

BECKERY OLD ROAD - SELF-FINISH HOUSING  
UWE, BRISTOL - ARCHITECTURAL INTERNSHIP, SUMMER 2013



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## P R E F A C E

Self-Finish Housing on Old Beckery Road,  
Glastonbury

This report describes the development process and final design proposals for a terrace of twelve houses in Old Beckery Road, Glastonbury. The terrace has been developed on behalf of the The Beckery Island Regeneration Trust. Their aspiration - to develop housing that is affordable for young families in Glastonbury - has been developed over two projects at The University of The West of England, Bristol. Firstly, a 5-week 'Agency Project' was undertaken by five Masters of Planning and Architecture & Planning students at the end of their graduating year in May 2013. This study investigated the planning context, feasibility and initial brief proposals for self-finish housing on this Beckery Island site. Secondly, the findings of the Agency Project were taken forward over the summer of 2013 by six student-interns from the Department of Architecture & the Built Environment at UWE, Bristol. Over the eight weeks duration of this project the interns developed architectural proposals for the terrace to a 'Scheme Design' stage and this work represents a fully-formed architectural proposal for the terrace, the house types it includes and how these types support future flexible occupancy. This scheme also proposes two possible landscape strategies for this terrace; and here, further work is needed to substantiate the water engineering and structural engineering associated with the site. These engineering studies fall outside the scope of the scheme design undertaken during the intern scheme and described here.

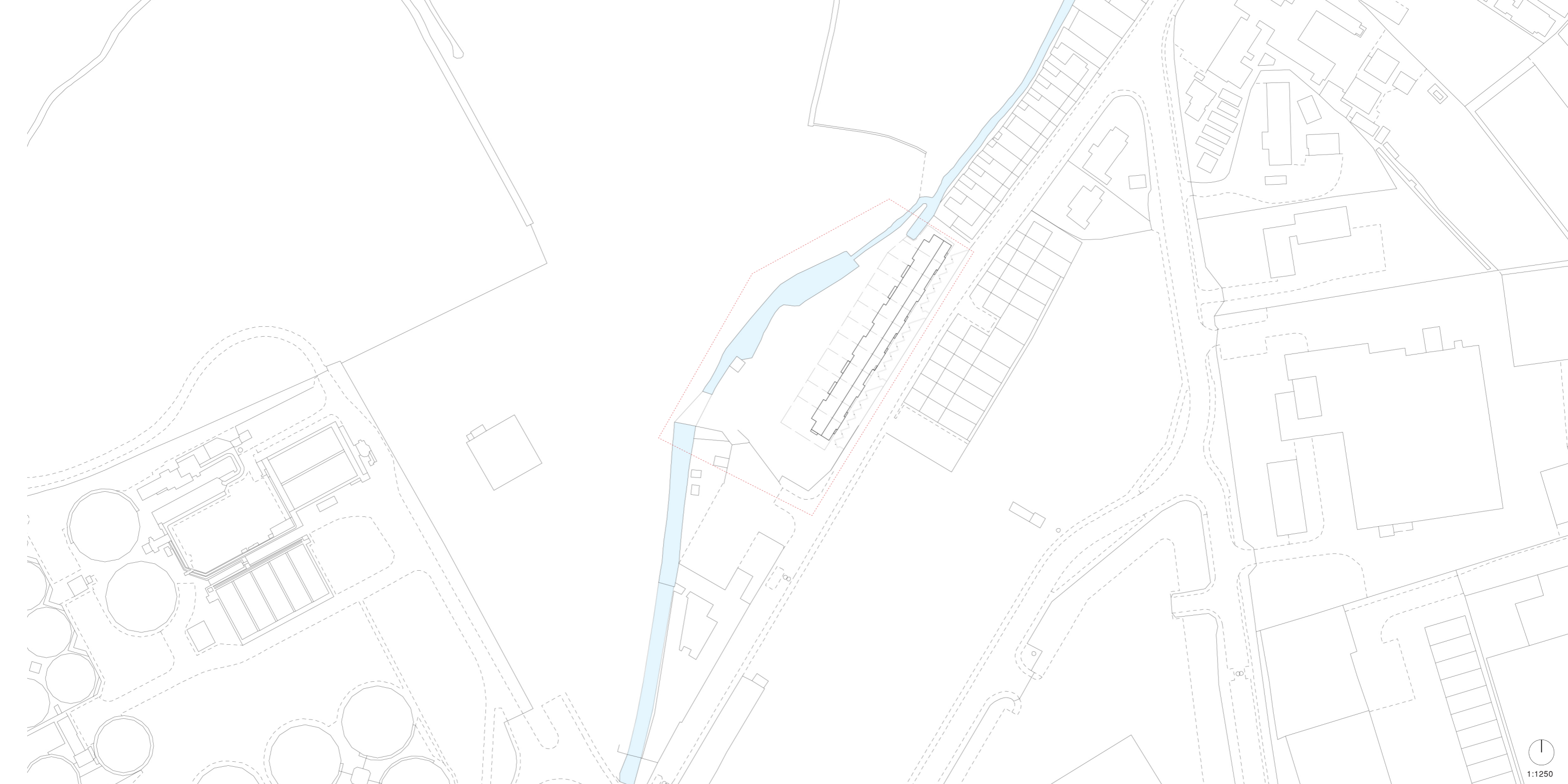
The interns are all students of Architecture & Planning at UWE, Bristol and include students from all four years of this undergraduate programme. They are:

**Tom Beazley, Sam Hyams, Francesca Johnson, Xander Roden, Matt Ryall and Oliver Sanger**

They were supported by two Senior Lecturers in Architecture at UWE, Bristol - Andrew Peters and James Burch.

The summer internships were funded jointly by the UWE Undergraduate Internships Scheme and the Higher Education Innovation Fund with supporting contributions from UWE, Bristol's Environment iNet and The Beckery Island Regeneration Trust.







Street

Beckery Island

Glastonbury Centre

## S I T E T E X T U R E

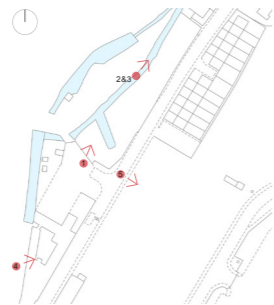
'Site texture' has played a crucial role towards the design development of this project. The setting and local vernacular also informed the proposed development.

The site largely consists of level shrubland; the topsoil and surface is however very uneven. The surface is littered with a quantity of loose stone and rock. The bedrock in this area is Liassic strata of limestone. The two water courses create an island within the centre of the site, and play host to a variety of aquatic species adding to the sites flourishing ecology and biodiversity.

The surrounding areas have previously been heavily industrialised. The Glove Factory Buildings, one of the remaining pieces of architectural heritage from the industrial and commerce period, is Grade II listed. These Glove Factory Buildings are derelict and have become a proposed site for future phases of regeneration under BIRT's wider masterplan. The factories' close proximity adds to the context of the site.



1 View site



2 Leat close up



3 Leat view



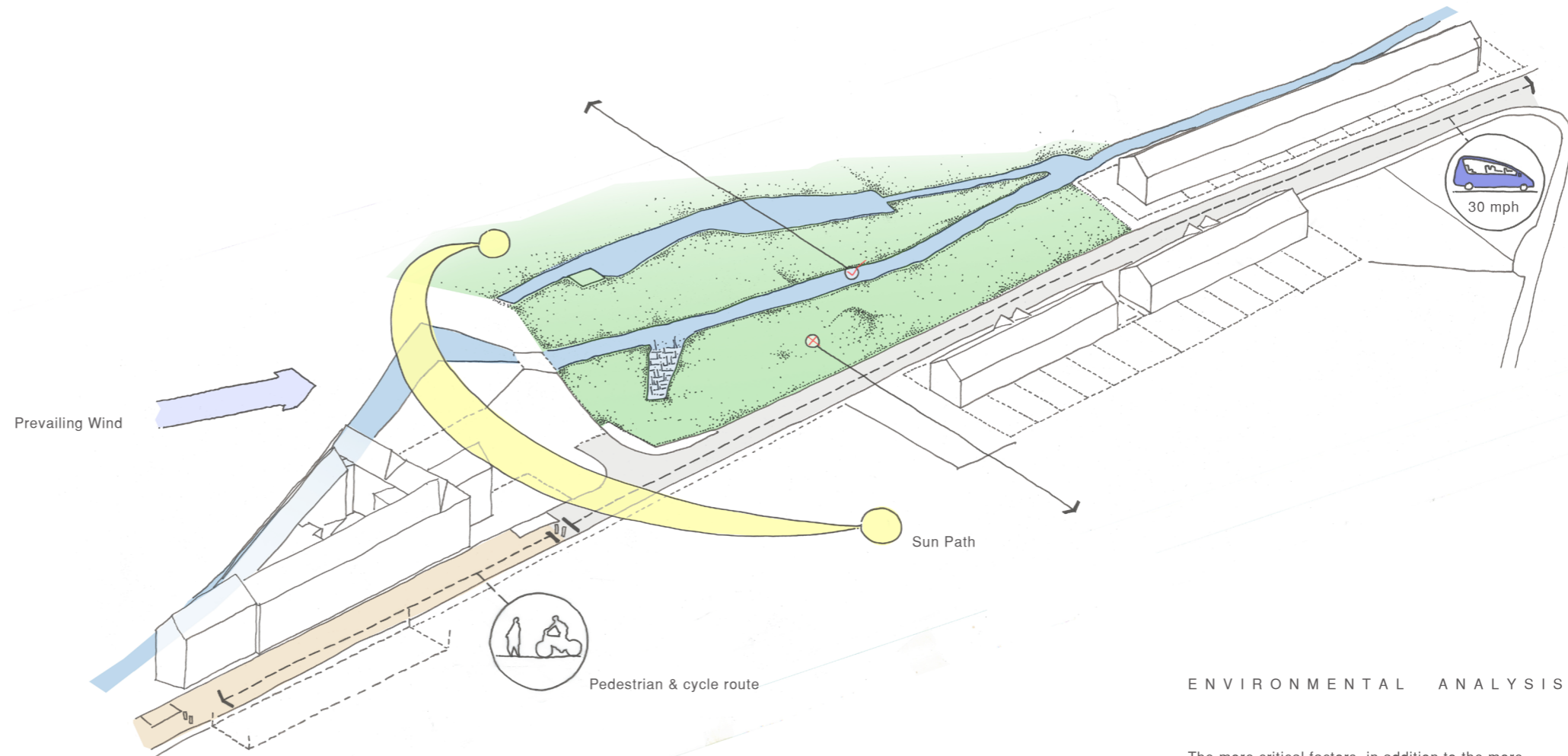
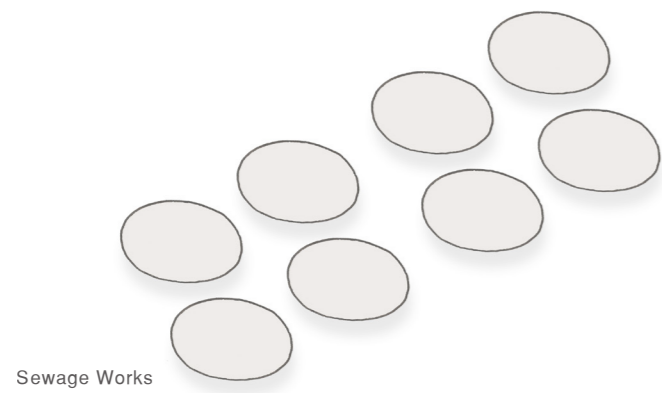
4 Glove factory



5 View Tor tower





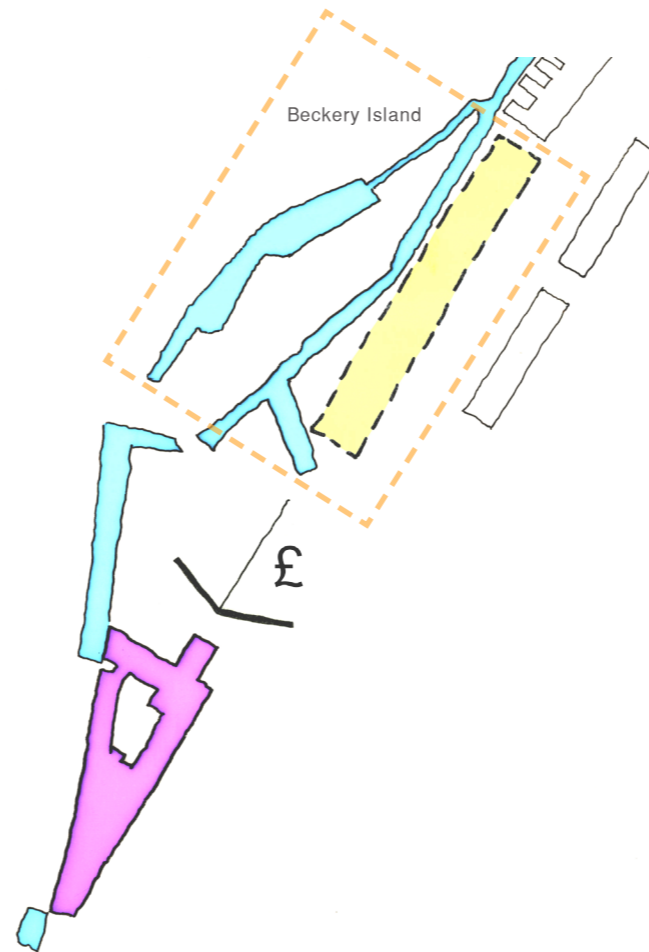
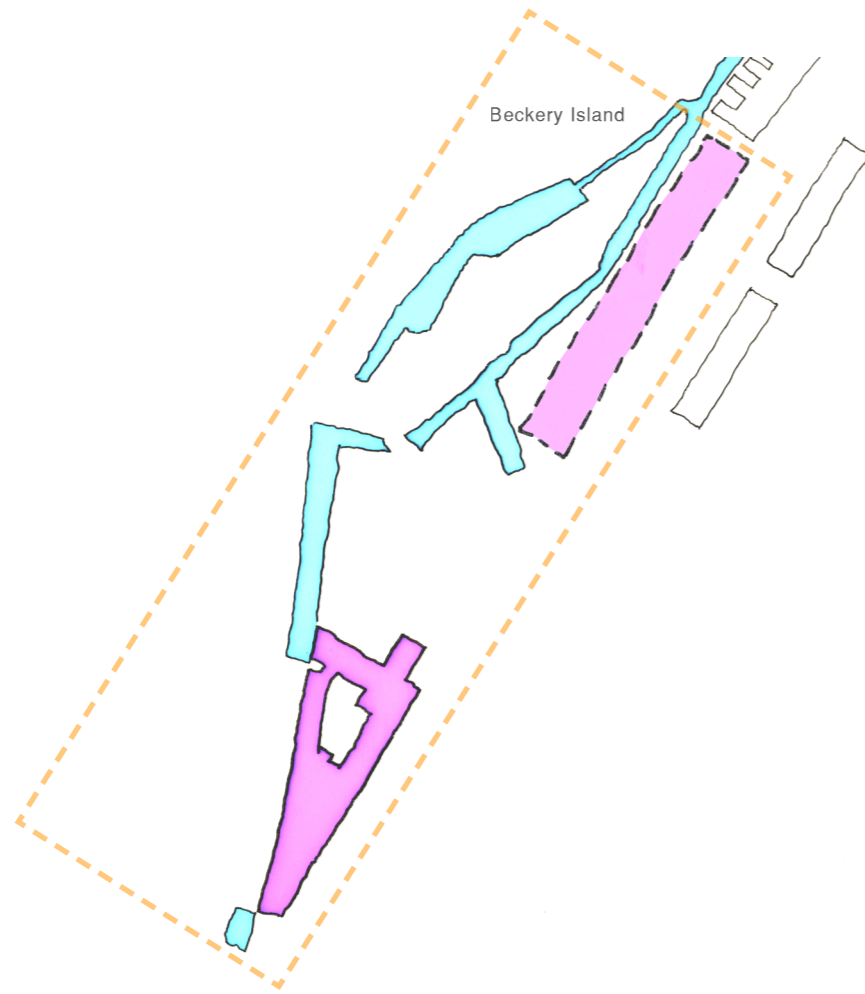


## ENVIRONMENTAL ANALYSIS

The more critical factors, in addition to the more obvious environmental characteristics of the site, are:

- The proximity of the sewage works
- Flood risk zoning - *Zone 2 or Zone 3*
- Existing ecology
- Archaeological assets





Phase 1

Phase 2

## FEASIBILITY IDENTIFICATION

A feasibility study was produced to fully realise BIRT's agenda and long term aspirations for a vibrant and sustainable economy within Glastonbury. The key feasibility ideas identify:

**Community** - regenerating Beckery Island as a whole

**Best Practice** - flagship development demonstrating best practice in design and activity

**Sustainability** - energy should be produced on site using renewable sources

**Integration** - activities should complement those happenings in the town and surrounding area

These points have majorly informed the development of the housing project to coincide with BIRT's wider masterplan.

The first phase of development for Beckery Island - the housing terrace - aims to encourage younger populations of Glastonbury to remain in the area they grew up in. In this way, the terrace should have contemporary elements, and provide elements of 'self-build'. The development should also incorporate a wider community strategy which can be implemented with the existing cycle route between Glastonbury and Street, and a walkway between buildings in the Beckery Island area.

The profits from the first phase of development will support a second phase of development; the regeneration of the currently derelict Glove Factory Buildings, and to continue regeneration of the Beckery Island community.



ONE TERRACE TWO LAND STRATEGIES





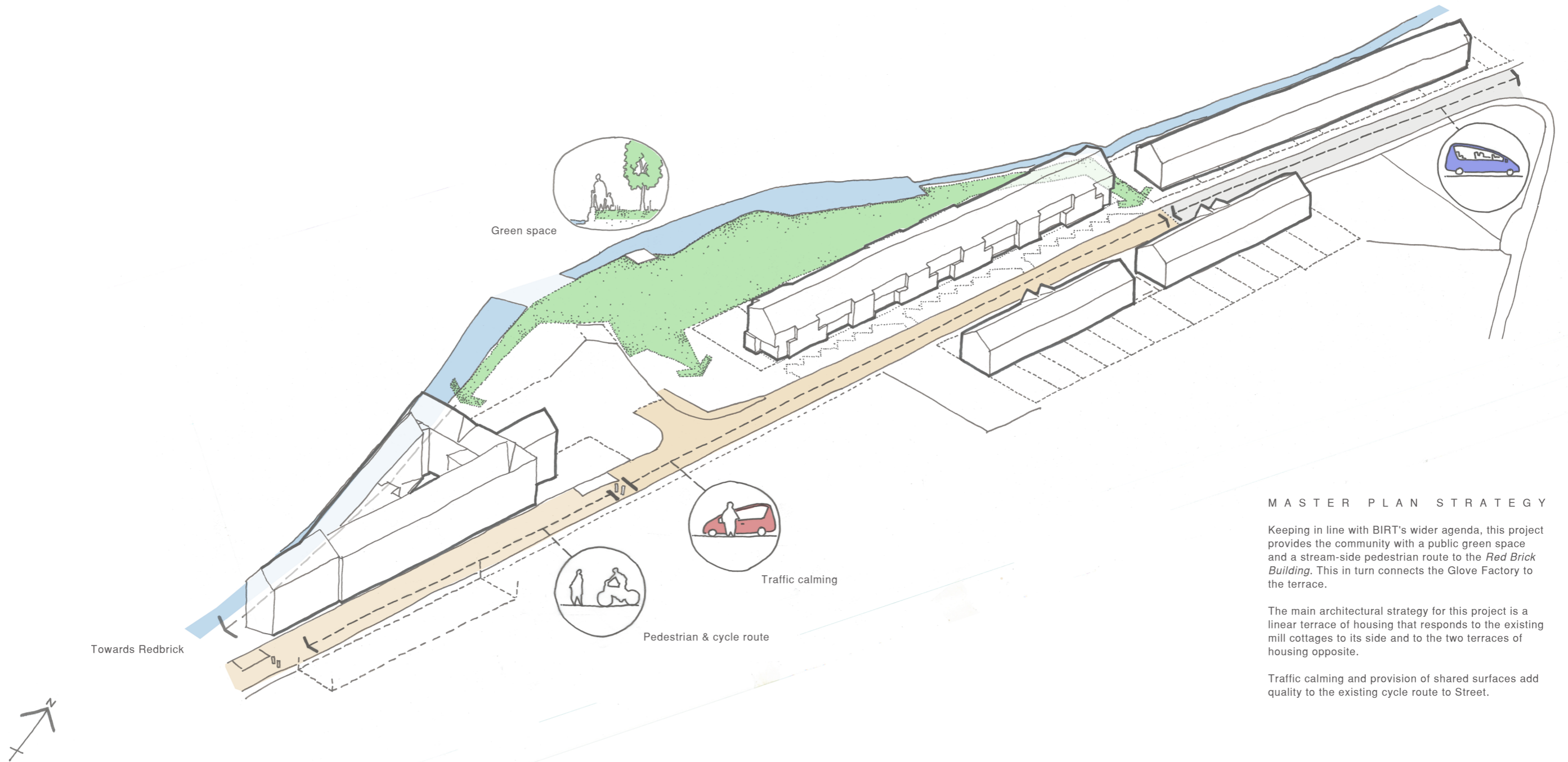
The existing site is characterised by two water courses; a Mill Pond, and a small leat. An island within the middle of the site has been naturally formed by the Mill Pond and the leat.

The first landscape strategy considers filling-in the leat and redirecting the flow of water through the Mill Pond. BIRT believed this to be more beneficial to potential buyers as it increases amenity and garden space; it will therefore increase land value. Within our understanding the team felt that the existing ecology has not been thoroughly considered, particularly as an Environmental Impact Assessment had not yet taken place. The decision between both landscape strategies requires additional information and a broader consideration.

To combat this, a second landscape strategy has been proposed where each of the existing water courses are retained. This strategy would encourage and enrich the existing biodiversity and ecology of the site through minimal disturbance. This strategy is a more respectful response to this sensitive site where the water courses support elements of 'Secured by Design'.







Green space

Towards Redbrick

Pedestrian & cycle route

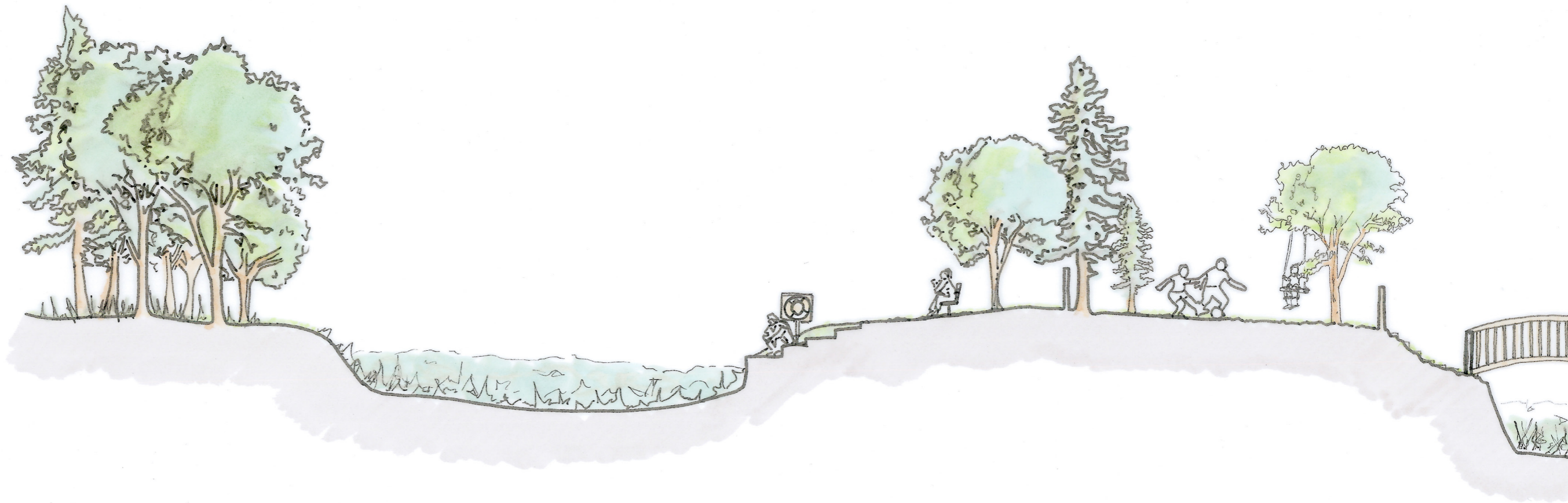
Traffic calming

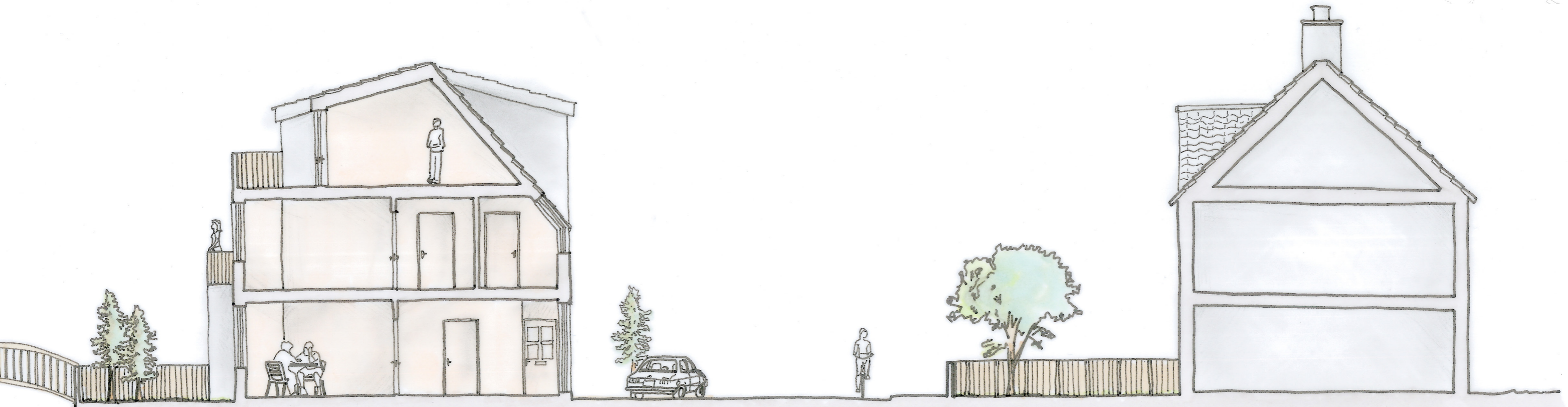
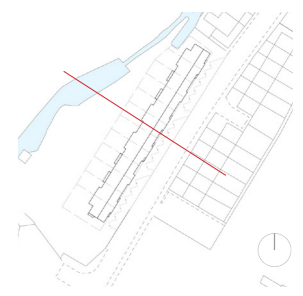
MASTER PLAN STRATEGY

Keeping in line with BIRT's wider agenda, this project provides the community with a public green space and a stream-side pedestrian route to the *Red Brick Building*. This in turn connects the *Glove Factory* to the terrace.

The main architectural strategy for this project is a linear terrace of housing that responds to the existing mill cottages to its side and to the two terraces of housing opposite.

Traffic calming and provision of shared surfaces add quality to the existing cycle route to Street.



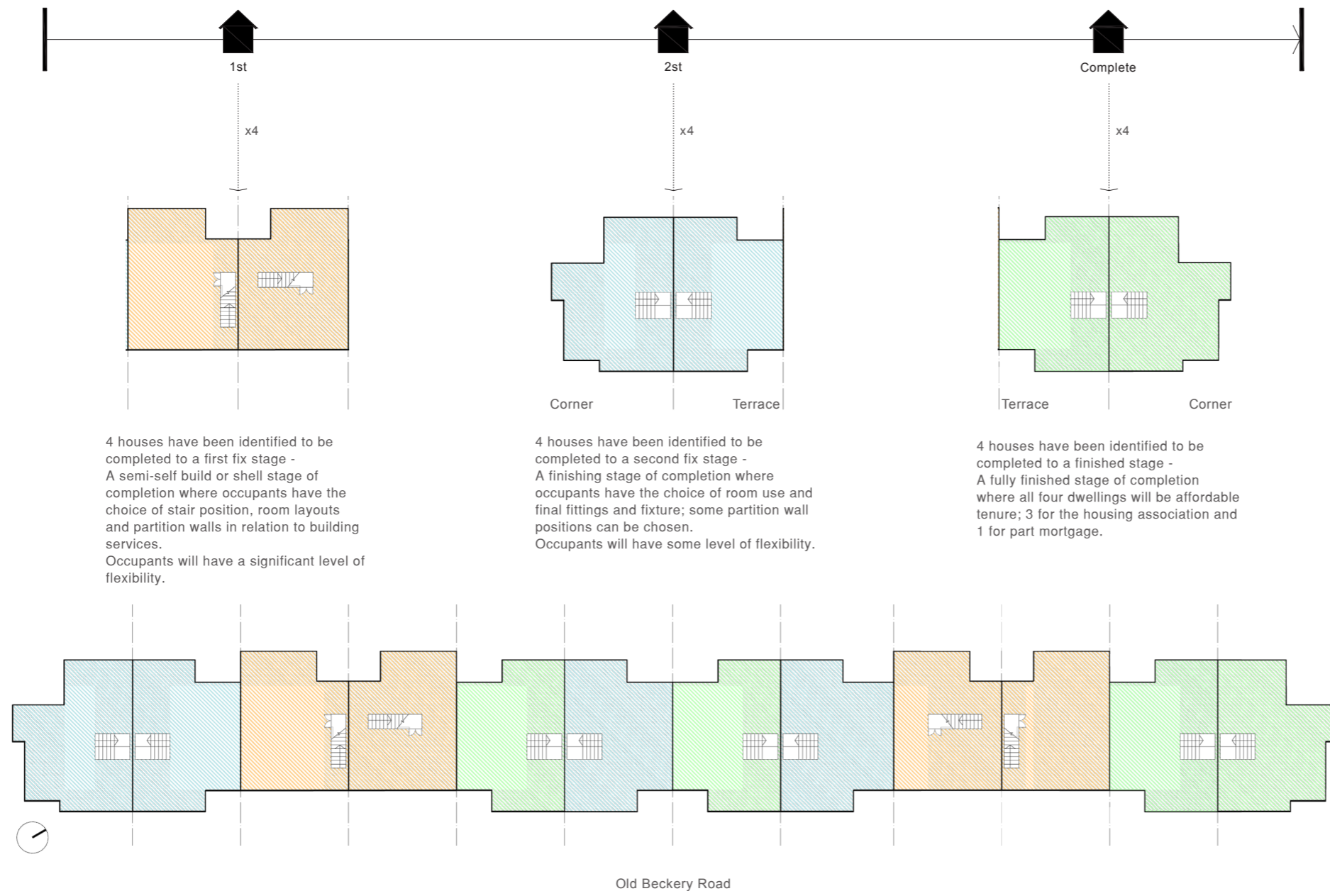


L O N G   S E C T I O N



ONE TERRACE WITH TWO HOUSE TYPES





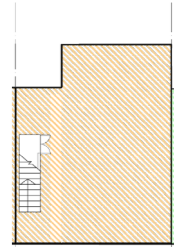
4 houses have been identified to be completed to a first fix stage - A semi-self build or shell stage of completion where occupants have the choice of stair position, room layouts and partition walls in relation to building services. Occupants will have a significant level of flexibility.

4 houses have been identified to be completed to a second fix stage - A finishing stage of completion where occupants have the choice of room use and final fittings and fixture; some partition wall positions can be chosen. Occupants will have some level of flexibility.

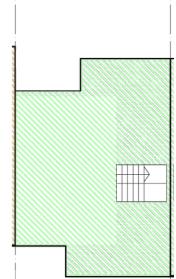
4 houses have been identified to be completed to a finished stage - A fully finished stage of completion where all four dwellings will be affordable tenure; 3 for the housing association and 1 for part mortgage.

TWO DIFFERENT HOUSING TYPOLOGIES AND THREE STAGES OF COMPLETION

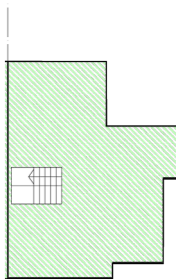
Type A - Terrace  
(Semi-Self Build Typology)  
Produced to a first fix (shell) phase of construction.  
Significant level of flexibility.

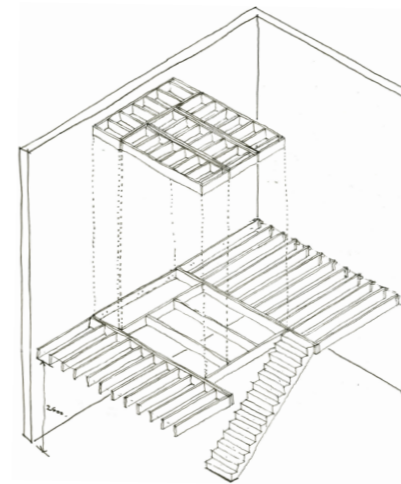
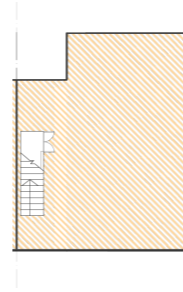


Type B - Terrace  
(Finishing & Furnishing Typology)  
Produced to both a second fix phase of construction and a completed stage of construction.  
The housing type allows for some level of flexibility.

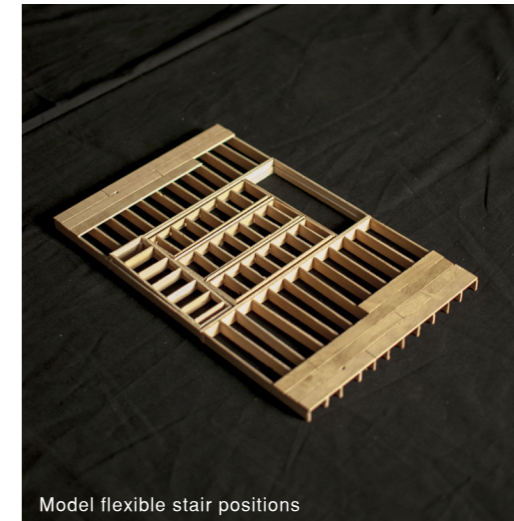


Type B - End of terrace  
(Finishing & Furnishing Typology)  
Produced to both/either a second fix phase of construction and a completed stage of construction.  
Some level of flexibility.





Drawing flexible stair positions



Model flexible stair positions

The main principle for House Type A is to provide an extreme form of flexibility. The occupant is provided with an empty shell where they can finish building their home. We have identified three types of stair - the old Victorian, the workers cottage and the dog leg.

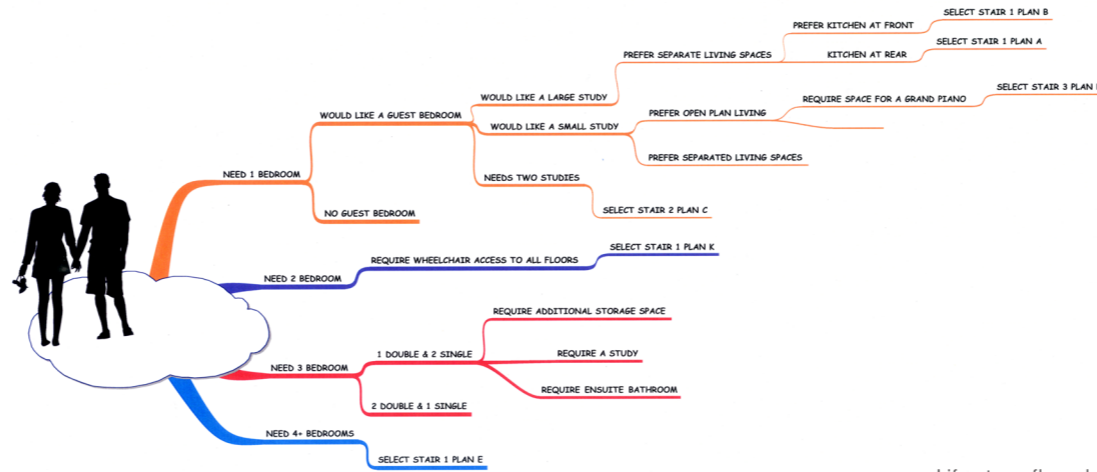
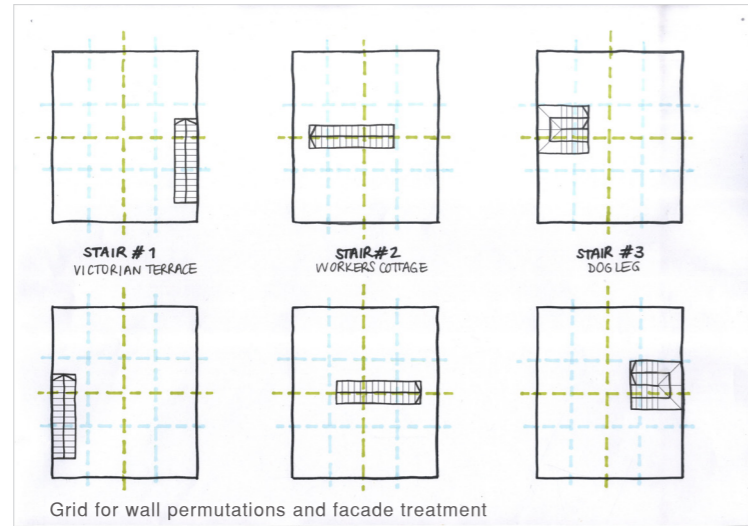
Through our development it has become clear each staircase lends itself to a certain

life style; this can be influenced by the life stages of its occupier. A flow chart was proposed which would help define use of space and ultimately allow the occupiers to identify the floor plan that is most applicable to their life style and future plans.

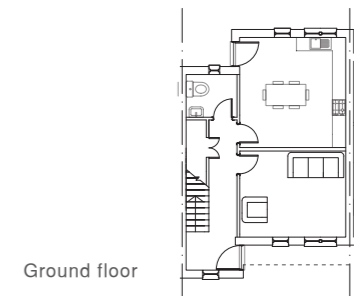
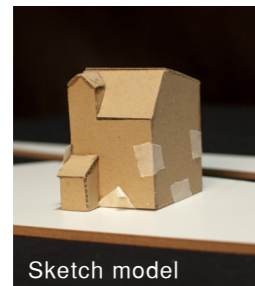
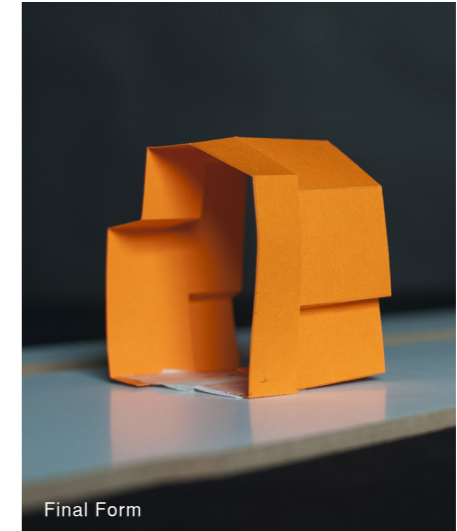
The grid layout ensures that the wall permutations and windows within all three stair options do not conflict. This dictates the window layout on the facade of House Type A.

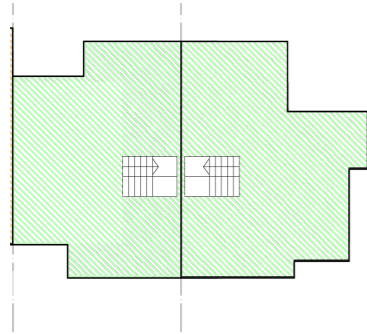


D E S I G N P R O C E S S H O U S E T Y P E A



Life stage flow chart





House Type B provides a compartmented flexibility as opposed to House Type A, which provides a form of generic flexibility.

The main principle is to provide flexibility through spaces that can be interchanged rather than providing a generic shell that allows for a wide range of possibilities.

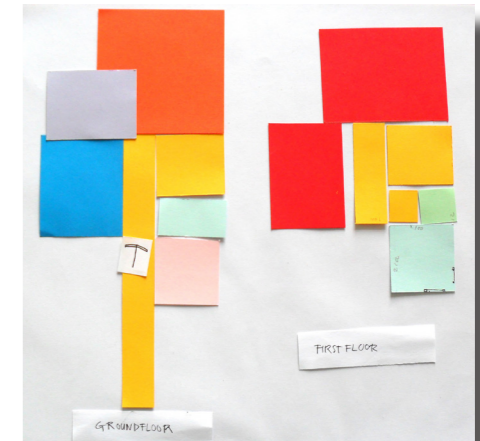
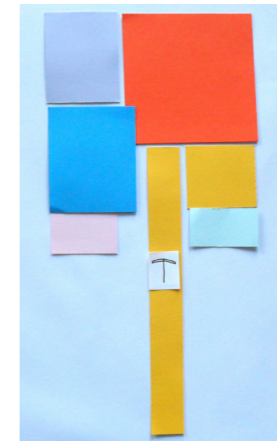
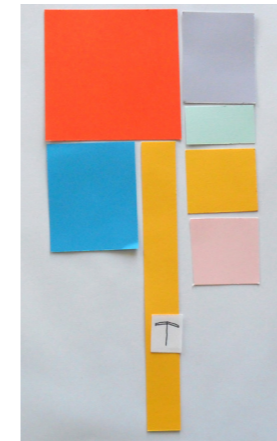
House Type B addresses a different audience who prefer a more predefined plan to which they can apply their choice of kitchen and further furnishings.

The design process started with diagramming internal spaces using different coloured card. Each room size is defined by the 'London Housing Design Guide'.

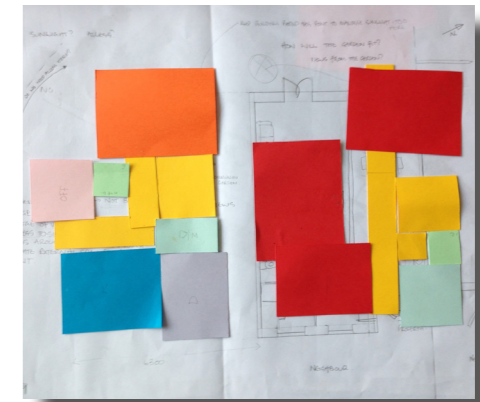
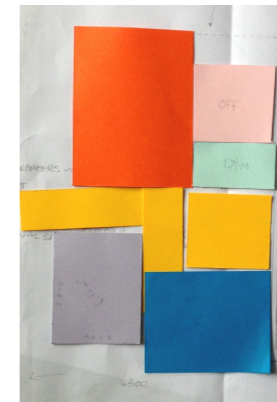
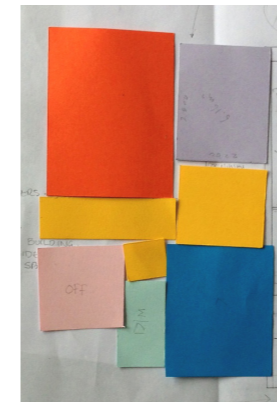
We also thought it was important to establish a relationship between certain spaces such as the relationship between kitchen and dining. Enhancing spatial relationships will provide high quality functional spaces.

The main circulation space, stair case, downstairs WC, office and entrance hall are compartmented in order to separate living space and working space. This also helps to define interchangeable spaces by grouping these small spaces into separately defined area.

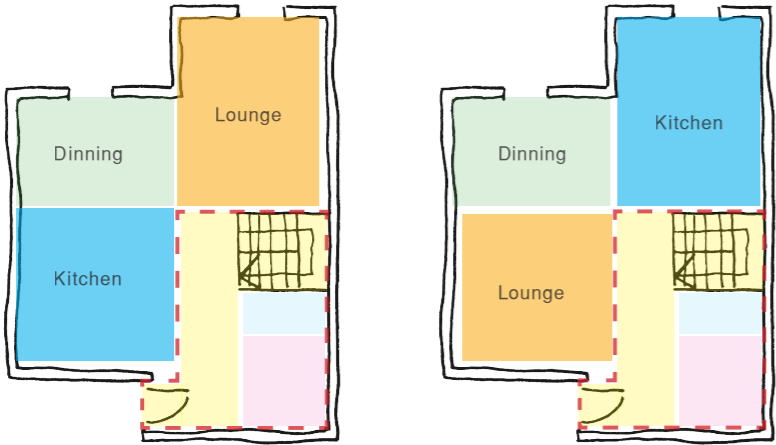
Development plan terrace house



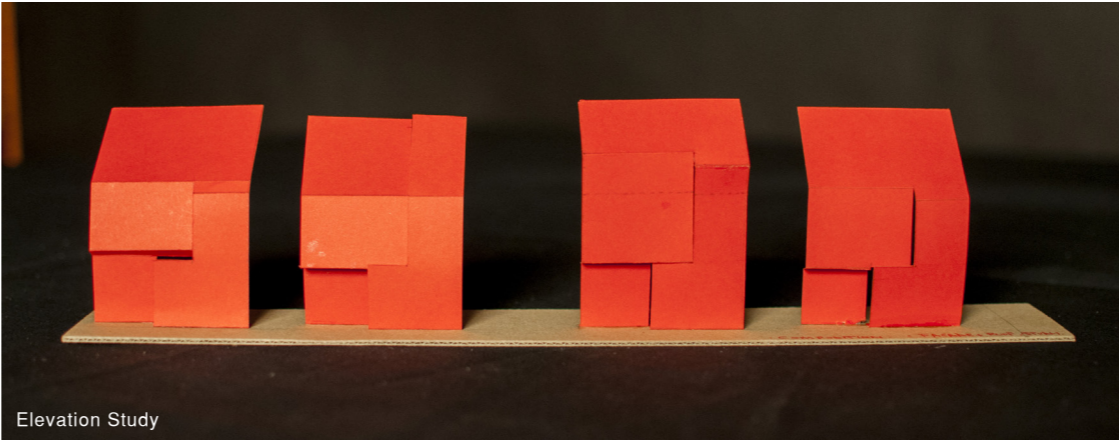
Development plan corner house



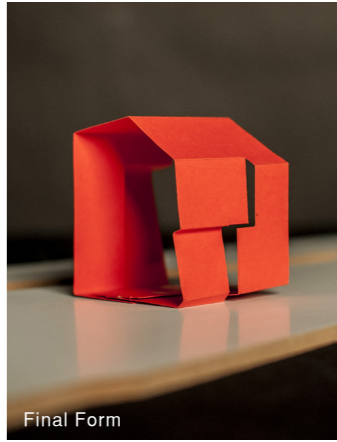
D E S I G N P R O C E S S H O U S E T Y P E B



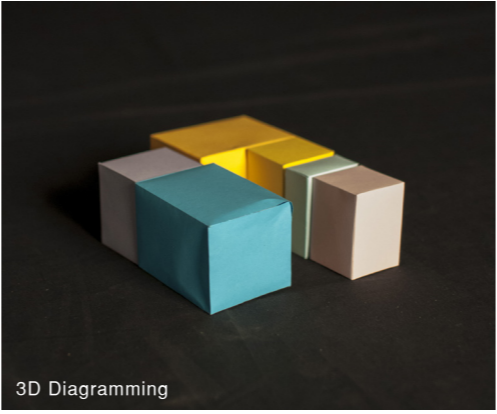
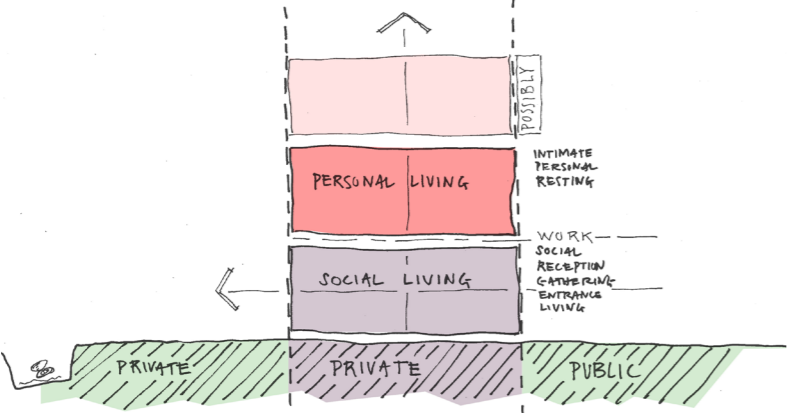
Kitchen and lounge are interchangeable



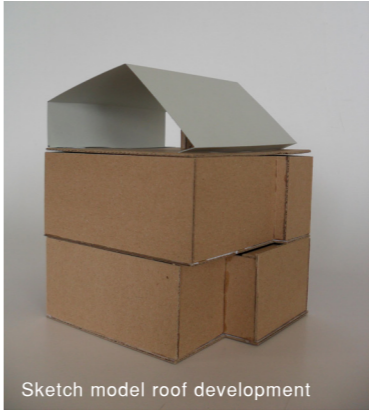
Elevation Study



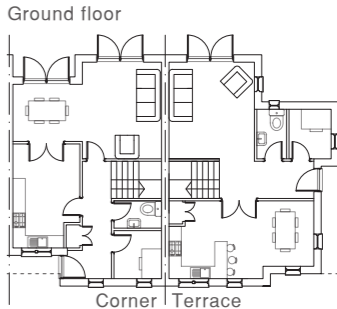
Final Form



3D Diagramming



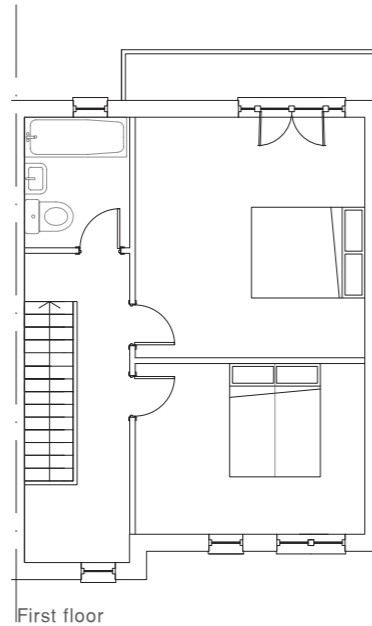
Sketch model roof development



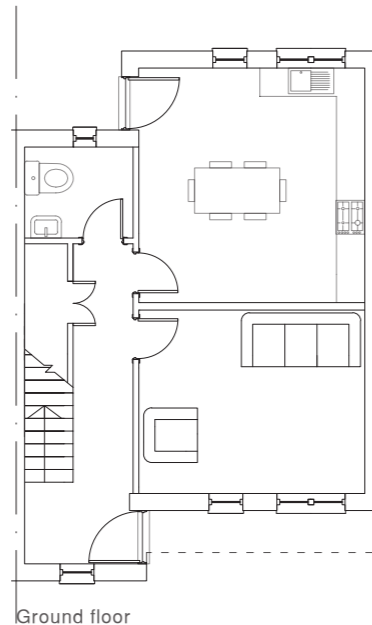
Corner Terrace



HOUSE TYPE A



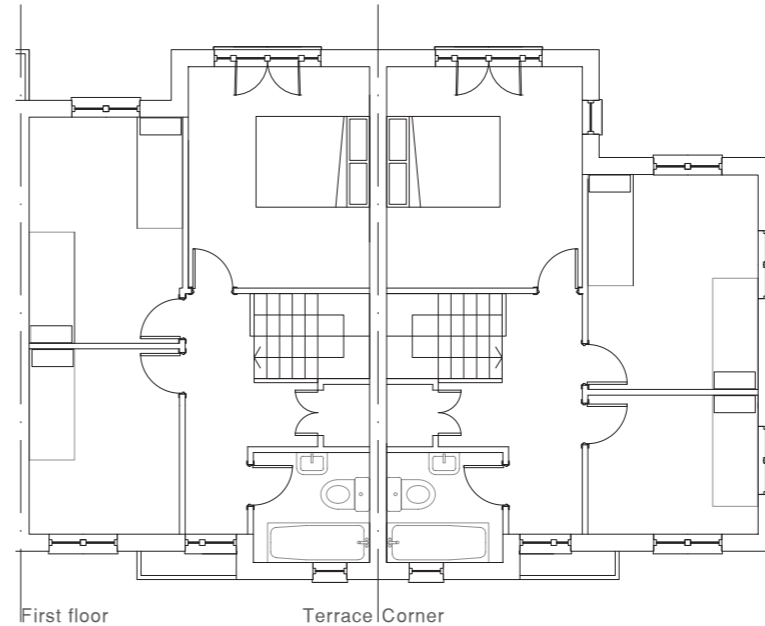
First floor



Ground floor

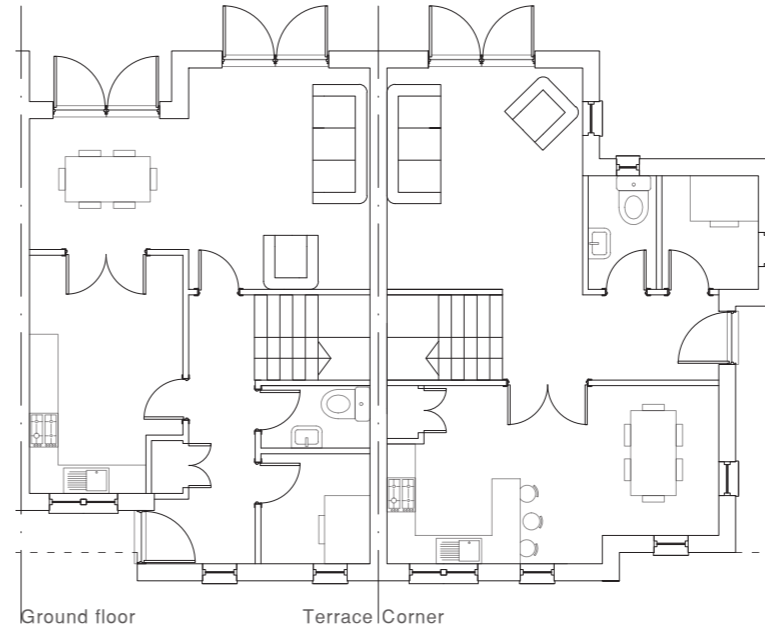


HOUSE TYPE B



First floor

Terrace Corner



Ground floor

Terrace Corner

HOUSE TYPE A & B



B U I L D I N G F O R L I F E F L E X I B I L I T Y



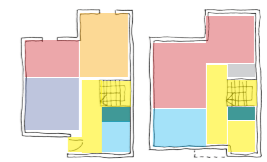
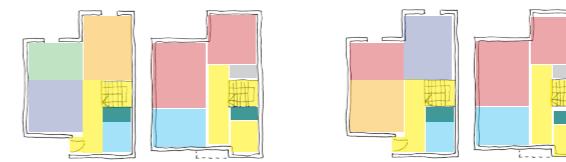
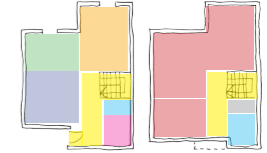
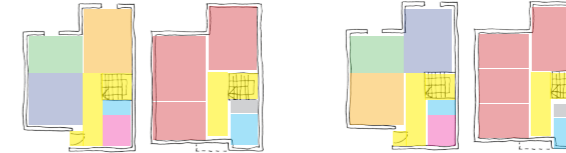
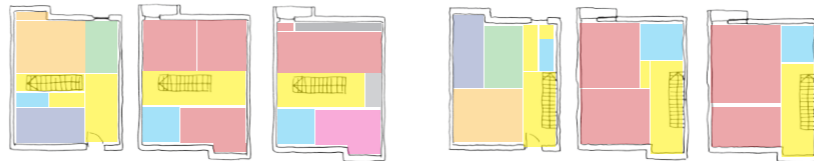
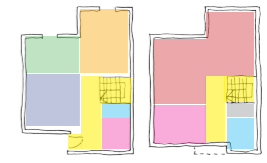
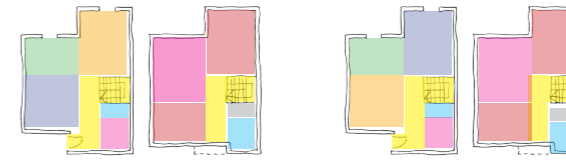
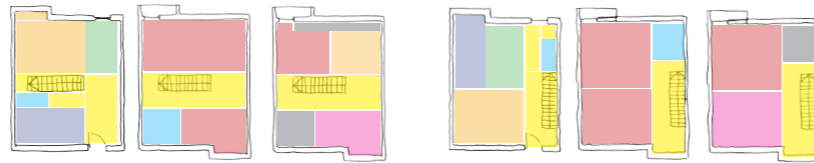
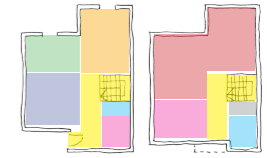
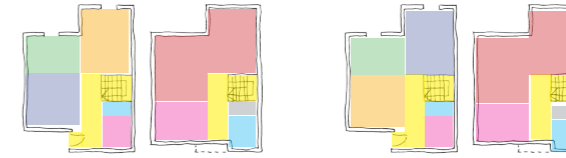
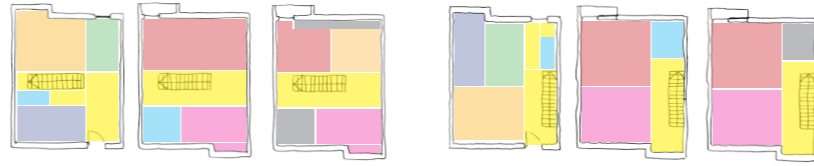
House Type A




House Type B



Completed House Type B



 Circulation

 Lounge

 Kitchen

 Bedroom

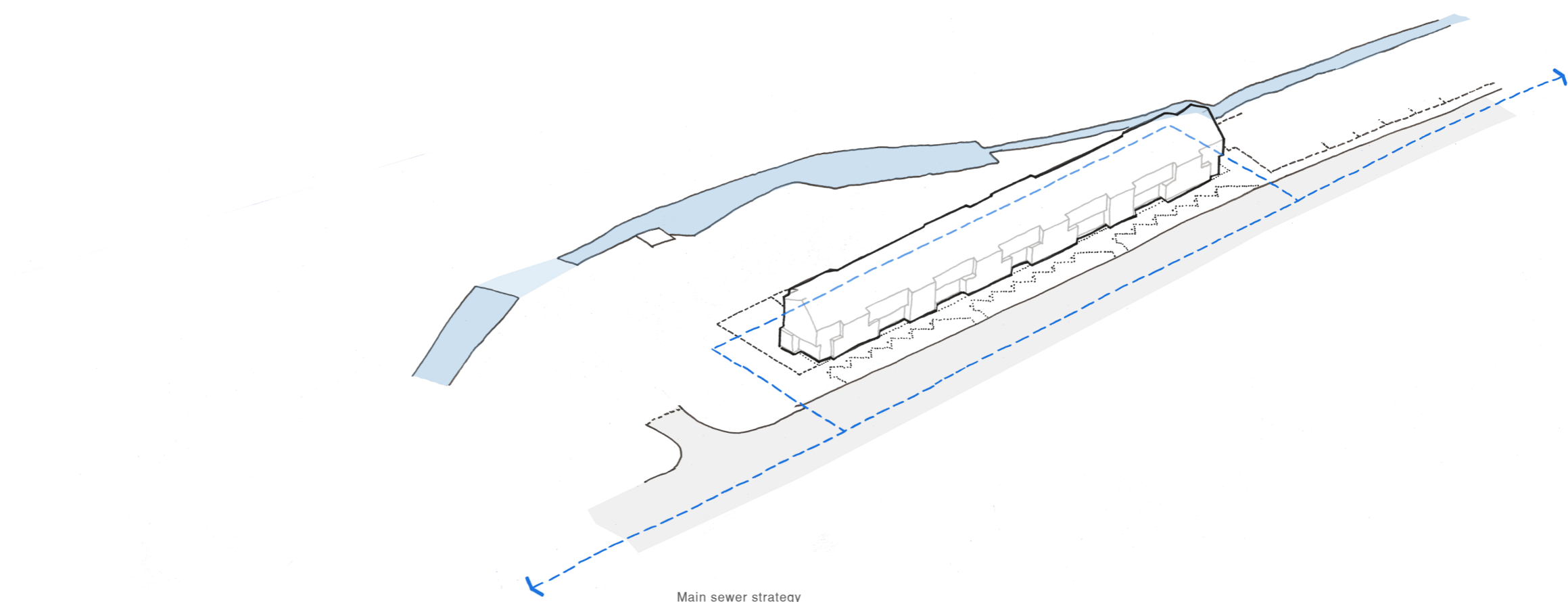
 WC/bathroom

 Dining

 Study

 Lift

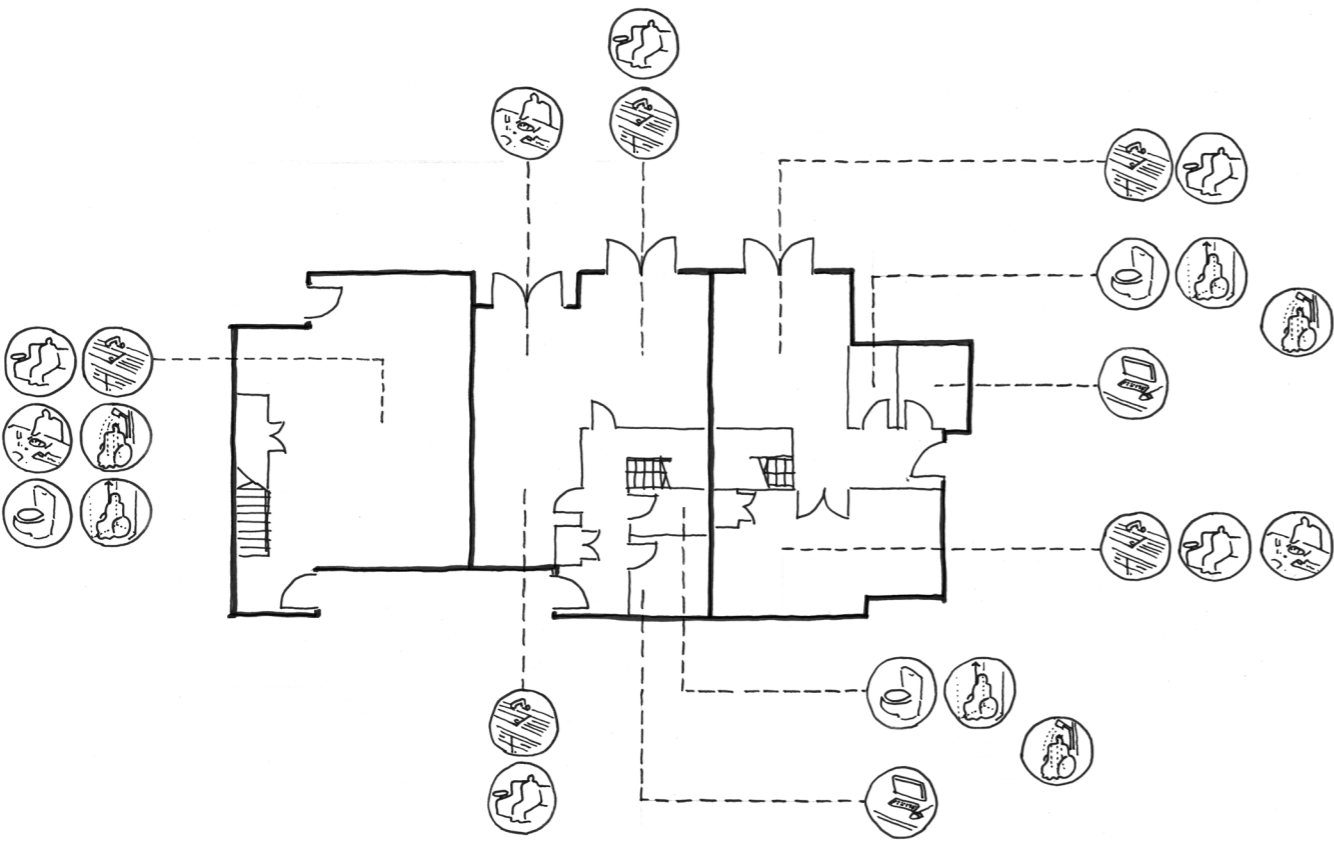
 Storage



Main sewer strategy

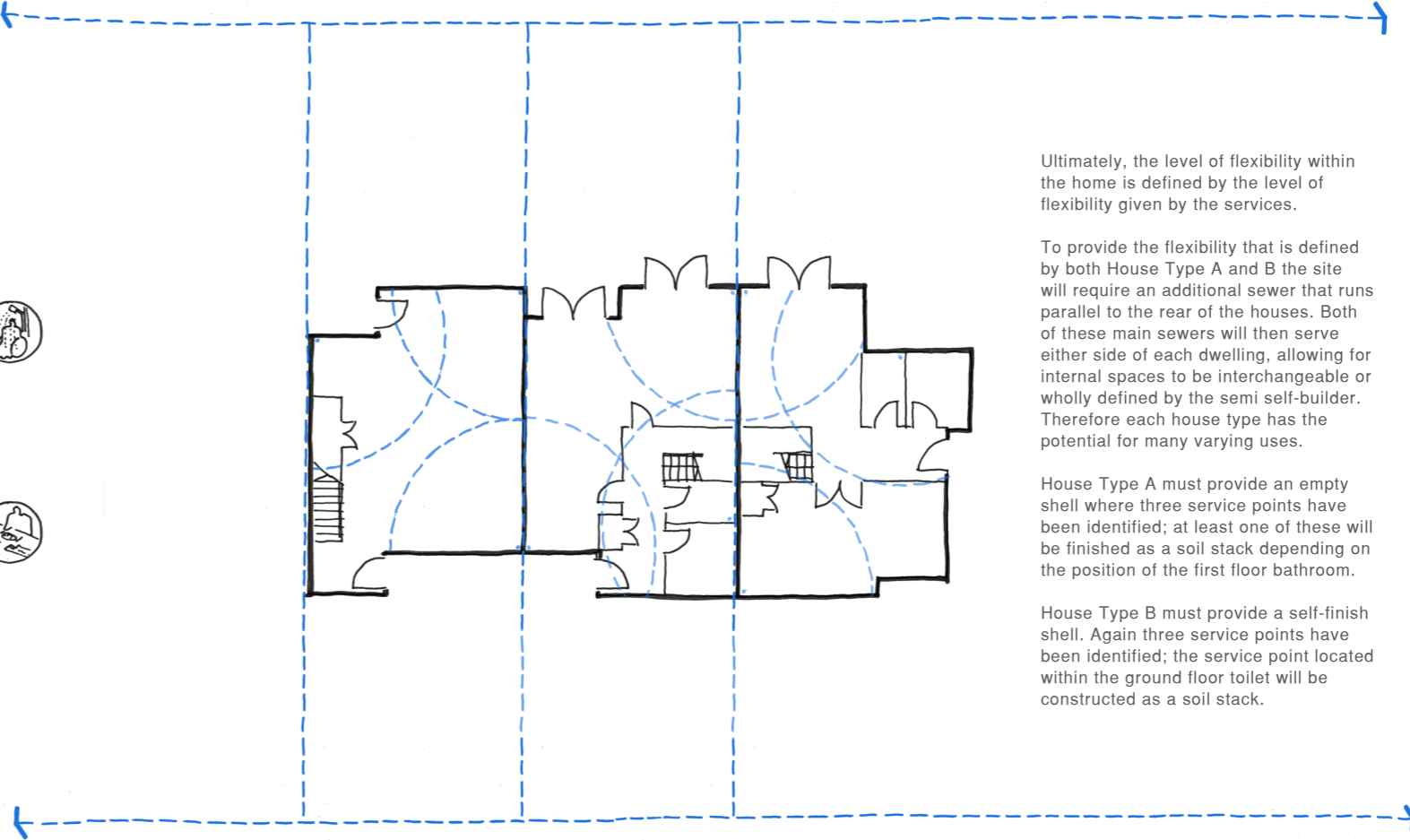






Ground floor House Type

A	B	B Corner
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A	B	B Corner
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Ultimately, the level of flexibility within the home is defined by the level of flexibility given by the services.

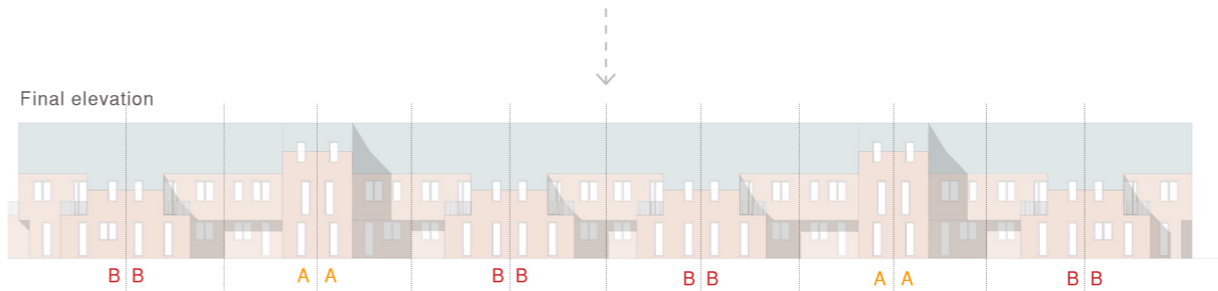
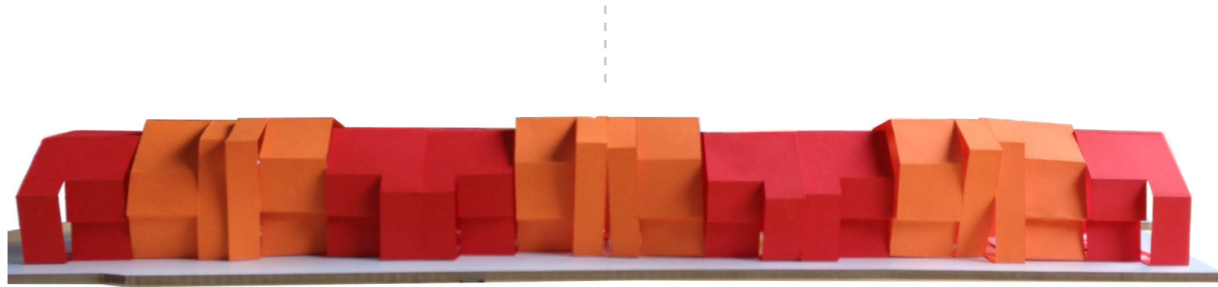
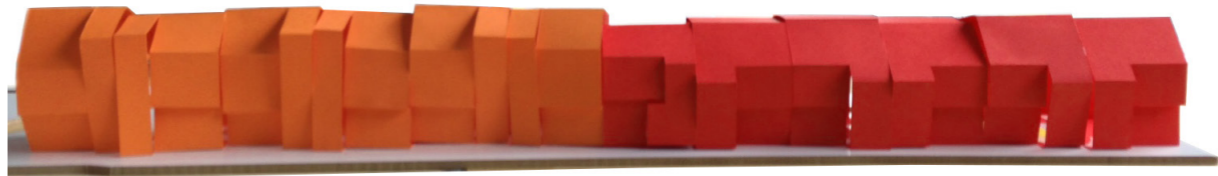
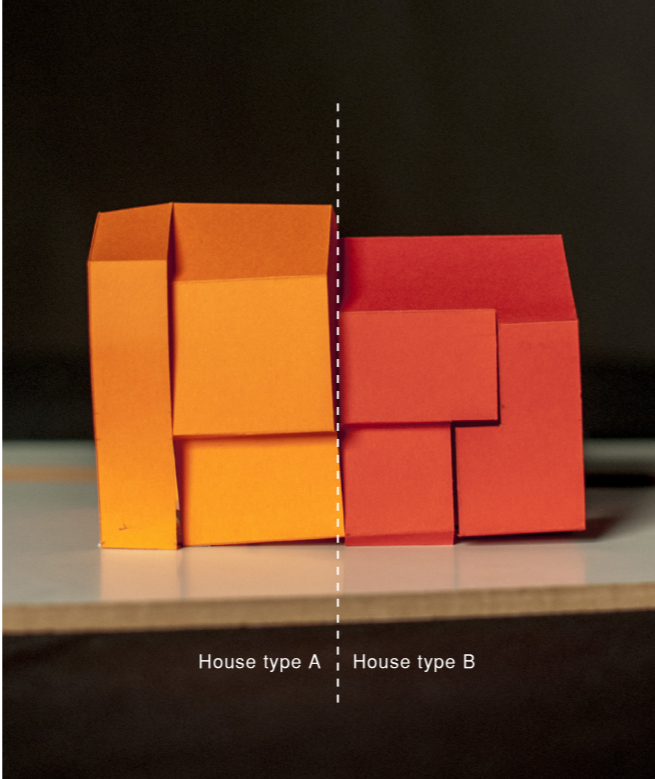
To provide the flexibility that is defined by both House Type A and B the site will require an additional sewer that runs parallel to the rear of the houses. Both of these main sewers will then serve either side of each dwelling, allowing for internal spaces to be interchangeable or wholly defined by the semi self-builder. Therefore each house type has the potential for many varying uses.

House Type A must provide an empty shell where three service points have been identified; at least one of these will be finished as a soil stack depending on the position of the first floor bathroom.

House Type B must provide a self-finish shell. Again three service points have been identified; the service point located within the ground floor toilet will be constructed as a soil stack.



E L E V A T I O N   D E V E L O P M E N T



TERRACE WITH LEAT





uice



C O L O U R P A L E T T E S T U D Y







C O L O U R P A L E T T E & M A T E R I A L S T U D Y





E L E V A T I O N





