



# BIRKENHEAD

High Density Family Homes Study

**BDP.** **Aspinall**  
**Verdi** property  
regeneration  
consultants

REP A001  
February 2022

 **WIRRAL**







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## 1.0 INTRODUCTION

### PREFACE //

This document has been prepared on behalf of Wirral Council by BDP Architects and Town Planners, in-collaboration with Aspinall Verdi acting as Viability and Market Consultants, and Arcadis as Cost Consultant.

### BRIEF //

As part of the Council's preferred Urban Intensification Strategy for the Emerging Wirral local plan 2021 to 2037 it will be necessary to deliver new family homes (3 bedroom plus) at a higher density in Birkenhead.

The brief for the commission was to develop a high density family housing study at a range of densities from 60 dwellings per hectare that illustrate how the delivery of quality 3 bed family homes and neighbourhoods can be realised within an urban intensified area supporting the regeneration of Birkenhead town centre and the transformational proposals set-out in the Birkenhead Regeneration Framework 2040.

There were 4 key components to the brief:

- To identify innovative exemplars and design principles for delivering high quality, high density family dwellings from around the UK with which to inform the Local plan and the Birkenhead Design Guide;
- To provide a comparative illustrative conceptual design and viability study for two sample sites in Birkenhead;
- To provide evidence of viability and developer appetite to deliver high quality non standard high density family dwellings in Birkenhead;
- To test emerging Local Plan design and parking, and open space related policies;

Two different character sites were identified through the brief to develop conceptual but reasonably detailed schemes to illustrate unique design approaches to test the brief and formulate a design response to inform policy and design recommendations;

- Europa Boulevard; and
- Hamilton Park

### DOCUMENT STRUCTURE AND SCOPE //

This document has been prepared to inform the emerging Wirral Local Plan with respect to the feasibility and viability of developing higher density family homes in Birkenhead. The document is structured in the following sections:

#### 1.0 INTRODUCTION

This section looks to present the brief, scope and a high level overview of the Viability study undertaken in the analysis.

#### 2.0 POLICY, LEGISLATION AND GUIDANCE

Analysis of key working draft policies of the emerging Local Plan provided by Wirral MBC and design guides and other documents reviewed to support the study for relevant information that can influence the space requirements or layout planning of a development site. Key aspects to be extracted from the information include dwelling mix, public open space, separation distances, car parking and permissible variations to the policy.

#### 3.0 BEST PRACTICE

This section provides comparative benchmarking best practice precedent studies for built and proposed projects of 60dph and higher. Key data is presented alongside images and a site plan that relate to the policy and guidance data identified in Section 2.0. Conclusions can be drawn between the requirements defined by the policy and guidance documents and the parameters being followed by other developments across the country.

#### 4.0 THE SITES

This section sets out an analysis of the two sites in terms of their urban design context, constraints and opportunities.

The background of the Draft Birkenhead 2040 Regeneration Framework, Wirral Waters, and the Wirral Growth Company have formed key baseline information to inform the design principles developed. These are captured in brief but have not been replicated as this information is available in detail through the Council's website and planning portal.

#### 5.0 THE BIRKENHEAD HOUSE

As part of the design process an understanding of Birkenhead's existing housing stock is undertaken to help inform the way in which a series of bespoke new homes may be created to suit the unique character of the Birkenhead.

#### 6.0 DESIGN STUDIES

A number of studies explore each of the development sites making use of the established design principals and understanding of the study sites.

Key performance data is illustrated for the drawn layout. Providing weighting to the academic layouts are precedent studies with comparable densities and design layout aspects.

#### 7.0 APPENDICES

Appendix A sets out a review of relevant policies from the then working draft Local plan document as of June 2021. Where appropriate comments have been taken into account in the Local Plan Submission Draft document.





HAMILTON

EUROPA





## **2.0 POLICY, LEGISLATION AND GUIDANCE //**



**POLICY, LEGISLATION AND GUIDANCE //**

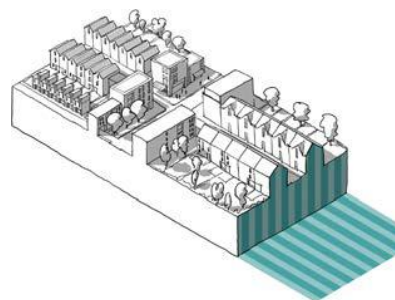
As part of the commission a review was undertaken of both the current and emerging Local Plan policies and benchmarking against both National Policy and other Local Authorities and some best practice examples.

We understand that this has resulted in a number of changes being incorporated into the Draft Local Plan, and as a result this section has been removed and included as an appendix at the end of the document for reference in terms of advice and commentary provided.







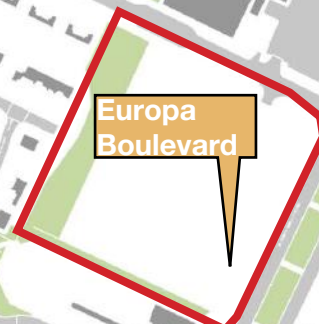


### Urban neighbourhood

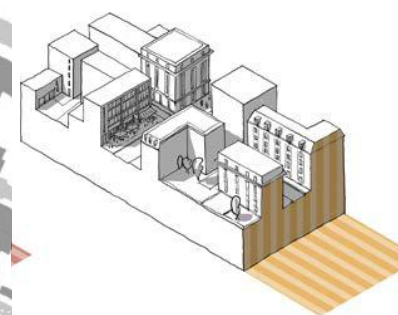
Urban neighbourhoods with net housing densities of 60-120 dph and a mix of uses.



Hamilton Park Site



Europa Boulevard



### Town/City centre

A typical dense city typology with over 120 dwellings per hectare (dph) and a strong mix of uses.





## **Europa Boulevard Site Analysis //**





Europa Pools  
Leisure centre

Station

Europa House

Bus Station

Wirral Council

College

Rail Cutting

Crown Court

Hamilton Square

Park Street

Price Street

Piper's Row

Conway Street

EUROPA BOULEVARD

EUROPA BOULEVARD

St John's Square



combined area = 1.4293 ha  
Town / City Centre (National Design Code)  
120 dph x 1.4293 ha = 172 dwellings  
Outline Planning  
186 dwellings / 1.4293 ha = **130 dph**  
**3-7 storeys**

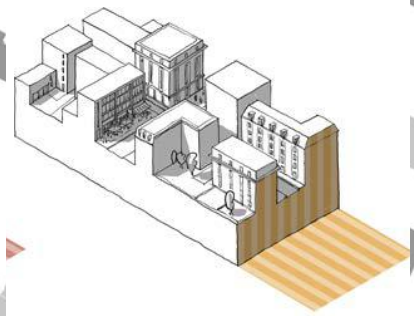
combined area = 0.4039 ha  
Town / City Centre (National Design Code)  
120 dph x 0.4039 ha = 48 dwellings  
Outline Planning  
140 dwellings / 0.4039 ha = **347 dph**  
**4-9 storeys**

PLOT J  
0.7373 ha

PLOT I  
0.6920 ha

PLOT G2  
PLOT G1

Is 140 dwellings realistic for this site?

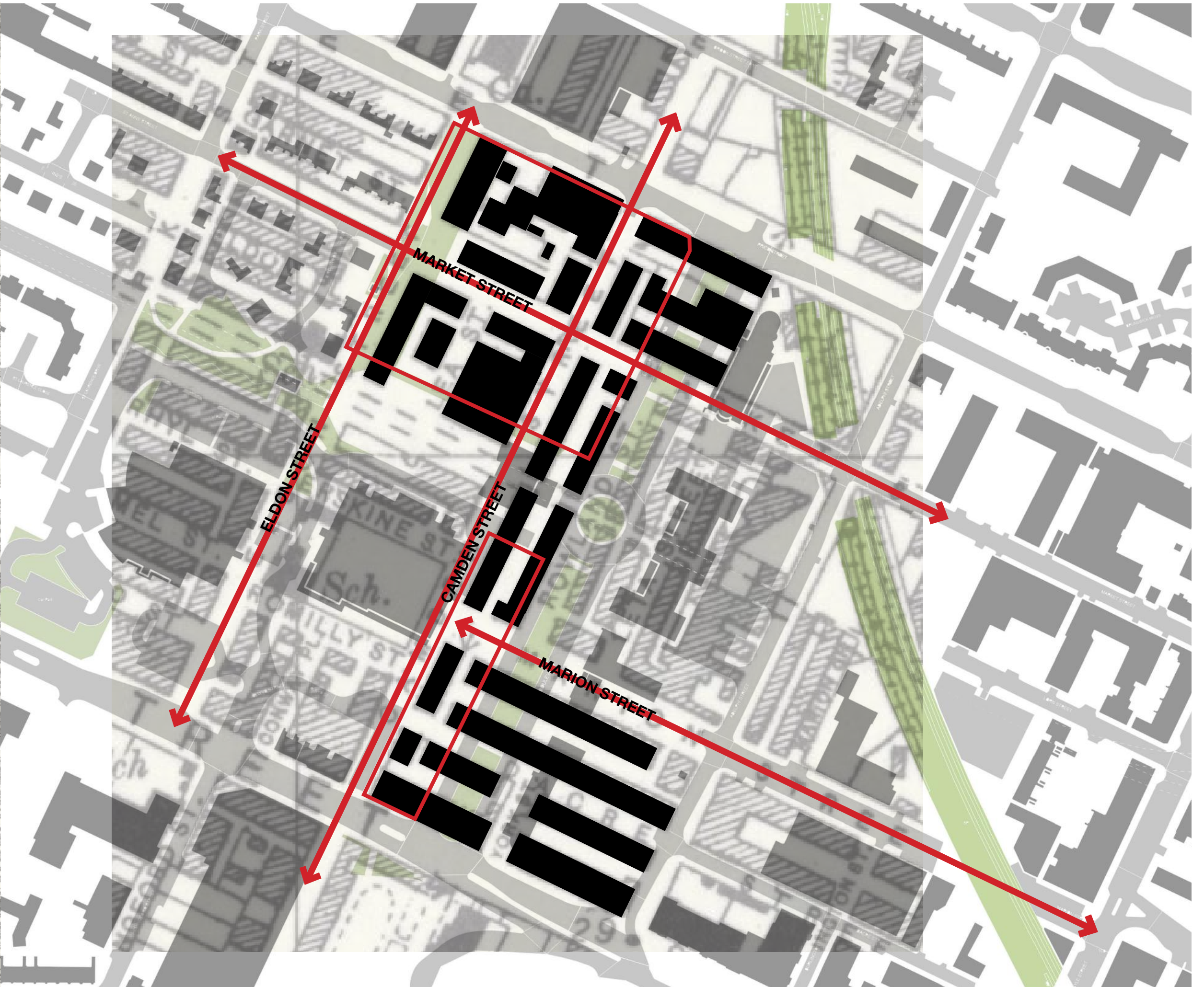
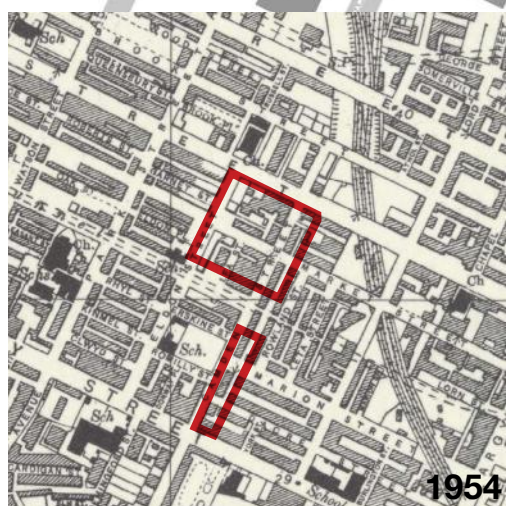
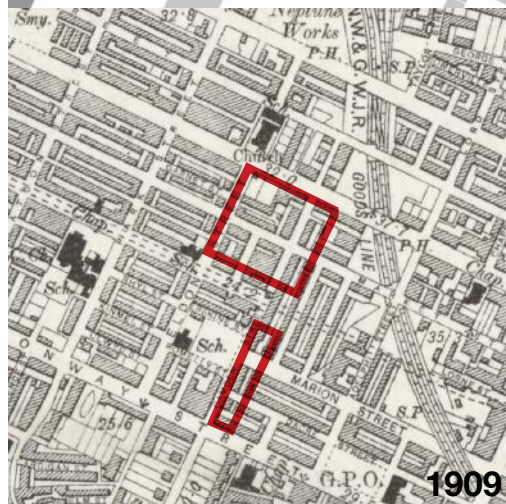
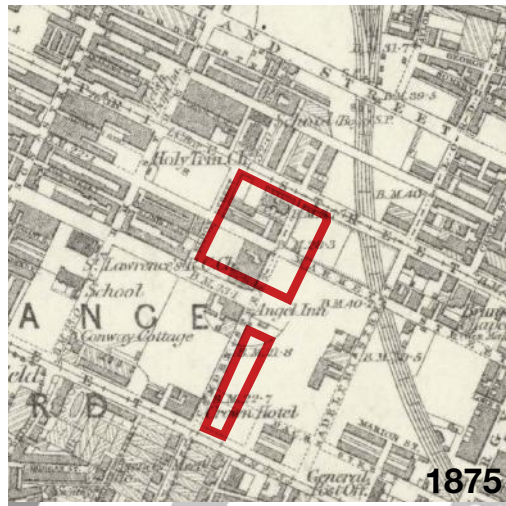


**Town/City centre**  
A typical dense city typology with over 120 dwellings per hectare (dph) and a strong mix of uses.

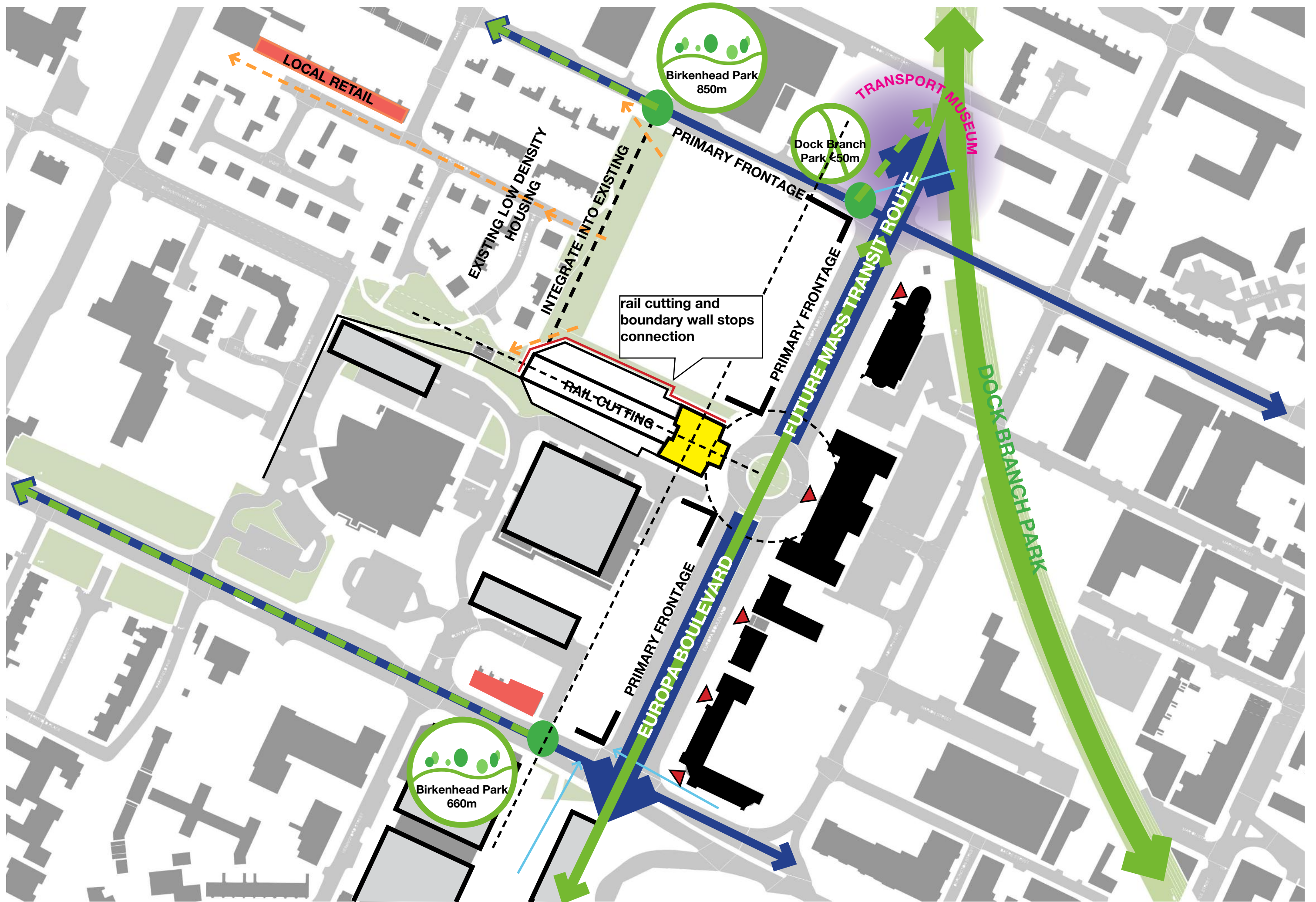
TRANSPORT MUSEUM

DOCK BRANCH PARK

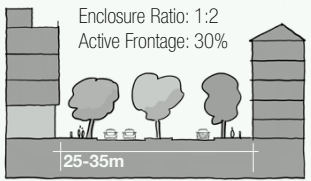

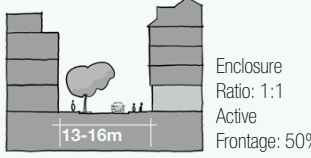



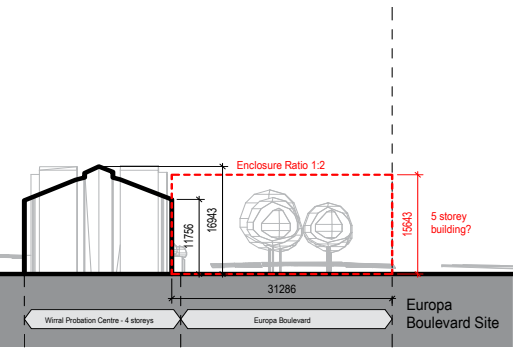






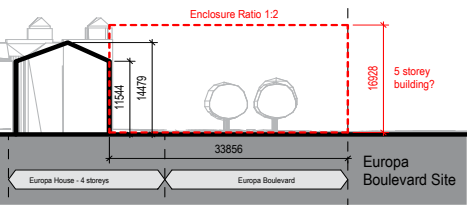


<p><b>Primary streets:</b> Designed to take through traffic and public transport <a href="#">See P.1.i Primary Streets</a></p>	<p><b>Town centres</b></p>  <p>Enclosure Ratio: 1:2 Active Frontage: 30% 25-35m</p>
<p><b>High streets:</b> The focus for local shopping centres, often with traffic but sometimes traffic-free <a href="#">See P.1.i Primary Streets</a></p>	 <p>Enclosure Ratio: 1:1 Active Frontage: 80% 15-20m</p>
<p><b>Secondary streets:</b> Taking local traffic into neighbourhoods and often the location of shopping parades and local services such as shops <a href="#">See P.1.ii Local and Secondary Streets</a></p>	 <p>Enclosure Ratio: 1:1 Active Frontage: 50% 13-16m</p>
<p><b>Local streets:</b> Providing vehicle access only to the properties on the street but with through pedestrian and cycle traffic <a href="#">See P.1.ii Local and Secondary Streets</a></p>	 <p>Enclosure Ratio: 1:1 Active Frontage: 30% 10-14m</p>

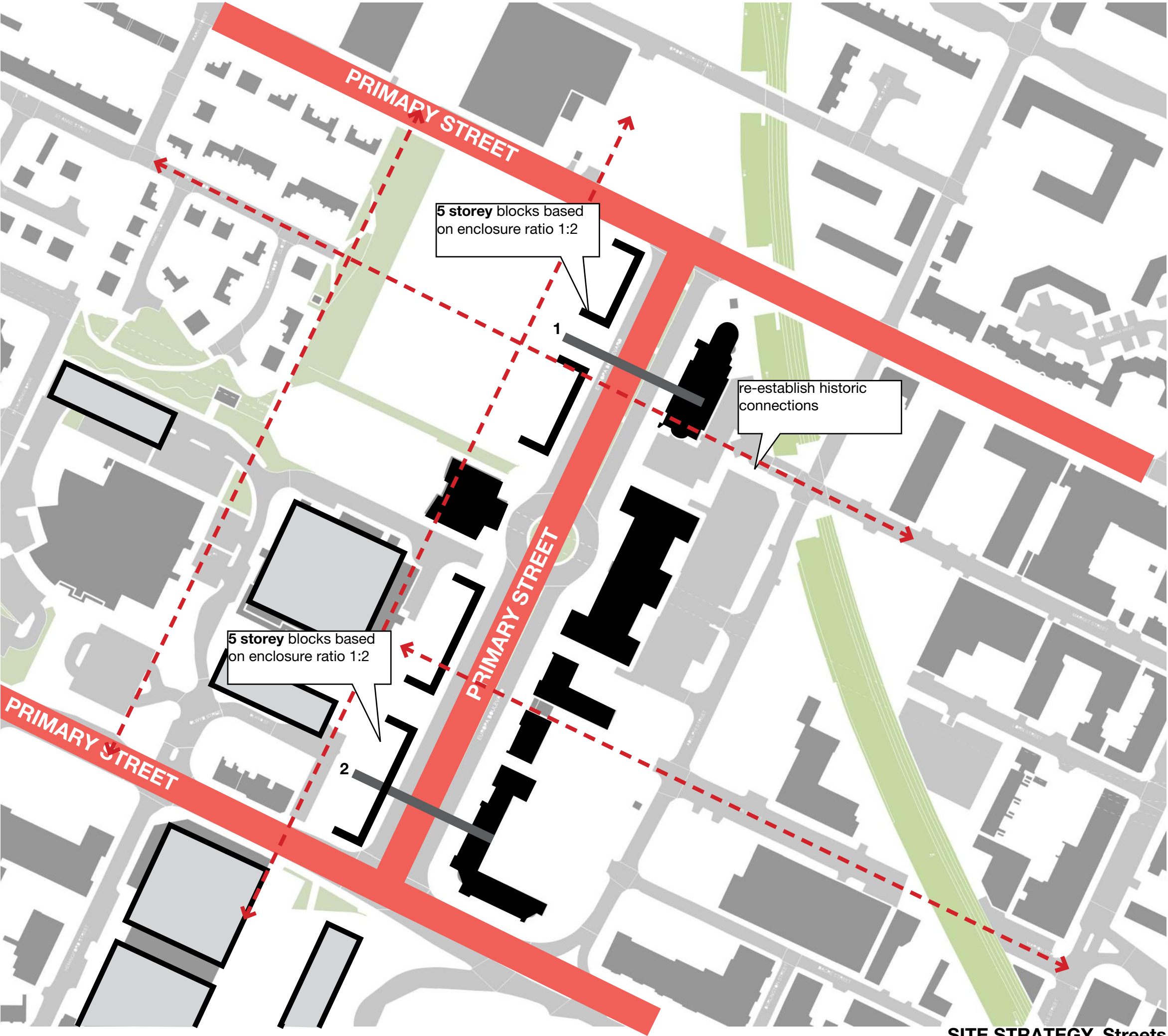


Section 1

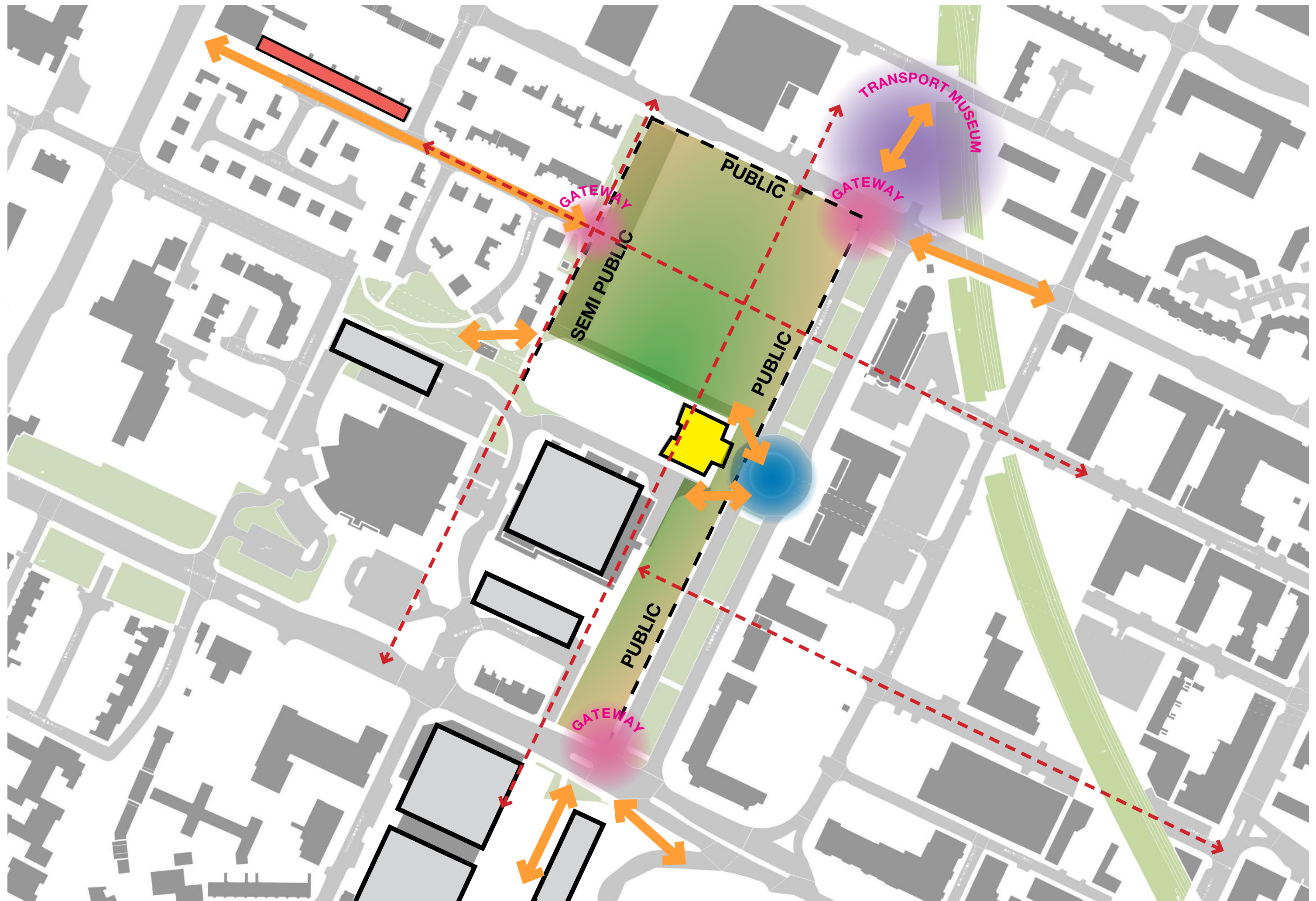
existing blocks smaller than what enclosure ratio suggests building heights along streets to be



Section 2











## **Hamilton Park Site Analysis //**





Wirral Waters

Vittoria Studios

Corporation Road

Marina View

Livingston Street

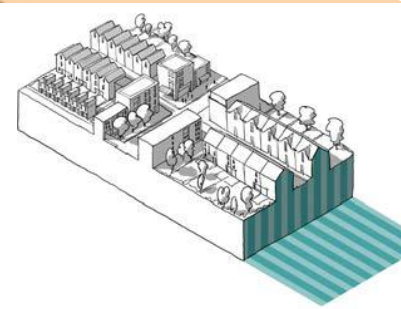
Price Street

Vittoria Street

Cathcart Street

HAMILTON PARK

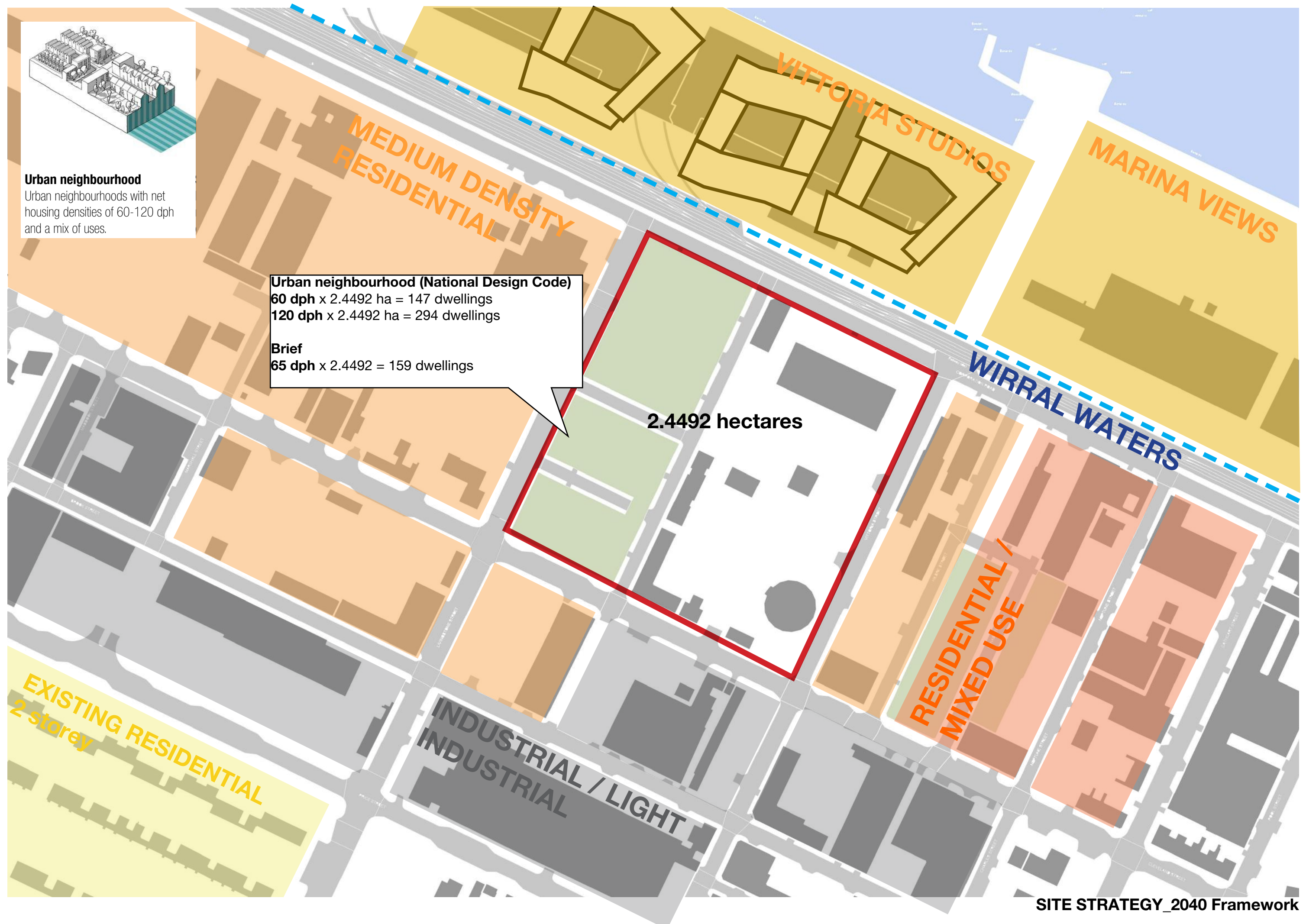




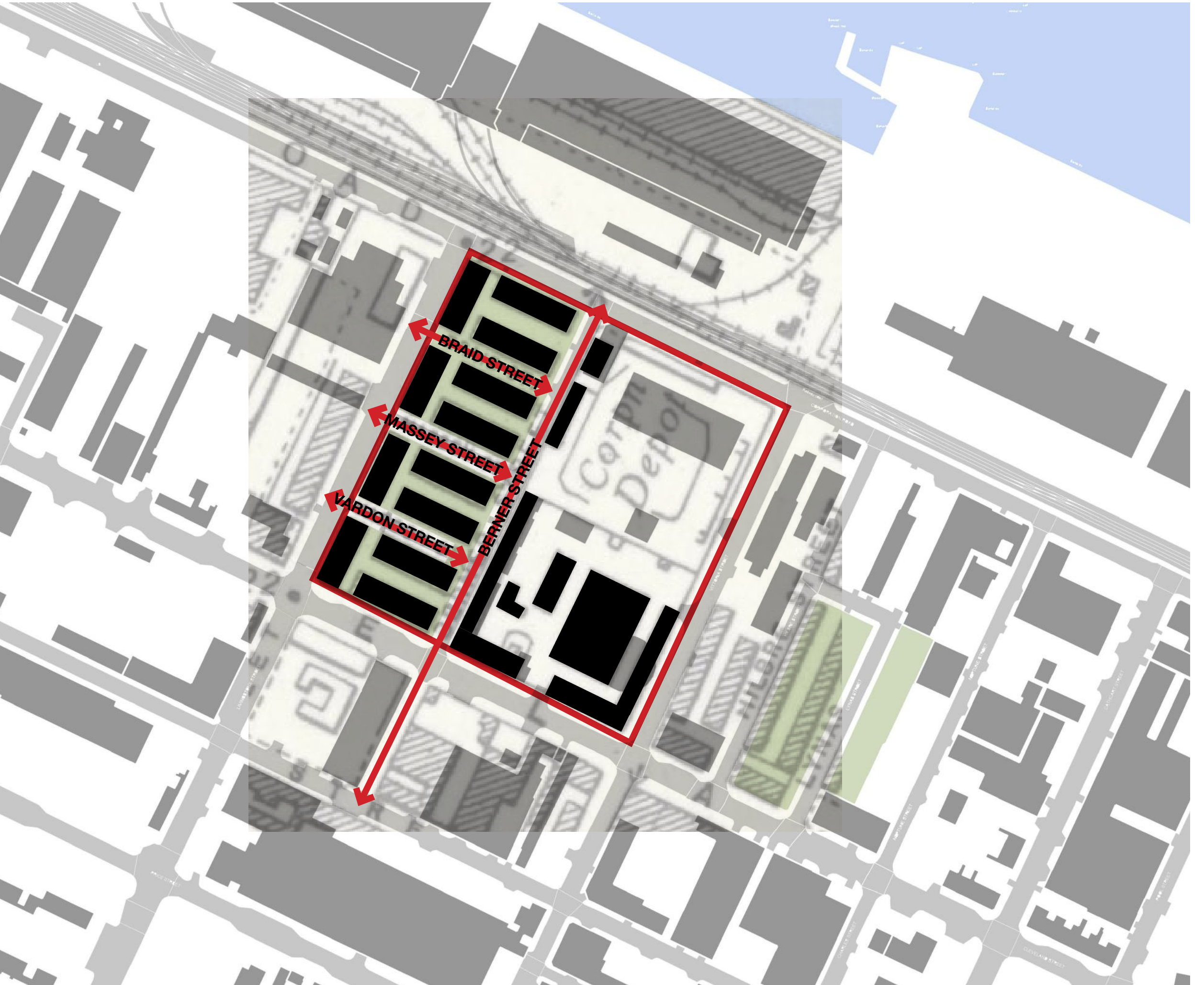
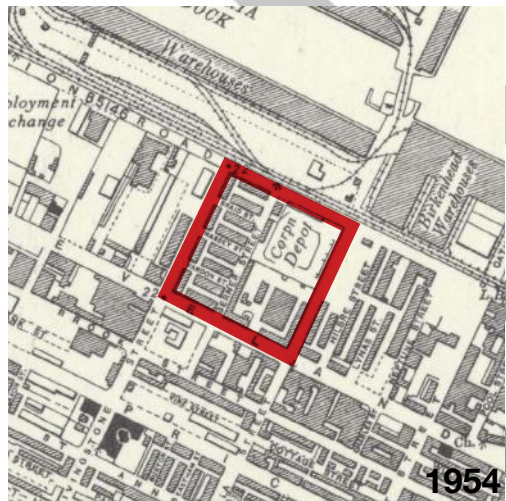
**Urban neighbourhood**  
Urban neighbourhoods with net housing densities of 60-120 dph and a mix of uses.

**Urban neighbourhood (National Design Code)**  
60 dph x 2.4492 ha = 147 dwellings  
120 dph x 2.4492 ha = 294 dwellings  
**Brief**  
65 dph x 2.4492 = 159 dwellings

2.4492 hectares



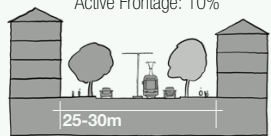







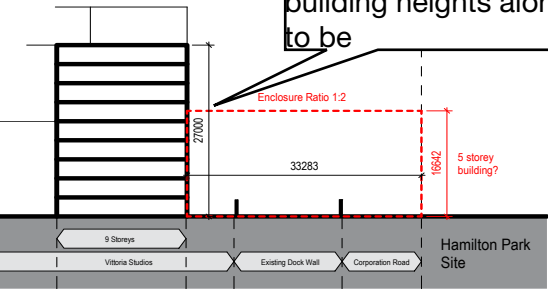






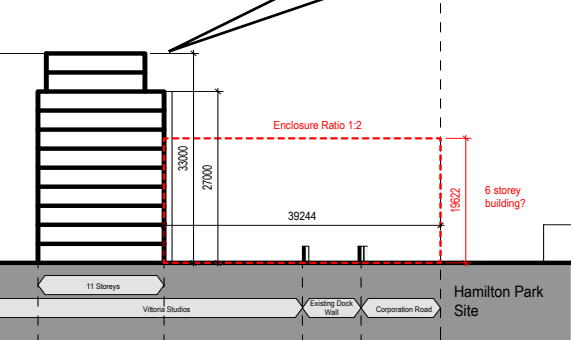
<b>Primary streets:</b> Designed to take through traffic and public transport See P.1.i Primary Streets	<b>Urban neighbourhoods</b> Enclosure Ratio: 1:2 Active Frontage: 10% 
<b>High streets:</b> The focus for local shopping centres, often with traffic but sometimes traffic-free See P.1.i Primary Streets	 Enclosure Ratio: 1:1.5 Active Frontage: 70%
<b>Secondary streets:</b> Taking local traffic into neighbourhoods and often the location of shopping parades and local services such as shops See P.1.ii Local and Secondary Streets	 Enclosure Ratio: 1:1 Active Frontage: 30%
<b>Local streets:</b> Providing vehicle access only to the properties on the street but with through pedestrian and cycle traffic See P.1.ii Local and Secondary Streets	 Enclosure Ratio: 1:1 Active Frontage: 0%

proposed blocks taller than what enclosure ratio suggests building heights along streets to be



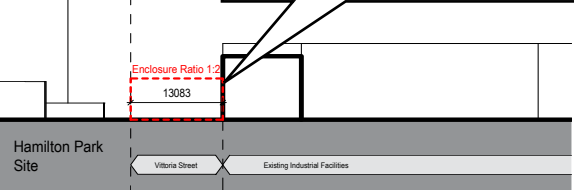
Section 1

proposed blocks taller than what enclosure ratio suggests building heights along streets to be

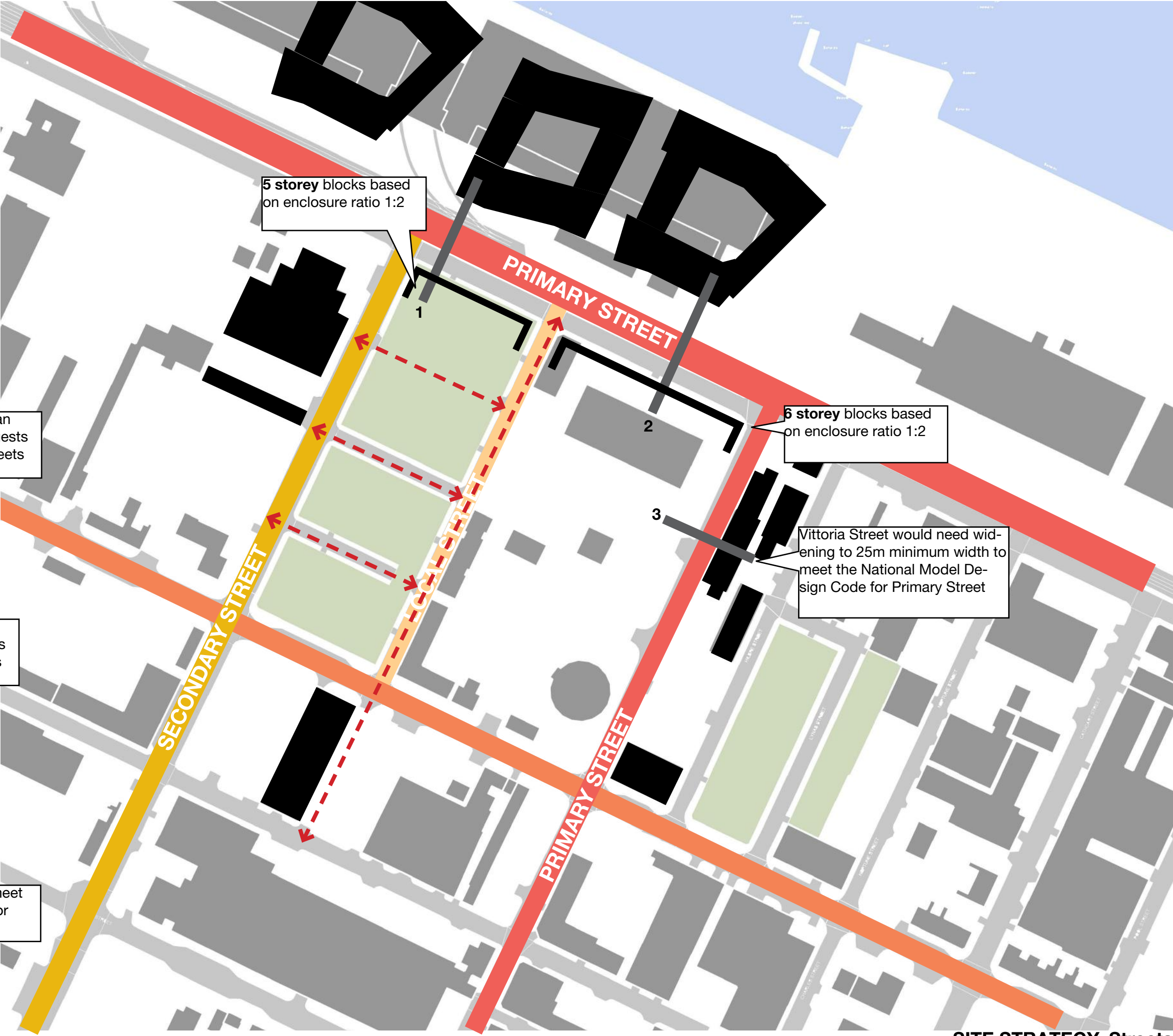


Section 2

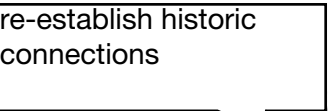
Current road width does not meet National Model Design code for Primary street -25 - 30m



Section 3









## 4.0 A BIRKENHEAD HOUSING TYPOLOGY //



# A BIRKENHEAD HOUSING TYPOLOGY

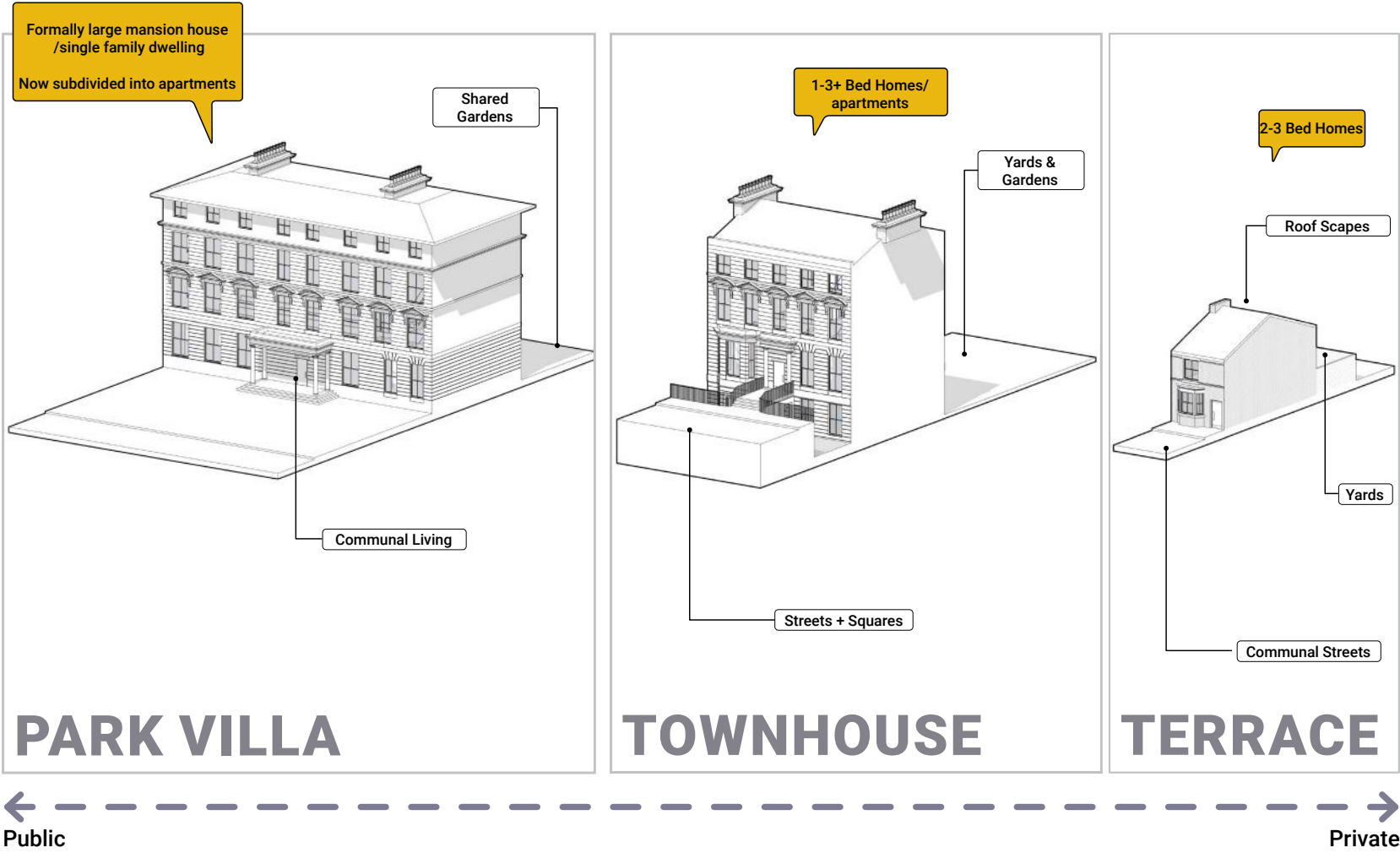
## THE BIRKENHEAD HOUSING TYPOLOGY//

Historically Birkenhead has had a range of housing typologies within the existing stock. Simplistically we would characterise these as The Terrace House, the Townhouse and Park Villa.

The housing typologies identified relate broadly to the historic industrial development of the Town. With clear distinction within these groups reflecting the success or status of the individuals within them.

As part of the design exercise we analysed a range of these homes and from this formulated a series of key characteristics that could be adapted to form a starting point for a NEW Birkenhead house typology.

The following pages illustrate this high level analysis.





### The Terrace House

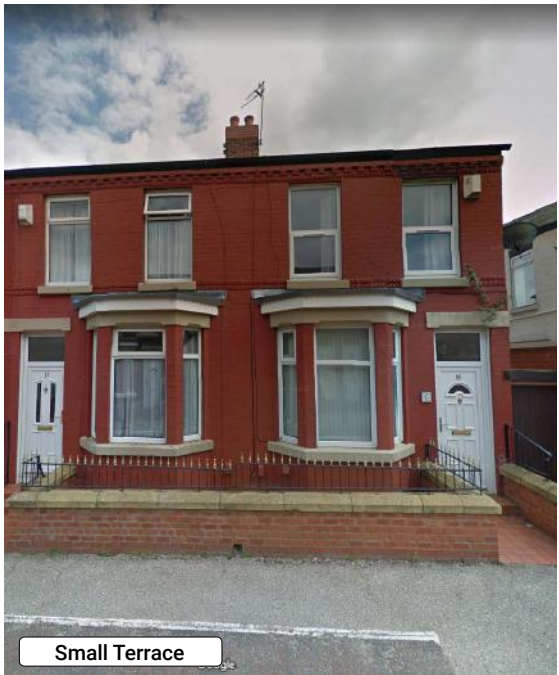
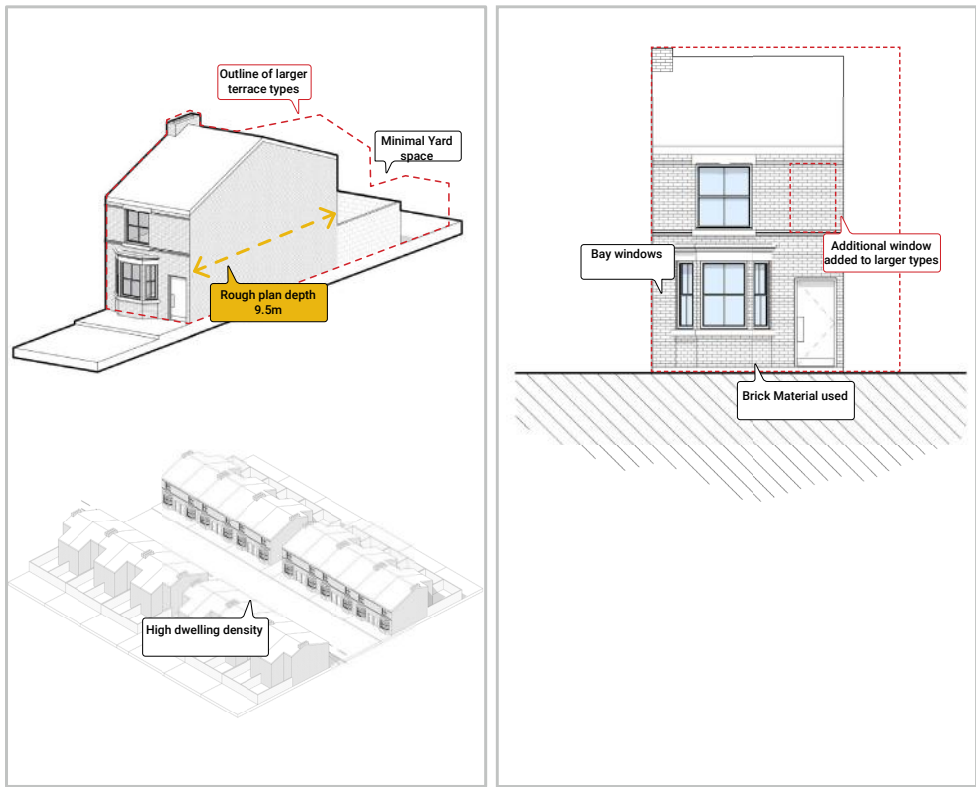
In Birkenhead much like many towns and cities have large area's of rectilinear street of terrace houses.

However, within Birkenhead there is a diversity and mix of homes; from the two up to down, to the larger family home perhaps the for the more senior positions in the industrials around the town.

The scale of some of the terraced homes fronting onto the Park are at their largest.

The architectural character of these homes is red brick, dark roof's probably originally slate tiled, and the inclusion of bay windows in different scales from small single storey to larger double storey bays that grow to suit the character and stature of the property.

Of the area's analysed, the densities range from high 80dph to over 100 homes per hectare. With development plots at their smallest at c.30m and largest at c.55m wide





## The Town House

A core part of Birkenhead's identity is its James Gillespie Graham Grid, and at the heart of this is the Grade 1 Listed Hamilton Square and the elegant Townhouses which flank its sides.

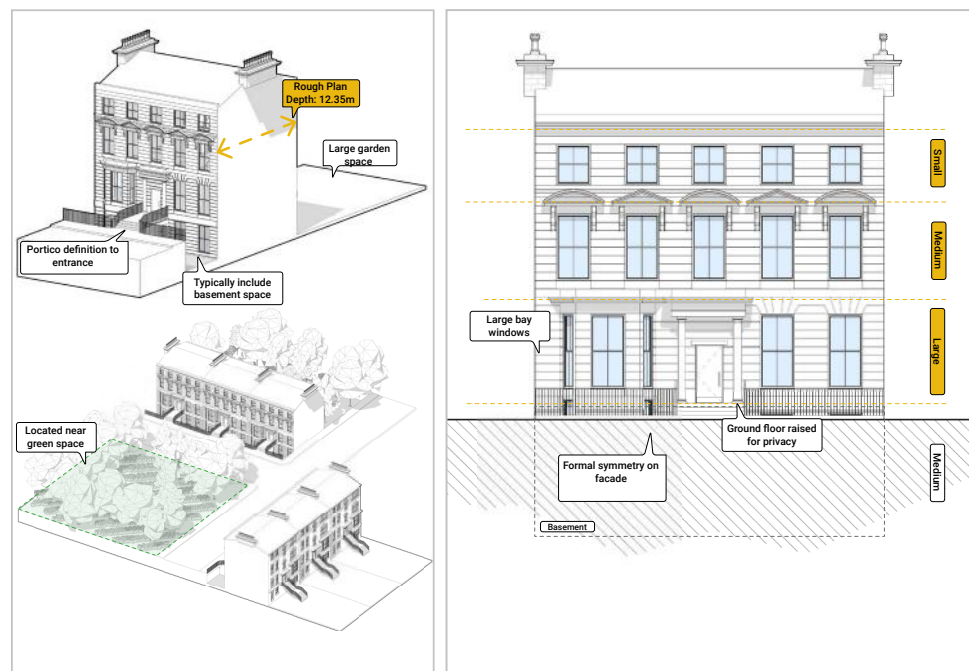
These are large 5 storey buildings which express a significant quality with stone front and brickwork rear facades. Stepped entrances lift the ground floor spaces away from street level revealing an additional lower ground storey, and large regular window openings providing a significant proportion of glass overlooking the street.

The buildings have a clear classical hierarchy to their facades with a lower, middle and upper portion, and have a horizontal element with stone copings or balustrades linking multiple properties together and balancing what is otherwise a very vertical facade.

Whilst they were originally designed for private residences, they are mainly now in occupation as businesses.

Of the area's analysed, the densities range from c.31dph based on being single family dwellings as per their original use, but we know this is not consistent with current usage where residential is still the primary use. These buildings are often subdivided into apartments per floor level - which in essence could times the number above by 4 or 5.

With development plots are circa c.123m x 45m





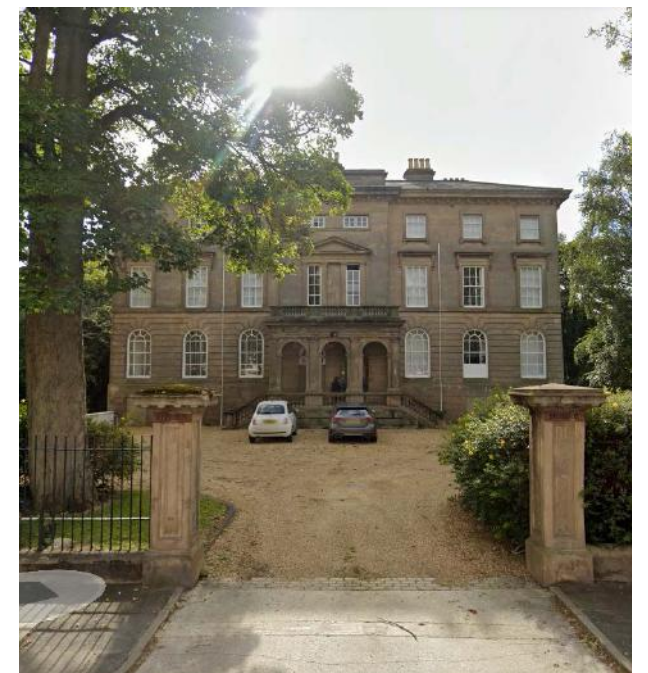
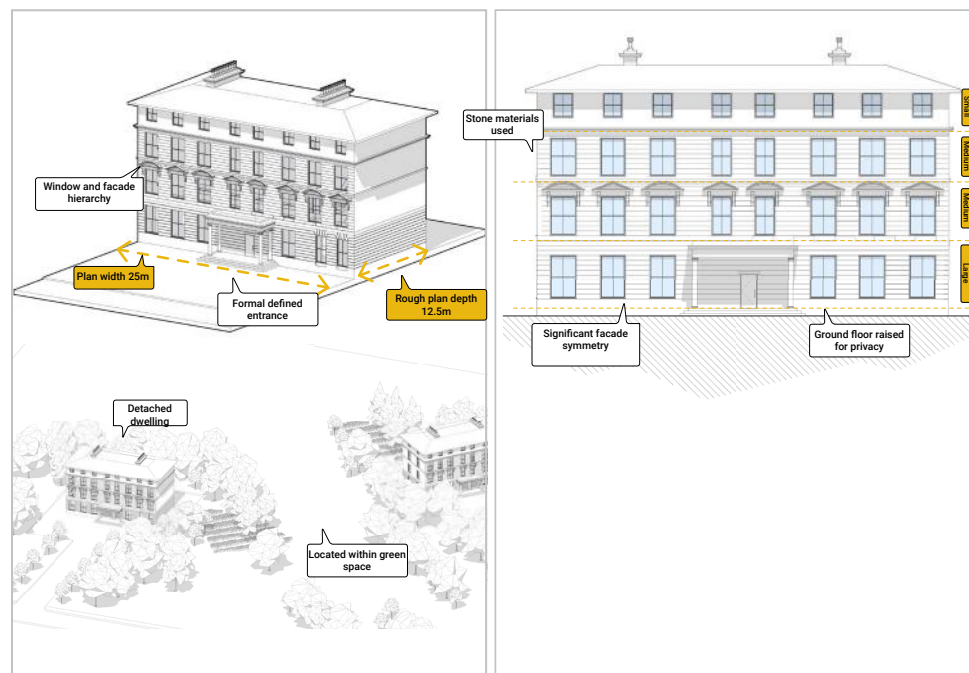
### The Park Villa

The Park Villa is the largest of the Birkenhead typologies and range from very large single family Mansions, to large semi and detached properties.

The typology is generally set within or surrounding Birkenhead Park, represent a visual manifestation of the former success of the town.

Most, if not all of the Mansion houses are now in multiple occupation being subdivided down into apartments, but their legibility is retained in the urban landscape.

The buildings are generally of a Victorian Classical architectural style and have a clear hierarchy to the facades with symmetry and classical column order presenting themselves.







## 5.0 EXEMPLAR HOUSING PRECEDENTS //



## Exemplar Housing

As shown in the previous section, higher density family homes is a characteristic of older housing areas in Birkenhead. However, the requirement for family homes to be provided at higher densities in the Birkenhead 2040 Framework represents a significant shift in approach in the context of the town in modern times. The Council wished to be reassured that such higher density family homes could be delivered as part of high quality neighbourhoods.

This section of the report provides a summary of the studies and evidence of recent UK and European examples where similar high density family homes have been developed to a high quality.

The projects explored include many which are both award winning and used as exemplars of family housing developments - whether urban or sub urban.

The characteristics explored include:

- Number of Homes
- Site Area
- Density per Hectare
- Parking provision per dwelling
- Parking Type (on drive, street or communal)
- Housing Mix (No. of bed spaces)
- Storey heights
- Tenure (open market, affordable)
- Interface Distances
- Public amenity space
- Private amenity space
- Bin Strategy
- Project Status

The table opposite provides a summary of the findings and illustrates the range of high density family housing examples complete, on site or with planning approval. They provide Assurance that high quality higher density family housing is already being delivered across the UK and is attractive to the housing market - with many of the projects identified used by the RIBA as exemplars of housing design and placemaking.





High Density Family Housing Study Schedule

All information within this schedule provides a summary of research undertaken from public information sources.Accuracy of this information is limited to ti

Project Name	Location	Site Area	Housing Type	Number of Homes	Density	Parking Provisio	Parking Type	Housing Mix	Storey Heights	Tenure	Interface Distances	Public Amenity Space	Private Amenity Space	Bin Strategy	Project Status
East Float Phase 1	Wirral	0.5 Ha	Townhouses	30	60 dph	1.10	Communal	3 and 4 bed	2 and 3	100% private sale	4.5m to 17m	Dockside footpaths	Communal Gardens	Communal above ground	On site
Alder Hey Phase 1	Liverpool	0.63 Ha	Townhouses	40	63 dph	1.20	Drive and garage	3 bed	3	100% private sale	8m to 15m	Gardens and deck	Private gardens and roof terraces	on curtilage	Planning Approved
Irwell Riverside	Salford	1.29 Ha	Townhouses	72	56 dph	1.30	Drive	3 and 4 bed	2 and 3	100% private sale	15m to 17m	garden space	Private gardens	on curtilage	Complete
Valette Square	Salford	0.58 Ha	Townhouses	33	57 dph	1.00	Communal and drive	2, 3 and 4 bed	2 and 3	100% private sale	6m to 17m	nil	Private gardens and roof terraces	Communal above ground	Complete
Time Keepers Square	Salford	0.5 Ha	Townhouses	36	72 dph	1.10	Communal and drive	2, 3 and 4 bed	2 and 3	100% private sale	15m to 19m	new public street	Private gardens and roof terraces	Communal above ground	Complete
The Neighbourhood (site B)	Salford	0.72 Ha	Townhouses & Back to Back	66	92 dph	0.80	Drive and Street	3 bed	3	100% private sale	15m to 17m	nil	Private gardens and roof terraces	on curtilage	On site
House New Islington	Manchester	0.6 Ha	Townhouses	44	73 dph	1.00	Drive	3 and 4 bed	3	69% affordable, 23% social rent	17m to 27m	nil	Private gardens	Communal above ground	Complete
Manox	Manchester	6.4 Ha	Apartments, Townhouses and Maisonettes	410	64 dph	0.70	Street	1, 2 and 3 Bed Apts & 2, 3 Bed Houses	2 and 3	Unknown	6m to 18m	garden space	Private gardens & Communal	Communal above ground	Planning Approved
Port Loop Brick House	Birmingham	0.57 Ha	Townhouses	37	72 dph	2.00	Drive, Communal & Garage	3 and 4 bed	3	95% private sale, 5% affordable	10m to 24m	nil	Private gardens & Communal	on curtilage	Complete
Fab House	North Shields	0.141 Ha	Townhouses	10	71 dph	2.00	Communal	3 bed	2	100% private sale	21m	garden space	Private gardens	on curtilage	Complete
Goldsmith Street	Norwich	1.28 Ha	Townhouses & Apartments	105	83 dph	0.73	Street	1, 2 and 3 Bed Apts & 2, 4 Bed Houses	2 and 3	100% Social	13m	garden space	Private gardens	Communal below ground	Complete
Eddington Lynxvale	Cambridge	2.4 Ha	Townhouses & Maisonettes	117	49 dph	0.00	n/a	1 and two bed	4	Unknown	18m	nil	Roof Terraces	Communal above ground	Complete
Above Great Kneighton Phase 2	Cambridge	2.76 Ha	Townhouses & Apartments	140	51 dph	1.60	Communal, Garage and Drive	1, 2 and 3 Bed Apts & 2, 3, 4 & 5 Bed Houses	2, 3 and 4	60 % Open Market, 40 % Affordable	12m to 23m	garden space	Private gardens	on curtilage	Complete
Knights Park, Eddington	Cambridge	1.98 Ha	Townhouses & Apartments	184	92 dph	1.30	Communal, Garage and Drive	1, 2 and 3 Bed Apts & 2, 3, 4 & 6 Bed Houses	2, 3 and 4	100% open market	8m to 13m	new park space	Private gardens and roof terraces	Communal below ground	Complete
Triangle	Swindon	0.8 Ha	Townhouses & Apartments	48	60 dph	1.50	Drive	1, 2 Bed Apts & 2, 3, 4 Bed Houses	2 and 3	56% Private Sale, 44% affordable rent	n/a	garden space	Private gardens	on curtilage	Complete
Brabazon Phase 1	Bristol	4.1 Ha	Townhouses & Apartments	278	68 dph	1.50	Street, Garage and Drive	1, 2 Bed Apts & 2, 3, 4 Bed Houses	2, 3 and 4	84% private for sale, 16% affordable	12m to 17m	nil	Private gardens	Communal above ground	on site / complete
Signal Townhouses	London	0.31 Ha	Back to Back	16	52 dph	0.80	Communal and drive	3 bed	3	100% private sale		nil	Roof Terraces	on curtilage	Complete
Dujardin Mews	London	0.78 Ha	Townhouses	38	48 dph	0.70	Street and Garage	1, 2, 3 and 4 bed	2 and 3	50% Social Rent, 50% Affordable	12m	nil	Private gardens and roof terraces	on curtilage	Complete
Television Centre Townhouses	London	0.42 Ha	Townhouses	22	52 dph	1.00	Drive	1 and 4 bed houses	3	100% private sale		garden space	Private gardens and roof terraces	on curtilage	Planning Approved
Rochester Way	London	0.28 Ha	Townhouses	29	102 dph	1.00	Street	1, 2, 3 bed	2 and 3	Unknown	6m	nil	Private gardens and roof terraces	on curtilage	Complete
Moray Mews	London	0.11 Ha	Townhouses	14	131 dph	0.00	n/a	1 and 2 bed	2	100% private sale	12m to 15m	nil	Private gardens and roof terraces	on curtilage	Complete





## **6.0 A NEW HOME FOR BIRKENHEAD //**



## Developing a Unique Housing Offer //

As part of the commission BDP developed a series of housing types linked to the historic analysis previously described which exemplifies the housing stock available within Birkenhead today and characterises the townscape and the way in which families use these buildings and spaces.

The following house types explore a 3 bed family home typology across a range of scales as the historic typologies. With Mews, variants of scale and layout of Terraced homes, back to backs, Town houses and larger villa like properties.

These house types are not intended to be exhaustive, but rather illustrate how a new urban housing form that complies with modern ways of living, space standards and accessibility needs, can be developed and then later applied through the masterplans for both Hamilton Park and Europa Boulevard.





# House Type B

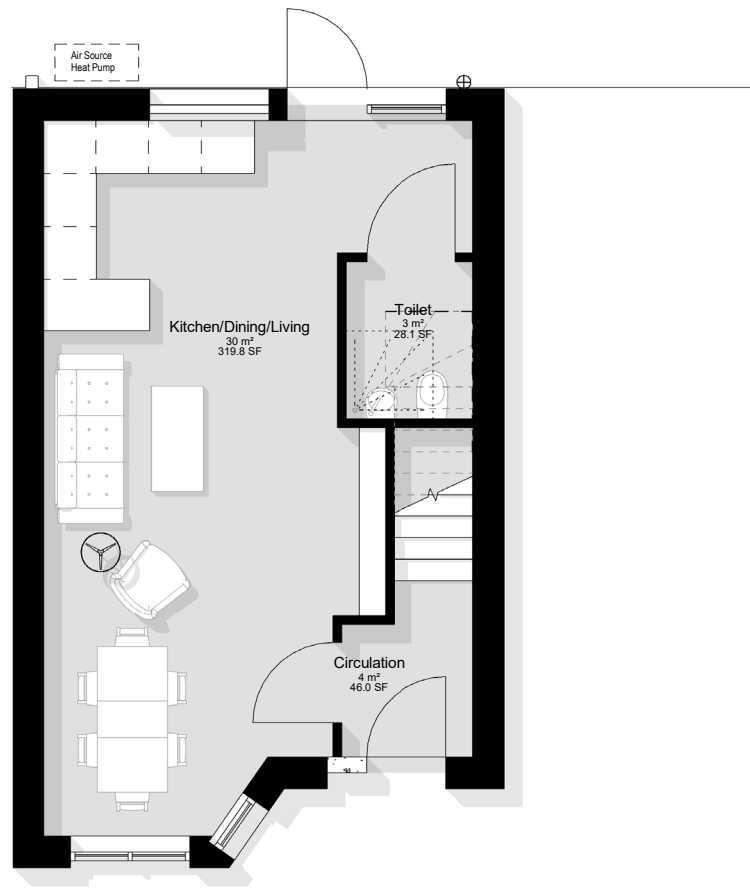
## Terraced Town House

### Key layout features

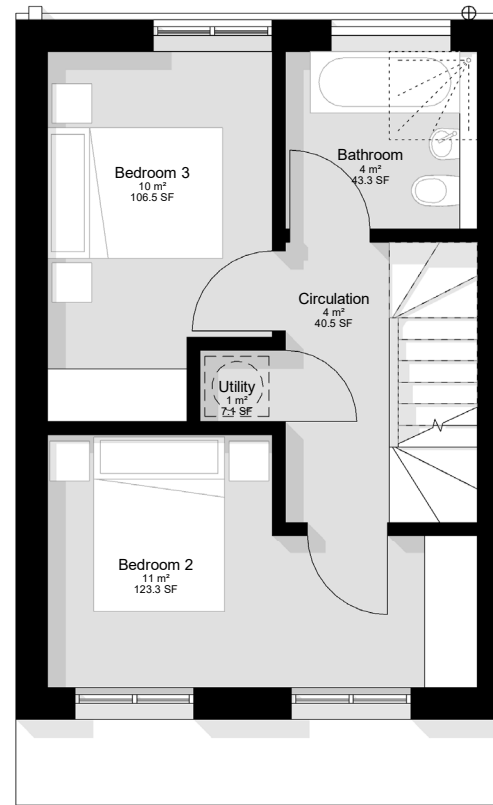
- 3 Bed Home
- 5.6m wide x 8.9m deep
- NDSS Space standard compliant 3B5P 3 storey 99m2 dwelling
- M4 (2) standard home
- Feature Bay window
- Horizontal banding picking up on Hamilton Square town house
- Roof Top Terrace
- Covered entrance below integral banding



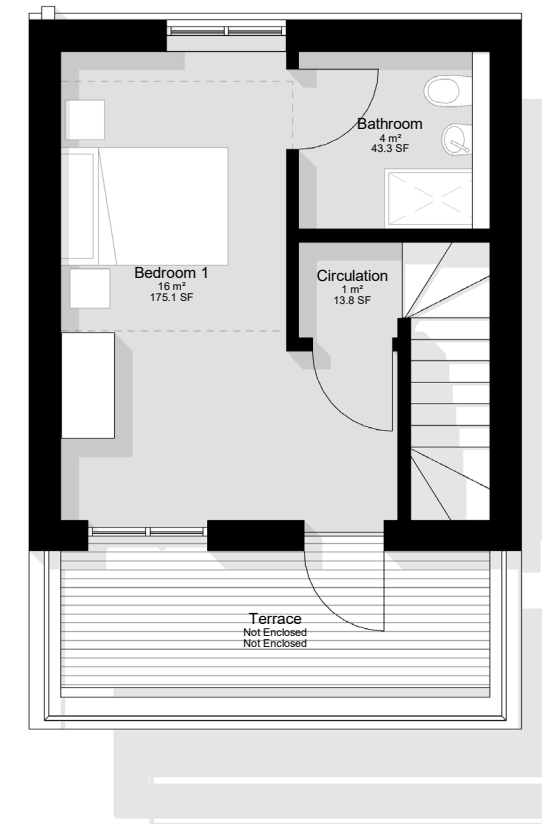




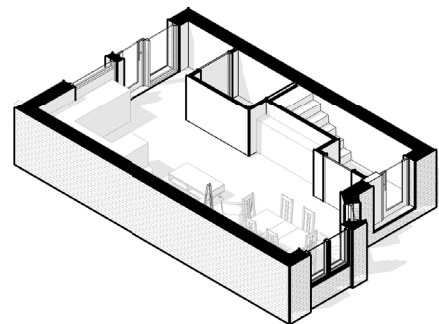
**00 - General Arrangement**  
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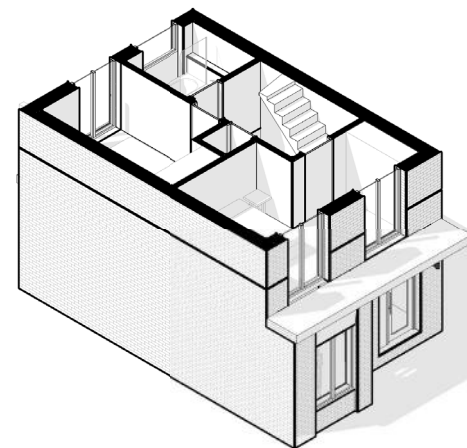
**01 - General Arrangement**  
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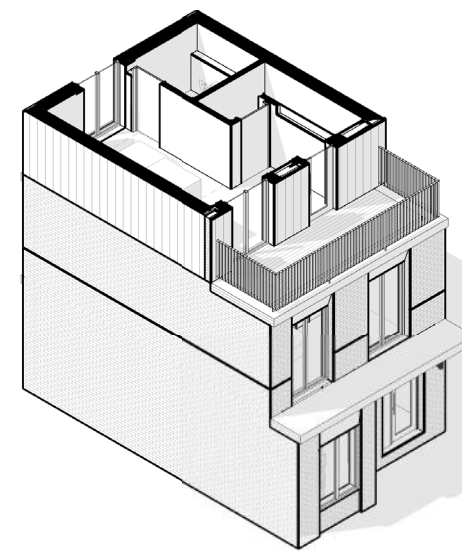
**02 - General Arrangement**  
1 : 50



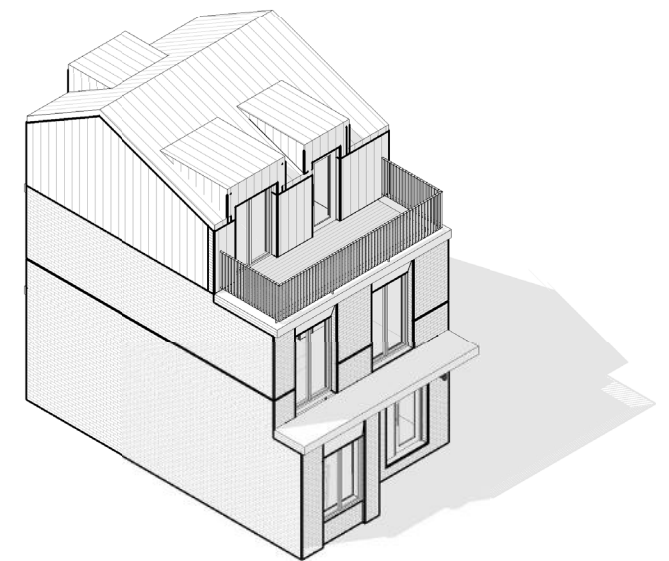
**00 - Level 00 Axo**



**01 - Level 01 Axo**



**02 - Level 02 Axo**



**RF - Level RF Axo**



# House Type C

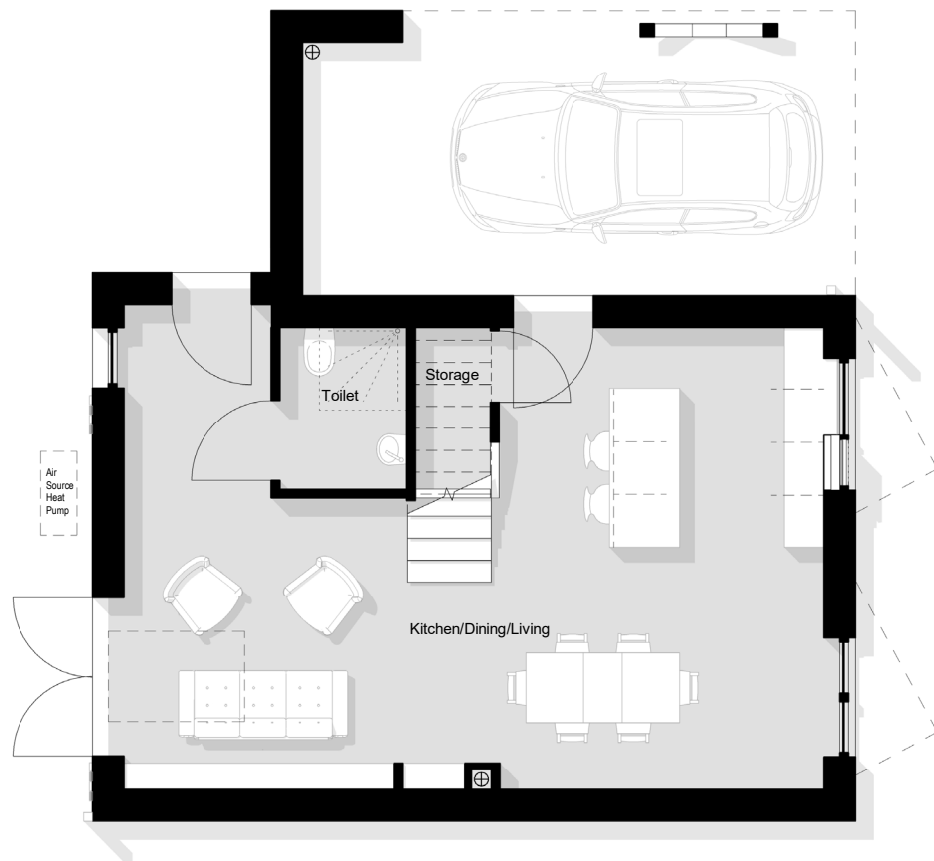
## Mews Terraced House

### Key layout features

- 3 Bed Home
- 9.2m wide x 8.7m deep
- NDSS Space standard compliant 3B5P 2 storey 92m2 dwelling
- M4 (2) standard home
- Integrated off street parking
- Pitched roof form
- Covered entrance below integral undercroft area



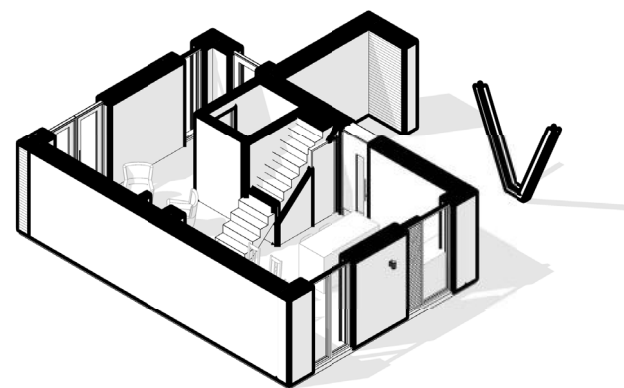




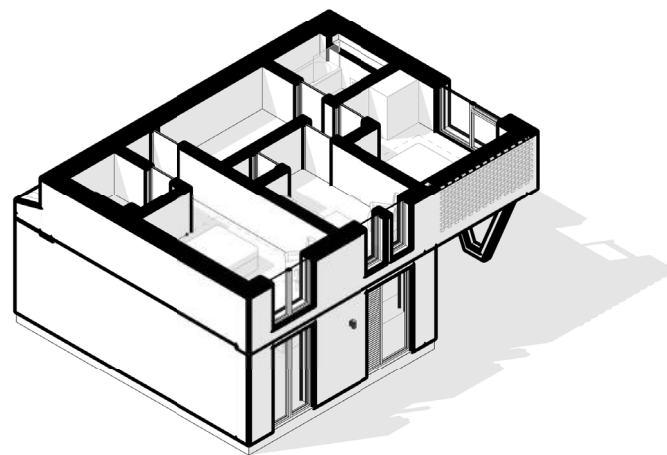
**00 - General Arrangement**  
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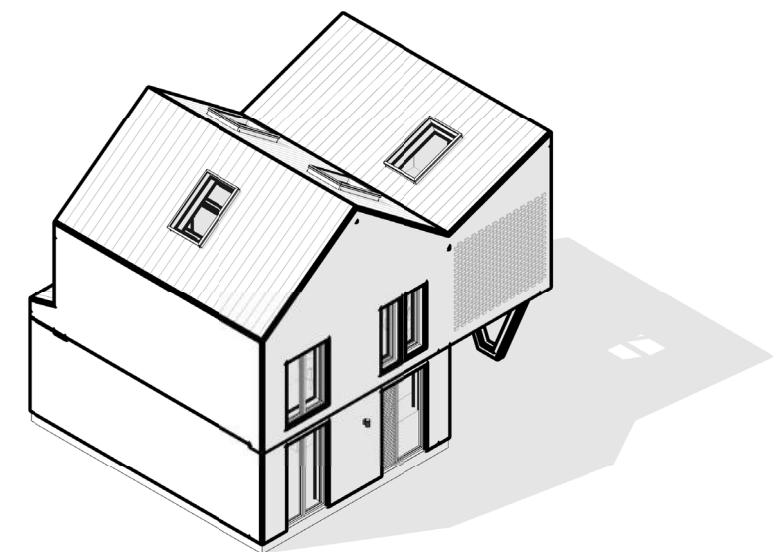
**01 - General Arrangement**  
1 : 50



**00 - Level 00 Axo**



**01 - Level 01 Axo**



**RF - Level RF Axo**



# House Type D

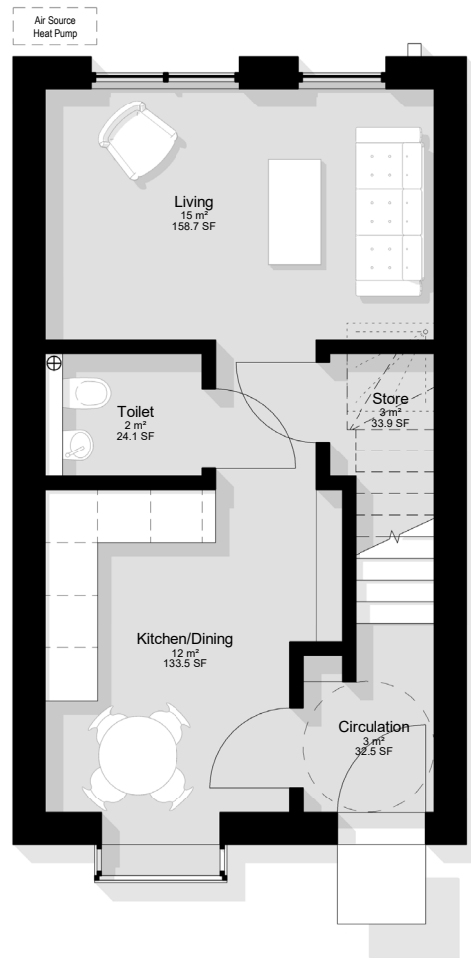
## Terraced House

### Key layout features

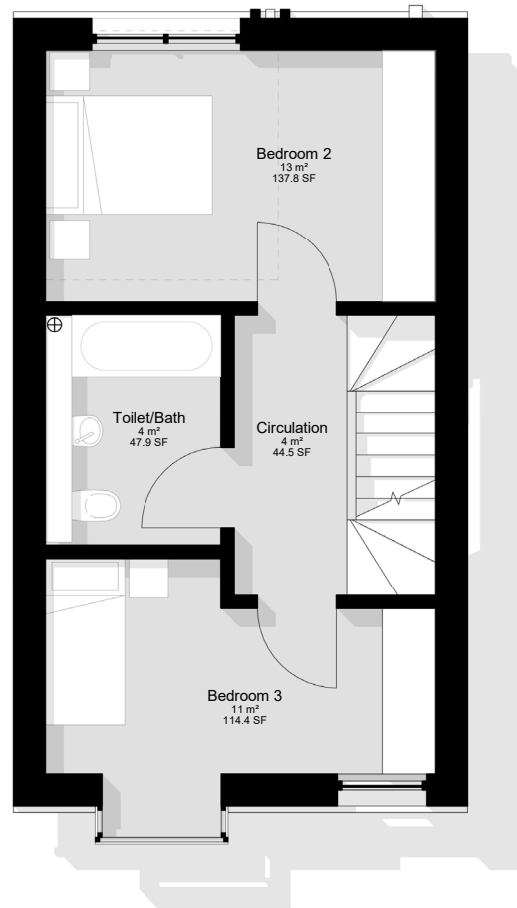
- 3 Bed Home
- 5.1m wide x 8.8m deep
- NDSS Space standard compliant 3B5P 3 storey 99m2 dwelling
- M4 (2) standard home
- Possible Volumetric construction opportunity with reduced party wall construction to allow under 5m width
- Double height bay window
- Feature banding
- Roof top terrace
- Covered entrance with projecting canopy



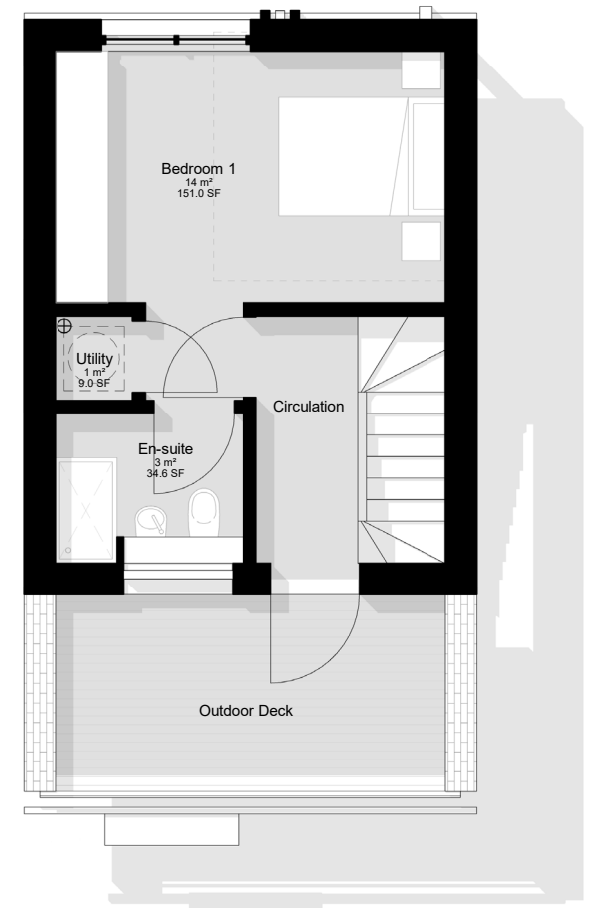




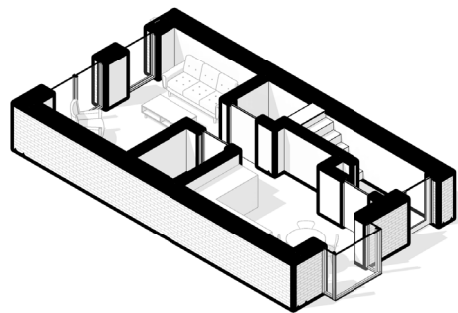
**00 - General Arrangement**  
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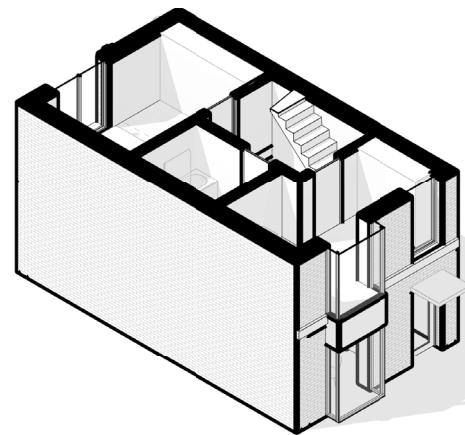
**01 - General Arrangement**  
1 : 50



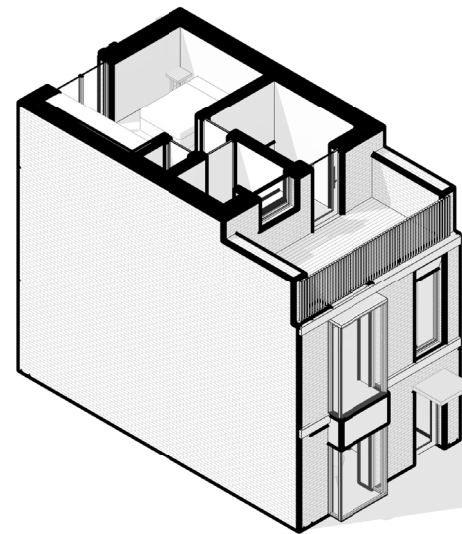
**02 - General Arrangement**  
1 : 50



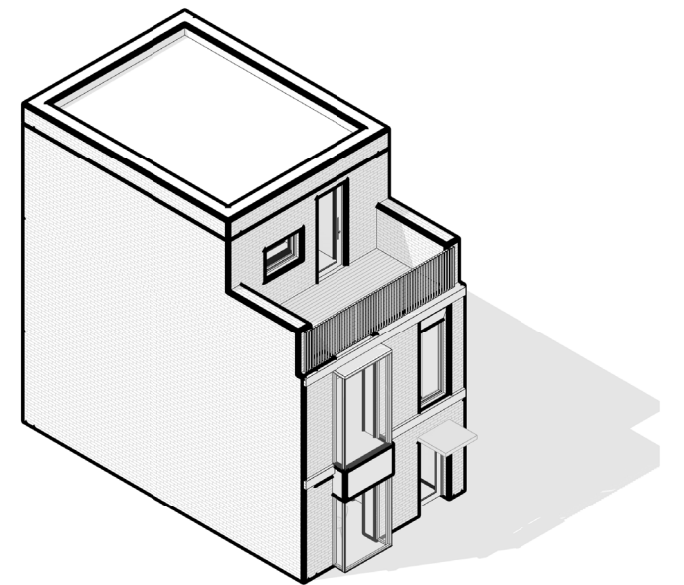
**00 - Level 00 Axo**



**01 - Level 01 Axo**



**02 - Level 02 Axo**



**RF - Level RF Axo**



# House Type E

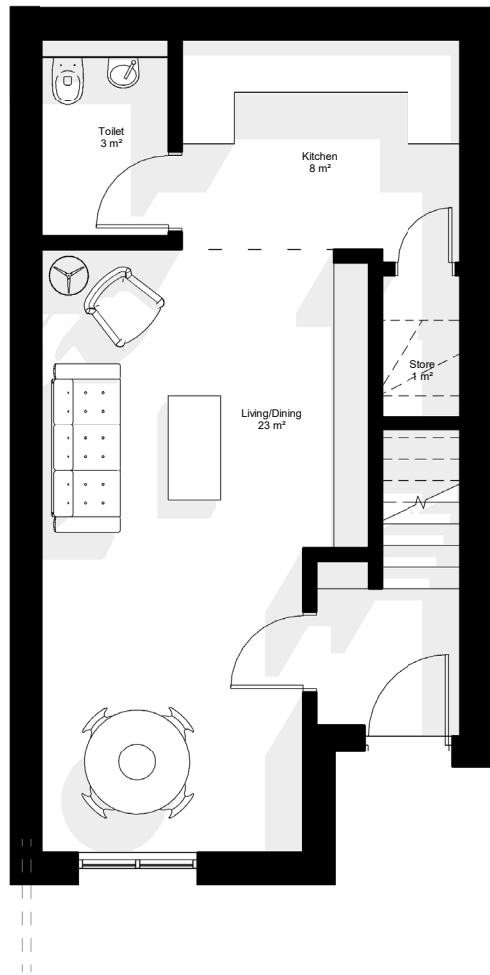
## Terraced Back to Back House

### Key layout features

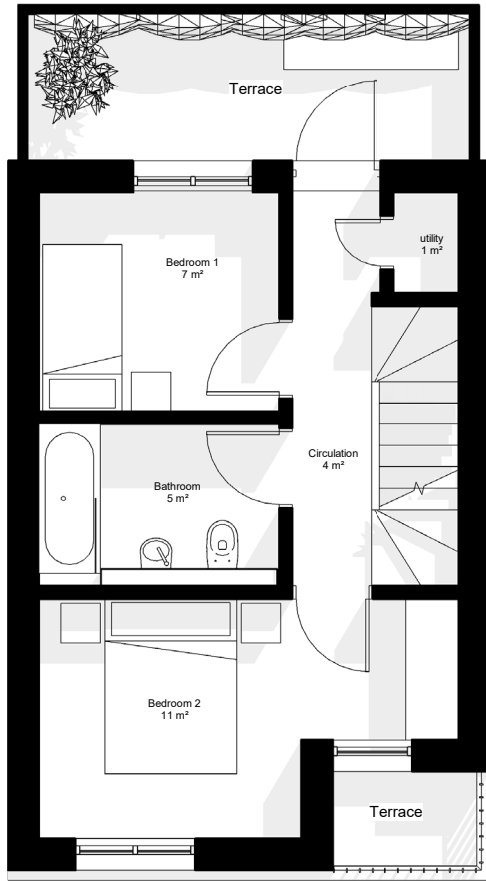
- 3 Bed Home
- 5.5m wide x 10m deep
- NDSS Space standard compliant 3B5P 3 storey 99m2 dwelling
- M4 (2) standard home
- Possible Volumetric construction opportunity with reduced party wall construction to allow under 5m width
- Private roof terraces at first and second floor levels
- Feature banding
- Covered entrance with projecting canopy



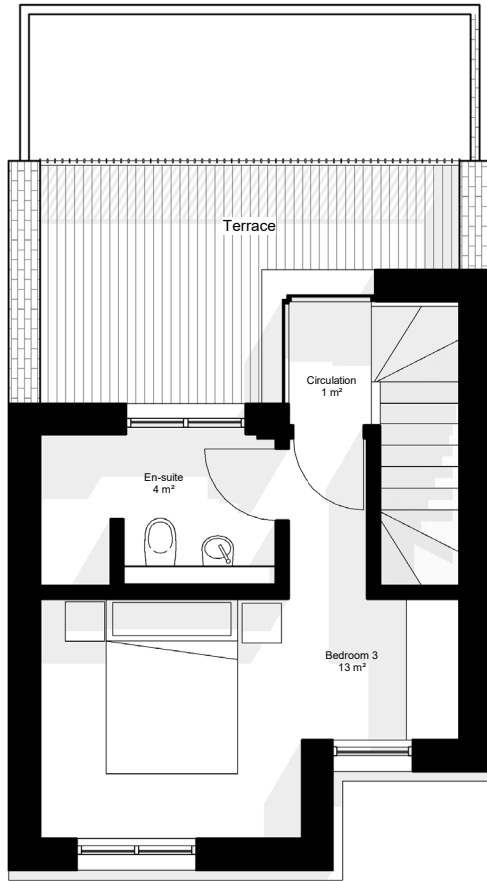




00 - General Arrangement  
1 : 50

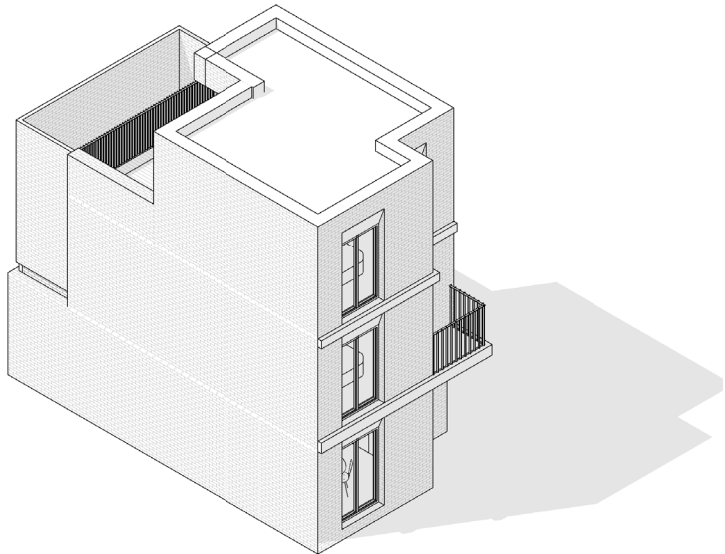
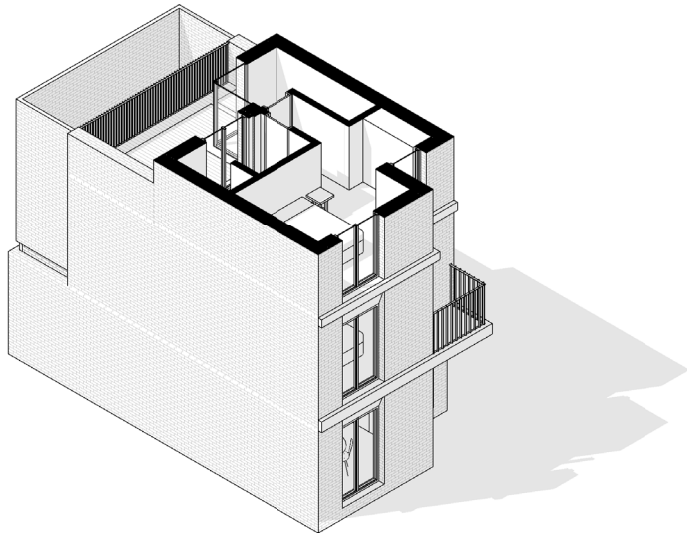
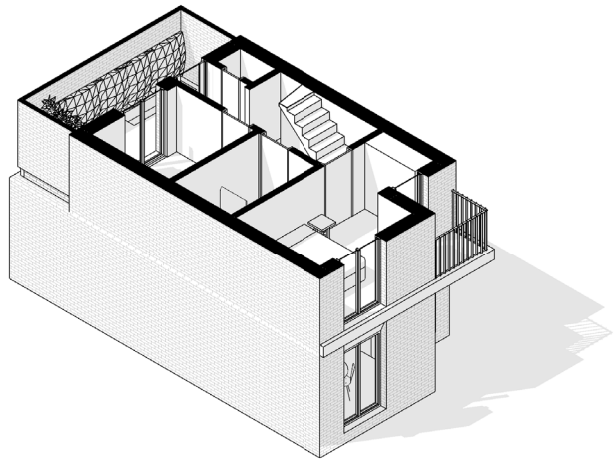
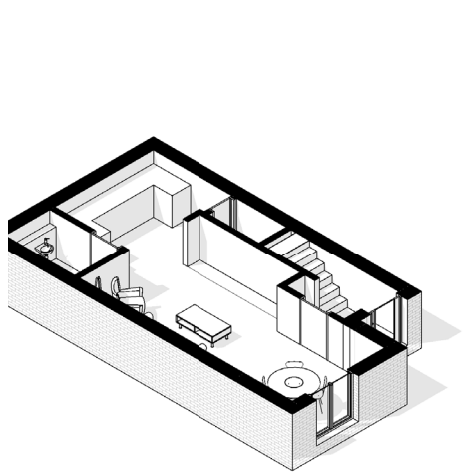


01 - General Arrangement  
1 : 50



02 - General Arrangement  
1 : 50

Terrace House Type A			
Name	Level	Area (m2)	Area Sq Ft
Kitchen	L00 Ground Floor	7.8	84 SF
Living/Dining	L00 Ground Floor	23.0	248 SF
Toilet	L00 Ground Floor	3.0	32 SF
Store	L00 Ground Floor	1.4	16 SF
Bedroom 1	L01 First Floor	6.8	73 SF
Bedroom 2	L01 First Floor	11.1	119 SF
Circulation	L01 First Floor	4.2	45 SF
Bathroom	L01 First Floor	4.6	50 SF
utility	L01 First Floor	0.8	9 SF
En-suite	L02 Second Floor	4.1	44 SF
Bedroom 3	L02 Second Floor	12.7	137 SF
Circulation	L02 Second Floor	1.4	15 SF
Total: 12		81.0	871 SF



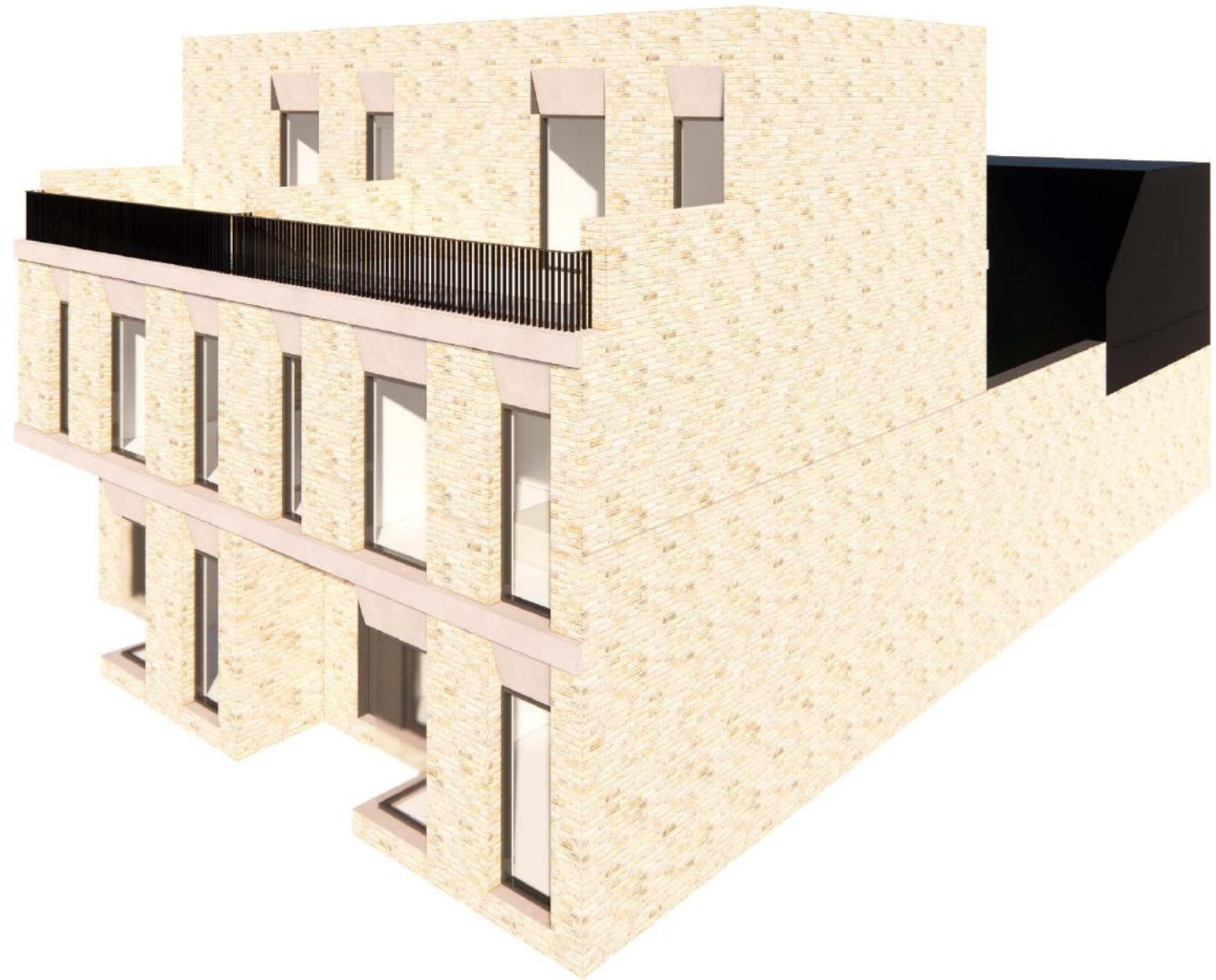


# House Type F

## Town House and Coach House

### Key layout features

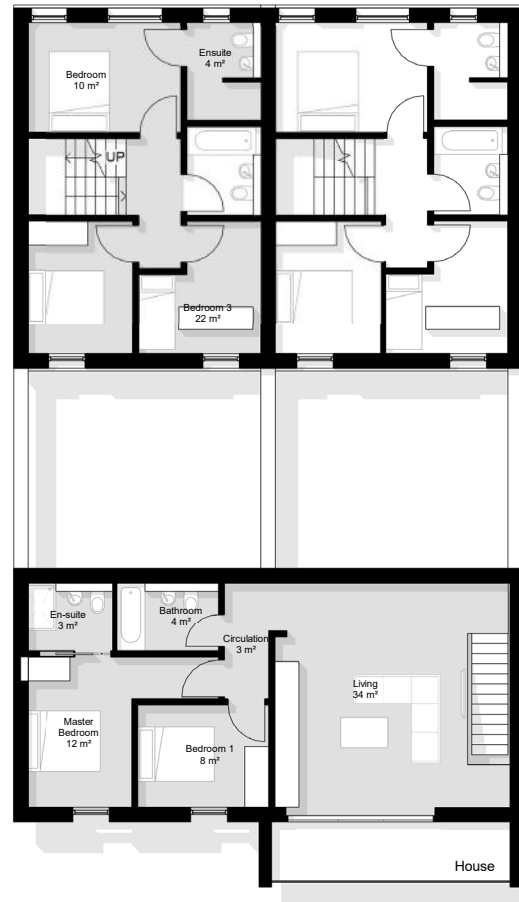
- 3 Houses interlocked
- 2 x Four Bed and 1 x Two Bed Home
- 12.6m wide x 20.2m deep
- NDSS Space standard compliant 4B7P 3 storey 121m2 dwelling and 2B4P 70m2 dwelling
- 4 bed homes M4 (2) standard home
- Roof terraces to both homes
- Feature banding
- Off street parking with garage area
- Covered entrance with projecting canopy



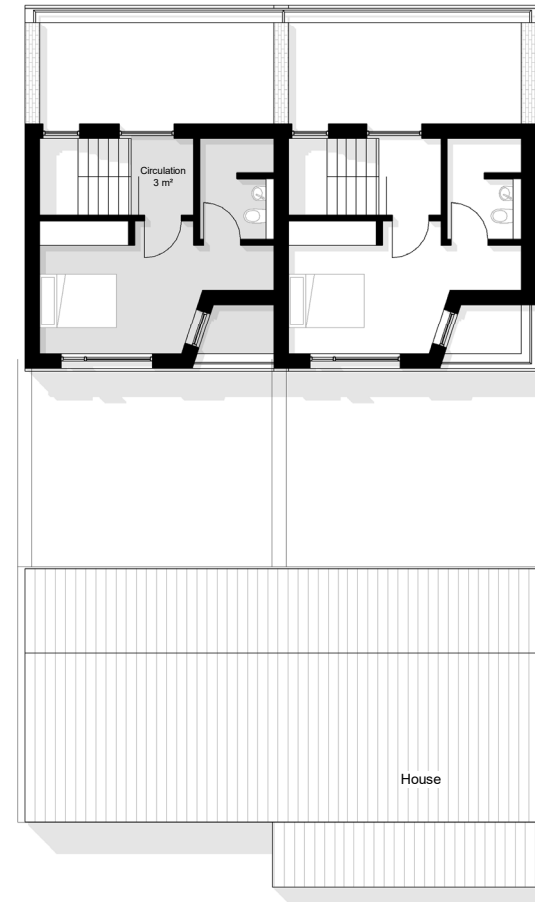




00 - General Arrangement  
1 : 100

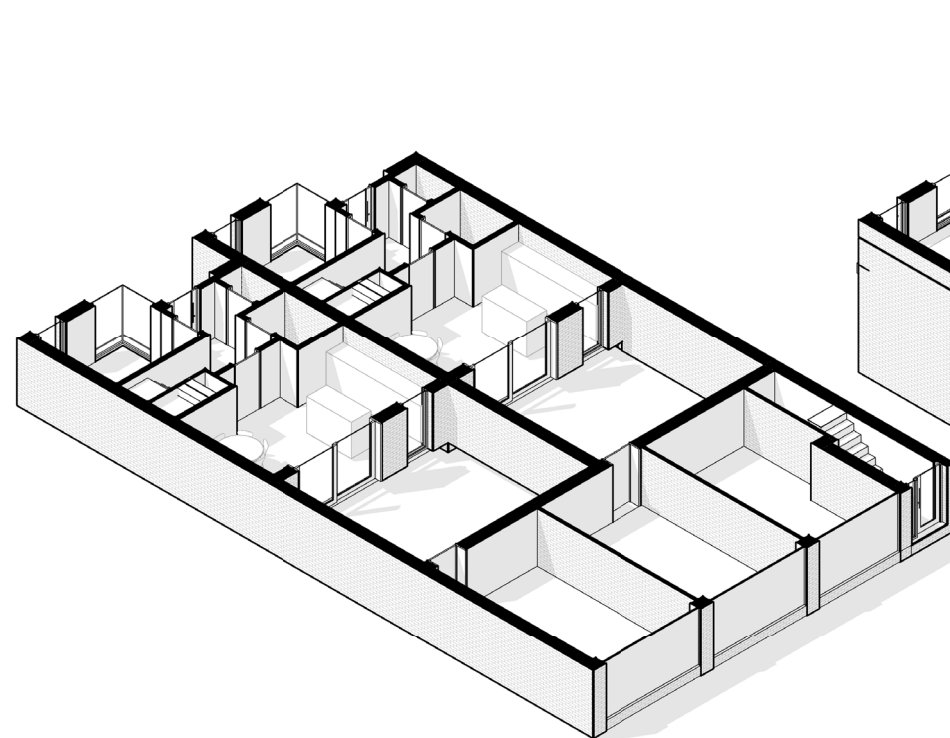


01 - General Arrangement  
1 : 100

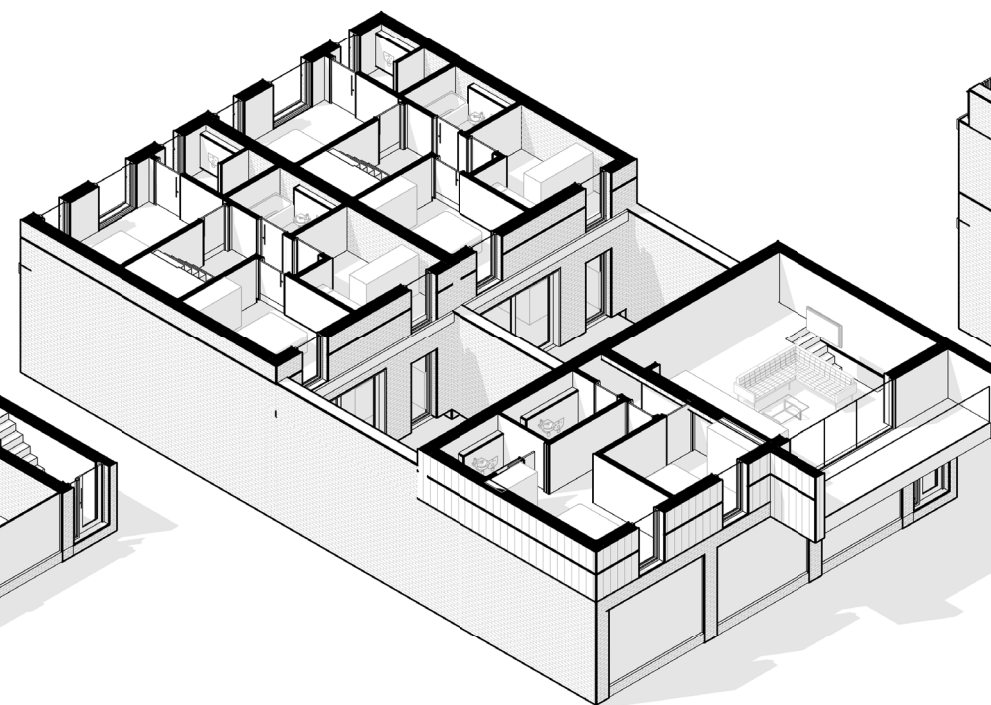


02 - General Arrangement  
1 : 100

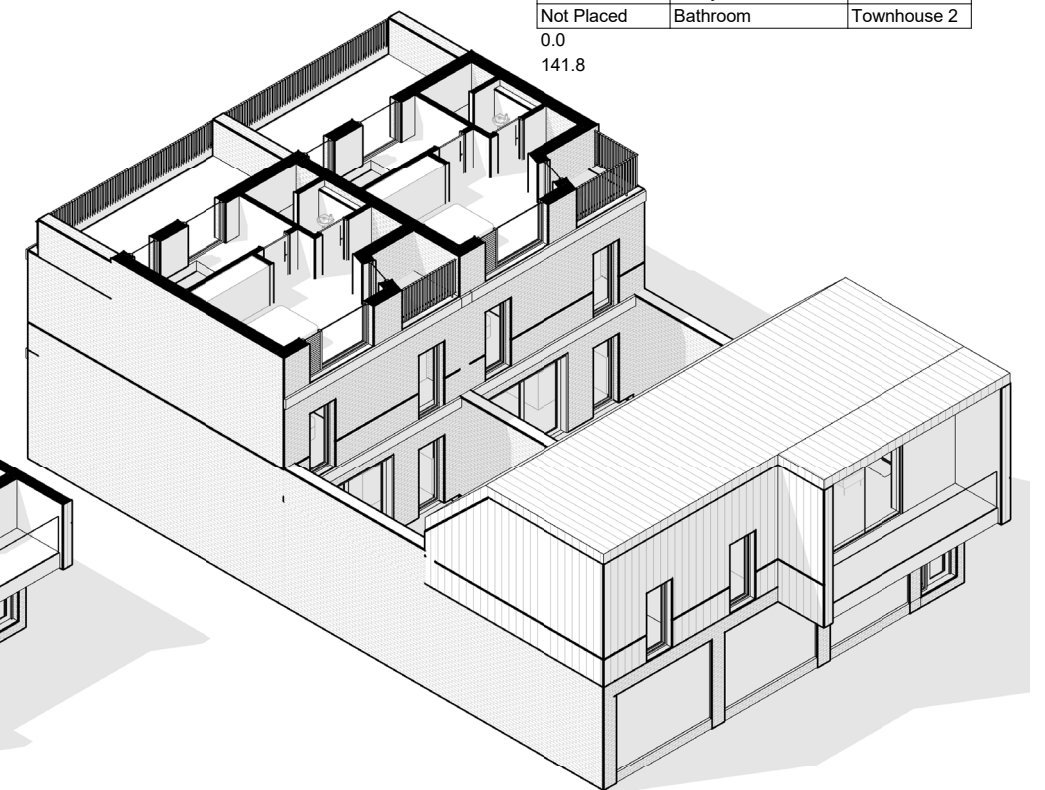
House		
33.7	Living	House
1.5	Circulation	House
3.3	En-suite	House
3.9	Bathroom	House
11.9	Master Bedroom	House
8.2	Bedroom 1	House
3.4	Circulation	House
Not Placed	Kitchen/Dining	House
65.9		
Townhouse 1		
2.5	Toilet	Townhouse 1
2.9	Circulation	Townhouse 1
8.6	Living	Townhouse 1
Not Placed	Toilet	Townhouse 1
20.7	Kitchen/Dining	Townhouse 1
10.5	Bedroom	Townhouse 1
Not Placed	Living	Townhouse 1
Not Placed	Circulation	Townhouse 1
Not Placed	Bedroom 3	Townhouse 1
Not Placed	Bedroom 2	Townhouse 1
Not Placed	Master Bedroom	Townhouse 1
Not Placed	En-suite	Townhouse 1
4.2	Ensuite	Townhouse 1
Not Placed	Green courtyard	Townhouse 1
4.4	Ensuite	Townhouse 1
22.1	Bedroom 3	Townhouse 1
Not Placed	Bedroom 2	Townhouse 1
75.8		
Townhouse 2		
Not Placed	Circulation	Townhouse 2
Not Placed	Circulation	Townhouse 2
Not Placed	Kitchen/Dining	Townhouse 2
Not Placed	Toilet	Townhouse 2
Not Placed	Living	Townhouse 2
Not Placed	Lounge	Townhouse 2
Not Placed	Master Bedroom	Townhouse 2
Not Placed	En-suite	Townhouse 2
Not Placed	Bathroom	Townhouse 2
Not Placed	Bedroom 3	Townhouse 2
Not Placed	Bedroom 2	Townhouse 2
Not Placed	Circulation	Townhouse 2
Not Placed	Green courtyard	Townhouse 2
Not Placed	Study	Townhouse 2
Not Placed	Bathroom	Townhouse 2
0.0		
141.8		



00 - Level 00 Axo



01 - Level 01 Axo



00 - Level 02 Axo









## 7.0 MASTERPLAN APPROACHES //



## **The Masterplan Process //**

A number of design scenarios have been developed for both Hamilton Park and the Europa Boulevard sites testing layout and approaches to a number of key density influencers.

We have developed the masterplan approaches for the two sites following design assumptions:

- Provision of Public Open Green space is not required on site, other than for young children's play space
- Bin Provision / stores can be developed in-line with a subterranean bin strategy to minimise impact on street scene (this impacts on bin lorry requirements)
- Interface distances can be reduced from current planning policy requirements and inline with Draft Local Plan policy
- Parking provision for homes in sustainable locations such as Europa and Hamilton Park can reduce parking provision to circa 1 per dwelling for houses and less for apartments
- Delivering NDSS homes and Part M4 (2) minimum standard, with provision for M4 (3) to be developed

We've tested a number of key design variables in the planning of the two sites:

- Parking on (Parallel Predominately) or off street (traditional on cartilage) for houses
- Level of parking provision for the Apartments
- On or off site parking for the Apartments
- Communal Bin Locations
- Interface distances
- House typologies
- Communal or private gardens
- In Birkenhead much like many towns and cities have large area's of rectilinear street of terrace houses.

The Following pages illustrate these studies and the schedules associated with them and their respective densities. The diagram opposite illustrates the scenarios explored which have led to the development of the preferred Masterplans following.





**Hamilton Park**  
Option 1 // Traditional Streets



**Hamilton Park**  
Option 2 // Parallel Parking Streets



**Hamilton Park**  
Option 3 // Traditional Streets with parking barn



**Hamilton Park**  
Option 4 // High Density Streets



**Hamilton Park**  
Option 5 // High Density Streets 2



**Europa Boulevard**  
Option 1 // Traditional Streets



**Europa Boulevard**  
Option 2 // Parallel Streets



# Hamilton Park

## Option 1 // Traditional Streets

### Key layout features

- 242 Homes
- 102 Houses (42%)
- 140 Apartments (58%)
- 99 dwellings per Hectare
- 19.3m primary, 17.3m secondary Interface distances
- Parking ratio's - 1:1 Houses, 0.7 Apartments





# Hamilton Park

## Option 2 // Parallel Parking Streets

### Key layout features

- 255 Homes
- 115 Houses (45%)
- 140 Apartments (55%)
- 104 dwellings per Hectare
- 24m primary, 15m secondary Interface distances
- Parking ratio's - 1:1 Houses, 0.7 Apartments





# Hamilton Park

Option 3 // Traditional Streets with parking barn

## Key layout features

- 253 Homes
- 113 Houses (45%)
- 140 Apartments (55%)
- 113 dwellings per Hectare
- 19.3m primary, 17.3m secondary, 8m mews street Interface distances
- Parking ratio's - 1:1 Houses, 0 Apartments (car-barn offsite)





# Hamilton Park

## Option 4 // High Density Streets

### Key layout features

- 222 Homes
- 134 Houses (60%)
- 88 Apartments (40%)
- 91 dwellings per Hectare
- 19m primary, 22m secondary Interface distances
- Parking ratio's - 1:1 Houses, 1:1 Apartments





# Hamilton Park

## Option 5 // High Density Streets 2

### Key layout features

- 242 Homes
- 154 Houses (64%)
- 88 Apartments (36%)
- 99 dwellings per Hectare
- 19.3m primary, 15m secondary, 8m mews street Interface distances
- Parking ratio's - 1:1 Houses, 1:1 Apartments





# Europa Boulevard

Option 1 // Traditional Streets

## Key layout features

- 187 Homes
- 54 Houses (29%)
- 133 Apartments (71%)
- 131 dwellings per Hectare
- 19.3m primary, 17.3m secondary, street Interface distances
- Parking ratio's - 1:1 Houses, off-site Apartments





# Europa Boulevard

## Option 2 // Parallel Parking Streets

### Key layout features

- 193 Homes
- 60 Houses (31%)
- 133 Apartments (69%)
- 135 dwellings per Hectare
- 15m street Interface distances
- Parking ratio's - 1:1 Houses, off-site Apartments





Schedules

									Dwelling mix											
									HOUSES		APARTMENTS					Parking				
	Hectares	Houses	Apartments / townhouses	total Dwellings			required quantity	dwellings per hectare		3 bed	4 bed	1 bed	2 bed	3 bed	townhouse		houses	ratio	apartments	ratio
Europa Boulevard																				
Option 1 // Traditional Streets	1.4293	54	133	187	1		186	130.8		54	0	60	46	9	18		54	1		
		28.88%	71.12%							28.88%	0.00%	32.09%	24.60%	4.81%	9.63%					
Option 2 // Parallel Parking Streets	1.4293	60	133	193	7		186	135.0		60	0	60	46	9	18		60	1		
		31.09%	68.91%							31.09%	0.00%	31.09%	23.83%	4.66%	9.33%					
Europa Apartments																				
	0.4039		110	110	-10		120	272.3				45	55	10	0					
												40.91%	50.00%	9.09%						
Hamilton Park																				
Option 1 // Traditional Streets	2.4492	102	140	242				98.8		102	0	54	60	10	16		102	1	98	0.7
		42.15%	57.85%							42.15%	0.00%	22.31%	24.79%	4.13%	6.61%					
Option 2 // Parallel Streets	2.4492	115	140	255				104.1		115	0	54	60	10	16		115	1	100	0.7
		45.10%	54.90%							45.10%	0.00%	21.18%	23.53%	3.92%	6.27%					
Option 3 // Traditional Streets with Parking Barn	2.4492	113	140	253				103.3		113	0	54	60	10	16		113	1	98	0.7
		44.66%	55.34%							44.66%	0.00%	21.34%	23.72%	3.95%	6.32%					
Option 4 // High Denisty Streets	2.4492	134	88	222				90.6		128	6	32	41	5	10		134	1	92	1.0
		60.36%	39.64%							57.66%	2.70%	14.41%	18.47%	2.25%	4.50%					
Option 5 // High Denisty Streets 2	2.4492	154	88	242				98.8		140	14	32	41	5	10		154	1	92	1.0
		63.64%	36.36%							57.85%	5.79%	13.22%	16.94%	2.07%	4.13%					







# THE MASTERPLAN

## Proposed Masterplans //

Three masterplans have been developed across both sites. Two scenarios for Hamilton Park reflecting the need to explore either apartment or pure housing driven masterplan approaches, and one for the Europa Boulevard site

The feedback enabling both the masterplans were as follows:

### Hamilton Park

- Pure Housing and an element of parking to be considered as the base options
- Off Street Parking provision on driveways preferred over parallel Parking where ever possible
- A mix of housing typologies from traditional terraced housing to back to back and over garage to be considered providing both density and innovation
- Retention of some of the existing buildings to the Council Depot site to be considered
- Corner turner houses to be introduced to activate these spaces (these would be proposed as part of the masterplan but have not be incorporated within the study)

### Europa Boulevard

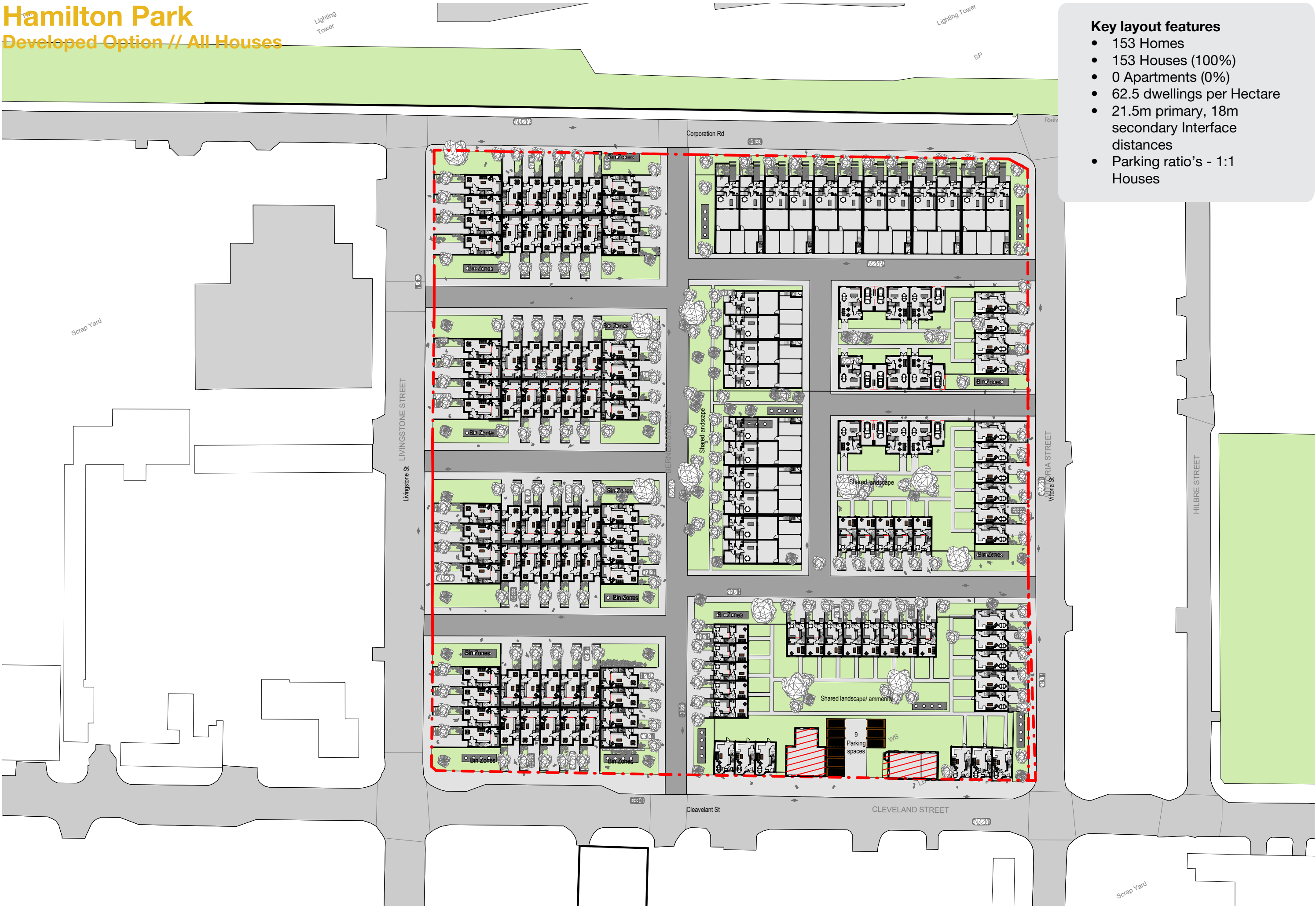
- An increase in scale to the corner of the site fronting towards the new junction with the Dock Branch Park and opportunity for longer views towards the Mersey and Liverpool skyline
- Removal of return leg of apartments to the Conway Park Station to improve daylighting into public spaces
- Creation of perimeter blocks of housing
- Introduction of more duplex units to the upper levels of the apartment buildings to increase mix of units and percentage of 3 bed homes being created

The following pages illustrate these preferred masterplans developed:



# Hamilton Park

## Developed Option // All Houses











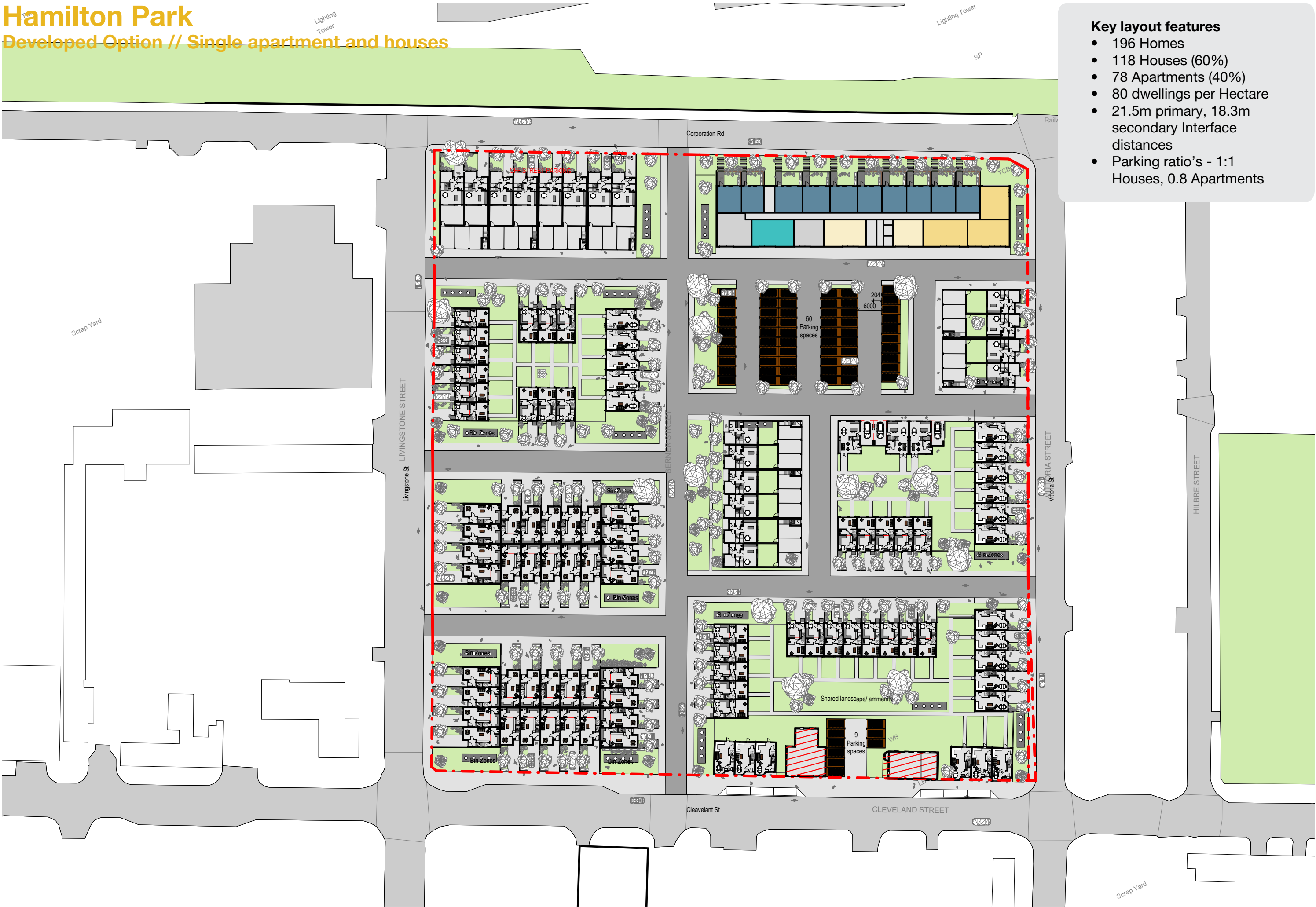






# Hamilton Park

Developed Option // Single apartment and houses



**Key layout features**

- 196 Homes
- 118 Houses (60%)
- 78 Apartments (40%)
- 80 dwellings per Hectare
- 21.5m primary, 18.3m secondary Interface distances
- Parking ratio's - 1:1 Houses, 0.8 Apartments









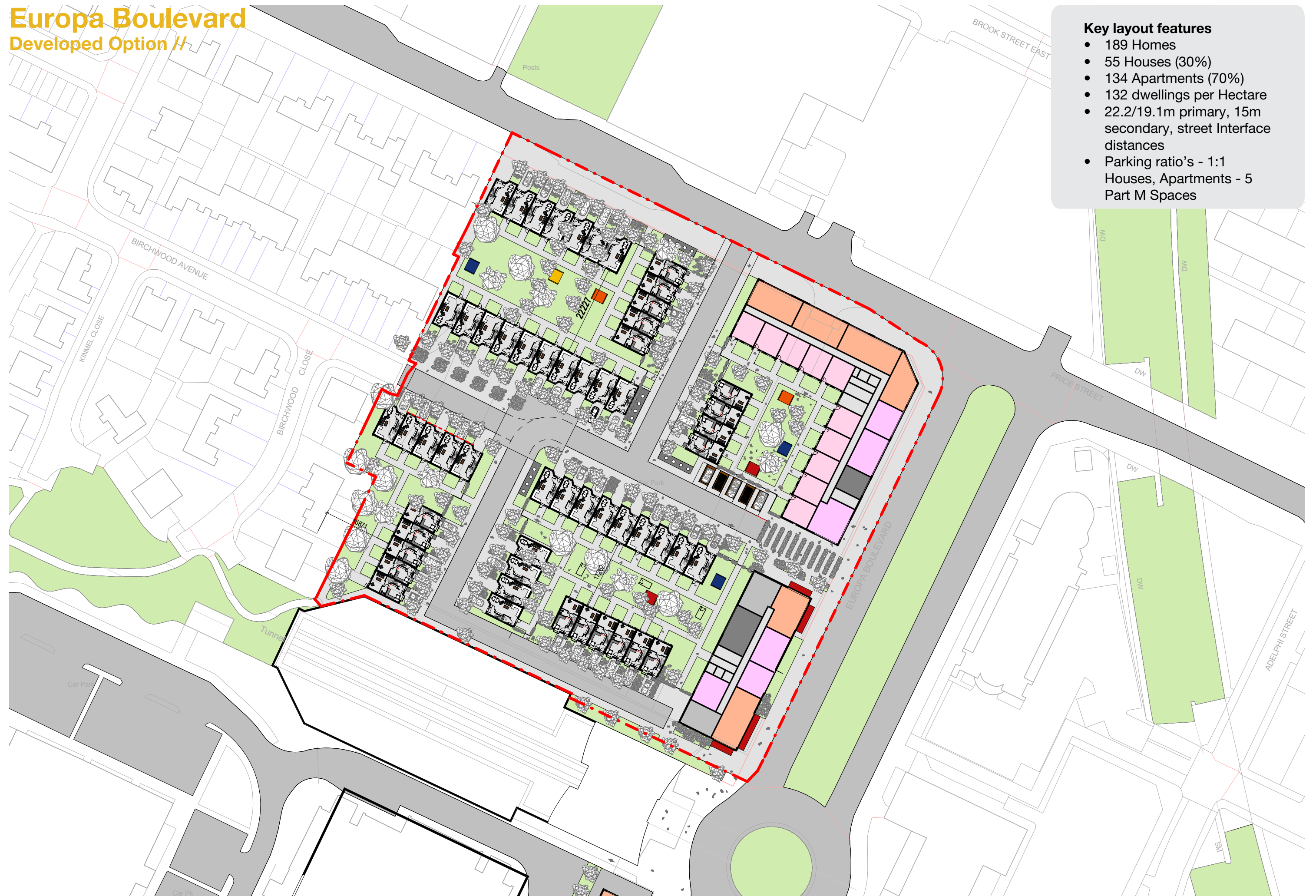






# Europa Boulevard

## Developed Option //



### Key layout features

- 189 Homes
- 55 Houses (30%)
- 134 Apartments (70%)
- 132 dwellings per Hectare
- 22.2/19.1m primary, 15m secondary, street Interface distances
- Parking ratio's - 1:1 Houses, Apartments - 5 Part M Spaces















# SCHEDULES

Preferred Options //

Birkenhead Exemplar Housing Design  
Areas and Numbers Summary

										Dwelling mix											
										HOUSES			APARTMENTS					Parking			
	Hectares	Houses	Apartments / townhouses	total Dwellings			required quantity	dwellings per hectare		2 bed	3 bed	4 bed	1 bed	2 bed	3 bed	townhouse		houses	ratio	apartments	ratio
Europa Boulevard																					
Option 3 // Developed Option	1.4293	55	134	189	3		186	132.2		0	55	0	43	60	10	21		55	1	5	0.037313433
		29.10%	70.90%							0.00%	29.10%	0.00%	22.75%	31.75%	5.29%	11.11%					
Europa Apartments																					
	0.4039		110	110	-10		120	272.3					45	55	10	0					
													40.91%	50.00%	9.09%						
Hamilton Park																					
Option 7 // Houses Only	2.4492	153	0	153				62.5		11	120	22	0	0	0	0		153	1	0	
		100.00%	0.00%							7.19%	78.43%	14.38%	0.00%	0.00%	0.00%	0.00%					
Option 8 // Houses and 1 Apartment Building																					
	2.4492	118	78	196				80.0		9	91	18	26	37	5	10		118	1	60	0.8
		60.20%	39.80%							4.59%	46.43%	9.18%	13.27%	18.88%	2.55%	5.10%					



Hamilton Park Site

	House Types						Apartments			
	House Type B	House Type C	House Type D	House Type E	House Type F	Hamilton Apartment 1	Hamilton Apartment 2		total houses	total apartments
Option 1	44	4	54			1	1		102	2
Option 2	44	8	63			1	1		115	2
Option 3	45	8	60			1	1		113	2
Option 4	20	4	29	72	3	1	0		128	1
Option 5	20	4	29	80	7	1	0		140	1
Option 6	25	12	35	80	10	0	0		162	0
Option 7 - All houses	21	9	18	72	33	0	0		153	0
153										
Option 8 - Apartment and Houses	22	3	30	36	27	1	0		118	1
118										

Europa Boulevard

	House Types					Apartments					
	House Type B	House Type C	House Type D	House Type E	House Type F	Europa Apartment 1	Europa Apartment 2	Europa Apartment 3	Europa Apartment 4	total houses	total apartments
Option 1	35	0	9	10	0	1	1	1	1	54	4
Option 2	37	0	11	12	0	1	1	1	1	60	4
Option 3 - Developed Option	35	0	20	0	0	1	1	1	1	55	4



## Approach to Energy Efficiency and Low Carbon //

As part of the Study process Seven Consulting provided both SAP and Carbon in use calculation to support the development of the designs of the homes.

A sample home - Type B identified earlier, and an apartment within a building to the Europa Boulevard site were taken as benchmarks for the approach and options available to meet current building regulations and the steps required to achieve low or zero carbon homes.

Results from marginal compliance to net zero energy rating are achieved which in turn have been reviewed by Arcadis to add costs from the baseline - building regulations compliance to the uplift to allow for a home to achieve Zero Carbon compliance.

The base spec uses a standard fabric and PV approach that enables Part L compliance with electric panel heaters and Electric immersion heaters.

We then test for improvements and changes to:

- Thermal bridges
- Window certification
- Gas fired combi boiler with and without gas flue heat recovery and waste water heat recovery
- Air source heat pump

With this information, we have devised a net zero carbon compliance solution.

With respect to the use of heat pumps for space heating and hot water;

- The carbon reduction for heat pumps under the current regulations is not as good as a gas fired combi boiler
- The carbon reduction for heat pumps under the new regs (expected June 2022) is expected to be better
- Heat pumps are noisy and planning authorities in London are starting to ask developers to consider noise break out
- High density residential like this will likely begin to 'hum' in the winter if heat pumps are used in all houses. This will be particularly noticeable and irritating at night
- Developers in London are rushing to use gas fired boilers because buyers are starting to be put off buying houses with heat pumps due to noise
- Developments In London that have approval based on heat pumps are trying to locate heat pumps as far away from the house as possible
- Heat pumps need larger radiators that may not be practical in compact dwellings like this, or

- Heat pumps need underfloor heating that can be costly...and the low responsiveness of UFH can cause overheating issues in spring and autumn months.
- Carefull consideration is required before going down the heat pump route

With respect to thermal bridges, if these are not considered at stage 2, then they are difficult to incorporate into the design and the contractor is left with an uphill battle.

Thermal bridge details need to be considered early in the design process in case they have an effect on floor/ wall and roof build up which could either impact on planning or on a reduction of internal area.

The SAP 2012 methodology allows the use of 'accredited construction details'. This approach will not be allowed in Part L 2022. Junction details need to have their psi values calculated for each bespoke detail.

Thermal bridges and U values should be carefully considered and designed at pre tender stage, so that internal area's are set and all contractors are including for the same quality of fabric.

This does put upfront cost onto the client pre tender.

For SAP 2012, we can see that accounting for thermal bridges does not have as much impact as procuring windows with BFRC, BSI or Certass certification.

For Part L 2022, it is likely that upfront consideration of thermal bridge details as a result of RIBA's pressure on the government to include a fabric target in the new upcoming regulations (it was omitted in the original consultation)

With respect to Windows, a commitment to procuring windows to the required U values with BFRC, BSi or CERTASS certification gives the SAP a big boost and is generally a more convenient option (for client, stage 2/3 architect, Tender and contractor) than trying to establish a route to achieving good thermal bridges.

The apartment is more difficult to achieve a net zero EPC score and the amount of PV required is close, if not practically not viable for any apartment blocks 4 floors and above.

As well as the SAP compliance margin, EPC score and EPC rating, estimated energy cost comparisons have been included. These energy consumptions are from the SAP calculation and include for appliance and cooking gains. This is a more extensive analysis than envisioned but help inform the team with respect to how 'low

carbon solutions' impact on running costs for the occupant.

Important to note that for the apartment, we assumed that the PV is connected to the landlord domain, as is traditionally done for practical and cost purposes. Under these circumstances, the dwelling SAP and EPC rating benefit from with PV, but the tenant does not benefit from the free energy generation and so their bills are not lowered. PV can be connected directly to tenants apartments in low rise apartment blocks, but there are practical issues to overcome and additional costs due to the number of inverters and meters required.

In the sample house analysis, the dwelling energy bills have benefited from the PV energy generation.

As part of the design development process on this element the opposite SAP modelling calculations were prepared following a meeting discussing testing proposed potential scaling targets in the future and what these may impact on the development.



Wirral Exemplar Housing - SAP modelling  
Energy Modelling results - SAP 2012

Type B

Form Factor = 1.5

Important Compliance results will change when SAP 10.2 is released for Part L 2022 (expected to be coming into force June 2022)

Note Assumes PV connected direct to dwelling

Includes for SAP appliance and cooking gains

Includes for SAP appliance and cooking gains			Base Specification	35% carbon reduction	60% Carbon Reduction
Iteration			A	B	C
EPC Rating			81	87	92
EPC Score			B	B	A
Fabric compliance?			0.5%	24.0%	21.0%
Carbon Compliance?			1%	35%	65%
Energy (kWh/m2 per annum)			53	35	35
Space Heating (kWh/m2/annum)			29	18	11
Y value (combined weighted psi values)			0.150	0.142	0.142
SAP Gas Consumption (kWh)			0	0	0
SAP Electricity Consumption (kWh)			7324	6600	5712
SAP Annual Energy Cost (3.5p/kWh gas, 19p/kWh elec)			£1,392	£1,254	£1,085
Notes			BASE SPEC - This is a typical standard specification for electric heating and DHW with MVHR ventilation. This achieves marginal compliance with Part L1A 2013 (with 2016 amendments). Typically, default thermal bridge values are used because consideration is not given to thermal bridges at stage 2. Thus, it is normally too late to improve the thermal bridge design post planning because htere can be effect on wall, roof and floor build ups which can reduce floor area. As such, the individual bridge lenths and psi values have been ignored. A generic default Y value is applied.	Base specification with window certification, Accredited Construction Detail thermal bridges, improved air tightness and a slight increase in PV - This analysis uses windows that are procured with a BFRC, CERTASS or BSI certificate showing the U valaue and G value.	Specification optoin B but using a heat pump instead of panel heaters and imersion heater
Fabric	U values	Wall	0.13	0.13	0.13
		Floor	0.1	0.1	0.1
		Roof	0.1	0.1	0.1
		Roof (GF and FF)	0.15	0.15	0.15
Windows	U value	1.2	1.2	1.2	
	Certification	Manf Only	certified	certified	
	G value	0.6	0.6	0.6	
Air Test Result		m3/m2@50 Pa	5	3	3
Thermal Bridge	psi Values	Lintel	n/a	Approved (0.5)	Approved (0.5)
		Sill	n/a	Approved (0.04)	Approved (0.04)
		Jamb	n/a	Approved (0.5)	Approved (0.5)
		Wall to floor	n/a	Approved (0.16)	Approved (0.16)
		Wall to Roof	n/a	Approved (0.07)	Approved (0.07)
		Intermediate floor within dwelling	n/a	Approved (0.07)	Approved (0.07)
		Party Wall between dwellings	n/a	Approved (0.06)	Approved (0.06)
		Corner	n/a	Approved (0.09)	Approved (0.09)
		Corner Inverted	n/a	default (0)	default (0)
		Party wall to floor	n/a	default (0.16)	default (0.16)
		Party Wall to roof	n/a	default (0.08)	default (0.08)
		Party Wall to intermediate floor	n/a	default (0)	default (0)
		Wall to Flat Roof (Terrace)	n/a	default (0.08)	default (0.08)
		Wall to flat Roof	n/a	default (0.08)	default (0.08)
		Wall to Eaves	n/a	default (0.08)	default (0.08)
		Ridge of Vaulted ceiling	n/a	default (0.08)	default (0.08)
		Roof to Wall Flat Ceiling	n/a	default (0.04)	default (0.04)
		Roof to Wall Flat Ceiling inverted	n/a	default (0.04)	default (0.04)
Heating			Electric Panel	Electric Panel	Heat Pump
DHW			Elec Immersion	Elec Immersion	Heat Pump
Ventilation	Type	MVHR	MVHR	MVHR	
		SFP	0.6	0.6	
		HR	0.9	0.9	
Renewables	Type	PV	PV	PV	
		Specification	1.55 kWp	1.75 kWp	1.75 kWp

Wirral Exemplar Housing - SAP modelling  
Energy Modelling results - SAP 2012

70 sq m apt (E)

Form Factor = 0.35

Important Compliance results will change when SAP 10.2 is released for Part L 2022 (expected to be coming into force June 2022)

Note Assumes PV connected to Landlord domain (as is typical), thus no cost benefit to tennant. Additional build costs and domain issues associated with attaching PV to apartments but this is possible.

Includes for SAP appliance and cooking gains

Includes for SAP appliance and cooking gains			Base Specification	35% carbon reduction	60% Carbon Reduction
Iteration			A	B	C
EPC Rating			83	86	93
EPC Score			B	B	A
Fabric compliance?			6.0%	33.0%	22.0%
Carbon Compliance?			3%	35%	61%
Energy (kWh/m2 per annum)			50	25	25
Space Heating (kWh/m2/annum)			20	12	8
Y value			0.150	0.090	0.090
SAP Gas Consumption (kWh)			0	0	0
SAP Electricity Consumption (kWh)			5846	5251	4476
SAP Annual Energy Cost (3.5p/kWh gas, 19p/kWh elec)			£1,111	£998	£850
Notes			<p><b>BASE SPEC</b> - This is a typical standard specification for electric heating and DHW with MVHR ventilation. This achieves marginal compliance with Part L1A 2013 (with 2016 amendments). Typically, default thermal bridge values are used because consideration is not given to thermal bridges at stage 2. Thus, it is normally too late to improve the thermal bridge design post planning because htere can be effect on wall, roof and floor build ups which can reduce floor area. As such, the individual bridge lenths and psi values have been ignored. A generic default Y value is applied.</p>	<p>Base specification with window certification, Accredited Construction Detail thermal bridges, improved air tightness and a slight increase in PV - This analysis uses windows that are procured with a BFRC, CERTASS or BSI certificate showing the U valaue and G value.</p>	<p>Specifiaction optoin B but using a heat pump instead of panel heaters and imersion heater</p>
Fabric	U values	Wall	0.13	0.13	0.13
		Floor	0.1	0.1	0.1
		Roof	0.1	0.1	0.1
		Roof (GF and FF)	0.15	0.15	0.15
Windows	U value	1.2	1.2	1.2	
	Certification	Manf Only	certified	certified	
	G value	0.6	0.6	0.6	
Air Test Result	m3/m2@50 Pa		5	3	3
Thermal Bridge	psi Values	Lintel	n/a	Approved (0.5)	Approved (0.5)
		Sill	n/a	Approved (0.04)	Approved (0.04)
		Jamb	n/a	Approved (0.5)	Approved (0.5)
		Wall to floor	n/a	Approved (0.16)	Approved (0.16)
		Wall to Roof	n/a	Approved (0.07)	Approved (0.07)
		Intermediate floor within dwelling	n/a	Approved (0.07)	Approved (0.07)
		Party Wall between dwellings	n/a	Approved (0.06)	Approved (0.06)
		Corner	n/a	Approved (0.09)	Approved (0.09)
		Corner Inverted	n/a	default (0)	default (0)
		Party Floor Between Apartments	n/a	default (0.16)	default (0.16)
		Party Wall to roof	n/a	default (0.08)	default (0.08)
		Party Wall between apartments	n/a	default (0)	default (0)
		Wall to Flat Roof (Terrace)	n/a	default (0.08)	default (0.08)
		Wall to flat Roof	n/a	default (0.08)	default (0.08)
		Wall to Eaves	n/a	default (0.08)	default (0.08)
		Ridge of Vaulted ceiling	n/a	default (0.08)	default (0.08)
		Roof to Wall Flat Ceiling	n/a	default (0.04)	default (0.04)
		Roof to Wall Flat Ceiling inverted	n/a	default (0.04)	default (0.04)
Heating			Electric Panel	Electric Panel	Heat Pump
DHW			Elec Immersion	Elec Immersion	Heat Pump
Ventilation	Type	MVHR	MVHR	MVHR	
		SFP	0.5	0.5	
		HR	0.9	0.9	
Renewables	Type	PV	PV	PV	
	Specification	0.75 kWp	1 kWp	1 kWp	



## **Viability and Deliverability Review //**

The schemes have been designed to a high quality and low carbon standard, and working with Arcadis these costs have been accounted for within cost appraisals which have impacted on the Viability Assessments. The costs of an exemplar scheme are higher than traditional housing and this has an impact on viability. Despite this, we believe that both of these schemes can be delivered.

AspinallVerdi provided the viability evidence for this study. We reviewed the current residential market and undertook a series of development appraisals. We also undertook a developer testing exercise to assess if there was an appetite from the market to deliver high quality non-standard high density family dwellings in Birkenhead;

The objective was to test emerging Local Plan on design, parking, and open space related policies; We also considered the potential impact of low carbon and green principles, including construction and energy efficiency;

The major regeneration plans for Birkenhead are starting to have a positive impact on demand in the town and there has been recent value uplift in Birkenhead and the recent launch of the Urban Splash scheme on East Float has given further confidence;

### **Conway Park and Europa Boulevard**

We developed financial models for a combination of market sale housing and Build to Rent apartments for the Conway Park scheme. This is an area covered by the allocation of Future High Streets funding and gap funding is available to help deliver this scheme. There is also the potential for some cross-subsidy from the pre-sale of the Wirral Growth Company office development. The appraisals demonstrated that a viable scheme can be delivered in this location. Mixing of tenures assists the viability position. The scale of ambition and the need for a sustainable future means that a diverse range of products and tenures will be necessary. Diversity of tenure helps overcome viability issues and broadens the appeal for an area during the crucial period of confidence building.

### **Hamilton Park**

The appraisals of the options for Hamilton Park show a development deficit. Whilst this is disappointing, it corroborates the findings of the soft market testing exercise and market research which asserts that at the present time Birkenhead is a challenging market for residential development.

Whilst there may be a viability ‘gap’ in the appraisals as they stand, delivery of development will be possible through a public private partnership, with an emphasis on social housing, and an agreed lower development margin. Even at this stage, the gap funding needed is at a level that would be realistic for a ‘market making’ scheme such as this.

It should also be stated that development in this location will not happen for several years. By this time, we would expect that

Birkenhead will be a very different place and increased demand will mean that housebuilders are competing for sites that are economically viable.

### **Exemplars as Pioneer Developments**

Pioneer housing developments, such as these, are at the vanguard of the regeneration of an area. Developers like Urban Splash, Igloo and First Step specialise in this type of development. US is already developing in Birkenhead and the others were market tested and would be interested. These Pioneer developments work on the basis of an ethos Buy the Brand / Like the product / Buy the ethos / Small like minded community.

These developments tend to revolve around being large enough to create communities of like minded residents. They frequently change perceptions of the area and its wider environment, which encourage more mainstream developers to follow with less challenging design material or even mainstream product.

Chapel Street in Salford has the locational advantage of being adjacent to the regional centre of Manchester, but there are clear and obvious parallels with Birkenhead. The situation only started to change when Salford URC was formed, a transformational masterplan was prepared and English Cities Fund/ Muse Developments was appointed as a development partner.

Chapel Street in Salford achieved a price growth of 65%, which was 20% higher than normal market growth in the local area from 2014 to 2017. The developer focussed on building a place where people wanted to live, which helped to increase demand and drive further price growth. Through successful Placemaking the same could be achieved at the subject site from the earlier phases to the latter.

Little Kelham in Sheffield, whilst not of scale, provides evidence of the benefits of placemaking through the uplift in values generated over the local market. The same is evidenced in central Liverpool on a large scale. We would anticipate an uplift in values compared to the existing market in Birkenhead and potentially in excess of comparable new build developments based on the high specification of the units suggested at the site.

Registered Providers have a key role to play in the regeneration of Birkenhead. The way they are funded, their ability to provide a range of tenures and look at projects over a period of forty years; to provide care and retirement housing; their emphasis on quality design and their partnerships with Wirral Council and Homes England; all confirm their strategic importance.

Please also see the Birkenhead Housing Market Study which examines the link between exemplar regeneration projects and value uplift.







## 9.0 SOFT MARKET TESTING //

### Exploring developer interest in delivering Higher Density Family Homes in Birkenhead //

A key part of the brief for this study was that the Council wished to 'test the appetite' of housing development companies to deliver a similar high density family home product on the two concept sites in Birkenhead. Appendix B sets out the background to and results of a detailed soft market testing exercise undertaken with a wide range of local, regional and national regeneration and housing development companies who were provided with copies of the two preferred masterplan layouts and scheme details and asked to answer a structured interview based on a standard questionnaire.

A summary of the findings are set out below:

- Leading private sector developers and Registered Providers specialising in regeneration are interested in both of the opportunities to deliver similar high quality higher density family homes as illustrated by the two concept schemes in Birkenhead.
- Registered Providers are also interested.
- Birkenhead is viewed with interest. There is a perception that the area has great potential, but there has been under investment over many years. This has led to a decrease in economic confidence, as there has been limited development activity;
- The council needs to take the lead in the delivery of the Regeneration Framework.
- Wirral Council is correct to use its sites to enable development to happen. It should not expect a capital receipt at an early stage. The council should then enter into a partnership with a commercial developer.
- Viability is challenging in Birkenhead. There are negative perceptions of the town and the town centre is not fit for purpose. Delivery partners are encouraged by the change in direction at the council, but this must be followed up in the months and years to come;
- High levels of intervention funding will be required in the early years of regeneration. This should be used to assemble sites, decontaminate them and provide infrastructure and public realm;
- Housing exemplars from elsewhere demonstrate that if done properly, these can generate premiums above the current market; they can also boost confidence in a location;
- Conway Park has the potential to be a high-quality town centre residential scheme. The location next to the station and close to the shops and leisure should make it attractive. Several experienced regeneration developers have expressed interest in developing.
- Hamilton Park is too challenging for some of those consulted, but others could see beyond the dereliction to realise that if change can be done at scale, then this has the potential to be a new community built from the ground up (or from the internet up).
- Mixed tenure will help to establish viability;
- All developers who have expressed even a tentative interest in the schemes stress the importance of placemaking and the public realm.
- Major national housebuilders are willing to be involved. At Hamilton Park. They are sceptical of such innovations as high-

density housing, zero carbon and high-quality design, but they feel that whilst the exemplars are probably not for them, they have a definite role in the long-term delivery of regeneration;

- All would need to be convinced of business case before they got involved. The overall feeling is that would need some form of partnership/ Joint Venture to share risks. Developers would need to understand different business models available and what would appeal to different developers.
- High Quality Design and a Design Guide are important in market making schemes;
- The residential opportunities will be attractive to local and regional Registered Providers and development companies. Some suggested a possible mix of market rent, affordable rent and market sale. Build to Rent properties will help build confidence and interest in the area ahead of any sales.
- There are numerous developers who believe that they can build a large number of houses in Birkenhead and that the town can be redeveloped and repopulated.







## 10.0 CONCLUSION //



### Legislation and guidance //

A large volume of guidance and policies are available to inform and influence the development of residential schemes, with a range of emerging local plan and national guidance reviewed against the high density exemplar housing study identified earlier within the report.

There are a number of items commented on within the proposed Local Plan, but most notably around the level of provision of carparking and open space provision.

The impact of high levels of carparking for apartments in urban locations will have a direct impact on the ability to deliver urban high quality developments not surrounded by carparking, or by podium in active street frontages. The Masterplan approach developed varies for apartment parking provision across the two sites with Hamilton Park and its more remote location to current sustainable transport provision providing the 1:1 provision, and the Europa Boulevard site providing a drop off and disabled parking provision only in-line with other scheme approaches being accepted by Local Authorities within the North West.

Open space provision is clearly the other major influencer on the ability and quantum of open space to be provided within the development sites, and is broadly based around the proximity to existing facilities influencing the ability to achieve density. As noted in the commentary, this is an area which we felt the guidance could be improved to ensure the intention which we feel is good, is able to be easily achieved through the guidance.

### Best practice //

It is evident through the analysis of the best practice examples that the densities identified in this study can, and have been achieved on real project sites, which are then reconfirmed through our masterplan studies including a series of bespoke house and apartment types developed for this study at Hamilton Park and Eurpoa Boulevard.

The emerging Local Plan Policy requirements for car parking and public open space need to accord with the best practice examples identified with schemes reducing car provision, and open space. These best practice schemes identified provide attractive developments to prospective homeowners and viable developments.

A reduced level of provision of carparking can be seen developing across schemes, with an increased emphasis on means of access to sustainable means of transport, proximity to employment opportunities and an emphasis on good cycle and shared vehicle schemes.

The location of bins either centrally or individually has also been considered as part of this study, with examples noted within the best practice and academic design studies. Central locations making use of sub terranean systems offer benefit to both street scape and ease of collections, and this is an area that should be investigated in more detail as a wider refuse collection strategy for the Wirral as a whole to see what benefits this may bring.

### Masterplan Layout studies //

The preferred solutions developed for both sites create high density housing developments with a focus on creating and providing family homes.

The mix of units created has taken the brief and emerging Local Plan Policy of achieving a minimum of 30% three bed homes within Birkenhead regeneration areas.

Within the houses we feel this approach is appropriate, and the house types developed could also be adapted to create two bed typologies easily. Some larger four bed homes are also proposed in area's where scale and increased massing is appropriate.

For the apartment buildings, we have looked to introduce a high percentage of three bed apartments or duplex units where possible, but within known appetites by developers - with a maximum of 10% being introduced. The Apartment buildings are planned to a high level without internal planning but the principles of the layouts provide the required NDSS area's and are of an appropriate proportion and external elevation aspect to allow good internal planning to be achieved.

The mixed nature of the site approaches looking to introduce both houses and apartments achieve the minimum of 30% provision of three bed homes in-line with the draft Local Plan Policy.





BDP, Springfield Gardens, Alder Hey Liverpool

### Energy and Low Carbon //

This is an area which is emerging across the industry in response to the climate emergency, with each Local Authority developing their own policy approach - much of which relates back to the LETI (London Energy Transformation Initiative), UKGBC guidance, and RIBA standards.

The work undertaken by Seven Consulting has considered an approach where gas as a primary heating source is not an option for the new build developments proposed to achieve low carbon development, with electric based heating and hotwater being the baseline solution.

As identified by the study, the creation of low carbon and high energy efficient family homes are more readily practical to achieve with PV or other offsite heat network solutions. The apartment buildings are more challenging to achieve net Zero compliance, where PV renewables cannot be directed to individual homes.

Wirral Council are working on a detailed project design for a District Heating Network for Birkenhead which would serve both masterplan areas.





# **APPENDIX A**

## **POLICY, LEGISLATION AND GUIDANCE //**



## **POLICY, LEGISLATION AND GUIDANCE //**

This section sets out a commentary on the various policy and other documents reviewed that have helped inform the design studies undertaken.

This capture of information has been an iterative process, and much of the commentary provided has been captured and addressed through either revisions to the Local Plan Policies or the design response to address the requirements set out.

As a focused study without wider consultant team input areas such as SUD's, Biodiversity, Highways have been considered at a strategic level only and the study is not intended to be exhaustive as a result but is based upon best practice and team experience as identified within the document.

## **KEY DENSITY FACTORS CONSIDERED //**

Policy and guidance that materially affects the layout of a development that can be included in this study are:

- National Space Standards
- Public open space
- Density targets
- House type mix
- Parking standards
- M4(3) - Standards for Accessible Housing and 'wheelchair user adaptable and accessible dwellings'
- Separation / separation distances

## **KEY DOCUMENT REFERENCES //**

- **Working Draft Wirral Local Plan Parts 3 and 5**
- **REG 19 APPENDICES**
- **Technical housing standards – nationally described space standard**  
Department for Communities and Local Government  
March 2015
- **Draft Strategic Housing Market Assessment**  
Wirral Metropolitan Borough Council / Arc4  
February 2021
- **National Model Design Code**  
Ministry of Housing, Communities and Local Government  
January 2021
- **Ten Characteristics of Places where People want to Live**  
RIBA  
December 2019
- **Local Parking Standards**  
Wirral Metropolitan Borough Council  
December 2020
- **Draft Open Space Standards Paper**  
Wirral Metropolitan Borough Council / Knight,Kavanagh & Page Ltd  
January 2020
- **Wirral Density Study**  
Stage 4: Detailed design assessment  
Wirral Metropolitan Borough Council  
September 2020
- **Typology, Mix and Dwelling Size Assumptions**  
Wirral Metropolitan Borough Council / Keppie Massie  
April 2021

Other documents

- **Environment & Climate Emergency Policy Statement**  
Wirral Metropolitan Borough Council
- **Sustainable Drainage & Surface Water Management**  
Wirral Metropolitan Borough Council



LOCAL PLAN RESIDENTIAL DEVELOPMENT DENSITY
Wirral MBC DRAFT Local Plan

RESIDENTIAL DEVELOPMENT DENSITY //

In the Wirral Local Plan Issues and Options Consultation Document (January 2020) it notes a strategy favouring brownfield regeneration in sustainable patterns of development;

‘... to ensure that we are maximising the potential of our urban and brownfield land supply we have commissioned a new study of development density, to ensure that we can support the most sustainable patterns of development and maximise the potential of the most appropriate areas for development across Wirral.

The Wirral Housing Density Study will identify the most appropriate broad locations for increasing density, by focusing higher density development around locations where sustainable travel, such as walking, cycling and public transport can most easily be supported.

The outcome of the density study will be a recommendation on how and where higher urban densities will be allowed across the Borough and how policy should be formulated to ensure that an appropriate design-led approach is secured. This will be reflected in more detail as the Local Plan progresses towards Regulation 19.’

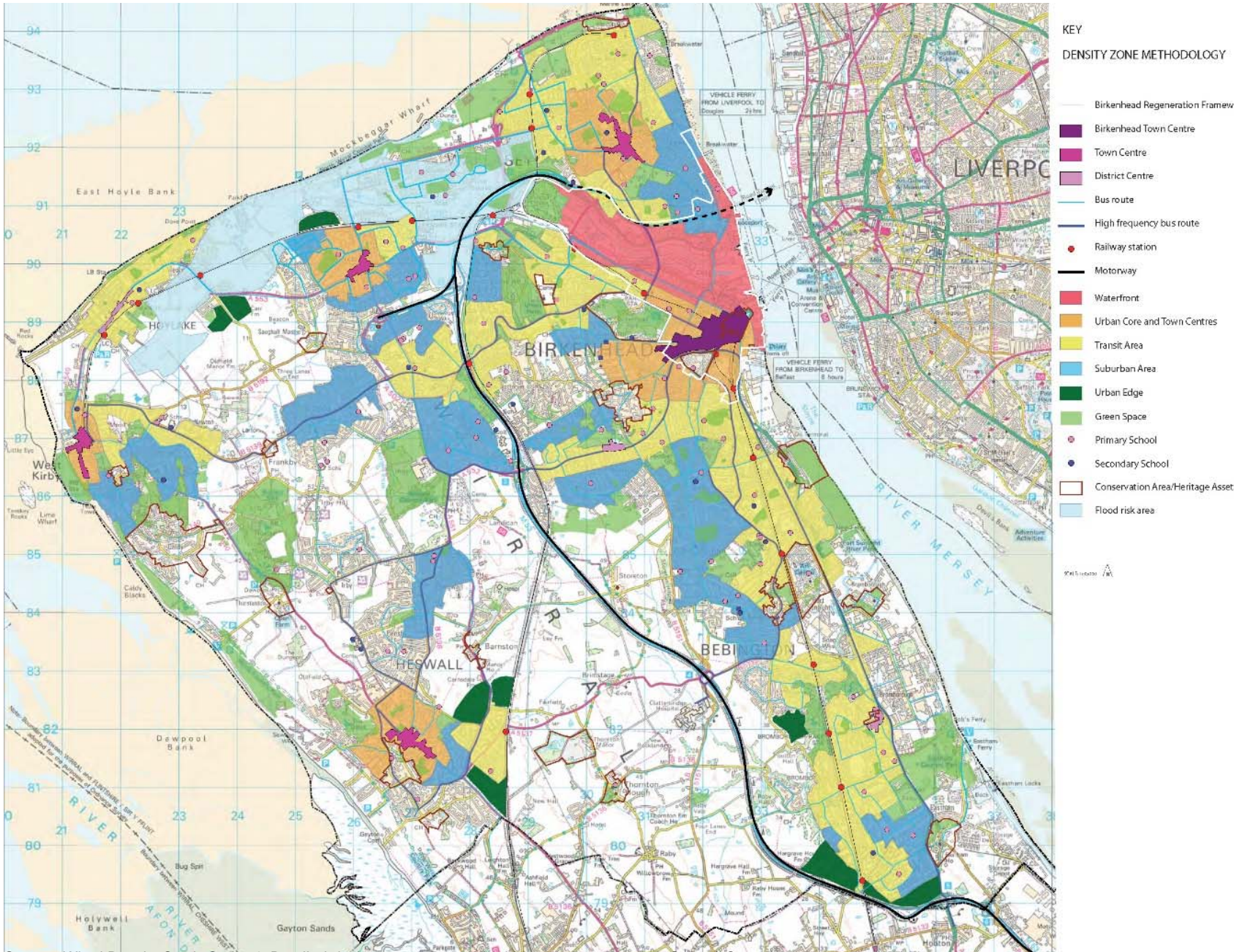
The working Draft Local Plan Policy WS 3.2 set out a minimum housing Density based approach. The policy provides a series of distinct density zones which are characterised as Waterfront, Urban Core & Town Centres, Transit and Suburban. These are identified on a policies map, and outside of these areas it is noted;

‘new residential development must achieve efficient use of land having regard to the prevailing character of the area. Sites with an area of 1 hectare or more should achieve a minimum density of 30 dwellings per hectare unless it can be demonstrated that this would not be appropriate having regard to site characteristics.

COMMENTARY //

The establishment of minimum standards for density is supported by the National Model Design Code, Best Practice Analysis, and design studies undertaken for two sites as part of this study.

The densities set out can be achieved with opportunity to significantly increase on these densities in urban locations where apartments can contribute to these numbers.



Source; Wirral Density Study Stage 4: Detailed design assessment Wirral Metropolitan Borough Council September 2020

Density Zone (as shown on the policies map and Figure x above )	Minimum density (dwellings per hectare)
Waterfront	70
Urban Core & Town Centres	60
Transit	50
Suburban	40

Source; Wirral Density Study Stage 4: Detailed design assessment Wirral Metropolitan Borough Council September 2020



MODEL NATIONAL DESIGN CODE //

The Model National Design Code provides detailed guidance on the production of design codes - including content and structure, guides and policies to promote successful design:

Contents and Structure

*‘The NPPF makes it clear that all local planning authorities should prepare design guides or codes consistent with the principles set out in the National Design Guide and National Model Design Code, and which reflect local character and design preferences.*

*A design code is a set of simple, concise, illustrated design requirements that are visual and numerical wherever possible to provide specific, detailed parameters for the physical development of a site or area. This guide is a toolkit to guide local planning authorities on the design parameters and issues that need to be considered and tailored to their own context when producing design codes and guides, as well as methods to capture and reflect the views of the local community from the outset, and at each stage in the process.’*

All design codes should include as a minimum:

- Movement strategy where appropriate
- Access and street hierarchy where appropriate
- Landscape and open space strategy
- Land use and mix
- Density
- Heights
- Number of homes
- Identity and character of buildings and public spaces

**Movement:** The guidance relating to the network of streets, active travel, and public transport relates to all area types. The key variables being the street types and parking arrangements.

**Nature:** Most of the guidance on nature also applies to all area types, the potentially being open space standards, sustainable drainage systems (SuDS) and urban greening.

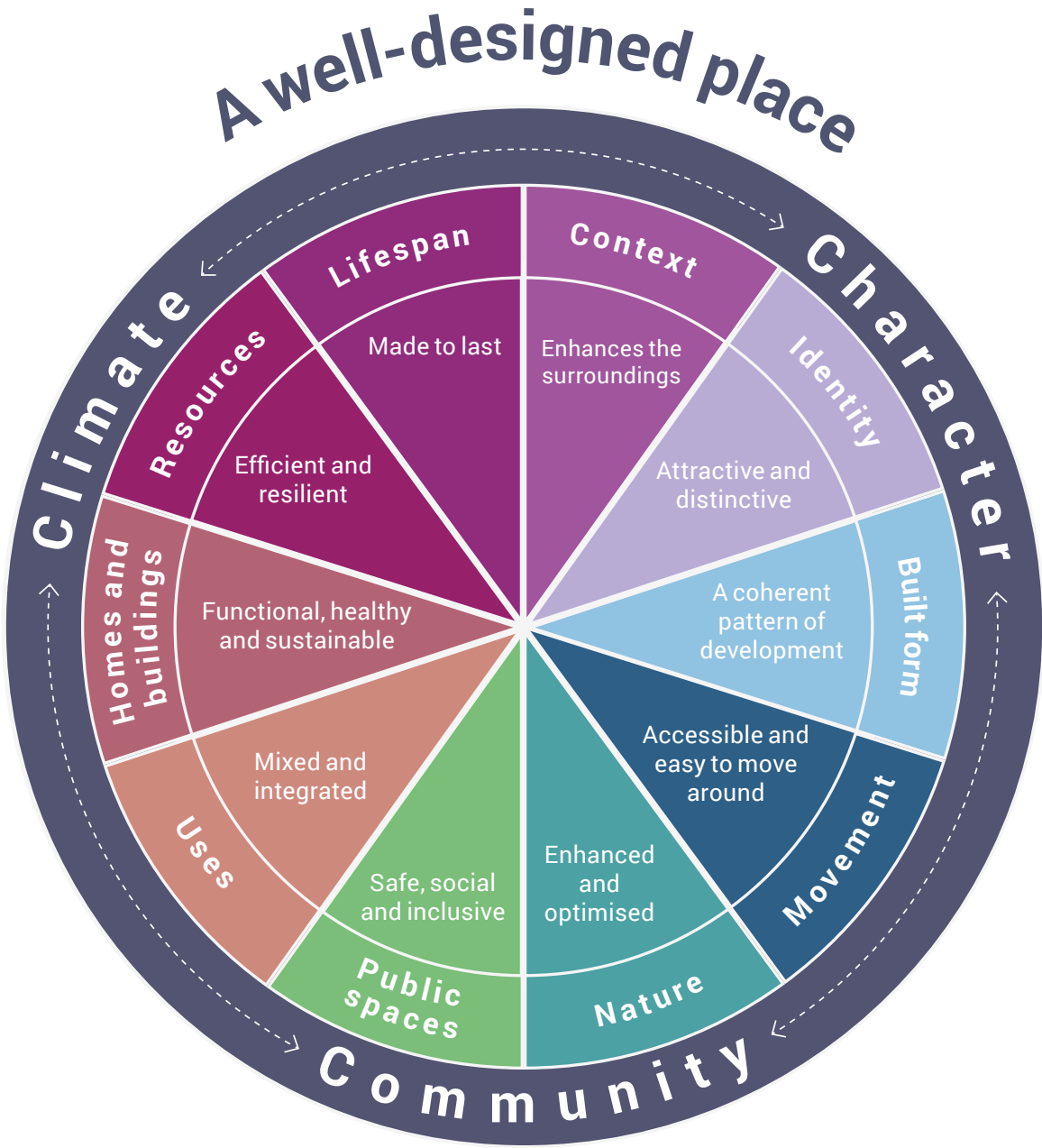
**Built Form:** This is the main issue that varies by area type including density, grain, building line and height.

**Identity:** The design of buildings will vary by area type and may vary to a lesser degree within area types.

**Public Space:** The character of each type of street will vary by area type.

**Use:** The opportunities for intensification, mix of uses and housing types mix of uses, and active frontage will all vary by area type.

**Homes and Buildings:** Guidance of privacy distances and garden/ balcony sizes may vary by area type.



10 Characteristics of Well Designed Places

Source; National Model Design Code; 10 Characteristics of Well Designed Places, Pg 6



MODEL NATIONAL DESIGN CODE //

Density

The National Model Design code sets out a series of area types as part of the Coding Plan - which in essence is the Zoning Plan including as part of the Draft Local Plan.

The existing areas are to be covered by the coding plan and identify the area types and their;

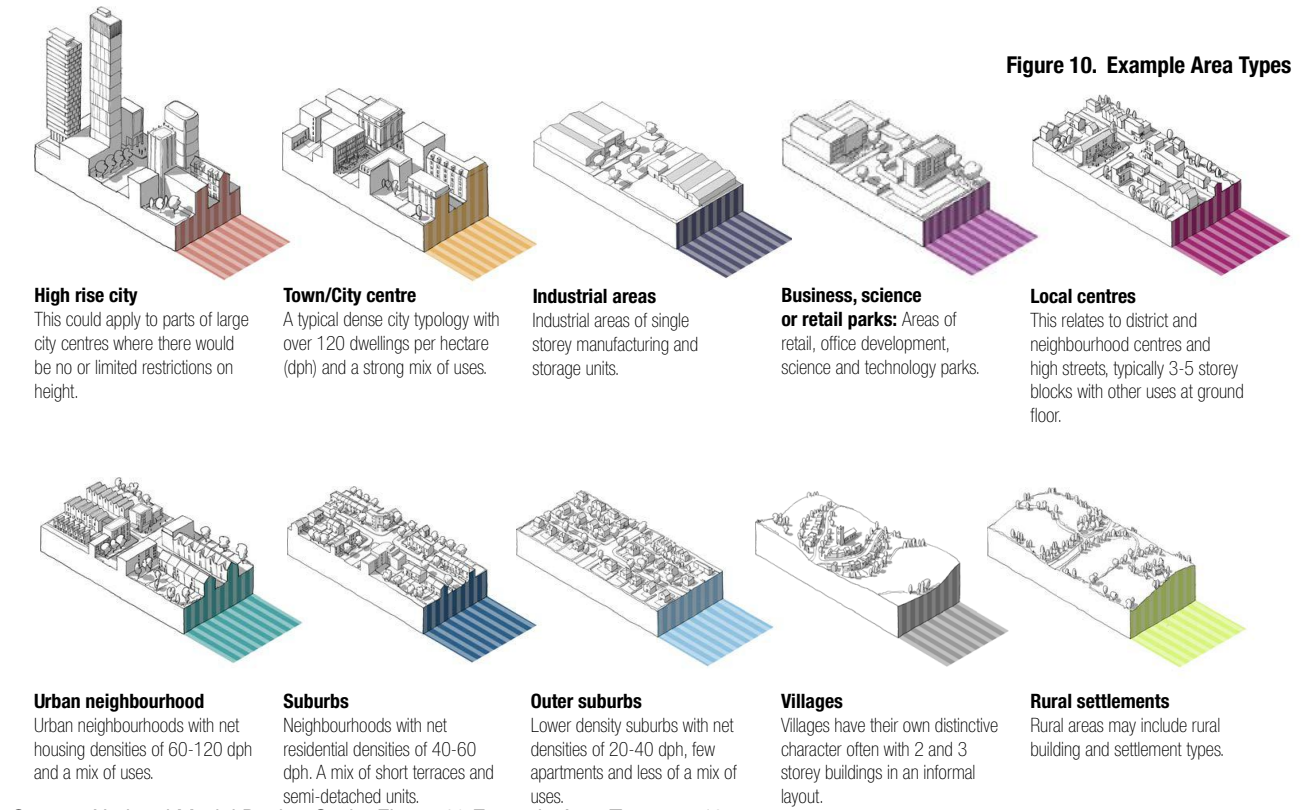
- An appreciation of the existing area or site, its natural, topographical, historical and heritage features
- Characteristics and appearance
- The mix of uses and facilities
- The amount of green infrastructure and character of green space
- The way in which it deals with traffic, parking, public transport, walking and cycling
- Sustainability including energy efficiency, net zero alignment and climate resilience

Example of an area type worksheet // National Model Design Code



Source; National Model Design Code: Figure 8 Extracts of Example Area type Worksheet, pg11

Example area types // National Model Design Code



Source; National Model Design Code: Figure 10 Example Area Types, pg13



MODEL NATIONAL DESIGN CODE //

Car parking

The code sets out a series of principals in preparing a Design Code with regards both allocated and unallocated parking:

*Parking standards are set out in the local plan. Maximum parking standards can be considered in circumstances where there is a clear and compelling justification. Design codes are concerned with the design of parking and its impact on the quality of place. They may identify appropriate parking options for area types, street types and building types and detailed design requirements associated with them.*

The guide notes a key principal to the approach to parking; *The arrangements for car parking can have a major impact on the quality of place. They should aim to minimise the impact of the car and solutions will vary depending on context*

Home Zones can have a major impact on the ability to create pedestrian friendly street environments for high density family housing. The Design Code sets out:

*Home zone principles can be applied on local streets. They are defined in guidance as residential streets where ‘people and vehicles share the whole of the street space safely and on equal terms, where quality of life takes precedence over ease of traffic movement’. Vehicle speeds are reduced to walking pace. They can form part of the street hierarchy in new development or be retrofitted into existing streets. Many homes zones use one-way streets and chevron parking to slow traffic and create space for planting and local play space.*

**Car parking:** Standards for all uses will be set in the local plan, but the ways in which they are accommodated will vary.

**Town centre:** New provision should be at basement, semi-basement or decked. New surface parking might be prohibited where there is a clear and compelling justification.

**Urban neighbourhood:** Likely to be on-street (for visitors), within the building (townhouse), or to the rear in gardens or parking courts.

**Suburbs:** Likely to be in-curtilage, at the front (with suitable landscaping) or to the side of the property, so cars don’t dominate the street. Visitor parking is likely to be on-street.

Movement

50. Well-designed places should be accessible and easy to move around. This can be achieved through a connected network of streets, good public transport, the promotion of walking and cycling and well-considered parking and servicing. Detailed information is provided in [Guidance Note Code Content: Movement](#). The following might require area type-specific guidance:

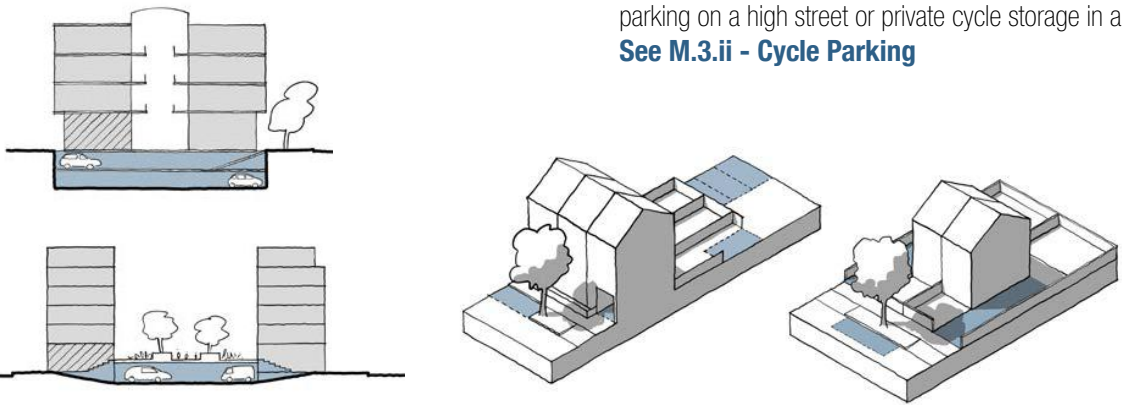
**i New streets:** All new streets should be safe and overlooked and correspond to their role in the street hierarchy and area type - e.g. a primary street in an urban centre will have a different character to one in a village [See M.1.iii - Street Hierarchy](#)

**ii New junctions:** Guides might specify traffic signalled junctions on high streets and less formal, unmarked junctions on local streets. [See M.2.ii - Junctions and Crossings](#)

**iii Car parking:** Standards for all uses will be set in the local plan, but the ways in which they are accommodated will vary. [See Fig 13 and 14 and M.3.i - Car Parking](#)

**iv Cycle parking:** Standards will be set in the local plan and specified in codes according to context. e.g. public cycle parking on a high street or private cycle storage in a dwelling. [See M.3.ii - Cycle Parking](#)

Figure 13. Parking Arrangements

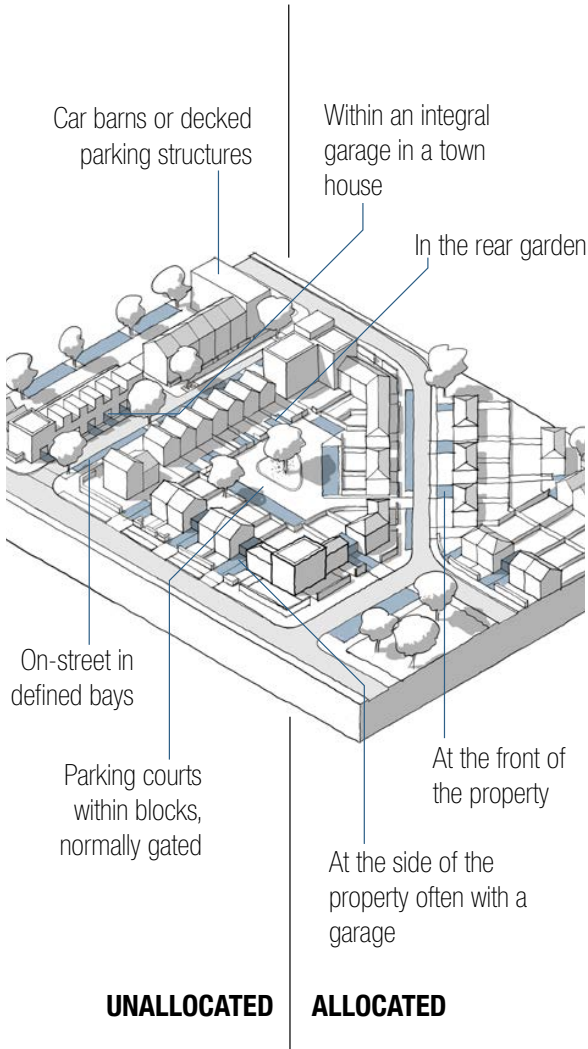


**Town centre:** New provision should be at basement, semi-basement or decked. New surface parking might be prohibited where there is a clear and compelling justification.

**Urban neighbourhood:** Likely to be on-street (for visitors), within the building (townhouse), or to the rear in gardens or parking courts.

**Suburbs:** Likely to be in-curtilage, at the front (with suitable landscape features) or to the side of the property, so cars don’t dominate the street. Visitor parking is likely to be on-street.

Figure 14. Residential Parking Options:



Source; National Model Design Code: Figure 14 Residential Parking Options, pg17



MODEL NATIONAL DESIGN CODE //

Density

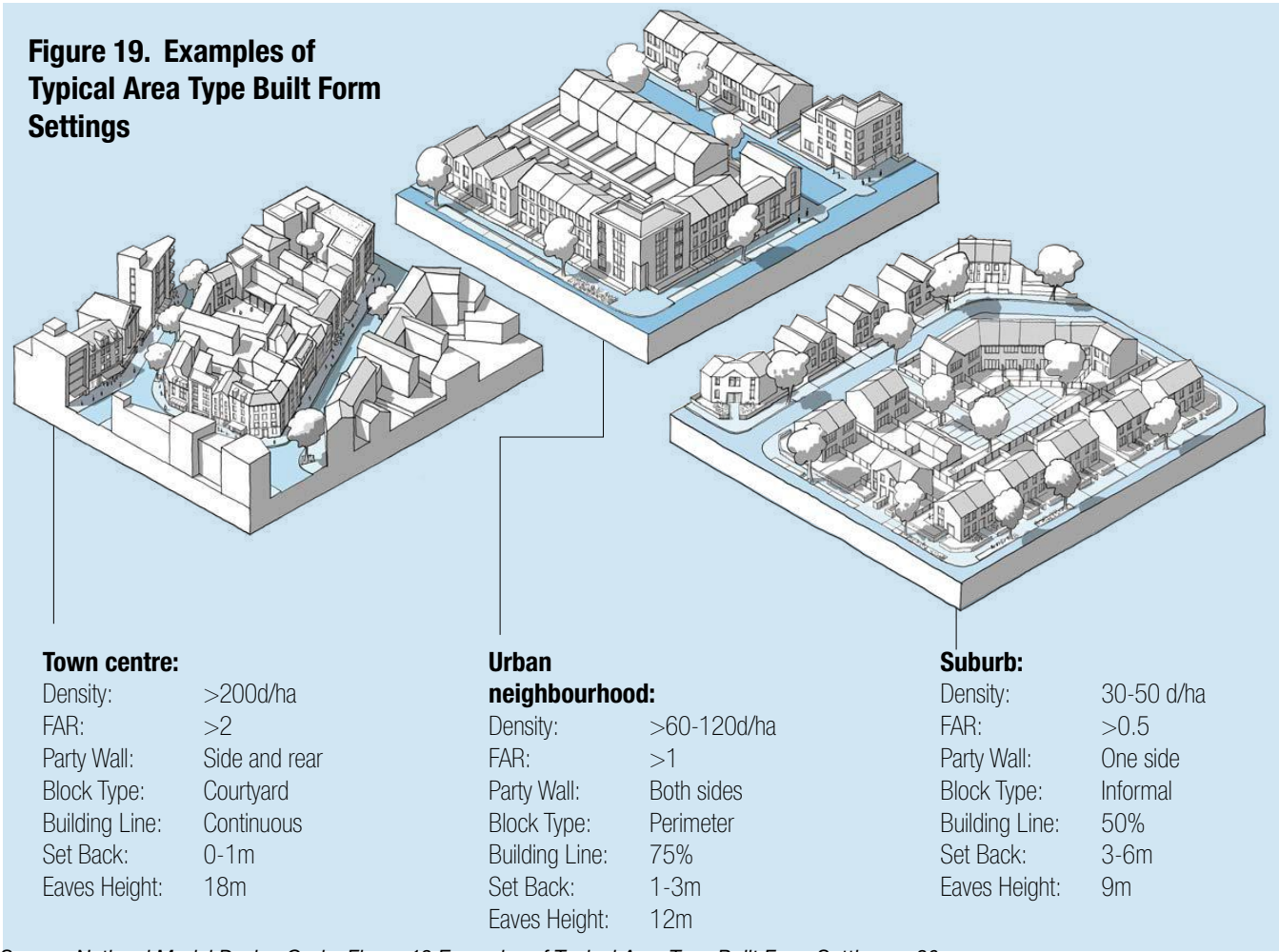
The National Model Design code sets out a series of area types as part of the Coding Plan - which in essence is the Zoning Plan including as part of the Draft Local Plan.

The existing areas are to be covered by the coding plan and identify the area types and their;

- An appreciation of the existing area or site, its natural, topographical, historical and heritage features
- Characteristics and appearance
- The mix of uses and facilities
- The amount of green infrastructure and character of green space
- The way in which it deals with traffic, parking, public transport, walking and cycling
- Sustainability including energy efficiency, net zero alignment and climate resilience

**Nature and green spaces** should be woven into the fabric of our villages, towns and cities. This provides benefits in terms of health and well-being, biodiversity, climate and flood mitigation. Detailed information is provided in Guidance Note Code Content: Nature. Most of the guidance on nature will be general. The following might require area type-specific guidance:

- i **Open spaces:** Open space standards may vary, with less open space in smaller, accessible pockets required in town centres and more generous provision in suburbs. Key principles for integrating green space can be adapted for different contexts.
- ii **Sustainable drainage systems (SuDS):** In urban areas, these may be integrated into the built environment, while suburbs could make use of natural/landscape features.
- iii **Green infrastructure:** Urban area types might include requirements for green roofs and walls, lower density areas for more natural green spaces and habitats.



Source; National Model Design Code: Figure 19 Examples of Typical Area Type Built Form Setting, pg20

	Town centres	Urban neighbourhoods	Suburbs
<b>Primary streets:</b> Designed to take through traffic and public transport <a href="#">See P.1.i Primary Streets</a>	 Enclosure Ratio: 1:2 Active Frontage: 30% 25-35m	 Enclosure Ratio: 1:2 Active Frontage: 10% 25-30m	 Enclosure Ratio: 1:5 Active Frontage: 10% 28-35m
<b>High streets:</b> The focus for local shopping centres, often with traffic but sometimes traffic-free <a href="#">See P.1.i Primary Streets</a>	 Enclosure Ratio: 1:1 Active Frontage: 80%. 15-20m	 Enclosure Ratio: 1:1.5 Active Frontage: 70%. 17-23m	 Enclosure Ratio: 1:3 Active Frontage: 60%. 17-22m
<b>Secondary streets:</b> Taking local traffic into neighbourhoods and often the location of shopping parades and local services such as shops <a href="#">See P.1.ii Local and Secondary Streets</a>	 Enclosure Ratio: 1:1 Active Frontage: 50%. 13-16m	 Enclosure Ratio: 1:1 Active Frontage: 30%. 13-16m	 Enclosure Ratio: 1:3 Active Frontage: 20%. 17-22m
<b>Local streets:</b> Providing vehicle access only to the properties on the street but with through pedestrian and cycle traffic <a href="#">See P.1.ii Local and Secondary Streets</a>	 Enclosure Ratio: 1:1 Active Frontage: 30%. 10-14m	 Enclosure Ratio: 1:1 Active Frontage: 0%. 11-14m	 Enclosure Ratio: 1:2.5 Active Frontage: 0%. 14-18m

Source; National Model Design Code: Figure 28 Street Matrix, pg20



## LOCAL PLAN HOUSING MIX

### Wirral MBC Working Draft Local Plan

#### Working Draft POLICY WS 3.4 HOUSING MIX states //

Where sites are capable and suitable, a minimum of 70% of market dwellings will be developed for larger dwellings of three or more bedrooms, within use Class C3 outside of regeneration areas. Within regeneration areas this should be a minimum of 30%.

The Council may also consider if internal layouts should meet the Nationally Prescribe Technical Space Standards.

#### COMMENTARY //

The working draft policy sets a high standard for the provision of 3 bed plus homes within regeneration areas and must be viewed in the context of the Draft Birkenhead 2040 Framework's aim to make Birkenhead a distinctively family orientated place as compared to what has been achieved in say Manchester or Liverpool City centres.

We feel this is readily achievable on sites above a certain size and in appropriate locations such as illustrated by the later design studies for Hamilton Park - achieving both density and 3 bed homes, but in other locations closer to the town centre such as at Europa Boulevard where apartments become more relevant from an Urban Design perspective and in line with the National Model Design Code, the challenge of delivery of 3 bed apartments will be greater.

The Europa Boulevard study illustrates two sites, one pure apartment driven, and the other mixed with high density houses and apartments. The mixed site is able to deliver the required mix, but the pure apartment site would find it more difficult due to current developer and market norms, viability and perceived market demand to deliver high quantities of 3 bed apartments.

From our experience and reviewing other schemes across the North West, provision of 3 bed apartments over 5 - 10 % is more unusual and as such the minimum of 30% within regeneration areas may be more challenging for developers. Whilst the policy allows justification away from this standards with the wording 'where sites are capable and suitable', this could be a challenging approach to take with developers, but this could change as a result of the successful implementation of the Birkenhead 2040 Framework strategy to make Birkenhead a place where families want to live.

As a point of reference;

Liverpool sets a requirement for a greater mix of two bed + than One Bed properties in developments

Manchester does not formally set any standards but informally requires a ratio of 33% One Bed, 63% Two Bed, and 4% 3 Bed

homes in urban city centre locations.

But in both instances these approaches have not set out to create balanced neighbourhoods of single, couples and families of all ages.



## AFFORDABLE HOUSING PROVISION

### Wirral MBC Working Draft Local Plan

#### WORKING DRAFT POLICY WS 3.3 AFFORDABLE HOUSING REQUIREMENTS //

Proposals for new-build market housing of 10 or more dwellings will be required to provide tenure blind affordable housing within the site at the following rates:

viability zone 1 – up to 10% 0 percent

viability zone 2 – 10 percent

viability zone 3 – 20 percent

viability zone 4 – 20 percent

(subject to findings of viability testing)

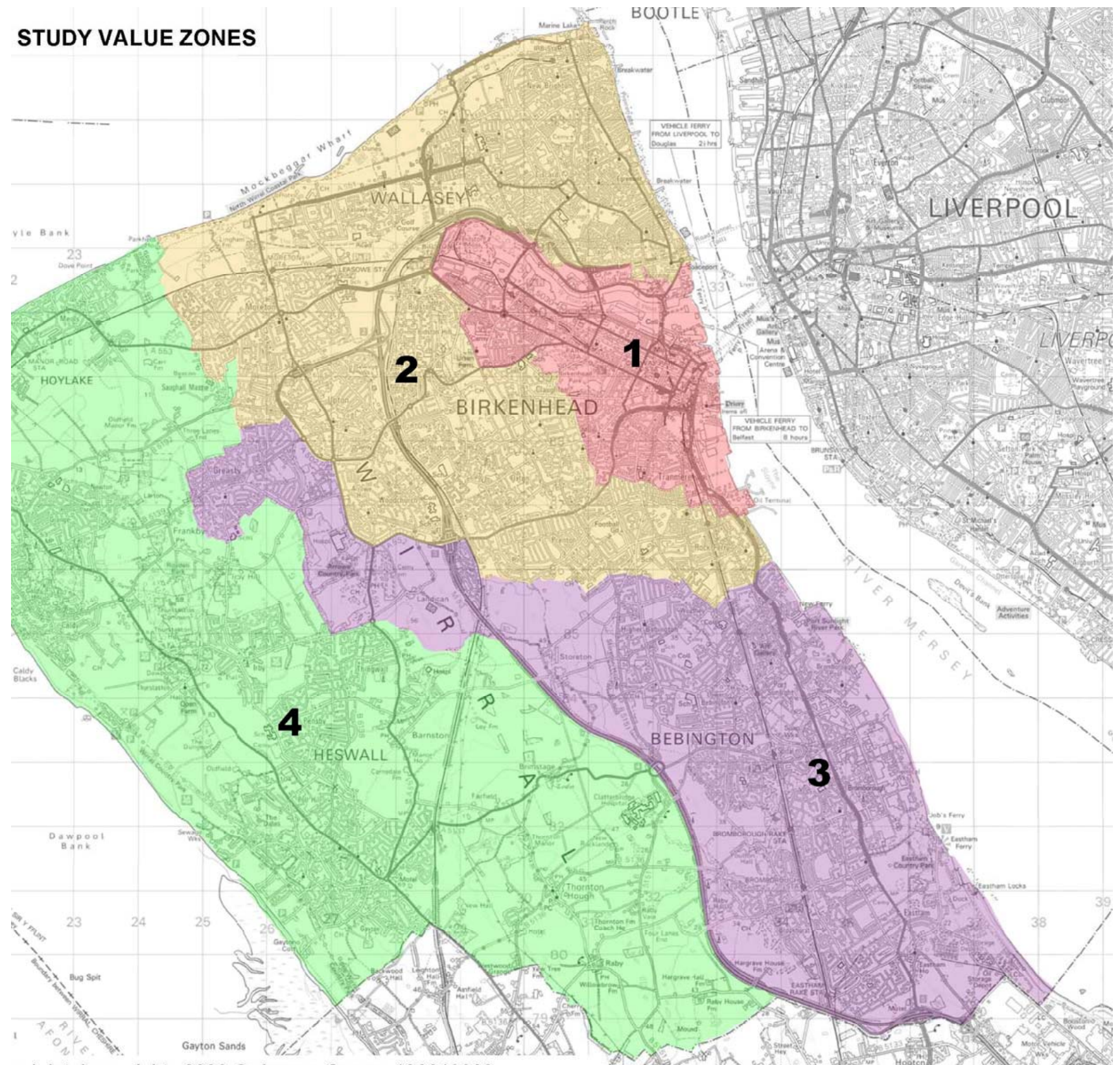
In the lowest of viability areas on multiphase schemes, provision will be made via a S106 agreement, to reduce the affordable housing requirement at initial phase of development if this is needed to enable a financially viable development. In such instances, later phases will be required to provide affordable housing at the rates in D above, as property or land values rise.

25% of the affordable housing provided shall comprise First Homes. 18% of the affordable housing provided shall comprise other affordable home ownership products, unless this significantly prejudices the provision of dwelling types and tenures required to meet the needs for specific groups. Where relevant this should be designed to facilitate transfer to an appropriate Registered Social Landlord or equivalent affordable housing provider. The remaining affordable housing will be for affordable rent and social rent.

Affordable housing, will be secured through an appropriate planning condition or legal agreement. Off-site provision or equivalent payment in lieu of affordable housing will only be considered if it can be demonstrated that on-site provision would not be practicable, the approach can be robustly justified, and the proposal would be more effective for achieving a mixed and balanced community.

#### COMMENTARY //

The provision of affordable homes will not have a direct bearing on the ability to deliver high density residential within the Birkenhead Core, and as identified Zone 1 is set with the lowest target up to 10% which will support the viability and deliver-ability of high quality homes.



Source: Wirral Council H5.2 Wirral Density Study Part 3 Identifying Density Zones



DESIGN STANDARDS

Wirral MBC Working Draft Local Plan

RESIDENTIAL SPACE STANDARDS //

The Working Draft Local Plan sets out;

A basic requirement of any home is the adequacy of room sizes. In pursuit of this aim future homes in the Wirral are expected to meet the minimum Nationally Described Space Standard.

The document sets out the following with regards design standards:

- Compliance with the nationally-described space standard or any successor standard.
- Compliance with the higher water efficiency standard of 110 litres/ per person/ per day under Regulation 36(3) of the Building Regulations or any successor standard.
- Be ‘zero carbon ready by design’ in line with Policy WS 8.
- All new build dwellings will be accessible and adaptable in line with
- Part M4(2) of the Building Regulations or any successor standard, unless site specific factors clearly indicate an alternative design solution is necessary or the following criteria apply:
  - i. On developments of 17 or more new build dwellings at least 6% will be ‘wheelchair adaptable’ in line with Part M4 (3) (2) (a).
  - ii. If the Council is responsible for allocating or nominating a person for immediate occupation the 6% of dwellings will be ‘wheelchair user’ in line with Part M4(3) (2) (b) of the Building Regulations or any successor standard, unless site specific factors clearly indicate alternative design solution is necessary.

COMMENTARY //

The requirement for a minimum standard of housing is positive and could be further supported by a bespoke Residential Design Guide to pick up on detail design elements if not captured by the Wirral Council Design Guide currently being prepared.

Number of bedrooms(b)	Number of bed spaces (persons)	1 storey dwellings	2 storey dwellings	3 storey dwellings	Built-in storage
1b	1p	39 (37) *			1.0
	2p	50	58		1.5
2b	3p	61	70		2.0
	4p	70	79		
3b	4p	74	84	90	2.5
	5p	86	93	99	
	6p	95	102	108	
4b	5p	90	97	103	3.0
	6p	99	106	112	
	7p	108	115	121	
	8p	117	124	130	
5b	6p	103	110	116	3.5
	7p	112	119	125	
	8p	121	128	134	
6b	7p	116	123	129	4.0
	8p	125	132	138	

Minimum gross internal floor areas and storage (m²)

Source; Technical housing standards – nationally described space standard; Table 1, Pg 5



## ACCESSIBILITY

### Wirral MBC Working Draft Local Plan

#### ACCESSIBILITY //

The Working Draft Local Plan sets out in WS 3.1 the following criteria with regards creating accessible homes;

All new build dwellings will be accessible and adaptable in line with Part M4(2) of the Building Regulations or any successor standard, unless site specific factors clearly indicate an alternative design solution is necessary or the following criteria apply:

- i. On developments of 17 or more new build dwellings at least 6% will be 'wheelchair adaptable' in line with Part M4 (3) (2) (a).
- ii. If the Council is responsible for allocating or nominating a person for immediate occupation the 6% of dwellings will be 'wheelchair user' in line with Part M4(3) (2) (b) of the Building Regulations or any successor standard, unless site specific factors clearly indicate alternative design solution is necessary.

#### COMMENTARY //

The National Model Design Code sets out that well designed places should be accessible and easy to move around, and that well designed buildings are functional, accessible and sustainable.

The requirement for all homes to achieve at minimum M4(2) compliance is in-line with other Local Authorities and best practice on creating inclusive and adaptable communities. The 6% provision for M4(3)(2) adaptable homes is below Liverpool's Emerging Local Plan which requires 10% provision which is in-line with GLA's policy.





SEPARATION INTERFACE DISTANCES
Wirral MBC Working Draft Local Plan / National Model Design Code

LOCAL PLAN POLICY //

The previous Working Local Plan set minimum interface distances and the new Draft Local Plan has removed this requirement.

Policy WS 7.2 Privacy and Amenity of the Draft Local Plan identifies some key principals to be incorporated into the design:

- Development proposals must take account of the privacy and amenity of the development’s users and neighbours. Proposals will be required to:
- demonstrate that the proposed uses will be harmonious with neighbouring uses, avoiding unacceptable nuisance and disturbance;
- provide adequate sunlight, daylight and open aspects to all parts of the development and adjacent buildings and land (including any private amenity space);
- avoid direct overlooking and loss of privacy detrimental to the living conditions of neighbouring residents and the residents of the proposed development;
- not result in an over-bearing or overly enclosed form of development which materially harms the outlook of occupiers of neighbouring properties or the users of the proposed development; and address issues of vibration, noise, dust, fumes, odour, light pollution,air quality, waste collection and microclimatic conditions likely to arise from any use or activities as a result of the development or from neighbouring uses or activities.

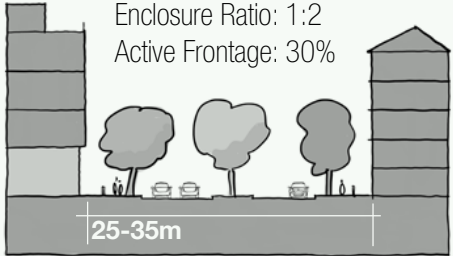
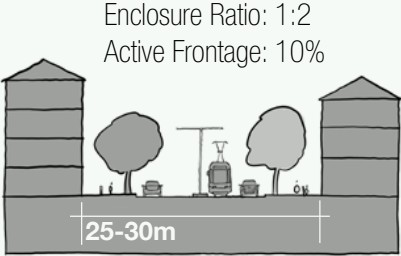
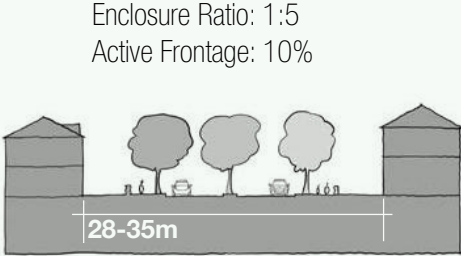
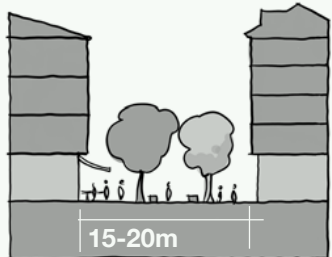
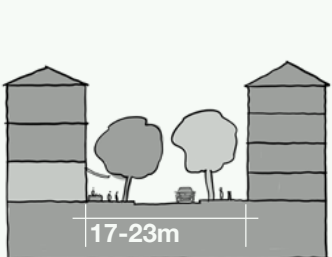
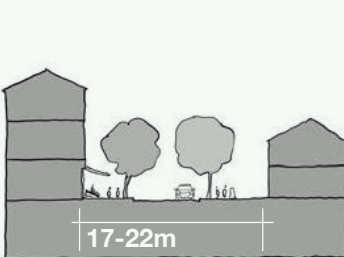
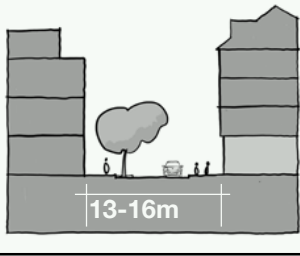
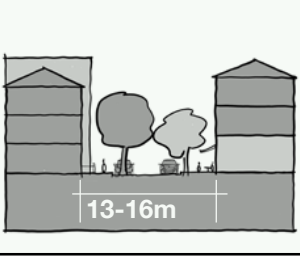
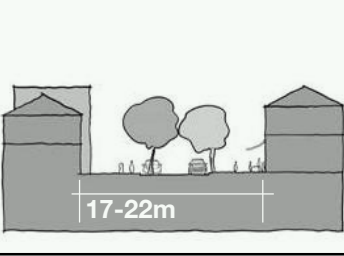
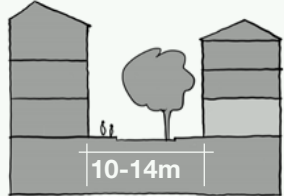
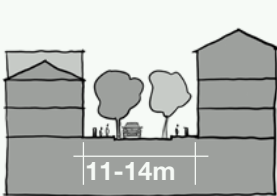
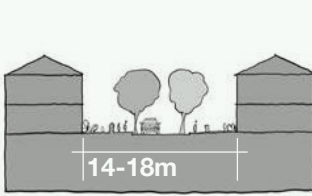
COMMENTARY //

We feel the removal of minimum interface distances is a positive position allowing higher density innovative design solutions and flexibility to deliver high quality place making.

The omission of the interface distances is consistent with our experience of other Local Plans removing this historic requirement.

The National Model Design Code references separation distances for streets, but this is focused on street character rather than interface distances.

A lot of the principals set out in WS7.2 are we would assume purposefully subjective, and as such a case by case qualitative review solution is required through the planning process to ensure a high quality design approach is maintained with reduced interface distances, and the best practice examples illustrated later in the document show their success. Part of this review process may well be supported through the appointment of an Urban Design Officer or Design Champion Role.

	Town centres	Urban neighbourhoods	Suburbs
Primary streets: Designed to take through traffic and public transport See P.1.i Primary Streets	 <p>Enclosure Ratio: 1:2 Active Frontage: 30%</p> <p>25-35m</p>	 <p>Enclosure Ratio: 1:2 Active Frontage: 10%</p> <p>25-30m</p>	 <p>Enclosure Ratio: 1:5 Active Frontage: 10%</p> <p>28-35m</p>
High streets: The focus for local shopping centres, often with traffic but sometimes traffic-free See P.1.i Primary Streets	 <p>Enclosure Ratio: 1:1 Active Frontage: 80%.</p> <p>15-20m</p>	 <p>Enclosure Ratio: 1:1.5 Active Frontage: 70%.</p> <p>17-23m</p>	 <p>Enclosure Ratio: 1:3 Active Frontage: 60%</p> <p>17-22m</p>
Secondary streets: Taking local traffic into neighbourhoods and often the location of shopping parades and local services such as shops See P.1.ii Local and Secondary Streets	 <p>Enclosure Ratio: 1:1 Active Frontage: 50%</p> <p>13-16m</p>	 <p>Enclosure Ratio: 1:1 Active Frontage: 30%</p> <p>13-16m</p>	 <p>Enclosure Ratio: 1:3 Active Frontage: 20%</p> <p>17-22m</p>
Local streets: Providing vehicle access only to the properties on the street but with through pedestrian and cycle traffic See P.1.ii Local and Secondary Streets	 <p>Enclosure Ratio: 1:1 Active Frontage: 30%</p> <p>10-14m</p>	 <p>Enclosure Ratio: 1:1 Active Frontage: 0%</p> <p>11-14m</p>	 <p>Enclosure Ratio: 1:2.5 Active Frontage: 0%</p> <p>14-18m</p>



## OPEN SPACE STANDARDS

### Wirral MBC DRAFT Local Plan - Appendix 6

#### OPEN SPACE PROVISION //

Appendix 6 of the Working Draft Local Plan sets out open space provision standards for 50 or more dwellings providing ‘80m<sup>2</sup> per dwelling of which at least 6m<sup>2</sup> per dwelling must be for children’s play’. The advice is split into two principal categories of development:

- *Within 720m of open space or 1.5 hectares of publicly accessible open space*
- *Not within 720m of open space or 1.5 hectares of publicly accessible open space*

Within these standards Additional provision of *children’s play may be required for dwellings not within 400m safe walking distance of a site for safe children’s play of not less than 0.4Ha.*

Within the Working Draft Local Plan Policies Reg 19 it notes;

*‘New on site open space should, wherever possible, be provided as a single site for public recreation , centrally located, to serve the development as a whole, unless additional open space is required to provide appropriate access to safe children’s play across the site as a whole. The minimum acceptable area of open space to be provided will be 0.4ha. Appropriate provision must be secured for the ongoing maintenance of any on site provision for the lifetime of the development.*

*Within regeneration areas, where it is not feasible to meet the standard of provision of open space set out in appendix 6, alternative open space provision must be provided. This may include access to formal and informal recreation areas, waterfront access, tree lined streets, green roofs, and access to community growing areas together with bespoke approaches to community involvement in maintenance.’*

Two plans provide catchment illustration of Wirral Council’s Parks and Gardens, Natural Semi Natural Greenspaces and Amenity Greenspaces over 1.5Ha and their 720m catchment, and under 1.6Ha with 480m catchment.

#### COMMENTARY //

##### Catchments

The first plan shows a 720m catchment area for open space of 1.5 hectares or above. The second plan shows a 480m catchment area for open space of 1.5 hectares or below.

The above plans are caveated – ‘For illustrative purposes only. Buffers do not reflect actual walking distances.’ If these aren’t showing walking distances (presumably they’re showing distances as the crow flies, so do not factor in ‘safety’?) then they are left open to scrutiny. If, for example, an applicant uses these plans to illustrate that their site falls within a catchment, but the Council disagrees on the basis that it isn’t within safe walking distance (who defines what constitutes a safe route?), you immediately leave yourself open to debate / challenge. It is also worth noting that, as presently worded, only the second criteria of the draft policy specifies a ‘safe walking distance’.

It is not clear why a plan is shown for the open space of 1.5ha or below catchment, given this isn’t referenced within draft Policy WS 5.1 (Open space provision). I’m also unclear why a plan isn’t shown for the children’s play facilities catchment, given this is specifically referenced in the draft policy.

Notwithstanding the above, if the intention is to include these catchment plans within the Local Plan, a plan identifying catchments for children’s play facilities would also be useful.

##### Open Space

The Open Space Requirements set out in the table in Appendix 4 appear to indicate that (subject to no. of dwellings and the catchment area criteria) a financial contribution AND on-site provision may be required, rather than a financial contribution OR on-site provision.

So, by way of an example – best case scenario (from a developer’s perspective) - a proposal of less than 49 dwellings within 720m of open space of 1.5ha or above and within 400m of children’s play facilities doesn’t have to provide an on-site provision (as per the draft policy) but still has to provide the financial equivalent of 80sqm per dwelling for improvements to existing facilities. Whilst I can understand the logic – these homeowners will use those facilities, hence a contribution towards their upkeep is sought – it is an uncommon approach to seek a financial contribution on ALL schemes. It is also fairly uncommon to seek on and off-site provisions (though I note that any on-site works do appear to be deducted from the financial contribution). I imagine this will hinder development and will result in the Council having to deal with a lot of viability debates – what doesn’t appear to be clear from the draft document is how the financial contribution equivalent to 80sqm per dwelling will be calculated.

In the ‘not within 720m of an open space of 1.5 hectares or above’

table. There is no reference to children’s play facilities and it is unclear why the criteria changes? Here, a 480m catchment for open space of less than 1.5ha is referenced. Again, it is not clear why the criteria is different and refers to catchment criteria not mentioned within the wording of the draft policy?

By way of another example – worst case scenario - a proposal that is not within 720m of open space of 1.5ha or above and is not within 480m of open space of 1.5ha or below is expected to provide a financial contribution and on-site provision. However, the potential issue here is that an obligation secured via a s106 must directly relate to the development to which it is attached. If a proposal is beyond the open space catchment area/s that the Council deem are within a reasonable safe walking distance, I do not believe you can then seek a financial contribution towards the upkeep / maintenance of those open space areas. The contribution would not directly relate to the development and, as such, would be open to challenge. It could also be argued that it could be deemed unreasonable to ask a developer to provide 80 square metres per dwelling of on-site provision, then to ask for a financial contribution for off-site works too. This could be deemed double counting – providing for open space twice.

The tables breakdown the requirements for the various scenarios. These are quite confusing – more than one column might be relevant to a site. There’s also a lot of cross referencing – We would suggest a hypothetical scenario through the criteria is prepared by the council to see if they can follow the various columns to work out what contributions would be applicable.



## BIO DIVERSITY NET GAIN

### Wirral MBC Working Draft Local Plan

#### WORKING DRAFT POLICY WS5 STRATEGY FOR GREEN AND BLUE INFRASTRUCTURE, BIODIVERSITY, OPEN SPACE AND LANDSCAPE PROTECTION //

Where relevant, development proposals must ensure that the biodiversity assets of the Borough (as shown on the Policies Map) are protected, enhanced and functionally connected. Opportunities for Biodiversity Net Gain will be taken in response to the circumstances of the site in respect of its characteristics and location:

Priority should be given to improving the quality, linkages and habitat within the Liverpool City Region Ecological Network, including the Liverpool City Region Nature Improvement Area, and where appropriate contribute to the priorities for Priority Habitats, or the Nature Improvement Areas at:

- i. North Wirral Coast and Liverpool Bay
- ii. Dee Estuary
- iii. West Wirral Heathlands and Arrowe Park
- iv. River Birket Corridor
- v. Mersey Estuary
- vi. East Wirral heathlands
- vii. Dibbinsdale, Raby Mere & Eastham Country Park

Development proposals within the Nature Improvement Area may be permitted where they complement the identified opportunities for habitat creation and/ or habitat management and visitor management.

All qualifying development must contribute to an increase of a minimum 10% biodiversity net gain, whilst mitigating other impacts of the development.

#### COMMENTARY //

The policy is in-line with the published Defra and Government guidance on Bio Diversity Net Gain including the National Model Design Guide at a minimum of 10% net increase of Biodiversity Net Gain. The National Model Design Code requires a baseline assessment using the Natural England Biodiversity Metric 3.0 to measure the existing value of the site.

The Environment Bill which is expected to become law in the near future will establish Bio diversity net gain within national statute.



CARPARKING AND CYCLE STANDARDS

Wirral MBC Working Draft Local Plan // Appendix 7

WORKING DRAFT LOCAL PLAN PARKING STANDARDS // Appendix 7 sets out a ‘minimum’ standard required for parking provision with supporting commentary allowing for a lower provision based on:

- within 400m safe and convenient walking distance of a designated Town Centre or District Centre; and/or
- within 400m bus stop or railway station with a regular service with a frequency of 20 minutes or greater; and/or
- initiatives to reduce the level of traffic through significant investment in walking and cycling and public transport are planned or are being introduced within the locality; and/or
- adequate off street parking is already available within 400m safe walking distance; and/or
- there is potential for the shared use of spaces, for example as part of a mixed use development.

The developer must be able to demonstrate the above through for example the provision of the following (methodology to be agreed with the council):

- a parking statement;
- parking beat surveys;
- parking management mechanisms e.g. Traffic Regulation Orders.
- accompanying transport assessment and robust travel planning measures e.g. care clubs.

Each application will be judged on its merits.

ELECTRIC VEHICLE CHARGING //

Appendix 7 also sets out standards for the provision of electric charging points.

All applications for residential dwellings with off street parking must accommodate 1 active Electric Vehicle charging point per dwelling.

COMMENTARY //

There is a wide variety of approaches to Parking standards across the North West, with Liverpool setting Maximum provisions with an average being set of 1.5, Manchester setting no standards, and Salford setting an average of 0.5 per dwelling is the urban core.

The provision of minimum standards is something we feel should be changed to Maximum standards for all but Disabled Parking provision. Perhaps disabled parking provision should be aligned with accessible unit provision within the developments.

For the first column, we feel the parking provision for houses is appropriate, but that flats is higher than might be expected for actual planning approved schemes in urban well connected sites. We would commonly see this from disabled provision only is

Manchester city centre, to 0.5spaces per dwelling is modern urban / suburban locations in Liverpool and the like.

The level of provision for cycle parking appears in-line with other Local Authorities.

Electric charging for apartments is unclear, commentary in the document sets out a scaling standards for non residential development, but not for apartments.

Table XX Residential Parking Standards

	Minimum Car Parking			
	Subregional, Town and District centres and the Birkenhead 2040 Regeneration Framework area	Elsewhere	Disabled Parking	Cycle Parking
Houses	1 space per house	2 spaces per 2-3 bedroom house  3 spaces per 4 or more bedroom house	Wheelchair housing – 1 space per dwelling, with dimensions suitable for use by people with disabilities.  General housing – where justified by the likely occupancy of the dwelling and reserved for use by people with disabilities.	2 covered and secure spaces per house (can include garages and sheds)
Flats	1 space per flat	1 space per 1 -2 bedroom flat  2 spaces per 3 bedroom flat	1 space per 10 units (minimum 1 space)	1 internal covered and secure space per flat



WASTE  
Wirral MBC Working Draft Local Plan

**WORKING DRAFT LOCAL PLAN WASTE STANDARDS //**  
Within WS7.1 Design Principles, the Draft Local Plan sets out the requirement:

- provide an appropriate standard of highway access, including for emergency services, delivery and waste collection vehicles;
- provide integrated waste storage and on site provision for collection, recycling and management of waste likely to be generated by the development;

There is no commentary provided on style or provision within the emerging policy information provided.

**COMMENTARY //**  
As part of the design process, it was identified that the location and provision of waste collection can have a large impact of both design of high density residential developments for refuse collection vehicles access requirements designing street patterns, and also the quality of street scene created and ability to future proof schemes for future changes to type and style of refuse collection.

The image opposite was created to illustrate the options available for housing developments.

It was agreed through the design process that a subterranean bin store approach could be considered to enhance the street scene, and remove the need for full refuse collection vehicle access into the street pattern avoiding the need to design for refuse vehicle access requirements.

It was noted through the process that Liverpool Council are looking to adopt a similar strategy and is contained within their Emerging Local Plan.







## **APPENDIX B**

# **SOFT MARKET TESTING //**





**BDP.**

**Aspinall**  
**Verdi** property  
regeneration  
consultants

 **WIRRAL**