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*Oxford, West End*

# DESIGN GUIDE



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# INTRODUCTION AND PURPOSE OF DESIGN GUIDE

## Why a Design Guide?

Oxford's West End is a fast-growing area with a number of key development sites coming forward in the short, medium and long term. The West End Spatial Framework sets out high-level strategies which will help to deliver the vision for the West End. Alongside this framework, the Design Guide sets out strategic design principles which will help to protect, retain and enhance the existing character of the area, whilst also creating new opportunities for working, living and leisure. This document therefore sets out a number of design guidelines for future development.

## Purpose of the West End Design Guide

This Design Guide takes a holistic approach, recognising that development sites are all at different stages. Its purpose is to set some guidance on how architecture, urban design and landscape architecture should come together within the West End. The role of this guide is not to regulate all built form but to enable designers and users to create high-level design standards for proposals coming forward.

All development proposals will need to respond to the principles established in this Design Guide. Larger masterplans, such as Oxpens, Osney Mead and Nuffield, will need to develop individual Design Codes which are aligned with the guidance set out within this document.

This guide is also an update to the West End Design Code (2007). It provides general design guidance, rather than specific detailed design coding. The updates provided are:

- It expands the geographic scope of the West End to include Osney Mead
- It takes into account the guidance set out within the National Design Guide (2019)
- It includes updates on key development sites
- It provides guidance rather than coding to allow for flexibility and changing needs for sites coming forward at different times.

The Design Guide is underpinned by the work set out within the Spatial Framework and should be read in parallel. While the Spatial Framework remains spatially high-level in its guidance, the Design Guide provides an opportunity to zoom into all scales of development.

## Planning Context

This guide is part of a wider planning policy structure that builds upon and supports documents at both city and national level. The structure of this document is taken from the relevant parts of the National Design Guide (2019) and responds to the ten characteristics of a well-designed place as outlined below.

## The Ten Characteristics of Well-Designed Places

- 1 Resources:** Efficient and Resilient
- 2 Lifespan:** Made to last
- 3 Context:** Enhances the surroundings
- 4 Identity:** Attractive and distinctive
- 5 Built form:** A coherent pattern of development
- 6 Movement:** Accessible and easy to move around
- 7 Nature:** Enhanced and optimised
- 8 Public spaces:** Safe, social, and inclusive
- 9 Uses:** Mixed and integrated
- 10 Homes and buildings:** Functional, healthy and sustainable

One of the aims of this Design Guides is to build upon the ten characteristics set at the national level to provide more focused and appropriate guidance for the Oxford context.

Overarching and site specific policy guidance is provided by the Oxford Local Plan 2036, which sets out the ambitions for both the West End and wider Oxford. The Local Plan's supporting documents further inform the approaches taken in this Design Guide.



# INTRODUCTION AND PURPOSE OF DESIGN GUIDE

## Scope of the Design Guide

The extent of Oxford's West End is defined by the Area of Change set out within Policy AOC1 in the Local Plan 2036. The surrounding context – in particular Osney, St Ebbes, the University Quarter and surrounding green belt and watercourses – are instrumental in informing developments coming forward within this Area of Change.

## Application of the Design Guide

This Design Guide should be used to help inform the design of any emerging planning applications for development within Oxford's West End. It may be best utilised by planners, developers, local authorities, and design professionals in evaluating the quality of designs and how they best fit within the vision for the West End as set by the Local Plan 2036 and the Spatial Framework.

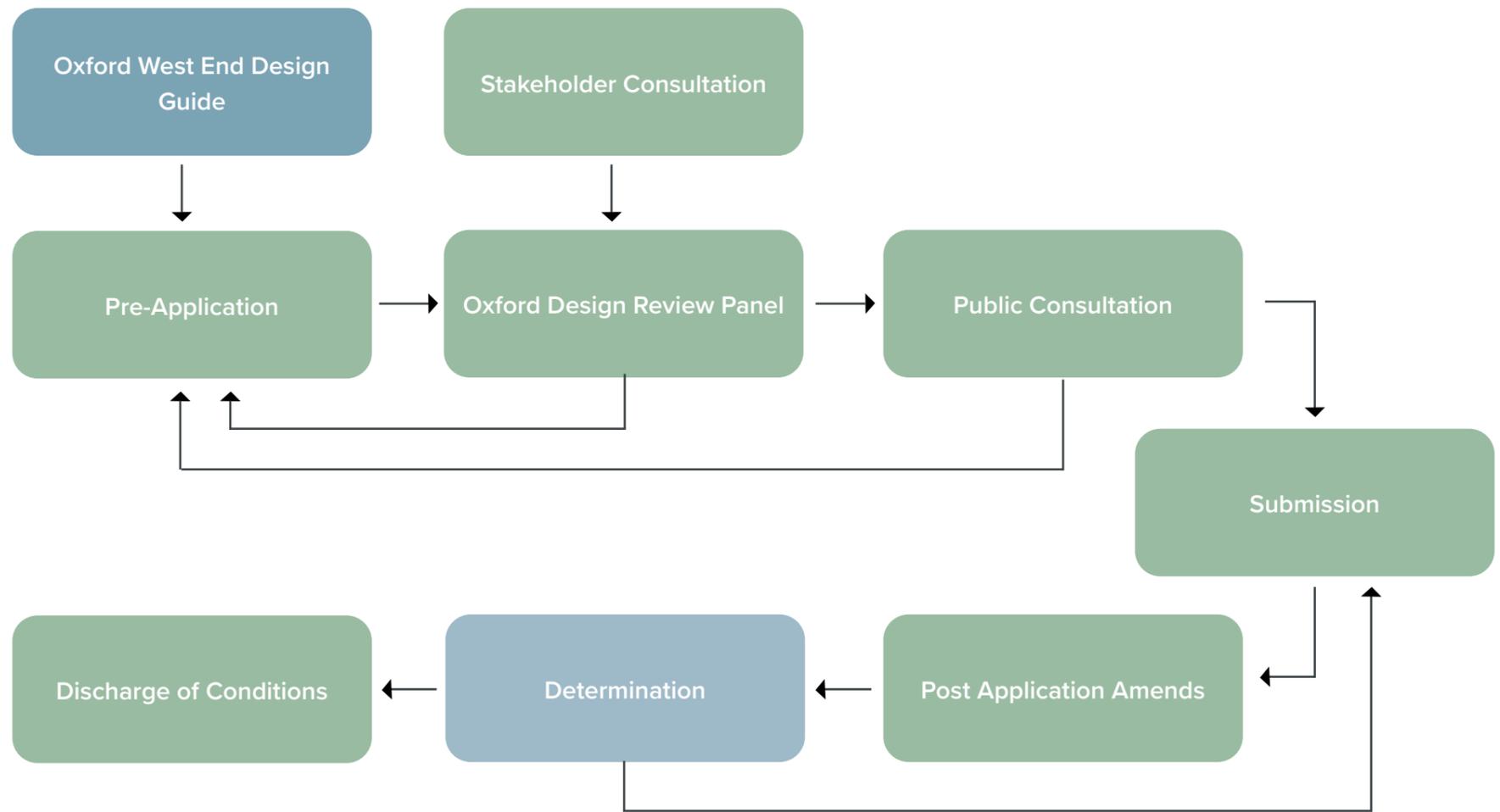
## The Oxford Planning Process

The planning process in Oxford is robust and rigorous and requires applicants to go through several steps to ensure a proposal is of the highest quality and policy compliance. This Design Guide is intended to take an early and prominent position in this process. Stakeholder consultation should be an important element throughout.

A collaborative approach between the Council and applicants is encouraged from outset, starting at the pre-application stage. By this point, any proposed framework should have taken into account all relevant policy documents including this guide. The number of pre-application meetings required is dependent on the scale of a proposal. This stage is instrumental in building primary design appraisals which may be informed by some of the more broad-reaching principles outlined over the following pages.

The **Oxford Design Review Panel** is a critical piece of the process in which an application will undergo strenuous scrutiny and design advice. The Design Guide may be useful in steering this discussion and setting the standards from which the design review builds upon.

## The Oxford Planning Process



During this stage, a development may be evaluated on the basis of this guidance to determine its compliance and assess the quality of design proposed. This document will be invaluable to councillors and applicants alike in guiding this step in the process.

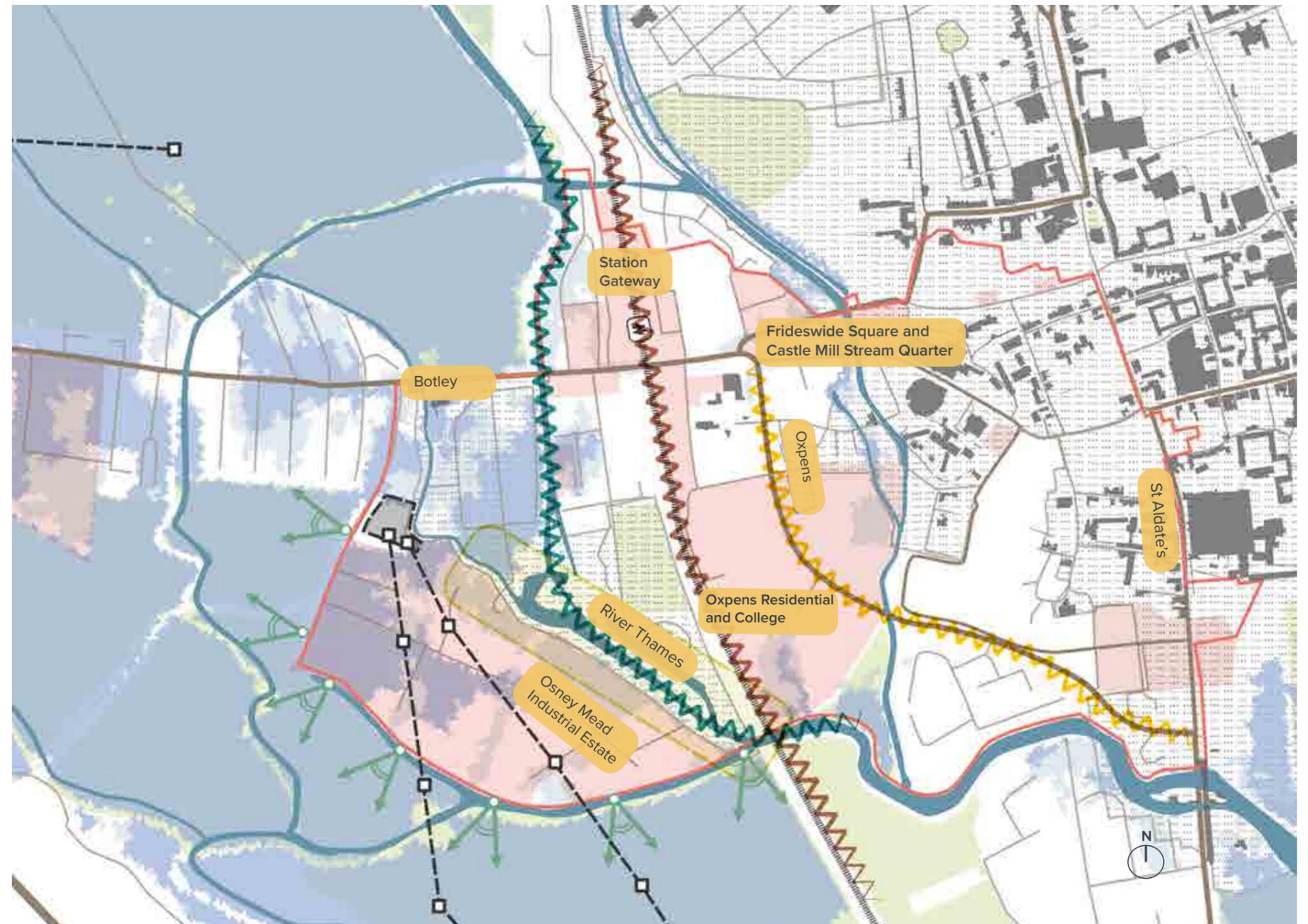
Upon submission of a planning application, the outcomes of the progression of a design throughout the preceding stages should be made evident. This includes the impact of any design reviews a scheme has undertaken.

Officers will then make a preliminary decision on the application. If the design guidance is adhered to and the pre-application process is followed thoroughly, there will be little need for major alterations following the submission.

# SUMMARY OF ANALYSIS

As set out within the Spatial Framework, there are a multitude of strengths, weaknesses, opportunities and threats within the West End. These must inform development proposals coming forward. Of particular importance are the following points:

- **Heritage** - the rich history of Oxford has manifested in lots of listed buildings, some important Conservation Areas and key views which must be protected. This requires proposals to be sensitive and contribute positively to the character of its surroundings.
- The large number of **development sites** coming forward, some of which are outlined within the Local Plan 2036, provide an exciting opportunity for new places for people to work, live and play.
- The West End has a huge opportunity to celebrate its large number of **watercourses and associated towpaths**, and improve connections across them. Development sites must respond to open up the watercourses with high quality public realm.
- A number of **roads are congested and offer a poor quality pedestrian experience** (e.g Botley Road, Oxpens Road). Proposals must improve streets and provide better frontages onto them, creating an active, pedestrian and cycle friendly environment.
- **Flood risk** is a major environmental concern, with much of Osney and Osney Mead Industrial Estate being in Flood Zone 3a or 3b. Proposals for any site within a flood risk area will need to be flood-resilient and ensure a sound evacuation plan is in place.
- **Proximity to the green belt** is a significant asset for the West End and development sites will have the opportunity to take advantage of good views and amenity space. Development proposals do need to be sensitive to its ecological and community value.
- **Overhead power lines and the associated substation** are a major constraint for the Osney Mead regeneration site. Undergrounding or relocating them will be a key enabler for proposals to come forward.



# VISION AND PLACEMAKING PRINCIPLES FOR THE WEST END

The Spatial Framework sets out the overarching vision for Oxford's West End. This is underpinned by four central themes, which all the spatial strategies stem from. The vision statement and its key drivers were defined through stakeholder engagement - these address the key aspirations, needs and requirements for the various sites within the West End. The four overarching themes are:



## AN ACCESSIBLE AND CONNECTED PLACE

A 15-minute 'urban quarter' which has strong connections to ecology, community and movement, encouraging modes of active travel with good digital infrastructure networks in and around the city.

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## A CREATIVE PLACE

A place where the diverse mix of compatible land uses (including a mix of housing, research and innovation, arts and creative enterprises) encourages a 24-hour economy.



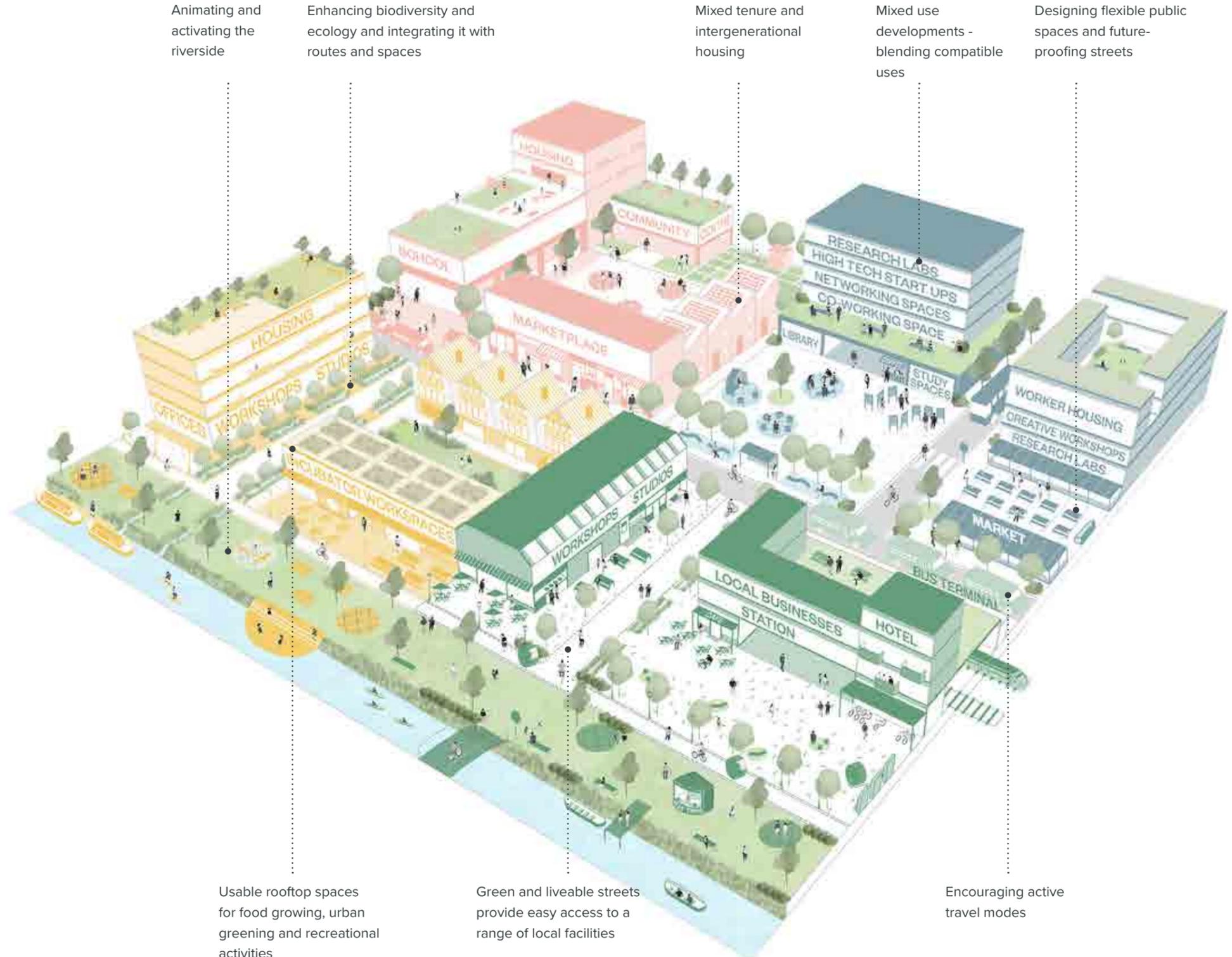
## A VIBRANT COMMUNITY

A liveable, diverse and inclusive place that maximises land with mixed use destinations. A range of housing tenures and intergenerational living creates opportunities for local and global success.



## A GLOBAL ENTERPRISE

A distinctive and unique setting that builds on the West End's economic strengths - its innovation and creative industry mix - by connecting entrepreneurs and educational institutions, start-ups, medical innovations, bike sharing and more.



Animating and activating the riverside

Enhancing biodiversity and ecology and integrating it with routes and spaces

Mixed tenure and intergenerational housing

Mixed use developments - blending compatible uses

Designing flexible public spaces and future-proofing streets

Usable rooftop spaces for food growing, urban greening and recreational activities

Green and liveable streets provide easy access to a range of local facilities

Encouraging active travel modes

# KEY CHARACTER AREAS

Oxford city centre comprises of a variety of different uses, buildings and street typologies which collectively contribute to its unique character. In the context of the West End, the importance of maintaining particular characters varies greatly and further analysis will need to be done to understand the social, economic and environmental value of different elements.

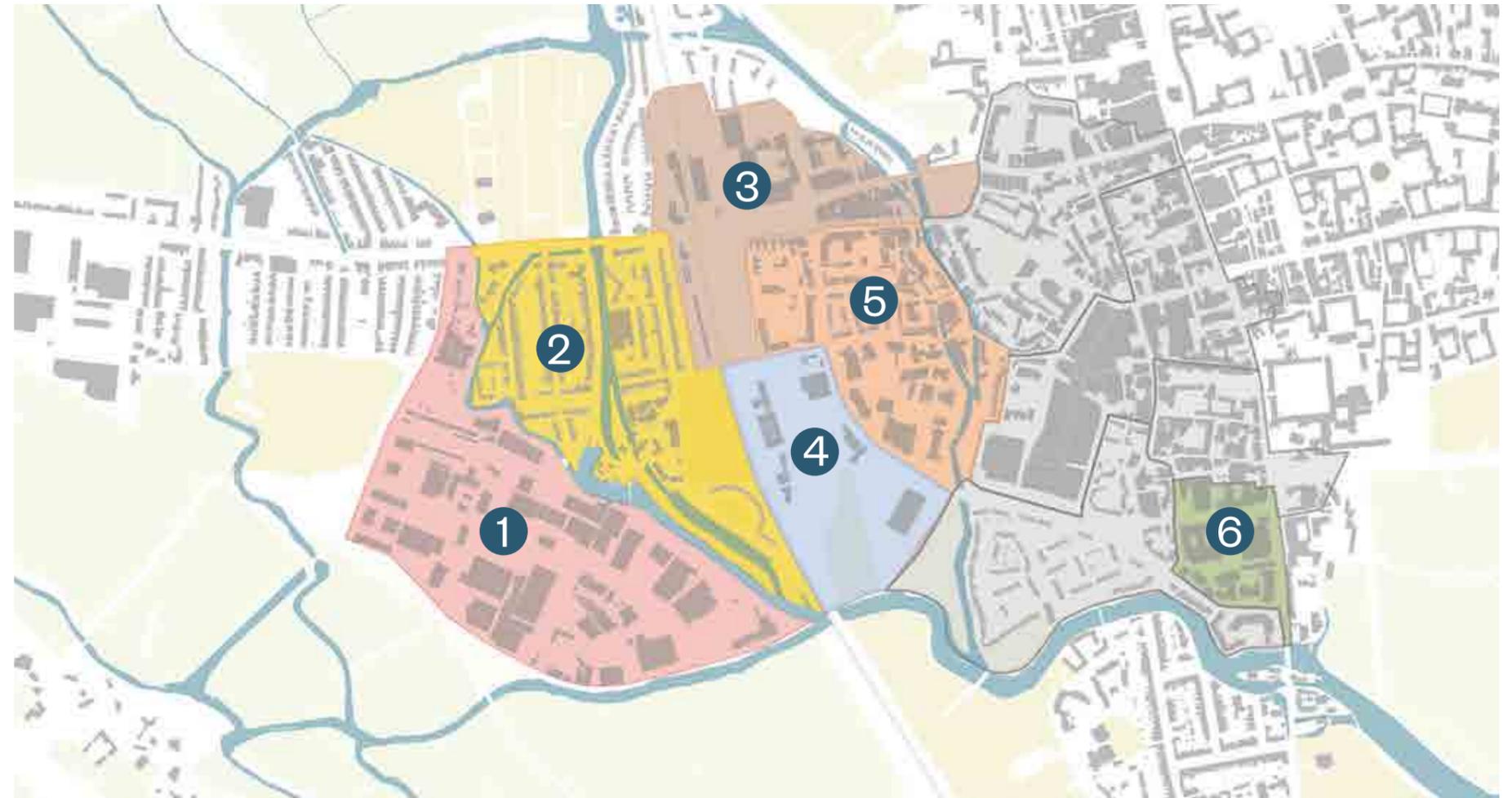
As outlined in the Spatial Framework, there is huge opportunity for enhancement within many of the **character areas**. This includes improvements to public realm, bringing in new development and uses and changing street functions and typologies. Proposals should take its cues from the existing context.

Outlined below are some character areas of particular importance. A more detailed and comprehensive character analysis can be found within the Spatial Framework.

- 1 **Osney Mead Industrial Estate**
- 2 **Osney**
- 3 **Station Gateway**
- 4 **Oxpens**
- 5 **Oxpens Residential and College**
- 6 **Administrative Quarter**

1 **Osney Mead Industrial Estate** has a diverse and evolving character of commerce - both office and industrial uses. This area is subject to significant change and the Spatial Framework sets out the vision and spatial strategy for this area. Existing character inferences need to be considered in development proposals coming forward:

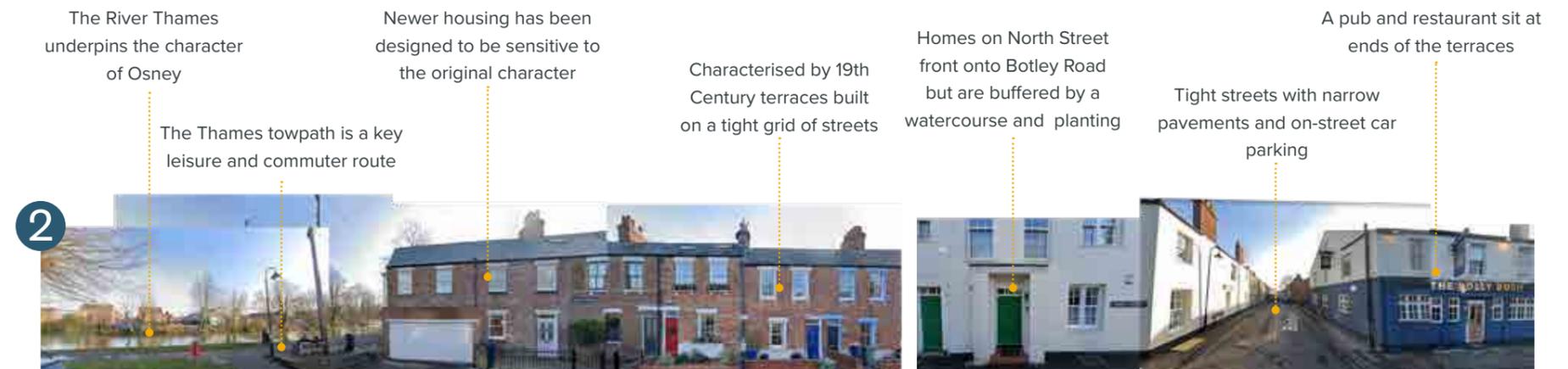
- Opportunity to improve frontage and access onto River Thames and associated towpath
- Opportunity to improve interface to Castle Mill Stream and green belt
- Opportunity to retain the vibrancy of existing businesses
- Sensitivity and celebration of heritage of neighbouring Osney
- Mitigate flood risk (categories 3a and 3b) by introducing SuDs, swales, rain gardens and floodable landscapes



# KEY CHARACTER AREAS OF PARTICULAR IMPORTANCE

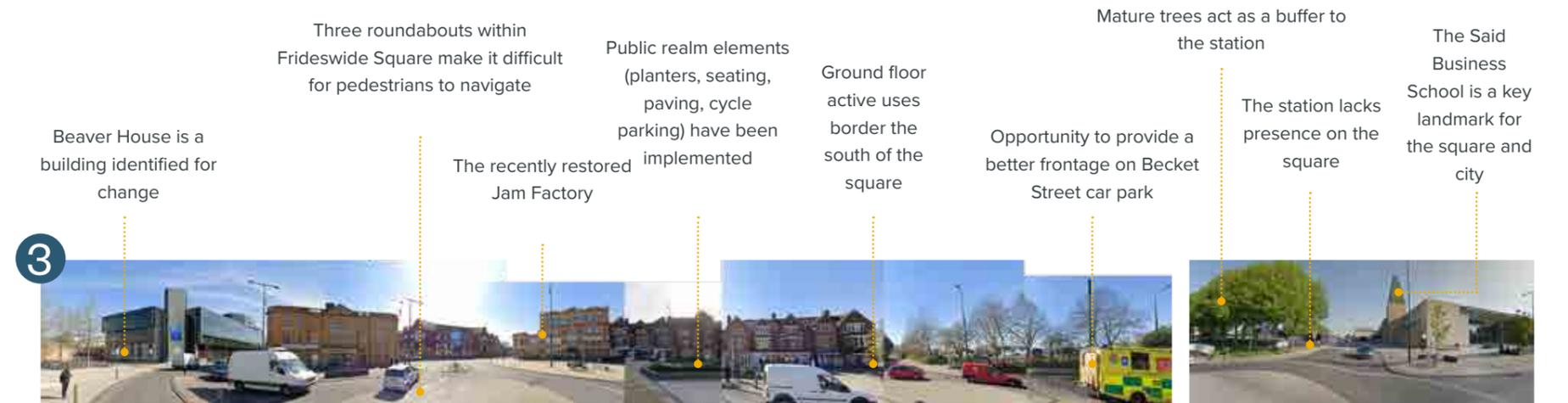
**2 Osney's** special historic character is set out in the **Osney Town Conservation Area**. It sits adjacent to the Area of Change and any changes to Osney Mead Industrial Estate, Oxpens and any strategic public realm improvements must sensitively deal with its proximity to sites of change. In particular, sensitivities to the following must be considered:

- The impacts of movement through already constrained streets and towpaths
- Impact on the character of the River Thames and other watercourses
- Connections and routes along/through Osney Lock and Abbey streets



**3 Station Gateway** which combines Frideswide Square, Becket Street car park, the railway station and Nuffield sites. With lots of development sites, this area is subject for significant change. Existing characteristics need to be considered in proposals coming forward:

- Existing work on Frideswide Square
- Impact on a number of heritage assets including the Jam Factory and St Thomas Church
- Opportunity to give a bigger presence to the railway station
- Consideration of how the existing bus strategy is to be developed



**4 Oxpens** has a multitude of characters and consists of a number of differing uses. It is also subject to significant change with a masterplan being developed for it. Existing characteristics will need to be considered in future development proposals:

- Opportunity to provide a better interface to Oxpens Meadows and River Thames
- Opportunity to integrate and improve interface of the ice rink
- Opportunity to improve the character of Oxpens Road
- Opportunity to improve connections and links to Osney Mead Industrial Estate across River Thames (Oxpens Bridge)



# KEY CHARACTER AREAS OF PARTICULAR IMPORTANCE

**5** **Oxpens Residential and College** has a multitude of characters as it caters to a number of differing uses. It is also subject to significant change as various sites within this area have been identified for redevelopment. Existing character inferences will need to be considered in development proposals coming forward:

- Opportunity to improve east-west connectivity along Woodlins Way and Osney Lane for easier pedestrian and cyclist movement
- Opportunity to improve the character of Oxpens Road
- Opportunity for better permeability through the sites and linkages to Castle Mill Stream and into the city centre core



**6** **Administrative Quarter** has a very civic character, as it is comprised of a series of court buildings, police station and government and other offices. It contains large footprint buildings with little quality in public realm. Change within this area is very much in the long term but will need to consider the following things:

- The value of these important civic uses within the city centre
- The relationship with Christ Church college and Christ Church Meadow in the east
- The importance of the intersection of St Aldate's with Speedwell Street and Thames Street as an important southern gateway into Oxford
- Opportunity for urban greening within wider sections of St Aldate's - particularly at the gateway junction



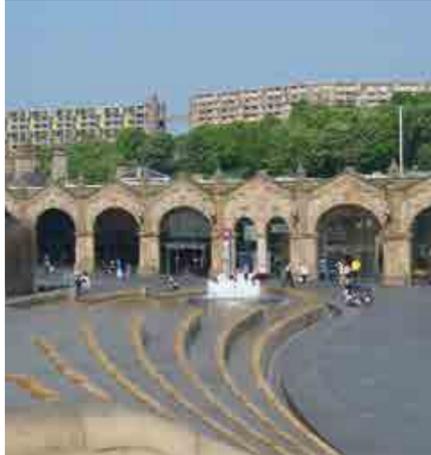
# AREAS OF CHANGING CHARACTER

With many development sites set to come forward in the short, medium and long term, there will be areas within the West End that are subject to considerable change in use, capacity and character. Broadly there are four areas which are subject to significant change.



## 1. Station Gateway

With redevelopment of the station sites, as well as Becket Street car park, the Nuffield sites, Beaver House and Rewley Road Fire Station, this provides a huge opportunity for improvements to the gateway of Oxford. Improvements to Frideswide Square and the relationship between adjoining sites undergoing change (scale, mass and public street/ space enclosure) will be particularly important. Further analysis on this site can be found in the Emerging Masterplans section of the Spatial Framework.



An integrated transport approach which links walking, cycling, bus, train and car usage



Architecture and public realm which signifies a gateway into a city



Active ground floor uses which promote a safe, vibrant and inclusive space



Clear legibility, way-finding strategies and signage for people arriving into the city

# AREAS OF CHANGING CHARACTER

## 2. Oxpens and College site

Oxpens and the City of Oxford College site are currently fairly inaccessible and are underutilised. Movement through the sites is challenging and Oxpens Road currently forms a major road barrier between the sites.

Development sites at Oxpens, College site, Richard Gray Court, Royal Mail Delivery Office and the ice rink should aim to re-stitch this area with its surroundings - providing a greater connection to the watercourses, the Oxpens Meadows and the city centre. There is huge opportunity to humanise Oxpens Road with new development opening onto this street and footpaths widened to encourage footfall.



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Transformation of Oxpens Road with better frontages and improved street design



Opportunity to create destinations along watercourses and improve relationship with these



Active ground floor uses which promote a safe, vibrant and inclusive space



Encouraging mixed use developments - mixing various non-residential functions at ground level with homes above

## 3. Speedwell Street

Major interventions on Oxpens Road will drastically change the character of the area.

In the medium and long term, development sites should aim to create an activity node for Oxford which produces a distinct destination and gateway for people coming from the south-east.



Opportunity to widen footpaths, improve urban greening through tree planting and encourage active travel along Oxpens Road



Architecture and public realm which creates a destination and gateway into Oxford



Opportunity to activate and animate ground floors of retained/retrofitted buildings in key locations

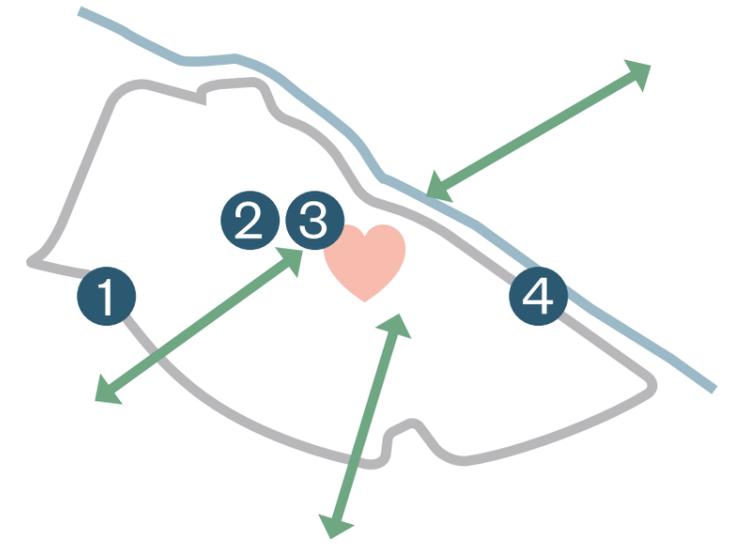


Clear legibility and signage for people arriving into the City - opportunities to promote the West End as an extension of the city centre

# AREAS OF CHANGING CHARACTER

## 4. Osney Mead

Osney Mead Industrial Estate is an area subject to comprehensive development and significant change over the coming years. New residents, workers and visitors will be attracted to the culture and leisure offering. Meaningful public realm improvements will provide a character which is shaped by the surrounding area's blue and green assets. With a rich mix of uses, a vibrant quarter which fosters creativity, innovation and exchange of knowledge will be created. A detailed Spatial Strategy is set out in the Osney Mead section of the Spatial Framework.



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**1** Green belt interface

An interface with the green belt which is responsive to its context and high quality ecosystem - with an opportunity to create access to areas of the green belt for active and passive recreation.



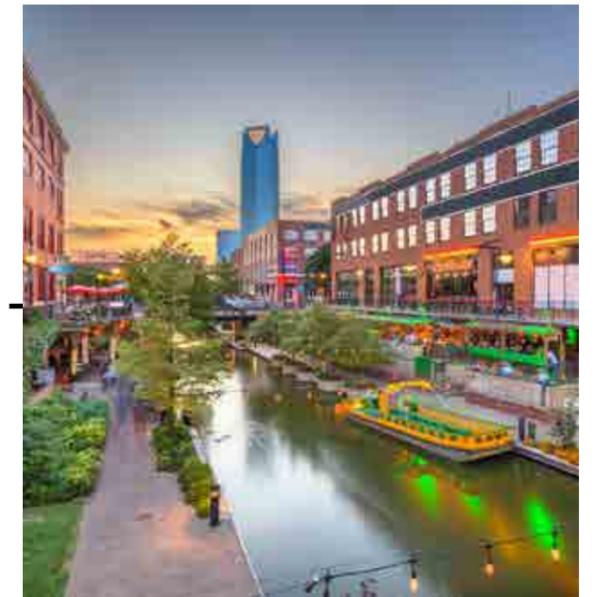
**2** Mix of uses and typologies

A rich mix of uses which are vertically and/ or horizontally mixed to create interest, collaboration and vibrancy. Presenting a compatible mix of housing and non-residential uses to maximise the site's potential as a world class innovation district.



**3** Public spaces and active community heart

Public realm at the heart of a new community will drive activity and vibrancy. This will include playful and interesting meanwhile uses and art, active building frontages, and spaces for meeting and gathering.



**4** Activation of riverside edge

A strong relationship with the River Thames, activating its banks as a site for public enjoyment. Opportunity for spill-out activities and encouraging walking and cycling along a well-overlooked riverfront.

# 1. DESIGN GUIDANCE: MOVEMENT

A strong movement network is pivotal to the future of the West End. Currently the West End is highly limited in connections, relying on constrained towpaths and streets which are poor in quality and connectivity. This strategy provides a real opportunity to bring the West End into the life of the bustling city centre - providing key activity hubs with high quality public realm which are interlinked with good walking and cycling routes.

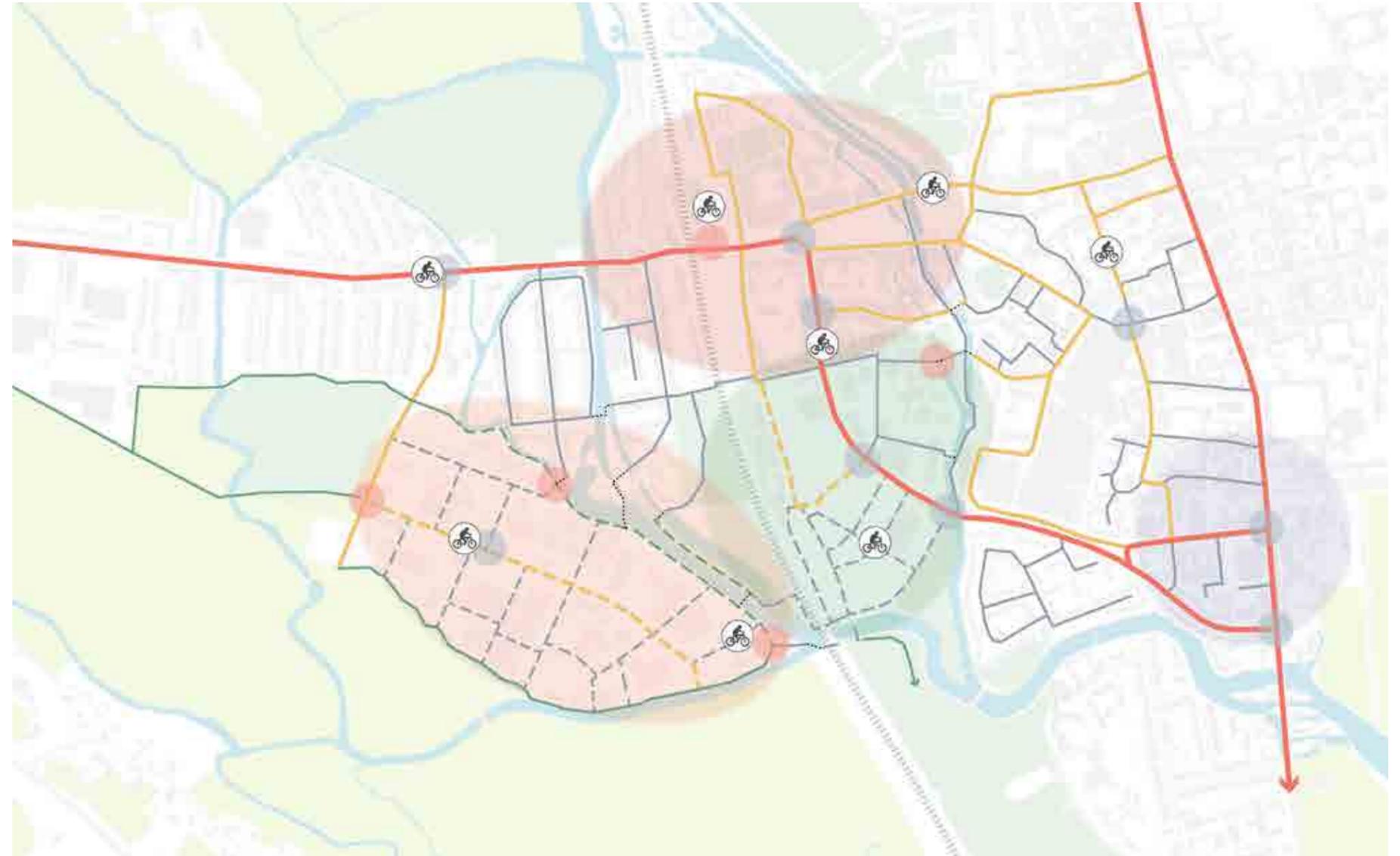
This guidance aims to shape development on both the West End's existing streets as well as new ones. Any intervention into the street scape should take care to define intended street hierarchies and the scale of movement it may sustain. This is key to developing the appropriate infrastructure and amenities of that route, as well as the public realm elements around it.

On routes of all sizes, pedestrian and cyclist friendliness should be maximised to ensure that all users are safe and comfortable throughout Oxford's movement network. New developments should provide permeable street to tie in with existing street networks and ensure improved connectivity from and through development sites.

The greening of existing and planned streets is an opportunity to build climate resilience into the West End's transport network and provide ecological benefits as well as general road improvement.

This diagram outlines broad parameters of the West End's existing streets, as well as potential new routes, alongside the demarcation of key junctions and gateways and areas suitable for mobility hubs.

Service, delivery and energy access routes should be planned to ensure they are efficient and do not impede on other movement networks. All streets should have some provision for emergency access, regardless of hierarchy. Solutions for otherwise pedestrian areas, such as designated delivery zones, may be useful.



## Any development should:

- Provide a comprehensive network of cycle routes which are designed in accordance with best practice guidance (LTN 1/20 Cycle Infrastructure Design)
- Provide convenient, accessible and easy to use cycle parking, with reference to guidance set out in Oxfordshire Cycling Design Standards
- Create clear, inclusive and unobstructed pedestrian routes that complement best practice guidance set in Oxfordshire's Walking Design Guide
- Provide safe pedestrian crossing points at a reasonable frequency and closely aligned with desire lines
- Designate a clear hierarchy of routes and street types
- Promote mixed uses along streets and activate ground floor spaces
- Consider footpath width and ensure that it is able to accommodate movement flows projected along street and allow sufficient space for passing

# 1. DESIGN GUIDANCE: MOVEMENT

## A. Primary Routes

The West End's primary routes form the key arteries of the city. These need to allow for significant vehicular flow as well as a good quality environment for cyclists and pedestrians. Streets such as **Oxpens Road** and **Botley Road** will need to be sensitively adapted and interventions listed below should transform them. Active street frontages are essential and will help to animate streets of this character.

Widths available for walking, cycling and carriageways on all routes should follow best practice guidance and reflect the context in which they are provided. Relevant guidance that can be referred to includes:

- Cycling: LTN 1/20 (Cycle Infrastructure Design) and Oxfordshire's Cycling Design Standards
- Walking: Oxfordshire's Walking Design Standards, Inclusive Mobility
- Tools such as Transport for London's Pedestrian Comfort Level calculator can also be used to determine appropriate footway and crossing widths
- Carriageways: Manual for Streets and Manual for Streets 2

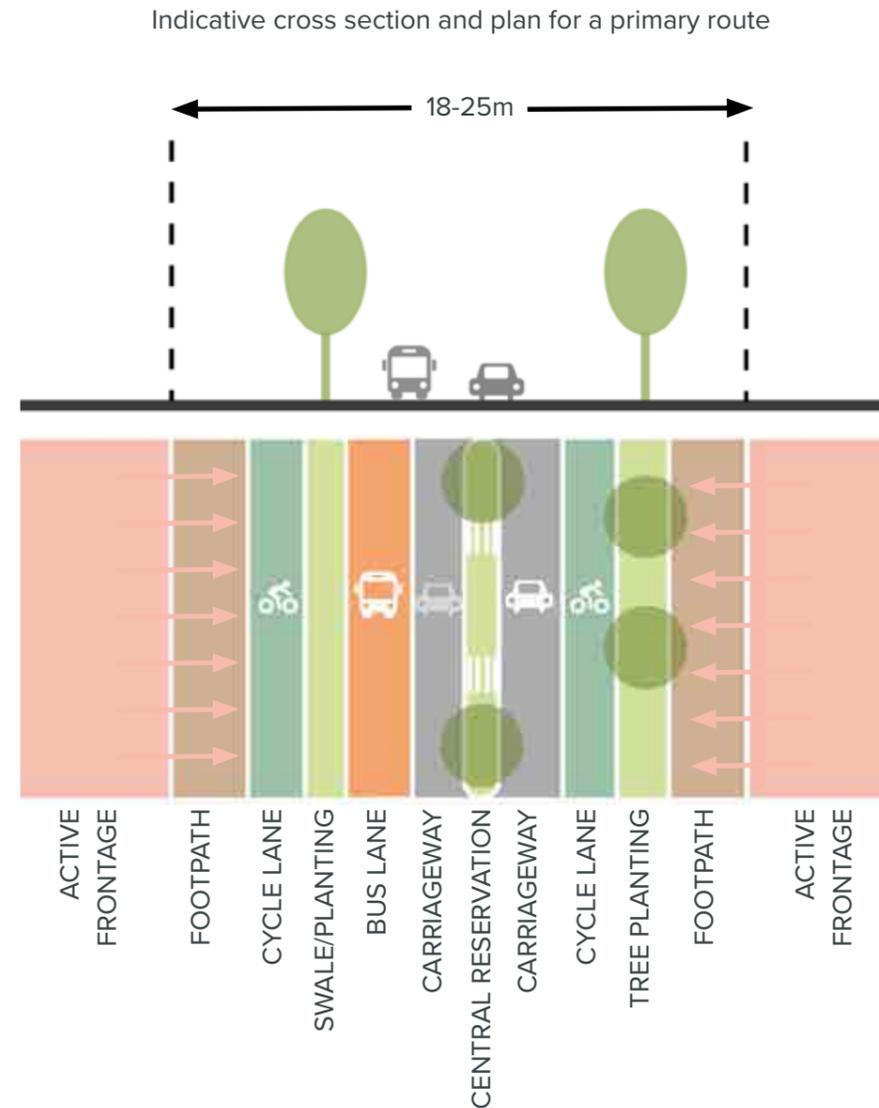
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- Traffic calming measures
- Designated cycle lanes
- Integrated planting strategies
- Safe pedestrian crossings
- Opportunity for bus lanes
- Mix of uses which activate the street
- A good wayfinding strategy
- Allows for two way vehicle movement with servicing activity offline
- Sustainable urban drainage, rain garden, and other flood mitigation strategies integrated into gardens



- Overshadow the street with buildings with long spans of inactive frontages
- Propose large areas of parking perpendicular with street
- Harsh lighting which may cause glare



# 1. DESIGN GUIDANCE: MOVEMENT

## B. Secondary Routes

Secondary streets make up the majority of routes that people will use to move between and through the various development sites. They alter in need and character, requiring different provisions for bus routes, cycle routes and parking. Widths of secondary routes should reflect traffic volumes, and ensure vehicles can pass stationary servicing vehicles. All should prioritise pedestrians and cyclists and provide a safe, green and accessible interface between buildings and life on the street.



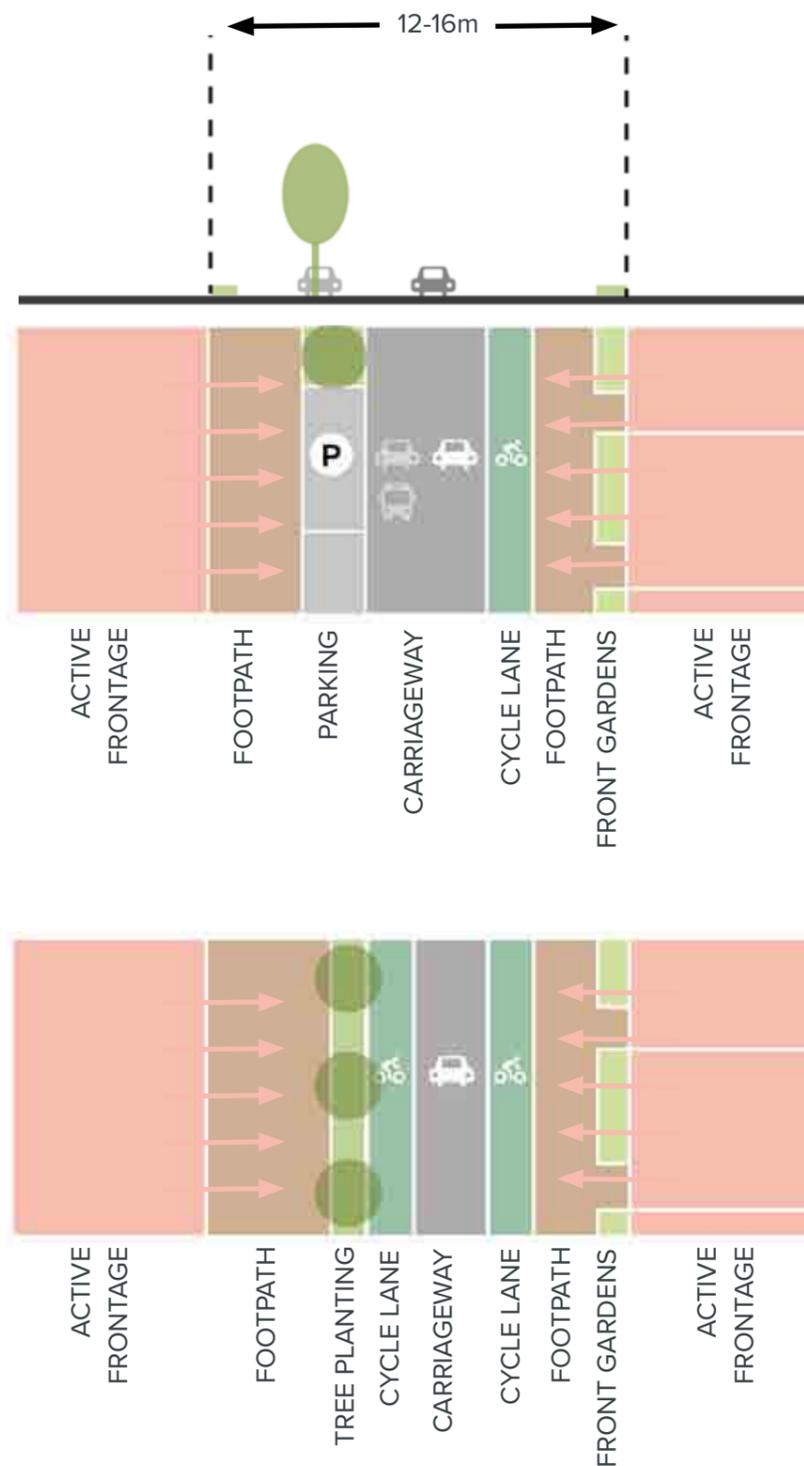
- Provide clear footpaths
- Safe pedestrian crossing points
- Buffer with front garden for ground floor homes
- Active street frontages with front doors or non-residential uses
- Provide traffic calming and speed reduction measures to reinforce the priority given to walking and cycling
- Sustainable urban drainage, rain garden, and other flood mitigation strategies integrated into gardens
- Opportunity for urban greening through tree planting in strategic locations

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- Buildings disproportionate to the scale of the street
- Overuse of shared surfaces
- Overshadowing the street with buildings and long spans of inactive frontages

Indicative cross section and plan for a secondary route



# 1. DESIGN GUIDANCE: MOVEMENT

## C. Tertiary Routes and Pedestrian and cyclists Only

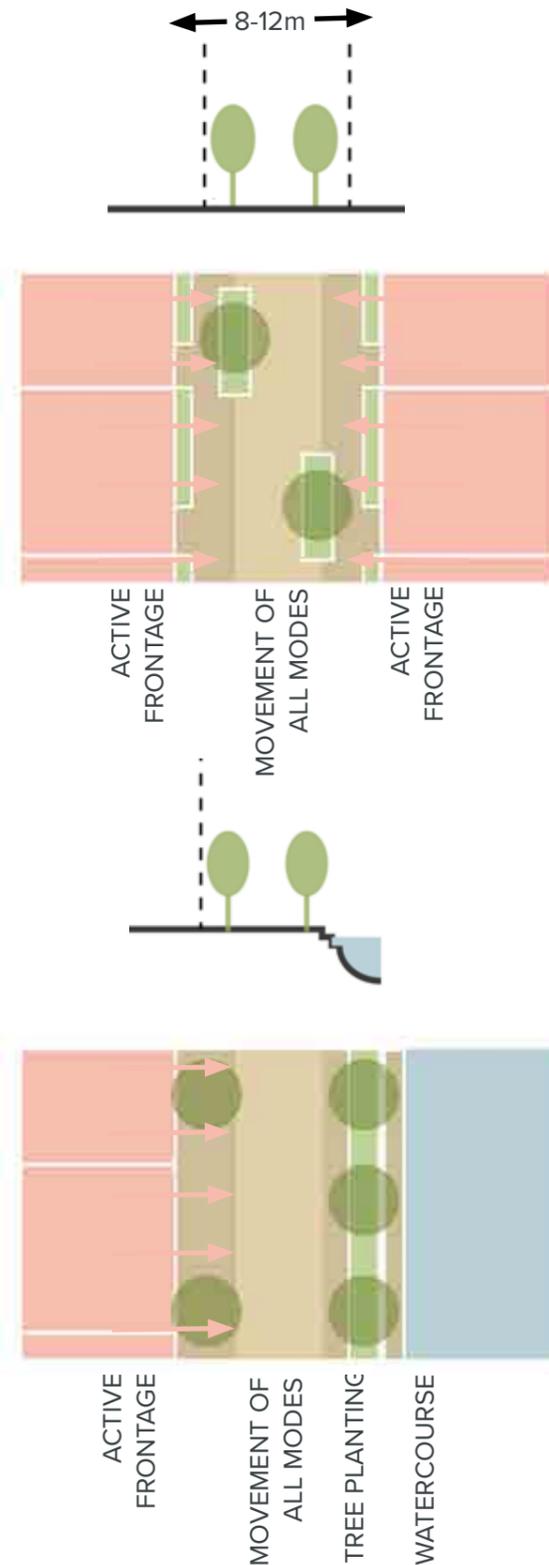
Tertiary streets will take on a more intimate character and will put the pedestrian and cyclist first. Proposals should promote car-free streets, school streets and integrated natural play on the way. Careful consideration will need to be given to servicing locations, service frequency and alternative routes to determine whether passing of longer stay servicing vehicles is required.

- ✔ • Create a narrow, intimate street (e.g.. Mews and Lanes)
- ✔ • Pedestrians/ cyclists as the primary regular users
- ✔ • Consider the use of a shared surface for streets with low usage and delineation of uses for more heavily trafficked routes
- ✔ • Integration of landscaping
- ✔ • Carefully consider building proportion
- ✔ • Encourage play on the way (imaginative and incidental play areas)
- ✔ • Sustainable urban drainage, rain garden, and other flood mitigation strategies integrated into gardens

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- ✘ • Propose large or tall trees
- ✘ • Disproportionate buildings to scale of the street
- ✘ • Allow vehicular carriageway to dominate the street
- ✘ • Failing to ensure pavement is wide enough for wheelchair users

Indicative cross sections and plans for tertiary routes



# 1. DESIGN GUIDANCE: MOVEMENT

## 1.1 Delivery and Servicing

Accommodating delivery and servicing activity is a key consideration for new developments. A well-designed and well-managed strategy can mean that delivery and servicing activity can be carried out efficiently and safely, without creating negative impacts on the local highway network, residents, site users, and the environment or design of a site.



1. Given the number of large sites coming forward in the area, consideration should be given to consolidation of deliveries and last mile deliveries by bike/scooter.



2. Use of service yards may be necessary in certain circumstances (e.g. for retail land uses) where deliveries are made with larger vehicles that have longer dwell times and require more formal management.

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3. In lightly trafficked environments, kerbside loading or on-carriageway loading can be appropriate. This allows vehicles to gain close access to building entrances and does not require substantial areas of hard landscaping given over to vehicles. When not in use, kerbside loading bays act as footway, allowing more space for pedestrians.



4. Facilities such as electronic parcel lockers can be used to help reduce repeat deliveries, thus helping to reduce traffic volumes within a site and on the local road network.



5. Last mile deliveries by bike/scooter offer a sustainable and smart solution to delivering goods and provision should be made for these in key locations within the public realm.

# 1. DESIGN GUIDANCE: MOVEMENT

## 1.2 Junctions and Crossings

A number of existing junctions are to be improved as part of development proposals. Furthermore, the creation of new connections and junctions will emerge as new movement routes are opened. Effort must be made to ensure that these spaces respect the priority of pedestrians and cyclists and create striking and effective gateway spaces. Connections and linkages between the various development sites of the West End would benefit through strategic interventions.



Top: New crossings can fulfil important infrastructural roles as well as creating new, visually interesting pieces of public realm. Bottom: Inventive paving strategies and traffic calming measures create safe street crossings

- ✔ Accessible paving strategies
- ✔ A safe and clear strategy for cyclists
- ✔ Dedicated cycle lanes
- ✔ Tree planting to break up long streets
- ✔ Animated with non-residential uses that create a sense of place
- ✔ A clear movement strategy
- ✔ Clear signage
- ✔ Built form which provides space for landmark buildings or new infrastructure
- ✔ Consider those with visual or hearing impairments when designing crossings
- ✘ Overshadow the street with buildings
- ✘ Harsh lighting which may cause glare

## 1.3 Cycle Parking

Secure and convenient cycle storage is essential in creating a public realm that supports cycling. These must be both simple to use and access, and secure from theft or damage. Placing of cycle storage in key public spaces and in close proximity to key movement routes will be needed to maximise their effectiveness. This will be particularly important to promote active travel in last mile trips from the railway station.



Top left: Secure and accessible bicycle storage. Top right: Clearly legible cycle parking. Bottom: Cycle parking can be integrated within developments, like this example located inside a building

- ✔ Cycle parking must be well supervised and visible
- ✔ Must be secure and well-lit
- ✔ Well-located for ease of use
- ✔ Be provided at a quantity which accords with Local Plan cycle parking standards
- ✘ Obstruct flow of pedestrian movement

## 1.4 Counter Terrorism

Built solutions to vehicle borne threats, either from targeted attacks or vehicle collisions, is key in creating a public realm which is secure for all users. Successful implementation of barriers will be effective forms of protection while minimising visual and physical impacts on the built environment.



Top left: Bollards may be integrated in landscaping and planting. Top right: Bollards may double as urban furniture or seating. Bottom: Making counter terrorism structures visually engaging is an important part of integrating them into the urban environment

- ✔ Landscape and urban design solutions to protect against vehicle borne attack and road traffic collisions involving pedestrians
- ✔ One that is visually attractive and can be used as a landmark for a space
- ✔ Barriers which are low impact and low profile
- ✔ Integration with public art and/ or meanwhile use
- ✘ Obstruct pavement or other pedestrian routes
- ✘ Visually detract from the character of the public realm

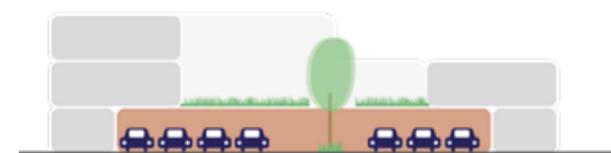
# 1. DESIGN GUIDANCE: MOVEMENT

## 1.5 Car Parking, Services, and Utilities

While car-free development is ideal, in areas where some cars are necessary, appropriate measures should be taken to lessen the impact that parking takes on the built environment. This may include integrating parking within development blocks to protect street priority and active frontages.



A. On-street parking



B. Podium parking



C. Courtyard parking

The integration of utilities and services into urban design will help create a more efficient and user-friendly public realm. In the context of the global climate crisis, the nature, location and agency over utilities will become of increasing importance.



Left: Interactive information boards connected to public transport data can help people orient themselves and navigate space. Right: Ensuring digital connectivity, such as mobile network access and Wi-Fi can better allow individual mobility.

## 1.6 Mobility Hubs

Multi-purpose transport hubs located in key locations throughout the built environment can facilitate and support diverse modes of transport. With the rise of electric vehicles, there will be increasing demand for well-located and accessible EV charging ports. Integrating these into mobility hubs in anticipation of these changes in transport infrastructure will be critical in ensuring developments in the West End are future-proofed.



Mobility hubs can facilitate different forms of travel in one space. (Photo from Future Mobility Hubs, Arup, 2021\_)

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- Integrate parking into public realm design
- Podium parking with integrated tree planting and amenity space at upper level
- Courtyard parking well-overlooked by surrounding uses
- Breaking up parking with planting
- Flexibly designed parking so space can be transformed in the future
- Consider communally accessed energy monitoring points and a decentralised form of resident utility management
- Where infrastructure is necessary, install it in such a way that it may be easily replaced or changed
- Work towards increasing digital connectivity such as Wi-Fi access across public realm, interactive way finding terminals, and app based guidance and monitoring



- Encourage cars to park in inappropriate locations
- Deck or multi-storey car parks which do not have ground floor uses activating the street
- Parking at the front of active buildings with limited path and create unattractive and poor pedestrian environment



- Provide bicycle repair facilities
- Integration with other active uses (e.g. café)
- Accessible EV charging points
- Flexibility to accommodate emerging methods of transportation, such as scooters or e-bikes
- A holistic transport approach which makes it easy for people to change transportation methods between rail, bus, car, cycle and walking



- Be isolated from other uses
- Create a last mile problem for users
- Located in less accessible locations

## 2. DESIGN GUIDANCE: PUBLIC REALM

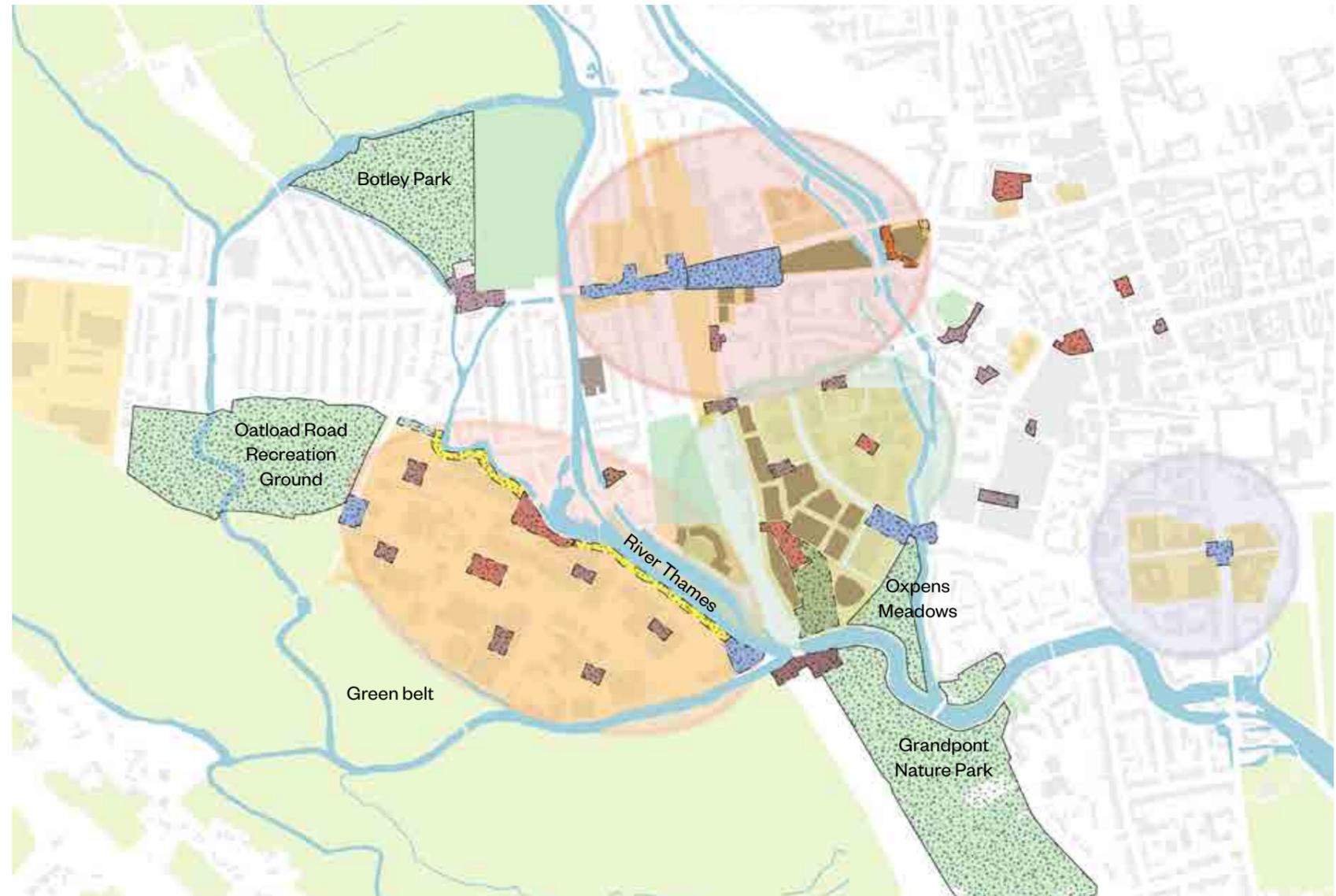
To develop a successful public realm strategy, a holistic and detailed approach is essential to create spaces which are liveable. The West End has very limited public spaces and all sizeable spaces are concentrated to the east of the railway line. Much of the following guidance is applicable to all public spaces, though some specific guidelines are given around the various typologies of public space. This should ensure that the West End's public realm is effective, enjoyable, long-lasting and ecologically resilient.

There are also numerous opportunities for new public spaces of varying sizes, from infill spaces, repurposing existing spaces to the creation of new spaces within the various developments. This guidance will outline broad, good practice principles in relation to public realm. Key guidance around the implementation of urban furniture, materials, lighting and more may be applied to public spaces of any type and character.

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### Any development should:

- Determine the type and character of the space and follow relevant guidance
- Be mindful of scale, proportion and use when designing new spaces
- Apply wayfinding and signage strategies to help promote legibility and put destinations within the West End on the map
- Encourage meanwhile uses and public art to make spaces more vibrant and interesting
- Make generous use of appropriate trees and planting where applicable to improve the urban greening factor within the area
- Encourage playfulness where appropriate and provide good quality spaces for play, sport and recreation



# 2. DESIGN GUIDANCE: PUBLIC REALM

## 2.1 Public Space Typologies

### A. Gateway Spaces

Well-demarcated gateway spaces can create vibrant and welcoming arrivals into urban districts. These should draw people in through activity and strategically oriented views and sight lines. These spaces should be carefully considered alongside broader movement strategies and new connections. Major gateways to consider include the station gateway and Frideswide Square; and gateways to Osney Mead and Oxpens.



Gateway spaces should provide a welcoming and guiding experience into a place. This can be achieved through clever public realm design

- ✔ • Ensure the space reflects the character of the place it connects in to
- Coordinate design with infrastructure development such as new bridges, connections and roads
- Integrate wayfinding strategies to guide people through the space and announce destinations
- Consider meanwhile uses for activation

- ✘ • Design a gateway space that is disconnected from its surroundings or that does not match the character of the area with which it is linked
- Treat the gateway as solely a transient space in which people pass through

### B. Public Plazas

Public plazas of varying scales should be the backbone of any hardscaped public realm design. These should be intimate yet broad and largely uncluttered and work well with surrounding urban fabric.



Providing a sense of enclosure to a space that is proportional to its surroundings is a key principle

- ✔ • Ensure the square is proportionate to its surroundings and location
- Carefully consider the orientation to ensure that the square gets sunlight
- Opportunity to integrate soft landscaping into public plazas
- Providing active uses, such as cafés and shops, which front onto plazas and spill out into these areas

- ✘ • Propose a square which is too big and ignores human scale
- Frame small squares with tall buildings
- Frame squares with blank elevations
- Orientate square to the north
- Dominate the square with vehicular movement

### C. Interstitial Spaces

Oxford's existing public realm is dominated by interstitial spaces. Spaces such as in the Castle quarter, in the Westgate shopping centre and adjacent to Carfax Tower.

Proposals will need to create spaces which are informed by the local character. Care must be taken to ensure that these spaces do not become spatially segregated or empty leftover spaces.



The public realm around Oxford Castle is a high quality public space which confirms to the geometries of the Castle Mound

Interstitial spaces may fill in and activate otherwise underutilised spaces between buildings

- ✔ • Consider non-residential uses at the ground floor
- Carefully consider the orientation to ensure that the square gets sunlight
- Decide the level of access appropriate, whether public or semi-private
- Develop geometry based on the built development

- ✘ • Provide no urban furniture or spaces for recreation, leaving spaces inactivated

## 2. DESIGN GUIDANCE: PUBLIC REALM

### D. Park Spaces

Green parks provide good opportunities for people to escape the bustle of urban life. It is important that these spaces are integrated and well-connected to the various development sites. Oxford's West End has a number of good quality green park spaces; Grandpont Nature Park; Oxpens Meadows; Botley Park and Oatland Road Recreation Ground. Proposals should improve connections to these, as well as think about how developments can sensitively front onto and interface with these open spaces.



Providing high quality and accessible route for all users to access and equally appreciate surrounding nature



Low impact but effective sculptural pieces bring visual interest and enhance surrounding nature

- ✔
  - Utilise trees and landscaping to create natural insulation between built environment and greenscape
  - Provide space for activities such as sport or children's play
  - Follow desire lines when creating paths through open spaces
  - Ensure management and maintenance aspects are carefully considered
  - Orient benches and other urban furniture to maximise dwell time in spaces
  - Consider strategies which encourage visitors to engage with nature
- ✘
  - Create planting that is dense and difficult to navigate
  - Design fences around the space limiting permeability
  - Not providing public amenities such as toilets or water fountains

### E. Pocket Parks or Squares

Often in existing or new dense urban development, small, irregular, or undefined zones between buildings are created. By designing pocket parks in these spaces, urban areas may be made greener with better use of available space. While small in size, they can make a significant impact in bringing communities together.



Integrated spaces for games and play in street furniture bring vitality to spaces whose size may not allow more space-intensive activities



Spill-out space for food and drink establishments are an effective way of bringing activity out into the public realm

- ✔
  - Follow the geometry of the site in designing park the space
  - Consider different types of pocket parks, including community gardens
  - Relate pocket park to surrounding buildings, as the primary users will be the people from its immediate surroundings
  - Survey existing urban areas to locate suitable sites for new pocket parks
  - Ensure these spaces are well-overlooked with frontages and good access
  - Ensure parks are low maintenance and encourage the community to take ownership over these spaces
- ✘
  - Create pocket parks and spaces that don't have a purpose and a community to serve
  - Create dead end spaces which are difficult to access and cannot be easily animated

### F. Riverside Edge

Oxford's West End has access to a number of different watercourses - the River Thames and Castle Mill Stream being two of the major ones. There is huge potential for development sites to positively contribute to making the watercourses more accessible and enjoyable to dwell and move through. Treatment of riverside edges must incorporate flood mitigation measures, whether through engineering solutions or effective use of green and blue infrastructure.



Providing high quality pedestrian walks along waterways and seating to allow users to, observe and rest



Opportunities to allow the public to access and engage with waterways, including boating and swimming

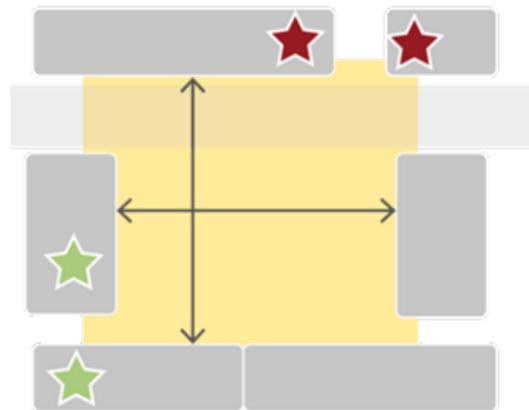
- ✔
  - Watercourses which are accessible to all
  - Encourage proposals that overlook key spaces
  - Lighting that improves safety whilst also mitigates ecological impacts
  - Open up watercourses to river-based activities, such as kayaking, water taxis, houseboats etc.
  - Retain good quality trees and sensitive planting strategies to encourage more greening
  - Connect routes to new and improved bridges
  - Provide spaces for seating and relaxing
- ✘
  - Create activity that pollutes or clutters a riverside
  - Failing to consider existing landscape character around riverside when designing public spaces along these edges

# 2. DESIGN GUIDANCE: PUBLIC REALM

## 2.2 Public Space Principles

### A. Scale and Dimension

The dimensions of a square should be proportional to the buildings around it and consideration should be given to orientation, shape and size of the space. Lower rise buildings should be located to the south or south west to allow good levels of sunlight into the square.

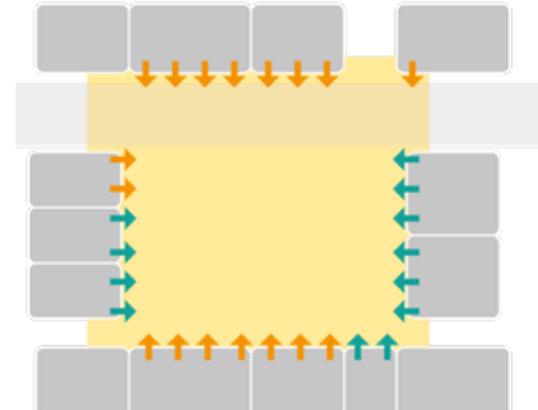


A public square which responds to the proportion and dimension of the surrounding built fabric

- ✓ • Ensure the square is proportionate to its surroundings and location
- Carefully consider the orientation to ensure that the square gets enough daylight
- ✗ • Propose a square which is too big and ignores human scale
- ✗ • Frame small squares with tall buildings
- ✗ • Frame squares with blank elevations
- ✗ • Orientate square to the north
- ✗ • Dominate the square with vehicular movement

### B. Active Frontage

A square should be framed by buildings which front onto and have easy access off the square. Multiple uses are encouraged to activate a square and promote varying activities at all times of the day.

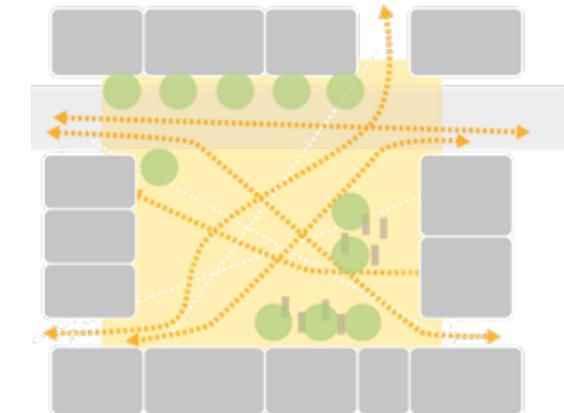


Diverse and interesting shop fronts can welcome in passers-by and work to make a space lively and active

- ✓ • Diverse uses along squares
- ✓ • Spill-out space for cafés and restaurants
- Non-residential uses on the ground floor, with homes above
- Diverse and interesting shop fronts
- Space must meet Secure by Design standards
- ✗ • Street clutter with shop front signage
- ✗ • Ground floor residential uses along squares

### C. Movement

A study of the needs, orientation and pedestrian movement is important to understand the desire lines and opportunity to draw people through a space. Public realm elements such as lighting, seating and soft landscaping should be carefully considered to encourage routes through and create dwell time spaces.



Public spaces should respond to the movement patterns of its users, through desire lines and relationships with surrounding streets and public transport

- ✓ • Traffic calming measures
- ✓ • Designated cycle lanes
- Respect pedestrian desire lines across space
- Consider soft landscaping elements and tree planting to create through routes and pleasant spaces to linger
- ✗ • Prioritising vehicle movement over pedestrians

# 2. DESIGN GUIDANCE: PUBLIC REALM

## 2.3 Urban Furniture

While urban clutter should be avoided, a holistic urban street furniture strategy should be developed for the wider West End. Clear and concise wayfinding may help integrate schemes into the wider city, especially around emerging developments in the West End. High quality and appropriate street furniture such as benches, tables and other amenities can be cost effective methods of animating public space. Urban furniture should be designed to be accessible for all users, including the elderly and those with disabilities.



Public seating that facilitates socialisation and interaction between users



Seating that seamlessly blends into landscape design

- ✔
  - Strategically align street furniture to reduce clutter and maintain clear routes
  - Use a constrained palette with elements that sit within a 'family' of products
  - Provide seating areas at regular intervals along key routes
  - Use high quality materials
  - Provide seating located in close proximity to other amenities
  - Provide flexible urban furniture for outdoor working, games and communal activities
  - Integrate street furniture with meanwhile use strategies
  - Refer to the street furniture material palette found in the Oxford Street Scene Manual (2010)
  - Orientate seating to maximise sunlight at different times of day and season
- ✘
  - Bespoke forms which may fail or be hard to replace/repair
  - Over-provide street furniture
  - Place furniture so that partially-sighted people may find them an obstacle or vehicles damage them

## 2.4 Lighting

A comprehensive lighting strategy can make spaces more vibrant and interesting, as well as improve safety and help sustain night-time activity. This is key in establishing a night-time economy and ensuring spaces are successful at all times of day. However, lighting must not disrupt surrounding wildlife.



String lighting can animate streets and spaces in a playful way

- ✔
  - Ensure consistency of lighting approach in adjacent areas
  - Consider lighting as part of wider wayfinding strategy
  - Consider use of special lighting in key locations
  - Ensure safe and appropriate levels of light
  - Playful statement light fixtures where appropriate, such as pavement or fountain lights
  - Lighting along watercourses and ecological areas which are sensitive to habitats
- ✘
  - Create structures for lighting that compete or overbear other public realm elements
  - Introduce harsh lighting which may cause glare or visual discomfort

## 2.5 Tree Planting

Tree planting can provide natural shelter and contribute to regulating urban micro-climates. For this reason, the inclusion of a tree planting scheme as a means of breaking up hardscape is recommended in all developments.

Proposed tree planting will need to respond to the capacity of the space. For example, Oxpens Road has the dimensions to introduce new trees. Improvements to the public realm around watercourses should seek to retain tree planting, even if constrained.



Tree planting can provide natural cover over spaces and help regulate urban micro-climates

- ✔
  - Retain existing trees where possible, especially those of good ecological and amenity value
  - Consider the need for permeable surfaces around existing trees
  - New trees need to consider the appropriate character and species with local ecosystems
  - Consider planting of hedges, shrubs and other kinds of plants where appropriate
- ✘
  - Forget that trees are alive and need air as well as reasonable levels of water
  - Ignore that trees need sufficient below ground space
  - Design tree pits without adequate rooting space
  - Plant trees too close to buildings without consulting a structural engineer
  - Fail to consider how planting will change with seasons and the effect this will have on space

# 2. DESIGN GUIDANCE: PUBLIC REALM

## 2.6 Materiality

Hardscape materials used throughout the public realm should be kept at the highest quality in line with surrounding context to ensure long term effectiveness and cohesiveness. Paving material solutions may work to make spaces more accessible for those with mobility issues. Principal public spaces, such as Frideswide Square and the emerging areas around Osney Mead and Oxpens, may make use of feature paving to create distinct hardscape.



Feature paving can be integrated into wayfinding strategies and help demarcate key destinations

Varied use of permeable paving surfaces with flow control creates visual interest



- Hard landscape should be durable and contextual
- Change in material should help to demarcate spaces
- Consistent approach to finish and colour
- Feature paving limited to key open spaces
- Paving options to be accessible for the elderly and disabled
- Safety surfaces in play areas
- Refer to the ground surface material palette found in the Oxford Street Scene Manual (2010)
- Use materials which are sustainably sourced

## 2.7 Signage and Wayfinding

A holistic wayfinding and signage strategy is needed for the wider West End. Clear and concise wayfinding may help integrate schemes into the wider city, especially around emerging developments. Strategic moments of increased building height to create landmark buildings may also be a key tool in wayfinding. A strong wayfinding strategy may announce and promote the West End as a destination. This will be particularly important in connecting Osney Mead and Oxpens with the railway station and the rest of the city centre.



Clear and unobtrusive signage which avoids urban clutter whilst conveying guidance information



Signage and wayfinding may be integrated into urban furniture and seating.



- Clear and concise signage in appropriate locations
- Use of building heights and landmark buildings for wayfinding
- Integration with digital connectivity and the Internet of Things
- Consider wayfinding elements as urban furniture
- Use wayfinding in key locations



- Wayfinding or signage that overwhelms or detracts from the character of the space
- Overcomplicate wayfinding
- Confuse wayfinding with forms of advertising

# 2. DESIGN GUIDANCE: PUBLIC REALM

## 2.8 Sport and Play

Colourful, light-hearted and well-designed sport and play facilities do not only benefit young people, but are a positive addition to any scale of public space. These uses can enliven the public realm and give people more access to varied and exciting forms of recreation, offering greater agency for children in urban spaces and providing opportunities to improve health and well-being for all.



Child friendly paving and playful design can create spaces that can be well-utilised by children and parents alike

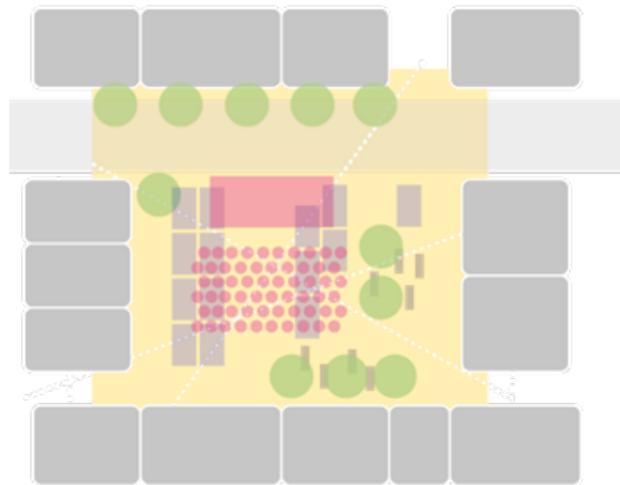


Well-designed and maintained multi-functional sports courts can be used for many different recreational uses

- ✔ • Mix informal playable space and formal equipped playable space
- Consider providing diverse kinds of play spaces, such as playgrounds, playing fields and skate parks
- Encourage child mobility by providing streets and spaces safe from vehicles
- Consider the integration of incidental or imaginative play into pedestrian streets
- Consider noise pollution when designating areas for play or sport
- A design must benefit everyone, regardless of age group
- ✘ • Locate play or sport facilities close to busy, car-oriented streets
- ✘ • Fail to consider the movement and occupation of parents and the movement of pushchairs
- Design spaces that are hard to access or removed from activity

## 2.9 Flexible Space and Meanwhile Use

A successful square is one that allows for multiple activities to happen. Urban furniture and trees should be located to allow flexibility of use and meanwhile uses. This can take many diverse forms and can bring spontaneity, dynamism and activity into public spaces. Meanwhile uses will be particularly useful in Oxpens and Osney Mead, which will help to animate targeted spaces.



- ✔ • Traffic calming measures
- ✔ • Integrated planting strategies
- Parking integrated into urban design
- Mix of uses along street
- Materials of space should be designed to be for multi-purpose users
- Meanwhile uses should be designed and implemented with or by community members
- ✘ • Overshadow the street with buildings
- ✘ • Propose large areas of parking perpendicular with street
- ✘ • Harsh lighting which may cause glare
- ✘ • Servicing and management plans not considered for curation of events in these spaces



Meanwhile uses can be integrated into a range of spaces and can unlock activity in less visited or underutilised areas

# 2. DESIGN GUIDANCE: PUBLIC REALM

## 2.10 Public Art

When thoughtfully implemented, public art can make spaces more vibrant and interesting. Public art should be undertaken by local artists whenever possible and pieces which celebrate local interests are preferable. Public art may accomplish functions other than just aesthetics, from creating new urban landscapes, to light features and seating.



Public art can be integrated into wider lighting strategies



Multi-purpose public art that doubles as a form of wayfinding and seating alongside being an artistic piece

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- ✔
  - Integrate public art within the form and fabric of public realm spaces
  - Collaborate with local artists and involve the community
  - Public art should encourage interaction to improve sense of ownership with visitors and locals
  - Respect scale of surroundings
  - Public art as a wayfinding strategy
  - Public art through lighting as a dynamic temporary or permanent installation
  - Pieces which invite playful interaction from passers-by
- ✘
  - Public art which is disrespectful of the scale and character of its surroundings
  - Incoherent public art that could become a maintenance burden
  - Overload the street with public art
  - Introduce sculptural pieces with no significance to Oxford or the West End

## 2.11 Inclusive Space

Design should allow for under-represented or minority groups, such as the LGBTQ+ community, to feel at home in all spaces. This should be the result of comprehensive engagement and research into local communities. Making all residents feel represented, comfortable and safe in a space is essential.



Public art can help communities feel more represented in the public realm. Subtle actions can make a great difference for resident groups

- ✔
  - Ensure public consultation and engagement phases of the planning process are representative and inclusive
  - Highlight and celebrate local history of under-represented groups
  - Community-guided arts and meanwhile uses allow users to claim ownership over spaces
  - Encourage community members to take part in curation of public spaces – from schools to particular interest groups
- ✘
  - Disregard community engagement or ending the engagement process after the planning phase

## 2.12 Accessible Space

Everyone engages with space in a unique way, suiting needs of those with disabilities, the elderly, and others is critical in planning for a successful space. 12% of Oxford's population has a disability of some kind (Local Plan 2036), whether visible or invisible, making the built environment suitable for these users will ensure spaces are easily accessed and feel equitable.



Accessible design can be integrated into effective and visually appealing forms

- ✔
  - Consider subtle but effective active pavement for the visually-impaired
  - Ensure public consultation and engagement phases of the planning process are representative and inclusive
  - Ensure all pavements are wide enough for wheelchair users
  - Well-positioned and frequent seating and urban furniture
  - Offer some vehicle access even in otherwise pedestrian priority spaces for disabled parking
- ✘
  - Clutter or make spaces hard to navigate
  - Cobbled or uneven paving that makes it difficult for people with disabilities to access
  - Disregarding community engagement or ending the engagement process after the planning phase

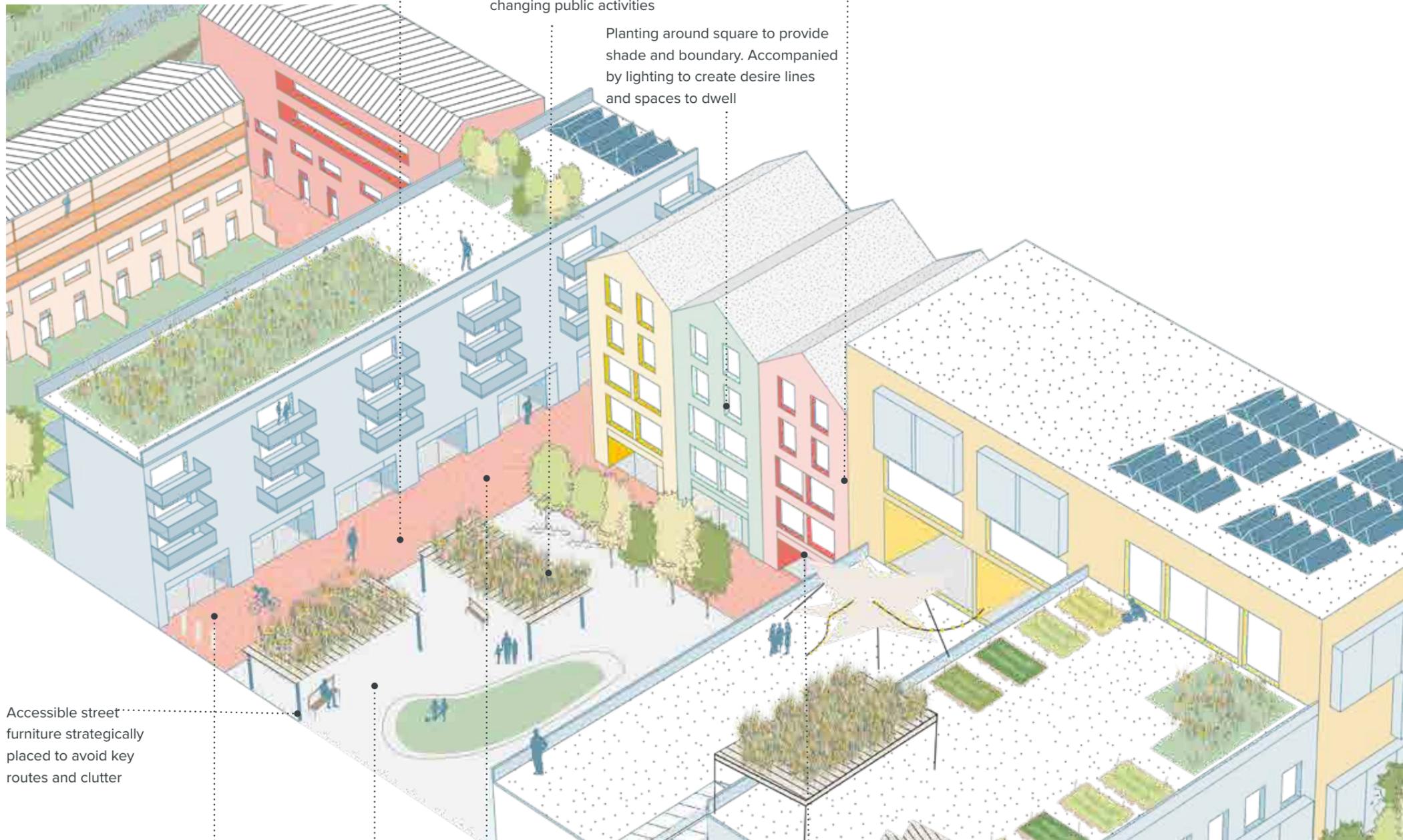
# 2. DESIGN GUIDANCE: PUBLIC REALM

Flexible spaces which can accommodate meanwhile uses and community members can take ownership over space

Open-ended structures to generate activity and animate space. Ability to support meanwhile uses and other changing public activities

Sense of scale and enclosure to define public space and conform to the human scale

Planting around square to provide shade and boundary. Accompanied by lighting to create desire lines and spaces to dwell



Accessible street furniture strategically placed to avoid key routes and clutter

Changes in hardscape material demarcate space and provide legibility

Opportunity for inclusive, community-driven public art and meanwhile uses

Priority given to pedestrians and cyclists with moveable bollards (on streets with restricted access for cars) to protect users whilst allowing essential access

Building entrances and active frontages along public space to animate square. Active ground floor uses offering spill-out space to create an inviting interface between buildings and public realm

# 3. DESIGN GUIDANCE: NATURE

This guidance details the importance of natural spaces. Nature and the city are not opposing forces; good design must integrate nature within urban environments to maximise the positive qualities of both.

Creating high quality natural spaces is more than an aesthetic consideration. Nature serves important functions and can offer tangible benefits, including the reduction of the urban heat island effect, better mental health for local people and flood mitigation. Protecting the West End's ecosystem will make it more resilient in the face of changing temperatures, weather events and other effects of the climate crisis.

Nature should be present in any design and this guidance will outline the different forms which it may take and good practice suggestions for implementation.

Nurturing and expanding biodiversity is essential in creating sustainable urban quarters. This involves the promotion of local species and natural growth over manicured planting. Maximising space for planting in urban settings, such as the installation of green, blue and brown roofs, is key.

## 3.1 Biodiversity and Local Ecology

The West End holds great ecological value with the River Thames running through the site and the green belt to the west. It is critical to preserve the special natural character and living ecosystems of the West End to ensure a healthy, resilient and biodiverse environment. This is especially relevant with potential development options emerging for Osney Mead which present an opportunity to create an urban environment which elevates the invaluable natural assets of the West End.



A habitat box provides shelter for insects pollinating surrounding flora



Green roofs can boost biodiversity by hosting native plants

- ✔
  - Consider designing for wildlife within public realm, landscape and architecture
  - Consult biodiversity specialists to aid design
  - Consider employing strategies such as insect or bat boxes to support living ecosystems
  - Maximise use of native species
  - Utilise vertical spaces utilised through incorporation of native climber species
  - Directional lighting and protection from light spill; no light sources positioned near artificial roost entrances
  - Utilise rooftop spaces for green, blue and brown roofs where ecology can flourish
- ✘
  - Overlook opportunities to introduce planting diversity
  - Assume habitat enhancement cannot be achieved in urban areas
  - Underestimate the benefit of small-scale interventions
  - Assume interventions have to be high cost or high maintenance

### Any development should:

- Consider how the sustainable treatment of water can enhance and complement public realm design
- Consult biodiversity and sustainability specialists in early stages

- Maximise the use of native tree and plant species in conditions that allow them to grow naturally
- Consider context when designing around the waterfront
- Support living ecosystems
- Protect plants and trees from harsh light or vehicular traffic

# 3. DESIGN GUIDANCE: NATURE

## 3.2 Sustainable Drainage and Flood Mitigation

Flood mitigation is a critical factor to be considered in any development in the West End. Increasing inclement weather will make the Thames increasingly prone to flooding in the future, exposing much of the West End's existing and future development assets. Osney Mead and Oxpens are particularly affected by flooding, and both public realm and the built form, will need to work hard to mitigate flood risk.



Sustainable drainage can be integrated into transport networks and existing streets in low impact ways



SuDs can be made visually attractive and add to existing landscaping strategies

A green approach to flood mitigation through SuDs schemes has the potential to dramatically increase the West End's flood resilience while simultaneously creating striking new landscape elements. Integration of flood mitigation strategies may also work to reduce flood risk to the point that a greater amount of land is developable.

Floodable landscapes could accommodate sports and recreation grounds and locating non-residential uses at ground floor (non-habitable rooms/spaces) will ensure minimised impact at times of severe flooding.



- Consider how the sustainable treatment of water can enhance and complement public realm design
- Consider contemporary approaches to green, blue and brown roofs
- Complement appropriate planting palettes with areas of water attenuation to create biodiverse, attractive landscapes
- Undergo comprehensive analysis with engineers to understand the best approaches to design
- Integrate SuDs into wider landscape vision for sites
- Extensive green roofs should be incorporated where possible
- Underground storage tanks should be arranged as to not impact ability for future planting



- Forget the appropriateness of interventions against their context
- Features which may offer danger through unexpected trip or fall hazards
- Forget the role trees and tree pits can play in attenuating water

## 3.3 Community Urban Farming

Activities which draw people closer to nature are effective in instilling long lasting environmental stewardship, raising interest in the preservation of the natural environment. Urban farming can be instrumental in initiating sustainable methods of food growing and can be undertaken on roofs and other excess spaces.



Community farming is a popular activity that can be undertaken in a variety of urban spaces such as parks (left) and roofs (right)



- Signposting and information points informing of local ecosystem and species
- A community driven process
- Facilities for the communal storage, access and maintenance of resources, such as work sheds and water hoses
- Utilise rooftop spaces for food growing
- Consider contamination risks when choosing land for urban farming
- Consider solutions such as raised planters and fresh soil where contamination is detected



- Fencing or barriers prevent public access to gardens
- Fail to consider access to reliable sunlight and water

# 3. DESIGN GUIDANCE: NATURE

## 3.4 Greener Streets

Tree planting is an effective tool for creating greener streets. This increases the overall green footprint of an area, making it more visually attractive and introducing resilience in the face of the climate crisis. When designing planting strategies, care must be taken to ensure that trees fit within the broader ecological profile of the area and that they are given sufficient space to grow. Greening strategies may be most effective on existing streets which deal with issues of pollution and poor pedestrian interface, such as Oxpens or Botley Road. Tree planting may also indicate different street hierarchies, from boulevards to mews.



Shady and protected pavements align with trees and street furniture



Residential amenity space with a focus on planting

- ✓ • Ensure that street trees are well-integrated into design
- ✓ • Consider tree pit details which allow trees water and air
- ✓ • Discuss proposals with tree officer or other suitable expert to understand how trees can best work for your site
- ✓ • Give adequate room for trees to grow above and below ground
- ✓ • Protect trees and tree pits from vehicular movements
- ✓ • Consider the benefits of planting large species trees
- ✓ • Undertake arboricultural surveys to identify and retain good quality trees
- ✗ • Forget that trees are alive and need air as well as reasonable levels of water
- ✗ • Ignore that trees need sufficient below ground space
- ✗ • Design tree pits without adequate rooting space
- ✗ • Plant trees too close to buildings without consulting a structural engineer

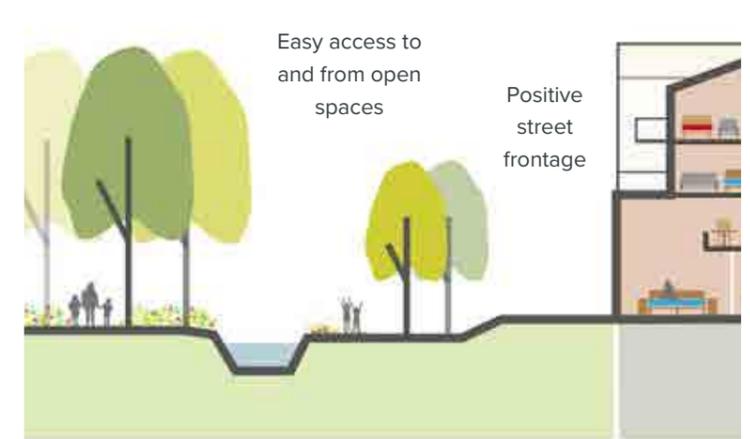
## 3.5 River and Green Belt Interface

As the green belt and River Thames are key assets, their design treatment requires special attention, especially development sites which back on to or lie in close proximity to them. New developments would benefit immensely if designs consider positive and active interface along these edge conditions.

The riverfront holds fewer special protections than the green belt and provides opportunities for public realm activation, though the protection of natural ecosystems remains of great importance. The statutory regulations protecting the green belt's special character require a much less animated treatment in comparison.



River frontage



Green belt edge

- ✓ • Decide appropriate treatment based on level of activity
- ✓ • Consider activation of waterfronts through pedestrian and cyclist pathways and active frontages
- ✓ • Allow for spaces to easily moor and store watercraft
- ✓ • Sensitivity to green belt and other green spaces being of a different character to the urban environment
- ✗ • Produce excess light, noise or activity onto green belt or other natural landscapes
- ✗ • Concrete or other non-porous embankments that inhibit natural growth and limit biodiversity
- ✗ • Design traffic heavy roads in close proximity



Even former industrial sites with little biodiversity may be transformed into green and vibrant places through planting and rewilding strategies. Through careful design, riverfronts may be returned to their former states

# 3. DESIGN GUIDANCE: NATURE

Swales align with roads to provide enjoyable walking experience and to double as a movement route

Green, blue and brown roofs maximise planted space and increase biodiversity

Integration of floodable landscapes and SuDs into public realm design. Naturally planted parks with reed ponds are visually attractive and offer natural flood defence alongside other biodiversity benefits



Natural reed planting along swale provides natural interface and water absorbency

Communal roof gardens allow for sustainable food growing and food self-dependence

Integration of recreation and play infrastructure on rooftop spaces

Planting of native tree species in appropriate locations with sufficient room for healthy root growth to increase urban greening and resilience

# 4. DESIGN GUIDANCE: BUILT FORM

Buildings should be of the highest quality and this section provides guidance on appropriate scale, massing, roofscapes, the mixing of uses, densities and frontages in the context of the Changing Areas of Character.

## 4.1 Heights

Oxford is particularly renowned for its spires and iconic skyline. Development within the West End must protect the character of existing views and enhance them. Policy DH2 (Local Plan 2036) sets out requirements that developments need to achieve.

Of particular relevance the Local Plan states that within 1,200m of Carfax Tower all buildings should not exceed 18.2m except if justified as required by Policy DH2; and that proposals within the viewing cone of Raleigh Park need to be sensitively considered. If development is above this height, it must be limited in bulk and of good design quality. The Oxford High Buildings Study (2018) specifies more contextual height parameters based on location; these specifications should be followed closely.

The West End offers several opportunities for sensitive yet statement moments of built height to add fresh additions to Oxford's 'dreaming spires.' Any application must make every effort to understand the visual impacts of a scheme and determine if the impact to the skyline is net positive or negative. This will require in-depth technical guidance from heritage experts. Further detail on heritage concerns in Oxford can be found in the Local Plan and the Heritage section of the Spatial Framework.

Key strategically chosen moments of height within Osney Mead and Oxpens may help to signify it as a vibrant mixed use neighbourhood. Well chosen height within the Station Gateway character area and Speedwell Street character area could also help to signify them as a proper gateways



Strategic use of building height can add interest to an urban block and mark prominent areas of public realm and aid in wayfinding through neighbourhoods



- Use building height as a wayfinding strategy and to signify a moment of activity or gateway
- Propose massing that positively contributes to Oxford's 'dreaming spires' and the city's long distance views
- Use height sparingly and consider using height to break up massing in buildings and urban blocks
- Maintain roof outline details in character with surrounding context
- Develop verified views for new designs and schemes to test how they respond to constraints and context



- Overshadow the public realm and fail to consider impact on sunlight of buildings
- Propose heights that are out of character with Oxford
- Building height that disrupts the sense of human scale for an observer on the ground
- Propose building heights that long and short distance views which are important to Oxford's unique skyline and overall character

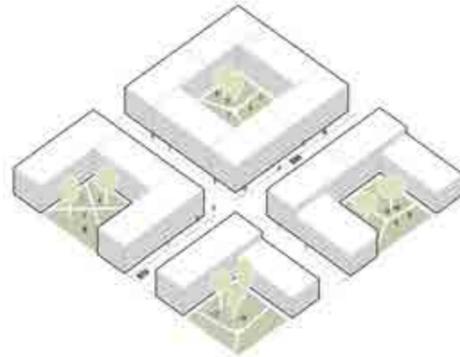
# 4. DESIGN GUIDANCE: BUILT FORM

## 4.2 Densities

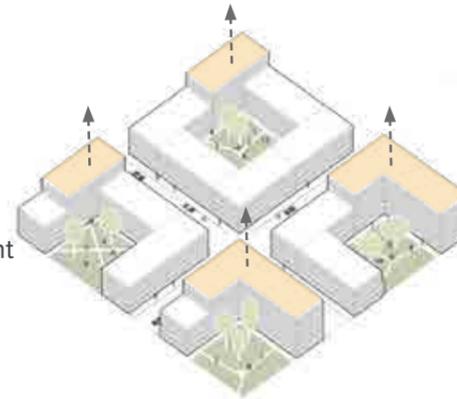
Policy AOC1 (Local Plan 2036) envisions the West End and Osney Mead as high-density urban living quarters that make efficient use of land. A range of densities, design approaches and urban typologies will need to be considered for the various Character Areas of Change.

Three levels of density have been identified.

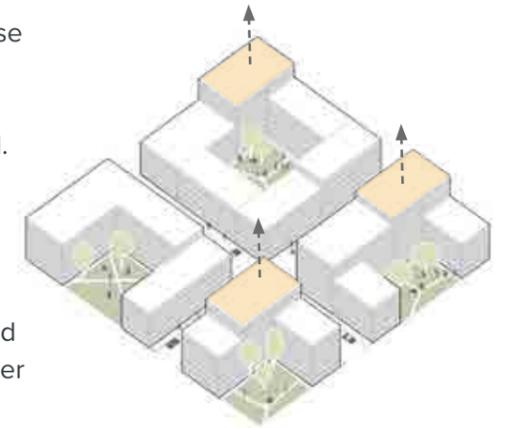
**Medium:** urban block parameters which are 2-4 storeys with larger external spaces. Larger floor plates can be incorporated within these blocks, depending on the uses which need to be accommodated.



**High:** tighter urban blocks which are approximately 4-6 storeys high. There are multiple examples of newly consented schemes in Oxford city centre - redevelopment of the Clarendon Centre, Northgate, redevelopment of Gibbs Crescent and Premier Inn.



**Maximum:** blocks which maximise development potential and are at key moments. These could potentially be over 5 storeys tall. No existing precedents found in Oxford City Centre. Careful design and sensitive planning for the location of these taller moments is essential. They could be developed as part of the wider West End wayfinding strategy.



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Medium density living with town houses and maisonettes



Commercial units at ground floor with employment above



Northgate: a tight perimeter block creates high density student flats, teaching space and commercial units



Gibbs Crescent significantly increases the density of the site



Upper floors increase density whilst minimising impact on street



Marker buildings could be bespoke single use buildings, such as this Energy Hub, whilst also aiding wayfinding

Medium density will be appropriate for many development sites, especially locations which sit adjacent to heritage and existing low rise buildings. For example, the redevelopment of Speedwell House in the Speedwell Street character area will need to be sensitive to the adjacent buildings on St Aldate's.

Osney Mead may need to accommodate non-residential functions that use more space, with possible opportunities for housing at upper levels. This could be situated adjacent to the green belt, providing a sensitive urban-rural edge. Consideration of impact on viewing cones is also essential and may require lowering of heights and density in key areas.

High density blocks will make up the bulk of the development sites coming forward. Fulfilling the need for different uses and limiting height under the 18.2m set out within the Local Plan 2036 allows for tight perimeter blocks which accommodate a multitude of uses. Existing examples of these are the redevelopment of Northgate and Clarendon Centre.

This level of density at Osney Mead, Oxpens, the Nuffield sites and Beckett Street car park is expected to be in this region and will help deliver the vision set out within Policy AOC1 (Local Plan 2036).

Maximum densities will only be considered in certain locations and will need to be justified for place-making. As the Local Plan (2020) states, development exceeding the 18.2m limit will need to be limited in bulk and of high design quality and justified as set out in Policy DH2. Extensive justification of blocks higher will be required and all relevant guidance for listed or other heritage buildings must be followed.

This level of density will need to be in very limited locations. Proposals will need to demonstrate impact on existing buildings and spaces; need for density and height for legibility and fulfilment of Local Plan requirements.

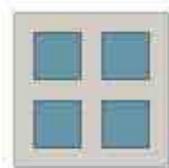
# 4. DESIGN GUIDANCE: BUILT FORM

## 4.3 Urban Block Typologies

Different block typologies and innovative configurations of uses will be needed to satisfy the varying needs of development sites within the West End. These typologies respond to and distribute massing in different ways. The applicability of these typologies is dependent on site context, existing built morphology and urban grain.



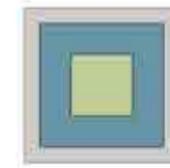
Individual blocks are more applicable for constrained sites and may include infill development. Individual buildings stand alone but should be integrated into the surrounding context with careful consideration given to the spaces between buildings. This typology offers no dedicated interior amenity space, such as courtyards, and relies more heavily on the public realm as its primary setting. Individual buildings could also be placed in strategic locations where height or marker buildings are permissible. However, the relationship to context and surrounding buildings should be carefully considered when designing these.



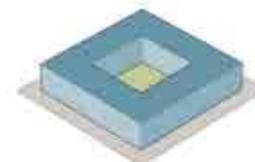
Individual block typology



Courtyard or perimeter blocks create a continuous building line around the boundaries of an urban block and contain shared space within. Courtyard blocks can vary in size and shape, and careful consideration is needed to ensure good levels of sunlight are achieved within the interior courtyard. Should the urban block be completed developed at ground level with larger non-residential functions, raised courtyards in the form of podiums are possible.



Courtyard (perimeter) block typology

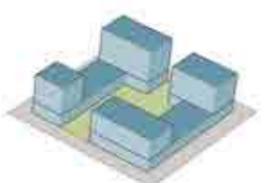


The courtyard block creates a clearly defined distinction between the public realm of the street and the private realm of the courtyard. The dynamics of these spaces must be closely refined to avoid an inward-facing building or an inactive interior space which cannot be accessed or used effectively by residents.

Hybrid blocks combine the characteristics of courtyard and individual block typologies; they offer more plot flexibility as they are not made up by a continuous block. Hybrid blocks offer opportunities to introduce height at prominent points. This creates a building that is both visually interesting and capable of meeting ambitious floor space targets while minimising its footprint at ground level. The hybrid block can also provide secondary access routes through the site. Therefore, ground floor uses should be carefully designed to create active and animated frontages along the external perimeter and the internal route.



Hybrid block typology



The more open nature of the block means that its amenity space will be more outward-facing than that of the courtyard block. This offers opportunities to integrate this semi-private amenity space within the broader public realm. Hybrid blocks are generally the preferred option for development in Oxford,

# 4. DESIGN GUIDANCE: BUILT FORM

## 4.4 Massing

Massing of buildings will need to vary considerably across the West End, depending on the land uses needed. How different scales and uses sit together and how these interface with the public realm will be particularly important.

The Osney Mead and Oxpens character areas will need to accommodate some 'big box' typologies for labs, university buildings and light industry. These buildings will need to be sensitively designed to ensure a good street frontage. Considerations of how different scales of buildings (for example, large floor plates for non-residential uses like labs or research spaces, with smaller footprints of residential and/or offices above) sit together will also be crucial.



Ensuring buildings retain scale of streets around them



Softening large buildings with active frontages and façades broken up by windows



- Ensure the bigger buildings have as active a frontage as possible, alongside some signature elements that enliven the street scene. This could be an active use, such as a café, shop or entrance point, or could be windows which allow the internal activity to spill out onto the street scene.
- Make internal uses visible to public realm to add interest
- Create a more intimate scale to the public realm by using urban street trees
- Relative consistency of vertical scale, with only selective moments of height which have a purpose



- Avoid large, blank façades on main walking routes
- Massing doesn't consider scale of street and level of enclosure needed

## 4.5 Mixing of Uses



In order to fulfil the ambitions of the West End to be a Global Innovation District, a wide range of viable and compatible mix of uses are needed. These need to be mixed both vertically and horizontally where possible.

A compatible mix of land uses is desired in most buildings to maximise the efficiency of land usage and to create vibrant and multi-functional spaces. However, care must be taken to ensure uses do not conflict with considerations of noise, activity and infrastructure needs. Existing and new uses should be identified to properly plan for the nearby and efficient provision of services for the community. The types of uses employed at ground floor level should be designed in close alignment with the intended character of the public realm around it.

Despite large amounts of employment use the Osney Mead and Oxpens character areas will need to work hard to mix uses appropriately - it will need to strategically inject food and drink, shops, leisure and community facilities, as well as mix employment types. Also, with large amounts of residential being delivered within the West End, the juxtaposition of homes with other uses will need to be carefully designed.



Spill-out space for cafés and restaurants



Community workspace below homes



Repurposing buildings to expand uses can revitalise former industrial areas



Integrate retail and other non-residential uses into neighbourhoods



- Create non-residential uses at the ground floor with residential or employment above
- Consider the surrounding character when determining the applicability of different uses
- Allow for space for ground floor uses to spill out into the public realm such as café seating
- Integrate residential entrances into commercial frontage
- Deal with servicing sensitively as to not negatively impact public realm
- Architectural detailing provides a strong relationship between different uses
- Ensure the mix of uses creates a 24-hour place, with some busy in the day and others in the evening



- Strategically design to avoid negative externalities of different uses affecting each other (e.g noise, smells, anti-social behaviour)
- Avoid a monoculture of uses which feels like a 'campus style' of development
- Fully understand needs and requirements of individual uses - not duplicating areas of use which could be shared between compatible functions

# 4. DESIGN GUIDANCE: BUILT FORM

## 4.6 Active Street Frontage

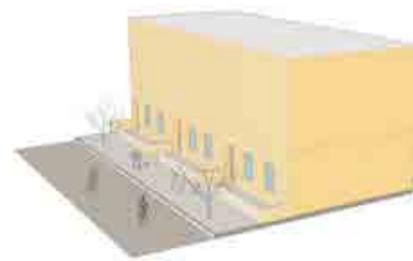
Having an active building street frontage does not necessarily have to do with the land use at ground floor level. A poorly designed building with retail at the ground floor may nonetheless have inactive street interfaces and, inversely, a building that has office space at ground level may contribute positively to the street interface thanks to good design.

Buildings with façades that are obscured through a lack of windows or advertisements, breaking street character, are in effect dead frontages. Buildings which offer either visual or physical permeability through the design of human scaled, welcoming ground floor façade design can contribute to vibrant street life.

Residential building frontages can also become active through good design. Positioning residential entrances along the street invites activity and establishes the street as the first point of contact between the public and private realm. Residential entrances off major streets should have thresholds such as front gardens. On narrower streets, front doors could directly open onto the street front.



Active street frontage at the ground level with entrances and animated façades



Residential street frontage with entrances and front gardens to street edge



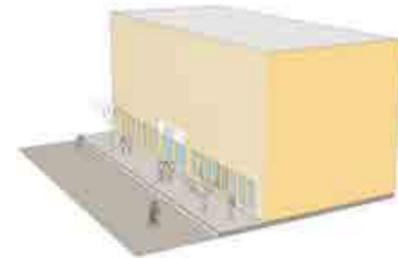
Street frontages that project activity from within the building onto the street



Individual residential entrances activate the street scape



- Frontages that retain a human scale, maintain the rhythm and align with the architectural style of existing buildings and their ground floor treatments
- Large windows allowing view from outside of activity within buildings - creating interaction between the street and interior worlds
- Offer a range of different sized commercial units - varying in depth and width with flexibility to combine or break down units
- Given the flood risk issues in the West End, create opportunities for residential uses above non-residential uses at ground and lower storeys



Inactive façades at the ground level with long spans of blank walls



This retail unit presents a blank façade at ground level



This multi-storey retail unit visually overwhelms the street scape and offers little interaction with the street



- Multi-storey shop frontages which do not interact with the street scene
- Frontages (including their signage) that detract from the existing rhythm of shop frontages or use materials and styles that are out of character with existing development
- Obscure ground floor windows through advertisement
- Repeat the same elevation along a continuous street or public space
- No consideration for servicing entrances and/or areas such as bins storage, energy centres etc, which can create blank walls along key movement routes

# 4. DESIGN GUIDANCE: BUILT FORM

## 4.7 Roofscape

Utilisation of rooftops is essential in an urban area such as Oxford where land is limited. Roof spaces provide a real opportunity to support biodiversity, mitigate flood risk, improve building insulation and thermal efficiency, and provide amenity space for communities.

Furthermore, with Oxford having many long distanced views into the city - Raleigh Park and Boars Hill being of particular relevance - the appearance of the roofscape from afar is important. Policy DH2 in the Local Plan 2036 asks proposals to ensure a positive contribution to the roofscape. The Assessment of the Oxford View Cones (2015) highlights the opportunity to improve long distance views from the west. It suggests that the existing industrial estate's roof surfaces could be amended, using darker or less reflective material, and tree planting could be used to break up the area.



Top left: Roofs may be utilised for community gardening and other activities for residents. Bottom left: High quality children's play equipment on the roof of a residential building. Top right: A blue (floodable) roof helps to mitigate flood risk. Bottom right: There are opportunities to construct structures on rooftops to support community activities such as farming



- Consider the use of rooftops as communal areas or private amenity space
- Consider promoting biodiversity, ecology and rainwater harvesting on roofspaces
- Roof-mounted photovoltaics (PVs) can be integrated with green or biodiverse/brown roofs
- Variety in the roofscape through a mixture of flat and articulated roofs
- For any green or blue roof, provide safe and convenient access for maintenance from the building



- Consider homogeneous sedum roofs as high quality solutions to green roof opportunities
- Underestimate the impact of overlooking unsightly ballast cover roof spaces
- Homogenous roofscape design which does not provide variety and is jarring in relation to surrounding context

# 4. DESIGN GUIDANCE: BUILT FORM

## 4.8 Affordability and Tenure Mix

As set out in the Local Plan 2036 (Policy H2 and H3), affordable housing is a key priority and as most development sites will be providing above 10 new homes, 50% of 'truly affordable' homes need to be achieved. Affordable workspace and commercial units will also be required to attract the right mix of start-ups to long established bigger businesses.

Proposals will also be expected to deliver the right mix of housing and will need to demonstrate how the mix has regard for local housing demand (Policy H4, Local plan 2036). As site-specific policies suggest this can be a mix of market housing, employer linked housing and student housing. A diverse mix of housing sizes, types and tenures will be essential in promoting communities which are mixed and vibrant.



Tenure blind housing must maintain high quality design regardless of ownership or tenancy type. Integrating housing into existing contexts is important in promoting mixed and cohesive communities

- ✓ The development must appear 'tenure blind' from the public realm. This includes location and style of homes and communal entrances, and elevation treatment.
- As set out within Policy H15 (Local Plan 2036) and the Nationally Described Space Standards, proposals for market and affordable housing must comply with space and quality standards.

## 4.9 Residential Amenity Space

As set out within Policy H16, high quality amenity spaces of different sizes and characters should be included in any new build. Each home should be allocated a balcony, garden or roof terrace, depending on size and building typology. There is a great opportunity within many of the West End development sites to take advantage of long views from balconies and terraces over the green belt, Oxpens Meadows, waterfronts and Christ Church Meadows.



Left: Interior courtyard space which provides high quality landscaping, opportunities for play and rest, and good sunlight access for residents. Right: Creating a cohesive balcony strategy which combines types of balconies and responds to façade designs

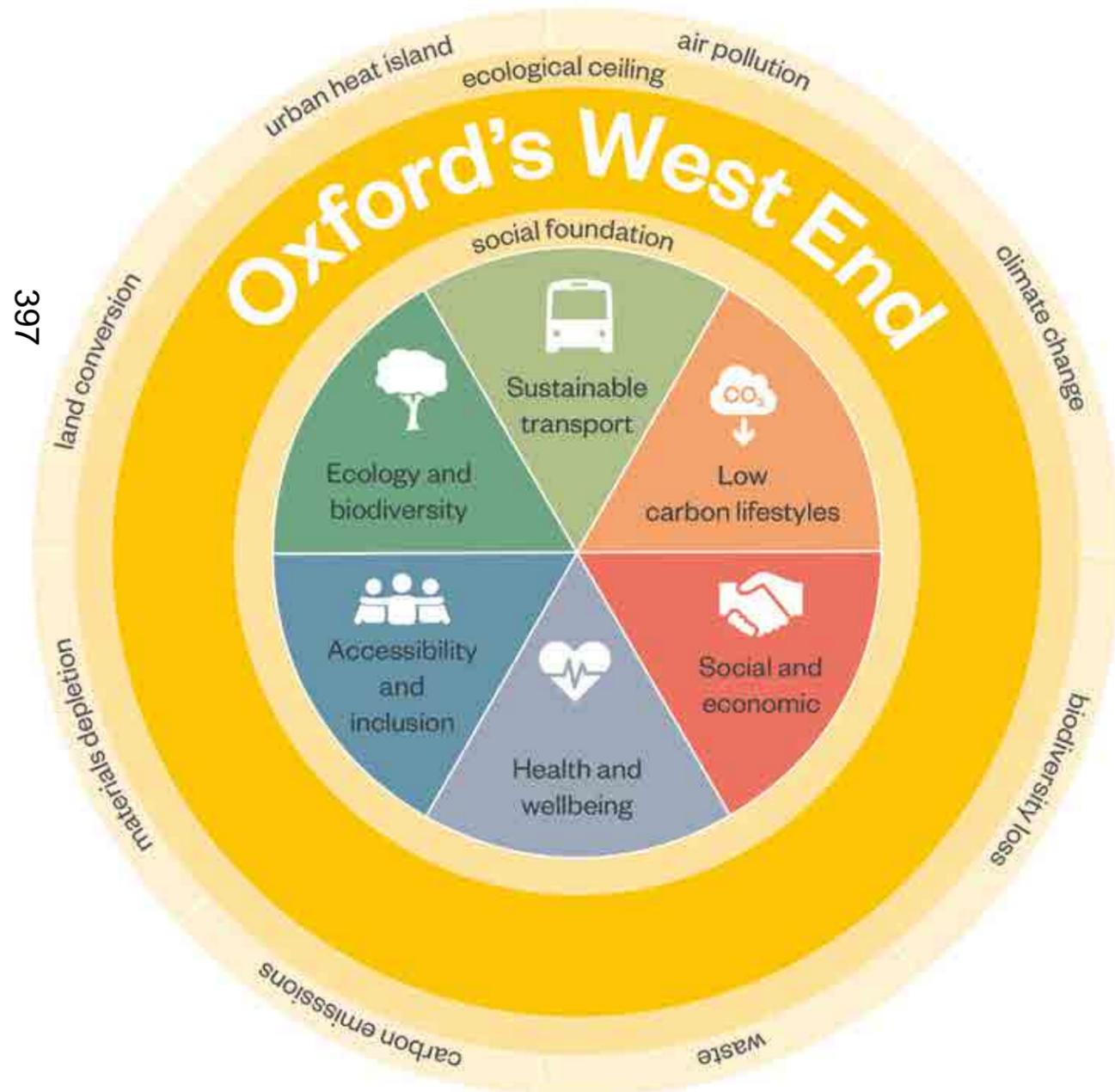


- ✓ Ensure size of private amenity space meets policy requirements based on typology
  - Consider the provision of communal amenity space that is secure and well-overlooked
  - The balcony strategy should consider context, character and typology
  - Carefully consider sunlight when designing amenity spaces
  - Space must meet Secure by Design standards
- 
- ✗ Fail to provide appropriate boundary treatment for homes at ground floor level
  - Balconies which detract from the overall character of the building
  - Amenity spaces which are often in shade or do not receive sufficient natural sunlight

# 5. DESIGN GUIDANCE: ROUTE TO ZERO CARBON

## 5.1 Strategic Scale

At the start of 2019, Oxford City Council declared a climate emergency and became the first city council to hold a citizens' assembly on the issue. This ambitious approach has meant creating an action plan and roadmap for Oxford to reach net zero carbon emissions by 2040. This objective must be integrated into all elements of the built and natural environment, and at all stages of work - from setting the brief to construction. At a strategic scale the themes highlighted here unpick the essential ingredients every proposal must consider from early inception stages of the design and delivery process.



## Ecology and Biodiversity

Ecology and biodiversity are critical elements of a city and help to tackle climate change. Oxford's West End has a number of opportunities to mitigate the significant flood risk, attract particular habitats and beautify the city.



- Integrating ecology and biodiversity at a range of scales - from landscape-led masterplans to the design of streets and public realm
- Creating multi-purpose urban greening which provide spaces for biodiversity, amenity for communities, play and flood mitigation
- Retain and plant street trees
- Use rooftop spaces for green, blue or brown roofs
- Integrating SuDs, swales, rain gardens and rills to address flood risk and enhance local ecology



## Sustainable Transport

Shifting to sustainable travel will be essential in reaching net zero. Development proposals must contribute the wider Spatial Frameworks vision for sustainable movement and encourage active travel.



- Proposals must put in place good quality walking and cycling routes that link up with wider networks
- Minimise car parking and creating car-free streets to de-incentivise people from owning a car
- Realise the opportunity to enhance access to the bus network and accommodating future changes in mobility
- Create a rich mix of uses within 15-minute neighbourhoods
- Maximise density of development and mix of uses to minimise the need to travel outside the local area



The Mobility Pyramid, SHARE North project

# 5. DESIGN GUIDANCE: ROUTE TO ZERO CARBON



## 5.2 Low Carbon Lifestyles

Changing daily behaviours of communities and mindsets at multiple scales, from the home to a wider neighbourhood scale.



- Design buildings which have a strong sustainable agenda (e.g Passivhaus design) to reduce embodied and operational carbon
  - Encourage of local independent shops and services which have a local supply chain
  - Put the infrastructure in place to shift to sustainable transport - promoting walking, cycling and public transport
  - Proposals that promote a circular economy: reuse, recycle and renew
  - Harvest rainwater - from individual buildings to wider neighbourhoods
- Create developments with a density mix of uses which minimises the need to travel outside the local area



## 5.3 Health and Well-being

Promoting restorative places which support and promote mental health and well-being is imperative to our cities. This requires thought at both macro and micro scales into how we can make places more inclusive, green, blue, playable, active, neighbourly and sensory.



- Ensure routes and spaces are legible, safe and minimise stress
- Promote places for physical activity
- Design spaces for arranged and spontaneous social interactions
- Consider culture and social norms of users within design of spaces
- Create spaces and buildings which have a strong contact with nature - green spaces, food growing, planting, good daylight levels
- Consider the soundscapes of the space: minimise noise with negative impacts on health and promote positive sounds
- Easy access to local facilities and health services



## 5.4 Social and Economic

Understanding the social and economic networks of an area is essential for growing places and proposing the right mix of land uses, their location, how they are mixed and relate to the public realm.



- Utilise meanwhile uses which bring activation to a space, engage the community and help to change perceptions of a place
- Promote community-led arts and culture
- Meaningfully engage with key local community and business leaders
- Relocate businesses to appropriate locations or repurpose existing buildings for suitable new uses
- Promoting community stewardship



## 5.5 Accessibility and Inclusion

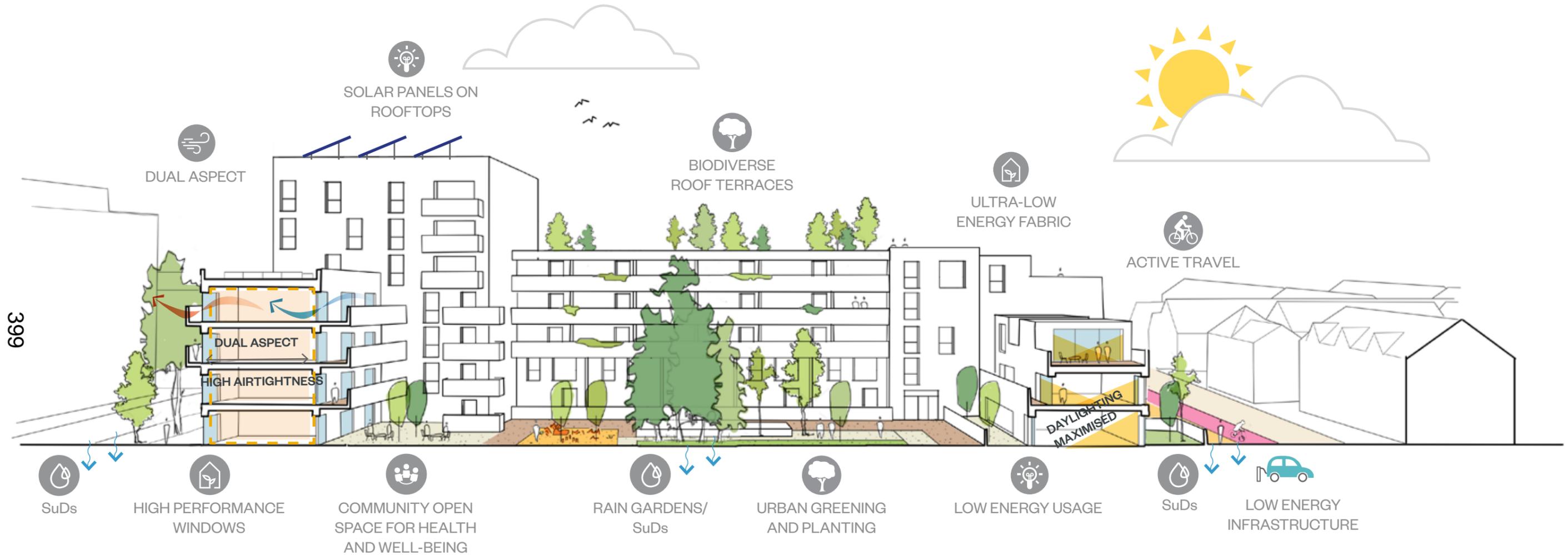
Designing a place truly for all, demands that the processes, tangible and intangible parts of a place are inclusive and accessible. This means thinking about how to authentically involve different demographics.



- The need to understand the users' needs and preferences
- Genuine stakeholder and resident engagement is essential
- Promote mixed and tenure blind housing
- Ensure the provision of mixed and diverse neighbourhoods
- Easy access to all play, recreational and public spaces
- A diversity of public spaces to cater for all preferences



# 5. DESIGN GUIDANCE: ROUTE TO ZERO CARBON



The development will encourage low and zero carbon lifestyles through ultra-low energy fabric, water-saving devices, efficient low carbon heating systems and increased biodiversity.



The building form, dwelling orientation and window sizes will be optimised. The fabric will have high levels of insulation and high air tightness to target low running costs for the life of the building.



The development will introduce dual aspect units wherever possible to establish natural cross ventilation and daylight.



Careful consideration of the buildings orientation will promote good levels of daylight, natural cross ventilation, reduction in overheating and views for the resident.



Renewable energy generation and low carbon energy supply, such as mechanical ventilation with heat recovery (MVHR) and air source heat pumps (ASHP), will result in a lower impact on the environment.



By taking a whole life approach, the carbon impact of all building life stages will be evaluated and reduced, embedding low-carbon, local materials and creating buildings that are robust, adaptable and designed for deconstruction and reuse.

# 5. DESIGN GUIDANCE: ROUTE TO ZERO CARBON

## Three Steps to Zero Carbon Buildings

- 1  Target ultra-low energy fabric and passive design
- 2  Add a heat pump
- 3  Add solar panels on site



## Low Energy Design



Free heat in winter from solar gains with predominant façades facing south and limited overshadowing



Simple building form for the warm spaces with a low exposed surface area



Sustainable materials which produce less carbon or sequester carbon emissions



High levels of insulation

## Policy Context

- The Oxford Local Plan 2036 aims to reach net zero carbon by 2030 and lays out clear steps to reach this goal
- Currently, any new development is required to meet a 40% reduction in present emissions. This requirement will increase to 50% in 2026 and by 2030 only net zero development applications will be accepted (Policy RE1)
- New development is expected to incorporate sustainable design and construction principles to reduce carbon emissions and undergo regular monitoring for carbon performance

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## Fabric - First Approach



An extremely airtight building fabric



Significantly reduced thermal bridges



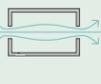
High performance triple-glazed windows with proportions that are based on orientation



## Heat Recovery and Ventilation



Openable windows for natural purge ventilation, with the ability to cross ventilate



Dual aspect interiors where possible to establish natural cross ventilation.



Efficient background mechanical ventilation with heat recovery (MVHR)



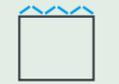
## Renewable Energy



A net zero energy balance is achieved when the amount of renewable energy generated matches the energy used



Roof design that maximises energy generation, for example: having a south-facing array on asymmetric pitched roofs



If flat roofs are used, having an east-west concertina array captures maximum sunlight as the sun moves across the sky

# SUMMARY

Oxford's West End is expected to undergo significant change over the next decades. A coordinated effort between the council, developers and other stakeholders is necessary to maximise the areas great potential. High quality design of spaces and buildings within the West End will be essential to realise the overarching vision for this extended quarter of the city. While much of the West End's spatial change will be undertaken through several separate, key developments, a unifying baseline of design principles as set in this Design Guide are recommended as a good starting point for developing individual designs and site-specific strategies.

Sites such as Osney Mead, Oxpens and others must follow the guidance within this document which pertains to all relevant aspects of good design - including movement, public realm, built form and sustainability. It is important that this guide is read alongside all other relevant policy documents, including the Local Plan. This Design Guide is intended to be read in conjunction with the West End Spatial Framework, which expands on many of the overarching themes presented in this guide.



