

five  
design principles

# design principles



## 5.1 Introduction

5.1.1 The urban design strategy for the WEA seeks to achieve the following aims;

- The protection and enhancement of natural features such as woodland, ridgelines, key views and hedgerows
- The creation of a major public transport oriented development which focuses higher densities along dedicated public transport routes
- Higher densities make more efficient use of land
- The creation of legible routes and a hierarchy of spaces to achieve orientation and provide identity
- A street and block concept for all housing layouts except at the lowest densities
- Creation of street frontages - except for those areas adjacent to the open countryside and break of slope where there should be a distinct change in character to buildings within a landscape
- Creation of linkages - both to adjoining areas and within the scheme itself
- High level of pedestrian and cycle permeability within the layout - especially between sites within different individual land ownerships
- Creation of a sense of place - built form dominates and dictates road alignment
- Formal building groups will define the areas adjacent to the main dedicated public transport avenues complementing the formal character of these corridors
- Allow for the introduction of 'Lifetime Homes' modular concept.

The development should reflect the fact that this will be one of the first large extensions of Milton Keynes since its establishment. It should recognise Milton Keynes' importance as the best example of a late 20th Century, early 21st Century new town. Therefore, the design intent must reflect historic context; and must be time distinctive. That is design which is relevant to the start of the 21st Century.

## 5.2 Design Principles

5.2.1 Sixteen design principles were agreed by all parties at a workshop facilitated by Oxford Brookes University. These design principles have been 'adopted' by the WEA Development Framework and have informed the design process in developing the plan. The plan has been designed to accommodate each of the 16 principles and it is envisaged that these principles will be carried through to the individual masterplans by the developers.

### Western Expansion Area - Design Principles

1. Provide a mix of car parking opportunities, whilst maintaining a permeable layout.
2. Provide a mix of uses/forms that are viable - the viability of different uses will be dependent on their location, particularly in relation to supporting public transport.
3. Avoid single use spaces - the market square was seen as a template for multiuse space.
4. Provide sufficient density to support public transport - this will require densities of at least 100 people per HA within a 400m radius of public transport routes.
5. Use key landmark buildings to provide a sense of place - these should be placed to reinforce the importance of primary movement routes and contain high activity uses.
6. Ensure that any open green space is purposeful, meaningful and well integrated - in a measurable way - open green spaces will be given an identity eg. named as specific parks, they will serve as leisure facilities).
7. Keep streets active over as long a time (24hrs) as possible - through mixing uses.
8. Design buildings and spaces so that they can be adapted and changed over time - without huge energy and financial costs.
9. Public space will be designed to be socially inclusive - designed to promote and support social interaction and be accessible to all potential users.
10. Prioritise sustainable forms of movement; in a way that does not compromise viability. Maximise the potential to use public transport, walk or cycle - all modes, including cars, will share the same routes.
11. Build in adaptability - plan for the future expansion beyond the site boundary.
12. Respect the local context but learn from the mistakes of the past (in MK) - this will require an in-depth analysis of the local area to identify key elements to be retained or used as cues for subsequent design detail.
13. Ensure design requires minimum maintenance and management - use long lasting, robust materials.
14. Ensure design and management are environmentally sustainable and economically viable - use BRE thermal insulation standards, orientate layouts to maximise passive solar gain.
15. All public spaces - streets, squares, paths, parks and car parks, will be predominantly fronted by buildings that have active edges.
16. The primary movement network will be a connected grid - minimise the number of inward facing non-through roads.



The Design Principles aim to create a sustainable and balanced community which reflects the best of traditional urban form and innovations in recent urban design



### 5.3 High Street and Local Centres

#### High Street

5.3.1 The High Street will be at the heart of the WEA and effectively act as the area's 'hub'. The High Street will comprise mixed use developments complemented by high density residential development above ground floor level.

5.3.2 Through the High Street area the route will comprise a public transport and vehicular link for all vehicles, with service traffic moving around the back of the High Street area. Within this area cafes, restaurants and shops will be encouraged to 'spill out' onto the street creating vitality, social interaction and visual richness. By doing this, the urban fabric of the High Street will be made up of memorable squares and streets. The footways and public realm should be designed to accommodate 'spill out space' for shops and services.

5.3.3 The urban form of this area will be modelled on the typical historic cores of market towns, such as Stony Stratford and Woburn. The focus of the area will be a series of urban squares and attractive streets. The High Street will accommodate a number of landmark civic and commercial buildings. It will have a wide range of activities and uses and be complemented by a secondary school and primary school within close proximity to the main commercial area.

5.3.4 The High Street will be characterised by continuous frontage development with a significant number of buildings up to four storeys high. Buildings will either be on the back of edge of the pavement or if set back under an arcade or canopy. The High Street will include a mix of retail units to serve the WEA development. Proposals will be subject to a retail impact study.

5.3.5 It is hoped that the 'offer' of the High Street area will be anchored by a well known national multiple retailer. This anchor store will be supported by a range of national, regional and local independent retail units.

5.3.6 Servicing and parking will be to the rear of commercial frontages. The continuous frontage will only be breached to provide rear service access by means of an arched entrance, or through narrow gates, or gaps in the frontage.

5.3.7 Public car parking within the High Street will be provided in a number of small car parks on the perimeter, with clear pedestrian links into the main squares. There will be shared parking between the various non-residential uses and at a level of provision which encourages the use of public transport or walking.



The urban form, scale and massing of the traditional High Street, such as in these examples, should be seen as the model for the High Street area proposals - key facilities such as a foodstore should be integrated into the urban form

#### Local Centres

5.3.8 The southern local centre (LC2) will be a small facility (ie a corner shop) serving the southern half of the residential development and will be situated on the City Street.

5.3.9 The northern local centre (LC1) will also be a small facility. It is expected that due to the proximity to Stony Stratford, some new residents within this part of the WEA will use this existing centre.

### 5.4 Integration of Secondary School

5.4.1 The High Street will provide the setting for a secondary school which will be integrated into the prevailing urban form.

5.4.2 Facilities for lifelong learning and the sharing of educational resources should ensure that the widest possible spectrum of local residents and workers are able to participate in education. This approach should encourage the education buildings to be an integrated part of the community so that they can be used for more than just the standard 6 or 7 hours a day.

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## 5.5 Interface with Neighbouring Grid Squares

### Watling Street & Two Mile Ash

5.5.1 The principal gateways and approach to the WEA will be from V4 Watling Street. This historic route will define the northern edge of development and will have a number of different uses along its length. The unifying element however should be frontage development behind a buffer of between 10 and 30 metres, comprising a mix of trees, shrubs and open areas allowing views into the open space and the balancing lake from Watling Street. The extent of the buffer is shown on the Watling Street landscape buffer detail (Figure 3.3).

5.5.2 Figure 5.1 shows how the interface across Watling Street should work. There will be a significant landscape buffer along the Watling Street frontage so that there will be about 70 metres between new buildings in the WEA and the real elevations of properties in Two Mile Ash. This separation will be reinforced through the retention of existing structural landscaping, and the introduction of new tree planting, along a local access road in front of the new dwellings on the southern side of Watling Street.

5.5.3 Figure 5.2 is an illustrative elevation showing the massing of buildings along the Watling Street frontage. It can be seen that the groups of buildings are punctuated by open space and are set back behind existing

and proposed structural landscaping, along the length of the road. To further reduce the impact of new development, building heights along the Watling Street frontage should be limited to a maximum of 3 storeys.

### Ridgeway and Tudor Gardens

5.5.4 Figure 5.3 demonstrates that a significant open space buffer of up to 150m will be maintained between new and existing development along the eastern edge of Stony Stratford.

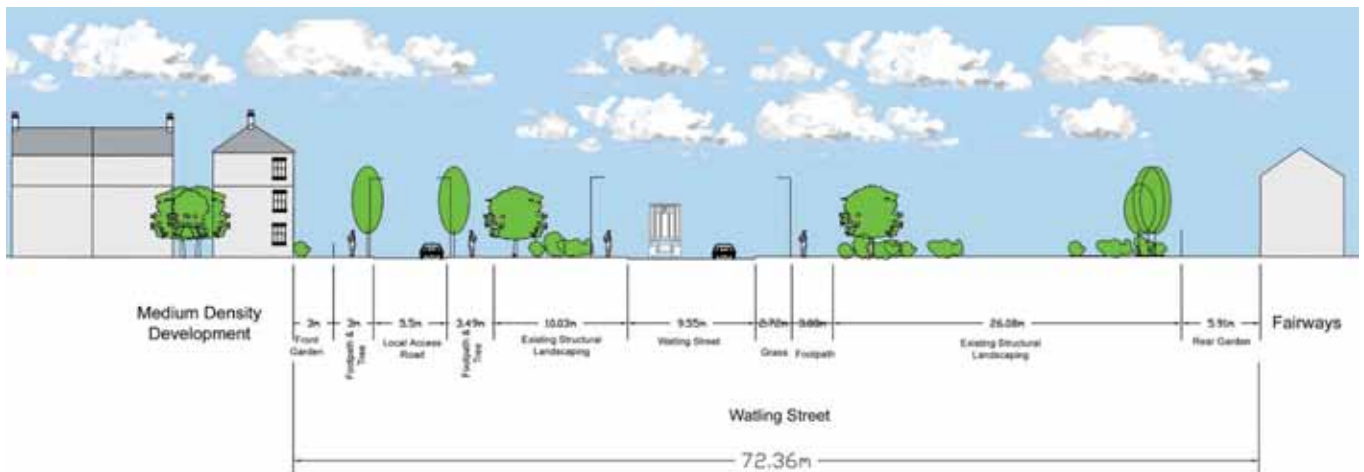


Figure 5.1 Section across Watling Street from the development to properties on Fairways, Two Mile Ash



Figure 5.2 Illustrative elevation along Watling Street showing the massing of buildings opposite Two Mile Ash



Figure 5.3 Section across open space and allotments from parcel M1 to properties on Tudor Gardens

# city street design ■■■

## 5.6 City Street

5.6.1 The City Street route will be a defining feature of the WEA development and will run through the centre of all sectors of the development. The Development Framework locates higher density development adjacent to the City Street route to boost patronage of what could eventually become a new mass transit system for the City. This approach seeks to promote a modal shift away from private vehicles to public transport.

5.6.2 In turn, the higher densities along this route will ensure that the public space is well used and maintains activity throughout the day. Although having to accommodate high traffic volumes along certain stretches, the route will be designed in a manner that avoids a 'distributor road' feel.

5.6.3 Buildings will front onto the route to form a well defined street. Tree planting will play a significant role in creating an attractive corridor and help to reduce the impact of traffic on adjoining properties. All sections of the route should have provision for cycleways and footways.

5.6.4 The dedicated public transport route is defined as a road that can carry modern, high quality, articulated buses on separate lanes within the carriageway, and has priority for buses along its entire length. Shared use with other vehicles will be acceptable for short distances in places such as the mixed use, 'high street' area, provided that bus priority can still be maintained. To be capable of upgrading to mass transit characteristics, the route must be designed so that it can be adapted to offer a form of vehicle guidance in the future.

5.6.5 Public transport stops will be situated at regular intervals along the route. They will be detailed with contemporary style bus shelters, with real time information displays. The transition from a grid road to a 'City Street' will be clear and distinct and detailed designs for these junctions will accompany the planning applications. The functions of the grid road will be retained, however the addition of the dedicated public transport route within high density development will give the City Street the character of an urban throughfare.



Examples of intermediate type public transport vehicles which could run along the City Street

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Landmark building defining the corner of a development block and street entrance

## 5.7 A New Settlement Edge

5.7.1 The WEA development area has a long western boundary against the open countryside. The objective along this edge should be to protect the sensitive rural character of the open countryside and the neighbouring Calverton villages. To do this there should be a positive interface between the development and the countryside. This will effectively become the new western boundary of the city.

5.7.2 Rather than attempting to hide the development there should be controlled views of groups of buildings which have been carefully designed to fit in with the setting. This will create a traditional settlement edge and transition between urban and rural. Next to open countryside the objective should be to create attractive and varied containment, where a uniform continuous edge should be avoided.

5.7.3 Major structural landscaping areas have been located along the edge of the development area. At key points these have been integrated with local open spaces, playing fields and allotments. This will create an indented and discontinuous line of buildings, where substantial tree and frame planting can create blocks of development.

## 5.8 Landmark Buildings

5.8.1 Landmarks such as distinctive buildings or features of a building help to provide reference points and emphasise the hierarchy of a place and enhance legibility. Opportunities for landmark / feature buildings exist along the main public transport route through the site at the junctions with the secondary schools, and at the Watling Street entrances. To create memorable buildings / spaces at these node points would help people to orientate themselves, and at the same time form a new community and establish a sense of belonging to it. Further landmark opportunities exist along the Pedestrian routes and squares, closing vistas or providing local nodes.

## 5.9 Key Frontages

5.9.1 Key frontages will be particularly prominent and critical to the appearance of the development. Particular attention will be paid to the massing and architectural style of the buildings framing key open spaces and streets. This will ensure that these buildings have frontages that would contribute towards creating a unique and memorable experience of distinctive quality and character.

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## 5.10 Sustainable Buildings

5.10.1 High quality sustainable developments will be required in support of government policies on the environment and construction. Developments must comply with Policy D4 of the Local Plan in terms of sustainable construction and include assessment and validation using the Building Research Establishment Environmental Assessment Method (known as BREEAM) and the National Energy Foundation (NEF) scheme known as the NHER (National Home Energy Rating). The BREEAM scheme for residential developments is called EcoHomes. Based on a system of credits, developers must obtain a certain number of points to achieve a specific rating. All development within the WEA will be required to meet a BREEAM rating, incorporating elements of Policy D4, to be agreed with the Council following further work by MKP.

5.10.2 All development will be required to use appropriate sustainable construction measures that specifically comply with the criteria set out below (from Local Plan policy D4). This allows flexibility where one criterion cannot be met in full, if it can be offset by an appropriately greater provision of another criterion.

### Sustainable Construction Criteria:

- Energy efficiency by siting, design, layout and buildings' orientation to maximise sunlighting and daylighting, avoidance of overshadowing, passive ventilation;
- Grouped building forms in order to minimise external wall surface extent and exposure;
- Landscape or planting design to optimise screening and individual building's thermal performance;
- Renewable energy e.g. external solar collectors, wind turbines or photovoltaic devices;
- Sustainable urban drainage systems, including rainwater and waste water collection and recycling;
- Significant use of building materials that are renewable or recycled;
- Waste reduction and recycling measures;
- Carbon neutrality or financial contributions to a carbon offset fund to enable carbon emissions to be offset elsewhere.

5.10.3 A sustainability statement will be submitted with the detailed schemes (full applications or reserved matters) and agreed with the planning authority. This statement will set out the sustainability measures to be used within individual schemes and describe how, and to what degree, the above performance criteria will be met. Compliance with BREEAM and NHER schemes will satisfy some of these criteria.



Key frontage enclosing incidental public space and tree planting



Key frontage along the edge of a local park defined by unique architectural style, boundary treatment and quality materials - this scheme also incorporates a number of sustainable design innovations

5.10.4 Enhanced biodiversity should be encouraged throughout the scheme and not just confined to parks and open spaces. Street trees, private gardens and individual dwellings should all be designed in ways which encourage wildlife. For example street trees can be used to create wildlife corridors between open spaces. Gardens can be designed to encourage wilder sections at the end of the plot which allow natural plant

species to grow and provide habitats for a range of insects such as bees, beetles and butterflies.



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## 5.11 Flexible Ground Floors to promote Mixed Use

5.11.1 Within the High Street and Local Centres the potential for a variety of ground floor uses should be encouraged. Further ground floor changes of use over time will be permitted to respond to market opportunities. An important factor in delivering the flexibility required to facilitate mixed use is plot / building widths and these should be considered carefully by designers. To minimise the amount of work involved to change uses, ground floors along the High Street must be designed to be flexible. Flexibility can be incorporated by designing high floor to ceiling heights and by selecting a construction technique that allows easy modifications to the layout. Whilst flexibility is recommended to be incorporated into these ground floors, the change of use will be subject to local planning authority approval.



Flexible ground floors will promote mixed use and encourage greater safety and security after dark

## 5.12 Safety and Security

5.12.1 Design has a crucial role in delivering and creating a safe and secure residential environment. Natural surveillance, in a form of doors and windows overlooking streets and pedestrian routes and activity throughout the day and evening are essential in making these routes safe and comfortable for a user. Boundary treatments should not impede or prevent visual permeability / surveillance of the public realm.



Evening commercial activity promotes safety and security after dark

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## 5.13 Public Realm

### Range of Key Public Spaces

5.13.1 A series of squares and public open spaces are created along the City Street and other main streets. They vary in their nature and form.

#### (a) Gateway / Arrival Spaces

The two main arrival spaces are formed by the junctions along Watling Street. Their prominence is emphasised by means of built form, predominately hard landscape, some new planting, and street furniture.

#### (b) Central Public Square

A Central Public Square should be located at the junction of the City Streets within the High Street area. A distinctive urban form and / or landmark / feature buildings should assist in the legibility of the development at this point.

### Public Art

5.13.2 The design of the scheme will be expected to incorporate public art. All too often the work of the artist is presented as an add-on rather than an integral part of the development's design. Therefore the involvement of artists at an early stage in the design process is considered important.

5.13.3 The form of the public art can be varied, and the opportunities for public art can be included into signage, street furniture, paving, building facades, lighting and sculpture. Particular emphasis will be placed on the interaction between public art, lighting and water and public art set within the key open spaces identified in the Development Framework Plan.

5.13.4 Public art will perform a critical role in the WEA community creating identity, focus, a link with the history of the site and area as well as adding to the cultural experience.

### Planting

5.13.5 Landscape design is an integral part of urban design. Landscape issues must be considered at the earliest possible stage in the design process and should not be considered as an afterthought. The developer must provide a landscape plan giving details of new structure planting and existing planting to be retained at the detailed application stage.

5.13.6 The planting design should create a landscape structure for the site. The landscape structure should provide definition to public and private spaces, and also add colour and seasonal interest to the residential environment. Planting is also an integral part of the quality of the housing areas and its careful location can slow traffic speeds by limiting forward views and reducing the physical and optical width of the carriageway.



Gateway/Arrival space created by a crescent fronting a square



Imaginative use of sculpture strung between buildings



Formal avenue planting



Focus on detail within a footpath surface



Public art can be used to enhance legibility and reflect local distinctiveness



Tree planting defines public space