Lighting cont.

Co-ordination Principles

- 4.10I - Lighting co-ordination principle
  - All lighting elements within each zone shall be of co-ordinated design
- 4.10J - Lighting co-ordination principle
  - Column posts for lighting shall always be considered as multi-task posts for signage, bins, banners, highways signage and signals etc.
- 4.10K - Lighting co-ordination principle
  - Feature lighting may include in-ground LED's to paving, integrated street furniture lighting, lighting to trees and planting, lighting to special features such as water features, lighting walls and intelligent surfaces
- 4.10L - Lighting co-ordination principle
  - Light levels should be designed to relevant guidelines
- 4.10M - Lighting co-ordination principle
  - All lighting shall have due regard to the ecological sensitivity and potential impact
- 4.10N - Lighting co-ordination principle
  - All lighting shall be dark skies compliant
- 4.10O - Lighting co-ordination principle
  - Lighting shall be set out as in the lighting schedule 10P

4.10P lighting schedule

Zone 1
- Stainless steel column road light
- Stainless steel column footpath light
- Stainless steel footpath wall/ building mounted light
- Feature lighting elements

Zone 2
- Stainless steel column footpath light
- Stainless steel illuminated bollard
- Stainless steel footpath wall/ building/ upstand mounted light
- Feature lighting elements

Zone 3
- Column road light
- Illuminated bollard
- Feature lighting elements

Zone 4
- Column road light
- Illuminated bollard
- Footpath wall/ building mounted light
- Feature lighting elements

Zone 5
- Low level footpath bollard light

Zone 6
- Low column light
- Low level footpath bollard light
- Wall/ upstand mounted light
- Feature lighting elements

Zone 7
- Column sport pitch light
- Low level footpath bollard light

Zone 8
- Low level footpath bollard light
- Footpath wall/ building mounted light
- Feature lighting elements

Column


Highway lighting

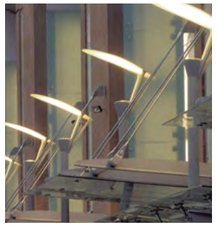

Highway lighting


Column lighting


Column lighting

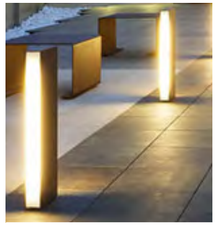

Column lighting

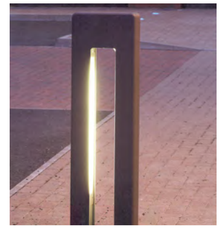
Wall/building mounted/bollard


Building / wall mounted


wall mounted lighting

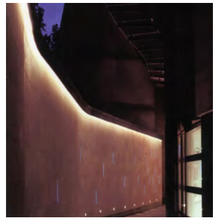

Inset wall lighting


illuminated bollards


Illuminated bollards

Intergrated


Highway signal and lighting


Intergrated wall lighting


Intergrated in ground lighting


Intergrated tree uplighter


Seating with intergrated lighting

feature lighting elements


Uplighting to trees


Uplighter


Ground level light


Inset LEDs


Feature lighting cubes

Street furniture

Principle 4.11 - Street Furniture

- 4.11A - Street furniture definition
  - Seating, bollards, retractable bollards, cycle storage facilities, litter bins, bus shelters, barriers and railings, public telephones, refuse storage facilities, re-cycling facilities, utilities companies below ground and above ground facilities, signage including way finding, highway signage and information points
- 4.11B - Zone 1 street furniture types
  - Street furniture shall include but is not limited to:
  - Seating: a variety of materials and finishes may be used
  - Bollards/ cycle racks/ litter bins/ railings/ signage: stainless steel
  - Bus shelters: intelligent bus shelters, a variety of materials and finishes may be used
- 4.11C - Zone 2 street furniture types
  - Street furniture shall include but is not limited to:
  - Seating: a variety of materials and finishes may be used
  - Bollards/ cycle racks/ litter bins/ railings/ signage/ mooring rings: stainless steel
  - Bus shelters: intelligent bus shelters, a variety of materials and finishes may be used
- 4.11D - Zone 3 street furniture types
  - Street furniture shall include but is not limited to:
  - Seating: a variety of materials and finishes may be used
  - Bollards/ cycle racks/ litter bins/ railings: a variety of materials and finishes may be used
  - Bus shelters: intelligent bus shelters, a variety of materials and finishes may be used
- 4.11E - Zone 4 street furniture types
  - Street furniture shall include but is not limited to:
  - Seating: a variety of materials and finishes may be used
  - Bollards/ cycle racks/ litter bins/ railings: a variety of materials and finishes may be used
  - Bus shelters: intelligent bus shelters, a variety of materials and finishes may be used
- 4.11F - Zone 5 street furniture types
  - Street furniture shall include but is not limited to:
  - Seating: a variety of materials and finishes may be used
  - Bollards: stainless steel mooring rings to match zone 2 type
- 4.11G - Zone 6 street furniture types
  - Street furniture shall include but is not limited to:
  - Seating: a variety of materials and finishes may be used
  - Bollards/ cycle racks/ litter bins/ railings: a variety of materials and finishes may be used
- 4.11H - Zone 7 street furniture types
  - Street furniture shall include but is not limited to:
  - Seating: a variety of materials and finishes may be used
  - Bollards/ railings: a variety of materials and finishes may be used

Street furniture cont.

Co-ordination Principles

- 4.11I - Street furniture co-ordination principle
  - All street furniture elements within each zone shall be of co-ordinated design
  - Street furniture elements, particularly highway signage, barriers and railings shall be carefully co-ordinated to enhance the street environment and avoid standardised engineering solutions
- 4.11J - Street furniture co-ordination principle
  - All street furniture locations shall be carefully considered to enhance the street environment and shall avoid a cluttered environment. This shall aid legibility, health and safety, maintenance and a high quality public realm.
- 4.11K - Street furniture co-ordination principle
  - Locations of site-wide integrated wayfinding/ highway signage and information points shall be carefully considered and located at key intersections where possible.
  - Signs and road markings shall be kept to a minimum and only used where they convey essential information.
  - The smallest and simplest format of each sign shall be used
  - Signs shall be located on buildings, railings, walls, lamp columns and existing posts rather than new posts
- 4.11L - Street furniture co-ordination principle
  - Location of storage areas/facilities and utility cabinets shall be carefully considered and well integrated within the landscape
- 4.11M- Street furniture co-ordination principle
  - Street furniture shall be set out as in the street furniture schedule 11N

4.11N street furniture schedule

Zone 1
- Seating: a variety of materials and finishes may be used
- Stainless steel bollards/ cycle racks / litter bins/railings
- Bus shelters: intelligent bus shelters, a variety of materials and finishes may be used
- Signage: a variety of materials and finishes may be used

Zone 2
- Seating: a variety of materials and finishes may be used
- Stainless steel bollards/ cycle racks / litter bins/railings/ mooring rings
- Bus shelters: intelligent bus shelters, a variety of materials and finishes may be used
- Signage: a variety of materials and finishes may be used

Zone 3
- Seating: a variety of materials and finishes may be used
- Stainless steel bollards/ cycle racks/ litter bins/railings
- Bus shelters: intelligent bus shelters, a variety of materials and finishes may be used
- Signage: a variety of materials and finishes may be used

Zone 4
- Seating: a variety of materials and finishes may be used
- Bollards/ cycle racks/ litter bins/ railings: a variety of materials and finishes may be used
- Bus shelters: intelligent bus shelters, a variety ofmaterials and finishes may be used
- Signage: a variety of materials and finishes may be used

Zone 5
- Seating: a variety of materials and finishes may be used
- Stainless steel mooring rings to match zone 2 type
- Signage: a variety of materials and finishes may be used

Zone 6
- Seating: a variety of materials and finishes may be used
- Bollards/ cycle racks/ litter bins/ railings: a variety of materials and finishes may be used
- Signage: a variety of materials and finishes may be used

Zone 7
- Seating: a variety of materials and finishes may be used
- Bollards/ railings: a variety of materials and finishes may be used

Bus Shelter/Cycle storage


Bus shelter


Bus shelter


Stainless steel cycle stands


Stainless steel cycle stands


Cycle stands

Seats


Seating with feature glass walls


Granite seating block


Simple intergrated stone and timber seating


Inergrated stone and timber seating


Timber bench

Bollards/Bins


Stainless steel bollard


Galvanised bollard


Stone bollard


Litter bin


Litter bin

Wayfinding


Directional signage


Intergrated signage


Interpretation panel


Information board

Signage

Play

Principle 4.12 - Play

- 4.12A- Youth space 1
  - For ages 12 and over
  - Outdoor hard pitches and courts including an all weather pitch
  - Shelter/seating for people/game watching
- 4.12B- Youth space 2
  - For ages 12 and over
  - Exercise trails
  - Climbing wall
  - Seating for people/game watching
- 4.12C- Neighbourhood play space 1
  - For all ages
  - An adventure playground with a focus on natural play
  - Seating
- 4.12D- Neighbourhood play space 2
  - For all ages
  - Equipped play areas which can include but is not limited to: circuit tracks for bikes and skateboards, kick-about area with basketball nets, sandpits (if appropriate)
  - Seating away from equipment
- 4.12E- Neighbourhood play space 3
  - For all ages
  - Play garden for passive engagement with possibly a secret garden theme
  - Limited play equipment
  - Seating
- 4.12F- Local play space 1
  - For up to age 11
  - A mixture of natural play and selected play equipment
  - Ball wall with fencing
  - Equipped play areas which can include but is not limited to: activities for swinging, sliding, rolling
  - Seating away from equipment
- 4.12G- Local play space 2
  - For up to age 11
  - A mixture of natural play and selected play equipment
  - Integrated climbing structure
  - Equipped play areas which can include but is not limited to: activities for swinging, sliding, rolling
  - Seating away from equipment
- 4.12H- Doorstep play space 1
  - For under 5's
  - Interpretive and flexible equipped play which can include but is not limited to: climbable objects, fixed equipment (which can include facilities for rocking and swinging), surfaces for "wheelies", sand and water features (if appropriate), grass mounds
  - May require a simple fenced enclosure
  - Shelter/pergola to offer protection from sun and rain
  - Seating away from equipment

Art and landmark features

Principle 4.13 - Art and landmark features

4.13A- Art and landmark feature definition
- Additional features to these public realm areas may include: public art, gateway marker features, water features, lighting installations, architectural structure, or other feature

4.13B- Art and landmark co-ordination
- Features shall complement the local architectural character, animate the public space, aid legibility and wayfinding and assist in the creation of a unique identity to the development

4.13C- Innovative bridges
- The design of the pedestrian / cycle bridges over the canal and Yeading Brook form part of the overall art strategy

05

Appearance

Appearance - Introduction

Section 05: Appearance – explains and justifies the principles behind the buildings' appearance as Circular 01/06 paragraphs 94, 95 and 96.

Paragraph 94
'Appearance is the aspect of a place or building that determines the visual impression it makes, including the external built form of the development, its architecture, materials, decoration, lighting, colour and texture.'

Paragraph 95
'If appearance is reserved at the outline stage, the outline application does not need to provide any specific information on the issue. In such cases the design and access statement should explain and justify the principles behind the intended appearance and explain how these will inform the final design of the development.'

Paragraph 96
'For detailed applications, and outline applications that do not reserve appearance, the design and access statement should explain and justify the appearance of the place or buildings proposed including how this will relate to the appearance and character of the development's surroundings. It should explain how the decisions taken about appearance have considered accessibility. The choice of particular materials and textures will have a significant impact upon a development's accessibility. Judicious use of materials that contrast in tone and colour to define important features such as entrances, circulation routes or seating for example will greatly enhance access for everyone. Similarly early consideration of the location and levels of lighting will be critical to the standard of accessibility ultimately achieved.'

In accordance with circular 01/06 paragraph 94 and as required in paragraph 95, section 05 explains and justifies the principles behind the appearance of the building typologies defined in section 03. Appearance is a reserve matter, therefore paragraph 96 does not apply. However it will be apparent that many of the issues referred to in paragraph 96 are considered in this document.

By way of introduction, the overview in section 5.1 summarises the layout, scale principles and building typologies defined in sections 02 and 03.

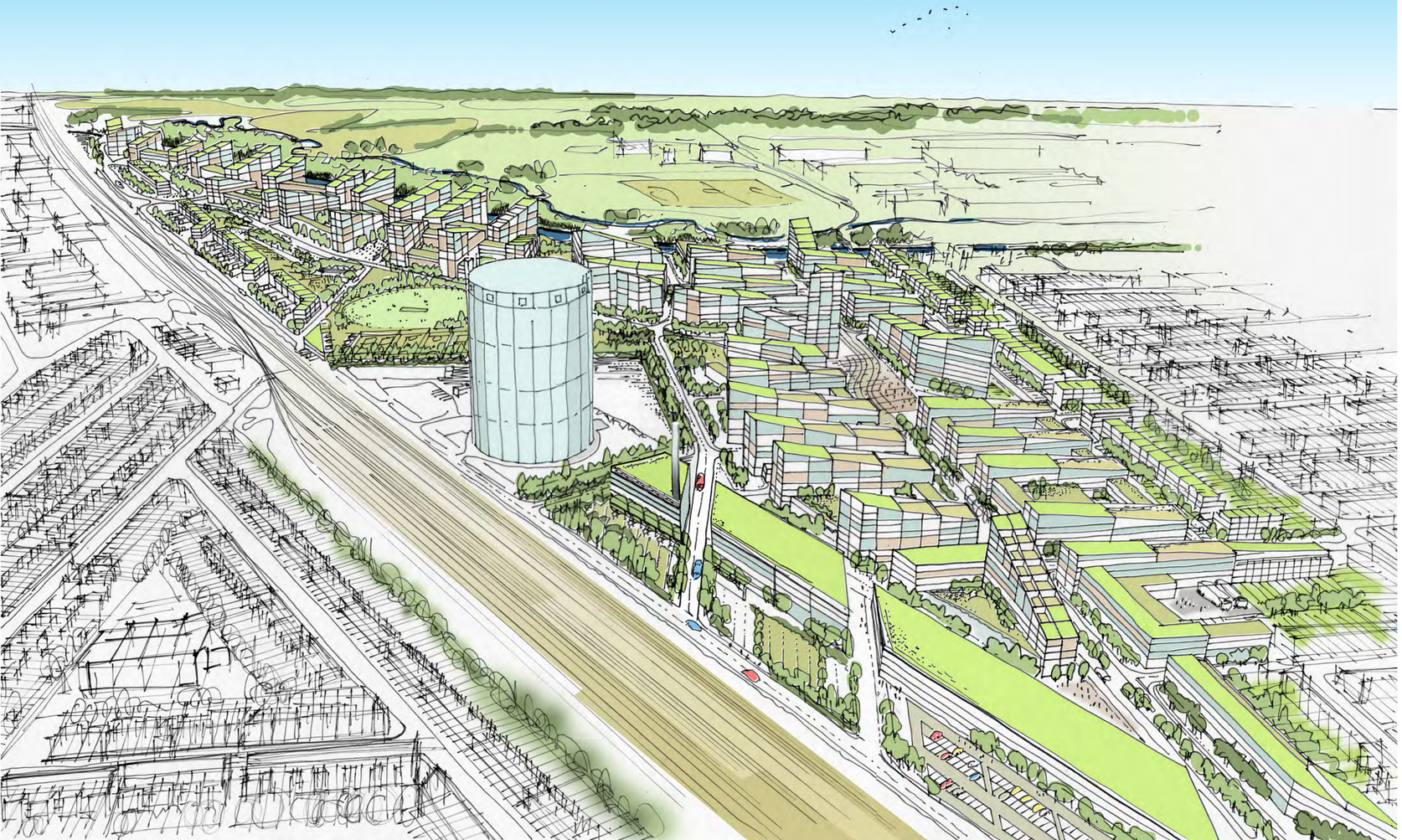
The appearance of the buildings will determine, in conjunction with the landscape, the masterplan's visual impression. The principles adopted are ones to ensure a co-ordinated approach to deliver consistent quality and variety within defined parameters – a collection of buildings that are harmonious in their composition. Sections 5.2 to 5.7 inclusive describe the principles behind the buildings' appearance in accordance with circular 01/06 paragraphs 95 and 96.

The appearance characteristics of building typologies 1, 2, 3 and 4 are defined in section, 5.3, 5.4 and 5.6 respectively.

Section 5.7 describes the appearance of building typology 5, the individual buildings that due to their use and/or location are distinct. In section 03, the building envelopes were grouped to ensure scale consistency, however, the appearance of each is considered separately within this section.

Section 5 uses reference images to illustrate the use of materials specified in the design principles. Alternate proposals to the design principles may be offered subject to acceptance by the masterplanning team and local authority.

5.1 General appearance characteristics of all building typologies



The parameter plans define the three dimensional building envelopes and the appearance of the buildings will be developed in subsequent detail applications brought forward in accordance with the design principles.

The building envelopes respond to the scheme's different character areas however, the unifying principle is that buildings shall have a linear grain – referred to as fingers in the design principles – that physically integrate the scheme with its environs as follows:

- Grid of streets continues urban grain from the north.
- Blocks open to canal to maximise views.
- Blocks line the park to create sense of containment.
- Blocks parallel to the railway define the southern edge.

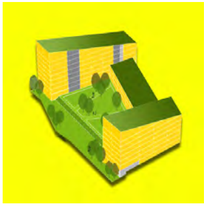
Development of the building typologies has been undertaken through rigorous interrogation of the uses proposed for each plot to ensure the principles of the scheme - particularly physical form and active frontage - can be delivered. Five generic building typologies have been developed within the illustrative scheme that respond to the different locations and proposed uses:

- Typology 1 Apartment buildings facing the canal
- Typology 2 Apartment buildings with central courtyards
- Typology 3 Mixed-use buildings - retail base with apartments above
- Typology 4 Town houses
- Typology 5 Other buildings

General design principles

5.1 Buildings with associated parking at grade shall distribute a single row of parking around all edges of buildings within a landscaped zone
5.2 Where residential accommodation is at ground level, the units shall incorporate front doors accessed directly from adjacent streets
5.3 North facing accommodation shall be dual aspect where practical
5.4 The minimum distance between habitable rooms within facing elevations is 21m
5.5 The principal access/egress points to the buildings are to be at grade
5.6 Projecting or inset balconies shall be provided to all principal living areas
5.7 Opening windows and/or balcony/terrace doors shall be provided to all habitable rooms
5.8 Predominantly soft landscaped courtyard/roof deck to attenuate storm water and create amenity space shall be formed between each 'finger'
5.9 2m minimum external space shall be provided to the front of each apartment at street and courtyard level with cast stone dividing walls
5.10 Elevations to comprise at least 50% non-vision glazing to maximise extent of high-performance thermal and acoustic insulation
5.11 Minimum 50% green roof area to attenuate storm water
5.12 Service installations shall not project above roof/parapet levels
5.13 Central corridor configuration may be extended to façade for natural ventilation and daylight to circulation spaces
5.14 Refuse stores are to be discreetly integrated within the building design to facilitate refuse collection
5.15 All units to comply with Lifetime Homes standards - 10% being capable of adaptation to wheelchair accessible units
5.16 All units to be capable of achieving a Code for Sustainable Homes rating of level 4

5.2 Appearance typologies 1 and 2 - Apartment buildings



Typology 1 - residential

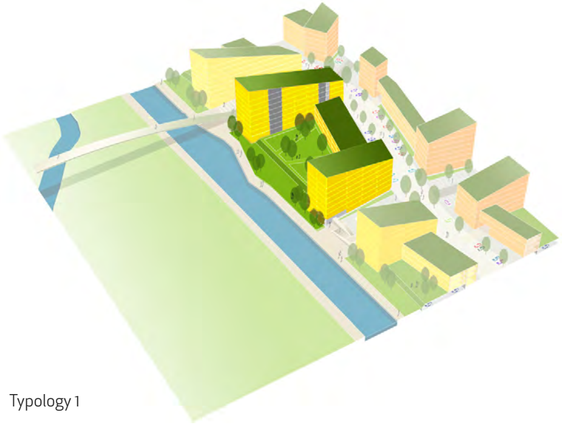
Apartments comprise the majority of the housing proposed in the shceme, delivered either in exclusive blocks or in mixed-use buildings.

The exclusive residential building typology has two derivations – typology 1 which present open courtyard spaces to the canal to maximize views and present a green elevation to the canal and country park beyond or typology 2 with enclosed courtyards to offer blocks enclosure and active frontage to the park, similar to the mansion blocks on Prince of Wales Drive over looking Battersea Park, London.

The apartment buildings are located to the west of the site with excellent views and minimal shading impact on the central park. Running between the two apartment building typologies, parallel to the canal, is a residential street modelled on the European 'homezone' model of integrated vehicular and pedestrian spaces around which communities can develop. The character of both typologies will be complementary around the central residential and side streets.

The fingers that run parallel to the streets between the canal and Central Park rise toward their end to reinforce the view corridor, similar to Budenburg Haus, Altrincham.

Apartments overlooking canal, Budenburg Haus, Altrincham



Typology 1

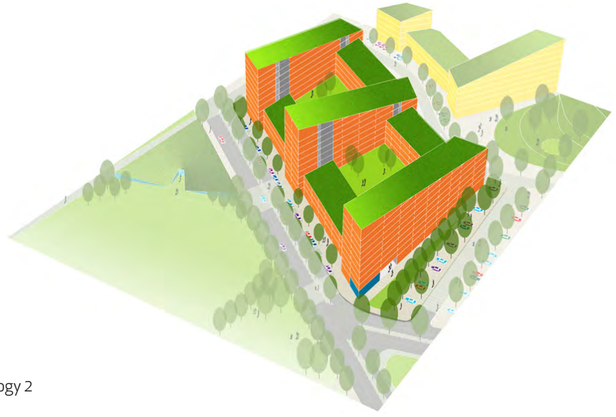
Section through typologies 1 and 2 showing apartments overlooking the canal and central park

Typology 2 - residential

Mansion blocks overlooking park, Prince of Wales Drive, Battersea

Courtyard with defensible space to perimeter and shared space in the centre, Coin Street Housing

Apartment buildings set within parkland, St. Gallen, Switzerland



Typology 2

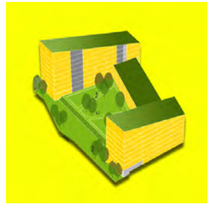
Home zone similar to that between building typologies 1 and 2

Landscaped courtyard with play area, Coin Street Housing

Access to courtyard accommodation, Frances Garner House, UCL by Fielden Clegg Bradley

A green courtyard, Rue de Meaux, Paris, by Renzo Piano

Appearance typologies 1 and 2 - Principal characteristics



Design principles

5.17 Soft landscape canal edge between the building 'fingers'

5.18 Carparking to be half or full level below street level dependent on overall parking provision requirement. If the parking is half level below street level then extent shall allow ground level street facing units.

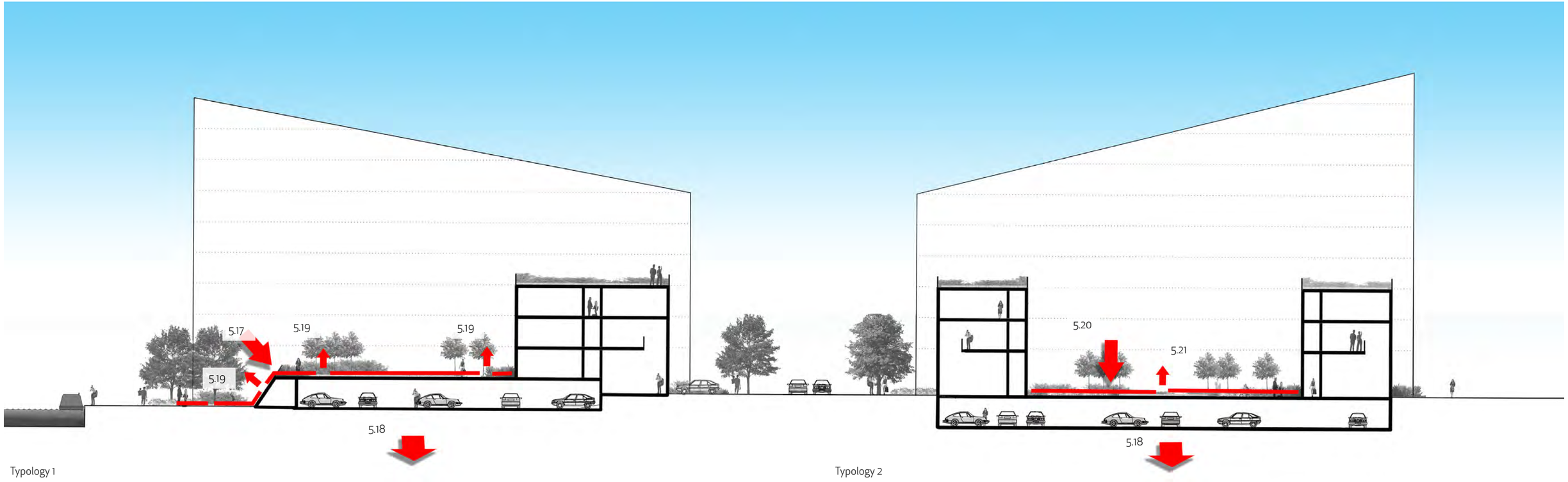
5.19 Carpark ventilation outlets are to be discreetly integrated within canal edge and courtyard

Design principles

As typology 1 except:

5.20 Enclosed courtyard in lieu of soft landscape to canal edge except CPN.05 which is open to Central Park

5.21 All carpark ventilation outlets to be discreetly integrated within courtyard in lieu of canal edge

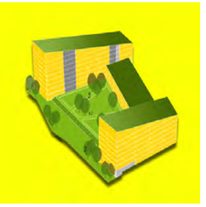


Typology 1

Typology 2

5.22 Elevations to comprise combination of:

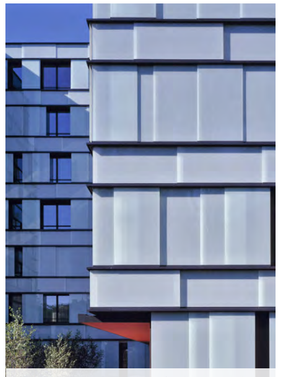
- Transparent vision glazing
- One of the following insulated panel combinations:
  - A) Cast natural stone and/or opaque glass
  - B) Brick and/or anodised aluminium panels
  - C) Brick and/or hardwood panels
- Copings to be either cast natural stone or anodised aluminium
- Glass balustrades to balconies with anodised finished aluminium facia panel and soffit
- Perforated roller shutter to carpark entrances
- Predominantly solid front doors to ground floor apartments/duplex units



Typology 1

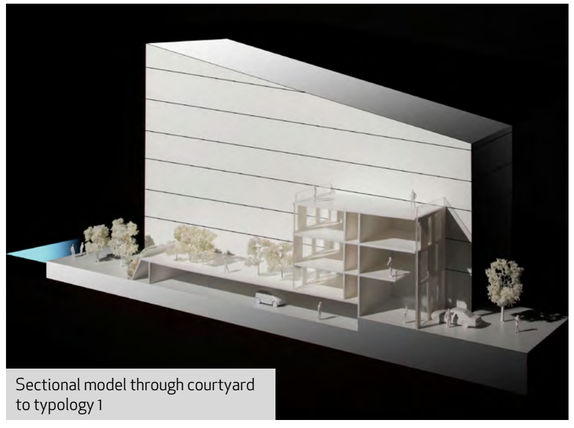
Typology 2

Illustrative elevation demonstrating cast natural stone



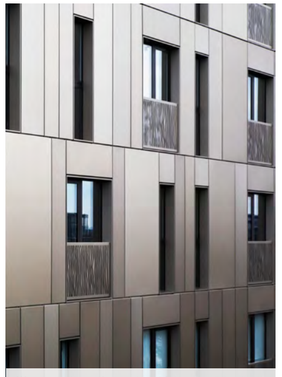
Illustrative elevation demonstrating opaque glass

Sectional model though typology 1 from the canal showing relationship between the courtyard and the towpath

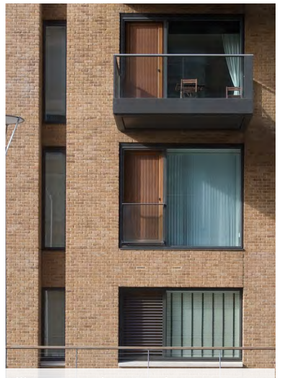


Sectional model through courtyard to typology 1

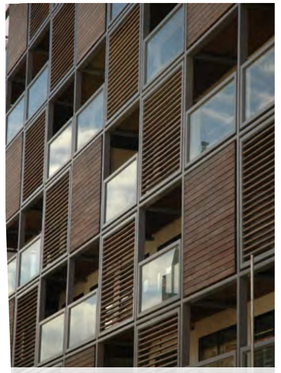
Illustrative elevation demonstrating brick



Illustrative elevation demonstrating anodised aluminium panels

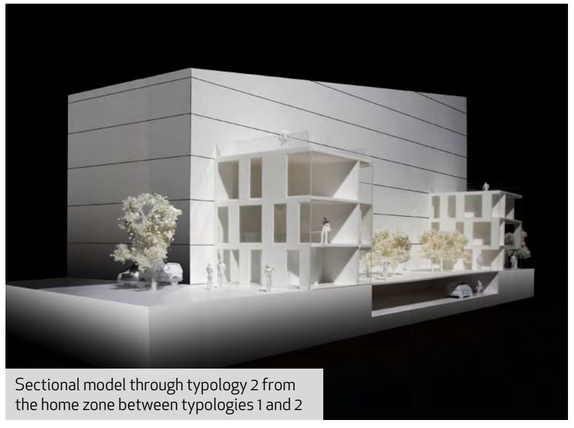


Illustrative elevation demonstrating brick and glass balconies



Illustrative elevation demonstrating hardwood and glass balconies

Sectional model through courtyard to typology 2



Sectional model through typology 2 from the home zone between typologies 1 and 2

5.3 Appearance typology 3 - Mixed use buildings

Typology 3 - mixed use

Around the high street, mixed-use buildings are preeminent that respond primarily to the commercial uses at street level and the requirement to integrate accommodation above to ensure financial viability and activity through out the day, week and year.

Typically residential accommodation is located over commercial uses, organised in 'fingers' at the edge, and sometimes in the centre, of each block.

Design principles

5.23 First floor level above East and West Street (7.5m above street level) and second floor level above the side streets (7.5m above street level) to be expressed as a predominantly continuous cast stone element

5.24 Finished floor level of retail units to match street level

5.25 Off-street central carparking to be at street level or half/full level below street level

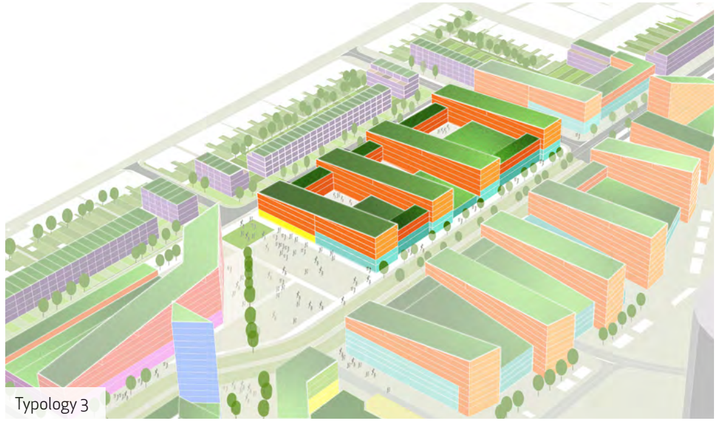
5.26 Configuration of carparking at street level or half level below shall allow ground level street facing units.

5.27 Retail, off-street central carpark and loading bays to be covered with a predominantly soft landscaped courtyard/roof deck to attenuate storm water and create residential amenity space

5.28 Loading bays to be integrated within the building design with gates/doors/shutters that may be closed when the loading bay is operational

Residential over a common retail base, Dublin

Fingers at the end of each block define the streets



Typology 3

Section through East Street, showing residential over a retail base

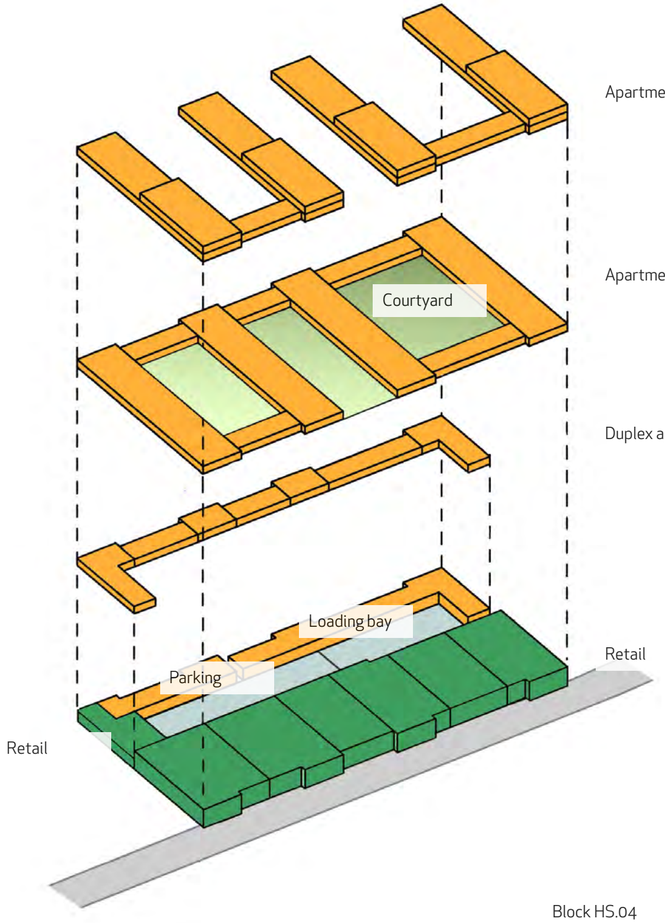
Typology 3 Residential accommodation over larger retail units

Typology 3

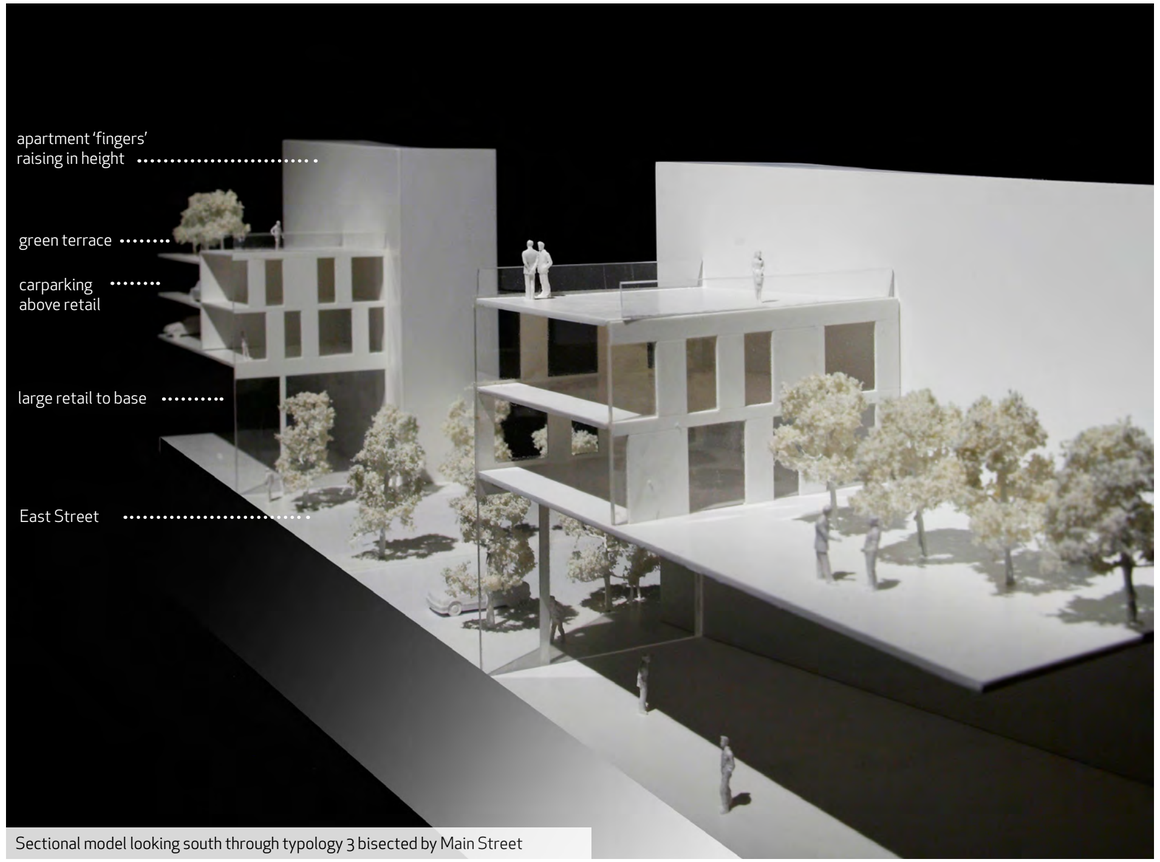
The retail unit size and configuration meets multiple retailers' requirements in terms of proportion and servicing. Their configuration is such that units may be combined or sub-divided to meet the individual needs of a retailer. The units are 7.5m from ground to first floor levels which offers the flexibility to incorporate a mezzanine without disruption to the elevation of the high street. The foodstore also incorporates a dedicated shoppers' carpark over the retail accommodation and residential carpark below

Over the retail units is residential accommodation characterized by the masterplan's fingers at the edge and centre. The vertical circulation cores come to ground level forming residential entrances that can positively break-up the street elevations.

Over the retail units are green roofs that form raised landscaped courtyards for the residential accommodation to enjoy as amenity space



Block HS.04



Sectional model looking south through typology 3 bisected by Main Street

Design principles

5.29 Retail elevations to comprise combination of:

- Transparent vision glazing
- Insulated opaque glazing panels
- Cast stone exposed structural components
- 750mm deep continuous signage/ anodized finished aluminium louvre zone below first floor level
- Perforated roller shutter to carpark entrances

5.30 Retail plant equipment to be integrated within the upper levels of the residential accommodation if necessary

5.31 Residential elevations over retail accommodation to comprise combination of:

- Transparent vision glazing
- Predominantly translucent glazing to circulation routes
- One of the following insulated panel combinations:
  - a) Cast natural stone and/or opaque glass
  - b) Brick and/or anodised aluminium panels
  - c) Brick and/or hardwood panels
- Copings to be either cast natural stone or anodised aluminium
- Insulated variously coloured anodized finished aluminium panels from recyclable sources
- Glass balustrades to balconies with anodised finished aluminium facia panel and soffit

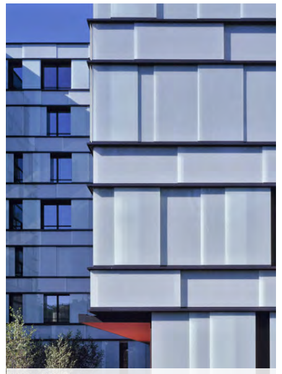
5.32 Building CPN.11 to incorporate pedestrian lift between Springfield Road pedestrian bridge and Canal Plaza.

Typology 3

Illustrative elevation demonstrating cast stone exposed structure

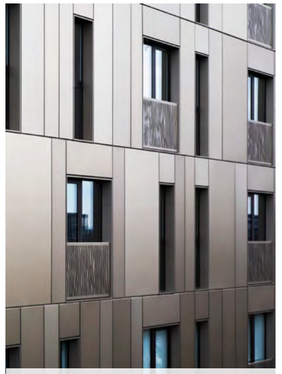
Illustrative elevation demonstrating perforated roller shutter

Illustrative elevation demonstrating cast natural stone

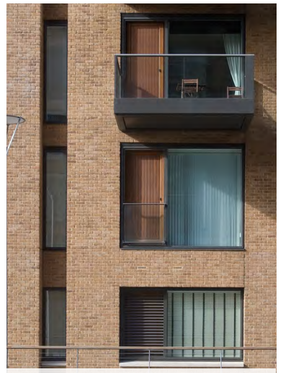


Illustrative elevation demonstrating opaque glass

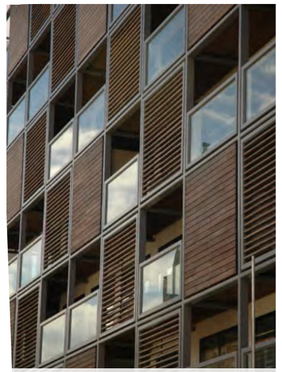
Illustrative elevation demonstrating brick



Illustrative elevation demonstrating anodised aluminium panels



Illustrative elevation demonstrating brick and glass balconies



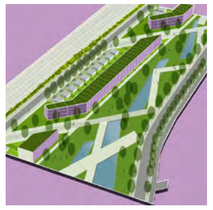
Illustrative elevation demonstrating hardwood and glass balconies

Sectional model looking west through typology 3 bisected by East Street, with large scale retail to the ground floor

Sectional model through a side street with the retail level expressed at the base

Sectional model through a side street to typology 3 looking north, showing retail units at the base, residential accommodation above and servicing / delivery bay to the rear, with raised courtyard above

5.4 Appearance typologies 4 - Townhouses



Typology 4a - townhouse

The location of housing has been carefully considered to ensure successfully integrate the masterplan at the northern edge by completing the blocks of terraced houses facing Beaconsfield Road. To the south, houses are used by the railway line as the dual aspect character offers great views over the park without overshadowing the open space.

The houses to the north are more urban in their character – set in streets close to the active high street they effectively mesh into the existing grain around Beaconsfield Road in respect of their scale and configuration. Gardens back onto existing and houses face the principal routes between the masterplan and Beaconsfield Road to ensure activity and passive surveillance.

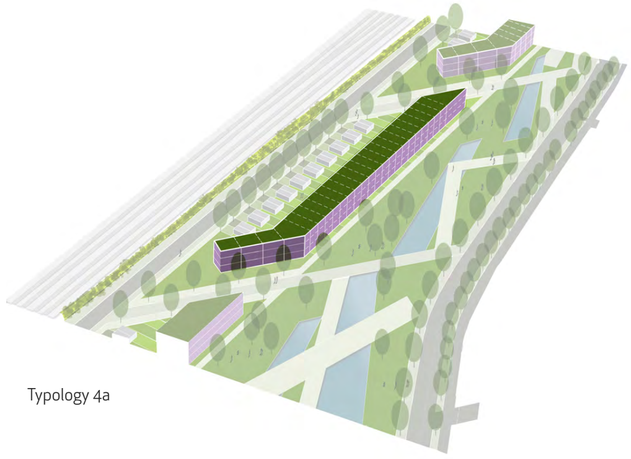
The southern houses are set in quieter surroundings fronting the park. South facing rear gardens incorporate garages that combine to form an environmental buffer to the railway.
Both areas offer accommodation for larger families and the choice of location extends their appeal to a wide range of residents.

The extent of housing is limited by the length of street frontage available, therefore, to maximize the number of available hoses, the accommodation is spread over 3 or 4 floors dependant on type as follows –

- 4a 4 bedroom house with either front yard for parking 1 car or a detached garage by the railway and rear garden
- 4b 4 bedroom house with integral garage, front yard for parking a second car and rear garden
- 4c 5 bedroom house with integral garage, front yard for parking a second car and rear garden

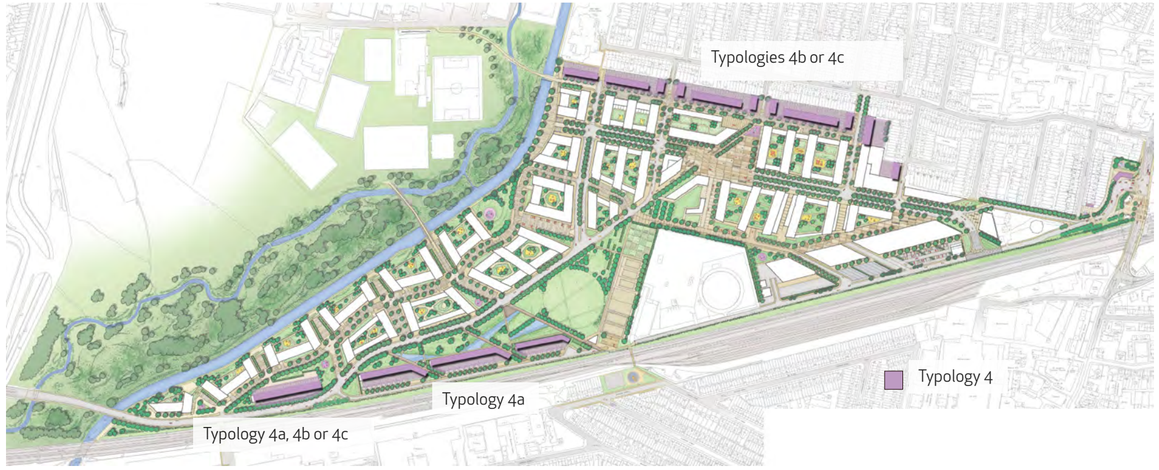
Townhouses facing parkland, Coin Street, London

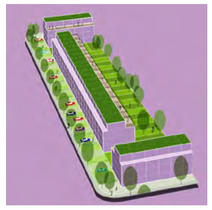
Townhouses facing communal public space, Cambridge



Typology 4a

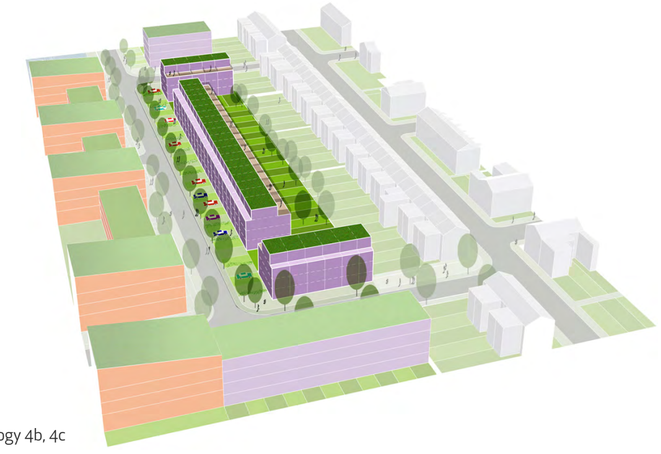
Section through typology 4a, showing its relation to Central Park





Typologies 4b, 4c - townhouse

Example of contemporary terraced housing, Cheltenham



Typology 4b, 4c

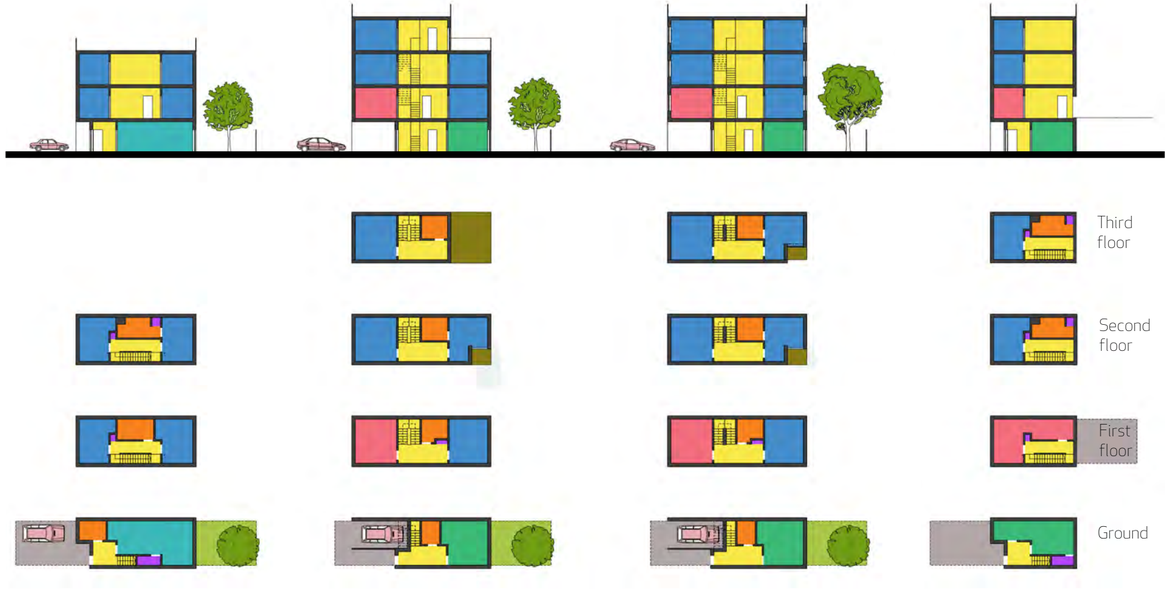
Contemporary town housing with private gardens

Examples of contemporary town housing with integral garages

Examples of contemporary terraced housing with integral garages

Typology 4 - Illustrative plans of house types

- Kitchen/Dining/Living
- Circulation
- Storage
- Bathroom/En suite
- Living room
- Terrace
- Garage/Carport
- Kitchen/Dining
- Bedroom



Type 4a - 4 bedroom townhouse
115 sq m

Type 4b - 4 bedroom townhouse with garage
150 sq m

Type 4c - 5 bedroom townhouse with garage
160 sq m

Type 4d - townhouse
115sq m

Design principles

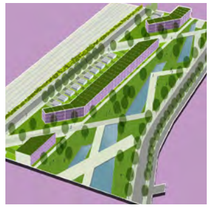
5.33 Front gardens to incorporate cast natural stone dividing wall

5.34 Rear gardens of plots CPS.03, CPS.04 and CPS.05 to incorporate garage and refuse store of similar materials to the associated houses

5.35 Rear gardens of plots CPN.01, CPN.02, HS.01, HS.03 and HS.05 to be separated from existing gardens by brick wall to match the associated houses

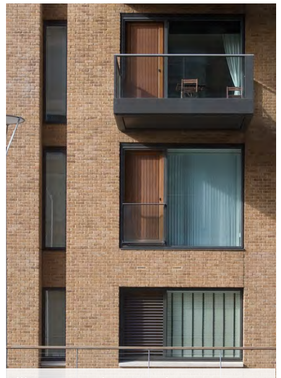
5.36 Elevations to comprise combination of:

- Transparent vision glazing
- Brickwork and timber to match terraced houses facing Beaconsfield Road for plots CPN.01, CPN.02, HS.01, HS.03 and HS.05
- Cast stone and/or brickwork panels for plots CPS.03, CPS.04, CPS.05 and CPS.06
- Predominantly solid front doors
- Glass balustrades to terraces

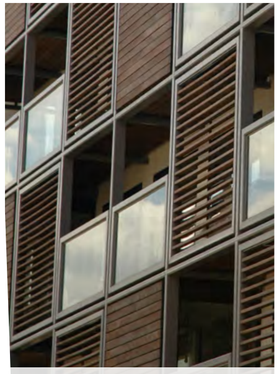


Typologies 4a

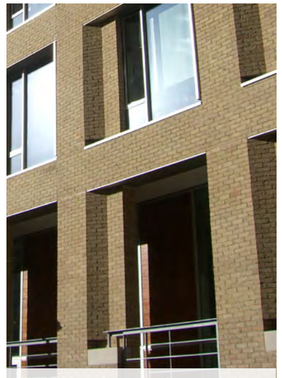
Typologies 4b, 4c & 4d



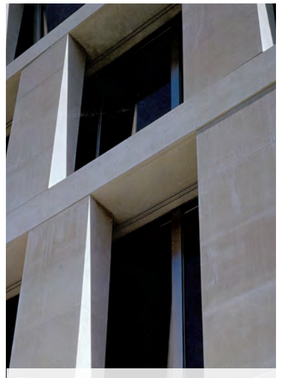
Illustrative elevation demonstrating brick



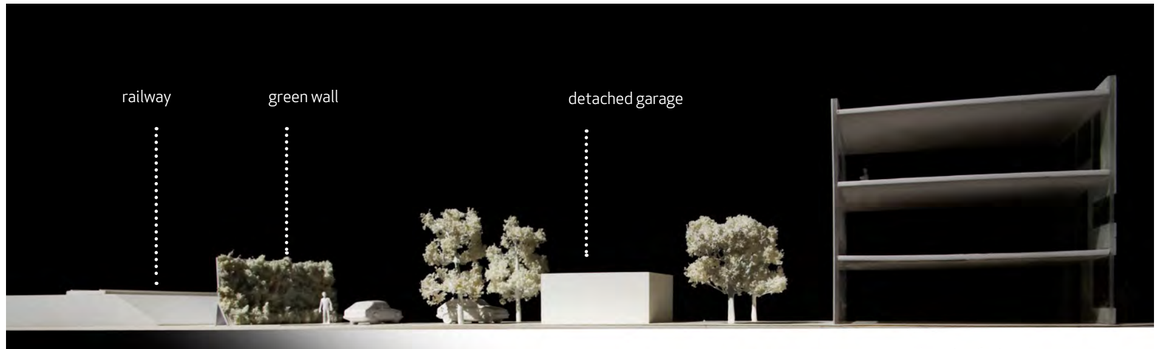
Illustrative elevation demonstrating hardwood and glass balustrades



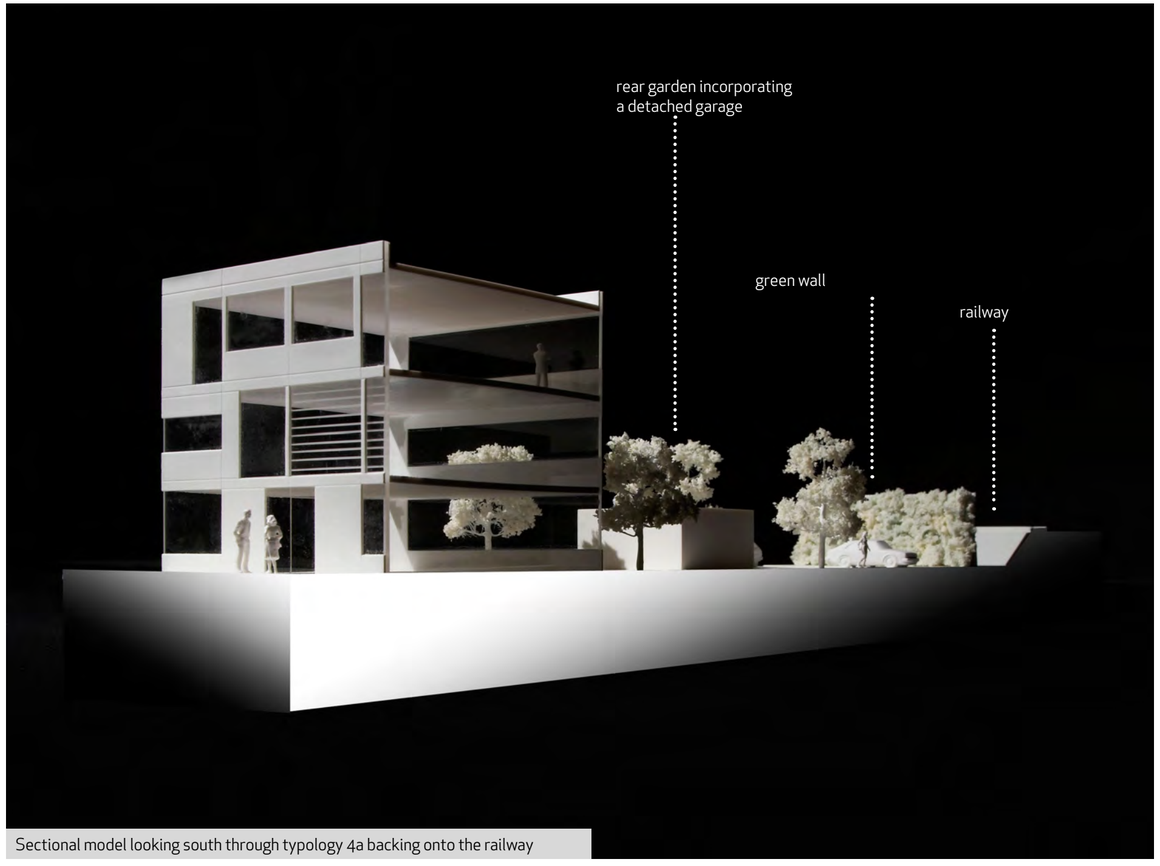
Illustrative elevation demonstrating brick



Illustrative elevation demonstrating cast natural stone



Sectional model looking west through typology 4a backing onto the railway



Sectional model looking south through typology 4a backing onto the railway

5.5 Appearance typology 5 - Other buildings

Typology 5.1 - Hotel / conference / banqueting

Typology 5.2 - School and health centre

Typology 5.3 - Residential tall building

Typology 5.4 - Cinema

Typology 5.5 - Multi-storey carpark and studio units

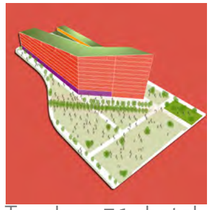
Typology 5.6 - Energy centre/public information facility

Typology 5.7 - Retail unit

Typology 5.8 - Community centre

Typology 5.9 - Sports pavilion

Typology 5.1 - Hotel / conference / banqueting



Typology 5.1 - hotel /conference/ banqueting

Design principles

5.37 The conference banqueting facilities and hotel reception area shall face the town square offering active frontage

5.38 Level of first floor to be 7.5m above street level expressed as a continuous cast stone element

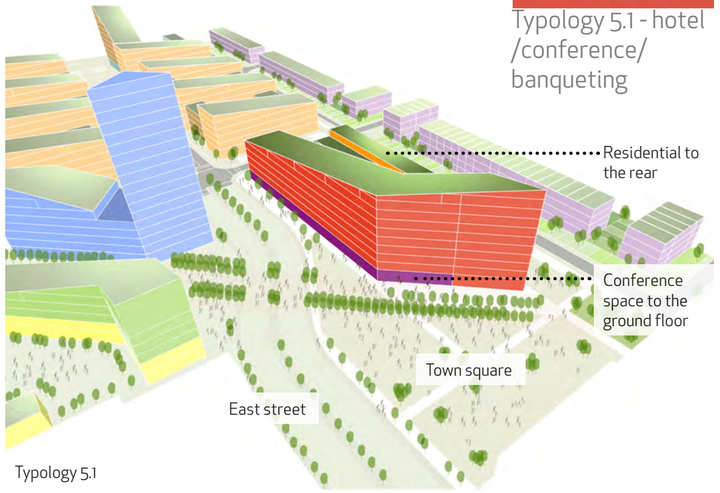
5.39 Carpark and service access to be from the western end of the building

5.40 Predominantly soft landscaped roof deck over the conference/banqueting accommodation to attenuate storm water

5.41 Hotel/banqueting/conference centre plant equipment to be integrated below roof deck with ventilation through the courtyard area and upper levels of the hotel

5.42 Elevations to comprise combination of:

- Transparent vision glazing
- Insulated panels of either:
  - A) Cast natural stone
  - B) Opaque glass
  - C) Anodised aluminium panels



Typology 5.1

Illustrative elevation demonstrating opaque glass and transparent glazing

Prominant building form fronting onto public square, The Urbis Centre, Manchester

Typology 5.2 - School and health centre

Typology 5.2 - school and health centre

Design principles

5.43 The school accommodation is over the lower 2 levels with its entrance facing Park Street

5.44 The health centre accommodation is on the upper levels with its entrance facing the town square

5.45 The eastern and southern elevations of the health centre shall not incorporate transparent vision panels offering sight to the playground below

5.46 Ancillary buildings shall complement the materials of the principal building

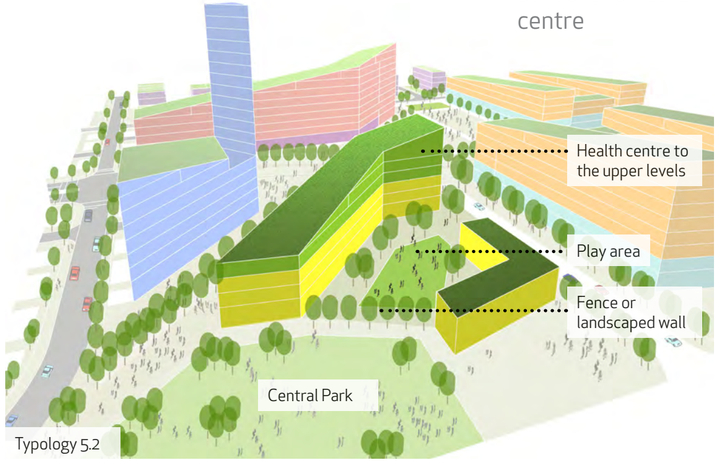
5.47 Minimum 50% green roof area to attenuate storm water

5.48 The play area shall be permeable to minimise stormwater discharge to the drainage system

5.49 The boundary shall comprise a fence or landscaped wall – designed to prevent trespass and maintain visual connection to Central Park

5.50 Elevations to comprise combination of:

- Transparent and translucent glazing panels
- Insulated panel to comprise combinations of either:
  - A) Cast natural stone and/or opaque glass
  - B) Brick and/or anodised aluminium panels
  - C) Brick and/or hardwood panels
- Copings to be either cast natural stone or anodised aluminium

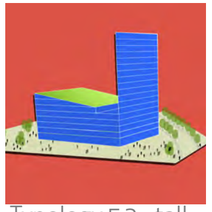


Typology 5.2

Greenwich Millennium school and health centre

School buildings arranged around a central play area, Northampton

Typology 5.3 - Residential tall building



Typology 5.3 - tall building

Design principles

5.51 The accommodation is to be arranged around a tall building and courtyard configuration

5.52 The courtyard massing is to include a change in height - with the tallest element, (other than the tower), facing the park

5.53 The tall building component is to be considered as a 'landmark' building

5.54 The tall building is to address the main square with the elevation on the square predominantly consisting of apartments

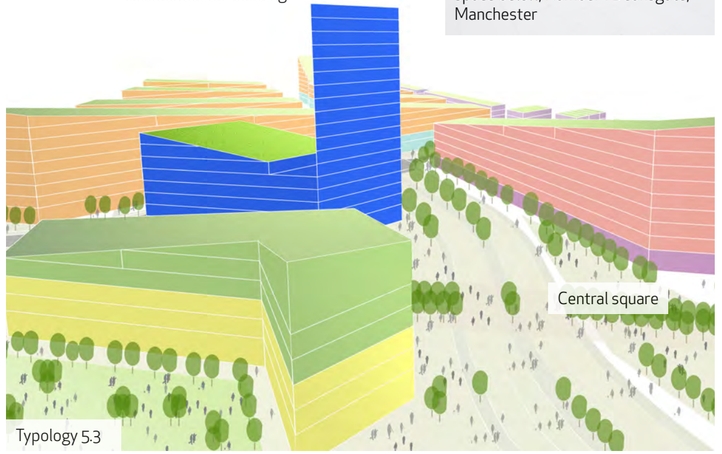
5.55 The composition of the block is allied to the hotel / banqueting / conference block, HS.02

5.56 Elevations to comprise combination of:

- Transparent vision glazing
- Insulated panels of either:
  - A) Cast natural stone
  - B) Opaque glass
  - C) Anodised aluminium panels

Example of a tower addressing public space below, Number 1 Deansgate, Manchester

Residential tall building



Typology 5.3

Example of a residential tall building as a 'landmark' building, Beijing, China

Typology 5.4 - Cinema

Typology 5.4 - cinema

Design principles

5.57 The cinema will incorporate auditoria to the south of the plot and primary internal circulation to the north visible to the street and Gateway Place.

5.58 Service access shall be from the southern elevation of the building

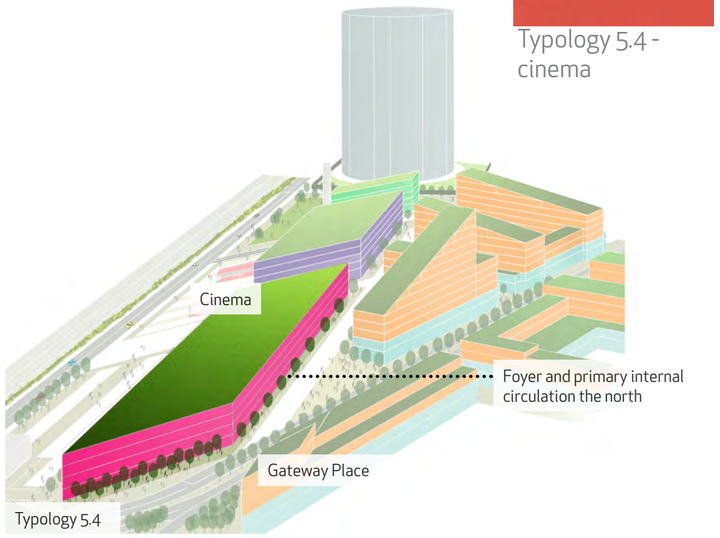
5.59 Plant and any communications equipment shall be visually concealed behind roof parapet

5.60 Elevations to comprise combination of:

A) Transparent vision glazing to the northern elevation
B) Insulated anodized finished aluminium and/or opaque glass

5.61 Landscaped open car parks to the south

5.62 Pedestrian access shall be from the north



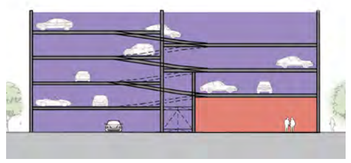
Typology 5.4

Horizontal building with large areas of glass addressing public realm, Millennium Point, Birmingham

Example of a cinema showing internal circulation visible to the street, Dresden, Germany

Typology 5.5 - Multi-storey carpark and office / studio units

Typology 5.5 - multi-storey car park



Design principles

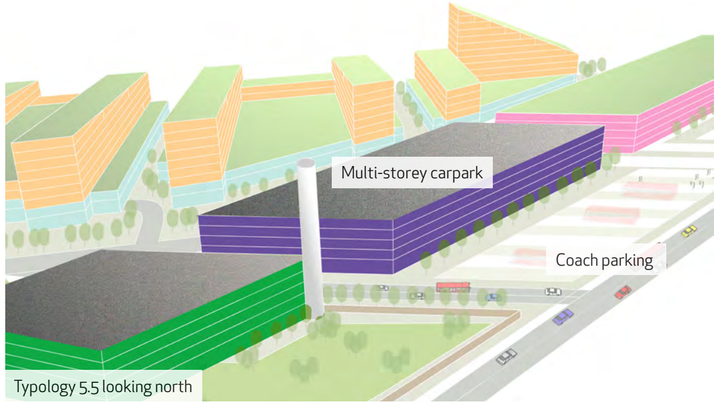
5.63 The multi-storey carpark is to integrate continuous studio/office units at street level of the northern elevation with the exception of carpark pedestrian access/egress

5.64 The elevations of the exposed carpark areas are to allow natural ventilation yet minimise visual penetration

5.65 The carpark access/egress points are to be well lit and legible

5.66 Elevations to comprise combination of either:

A) Cast natural stone structural components
B) Perforate anodized finished aluminium panels or open jointed glazed panels
C) Transparent vision glazing to the studio/ office units



Typology 5.5 looking north

Studios integrated into the carpark's northern elevation

Illustrative elevation demonstrating perforated anodized finished aluminium panels

Illustrative elevation demonstrating open jointed glazed panels to a carpark

Typology 5.6 - Energy centre

Typology 5.6 - energy centre

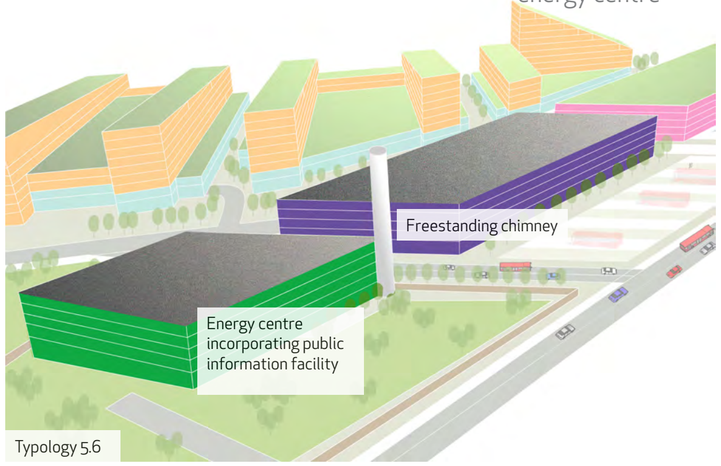
Design principles

5.67 External equipment including fuel storage to be screened

5.68 Stack (chimney) to be freestanding clad in stainless steel (maximum 42m above ground level)

5.69 Elevations to comprise combination of either:

A) Predominantly transparent vision glazing to eastern elevation, to offer views of public information facility / equipment
B) Insulated coloured anodized finished aluminium panels

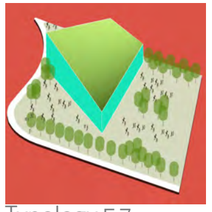


Typology 5.6

Example of energy centre within an urban context

Use of glazing and lights allow the building to glow at night

Typology 5.7 - Office/retail unit



Typology 5.7 - office/retail units - HS.08, HS.18, HS.18

Design principles

5.70 The office/retail unit is to principally address Main street

5.71 It is to have a predominantly glass frontage

5.72 It is to have a high quality roof finish, designed to be seen from above; either an extensive green roof or a continuation of the external cladding

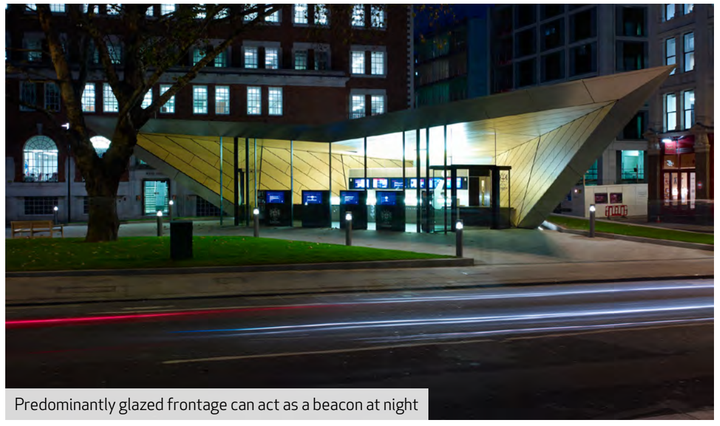
5.73 Elevations to comprise combination of either:

A) Opaque glazing / transparent vision glass
B) Brick / anodized aluminium panels
C) Hardwood panels

5.74 The roof is to be a maximum of 9m from the ground

HS.08 looking north

Example of small scaled building acting as a local landmark, St. Paul's Information Centre, London



Predominantly glazed frontage can act as a beacon at night

Typology 5.8 - Sports pavilion

Typology 5.8

Design principles

5.75 The Sports pavilion is to address the Central park and the pitches

5.76 It is to have a predominantly glass frontage to Central Park

5.77 It is to have an extensive green roof

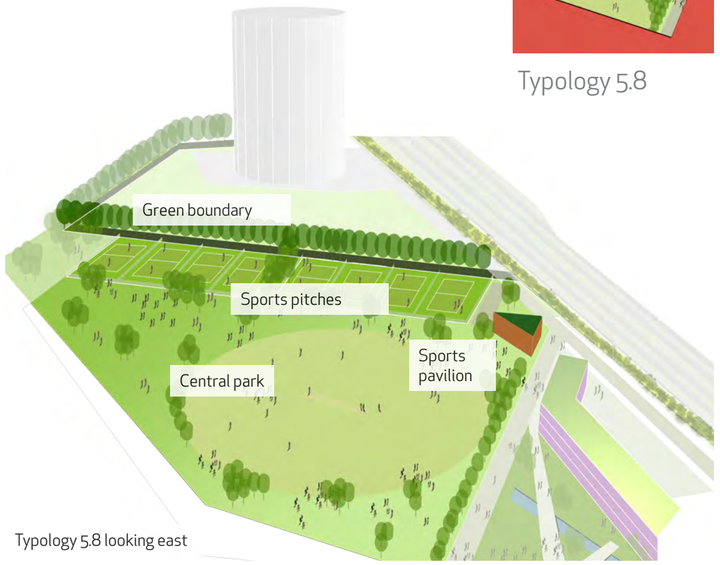
5.78 Elevations to comprise combination of either:

A) Opaque glazing / transparent vision glass
B) Brick / anodized aluminium panels
C) Hardwood panels

5.79 The roof is to be a maximum of 9m above the ground

5.80 The building is to touch the ground lightly, with a continuation of the landscape beneath

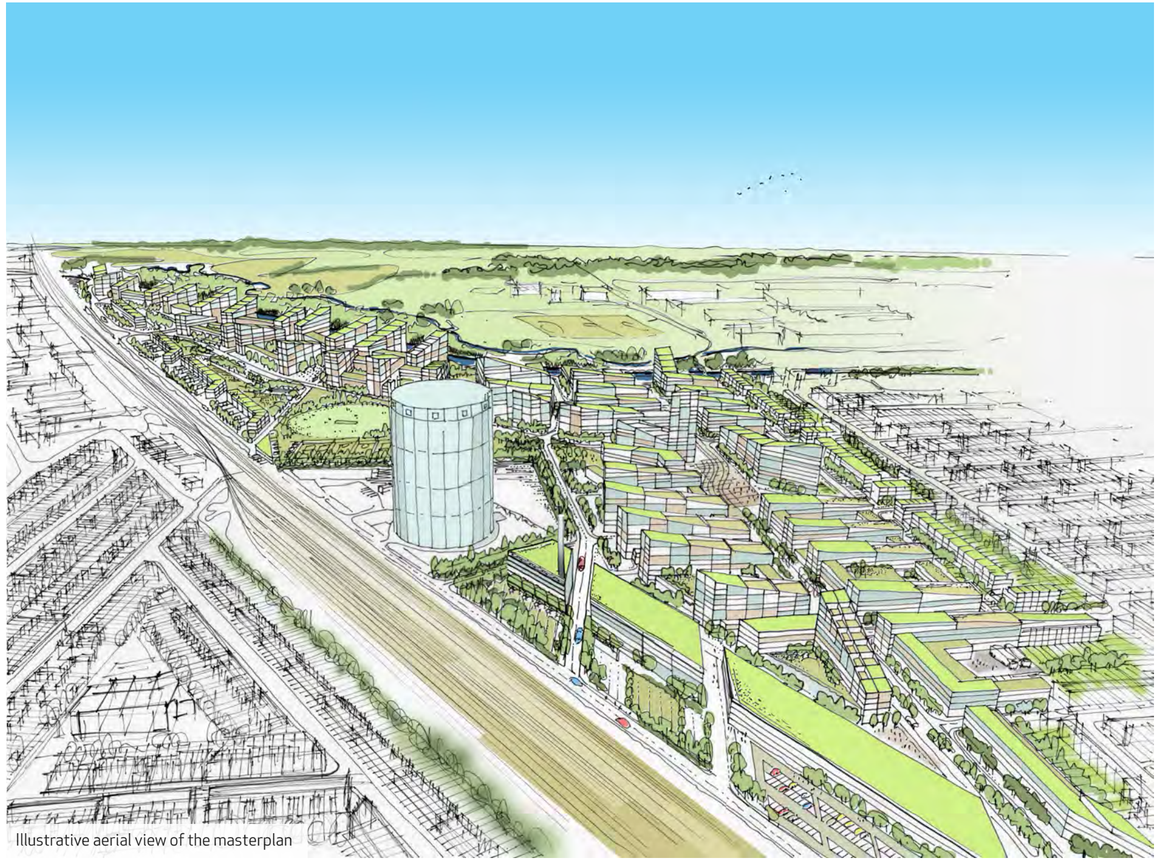
5.81 The building is to be considered in context with the green boundary forming the backdrop to the sport's pitches



Typology 5.8 looking east

Example of a building raised from the ground with predominantly glass frontage

Example of a building raised from the ground with predominantly glass frontage allowing views out to the sport's pitches



Illustrative aerial view of the masterplan

06

Sustainability

The sustainability strategy is described in a detailed report accompanying the planning application.

Sustainability - Introduction

Section 06 describes and explains the sustainability principles adopted within the scheme.

The scheme has adopted a holistic approach – one that considers the social, economic and environmental matters that through exemplar design will deliver a mixed-use urban form that encourages residents and visitors to adopt a sustainable lifestyle. The key principles of this approach are defined in section 6.1:

- Balance the energy consumed over the development's entire life
- Create development with a sense of place that serves the local and wider communities
- Reduce energy consumption associated with buildings and transport

The successful application of these principles is critical to West Southall's success and these are explained as follows:

Regeneration of the former gasworks site (described in section 6.2) has significant environmental benefit by meeting increased housing demand in the town centre close to public transport. The key to West Southall's successful sustainable regeneration is place-making (section 6.3) that will create a sense of place that offers convenient and high quality local facilities reducing environmental impact associated with travel.

The development's overall energy consumption will be managed through a sustainability protocol to limit carbon emission (section 6.4) that in conjunction with on-site energy generation, make West Southall an exemplar model of development. Consideration is also given to the energy embodied in materials and construction (section 6.5) and the benefit of ecological quality and diversity (section 6.6).

6.1 Environmentally progressive design

The West Southall will embrace and exceed codes and legislation to achieve an environmentally progressive and sustainable design.

Sustainability – a common definition:

'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'
(World Commission on Environment and Development 1997)

Our approach is to be holistically sustainable:

- Socially – an inclusive development accessible by all
- Economically – a deliverable development based on what the market can sustain
- Environmentally –a development that strives to reduce its energy consumption

The exemplar design will deliver a mixed-use urban form that encourages the residents and visitors of West Southall to adopt a sustainable lifestyle.

The key principles that have informed the masterplan's physical form and environmental quality are:

- To consider the balance of energy consumed over the development's entire life by adopting design strategies that optimize the use of land;
- Create places that serve the local and wider communities;
- Reduce energy consumption associated with buildings and travel.

Viable alternative to vehicular transport

Develop compact urban design

Ensure bio-diversity

Offer local services

6.2 Reclamation of land

Development of a brown field site for housing, employment and recreation is a priority given London's fast-growing population and its demand for homes which, without releasing land for development, will become increasingly unaffordable to many.

Given the contamination levels on the site, intensity is important to ensure economic viability. The benefit of this approach is that good quality public realm is essential to ensure West Southall's success in the spirit of Hammarby Sjostad; regeneration of parts of Barcelona; and Parc Andre Citreon, Paris; and BedZed, London.

Hammarby Sjöstad

Hammarby Sjöstad

Regeneration, Barcelona

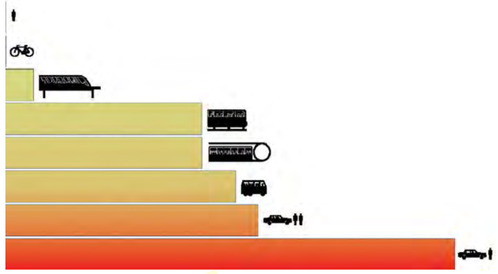
Parc Andre Citroen, Paris

BedZed, London

6.3 Placemaking

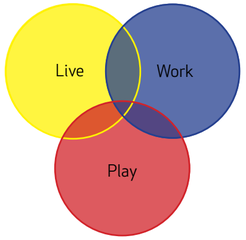
A sustainable community

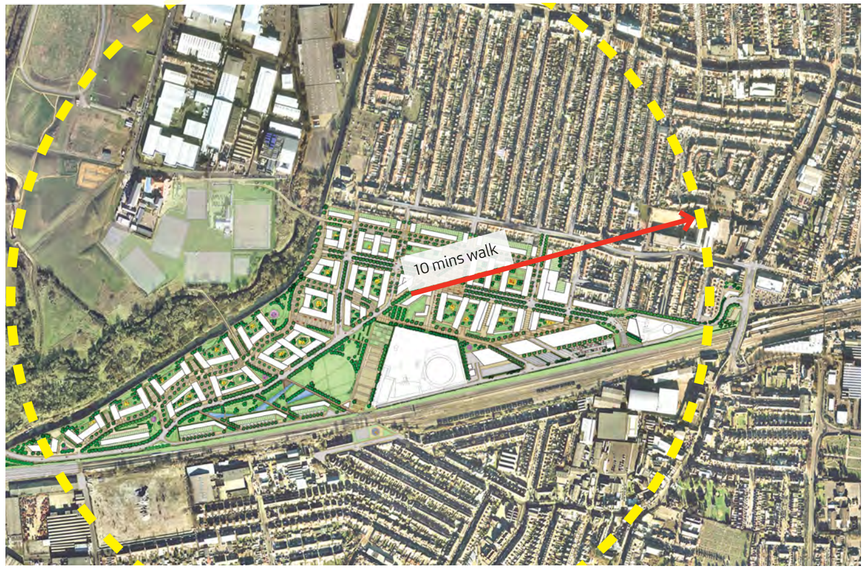
Developing a place that is truly mixed-use with a wide range of residential, community and commercial facilities, has micro and macro benefit in reducing the amount of energy associated with travel locally and between other centres, which currently serve Southall with facilities that will be incorporated within the masterplan.



Relative CO2 emissions per passenger mile

- Local residential accommodation reduces travel by car, rail and bus in preference to walking and cycling
- Convenient access to a variety of rail and bus networks will encourage use of public transport in lieu of car
- Generation of local employment opportunities
- Local retail facilities





The compact and mixed-use nature of the urban design will save energy and carbon dioxide emission associated with travel:

Local living,
Local working,
Local shopping,
Local recreation

6.4 Reduced energy consumption

Exemplar site-wide energy strategy

A sustainablility protocol will establish strategies for reducing energy consumption levels work in conjunction with the combined generation of heat and power on-site in a building that also offers the opportunity to act as a visitor and sustainability educational centre.

On-site energy generation

Bedzed, London

Glashusell energy and visitor centre, Hammarby

Recycling facilities

Hammarby Sjöstad is a large urban development, connecting to Stockholm city centre, to facilitate 35,000 people to live and work.

The Southall development has an extensive sustainabilty strategy, similar to BedZed in London or Hammarby which outlines environmental solutions for waste collection, energy and water.

This will allow the residents to produce 50% of their energy consumption upon completion in 2015.

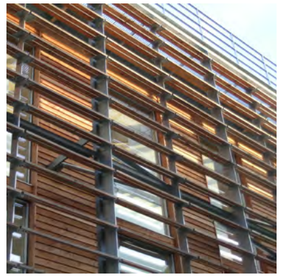
Hammarby Sjöstad also has its own environmental information and visitors centre - Glashusell, and the Earth Centrem Rotherham;this is also proposed for Southall. Visitor centres offer the community a chance to interact and take responsibility for their environment.

It is hoped that the environmental strategy for Southall would be an exemplar model that would attract visitors from beyond Southall.

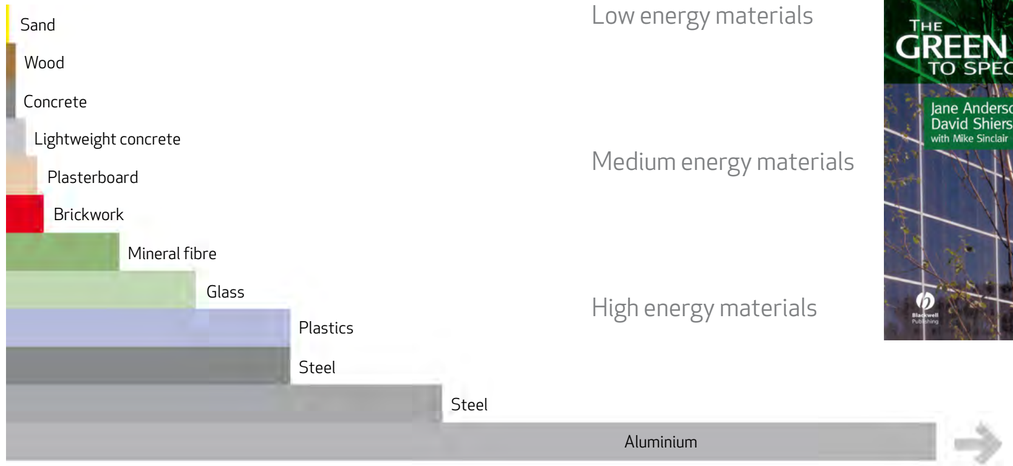
The Earth Centre in Rotherham

6.5 Energy in construction

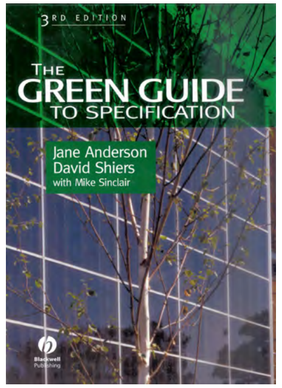
The development's overall carbon footprint will be assessed and monitored throughout the development period to ensure it meets or exceeds current targets. Efficient construction methods will be used and buildings will be designed to be compliant with GLA targets in addition to site-wide water management strategies including representation of green roof technology.



Recyclable Local Materials Labour Bulk transport



Relative embodied CO_2 of various materials by weight
Includes CO_2 generated through extraction, manufacture and construction processes



6.6 Ecological quality and diversity

West Southall's location next to the canal, will naturally attract the local migration of wildlife, flora and fauna to the development site. To improve the environmental quality and encourage appropriate feeding habitats for wildlife, the development will incorporate vegetation suitable for an urban environment within the public realm.

Tree selection

Green roof technology

Green roof technology

Open amenity green space also minimises stormwater discharge

07

Access

The transport strategy is described in a detailed report accompanying the planning application.

Access - Introduction

Section : Access – explains and justifies the access arrangements as Circular 1/06 paragraphs 100, 101, 102, 103 and 104.

Paragraph 100
'It is important to note that the requirement for the access component of the statement relates only to "access to the development" and therefore does not extend to internal aspects of individual buildings.'

Paragraph 101
'Statements should explain how access arrangements will ensure that all users will have equal and convenient access to buildings and spaces and the public transport network. The statement should address the need for flexibility of the development and how it may adapt to changing needs.'

Paragraph 102
'The design and access statement should also explain the policy adopted in relation to access and how relevant policies in local development documents have been taken into account. The statement should also provide information on any consultation undertaken in relation to issues of access and how the outcome of this consultation has informed the development proposals. This should include, for example, a brief explanation of the applicant's policy and approach to access, with particular reference to the inclusion of disabled people, and a description of how the sources of advice on design and accessibility and technical issues will be, or have been followed.'

Paragraph 103
'Access for the emergency services should also be explained where relevant. Such information may include circulation routes round the site and egress from buildings in the event of emergency evacuation.'

Paragraph 104
'For outline applications, where access is reserved, the application should still indicate the location of points of access to the site. Statements accompanying such applications should, however, clearly explain the principles which will be used to inform the access arrangements for the final development at all scales from neighbourhood movement patterns where appropriate to the treatment of individual access points to buildings.'

Section 07 describes and explains the inclusive strategy adopted to ensure all users have equal and convenient access to the buildings, spaces and public transport network within and adjacent to the scheme as defined in Circular 01/06 paragraph 100.

The access and egress locations are fixed, however, the strategy retains flexibility within the scheme to successfully accommodate alternate configurations of development plots.

In accordance with Circular 01/06 paragraph 104, section 7.1 describes the points of access to the site including the primary vehicular route through the site connecting South Road in the east to the Hayes by-pass (A312) via Pump Lane in the west and secondary routes that connect the scheme to Beaconsfield Road in the north whilst the connection Brent Road to the south will be closed to vehicular traffic. The configuration of new junctions, required for each of these connections, are also described in addition to the overall traffic management strategy in respect of the existing road network.

Section 7.2 defines the scheme's internal vehicular road network designed to facilitate the effective movement of vehicles within and through the site whilst discouraging use of the site as a through-route between Southall's town centre and the Hayes by-pass (A312). The hierarchy of routes is described including bus routes and access for emergency services, as required by circular 01/06 paragraph 101 and 103.

Pedestrian and cycle movement principles – interlinked with the placemaking principles described in section 02 - and inclusive access design philosophy are explained in sections 7.3 and 7.4 as required by Circular 01/06 paragraph 102.

The scheme's parking strategy is described in section 7.5 in terms of residential and commercial provision. The residential parking ratio of spaces per dwelling is an average maximum of 0.7 spaces per dwelling ranging from some blocks close to the town centre and station having limited parking provision and up to 2 spaces per dwelling for the larger town houses. The character of the residential and commercial parking is also described.

The retail accommodation on East Street naturally attracts higher levels of vehicular movement – both visitors and service. The effective management and circulation of this traffic is described in section 7.6.

7.1 Vehicle access and egress

The primary vehicular route runs through the site connecting South Road in the east to the Hayes by-pass (A312) via Pump Lane in the west. In addition, secondary routes connect to Beaconsfield Road in the north, whilst the connection to Brent Road to the south is to be closed to vehicular traffic. The connection to South Road provides links to existing development in Southall, whilst the connections to Pump Lane (and Hayes by-pass) provide connections to Hayes town centre and the wider highway network.

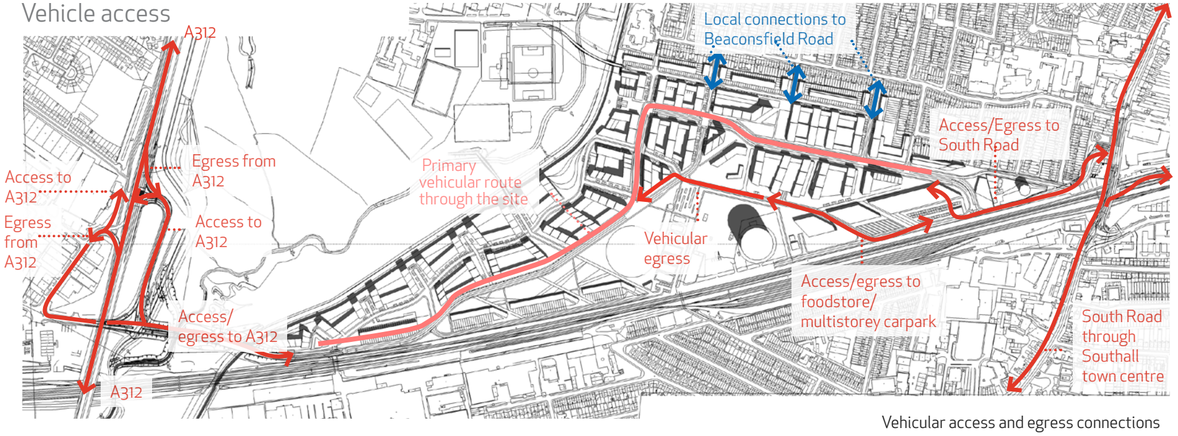
The link to South Road involves the demolition of all of the properties on The Crescent south of the small park, along with properties on the eastern side of Randolph Road plus the park itself. South Road is widened from the junction with Park Avenue to the north through to the junction with Merrick Road to the south, to provide two lanes in each direction. In addition, signal timings will be reviewed.

From east to west the character of the primary route changes from the main retail street, through the square towards the canal and park. In the high street, priority will be given to pedestrians through wide footpaths and frequent crossings, whilst the shared surface through the civic square and appropriate traffic calming measures will assist in reducing traffic speeds and discouraging through traffic.

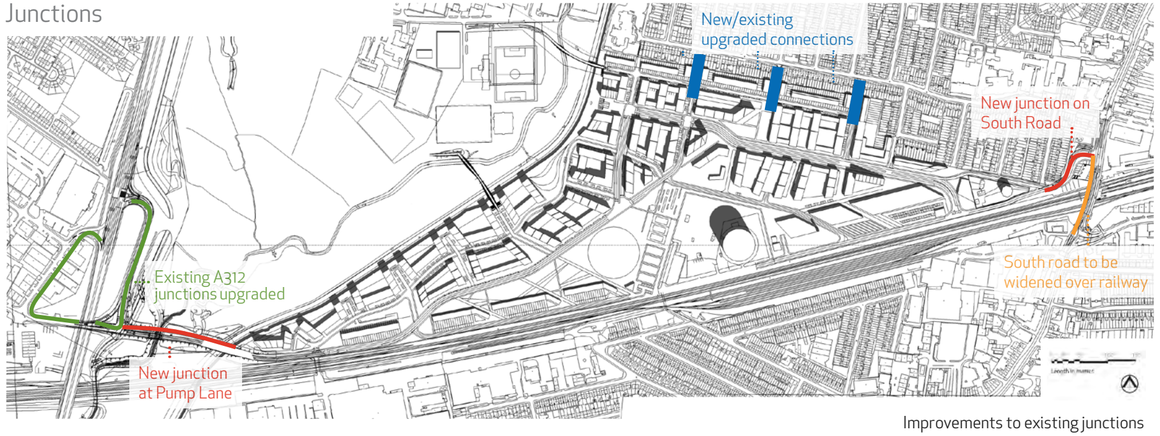
The connection to the west on to Pump Lane and Hayes by-pass involves the creation of a new road over the Grand Union Canal and Yeading Brook, along with a new signalised junction on the Hayes by-pass. The junction on the Hayes by-pass will facilitate all movements except the right turn in to Pump Lane from the south, where vehicles will be required to use the existing route via Bilton Way.

Hayes by-pass, A312 junction


Existing South Road junction



Vehicular access and egress connections



Improvements to existing junctions

7.2 Internal vehicular road network and emergency vehicle access

The network of internal roads is designed to facilitate the effective movement of vehicles within and through the site for residents and visitors of the masterplan whilst discouraging use of the site as a through-route between Southall's town centre (including the residential area north of Beaconsfield Road) and the A312.

From the primary vehicular route, connections to Beaconsfield Road in the north offer local links between adjacent development and key destinations within the masterplan that have reciprocal benefit. The width of the primary route will vary between two and four lanes, with the third and fourth lanes reserved for buses, taxis and cycles where appropriate.

Pedestrian and cycle crossings along with traffic islands will be provided in appropriate locations to ensure safety. On the high street (East Street) there will be a mixture of bus stops at regular intervals, loading bays and some short stay or special need on-street parking provision.

The simple layout of internal roads allows emergency service vehicles to access every plot within the scheme in accordance with codes and regulations.

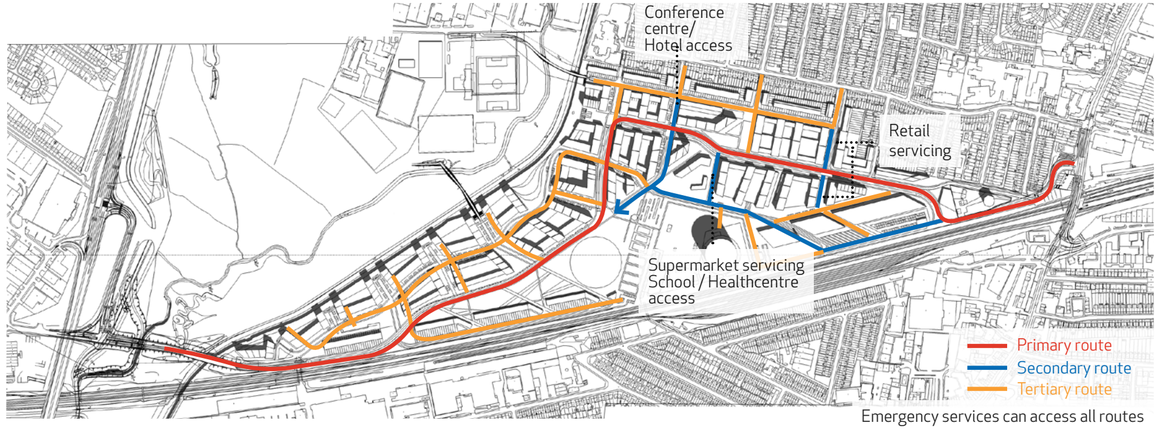
Secondary vehicular routes within the site connect to the primary route to provide access and egress to those development plots that attract greater volume of traffic such as hotel/ banqueting, school/health centre, foodstore, multi-storey carpark and retail service areas. These routes will be single carriageway roads up to 6 metres wide with on-street parking for residential uses.

Within the residential accommodation, tertiary routes connect the individual development plots to the secondary or primary routes. Between the canal and Central Park, these roads will be constructed as 'Home Zones' where shared surface and landscape ensure the roads are pedestrian oriented.

Buses will be given priority on the primary route througout the site

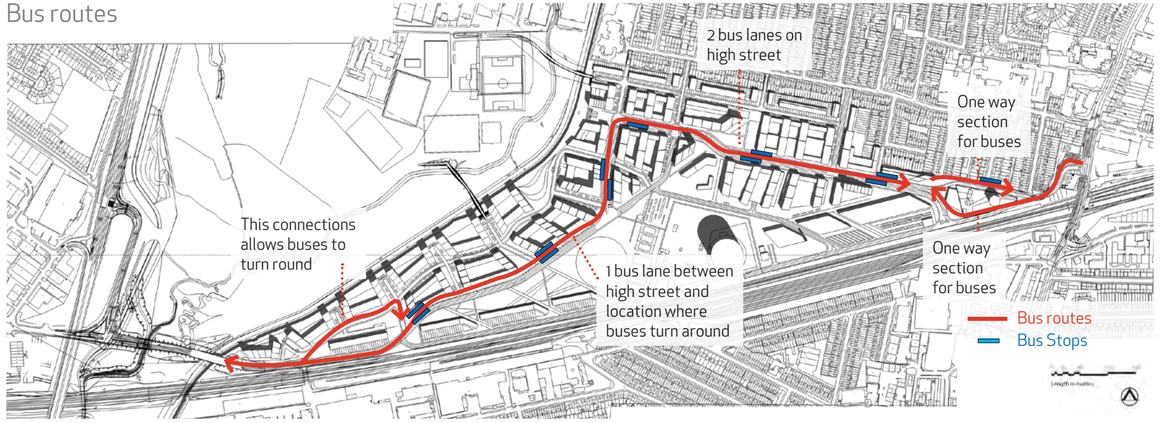

Roads will have a clear hierarchy

Road hierarchy and emergency vehicle access



Emergency services can access all routes

Bus routes



7.3 Pedestrian and cycle movement

There is an inherent spatial hierarchy of roads, places and streets that is derived from their use and location which in conjunction with the simple yet proven strategy of creating visually connected destinations encourages pedestrian and cycle movement through the masterplan and the adjacent neighbourhoods.

Primary routes, spaces and destinations:

1. East Street with a concentrated retail pitch connects South Road, the station and the new town square.

2. The Eastern Gateway is a landscaped corridor that safely encourages pedestrian and cycle movement between Gateway Place, South Road and the station. The reconfigured road creates an effective junction for vehicles joining South Road and a welcoming public realm through which pedestrians using the station and buses will pass. A pedestrian/cycle oriented route north of the water tower, shared only by east bound buses, flows to Gateway Place at the confluence of the East Street and the route to the park. Surrounded by cinema, café bars, restaurants, retail, office and residential accommodation Gateway Place acts as a lively local hub through which many people will pass. The change in level between the masterplan and South Road is at a gradient no greater than existing South Road as it rises and falls over the railway line.

3. The town square is at the confluence of routes from the East and West Streets; Trinity Road leading north to The Broadway; and the pedestrian/cycle route to the park. The square is faced by a hotel and banqueting centre; school and health centre; shops; taller residential building; café bars and restaurants. The square is the focus of pedestrian routes within the masterplan and can be the arena for many of the cultural events and religious festivals that currently take place on Southall's streets

4. The park has a central space with sports facilities surrounded by different character areas including play and wetland (part of the sustainable drainage system). Running along side of the park is Park Street lined by residential accommodation that connects the western approach from the A312 with the square. Between the head of the park and the square traffic is reduced to ensure a pedestrian/cycle oriented connection.

5. Where the Springfield Road pedestrian and cycle bridge crosses the canal a leisure destination is naturally created due to the concentration of pedestrian movement and moored narrow-boats, vibrant café bars and a great west-facing aspect to the Minet Country Park. The gradient of the brdge and access streets / ramp are less than 1:20. refer to section 8 for detail.

6. The towpath by the canal will be upgraded as part of the GLA's Blue Ribbon policy that will encourage greater use of this amenity by making the masterplan a key pedestrian and cycle attractor on the Blue Ribbon network. The towpath is 1.5m lower than the masterplan level with access provided by steps or ramp compliant with access standards.

7. The Western Link to Pump Lane crosses the canal and Yeading Brook with a gradient of less than 1:20. Refer to Section 10 for detail.

Secondary

8. The route between the Gateway Place and Central Park north of the gasholder is animated east to west by small scale retail; multi-storey carpark; residential entrances; workplace studios; health centre/primary school; and the head of the park.

9. The route between the park and active canal front by the Springfield Road pedestrian and cycle bridge is reinforced as it forms part of the bus route running through the masterplan.

10. The existing routes under the railway extend through the park, over the canal and Yeading Brook to the Minet Country Park. The existing underpass and Brent Road configuration will remain unchanged.

11. The gradient of the Minet Country Park pedestrian access ramps are less that 1:20. Refer to Section 9 for detail.

Tertiary

12. The ends of existing streets to the north extend to the park to provide level access for pedestrians and cyclists.

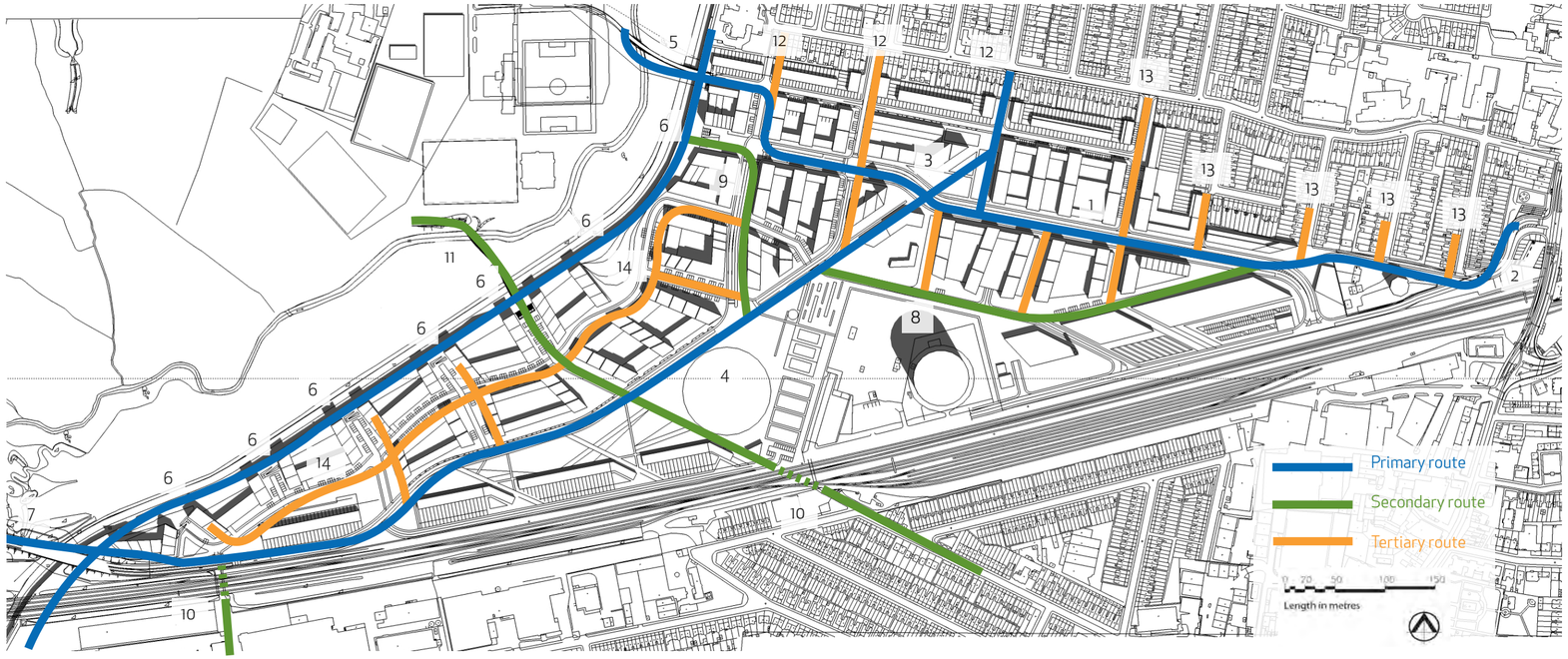
13. The streets off the main street integrate fine grain retail, office or residential accommodation on the ground floor that offer diversity and encourage non-vehicular movement along these streets.

14. The residential accommodation by the canal has a network 'Home Zones' that are configured to allow communities to grow.

Designated pedestrian routes

Designated cycle parking

Designated cycle routes



7.4 Inclusive access

The design philosophy for the scheme is based on accessibility for everyone. This includes not only disabled residents, workers or visitors who may use wheelchairs but also those with impaired mobility; sight comprehension or hearing difficulties; pushchair users, young and elder people to ensure access within the masterplan is inclusive. This approach addresses not only compliance with the Disability Discrimination Act together with relevant planning policies, but also the long-term implications of sustainability.

The site is effectively level coincident with access points on Beaconsfield Road to the north, however, the towpath is approximately 1.5m lower where and integrated stepped and ramped access will be provided where routes meet the towpath. The two pedestrian and cycle bridges spring from the higher level rising and falling at a shallow gradient – greater than 1:20 – to gain clearance over the towpath, canal and Yeading Brook. Access to the towpath from the bridges is completed by use of adjacent stepped and ramped access routes

The eastern access follows the gradients of the road to offer gradual access between the masterplan, South Road and the station. The opportunity remains for future access to the station at masterplan level under the road bridge.

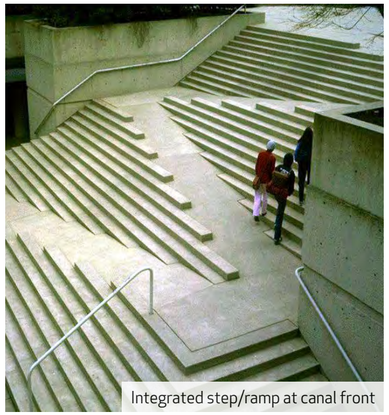
Within the masterplan, raised tables – where the carriageway is raised to allow continuity of the pavement – shall be used at principal pedestrian crossings to ensure pedestrian safety. Elsewhere dropped kerbs allow the convenient access for all.

Designated disabled parking bays will be provided within all carparks and on the retail streets. The access to all buildings will be step-free and the upper and lower levels of all buildings accessed by both lift and stairs with the exception of town houses and duplex accommodation that will have stairs only from the access level.

Example of parking and shared surface along side street

Designated disabled parking bays

Raised tables at pedestrian crossings



Integrated step/ramp at canal front

Shared surfaces in Town Square

7.5 Parking

Parking for the residential accommodation will be provided at an average maximum ratio of 0.7 spaces per dwelling across the site, ranging from some blocks close to the town centre and station having limited parking provision and up to 2 spaces per dwelling for the larger town houses. The parking will be provided as a mixture of on and off-street parking where design dictates, with some off-street parking provided by surface parking around the edge of the buildings, courtyard, basement, or the multi-storey car park as appropriate

Parking for the commercial and leisure elements is primarily be provided off-street in the multi-storey carpark located at the eastern end of the site to enable people to also visit existing facilities in the town centre whilst a coach park extends Southall's accessibility.

The supermarket, cinema and hotel have adjacent parking facilities, however, visitors to the banqueting facilities will use the multi-storey carparks following visitor drop-off. With the exception of banqueting visitors, the carparks will be managed to discourage long stay parking.

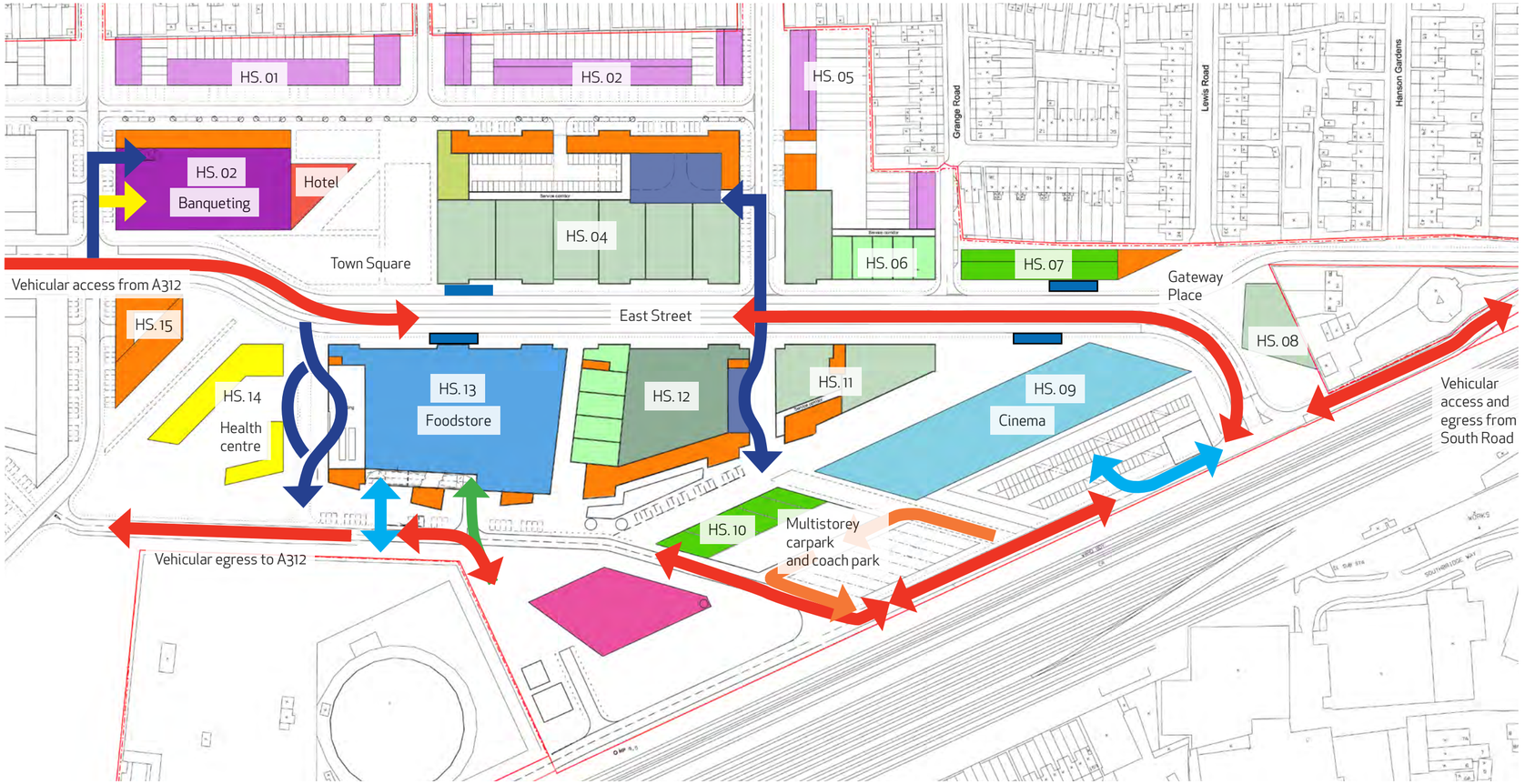
- Off-street parking - secure basement / courtyard
- Off-street parking - external
- On-street parking
- Multi storey parking
- Bus / coach parking
- Townhouse integral or separate garage

7.6 East Street vehicular access

East Street is the key attractor for vehicular movement within the scheme and the management of traffic within this area has been considered to ensure vehicular access and egress is straightforward and easy to use. The principle is to develop a simple circuit around the East Street commercial area that links all commercial plots and the primary access and egress routes to South Road and the A312.

Retail and hotel loading bays are accessed from side streets to ensure the primary routes are not compromised by service vehicles – the design of all loading bays allows service vehicles to drive in and out directly.

Individual vehicular access to the carparks are direct from the primary vehicular access route that runs through and around East Street.



Key

- Small retail units
- Medium retail units
- Anchor store
- Foodstore
- Apartments
- Townhouses
- Conference / banqueting
- Hotel
- Office
- Energy centre
- Health centre
- Cinema
- Shared loading bay

- Primary vehicular access
- Multistorey carpark coach and bus parking access
- Resident access to HS. 13 carpark
- Service access
- Hotel carpark access
- Surface carpark access
- Bus stop

08

Springfield Road pedestrian and cycle bridge

Springfield Road pedestrianised cycle bridge - Introduction

Section 08 describes the pedestrian and cycle bridge designed by Marks Barfield Architects to cross the Grand Union Canal and the Yeading Brook between canal plaza and Springfield Road.

A description of the bridge's context; its design principles and development; and access strategy are provided in sections 8.1 to 8.3.

The selection of durable materials that offer user safety; the integration of lighting and the ecological impact is explained in sections 8.4 to 8.7.

Springfield Road Bridge forms an important part of the access strategy to the West Southall Gasworks Development.

The pedestrian and cycle bridge links the new residential development east of the Grand Union Canal (Paddington branch) with Hayes and the green space along the Yeading Brook to the west.

The high quality design ensures a robust interface to the urban realm and considers the bridge underpass experience from the Canal towpath from which access to the bridge will be provided.

The design takes into consideration the valuable role of the Grand Union Canal green corridor for the urban environment by reducing the constructional intervention to a minimum.

Expressive ribbon-like arches will accompany a gently curved deck and will respond to the active canal frontage with a clear hierarchy of different spans and heights.

The bridge will improve public accessibility to the green space and the towpath and will contribute to the recreational character of the green space by providing unique views into the landscape.

Concept Sketch

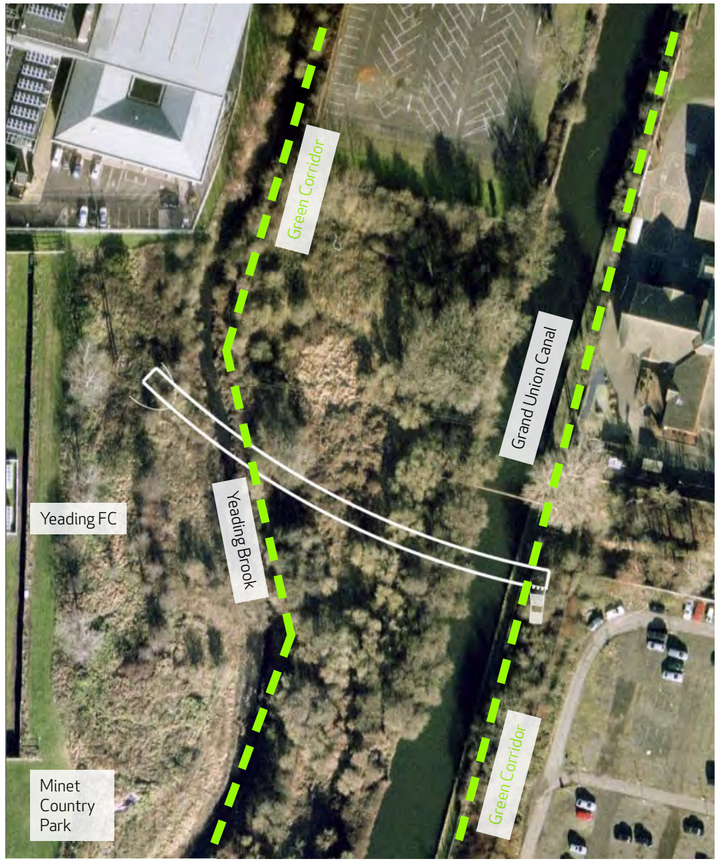
8.1 Context

The bridge spans the Grand Union Canal and the Yeading Brook to link the new residential development via Springfield Road with Hayes and Yeading.

The aerial photograph of the site indicates the location of the bridge adjacent to the existing pipe bridge and the stair descending to the towpath.

The bridge crosses the designated Green Corridors along the Grand Union Canal (Ealing and Hillingdon) and the Yeading Brook (Hillingdon), which are also defined as Green Chains to link areas of open land, which extend across the Borough boundaries.

An embankment forms the slightly elevated western link to Springfield Road alongside the boundaries of the Yeading FC football ground.



Aerial photograph of proposed site

Towpath looking south

Towpath looking north towards the gas pipe bridge

8.2 Design principles and development

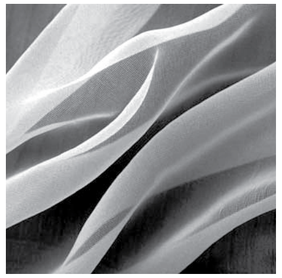
The design for Springfield Road Bridge is exclusively in response to the physical characteristics and the environmental constraints of the site.

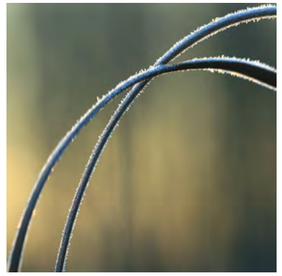
As the bridge spans waterways and functional flood plains, of very different extent and significance, the arches have been developed consequently to match the different structural requirements.

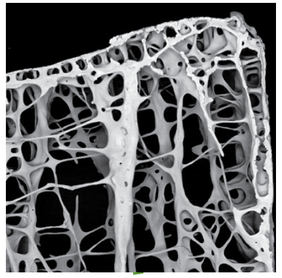
Supporting a gently curved deck the arches span the Grand Union Canal, touching the ground once between the canal and the brook - rising again to span the Yeading Brook.

The images and sketches on the following pages illustrate the design process from concept stage to the latest 3-dimensional images.

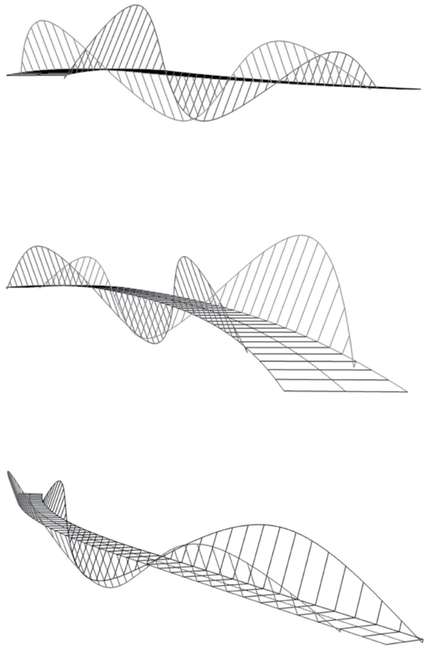
The existing adjacent gas pipe will be rerouted under the bridges deck integrated within the structure.



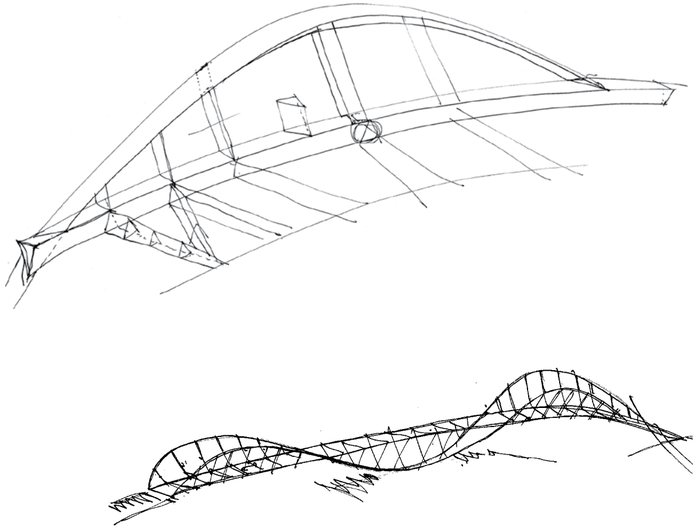




Concept images



Early conceptual wireframe computer studies



Concept sketch