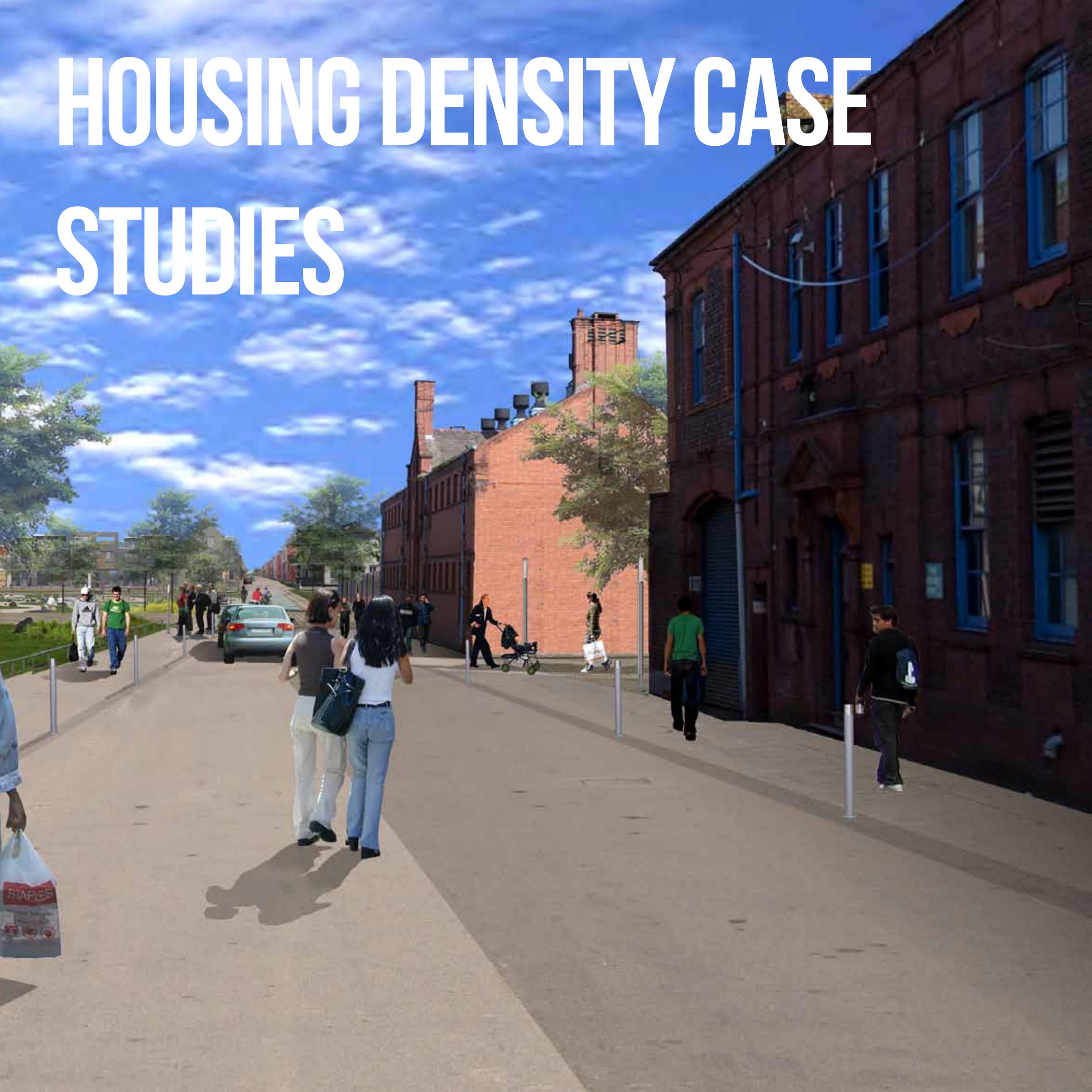




# HOUSING DENSITY CASE STUDIES





# 40U/HA



- 1. Phase 1, Upton, Northampton
- 2. Almere New Town Holland
- 3. Vivehausen scheme in Holland S333 Architects
- 4. Telford Millennium Community (URBED Masterplan)



# 70U/HA

- 1. City Point Brighton (URBED Masterplan)
- 2. Borneo Quay, Amsterdam
- 3. Dagenham London - Architect Peter Barber
- 4. Western Harbour Malmö
- 5. Western Harbour Malmö



# 120U/HA



- 1. Western Harbour Malmö
- 2. Temple Quay Bristol (URBED Masterplan)
- 3. Hammarby Stockholm
- 4. Hammarby Stockholm

The submitted regulatory plans identify the location of residential development within the site and identify the density range, which each residential zone will achieve:

### Low Density

The low density zones are 40-50 dwellings per hectare consisting of 2/3/4 bed semi-detached housing and short terraces of housing with gardens and in-curtilage parking (upper end of suburban density).

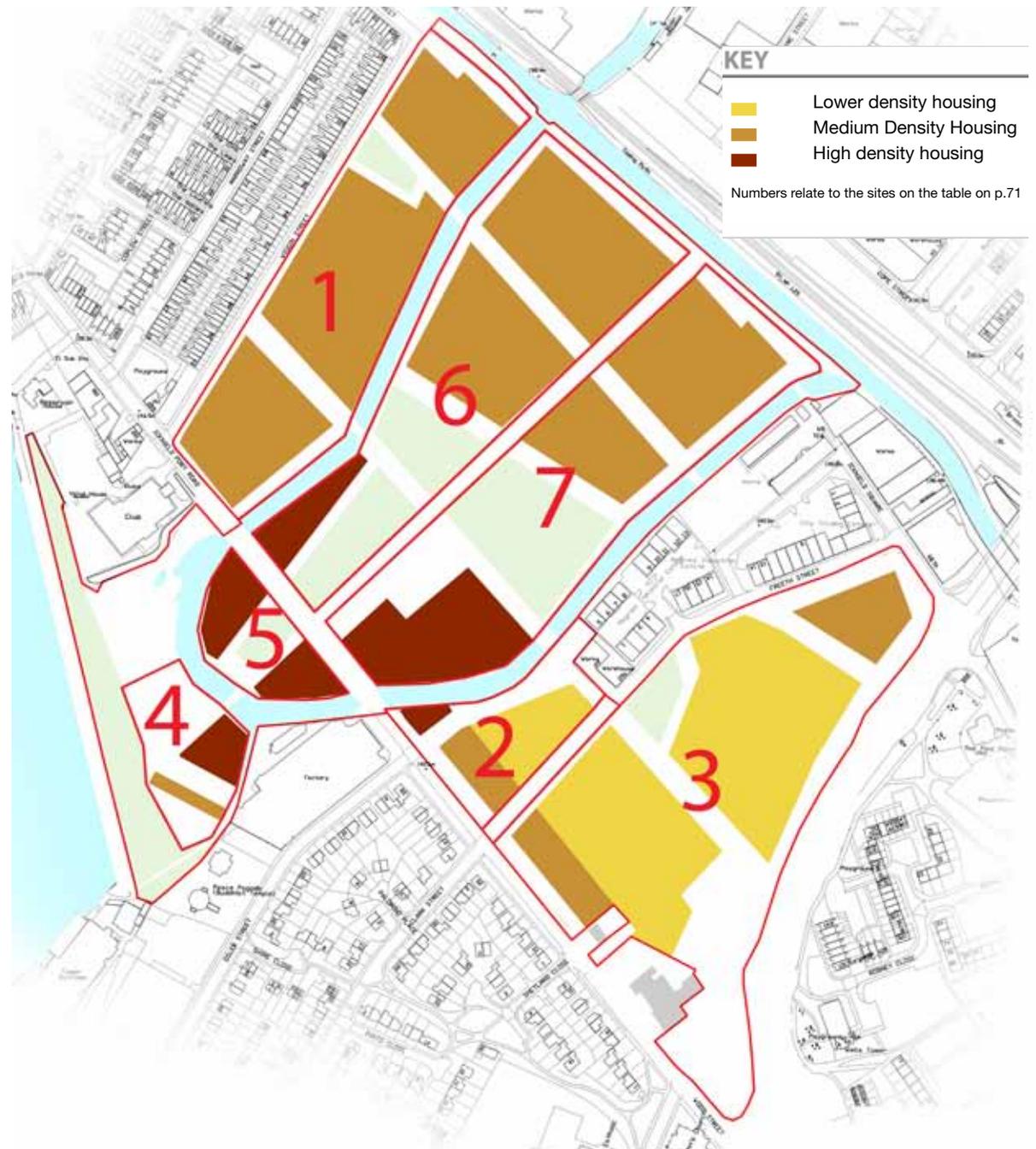
### Medium Density

The medium density zones are 65-75 dwellings per hectare consisting of 2/3/4 bed terraces, courtyard and mews houses (equivalent to typical Victorian terrace)

### High Density

The high density zones are 120-160 dwellings per hectare consisting of 1/2/3 bed apartments and 2/3/4 high density courtyard houses. In this density range 1 & 2 bed apartments, account for 60%, which the joint applicants have not included within our definition of family housing but contributes to a balanced housing mix and community.

The Illustrative Masterplan includes 2, 3 and 4 bed family houses which equates to 82% of the indicative housing mix and the remainder 18% consisting of apartments. The Design and Access Statement has been expanded to include precedent case studies to demonstrate the different character of each area within an urban context and comparative studies of densities with other desirable parts of the City and other UK examples for family living within an edge of City urban context. E.g. Upton Urban Extension in Northamptonshire.



### Upton, Northampton

Client: English Partnerships  
Architects: EDAW

After Northampton was identified for major expansion, former farming land at Upton was acquired by Northampton Development Corporation. Outline planning permission was granted in 1997 for a conventional scheme based on the current car-dominated paradigms – cul de sac off distributor roads and local services located in the scheme's centre. In 2001, a radically different plan for a sustainable community was prepared using a design code. Major differences included a network of connected streets with a spinal high street, and shifting local services to the urban extension's edge to link with neighbourhoods and integrating it with the rest of Northampton.



### Green Street, Nottingham

Client: Blueprint (a joint venture between igloo, HCA and EMDA)  
Architects: Mars Grochowski Architects

This is a development of low-energy housing near the Victoria Embankment in Nottingham comprising thirty-five 2, 3, and 4 bedroom houses, along with a community recycling and information point. All units have a small garden containing a lawned area, yard, cycle and bin stores, washing line, plus balconies and large roof terraces. A publicly accessible 'shared space' road permeates the site and provides a new pedestrian access for the wider Meadows community to the formal Victoria Gardens park and river beyond.



### Canklow, Rotherham

Client: South Yorkshire Housing Association  
Architects: EDAW

South Yorkshire Housing Association acquired one of these sites – site C3. They set out to deliver an innovative scheme with Rotherham Council which would: "foster community growth through the provision of new, high quality housing, public realm and community facilities attract new people to the area." Engaging with the wider context has ensured that this is a high quality housing development in a sustainable location. It has good public transport links, good social infrastructure, access to open space, schools, neighbourhood community and retail facilities.



# 4 DENSITY PRECEDENTS AND CASE STUDIES

# 2. LOW: 40 HOUSES/HA

## Low Density

The low density zones are 40-50 dwellings per hectare consisting of 2/3/4 bed semi-detached housing and short terraces of housing with gardens and in-curtilage parking (upper end of suburban density).

### Water Colour, Redhill Surrey

Client: South Yorkshire Housing Association

Architects: EDAW

The Water Colour development adjoins Merstham, a residential suburb south west of Redhill town centre in Surrey. The developer, Linden Homes South East, commissioned a masterplan, design and architectural services from John Thompson and Partners. A series of 'character areas' are under construction, framed by these unique landscape features. These will provide distinct but interconnected neighbourhood areas. On completion in 2012, the scheme will provide 523 new homes in a mix of accommodation sizes. Most will be privately owned and others managed by a housing association.



### Selwyn Street, Oldham

Client: Great Places Housing Group

Architects: TADW

The site was former flats and the Housing Corporation approved a replacement housing scheme for families in late 2004. The adjacent open space had housing demolished some 20 years before and was included in the project with funding secured from SRB. The client engaged architects TADW who had previous experience of designing housing for multi-ethnic groups, and Camlin Lonsdale were appointed to design the pocket park. Extensive consultation took place with local tenants groups on the housing designs and park.

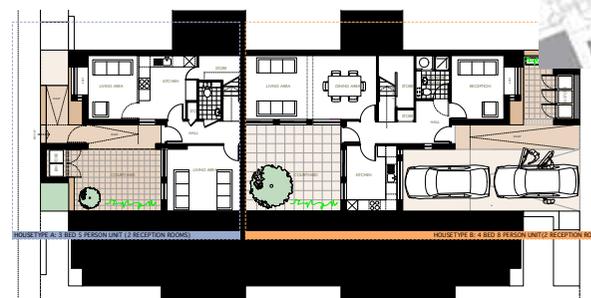


### Trafalgar Street, Rochdale

Client: BASE (a joint venture between Barratts and Artisan)

Architects: OMI Architects

This mixed tenure development of 25 family houses was the first phase of a Housing Market Pathfinder programme in the East Central district of Rochdale. The site is in the middle of a neighbourhood of terraced housing. The design solution used a linked terrace to give strong definition to the street whilst at the same time allowing each house to be defined. The main group consists of courtyard houses, where main living areas are grouped around private external spaces. The result is a tight-knit group of tall townhouses with fronts dominated by two-storey bay windows that allow views up or down the street, promoting a natural surveillance and a sense of dignity.



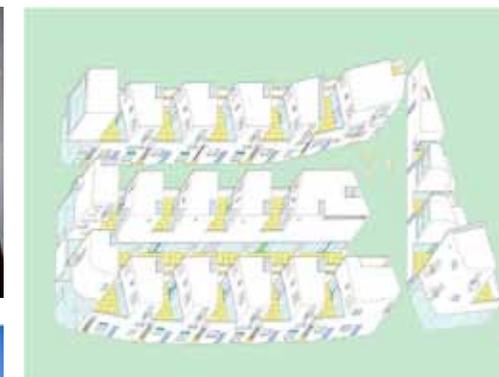
### Donnybrook Quarter, London

Client: Circle 33 Housing Association

Architects: Peter Barber Architects

Donnybrook Quarter is a dense mixed use scheme and consists of living units as well as community, work and retail spaces configured as a terrace/courtyard hybrid typology. The proposal is a celebration of the public social life of the street. Every aspect of the design is configured to promote buzzing, thriving public space made with a hard edge of buildings.

Streets are overlooked by balconies, bay windows and roof terraces. These streets are designed so people might enjoy to sit out, kids to play, people going to and from their homes or just passing through.



### Chimney Port Park, Salford

Client: Urban Splash

Architects: Shedkm Architects

Here, Urban Splash and architect Shedkm have proposed and delivered radical changes to the internal layout and design of existing terraced houses. The street frontages are the only built elements to be retained. Behind this façade, all structure is new-build. New roofs incorporate 'chimney roof lights' which approximate the appearance of the old chimney stacks and provide a new, distinctive roofscape from both street and park level. The garden decks extend over secure covered parking at ground level, accessible via a gated entrance at the end of the terrace.



# 4 DENSITY PRECEDENTS AND CASE STUDIES

## 3. MEDIUM: 70 HOUSES/HA

### Medium Density

The medium density zones are 65-75 dwellings per hectare consisting of 2/3/4 bed terraces, courtyard and mews houses (equivalent to typical Victorian terrace)

#### West Side Street Housing, London

Part of Brentford Lock West Masterplan, URBED

Client: Igloo

Architects: Karakusevic Carson Architects

These townhouses have been designed as part of Brentford Lock West Masterplan. Karakusevic Carson Architects were tasked with designing one block of the masterplan, which included a street of four-storey townhouses. These townhouses have an alternating roof line allowing for roof terraces overlooking the street and the courtyard whilst maximising light into the street. The garden level is raised above off-street parking, accessed from an internal courtyard. The new dwellings have a clear defensible space with a front door on to the street. They have additional living spaces on the top floor opening into a generous south facing roof terrace.



#### Sharrow Point, Cemetery Road, Sheffield

Client: Neaversons

Architects: Project Orange

Cemetery Road is one mile southwest of Sheffield City centre. The site borders a local conservation area to the south and east and is located within an established inner suburb, adjacent to the Sheffield General Cemetery. The project consists of nine townhouses flanking a raised courtyard garden. Three commercial units at ground level with six apartments above are within a four-storey block providing the public face of the scheme. The internal arrangements of the two blocks are configured to maximise privacy between neighbours. Both housetypes are designed with a generous provision of balcony and roof terrace areas.



### Temple Quay, Bristol

Client: Castlemore Securities

Masterplanners: URBED

This was a masterplan developed by URBED for Castlemore Securities and the South West Development Agency. The masterplan included 600 housing units together with 600m<sup>2</sup> of commercial development. The rear section of the site was made up of a series of tightly drawn residential blocks on a triangular site. There was concern at the time as there is in Icknield Port Loop that the scheme would be difficult for a housing developer to build out. However the site was sold to Barratts with the benefit of an outline planning consent. They developed the masterplan, exactly as designed with a series of tight courtyard housetypes and apartments in the triangular corners.



### Western Harbour, Malmo

This masterplan



# 4 DENSITY PRECEDENTS AND CASE STUDIES

## 4. HIGH: 120 HOUSES/HA

### High Density

The high density zones are 120-160 dwellings per hectare consisting of 1/2/3 bed apartments and 2/3/4 high density courtyard houses. In this density range 1 & 2 bed apartments, account for 60%, which the joint applicants have not included within our definition of family housing but contributes to a balanced housing mix and community.

### New England Quarter, Brighton

Client: JSD / Network Rail / QED  
Masterplanners: URBED

The New England site lies in the heart of Brighton, next to the fine Victorian Railway Station. Incorporating a supermarket into the base of a residential block freed up the majority of the site for a high-density mixed-use development including 261 residential units, a language school with accommodation for 400 students, two hotels, a training centre, health club, offices, workspace and community uses. The scheme is an important model for the integration of large format retailing into urban areas - it is the first time this has been done outside London. It was granted planning consent in 2003 and started on site in 2004 and has now become a real part of Brighton's urban fabric.



### Hammerby Sjöstad, Stockholm

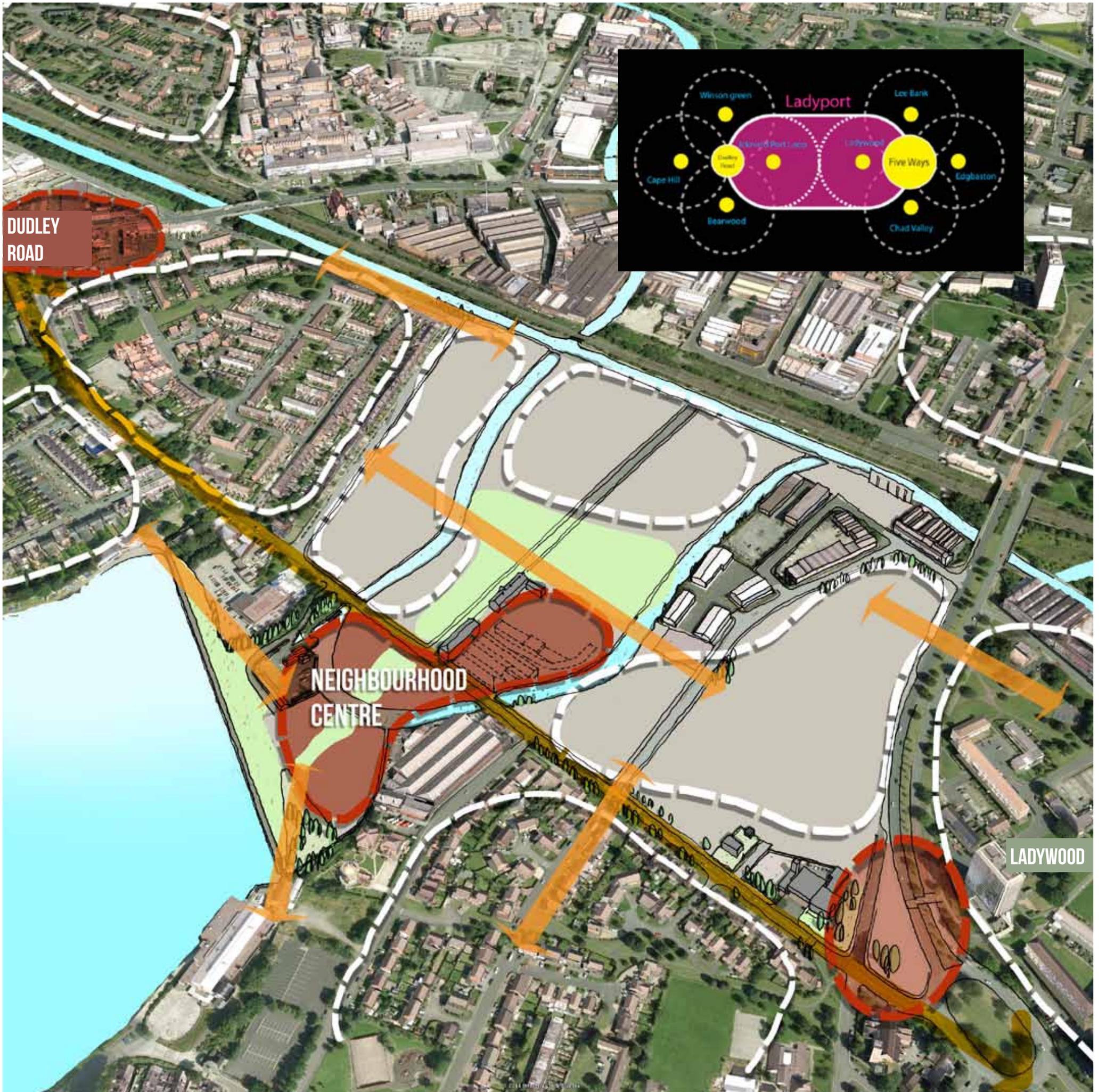
This new 200 hectare city district will comprise 9,000 apartments, housing a population of 20,000 people, and 200,000 sq m of commercial floor space attracting a further 10,000 people to work in the area. Approximately half of the total area has been developed and it is anticipated to complete by 2015. The concept for a new district in this location was born in the early 1990s. At that time, the City of Stockholm had developed a plan for development on the north side of the harbour, and this stimulated interest for a more strategic plan for the whole area around Hammarby Lake. The idea was to exploit the opportunity to expand the inner city with water as a central focus for the development, whilst at the same time transforming an old port and industrial area into a modern city district.





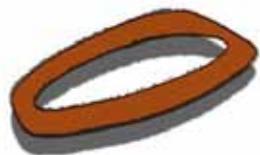
# THE ILLUSTRATIVE MASTERPLAN





The concept behind the illustrative masterplan brings together all of the policy background, consultation and options work described so far in this document.

The illustrative masterplan is based on the structure set out in the Big City Plan report on Ladyport. This is described in the diagram above left which shows the structure of this part of the city. The principle behind this diagram is that the main district shopping centres are Five Ways and Dudley Road. The neighbourhoods that surround these centres should be subservient to these district centres.



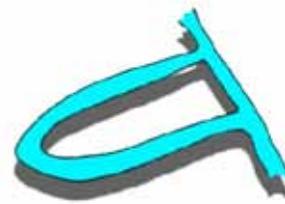
### Neighbourhood Centres

The main drawing to the left shows Icknield Port Road as the link between Dudley Road and Five Ways. Along this spine there will be two further neighbourhood centres as per the Big City Plan diagram; Icknield Port and Ladywood. The latter was traditionally on Monument Road which is now part of the Middleway. This is shown in the bottom left section of the plan and justifies the location of the retail store and hotel. The other is a new centre at the corner of Icknield Port Road and Rotton Park Road. This is intended to be the focus for the development with higher density housing and active ground floor uses.



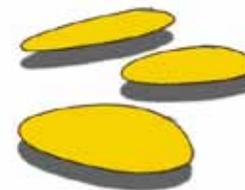
### Linked Open Spaces

Linked to this neighbourhood centre is a series of new neighbourhood scale open spaces. These are designed to be the heart of the new community with different functions in each space. The shape links together all parts of the scheme, including views to the canal loop. The open spaces are designed diagrammatically as two intersecting triangles allowing views across the canal loop and towards the dam. The configuration of the open spaces maximises the amount of property with a park frontage and also allows views into the neighbourhood from Icknield Port Road.



### Canal

The other factor that glues together the neighbourhood is the canal and its associated infrastructure including the dam and reservoir. The Loop has always been a hidden asset, come upon by chance. While the scheme will open this up, the idea is to do so by providing glimpses of the canal while retaining some of its mystery. The scheme also integrates the dam allowing the reservoir to be incorporated into the development.



### Sub Neighbourhoods

Around the series of open spaces there are proposed to be three sub neighbourhoods, Monument, Wiggan Street and Icknield Island. It is intended that each of these neighbourhoods will be developed with a distinctive character. They will take their place amongst the surrounding neighbourhoods to stitch together this part of Birmingham.

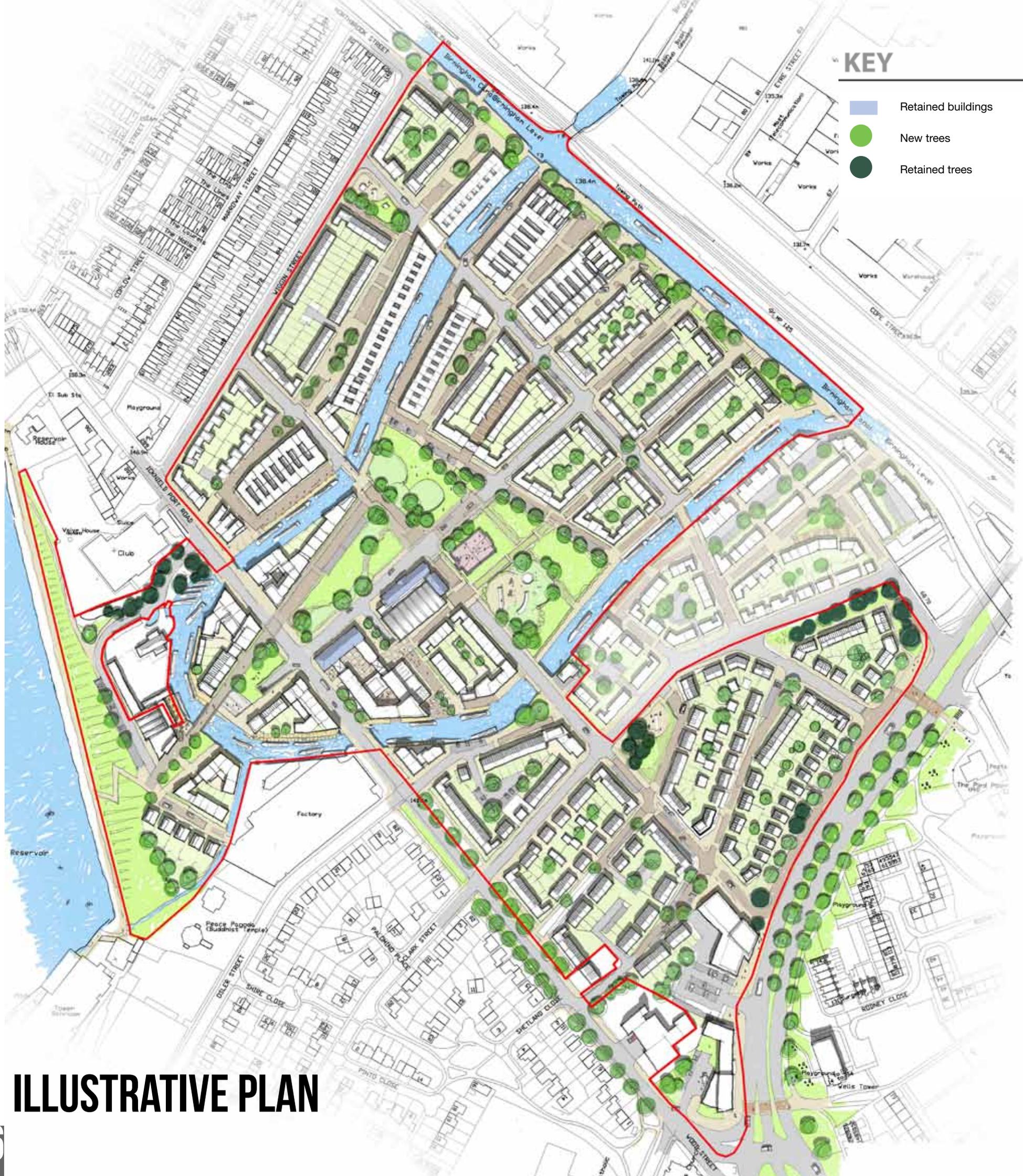


### Linkages

The stitching together requires that good links are created between the development and the surrounding areas. The main link will be Icknield Port Road but the plan also shows other significant links that will be created. These are based on surrounding streets, a proposed new crossing over the Middleway and the canal towpath. To make these links work there is a need for new bridges over the canal and the scheme therefore includes three footbridges and a new road bridge to open up these routes.

# KEY

-  Retained buildings
-  New trees
-  Retained trees



# ILLUSTRATIVE PLAN

# 5 THE ILLUSTRATIVE MASTERPLAN

# 2 THE ILLUSTRATIVE PLAN

The consultation responses together with discussions with the planning authority have fed into the final plan illustrated to the right and below. This is an illustration of how the project could look when this planning application is implemented.





## MAIN LINE CANAL

The Main Line Canal frontage to be developed as a high quality waterfront including hard and soft landscaping, improving the towing path into the City.



## NEW BRIDGES

The plan includes three new canal footbridges and one new road bridge.



## PARK SPACES AND COMMUNITY CENTRE

At the heart of the scheme is a new area of park including a play area, providing views of the canal and the dam.



## LADYWOOD BOULEVARD

The Middleway will have a tree-lined frontage with a service road allowing housing to face onto it.



## SHOP AND HOTEL

The scheme includes a new small supermarket and a budget hotel on the Middleway.



## EDGBASTON RESERVOIR

New footpaths will be created on the dam, making additional public space and linking the scheme to the reservoir, which is used for a range of water sports.



## URBAN FAMILY HOUSING

The central part of the site will be developed for a range of courtyard housing. Some of these will include their own moorings.



## HOME ZONES

The layout has been designed so that most housing fronts onto traffic calmed home-zone streets.



## FAMILY HOUSING

The southern part of the site include a range of family housing.



## MIXED USE AREA

The central part of the scheme includes a mix of workspace, leisure uses and apartments.



## WATERSIDE USES

The Loop will be a hub of activity with improved moorings, a pub, British Waterways Historic Working Boats and some watersports.





# NEIGHBOURHOOD CENTRE

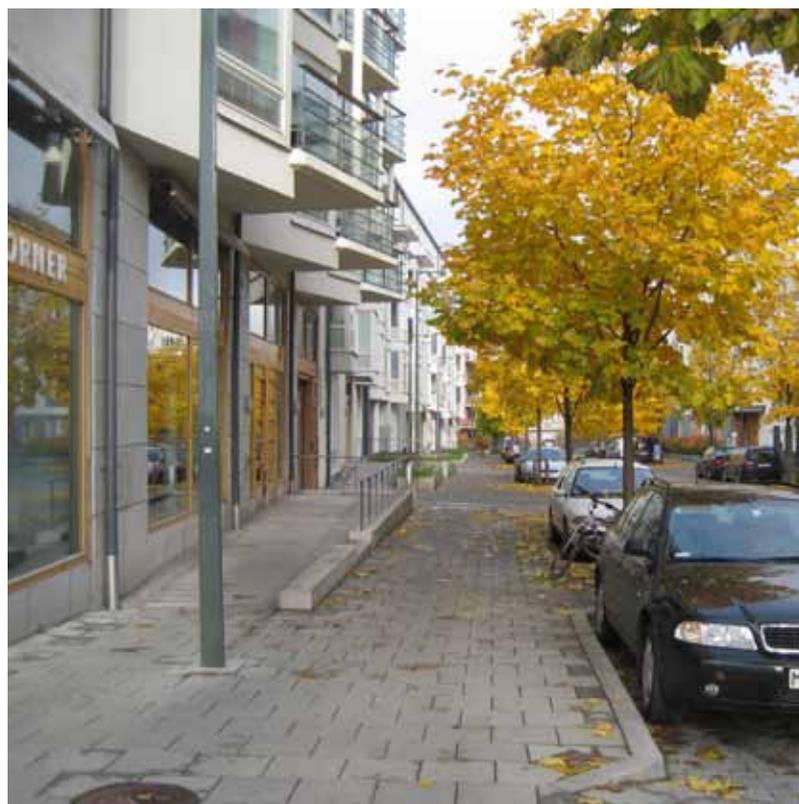
# 5 THE ILLUSTRATIVE MASTERPLAN

# 4 THE NEIGHBOURHOOD CENTRE

The neighbourhood centre is proposed as the heart of the new neighbourhood with a mix of high-density housing, workspace, leisure uses and the community centre.

The Neighbourhood Centre is intended as a high-density node at the heart of the scheme. The centre comprises a series of mixed-use blocks around the junction of Rotton Park Street and Ickniel Port Road as well as the land around the end of the Loop.

The illustrative scheme includes two retained buildings (shown in blue on the plan). The stable block has the potential to be converted to accommodate community uses as shown on the illustrative masterplan, subject to the availability of fund-



The Round Foundry workspace in Leeds (above) and a new neighbourhood park in Upton, Northampton (top right) and Stockholm Sweden (above and right)

ing. The former Tube Works building could be converted to a variety of commercial or leisure uses linked to the blocks to the rear as described on the following pages. The rest of this block includes business space on the ground floor to provide accommodation for small businesses which could also include retail space and leisure uses. Above this commercial space are apartments rising to five storeys. The block to the rear, next to the park, is shown on the illustrative plan as high-density town houses although this could also be apartments.

The public realm of this area is conceived as a series of linked courtyards modelled on precedents like the Round Foundry in Leeds. This will create a series of sheltered spaces of different character that could provide spill-out space for cafes. Part of the public realm also provides a space that overlooks the canal. Parking for this area could be in an undercroft accessed from Rotton Park Street.

On the other side of Ickniel Port Road are two mixed-use blocks with ground floor business space facing the street below apartments. The general height is up to five storeys but the northern block could rise to 8 storeys to create a local landmark. To the rear these blocks include two rows of town houses on either side of the shaft of space extending from the park. Parking could again be undercroft, made possible by the change of levels as the site drops down from Ickniel Port Road. This parking would be exposed along the canal and will require careful detailing although it will be masked by moorings.

Below the dam there is a further block of similar configuration but without the ground floor commercial space. To the rear of this is a row of larger detached houses with a route that will link to the neighbouring site when that comes forward for development. The illustrative masterplan also shows the potential for a new waterside pub next to the retained canal depot. This area is accessed by the existing road with parking for the pub at the base of the dam. This is likely to be the most active part of the canal with visitor moorings for pub customers and moorings for British Waterway's heritage fleet. A new foot bridge is proposed over the canal along with a ramp to provide access to the water for canoes and other watersports.



# MONUMENT NEIGHBOURHOOD

# 5 THE ILLUSTRATIVE MASTERPLAN

# 5. MONUMENT

The Monument neighbourhood will be developed on the site of the former Ladywood Community Centre. This will include lower and medium density housing together with a retail unit and possibly a hotel.

The site of the Ladywoods Arts Centre is to be developed for a mix of lower and medium density housing. The northern block and the frontage to Icknield Port Road are to be developed at 70 units/ha and the main central area at 40-50 units/ha. Part of the area has been designed as an early phase that can start to create a strong image for the area while also being attractive to developers in current market conditions.

The main part of the site is developed with semi-detached and short terraces of housing with gardens and in-curtilage parking. The main vehicle access is from Freeth Street and most of the new roads will be home zones with the housing brought to back of pavement to create a strong level of enclosure. On the Middleway the plan proposes a service road to create a boulevard and allow houses

to front onto the Middleway without having to take frontage access from it. The frontage has been set back from that shown in the consultation plan to allow a number of existing trees to be retained. The building lines of the northern block on Icknield Square and Freeth Street and along Icknield Port Road have also been pulled back to retain existing trees. The houses onto the Middleway will be two - three storey but will be designed to create a presence onto the road. This is consistent with the character of many tree lined boulevards in Birmingham such as Highfield Road pictured left.

To the rear of the Fire Station the scheme proposes a small supermarket of around 1,200m<sup>2</sup> with a car park for 60 cars. This store will be brought to the back of pavement and a two storey section will help emphasise the corner (the first floor being offices and staff rooms). South of this is prominent site with potential to accommodate a landmark building such as a hotel with active ground floor space to animate the street.

At the centre of the scheme is a small green space which could include a local play area. This has been positioned to allow the retention of a further group of existing trees. To the rear of this the former glass works site adjacent to the canal is a potential site for a CHP Plant is the applicants work on this shows it to be necessary.



A Birmingham Boulevard, Highfield Road in south Birmingham (top). Scheme in Upton, Northampton (above and right), an urban supermarket (right), Westport in Ireland (top right) and Allerton Bywater Millennium Community in Leeds (bottom right)





Illustrative Street Scene



Illustrative Elevation along Ladywood Road

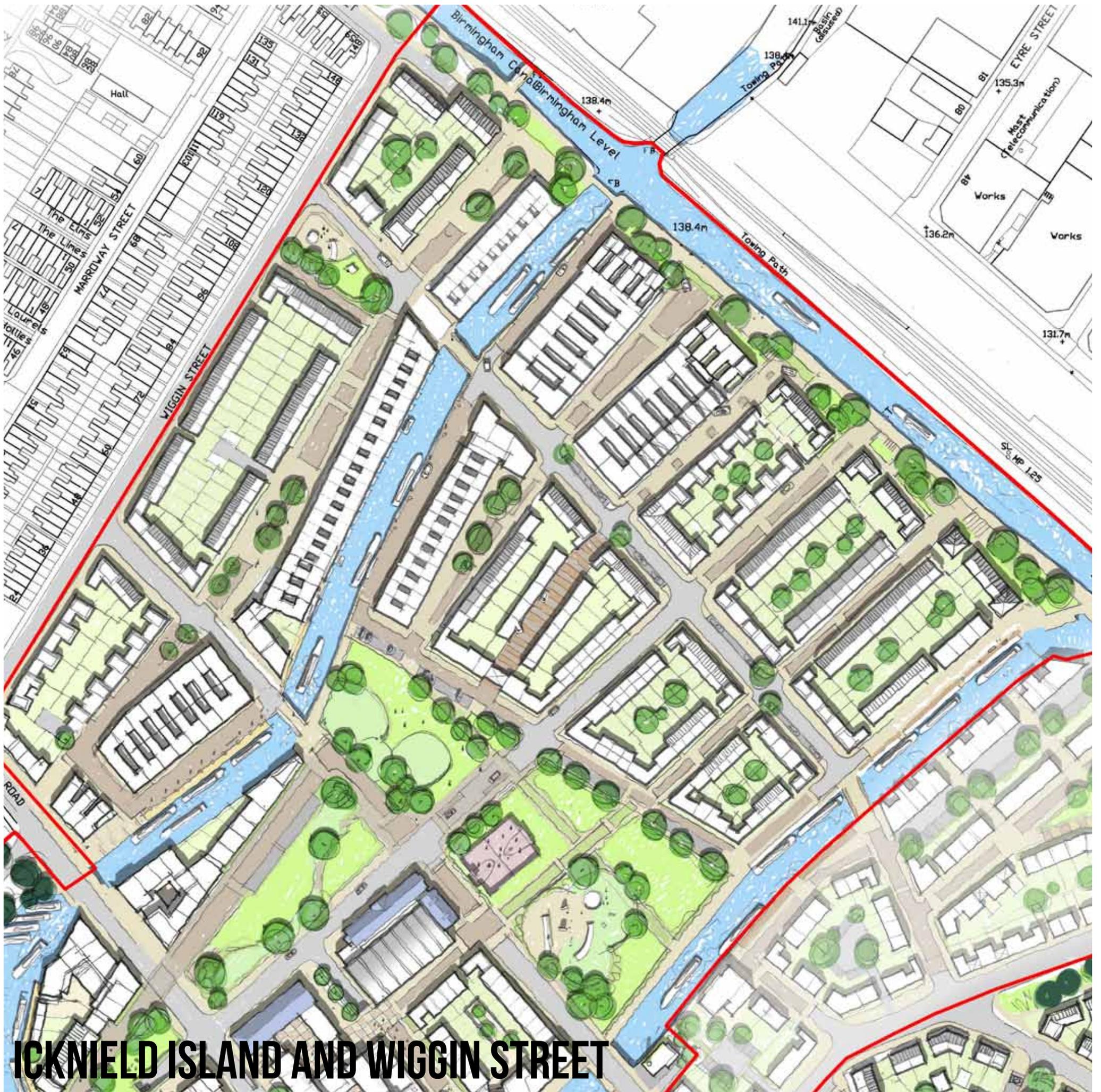
# MONUMENT NEIGHBOURHOOD

# 5A. INNOVATIVE HOUSING TYPES



Illustrative Section





# ICKNIELD ISLAND AND WIGGIN STREET

# 5 THE ILLUSTRATIVE MASTERPLAN

# 6. CKNIFIELD ISLAND/WIGGIN ST

The central part of the site is the core of the plan and at the heart of the landowners' aspirations to create an exemplar scheme. This is designed as medium-density family housing of a kind that has been little built in the UK outside London.

The brief for the central part of the site has been to create an innovative housing scheme of a kind not seen in Birmingham to date. It was accepted that this would go beyond current market ambitions but it would be something that could be brought forward in the medium-term as the market improves. The initial models for this were Dutch and Scandinavian examples like Borneo Quay and the Western Harbour scheme in Malmo. However, the examples pictured below are from the

British Isles and shows what has been achieved and successfully sold into the market.

The density of the housing in this area is 65-75 units per hectare. It is intended that the scheme be developed entirely with housing, (i.e. no apartments) and the illustrative plans shows a series of blocks running broadly north/south on home zone streets. The work on typologies has shown three potential housing types to achieve these densities and it is intended that flexibility is retained about which is to be used. They are described in more detail on in the housing mix and typology section. It is hoped that this site is an opportunity to develop these ideas on a large scale and to mix and match these types to create a high-density family housing neighbourhood.

The other important element to the Island neighbourhood is its relationship to the canal and the fact that a large part of the area is an island. The development is set back from the Mainline canal to create a linear open space with the houses on the end of the blocks turning to face the canal. On the Loop canal the scheme shows either a home zone street along the canal where we will incorporate residential and visitor moorings, or buildings coming right up to the canal edge, which is a reference to the historical character of the area.



Selwyn Street Housing (top left),  
Norfolk Park Green in Sheffield  
(top right), Westport in Ireland  
(above) Temple Quay in Bristol  
- URBED masterplan (right) and  
ECD Hulme (far right)