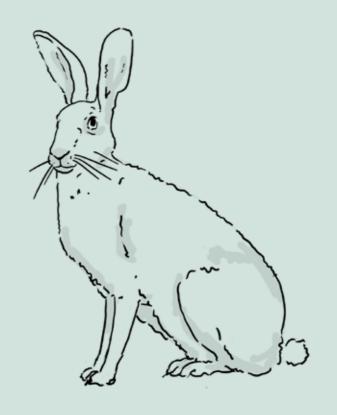
4.2 Design Development: Section 2



4.2.1 Introduction to Design Development: Section 2

Design Development

This section presents design development of the masterplan following a series of meetings with the Local Authority - London Borough of Richmond upon Thames, Richmond Design Review Panel and the Greater London Authority.

From these meetings we have received feedback on the layout and massing of the masterplan design proposals. The following chapter is structured around four key themes:

- > Layout
- > Parking Studies
- > Heights, Scale and Massing
- > Design and Materials



Local Precedent Analysis

Careful consideration has been given to separation distances between buildings. The masterplan has been subject to extensive discussion to produce a scheme with good outlook and privacy. A defined hierarchy of spaces and gaps between buildings has been developed.

There are a number of notable housing schemes that have informed the distancing of buildings.

Close proximity can be positively used to create character and intimacy. However, careful consideration has been given to ensure this is sympathetically done in respect of outlook and amenity.

Detailed layouts have been worked through with window positions and angled oriel windows to avoid direct views into neighbouring apartments.

Key

Seperation distances of concern, highlighted by LBRuT



Initial Masterplan - Analysis of Separation Distances

Teddington - Deer Park View

Approx. 10m primary facing windows

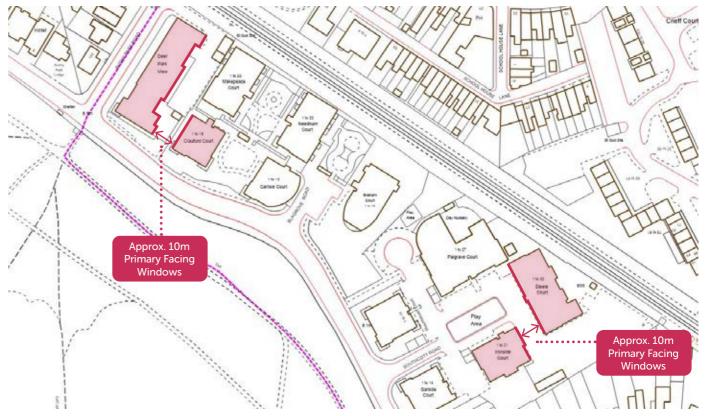
- > Four-storey buildings.
- > Deer Park View faces Craufurd Court.
- > Steele Court faces Ironside Court.





Deer Park View

Aerial View



Location Plan

Local Precedent Analysis

Ham - Evelyn Road

Approx. 8.7m primary facing windows.

- > Two facing rows of nine terrace houses (all two-storey).
- > Houses with three front windows and front door facing one another.
- > Mews road and on street parking between houses.





Aerial View



Ham - Sutherland House and Scott House

Approx. 12.9m primary facing windows.

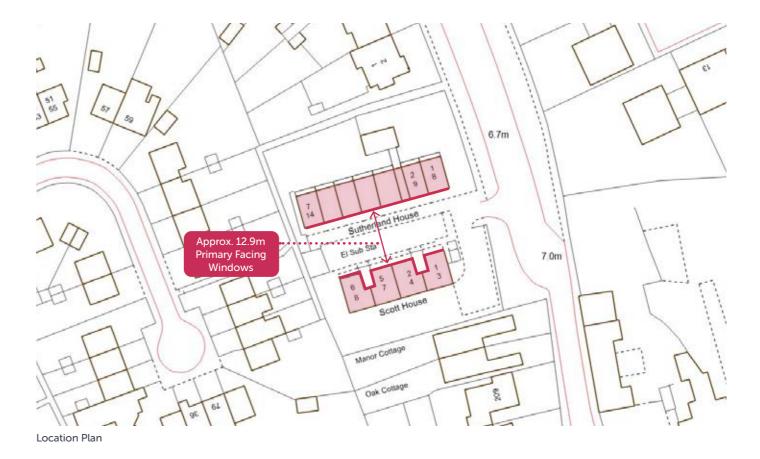
- > Four-storey Sutherland House next to the two-storey Scott House.
- > 32 windows of Sutherland House facing 14 windows of Scott House.
- > Pedestrian and vehicular route between buildings.





Sutherland House and Scott House

Aerial View



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Local Precedent Analysis

Ham - Parkleys Estate

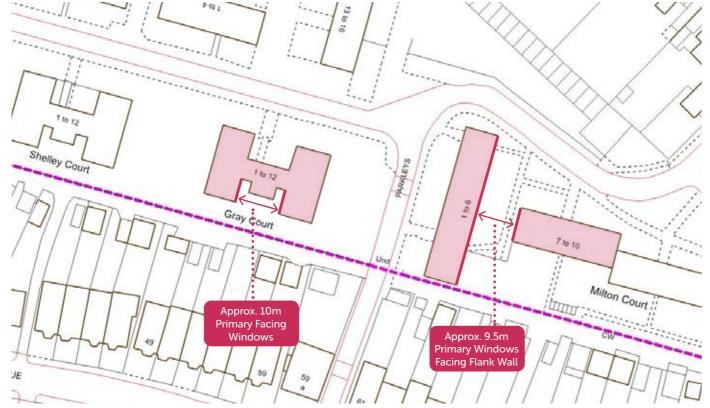
Approx. 10m primary facing windows. Approx.9.5m primary facing windows with flank wall.

- > Courtyard entrances facades with windows facing each other (6 windows on each wall) Gray Court
- > 48 windows face flank wall Milton Court





Aerial View



Location Plan

Ham - Pointers Cottages and St Mary's Mews

Approx.6.3m primary facing windows with flank wall.

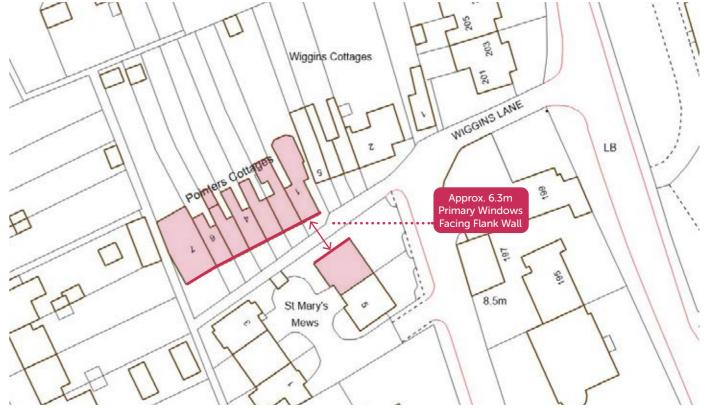
- > Two-storey building.
- > Front of Pointers Cottages (3 windows & front door / house) fronting onto side gable window of St Mary's Mews.
- > Pedestrian lane between the buildings.





Pointers Cottages and St Mary's Mews

Aerial View



Location Plan

Local Precedent Analysis

Ham - Langham House Close

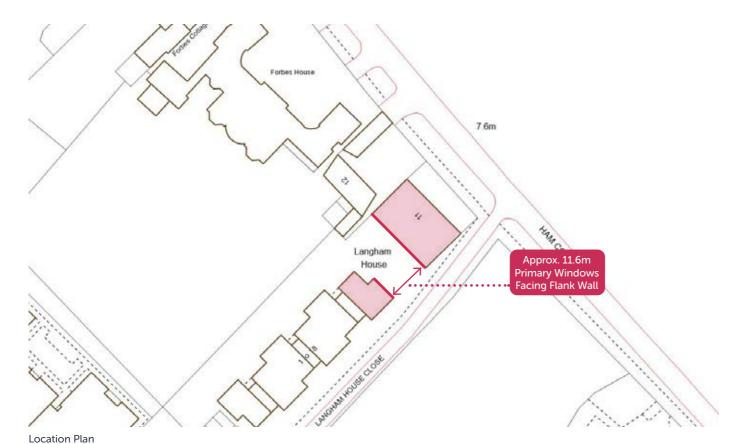
Approx. 11.6m primary facing windows with flank wall.

- > Apartment building opposite Langham House (both three-storey).
- > Six side windows on the apartment block face fourteen windows and the back door of Langham House.
- > Langham House garden is between both buildings.



Langham House Close and Langham House

Aerial View



Ham - Wates Estate

Approx. 12.5m primary facing windows with flank wall.

- > Three-storey and two-storey buildings.
- > Back facade (with two large spanning windows) faces onto side of building (with three windows).
- > Garden courtyards, pedestrian paths and occasional parking courts are between buildings.





Wates Estate

Aerial View



Location Plan

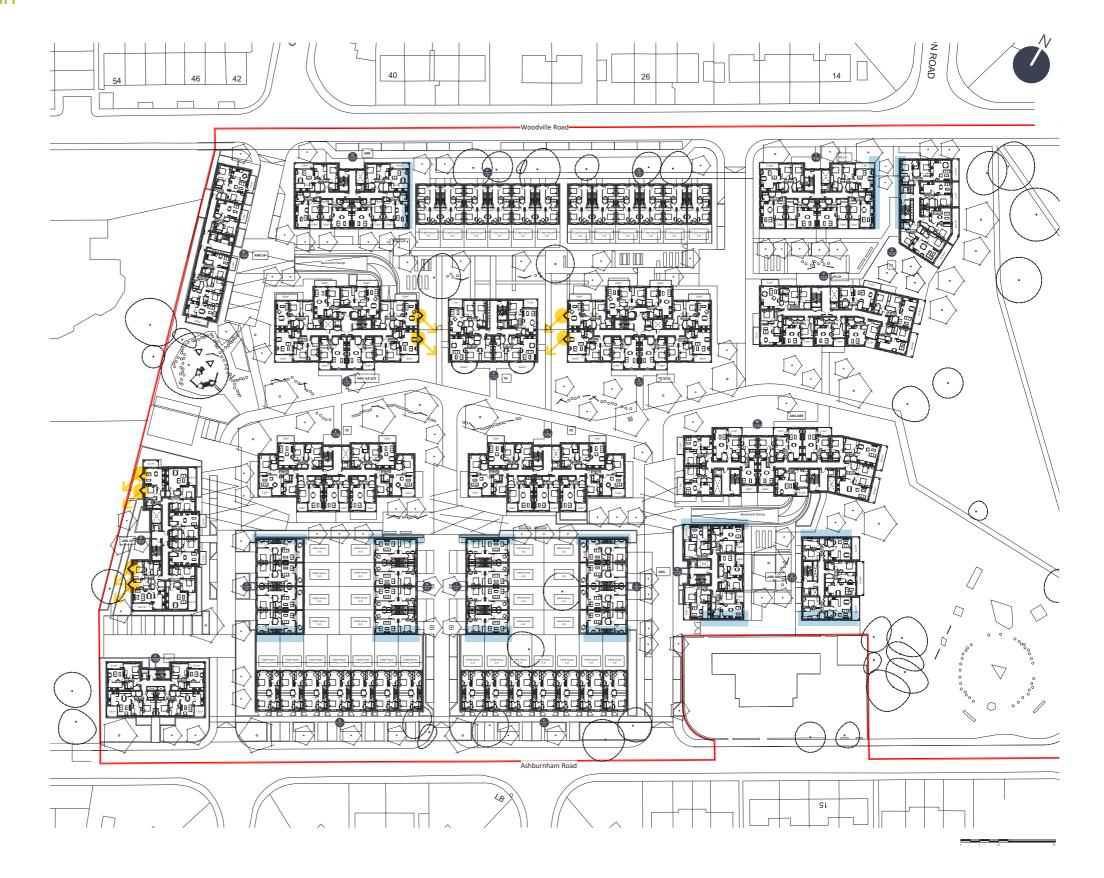
4.3.3 Improved Outlook and Privacy

Design Development - Typical Floor Plan

The adjacent layout shows the proposed typical floor plan of the masterplan.

This demonstrates that the main outlook of flats have been designed to avoid overlooking and provide privacy. In certain places of the masterplan we have identified the location of oriel windows (highlighted in yellow) which will direct views and obscure glazing to Blocks N and O to respect existing windows on Ham Clinic. These secondary windows will help provide cross ventilation into dwellings.

Further obscured glazing windows have been introduced on flank elevations to blocks F, H, J and L to improve daylight and elevation treatment.







Location of obscured glazing



Location of oriel windows

4.3.4 Ashburnham Road Character Study

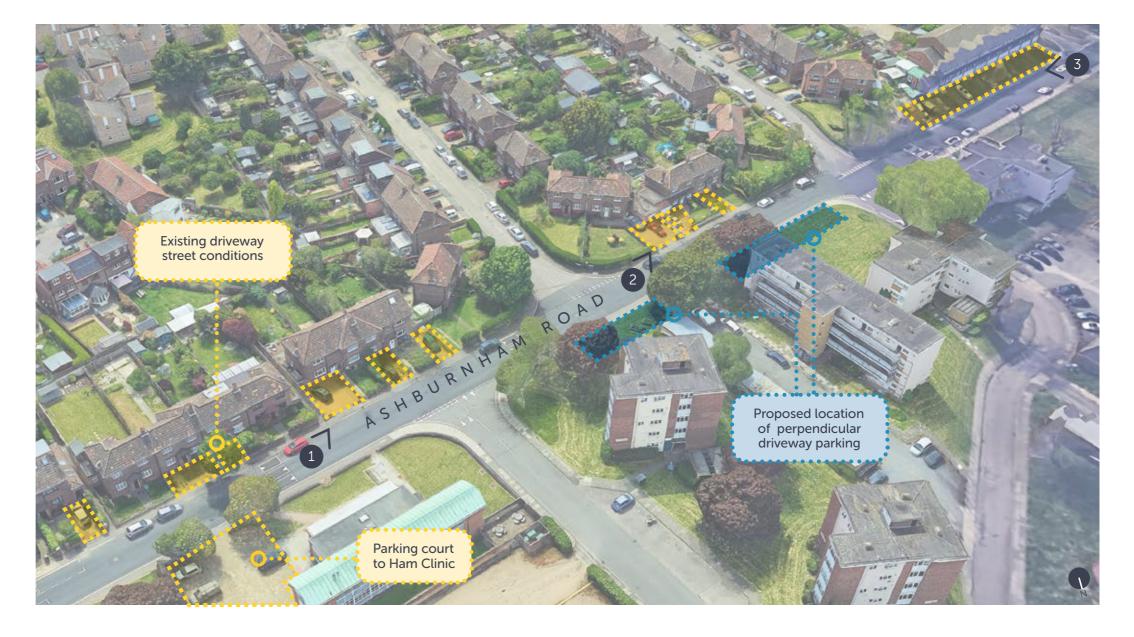
Existing Road Conditions

Careful regard has been had to parking directly in front of homes on for the proposed terrace of houses for Blocks G and K.

In response we have conducted a study into existing road conditions along Ashburnham Road.

The character of the road has mixture of front of house typologies including:

- > Large driveways for 2 or more cars
- > Gated driveways
- > Front gardens
- > Driveways for 1 car leading into garage













4.3.5 Proposed Parking Ashburnham Road

Road Conditions

From studies on the existing road conditions along Ashburnham Road, there is precedent for driveway parking.

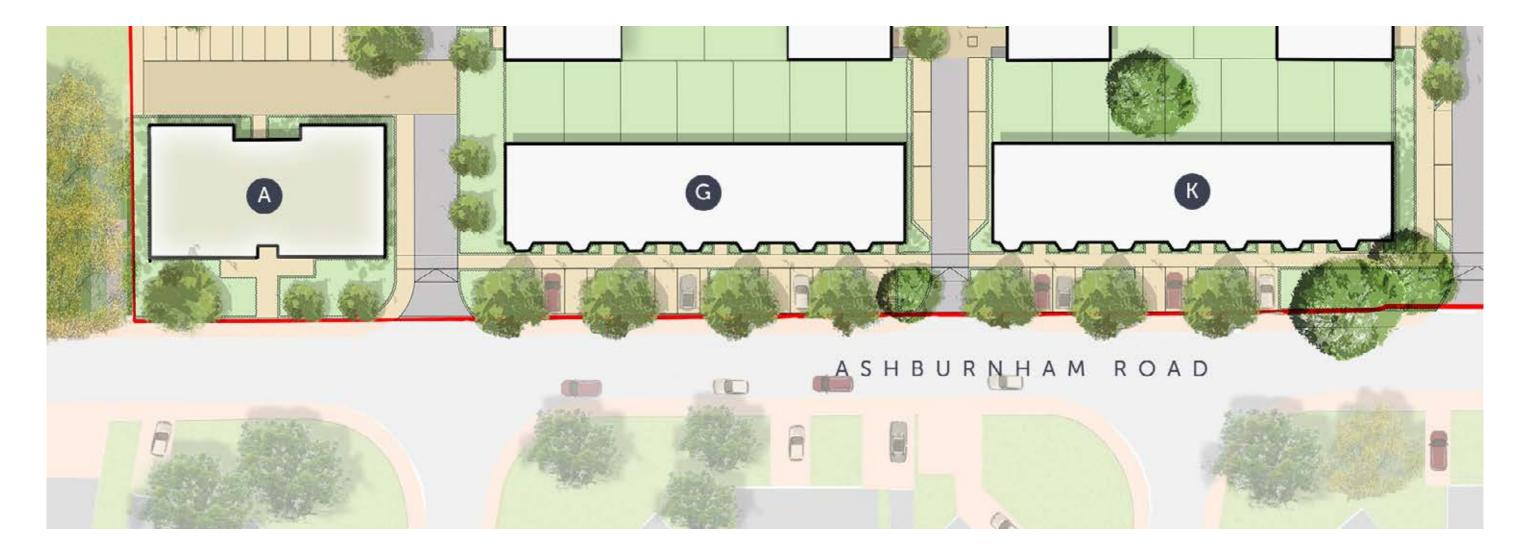
The proposed driveway parking for blocks G&K will be dispersed along a landscaped green verge. The proposed quantum of landscape and planting along Ashburnham will retain the positive green characteristic along Ashburnham Road.

Paragraph 5.17 of the Council's Transport SPD advises that "footway crossovers grouped together for more than 2 vehicles in a row, will not be permitted on publicly maintained highways...Sightlines from these spaces are diminished and they present a large area of crossover for pedestrians to negotiate, as well as removing on street community parking".

To the front of Block A a green verge will remain, similar to the existing conditions seen in front of Hatch House with additional trees and planting. This has been achieved by moving Block A further into the site.

The adjacent extract of the site layout illustrates how the developed design responds to comments received.

Proposed parking spaces to the front of G and K will not be grouped for more than 2 vehicles in a row and a green verge can be seen to the front of Block A. These will be green spaces and permeable paving. Considering the low PTAL 1B for the site, the ability to provide parking for G and K houses is essential. The inability to provide parking to these houses in this location will have a detrimental impact on sales revenue creating a viability pressure.



4.3.6 View of Ashburnham Road

Preliminary Sketch View



4.3.7 View from Sheridan Road

Preliminary Sketch View



4.3.8 Parking Studies

Options for suitable parking arrangements

The following parking studies explore the alternatives to a basement and demonstrate qualitative and quantitative reasons why the basement is the only suitable solution for Ham Close Regeneration.

In accommodating the required parking levels on site, a number of development scenarios were tested. These were:

- > Basement Parking,
- > Surface parking or
- > Podium parking

From carrying out this study the surface and podium schemes have a detrimental impact to the scheme not only in terms of loss of homes and ultimately viability but the negative impact to the design of the public realm and quality of the homes being delivered.

Reasons for the basement:

- > Enables a greater amount of amenity space large linear park.
- > Avoids the public realm being dominated by car parking.
- > Maximises the number of homes that can be delivered on site.
- > Does not diminish the amount of affordable housing, but supports it.
- > Allows the energy centre and plant rooms to not dominate ground floor frontages by locating them in the basement.

Basement Parking



Surface Parking



Podium Parking



4.3.9 Basement Parking Scheme

Basement Parking



Basement Layout

Design Commentary:

- > Central basement allows for car free public Linear Park.
- > Energy centres and plant rooms can be located at basement level to free up ground floor for homes.
- > Majority of required parking can be located in the basement.
- > The two entrances to the basement have been distributed across the site. To distribute the traffic impact on surrounding streets the ramps have been located behind Block C to the north and Block M to the south.

Key

- f Location of Flats
- h Location of Houses
- **p** Location of Plant rooms
- **b** Locations Bins/Bikes
- c Locations of Block Cores



Design Commentary:

- > Large car free linear park with play areas
- > High proportion of homes at ground floor
- > Courtyard semi private amenity spaces
- > M4(3)/family flats at ground floor optimised
- > Pleasant outlook onto green spaces from homes.

Key Facts and Figures:

Streetscape

Number of homes	452
Parking Ratio	0.55
Parking Spaces Public realm Basement Parking court On plot parking	251 12 204 7 28
Ground floor flats	57
Street Facing Activity	68%
Public/Private realm areas: Public realm Private realm Semi Private	3934m2 5500m2 2830m2

5302m2

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4.3.10 Surface and Podium Parking Schemes

Surface Parking





- > Loss of linear park and public play spaces to accommodate parking.
- > Substantial loss of homes at ground floor. Flats replaced with undercroft parking and plant rooms.
- > Hard surface areas dominate the scheme to provide adequate parking.
- > Significant reduction to ground floor active frontage
- > Poor outlook onto parking from homes

Key

- f Location of Flats
- h Location of Houses
- p Location of Plant rooms
- **b** Locations Bins/Bikes
- c Locations of Block Cores

Key Facts and Figures:

Number of homes:	c.400
Parking Ratio	0.55
Parking Spaces Public realm Undercroft Parking court On plot parking	222 84 107 23 8
Ground floor flats	8
Street Facing Activity	27%
Dudalia / Duizanta ana dan ana a	

Public/Private realm areas:

Public realm	383m2
Private realm	5,584m2
Semi Private	187 m2
Streetscape	11,730m2

Podium Parking



Design Commentary:

- > Loss of linear park and public play spaces to accommodate parking.
- > Substantial loss of homes at ground floor. Flats replaced with undercroft parking and plant rooms.
- > Hard surface areas dominate the scheme to provide adequate parking.
- > Significant reduction to ground floor active frontage
- > Poor outlook onto parking from homes

Key Facts and Figures:

Number of homes:	c.400
Parking Ratio	0.55
Parking Spaces Public realm Podium Parking court Undercroft On plot parking	222 86 43 6 79 8
Ground floor flats	8
Street Facing Activity	29%
Public/Private realm areas: Public realm Private realm Semi Private Streetscape	383m2 5,327m2 1,185m2 10,545m

4.3.11 Site Section

Preliminary Site Sections

Sections allow us to assess the height and massing of blocks. The sections drawn cut the site north-south picking up both street conditions on Ashburnham Road and Woodville Road.

The sections illustrate the stepping in height from houses and small scale flat blocks on the perimeter of the site to the taller flat blocks which line the Linear Park.









4.3.12 Revised Heights

Reallocation of Heights across the Masterplan

Feedback from the series of meetings with LBRuT, RDRP and GLA highlighted that the allocation of height across the masterplan should be re-addressed. The adjacent diagram shows the updated heights proposed for the masterplan incorporating a number of comments as outlined below:

- > Consistent height to Village Green (Blocks O, M, V & U): Block U & O have decreased in height to 4 storeys, lessening the impact onto the Village Green. Blocks M & V have also been reshaped to address the comment of 'wall of development.'
- > The scale and height of Blocks N & O: Block N and O have decreased in height to 4 storeys, lessening the impact onto Ham Clinic.
- > The scale between flat blocks and houses: Blocks J & H have increased in height to 4 storey. This aids the transition in scale from flat block to 3 storey houses lining Ashburnham Road.
- > Block D opportunity of height: Block D has changed from houses to a flat block. This block now balances with Block T book-ending the houses in the centre.
- > Reduce height of Block B: This block has reduced in height and the mass of the block has been reduced against the western boundary.



Key



-1 Change in storey height



4.3.13 View across Ham Village Green

Preliminary Sketch View



4.3.14 Model Photographs

Development Model

To develop and refine the scale, massing and roof form of the scheme physical models have been created throughout the design process. These have also been used as a design tool to analyse our proposals in relation to the surrounding context. The adjacent photos show the model at this design development stage.

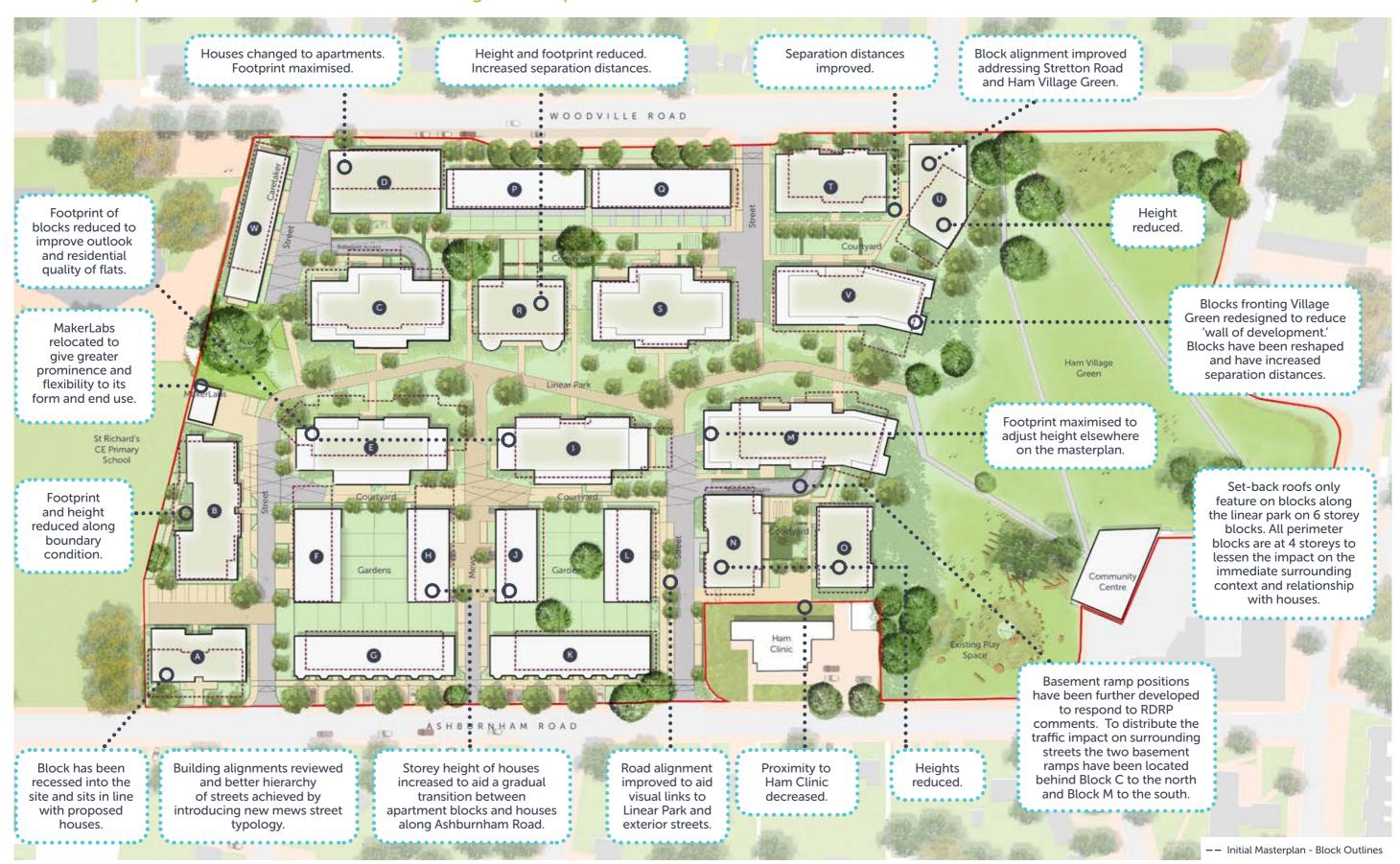




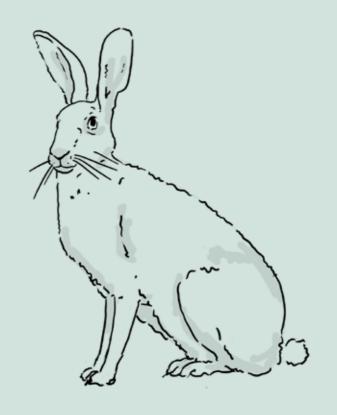


4.3.15 Masterplan Development

Summary response to feedback received and design development

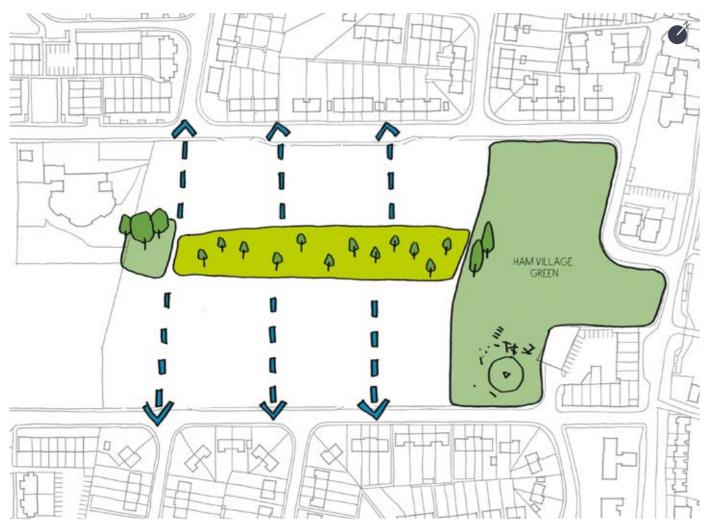


4.3 Final Design: Masterplan



4.3.1 Masterplan Concepts

Design Principles



Open Space and Connections

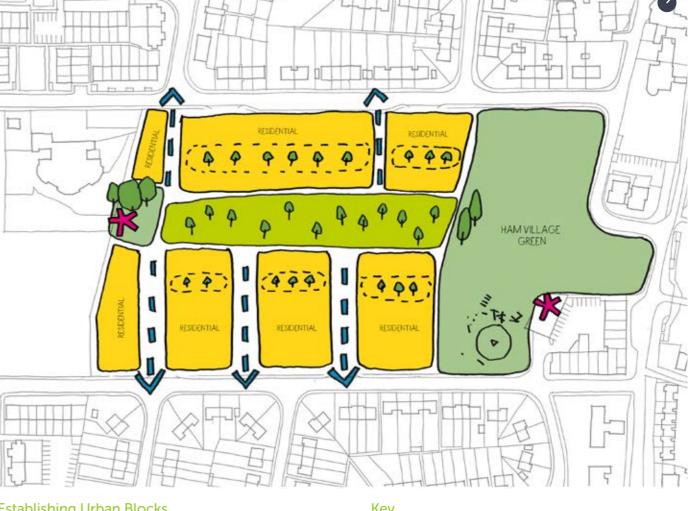
The masterplan has been developed from an overriding key concept of a green spine running horizontally through the site on the south-west, north-east axis. This connects Ham Village Green with open space at the the heart of the masterplan and celebrates existing trees on the western boundary. Named the Linear Park, this central green spine will be a publicly accessible open space providing a visual landscaped connection through the masterplan. The aim of the Linear Park is to provide a natural link to the Village Green whilst providing a secure and safe area for socialisation and children's play.

Connections to the perimeter roads of Ashburnham Road and Woodville Road from the Linear Park are created with tree-lined pedestrian friendly streets and mews.

Ham Village Green



Connections from Linear Park and Woodville Road and Ashburnham Road



Establishing Urban Blocks

Through establishing a central green spine and connections to Ashburnham Road and Woodville Road, urban blocks have naturally formed for the location of residential homes. The concept is that these urban blocks will have active frontages on all sides to respond to adjacent spaces. To further break up the urban blocks, landscaped communal courtyards are proposed for resident use. These green areas provide further outdoor amenity and safe, overlooked play spaces.

The stars on the diagram above symbolise the location of community facilities on the masterplan. These are strategically located and connected through the landscaped spaces of the Linear Park and Ham Village Green.

Key

Ham Village Green

Linear Park

Connections from Linear Park and Woodville Road and Ashburnham Road

Residential Landscaped Courtyards

% Community Facilities

Residential Urban Blocks



4.3.3 Masterplan Narrative

Concept Diagrams



Public Realm

We have introduced distinct landscape character areas to bring variety into the scheme:

The Linear Park is a public landscaped space which provides a visual and pedestrian connection from Ham Village Green to the small park which celebrates the retained mature trees. Pedestrian friendly streets and mews lead to the Linear Park by use of soft landscaping and pedestrian paths. Individual courtyards provide private communal amenity spaces for residents. Allotments within these courtyards allows for the community to grow their fruits and vegetables. Ham Village Green is fully retained. The trees on the green will be retained. Trees at the western end of the Linear Park are retained and wherever possible along edges of Ashburnham and Woodville Roads and through the linear park

Key

____ Site Boundary

🛶 Linear Park

Ham Village Green

Communal Courtyards

Private Gardens

Pedestrian Friendly Streets



Movement and Urban Grain

The Linear Park will be a vehicle free landscaped space with exception of emergency and refuse vehicles. A series of pedestrian friendly streets accessed off Woodville Road and Ashburnham Road lead towards the central east west Linear Park. Limited car parking is located on the streets. A basement conceals parking from the public realm and allows landscape to be optimised.

Pedestrian movement across the scheme is prioritised and celebrated by generously landscaped streets and open spaces. An open grain is proposed with landscaped pedestrians routes through the low gated gaps between apartment blocks into communal courtyards and connecting out to the wider area and Ham Village Green.

Key

Site Boundary

Linear Park

--- Primary Routes

Pedestrian Routes in the public realm

Bus Stop

Basement Access

Pedestrian routes in courtyards

4.3.3 Masterplan Narrative

Concept Diagrams



Heights

The heights have been sensitively considered to be respectful to the surrounding streets; Ashburnham Road and Woodville Road. The building heights cascade down from buildings of 5 storeys with a set back 6th storey facing the Linear Park to 3 storeys on the neighbouring streets. Stepped-back top floors reduce the massing and provide articulation along the Linear Park.

A feature apartment block within the Linear Park is lower than its neighbours at 5 storeys to add variation within the space and signify this as a feature building.

Apartment blocks located along perimeter of the site are at 4 storeys to sensitively respect the surrounding buildings.

Key 3 Storeys 4 Storeys 5 Storeys 6th storey set back roofs



Aspect

Apartment blocks have been carefully designed to maximise the number of dual and triple aspect flats. Where only single aspect flats can be achieved these are predominantly south facing or overlooking green spaces.

Every home will have immediate access to a private amenity space by means of a private balcony, patio or garden with a green outlook.

83% of homes at Ham Close will either be dual or triple aspect.

Key

Single Aspect

Double Aspect

Triple Aspect

4.3.3 Masterplan Narrative

Concept Diagrams

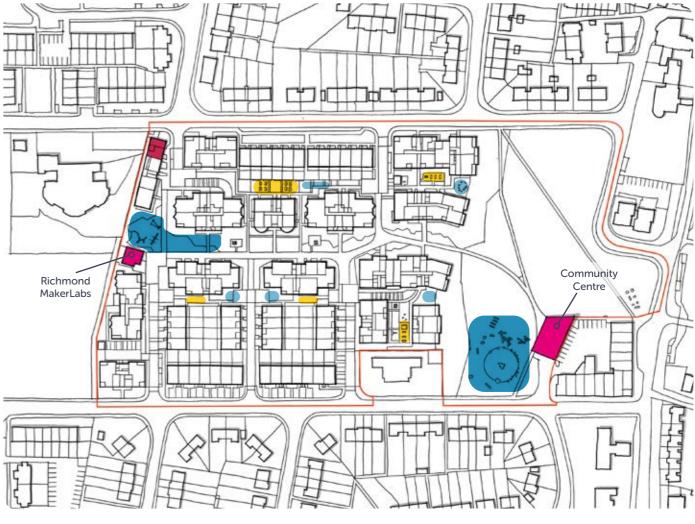


Ground Floor Activation

Within the proposed basement; parking, the energy centre and plant is located, enabling a large car free Linear Park and safe areas for children's play. This allows for a high proportion of homes at ground floor, providing active building frontages to the streets and landscaped areas. Bins and bikes are situated at ground floor, located centrally within apartment blocks in close proximity to entrances. This enables dual and triple aspect flats to front and overlook communal open space.

Circulation spaces are expressed within the building elevations with large amounts of glazing that brings light into the communal corridors.

Residential Homes Entrances and Communal Circulation Space Bins and Cycle Storage Community Facilities



Community Facilities and Amenities

The proposed Community Centre is located to the rear of Ham Parade of shops fronting Ham Village Green. The Richmond MakerLabs is situated at the western end of the Linear Park within the landscape setting.

Alongside existing play space on the Village Green, play areas are located around the masterplan; within communal courtyards and within the Linear Park. The caretaker's accommodation is located to the north west of the site, at the ground floor of apartment block W. For further details refer to the Apartment Floor Plans of Block W.

Key Community Facilities Caretaker's Accomodation and Storage Communal Allotments Play spaces

4.3.4 Proposed Masterplan

Final Landscaped Masterplan Layout





4.3.6 Key Site Sections

Proposed Masterplan

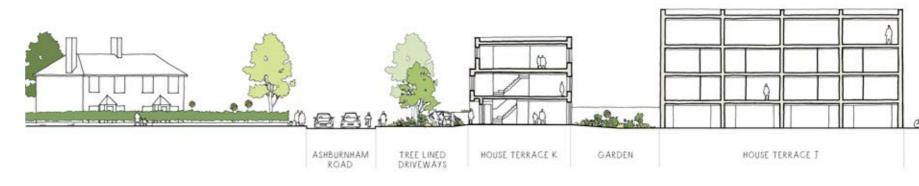
The adjacent sections show the proposed height and massing of apartment blocks and houses. The sections drawn cut the site north-south picking up both street conditions on Ashburnham Road and Woodville Road.

The sections illustrate the stepping in height from houses and small scale flatblocks on the perimeter of the site to the taller flatblocks which line the Linear Park

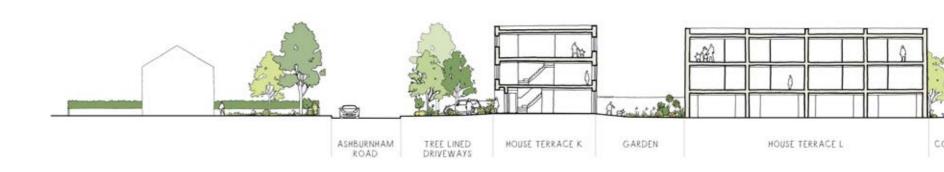


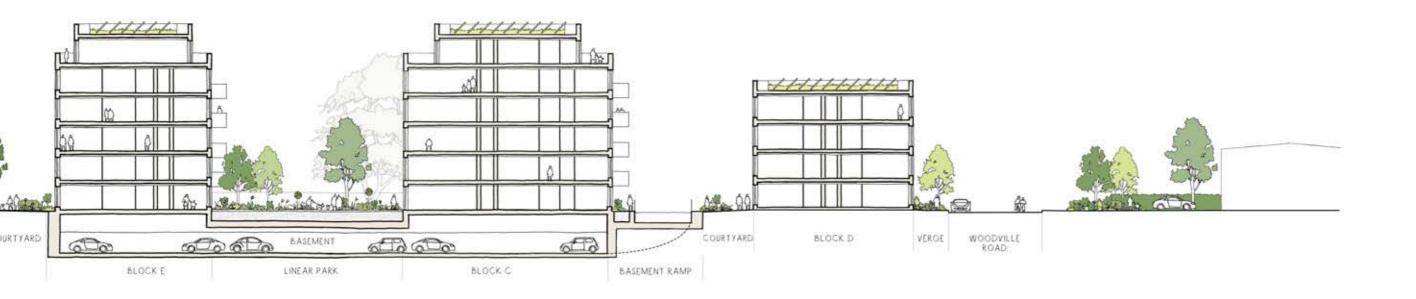
ASHBURNHAM TREE LINED HOUSE TERRACE G GARDEN HOUSE TERRACE F

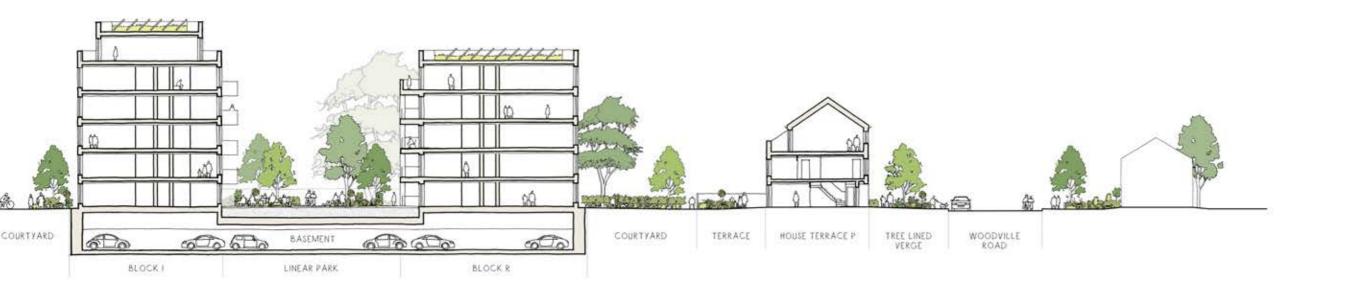
Section A-A

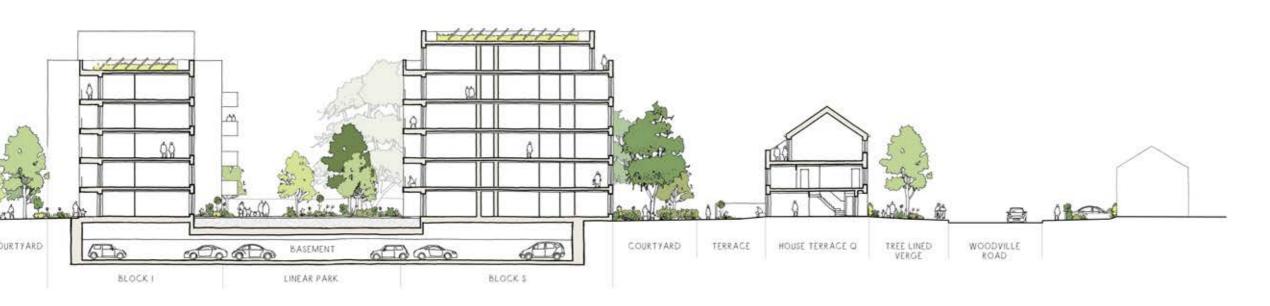


Section B-B









4.3.7 Model Photographs

The adjacent photographs illustrate the final massing model made for the scheme. This shows the relationships between the proposals and surrounding context.

The form of the buildings, streetscapes and the articulation of the set back roof lines within the Linear Park can be seen in this model.







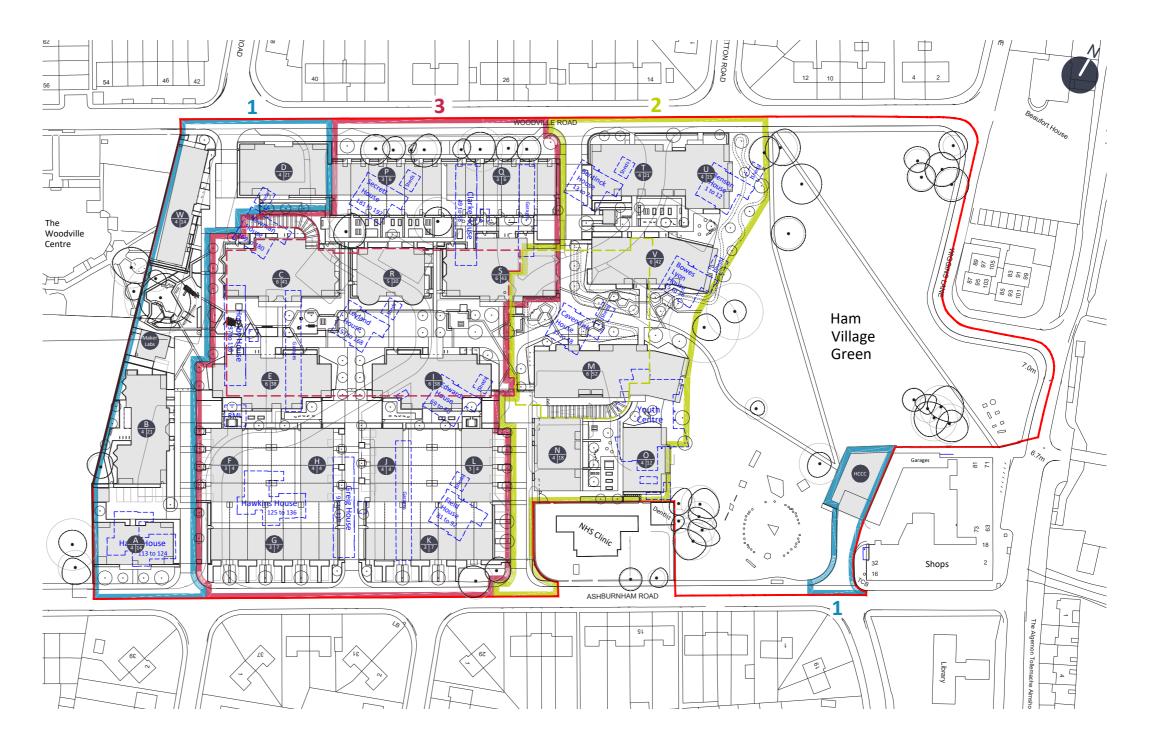
4.3.8 Masterplan Phasing

Three Phases

The scheme will be delivered in phases with sequential building-by-building completion. The demolition of existing buildings and construction of the new buildings and their associated public realm will be broken into three primary phases.

The first phase is along the western boundary and includes apartment blocks A, B, D and W. The Community Centre and MakerLabs are also included in phase one. Phase two comprises the development of blocks facing the Village Green, including apartment blocks M, N, O, TU and V. The eastern side of the basement is also included within phase two. The third phase is the final phase and consists of the apartment blocks and basement located in the centre of the masterplan. This includes houses in blocks G, K, F, H, J, L P and Q and apartment blocks C, E, I, S and R.

The phasing has been sensitively considered from the outset to ensure, wherever possible, existing residents are only making one single move into their new home.



Key







Phase 3

4.3.9 Masterplan Tenure Distribution

Tenure Distribution

Affordable homes are distributed evenly across the site. The location of the affordable provision is driven mainly by the construction phasing and decant strategy.

Following the GLA Estate Regeneration Good Practice Guide, all residents are to only move once wherever possible. This has dictated the phasing strategy shown in the diagram to the right.

The initial re-provision of existing affordable dwellings in phase 1 enables the demolition and construction in phase 2, which then re-provides for remaining residents in existing blocks under phase 3.

With the resulting unconstrained mix in phase 3 we have been able to provide mixed tenure apartment blocks in C & S.



Key



Affordable Rent Additional

London Living Rent

London Shared Ownership

Indicative Leaseholder Reprovision

Market Housing

4.3.10 Accomodation Schedule

Phase Breakdown

Accommodation Mix Habitable Rooms	1B1P flat 1	1B2P flat 2	2B4P flat 3	3B5P flat 4	3B6P flat 4	1B2P W WCH flat 2	2B3P W WCH flat 3	2B4P W WCH flat 3	3B4P W WCH flat 4	3B5P W WCH flat 4	H01 4B7P house 5	H02 4B8P house 6	H03 5B9P house 7	H04 4B7P house 6	total units	total hr	% units overall	% hr overall	% hr affordable	% units WCH by tenure	1b units	2b units	3b units	4b+ units	Dual / Triple Aspect % No.	
Phase 1 (A, B, D, W)																										
Affordable Rent Reprovision		34	18	9	1	1									63	164	13.9%	12.9%	29.8%	2%	56%	29%	16%	0%	75%	47
Indicative Leaseholder Reprovision	2		3	2											7	19	1.5%	1.5%	3.5%	0%	29%	43%	29%	0%	71%	5
Phase 2 (M, N, O, TU, V)																										
Affordable Rent Reprovision		56	18	2		2	1			1					80	185	17.7%	14.6%	33.6%	5%	73%	24%	4%	0%	81%	65
Affordable Rent Additional		2													2	4	0.4%	0.3%	0.7%	0%	100%	0%	0%	0%	100%	2
Indicative Leaseholder Reprovision		7	8	2			5	1							23	64	5.1%	5.0%	11.6%	26%	30%	61%	9%	0%	78%	18
Market Sale		41	10			2	1	1							55	122	12.2%	9.6%	n/a	7%	78%	22%	0%	0%	53%	29
Phase 3 (C, E, F, G, H, I, J, K, L, P, Q, R, S) Affordable Rent Additional		4	6	2		2	1		1						19	54	4.2%	4.2%	9.8%	37%	32%	53%	16%	0%	100%	19
London Living Rent		6	2	2		1	4		1						10	23	2.2%	1.8%	4.2%	10%	70%	30%	0%	0%	100%	10
Shared Ownership		20	19			2			1						47	120	10.4%	9.4%	21.8%	17%	47%	51%	2%	0%	96%	45
Market Sale	2	40	47				15		1		12	14	8	Q	146	516	32.3%	40.6%	n/a	10%	29%	42%	0%	29%	93%	136
Total Affordable Tenure							1 25								1.0	320	32.576	10.070		ffordable Rent Mix		29%	10%	0%	81%	133
Affordable Rent Reprovision		90	36	11	1	3	1			1					143	349	31.6%	27.5%	63.5%	3.5%	65%	26%	9%	0%	78%	112
Affordable Rent Additional		6	6	2		2	4		1						21	58	4.6%	4.6%	10.5%	33.3% ^	38%	48%	14%	0%	100%	21
London Living Rent		6	3			1									10	23	2.2%	1.8%	4.2%	10.0%	70%	30%	0%	0%	100%	10
Shared Ownership		20	19			2	5		1						47	120	10.4%	9.4%	21.8%	17.0%	47%	51%	2%	0%	96%	45
							•								221	550	48.9%	43.3%	100.0%	9.0%				•	85%	188
Total Private Tenure																										-
Indicative Leaseholder Reprovision	2	7	11	4			5	1							30	83	6.6%	6.5%	15.1%	20.0%	30%	57%	13%	0%	77%	23
Market Sale	2	81	57			2	16	1			12	14	8	8	201	638	44.5%	50.2%	n/a	9.5%	42%	37%	0%	21%	82%	165
															231	721	51.1%	56.7%	15.1%	10.8%	41%	39%	2%	18%	81%	188
Total units	4	210	132	17	1	10	31	2	2	1	12	14	8	8	452		100%	100%		10.2%	50%	37%	5%	9%	83%	376
Habitable rooms	4	420	396	68	4	20	93	6	8	4	60	84	56	48		1271										
																2.81	average hab	room/unit								

4.3.11 Tenure Distribution

Floor Plan Breakdown



Ground Floor



Third Floor



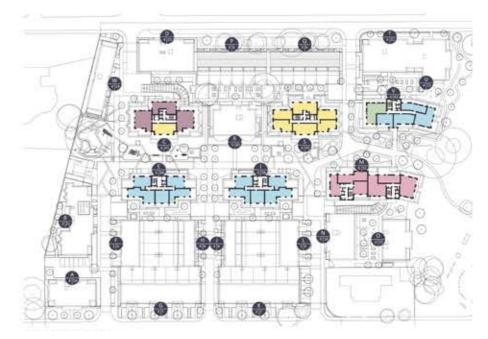
First Floor



Fourth Floor



Second Floor



Fifth Floor

Key

Affordable Rent Reprovision









4.3.12 Size of Homes

Floor Plan Breakdown







First Floor Second Floor

Third Floor

 Key

 Studio
 3B4P
 4B8P

 1B2P
 3B5P
 5B9P

 2B3P
 3B6P
 M4(3) Adaptable

 2B4P
 4B7P
 M4(3) Accessible

Fifth Floor

Fourth Floor