





Scheme by CZWG Architects, 2008



Continous line - maximum development







Waterside development



Waterside development and public square

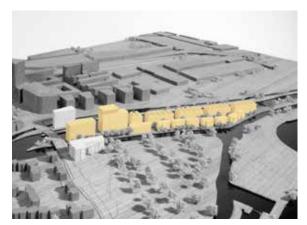
3 DESIGN EVOLUTION AND CONSULTATION

3.1 EVOLUTION OF THE DEVELOPMENT

Model study with height at north tip of site



Model study of couryard scheme



Early model study of wasterside development

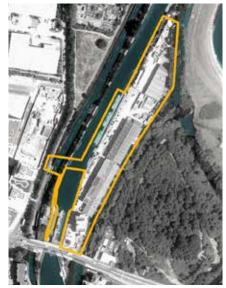
3.1.1 Design objectives

- Access: To create new connections to and through the site from the adjacent neighbourhoods of Tottenham
 Hale
- *Typology*: To provide a variety of accommodation that is suitable for a cross-section of society and that is placed to maximise the potential of the unique site.
- Waterside and courtyard spaces as connecting elements: To create a new set of public waterside and courtyard spaces that connect the different building types and provide a renewed sense of place on the site.
- Massing: To create an exciting new skyline whilst
 maintaining a sensitive heights strategy that responds
 to the ecological sensitivity of the adjacent parklands
 and allows for views through the site from the existing
 neighbourhoods of Tottenham Hale.

3.1.2 Masterplan Evolution

A number of different masterplan approaches were investigated in relation to the site. The diagrams on the facing page illustrate some of these differing masterplan arrangements.

The different arrangements explored placement of typologies, density and height across the site and helped to define a clear set of principles for the masterplan proposal.

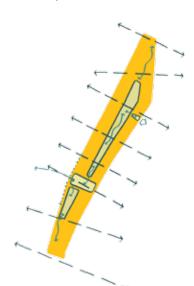


The masterplan boundary and existing context

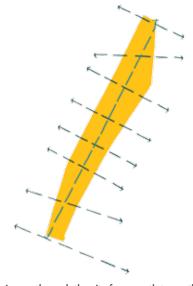
Creating a series of public spaces



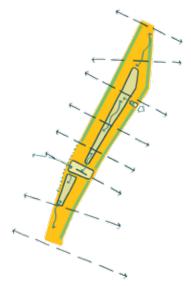
Permeability from east to west



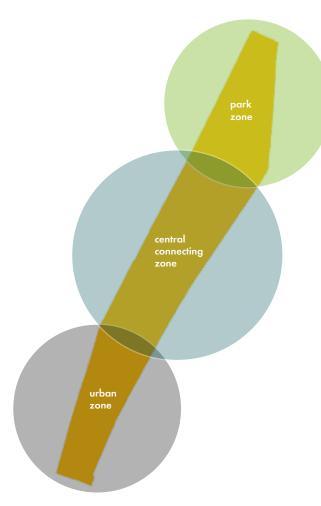
Connecting spaces



Access through the site from north to south



Maintaining green edges



Masterplan character zones

3.1.3 Key principles of the proposed masterplan

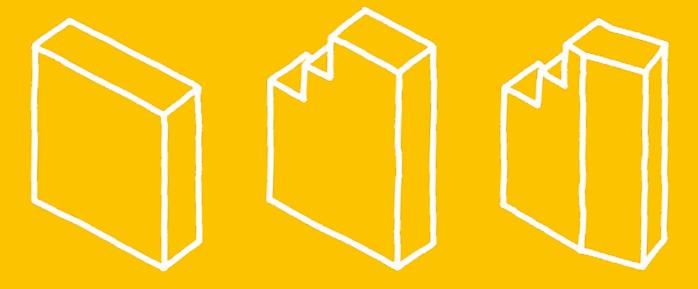
The masterplan has evolved around the following key principles:

- Permeability: Ensuring views out of and through the site from east and west by maintaining gaps between the buildings in the masterplan.
- Access: Creating new vehicular, cycle and pedestrian access from north to south through the centre of the site to the Lee Valley Park and moorings to the north.
- *Public waterside spaces*: Creating a spectacular new waterside public square at the entrance of the site.
- A shared central courtyard: Creating a new public courtyard and shared surface space at the centre of the site, from which all of the residential units are accessed.
- Connections: Providing new physical connections to and from adjacent neighbourhoods and parklands.
 Bridges are proposed as part of the green grid to the eastern and western sides of the site.
- Green edges: Maintaining and improving a biodiverse zone at the waterside edges of the site to improve and safeguard the ecological potential of the site.

3.1.4 Masterplan character zones

The illustrative masterplan has been developed to have three separate character zones. These character zones define the density and character of the buildings and public spaces.

- Park zone: Buildings of lower density and height that respond sensitively to the adjacent parklands and wetlands. More private, family orientated public spaces.
- Central connecting zone: Medium rise buildings and central connecting spaces that provide active residential frontages and a link through the site.
- Urban zone: Higher density buildings that respond to the urban context of the new development and taller buildings along Ferry Lane and Monument Way, creating new public open space onto the waterfront with a place for the bridge to land.

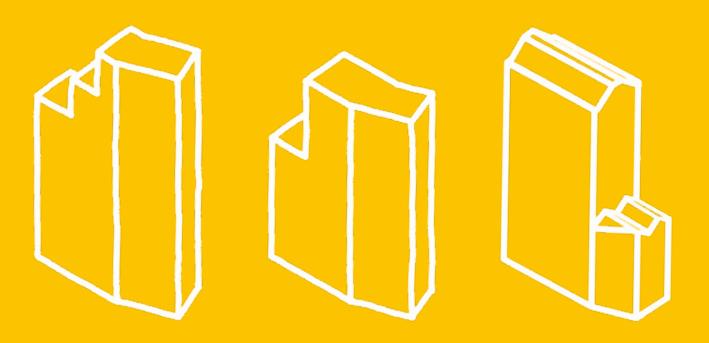


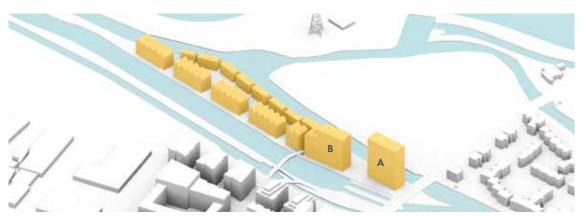
Sketches showing massing evolution of Block A

3.2 BUILDING MASSING STUDIES

3.2.1 Tall building massing: Height and density across the masterplan

The height and massing of the taller buildings in the proposed masterplan (Blocks A and B) has been carefully considered. Many massing studies have been undertaken to ensure an appropriate height and mass of these taller buildings in relation to the scheme as a whole. The increased height of these taller blocks towards the more urban southern end of the site at Ferry Lane allows for a lower rise and lower density development along the waterways and ecologically sensitive northern tip of the site. The excellent access to public transport, particularly at the southern end of the site, also supports higher density in this area.





Massing exploring lower density of detail application blocks (A and B) - resulting in a higher number of buildings across the site



Massing exploring the increased height of taller blocks A and B



Re-alignment of taller blocks A and B to create public waterside square a southern end of site

Massing studies of waterside scheme



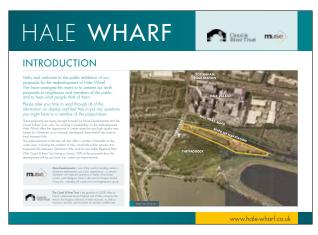




3.2.2 Masterplan massing studies

The masterplan was developed through a series of scale, massing and height studies, relating to both the site itself and its immediate context.

- Development of heights strategy that is sensitive to the local urban context, parklands and areas of ecological sensitivity.
- Development of a strategy for the massing and location of taller blocks on the site.
- Daylight studies inform the massing and arrangement of the blocks to ensure that the central courtyard spaces and adjacent parkland spaces will receive adequate sunlight.
- Developing a strategy of how to place buildings on the site in relation to their height and mass and the need for appropriate spaces (or gaps) between them.
- Development of a strategy for placing taller buildings towards the urban southern end of the site and progressively smaller buildings towards the sensitive northern edges of the site.
- Massing Studies informing the heights, scale and character of the roofscape across the masterplan.









Selection of boards displayed at the public consultation









3.3 CONSULTATION AND COMMUNITY INVOLVEMENT

The development of the Hale Wharf proposals has been informed by a programme of public consultation. The project team arranged and attended two public exhibitions held in venues close to the site, as well as a stakeholder group session. The team has separately met with ward councillors and the Cabinet Member for Regeneration, as well as holding dedicated meetings with site neighbours (including nearby boaters) and environmental interest groups. A project website (www.hale-wharf.co.uk) was set up as a central part of the consultation and has been updated throughout with the latest information about the proposals.

The team has received feedback from interested individuals and groups as a part of its public consultation, including over 50 completed feedback forms as well as emails, letters and coverage in local news media. Full details of the Consultation and community involvement undertaken in support of the Hale Wharf proposals can be found in the Consultation Statement which has been submitted as a part of this application. This document also sets out the feedback received throughout the consultation and how the team as responded.

Туре	Date	Location	
Meeting with Cllr Alan Strickland (Cabinet Member for Housing and Regeneration)	Monday 1st February, 11.30am	River Park House (Council Offices)	
Meeting with ward councillors (Cllr Reith, Cllr Rice)	Monday 1st February, 5.30pm	Civic Centre	
Public exhibition one	Wednesday 3rd February, 4pm - 8pm	Ferry Lane School	
Stakeholder presentation	Wednesday 10th February, 6pm	Ferry Lane School	
Public exhibition two	Saturday 13th February, 10.00am - 1.30pm	Engine Room (Hale Village)	
Pre-submission presentation to the Haringey planning sub-committee	Tuesday 16th February, 7pm	Civic Centre	
Meeting with Friends of Tottenham Marshes	Monday 7th March, 4pm	Ferry Boat Pub	
Meeting with Stonebridge Boaters	Monday 7th March, 7pm	Ferry Boat Pub	
Development Management Forum	Wednesday 9th March, 7pm	Tottenham Green Leisure Centre	



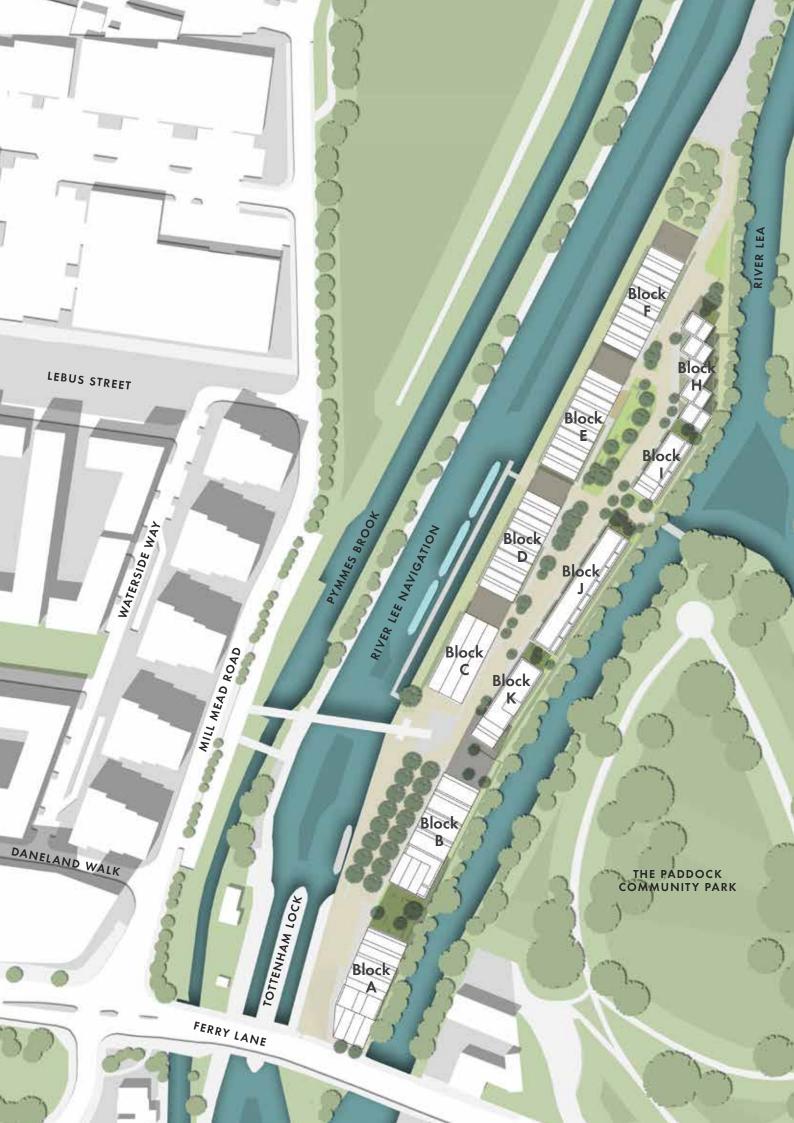




3.4 SECURE BY DESIGN CONSULTATION

A meeting was held on 3 March 2016 with a Metropolitan Police 'Designing out Crime Officer' (DOCO). A review was carried out of the illustrative masterplan and the principles of Blocks A and B which form the detail planning application. The following points are a summary of the topics discussed.

- Layout and orientation of buildings on the site was discussed as providing potential for surveillance to and from public spaces such as the central courtyard.
- Provision of defensible amenity space as a front boundary between ground floor units and central courtyard.
- Surveillance of gaps between buildings and the need to clearly define the use of external spaces to avoid criminal misuse or abuse.
- Setting the height of balconies across the masterplan at an appropriate height to prevent use as climbing aids
- Detailing of rainwater pipes to prevent use as climbing aids.
- Street lighting and lighting of footpaths- meeting requirements of Secure by design and how this will be achieved without negatively impacting sensitive adjacent RAMSAR and SSSI sites.
- Compartmentation of lifts and entrance lobbies of apartment blocks in taller Blocks A and B.
- Detail design considerations for attaining secure by Design accreditation in taller buildings such locations of letterboxes and techincal specification of doors and windows.





4 OUTLINE ILLUSTRATIVE MASTERPLAN

4.1 ILLUSTRATIVE MASTERPLAN AND DESIGN CODES

An illustrative masterplan has been prepared for the site. The process of developing the illustrative masterplan provides the opportunity to evaluate the architectural character as well as to test the environmental and social implications of the proposals. Therefore the development of the illustrative masterplan has two important roles:

- To provide a basis for developing the parameters and detailed design for the proposed development.
- As an example of how a development designed in accordance with the parameters may evolve.

The masterplan establishes principles of overall layout, including density, tenure & amount, plan, orientation and forms of streets and buildings, circulation, cycle storage and parking.

A series of design codes are included within this section. These focus on key aspects affecting the appearance and design quality of the scheme and are included in the following sub-sections:

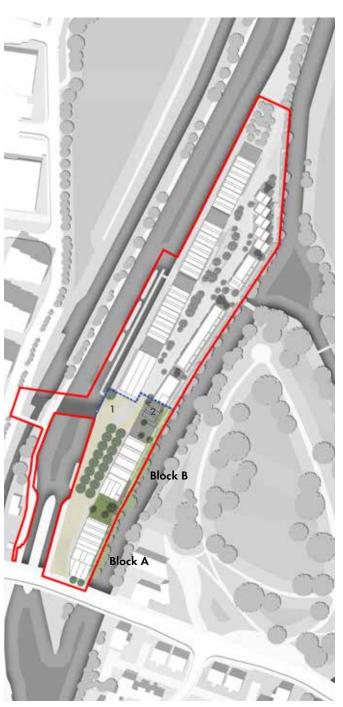
- 4.3 Use and Amount
- 4.4 Typology
- 4.5 Scale and Massing
- 4.6 Gaps and Views Throught
- 4.7 Appearance
- 4.8 Transport and Parking
- 4.9 Public and Private Realm

with the parameter plans.

4.10 Refuse and Servicing4.11 Energy and Services

The Design Codes are intended to establish the character and quality of the buildings in the Hale Wharf development. They will help inform the internal layout, access and appearance of the buildings of the outline proposal as they come forward for development. The Design Codes should also be read in conjunction

The pages which contain the Design Codes are identified by their pale blue colour. Each Design Code is typed in bold font, and should be read alongside its justification typed in italics font. The objective is to clarify the purpose and reasoning behind any given Design Code. Subsequent development proposals that follow this outline masterplan will need to demonstrate that they have responded to the Design Codes and how they achieve their objectives.



Block F Block H Block E Block I Block C Block J Block K

Extent of detail application

Extent of outline component

Planning application

site boundary

- Detailed application boundary
- Outline application boundary
- Outline approval is sought for a bridge and bridge landing in this area. Detail approval is sought for landscape works in the same area.
- Qutline approval is sought for buildings in this location. Detail approval is sought for interim car parking in the same area.

4.1.1 Detail application

Provides 249 residential units and $307m^2$ commercial space in Blocks A and B. With associated parking and landscaping works to the southern end of the site. Please refer to section 5 of the DAS and to the unit schedules for a detailed split of unit and tenure types.

Interim cark parking is provided for Blocks A and B to the northern end of the detail application area.

4.1.2 Outline component

The outline component will provide up to 256 residential units and 1,300m² commercial/ community space in Blocks C,D,E,F,H,I,J and K, with associated landscaping and parking.

The outline component also provides a new bridge to the southern end of the site. See section 4.2 'Bridges' for further information on the outline bridge application.

4.1.3 Phasing

The programme does not pre-determine the order in which buildings subsequent to the detail application will be delivered. However, the importance of defining the thresholds which would trigger the provision of key elements of infrastructure, public realm or community facilities as the development progresses will be upheld throughout the construction process.

Implementation of the development will be phased to ensure that demolition and construction activities required for the redevelopment are delivered in a timely, properly and orderly way and to ensure that any disruption is minimised. All phases of the development will be dependent on market conditions.







Diagram from 'Tottenham Hale: Green and Open Spaces Strategy': Haringey London

4.2 BRIDGES

4.2.1 The Bridges within the Green and Open Spaces Strategy for Tottenham Hale

Four watercourses run roughly North-South at a short distance from each other adjacent to and close to the site – the Pymmes Brook, the River Lee Navigation, the River Lea Diversion and the Old River Lea. These are followed relatively closely by the overhead electrical cables, the railway line, the dual carriageway of Watermead Way, while a spur from the Victoria Line rises to the surface here. The transport infrastructures both connect and dissect the area: they connect it to central London, but fragment it into small disconnected islands.

physical access and open space, independent of but feeding into the development process.

The Tottenham Hale Green and Open Spaces Strategy prepared by Kinnear Landscape Architects for Haringey Council, and developed in dialogue with the District Centre Framework Streets and Spaces

strategy, established a number of principles as follows:

A number of studies have developed the approach to

- Existing and new connections are to form a series
 of east-west routes between the High Road and the
 river, supporting a connected neighbourhood: work
 delivering the new connections needs to be supported
 by upgrades to existing links such as the underpass.
- The new link through Hale Village is formed by a bridge over the railway and over the River Lee Navigation. Since this link is close to Ferry Lane, it should complement it: the former is more of a quiet pedestrian route, the latter is better suited to commuter cycling.
- Access to nature is to be enhanced by bringing the distinctive landscape character of the Lea Valley into the urban areas, at Down Lane Park and Chesnut Road; in addition by improved links and quiet routes to the renewed Paddock, and to Walthamstow

 Wetlands

- By renewing and extending Down Lane Park, its role as a key community resource, and a common ground between old and new communities can be strengthened.
- Existing and new open spaces should range in character between the urban and the wild; connected up, they will form a chain of varied atmospheres and activities
- New connections should be conceived to support movement along as well as across the valley, supporting the regional usage of the Lea Valley: by linking at locations appropriate to both directions, connections will help form circular walks and cycle rides.

The bridges are therefore an important means of realising the Green and Open Spaces Strategy and have the potential to link new and existing communities, offer access to public transport and access to nature, and reinforce the distinctiveness of the place.

Two of the bridges from the Green and Open Spaces Strategy are being included in the outline application. The outline application establishes the design principles and parameters for these bridges.



Bridge and lift, Galtzaraborda, Spain. VAUMM Architects



Bridge over Avenue Tervuren, Brussels. Pierre Blondel Architectes, Laurent Ney and Partners engineers

4.2.2 Design approach to the Bridges

In the context of the Green and Open Spaces Strategy, careful and strategic consideration has resulted in the following principles to guide the design of the bridges:

- The bridges and paths should be direct and visible, but can also diverge and converge The High Road, Ashley Road, Hale Village and Hale Wharf all vary subtly in orientation, so there is no single alignment that works with each; moreover, there are locations, at Down Lane Park and Mill Mead Road where it is beneficial to step or vary the route, to avoid fast cycling or careless road crossing. Conversely, the bridges and paths are parts of a whole, in an engineered landscape, so deliberate meanders and changes in alignment would easily appear contrived. To balance these conditions, the elevated bridges are proposed in a single line, so that one is clearly visible from the other; however, the low bridges, the steps at the western end of the rail bridge, and the paths linking them are proposed responding to local conditions.
- The bridges should land in public spaces

 The bridges are not simply infrastructures, linking roads or paths, but are connections between places.

 How the bridges land, and relate to new development, is therefore very important. Through dialogue between the designers of the bridges and those leading the new developments, it is critical that space is made for the bridges, so that they connect to and animate new public realm.

- The bridges should be designed in manner which reflects and fits in with their surroundings. Much of the area is highly engineered the viaduct of Watermead Way, the concrete channel of the Pymmes Brook, the electricity pylons. Yet through mature trees, wild vegetation and older landscape elements like the stone canal locks, the rural character is still strongly present. This tension is true of the Lea Valley as a whole. The bridges up and down the valley are straightforward, undemonstrative structures that contribute to the engineered or rustic feel: the new bridges should fit within these simple, direct 'vernaculars', working as part of the landscape character, and avoiding spectacular gestures.
- The bridges in urban areas should integrate lifts
 The slices of land left between the linear
 infrastructures do not accommodate ramps at the
 scale required by the elevated bridges. Such ramps
 would exceed acceptable standards for access, would
 impede other movement, and in the case of the bridge
 over the River Lee Navigation would have significant
 ecological impacts, requiring the removal of significant
 sections of river edge vegetation. For this reason the
 bridges over the railway and canal should be served
 by lifts. These lifts should either be integrated in the
 engineering structure, or treated as separate elements
 of the landscape, avoiding any impression that they
 are bolted on to a bridge conceived in isolation.
- The bridges should offer views to the surrounding landscape
 The valley floor around Tottenham Hale is dominated by the high bunded Walthamstow Reservoirs; other

by the high bunded Walthamstow Reservoirs; other parts are fenced and divided up. As the bridges rise over obstacles, they potentially offer rare elevated views over this piecemeal landscape, allowing users a view of the wider area, and a sense of this open space that carves through East London. To make the most of these views, and to contribute to the sense of openness, bridges should be left open to the sky, and where crossing over the rivers should have structure no higher than the balustrade.

 The bridges should have a common language and material

The spans and structural depths, the clearances and approaches vary by large factors - the spans from 15 to 50 metres, the clearances from level to 5.8 metres. Despite this diversity, the bridges built in this area should have a core common identity, sharing a simple range of approaches without in any way repeating solutions across dissimilar conditions. A common language of simple trussed girder construction should be used across all scales of bridge. Materials will likely vary according to scale and location: a palette of painted steel, weathering steel and hardwood offers sufficient diversity of performance to meet the engineering constraints, and enough material variety to respond to different landscape characters. The different bridges should be developed with reference to others in the series, forming a 'family', with deeprooted commonalities underlying local differences.



Bridge in weathering steel, Saskatoon, USA

4.2.3 Bridge 1: Design Principles

The bridge over the Pymmes Brook and River Lee Navigation will provide pedestrian access between Millmead Road and Tottenham Marshes footpath and Hale Wharf over the River Lee Navigation.

Engineering constraints

- Vehicular access to Pymmes Brook slipway to be maintained at 4 metres wide
- No surcharging or lateral loading on Pymmes Brook concrete culvert
- Bridge designed to carry 2no. heat network pipes from Hale Village to Hale Wharf
- Bridge soffit level above 1-in-100 year flood level, plus 20% climate change allowance, plus 600 mm design freeboard (= +8.53 AOD over Pymmes Brook, and +9.09 AOD over River Lea Navigation)
- Bridge soffit level above 1-in-1000 year flood level (+8.55 AOD)
- No allowance has been made for future naturalisation
 of the watercourse at the abutments, since the close
 proximity between the Pymmes Brook and the River
 Lea Navigation and the requirement for vehicle access
 to Pymmes Brook preclude this
- See parameter plan for further detail on design parameters and constraints

Unknowns

 Assumed high voltage cable under towpath, other utilities unknown. Surveys will be carried out at RIBA Stage 3 to support the detailed design and Reserved Matters Application.

Siting

- Bridge aligned with the rail bridge proposed from Ashley Road to Hale Village: maximises visibility from the rail bridge, helping the green grid work as a whole, not a set of isolated parts.
- This alignment implies movement to the north to connect to the bridge to the Paddock
- Crossing approximately perpendicular to Hale Wharf river wall at the bend in the river

- This location makes use of the wider section of the towpath to locate foundations.
- Lifts integrated into pylon structures, parallel to the river walls, bearing bridge load to piled foundations

Access - stairs and lift

- Stepped access bridge, supported by a lift to the towpath and bridge across Pymmes Brook, and a lift within the Hale Wharf public space.
- West stair has to span Pymmes Brook; East stair needs to descend within the Hale Wharf public space.
 They are therefore asymmetrical, and this should be carefully handled in the design.
- Longitudinal camber with high point at the centre of the span, supporting Eastern views to Hale Wharf and beyond to the Paddock, or Western views to the new District Centre

Construction and materials

- Bridge and lifts in braced weathering steel or painted steel construction
- Lifts to be integrated in the structure of the bridge.
- Deck and steps in durable hardwood with anti-slip inserts; handrail in durable hardwood; cast iron nosings to steps
- Lift shaft cladding and bridge guarding infill to be as transparent as possible to mitigate the presence in the landscape
- Structure not to exceed a height of 1.4 metres above the deck, to support views to the surrounding landscape.
- Heat network pipes suspended from cross beams beneath stair and bridge; pipes will be insulated and encased for protection from potential impact.

Safety

- CCTV to be integrated in lift and at lift doors for security and maintenance – as noted in the management and maintenance strategy for the bridges.
- Lighting to be integrated in handrail of both bridges, and at lift doors. Lift car to be illuminated when in use.

Emergency telephone line in the lifts to be provided
 data and telephony integrated into services for the bridge

Ecological impact

- Removal of trees in the riparian corridor has been minimised by the use of lifts instead of ramps, and by concentrating the footprint of the two bridges proposed.
- Lightspill onto the river and within the migratory corridor to be minimised by careful lighting design.
- Risk of birdstrike to be avoided by use of bird-proof etch if glass used.
- If weathering steel is used, product literature states that run-off does not have an adverse effect on surrounding vegetation or watercourses.

Lighting

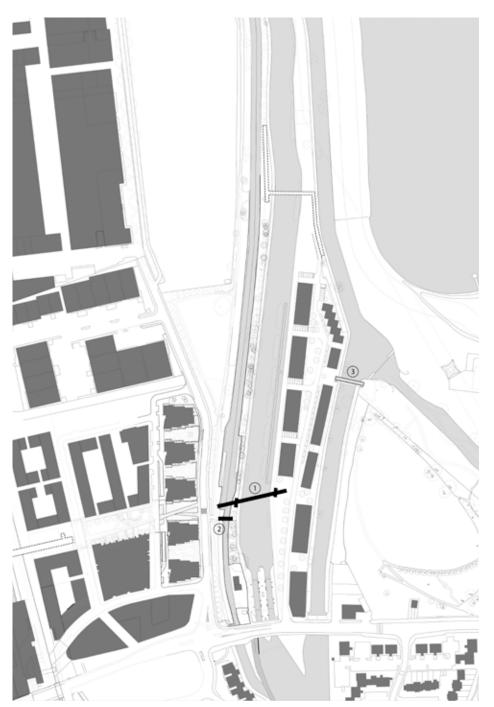
Preliminary lighting studies have established that lighting recessed in the handrail and directed inwards would be able to achieve the following mean illuminance levels:

30 lux at bridge deck level

- >6 lux at head height for facial recognition
- <1 lux lightspill onto the river

Public realm

- Towpath to widen to connect to lift, path material to match, gravel topped asphalt
- Tactile paving at foot of stairs in line with accessibility guidance.
- Drainage to collect at base of stair and lifts to mitigate any staining from weathering steel run-off.
- Palisade fencing to be cut back and adjusted to accommodate bridge
- New hedge to be planted beside recently completed fencing along Millmead Road, beside road crossing to enhance the existing ecology of the route



Bridge strategy diagram

- River Lee Navigation Bridge
- 2 Pymmes Brook Bridge
- 3 Paddock Bridge
- Bridge 1 & 2 included in outline planning application
- Bridge 3 not included in the outline application, location is safeguarded by the applicatn for future review of the bridge
- Other bridge locations as identified in the 'Green and Open Spaces Strategy'

4.2.4 Bridge 2: Design Principles

The Pymmes Brook bridge will provide pedestrian and cycle access between Tottenham Marshes footpath and the River Lee Navigation towpath over the Pymmes Brook.

Engineering constraints

- Vehicular access to Pymmes Brook slipway to be maintained at 4 metres wide
- No surcharging or lateral loading on Pymmes Brook concrete culvert
- Bridge soffit level above 1-in-100 year flood level, plus 20% climate change allowance, plus 600 mm design freeboard (+8.53 AOD)
- Bridge soffit level above 1-in-1000 year flood level (+8.55 AOD)
- Bridge spans both open and enclosed sections of Pymmes Brook, permitting the latter to be uncovered in the future
- No allowance has been made for future naturalisation of the watercourse at the abutments, since the close proximity of the River Lee Navigation and the requirement for vehicle access preclude this
- See parameter plan for further detail on design parameters and constraints

Unknowns

 Assumed high voltage cable under towpath, other utilities unknown. Surveys will be carried out at RIBA Stage 3 to support the detailed design and Reserved Matters Application.

Siting

Secondary bridge to the south of main River Lee
Navigation bridge, spanning over the culverted
Pymmes Brook as well as the open section. The bridge
is sited to offer access to the River Lee Navigation
towpath from the West, and to offer a step free route to
the Hale Wharf Bridge.

Access

 Level access from Tottenham Marshes path and towpath, providing a step free route from the West to the lift and bridge to Hale Wharf.

Construction and materials

- Hardwood truss construction with structure forming edge guarding
- Hardwood deck with anti-slip grooves
- Longitudinal camber
- Guarding infill in fine stainless steel mesh

Safety

· Lighting integrated within the handrail

Ecological impact

- Removal of trees in the riparian corridor has been minimised by concentrating the footprint of the two bridges proposed
- · Lightspill to be minimised by careful lighting design

Lighting

Preliminary lighting studies have established that lighting recessed in the handrail and directed inwards would be able to achieve the following mean illuminance levels:

30 lux at bridge deck level

>6 lux at head height for facial recognition

<1 lux lightspill onto the river

Public realm

- New connections to Tottenham Marshes footpath and towpath to match existing (gravel topped asphalt)
- Palisade fencing to be cut back and adjusted to accommodate bridge
- New signage in keeping with Lee Valley Regional Park Authority and Canal & River Trust branding to be added at the East and West ends of the Pymmes Brook bridge.

Private Housing						
Market Sales						
Flat / House Type	Target Minimum Typical NIA (sqm)	Target Minimum Typical NIA (sqft)	Unit Count		Habitable Rooms	
Studio Flat	39	420	10	4%	10	2%
1 Bed Flat	50	538	87	35%	174	26%
2 Bed Flat	73	786	103	42%	309	45%
3 Bed Flat	99	1066	47	19%	188	28%
TOTAL			247	49%	681	50%
Market Rent						
1 Bed Flat	50	538	50	46%	100	36%
2 Bed Flat	73	786	51	47%	153	54%
3 Bed Flat	99	1066	7	6%	28	10%
TOTAL			108	21%	281	20%
TOTAL Private Housing			355	70%	962	70%
<u> </u>						1
Affordable Rent						
2 Bed Flat	83	893	17	50%	51	43%
3 Bed Flat	96	1033	17	50%	68	57%
TOTAL			34	7%	119	9%
						1
Shared Ownership						
1 Bed Flat	50	538	55	47%	110	38%
2 Bed Flat	73	786	61	53%	183	62%
TOTAL			116	23%	293	21%
TOTAL Affordable Housing			150	30%	412	30%
GRAND TOTAL			505		1374	
Density	T	<u> </u>			T	
Net Residential Site Area	1.78 ha		284 772		units/ ha	
					habitable rooms/ ha	
Accommodation						
NIA (residential only)			34,600		sqm	
GIA (residential only)			46,100		sqm	
GIA (commercial/ community)			1,600 sqm			

Notes: 1. Block K is a flexible use block - allocation is made for both residential and commerical uses but only one would be implemented.

2. Net residential area excludes bridge, towpath, mooring and canal bank areas.

Summary masterplan schedule of accommodation

4.3 USE AND AMOUNT

4.3.1 Residential units

In this and the section 4.4 Typology are described the variations in residential size, tenure and type. In keeping with the majority of the surrounding neighborhood the primary use for the development is for residential units with associated amenity space, parking, plant and storage

The masterplan will provide a mix of apartments and maisonettes ranging in size from studio flats to three bedroom family homes. The units will be designed to ensure that they are compliant with the latest Building Regulations at the time of reserved matters planning application and Building Regulations registration.

4.3.2 Commercial use

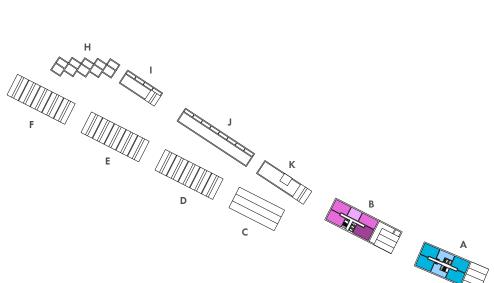
The overall scheme will provide up to $1,600m^2$ (GIA) of non-residential floor space (A1/A3/A4/A5 or B1 Uses), which may be used for commercial or retail purposes.

The provision of these new commercial spaces is intended to be beneficial for both current and new local residents.

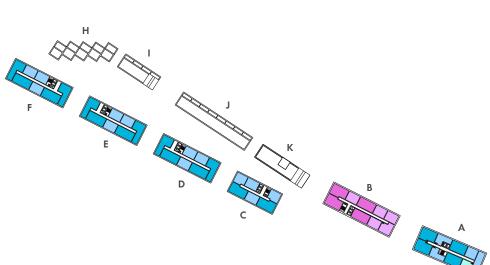
4.3.3 Block K Flexible use

Block K is designed to be a flexible use building, providing either residential or commerical (work) space. Allocation is made for both commerical and residential uses, however only one would be implimented. This would be considered at the reserved matters stage. If the Block is used for commercial space it will provide 1,100m² commercial space.

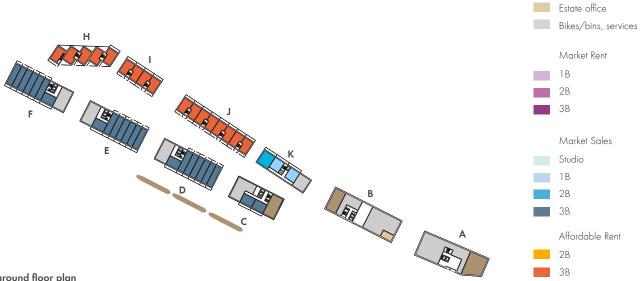
Plans layouts on the following pages illustrate the residential use of Block K.



Illustrative twelfth floor plan



Illustrative fifth floor plan



Commercial

Illustrative ground floor plan

4.3.4 Tenure distribution

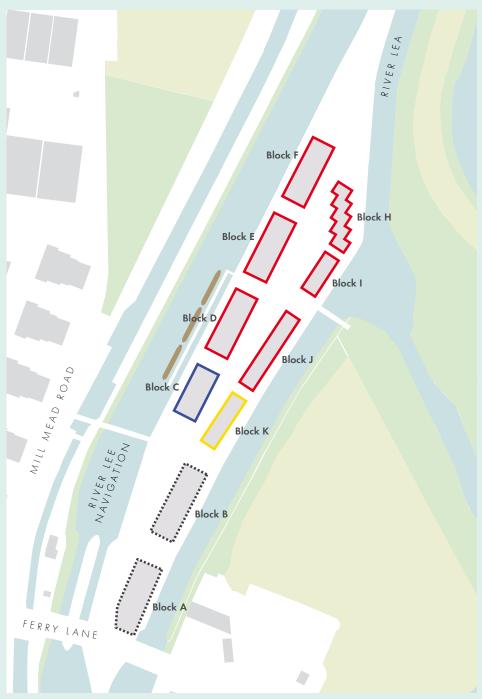
Tenure distribution has been arranged to complement the existing characteristics and opportunities of the site. Tenure types and their corresponding typologies have been located in a manner that responds sensitively to the green belt and areas of ecological importance to the north eastern edges of the site and also appropriately to the urban context of Ferry Lane and excellent transport links to the south of the site.

The affordable units are placed along the north and eastern edges of the site and are largely comprised of family homes. The greater width at this point in the site lends itself to family living, with more space for parking and play space. Waterside apartment buildings, comprised of studio to 3 bed units are placed along the western edge of the site, with 3 bed maisonettes located at ground floor level which provide gardens for families.

A higher density of mainly 1 and 2 bed units are located within the two taller blocks (A and B) in the detail portion of the masterplan. Block A will be entirely private for sale units and Block B is intended as Market Rent or Private Rental Sector units. These smaller units are ideally placed to benefit from close proximity to Tottenham Hale transport links and will have very limited parking provision.

All buildings are designed to be tenure blind. In order to facilitate the different building management structures and to keep service charges low, all tenures will have separate cores.

The illustrative plans on the facing page indicate the indicative distribution of tenure and unit sizes across the illustrative masterplan. A more detailed breakdown of Blocks A and B is included in chapter 5 of the report "Detail Application".



Uses design code diagram

residential use
residential/ ground floor commercial use
residential/ workspace use
see detailed application

DESIGN CODE: USE

4.3.5 Building uses

Each building use is defined by the diagram on the facing page. The different uses of the building are defined as follows:

- Residential use: The ground and upper floors should be used for residential accommodation only.
- Residential/ ground floor commercial use: The majority of the ground floor should be used for residential accommodation with some commercial use. The upper floors should be used for residential accommodation only.
- Residential/ workspace use: The use of the building is flexible and may be used for either residential accommodation or workspace.
- Detail application: The uses of these buildings are defined in the detailed application chapter of this report.

 The ground floor level of any building in the masterplan may not be used soley or largley for the purpose of parking. This includes under croft parking.

To ensure active residential frontages at ground floor throughout the development.

 No bedrooms within residential units at ground floor level may face directly onto the central courtyard.

To ensure privacy within residential units from the public realm.



4.4 TYPOLOGY

4.4.1 Residential and non-residential building types

The diagram on the facing page indicates the location of the different building types across the masterplan.

The massing strategy of the masterplan has been developed to include a number of key residential building types that respond to the specific constraints and opportunities of the narrow wharf site. The typologies are seen as the driver for the other design codes of roofs, appearance, building gaps, transport, parking and services.

These different types are as follows:

- Parkside family homes
- Waterside apartment blocks
- Flexible residential / workspace block
- Tall buildings

The tall buildings (Blocks A and B) form part of the detail application and therfore are not included in the design codes. Please see chapter 5 for further information on these blocks.

4.4.2 Position of typologies in the masterplan

The development is comprised of apartment blocks of varying scales placed along the canal and river edges, creating a shared internal courtyard with private garden spaces at the water edges. Blocks are placed to ensure protection of bio-diverse edges of the site. Taller buildings (Blocks A and B) are placed at the Ferry Land end of the site allowing for a new large public waterside space at the main entrance of the site.

Parkside family homes (Blocks H,I and J) and Waterside apartment buildings (Blocks C, D, E and F) will have maisonettes at the ground and first floor which will provide as many front doors on to the shared courtyard space as possible, providing active frontage and natural surveillance of the public courtyard. Block K is a flexible use block and will either have commercial spaces at all levels or residential accommodation at all levels.

Parkside family homes are placed at the wider portion of the site where the shared internal courtyard provides more space for uses suited to family living, such as play space and on street parking. This lower-density typology is placed along the east and northeast edges of the site to soften the edge of the development toward the green belt to the east and north of the site.

DESIGN CODE: TYPOLOGY

4.4.3 Typological characteristics

 The following description of each of the residential building types describes and illustrates its particular characteristics. Maximum dimensions in terms of height and width are outlined in the parameter plans.

To clarify the characteristics of each of the building types

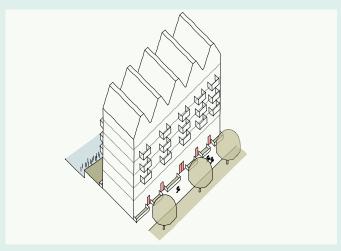
Parkside family homes

- 4 or 5 storeys high
- 2 or 3 bedroom maisonettes and duplexes
- maisonettes at ground floor that are accessed directly from the central courtyard via their own front door
- duplexes at upper levels
- maximum 2 units per core for duplexes
- individual private terrace or back garden
- no projecting balconies
- nominal defensible spaces
- type can be staggered in plan

Parkside family homes

Waterside apartment blocks

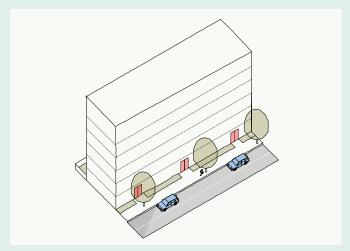
- 5 to 10 storeys high
- 1 to 3 bed dwellings
- maisonettes at ground floor that are accessed directly from the central courtyard via their own front door
- private back garden for maisonettes at ground floor
- maximum 8 units per core
- projecting balconies for dwellings above 1st floor
- Block C only ground floor either residential or primarily residential with some commercial use



Waterside apartment blocks

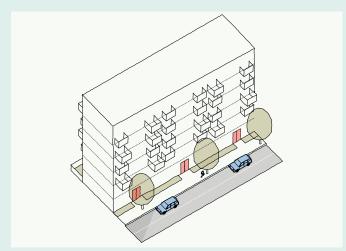
Flexible residential/ workspace block

- 4 to 5 storeys high
- use of block can be either for residential or workspace units
- 1 to 3 bed dwellings
- Maisonettes at ground floor that are accessed directly from the central courtyard via their own front door.
- Maximum 9 residential units per core
- Projecting balconies for dwellings above 1st floor



Flexible block - workspace use

OR



Flexible block - residential use



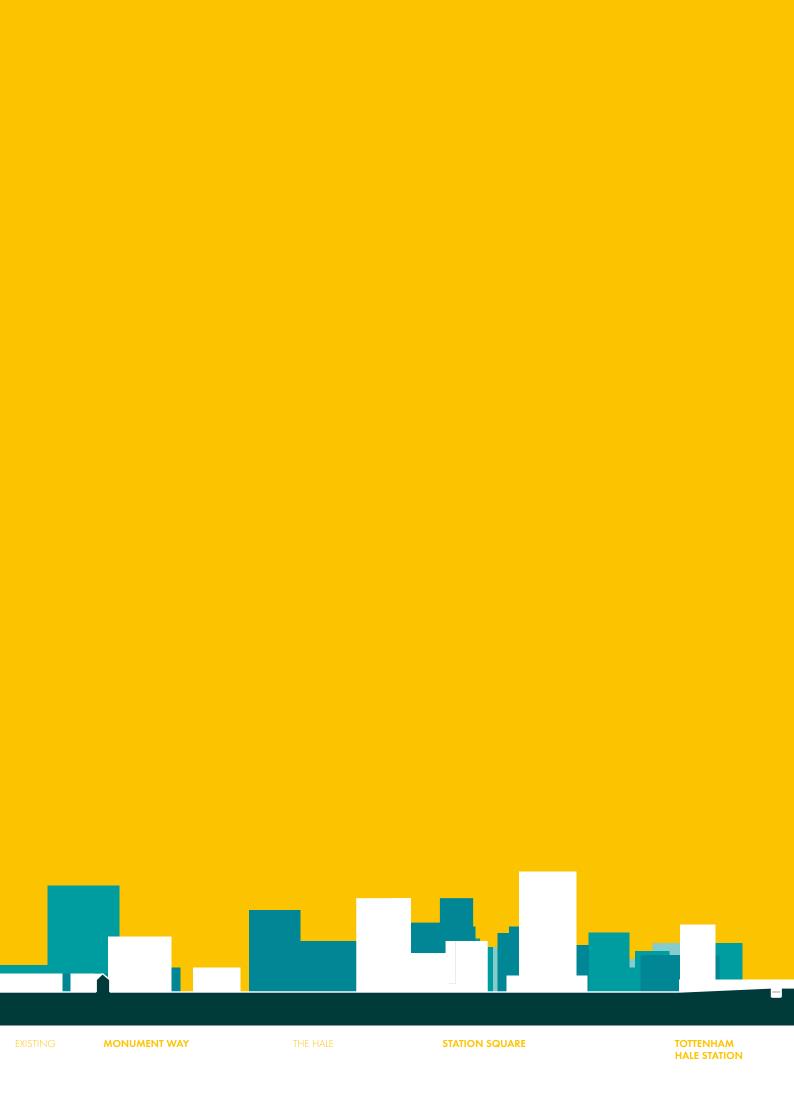
Reference image: Parkside family homes Pazel Kunzel Architects

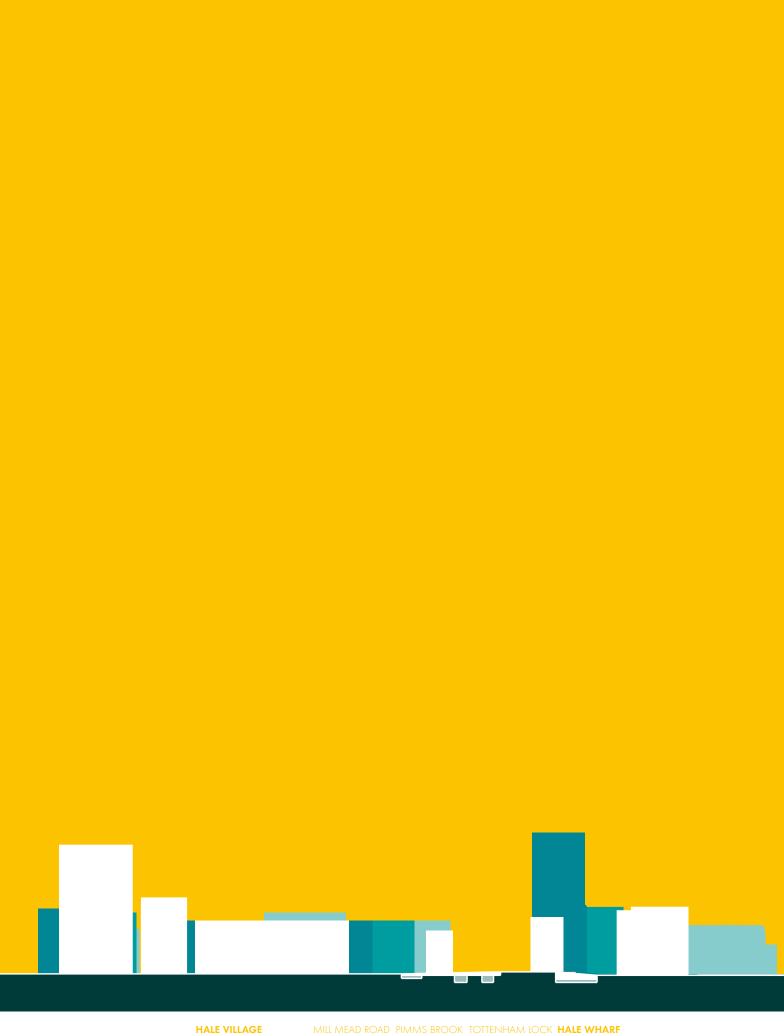


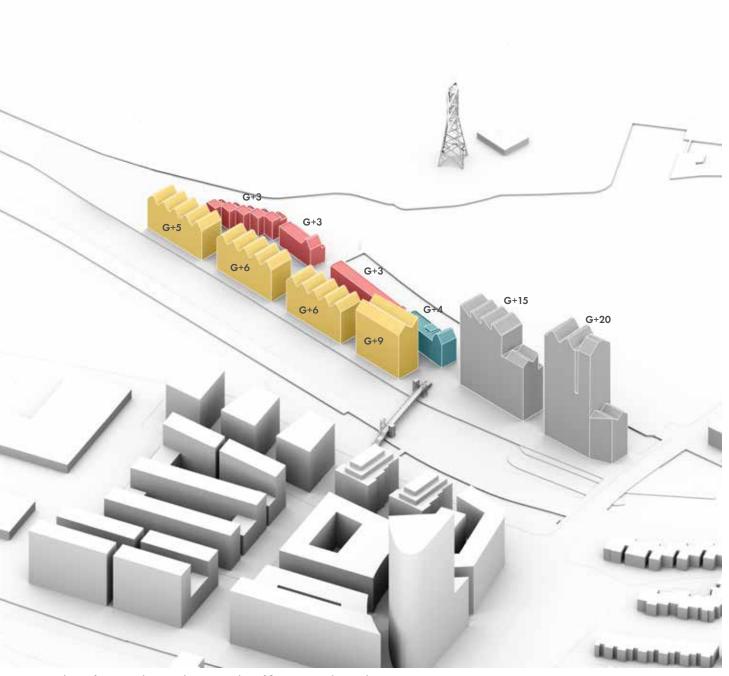
Reference image: Waterside apartment block



Reference image: Flexible block if use is for workspace







Aerial view facing north-east indicating number of floors across the typologies

4.5.2 Creating a new skyline and protecting sensitive waterside edges

The massing of the blocks across the masterplan will create a new urban context and skyline that is appropriate to the surrounding neighbourhoods of Tottenham Hale Station and Monument Way. The massing has been arranged to ensure that this is achieved whilst maintaining consideration of the sensitive ecological borders of the site.

Taller urban buildings, blocks A and B (ground +20 and ground +15 storeys) are set around the bridge landing and toward Ferry Lane, stepping down to the lower waterside apartment blocks (6/10 storeys) toward the more ecologically sensitive northern end of the site. Buildings are broken up to allow east-west views out of and through the site, and family housing adjacent to the reservoir and Paddock are lowered (4 storeys) to soften the edges of those green spaces.

The taller elements included in the detailed application (Blocks A and B) form a focal point of a new urban skyline. Refer to Chapter 5 of the report for further details.



Illustrative scheme roofplan



Roofscape Precedent: Leamouth South, London



Roofscape Precedent: Thornsett Road, London



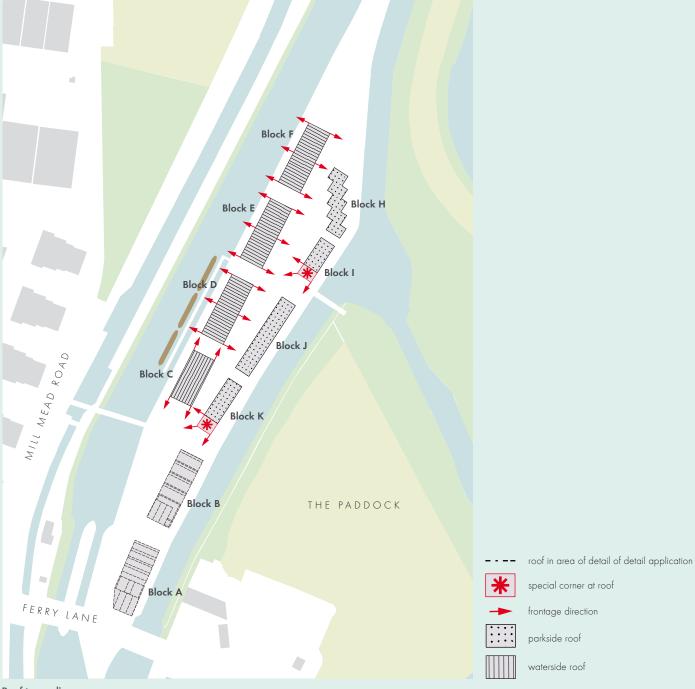
Roofscape Precedent: Leamouth South, London

4.5.3 Roofscape

The form and character of the roofscape has been a key consideration in the development of the illustrative masterplan. A dynamic yet sensitive new skyline for the site is achieved by incorporating the following principles:

- A varied and interesting roofscape made from a family of formal elements.
- A roofscape that addresses and enriches the surrounding waterways and the new public spaces within the scheme.
- A roof character, form and frontage that responds directly to the overall facade and form of the building itself.
- A roof form and frontage that responds to specific locality of the building within the illustrative masterplan.

Design codes ensure that the form and character of the roofs in the outline scheme form an appropriate and coherent roofscape in relation to the detail scheme.



Roof types diagram

DESIGN CODE: ROOFS

4.5.4 Roof character and frontage

 Roof form and frontage should respond directly to the overall facade of the building.

To create a coherent appearance of the built fabric.

Roofs and parapet frontages should be articulated in a way that allows the building to appropriately address adjacent public and waterside spaces.

To create a complementary appearance between the different buildings and the public realm spaces of the development and surrounding area.

- Roof character should be informed by the location of the buildings within the illustrative masterplan as outlined in the diagram on the facing page. Roofscape types are identified as follows:
- Parkside roofs
- Waterside roofs
- Tall building roofs

To produce a coherent and balanced roofscape across the development.

Tall buildings (Blocks A and B) are included as a type for reference only. For further information please refer to chapter 5.





Flat roof with continuous cornice line



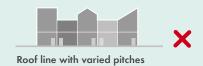
Single pitch roof along entire block

4.5.5 Parkside roofs

- 'Parkside' roofs must adhere to the formal rules as set out in the adjacent diagrams.
- Parkside roofs may or may not have a pitch









Reference image: Mews houses Barking, AHMM and McCreanor Lavington



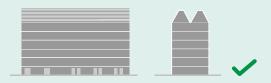
Reference image: Thornsett Road, London



Flat or pointed pitch roofline with regular spacing



Roof with irregular cornice line and varied pitches



Pitch gables with lengthwise frontage

4.5.6 Waterside roofs

- 'Waterside' roofs must adhere to the formal rules as set out in the adjacent diagrams.
- Waterside roofs must have some form of regular pitch.
- The prominent pitch or gable line must address the spaces as indicated on the 'roof types diagram'.



Roof with irregular cornice line and different height of pitches



Hereford market, Hereford



Terrace house, Zeeland ,Pazel Kunzel Architects



Regular pitched roofline set back from elevation



Regular roofline raised at special corner

4.5.7 Special roof corners

 Key building corners are to rise above the established type roof height.

To help with way-finding, to help define key routes and to enhance the overall legibility of the scheme.

 Key building corners are to have a differentiated roof line.

To help with way-finding, to help define key routes and to enhance the overall legibility of the scheme.

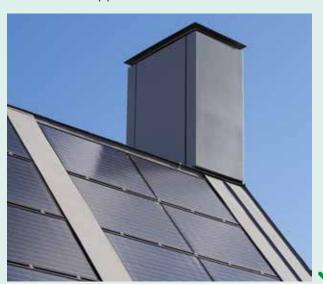
- The following architectural devices to highlight prominent corners at roof level must be avoided
- Stark contrast in colour of roof materiality
- Irregular or curved roof or cornice line
- Use of excessively saturated colour
- Use of roofing materials that require high maintenance
- Roof extent that is greater than building footprint at lower levels



Roofline with greater extents than floors below



Recessed rainwater pipe



Services to roof are considered and incorperated in a way which chances the overall roofscape



Rainwater pipe not considered in design of facade as a whole

4.5.8 Plant and access

 Any mass projections out of the building rising more than 1,000 mm above parapet line containing non-habitable space such as lift overruns or mechanical equipment should be setback by at least 1,500 mm.

To avoid visual clutter seen from street level and retain visually consistent parapet lines.

 Aspects such as maintenance access to pitched, roofs, irrigation of green roofs etc should be considered in the early design stages of each building.

To ensure a clear and uncluttered appearance of elevations and roof scape.

 Gutters and rainwater pipes should be incorporated into the building in a way that compliments overall composition of the roof and facade and that prevents use as climbing aids.

To ensure a clear, ordered and uncluttered appearance of the building elevations and roof scape

To ensure security of flats above ground level



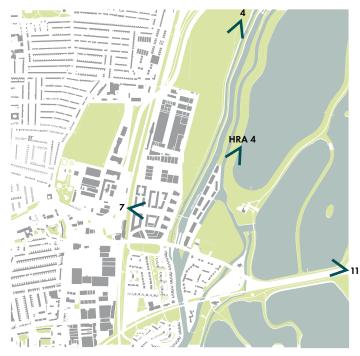




Artists impression viewpoint HRA 2: from the Lockwood reservoir © moka-studio GbR and Paul Reilly



Artists impression viewpoint 7: From Hale village east towards Hale Wharf © moka-studio GbR and Paul Reilly



views key

- detail application
- illustrative outline component

4.5.9 Visual impact - distant and mid-range views

There are no protected or designated views in or around Hale Wharf that affect development of the Hale Wharf site.

A number of verifiable and 'artist impression' views have been agreed with LB Haringey during the pre-application consultation period. A selection of these artist impression views are illustrated in this statement.

For further information and illustrations of all the agreed views please refer to the Townscape, Heritage and Visual Impact Assessment (THVIA) for the Verifiable views and an assessment of the impact of the proposed development on the nearby townscape and landscape.



Artists impression viewpoint 11: From Ferry Lane looking West towards Hale Wharf © moka-studio GbR and Paul Reilly



