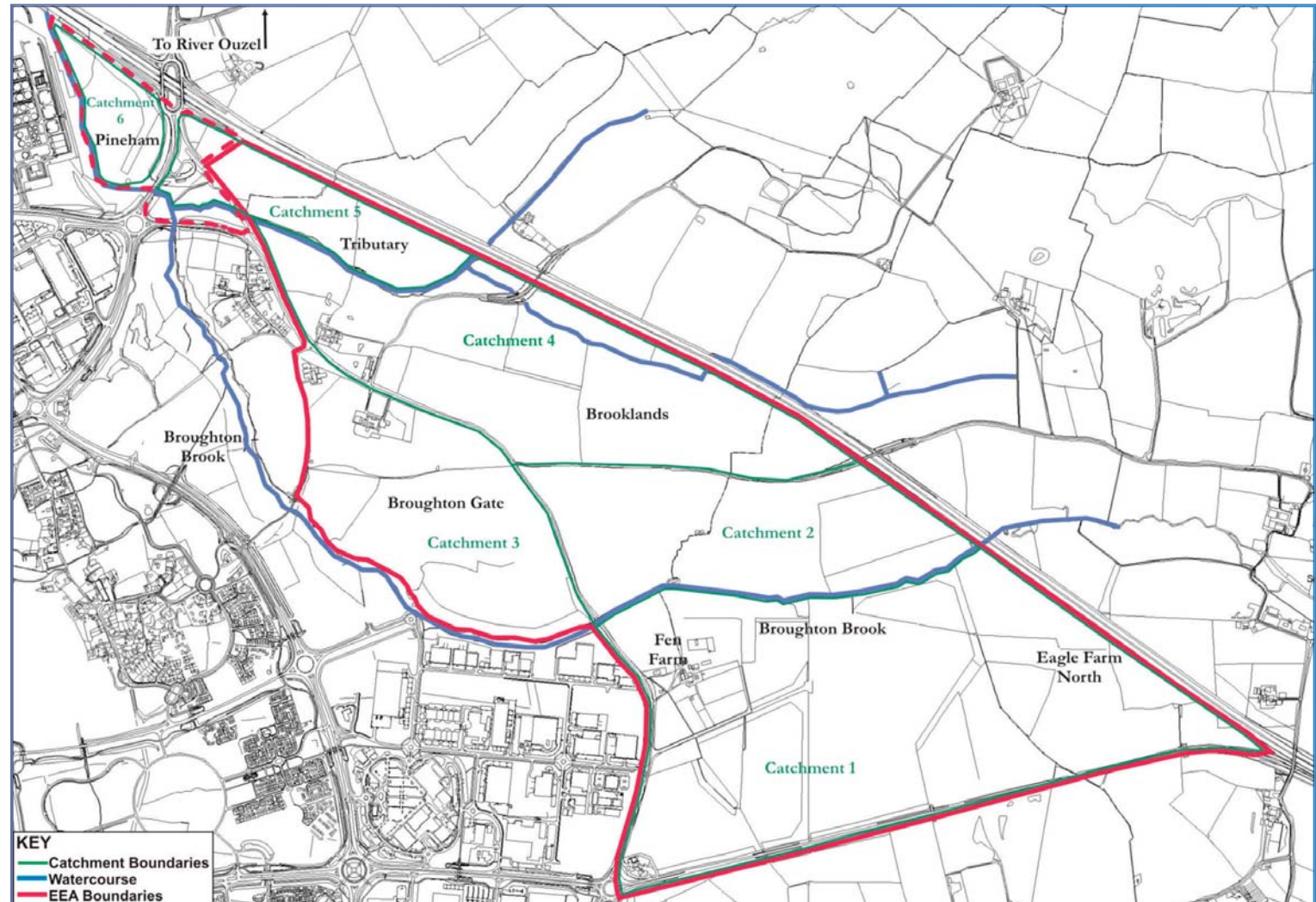


Figure 3.10 Drainage Catchments Boundaries



# drainage

been carried out which show there is limited potential for the use of infiltration drainage in Brooklands and Broughton Gate due to soil conditions. The degree to which infiltration could reduce storage volumes will need further examination and should be ignored in preliminary calculations. The balancing ponds have considerable potential to be incorporated as part of the overall linear park proposals along the Broughton Brook.

3.15.6 The Development Framework constraints plan has been based on two levels of information in terms of floodplain boundaries. The stretch of Broughton Brook, west of the A5130 Kingston Bridge, has been modelled to provide the 1 in 200 year flood plain plus 20% to allow for global warming. The stretch of Broughton Brook, east of Kingston Bridge, does not have such detailed information and so the Environment Agency 1 in 100 year flood plain has been used. This is in the process of being updated by Pell Frischmann and the development boundaries should be revised when this is completed. Stage 2 Flood Risk Assessments will be required to accompany development planning applications.

3.15.7 Milton Keynes Council employs a policy of strategic flood mitigation. This approach has been adopted within the catchments draining the existing Milton Keynes built up area. It is the Council's policy to apply the same approach to catchment areas serving allocated expansion areas. It requires proposals to have regard to the implications of development for the catchment areas as a whole, for example considering the risk of flooding further downstream as a consequence of development. Supplementary planning guidance has been adopted by the Council in May 2004, which formally establishes this approach and such a strategic mitigation assessment should be undertaken.

3.15.8 Surface water runoff from new development in this area will be stringently controlled, to avoid increased flows into the River Ouzel, that could affect Newport Pagnell, which is sensitive to flooding.

3.15.9 In line with Local Plan Policy D4, opportunities should be taken to implement SUDS in the EEA, such as permeable pavements and tank storage facilities. It is recognised that infiltration methods are likely to be of limited effectiveness.

3.15.10 The area south of the A421, if developed at some time in the future, will need to make provision for attenuation on-site ie south of the A421. Discharge from here will drain through the Fen Farm area and so appropriate arrangements (eg. Identifying management responsibility and providing sufficient access widths) will need to be made to maintain the water courses through the Nova Development.



Balancing Ponds will be integrated into the landscape structure



New balancing ponds will promote wildlife and informal recreation

# land use budget

## 3.16 Land Use Budget

3.16.1 The main land use within the EEA will be residential, with a range of supporting uses including schools and open spaces. The Development Framework plan illustrates the distribution of housing densities. The pattern of densities responds to design objectives, in particular the use of traditional urban form principles. In addition, the location of the schools and the pattern of movement is also reflected in the pattern of densities. The densities decrease from the centre to the periphery of the development, which follows the traditional pattern of settlement density and urban form.

3.16.2 The other major land use in the EEA is employment which occupies a significant proportion of the land in the southern part of the EEA.

3.16.3 Table 3.2 provides a summary of the principal land uses and their areas, as shown on The Framework Plan (Figure 3.11). The Framework Plan is built upon the indicative land use figures shown in Appendix 5.

3.16.4 Table 3.3 provides a summary of the number of houses generated at the densities set out above across the net development area. Also included is a net density figure for the whole EEA calculated using the guidance set out in Annex C of PPG3 Housing (2000). It can be seen that at the densities identified the minimum average net density, at 39 dwellings per hectare, is above both the PPG3 threshold of 30 dwellings per hectare and the Local Plan requirement of 35 dwellings per hectare ( Policy H8).

Land Use Budget	Ha	%
Residential	94	23.0
Employment	96	23.7
High Street	3	0.7
Mixed Use Gateway	7	1.7
Parks, Play Areas and Playing Fields	26	6.4
Schools	15	3.7
Community Recycling Centre	1	0.2
Community Centre	0.4	0.1
Community Reserve Sites	4	1.0
Allotments	3	0.7
J14 Park and Ride	2	0.5
Strategic Reserve	20	4.9
City Street infrastructure	15	3.7
Other major road infrastructure	23	5.7
Retained woodland	7	1.7
Noise Bund	14	3.5
Floodplain and balancing areas	37	9.1
Existing uses	6	1.5
Landscape/wildlife corridors	33	8.2
<b>Total</b>	<b>405</b>	<b>100</b>

Table 3.2 Land Use Budget

HOUSING SUMMARY	Area	Dwellings
PPG3 Net Housing Area (including Local Parks)	100 ha	3991
PPG3 Net Density (dph)	39	

Table 3.3 Housing Summary

## 3.17 Development Framework - Bringing it all together

3.17.1 The Development Framework Plan (Figure 3.11) illustrates how the individual framework 'layers' can be applied to the development area to achieve the vision for the EEA. The plan illustrates how townscape and landscape strategies have been brought together to create a new 'place'.

3.17.2 It is envisaged that the Development Framework Plan will be a coordinating plan which takes a strategic view over the development area and provides a framework for the detailed design of individual elements. The following chapter describes the design principles that will apply in each of the various 'character areas' which make up the EEA.

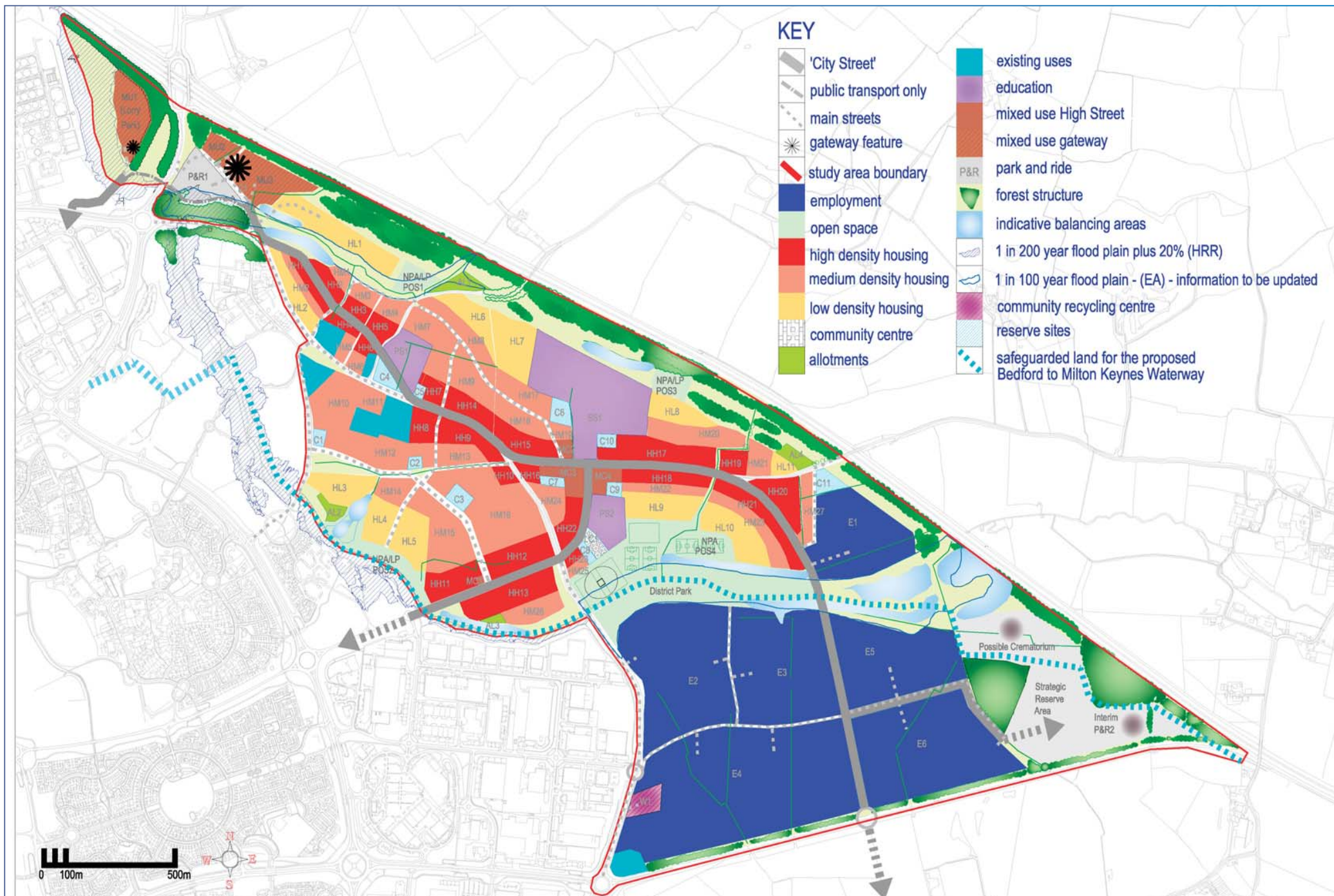


Figure 3.11 The Framework Plan