



Paper Title: Spatial Design Studio V

Paper Number: 224.401

Assignment: Sainsbury Road, St Lukes

Hand-in Date: Week 7 (Friday, April 11, 5pm)

Weighting: 85% of 15 Credits

Aim: To investigate and resolve detail design issues for a complex, medium-density housing development on a suburban/urban/light industrial fringe.

Content: This is an existing design project that has been developed to a schematic level. The current 'soul-less' design needs testing (is the schematic viable?), extending at a conceptual level, and detailing at an aesthetic and material level.
This project will raise issues around suburban densification, encounter issues of regional planning, investigate sustainable and alternative building systems, critique ideas of the urban village and suburban community.

Project Requirements: Submission of a developed design proposal including models, drawings and digital representations, for the client. Defined aspects of the proposal will be resolved to a detailed level including construction, material and/or systems specification as applicable.

Assessment Criteria:

1. Responsiveness of design to site qualities including atmospheric (above ground), geological (at & below the ground), and social (in the street, suburb & city)
2. Resolution of moments of spatial separation and connection within the constrained project parameters
3. Creative solutions to construction, material and service specifications
4. Identify the project's contextual issues and define a theoretical approach within which a design poetic can be sustained
5. Independent critical analysis of your own and peer designs
6. Appropriate resolution and presentation of design proposal

Readings & Mitchell/Stout House, Narrow Neck

References: Brookes Avenue House by Bricault Design

Auckland Unitary Plan

Transforming Cities research at Auckland University

Schedule:

Wk	In Studio	Independent	submission
1	Pop-Up Plan brief	Group design/research	
2	Present Pop-Up Plan proposals Review 47 Sainsbury Road Brief Set group research tasks	Complete group research tasks Analyse project schematic Develop initial responses	Pop-Up Plan 5pm Friday 15%
3	Present research information Round table discussion trouble shooting the schematic Show & tell first responses	designing	
4	1:1	designing	
5	Interim presentation	designing	
6	1:1	designing	
7	Final presentation (guest critic tbc)	Resolving & tidying up for submission	47 Sainsbury Road Friday 5pm 85%

Comments from the client:



"Aim to be developing 3 units - I need e.g. a two bedroom (+ study?) unit - living room, two toilets, low maintenance (built of (easy to maintain) concrete and glass - even though concrete is hard on the environment?), noise control - double glazing, a (structured) garden of one kind or another (love the freedom to pick a lettuce leaf or two for my breakfast, lunch and dinner!! as well as recycling compost facilities that are manageable) - this could be eco-friendly, with pond/filters, etc., the unit must have good storage, including energy efficient, solar heating storage systems - water storage system for watering the garden?

Other:

* think the new unitary plan allows for something like up to 4 (if not 5) levels?

* given this section has 'commercial' neighbours, I've always anticipated they'll give permission to build right on the border to maximise what is otherwise a relatively narrow section, however, this border wall (on the East->South side) would have to be very solid - for noise, etc. control (the shops + business centre can offer unwanted noises early in the a.m. e.g. around 6 a.m. ... irritating!!)

* not sure how these 3 units would support some kind of 'communal' existence or whether they would - as well as private spaces

* it could be that 'a communal space' (with gardens) was developed on the roof top ... (though a swimming pool would be pushing the boundaries somewhat!!)

* parking???

* cost of development ... kept in mind yet not at the expense of doing something worthwhile - with a less is more aesthetic/ethic in mind"

Task One:

Is the schematic viable according to the (draft) unitary plan?

To access the Unitary Plan e-version visit [here](#). Conduct an address search for 47 Sainsbury Road. Note the zoning conditions which apply to the property, then check what these mean in the text of the Unitary Plan.

In the new Draft Unitary Plan the zoning for 47 Sainsbury Road includes the following:

Pre-1944 Building Historic Notification

Aquifer zone

A permeable water-bearing geological formation capable of yielding, storing, receiving or transmitting water at a sufficient rate to be a practical water supply. (The property sits on volcanic scoria which is free draining into the Manukau Harbour)

Terrace Housing and Apartment Buildings

These have a height of buildings management requirement to provide for terrace housing and apartments of between four and six storeys.

However, multi-house buildings need to have a site of 1200m² - we only have 840m². So you need to find out:

- * how high can we go?
- * what sorts of set backs & light angles are set on the property.

Also:

- * how many car park spaces are required for 3 town houses?

Task 2:

Tilt-up Slab Construction

The schematic proposes to use Tilt-up slab (an industrial construction method) to make the basic frame of the development. Following the precedent of the Mitchell-Stout House in Narrow Neck [[Mitchell/Stout House](#), Narrow Neck] the proposal is to flesh out the living qualities of the house using contrasting (eg some recycled) materials and details.

What we need to know:

- * what are the requirements and limitations of tilt slab? (look [here](#))
- * what are size and proportion patterns suitable for the schematic? (as above)
- * what ways can you detail connecting to tilt slab? (you might like to start with [Detail edition on concrete](#))

Task 3:

The client is interested in rainwater & grey-water collection for use, of the former, in toilets, and in the latter, the garden. However she is also interested in 'living roof' (plant) options.

Investigate the requirements for each of these things, including the viability of a grey-water 'treatment' garden (essentially a swamp).

- * Start with the Roof Water Research Centre, Massey University, link to publication list [here](#)
- * An American living roof supplier provides information [here](#)

Task 4:

The schematic works on the idea of making some facilities 'communal'. Obviously car parking and storage space has been generated in the basement, the entry ramp is a shared space & there is a possibility of sharing things like laundries.

Research is needed into alternative models of townhouse/urban living. Some examples might be found in:

- * Riken Yamamoto's Shinonome Canal Court Block1 [here](#)
- * Bjarke Ingels founder of BIG Bjarke Ingels Group has an entertaining TED Talk [here](#)
- * [The Co-Housing Handbook](#) might be a bit over the top...