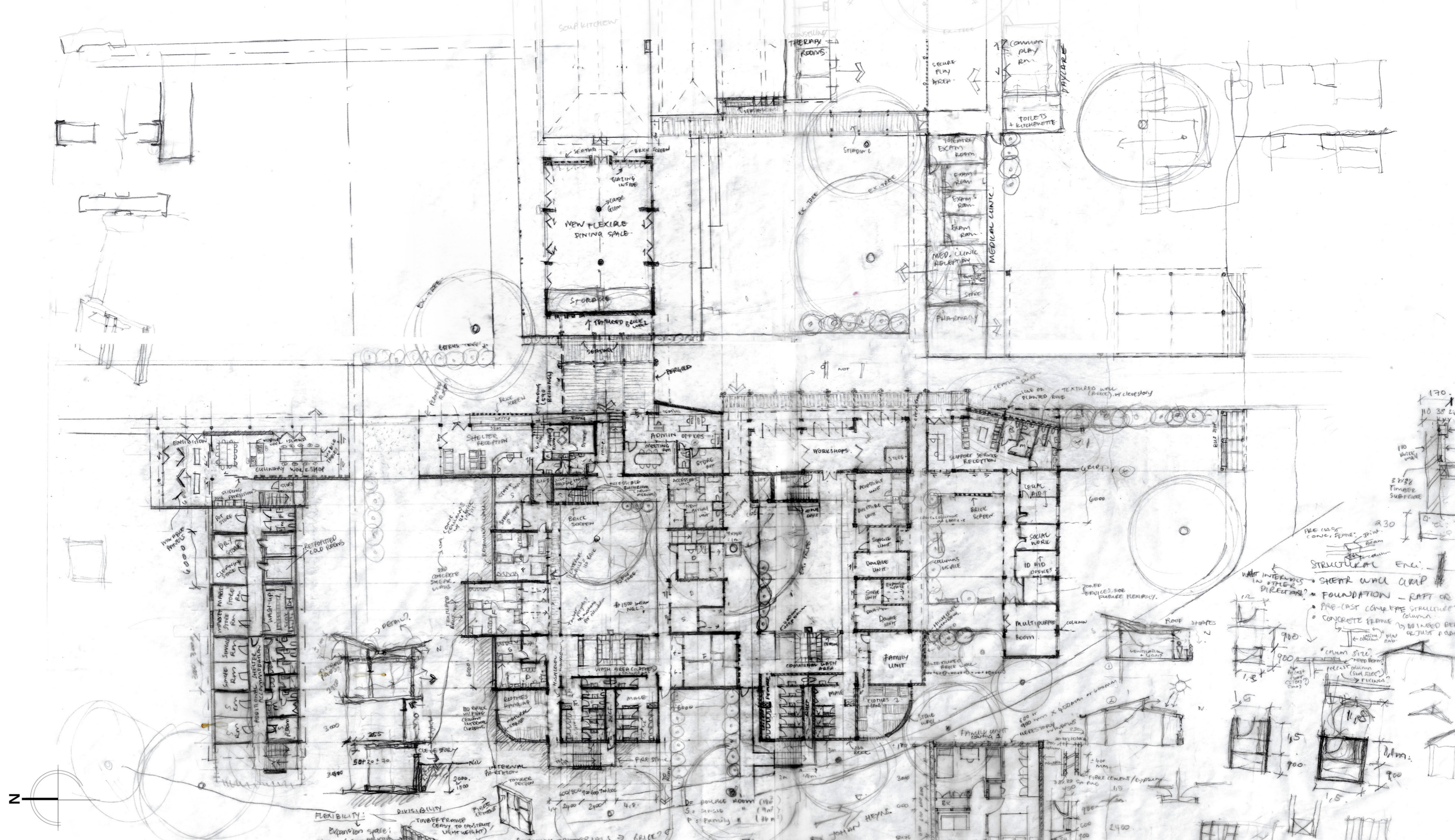


essay three

DESIGN & TECHNICAL DEVELOPMENT



13

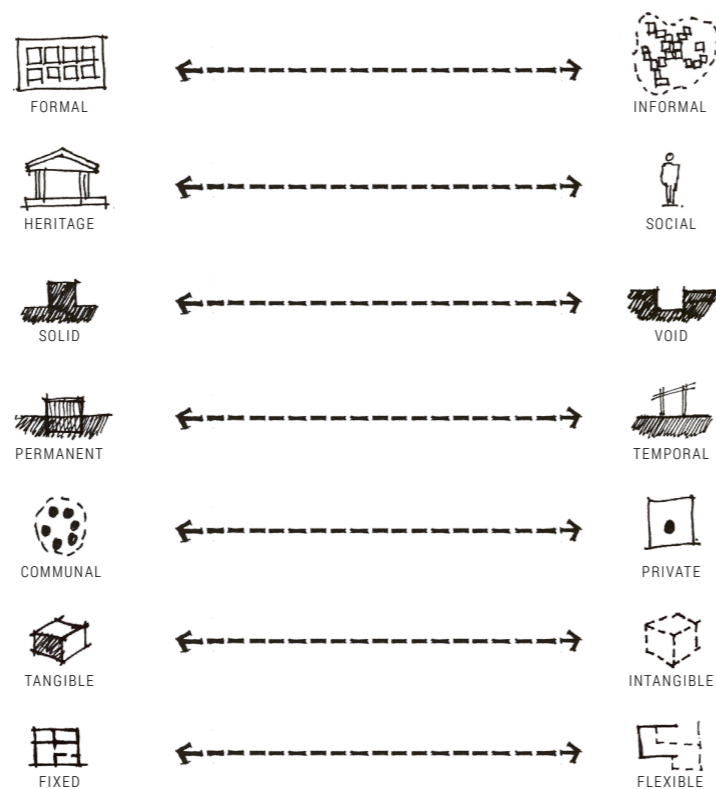
introduction

In order to navigate the tensions on site referred to in Essay Two (see Figure 8.21.) and to manifest the conceptual intention of a design that negotiates these tensions successfully (see Figure 13.2.), a strategy was developed to define various levels and progressions of permanence, flexibility, solidity, void, etc. This is because not all spaces should be represented as either fully permanent, solid and fixed or fully temporal, open-ended and flexible, but rather as a progression of these characteristics. This conceptual strategy is explored in terms of the degree of flexibility/frequency of change over time as well as other design aspects unpacked in the various chapters. This is shown on a "scale of permanence" and temporality/transience (see Figures 13.3. and 13.4.), where the permanent (at the centre of the scale) is represented by the existing historical condition and anchoring heritage buildings, and the temporal (on the ends of the scale) is represented by the continuous appropriation and transience of the social condition on site. This scale serves as a conceptual driver, a sort of manual or guideline by which various aspects of the project are explored and manifested to continue the palimpsestic development of the site.

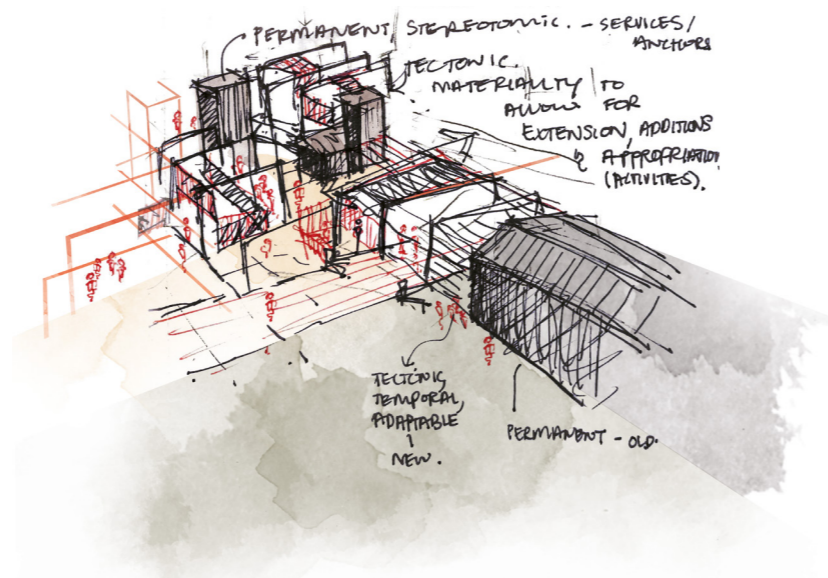
With the transitional housing programme being the focus for design resolution, Part 01 of this essay investigates the programme and typology of transitional housing and the precedents representative of this typology or similar typologies that guide the programmatic resolution of the site, accommodation schedule and the development of plan iterations and the flexible unit modules. The various functions and spaces are then related back to the scale of permanence in terms of programme and architectural language.

Part 02 considers the materiality and material layering of the design and the choice of materials, as well as how these manifest in the technical exploration and how this relates to the scale of permanence.

Lastly, Part 03 unpacks the environmental aspects of the project, the climatic and environmental informants and performance of the project; including the exploration of the roof form in terms of shading, solar angles and radiation, light and rainwater distribution (for collection); and the constructed wetland and grey water recycling system.

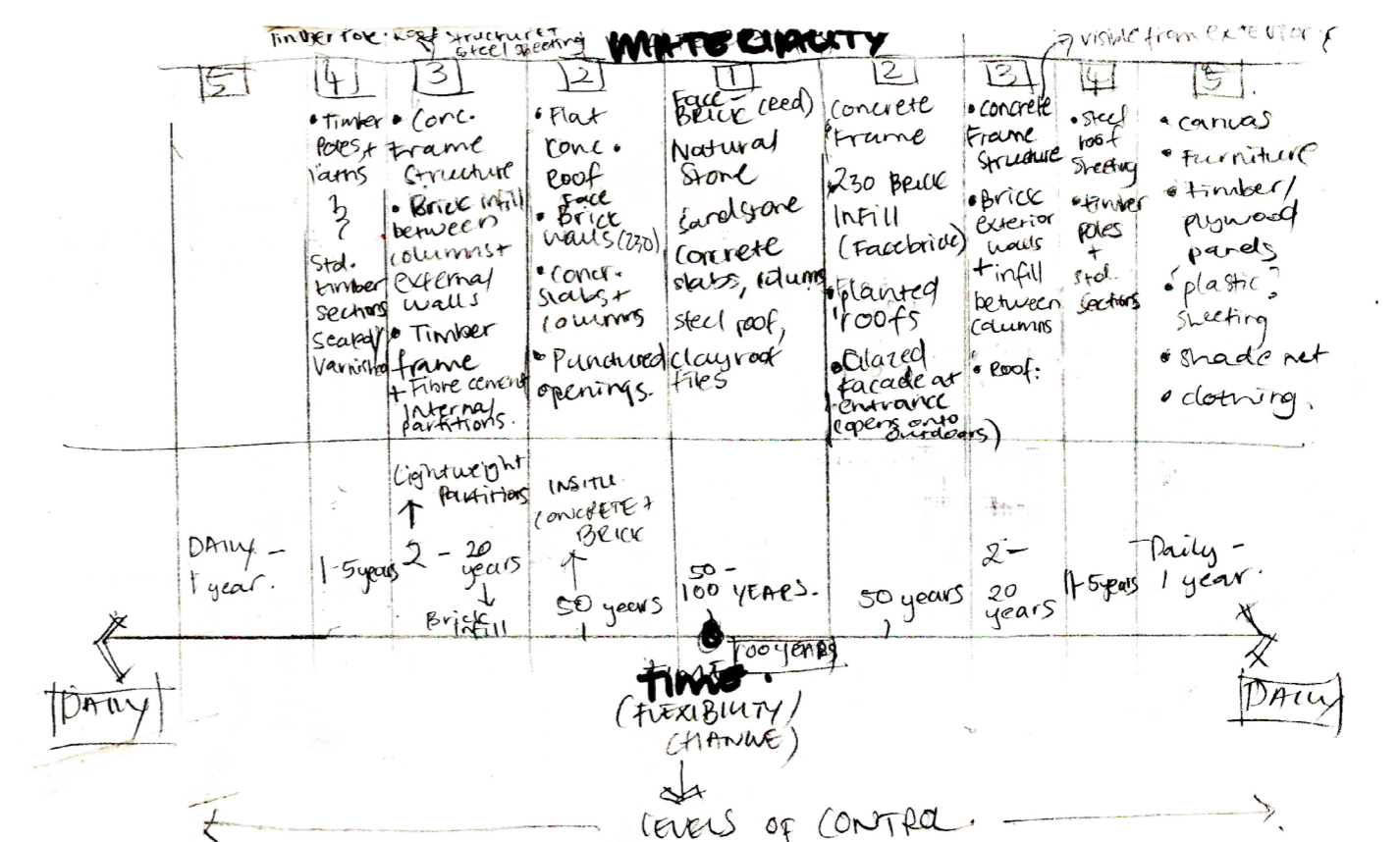
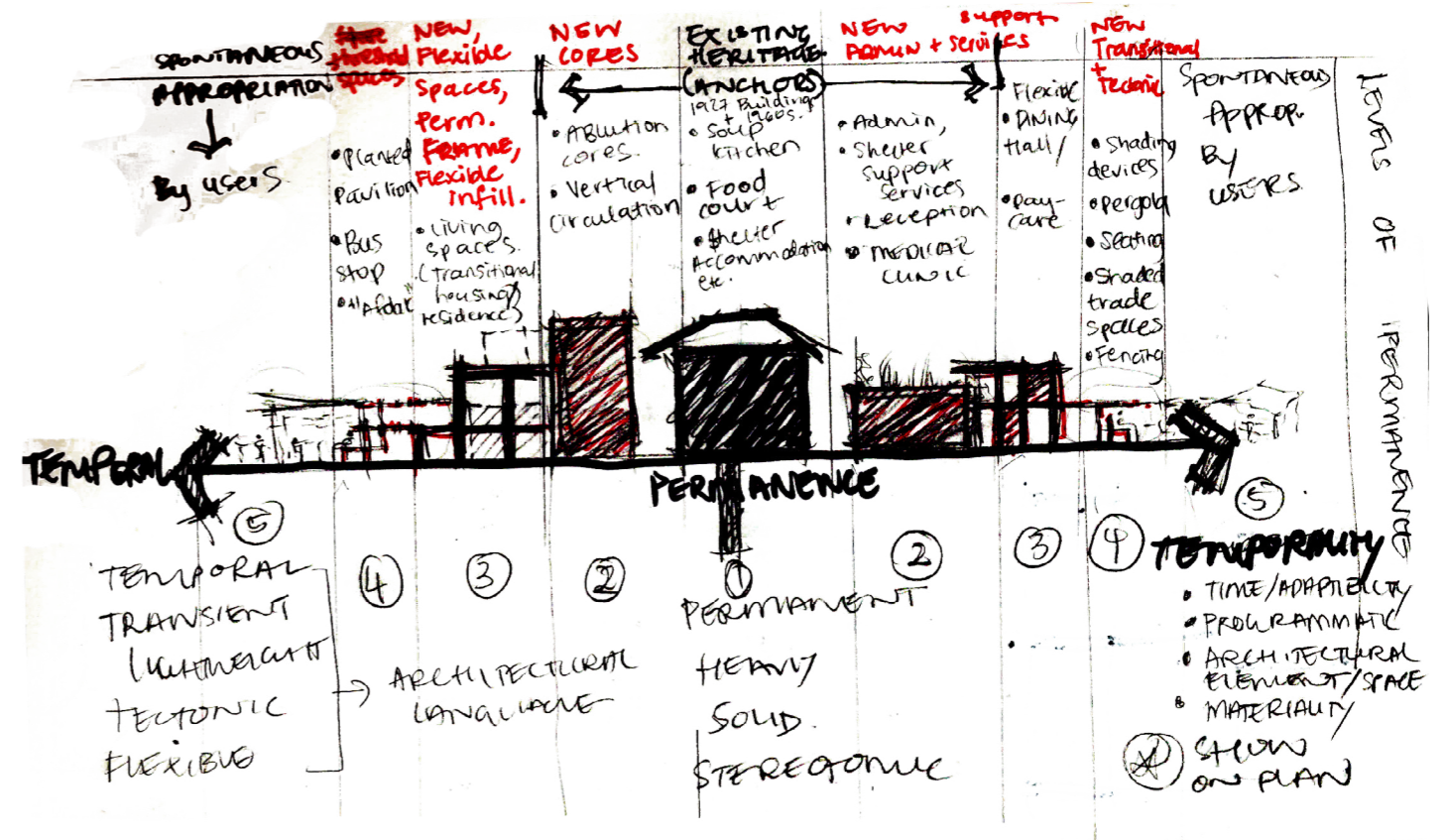


8.21. Existing tensions observed during site and scenario engagement (Author 2021). Representation of similar themes influenced by Cochrane (2018).

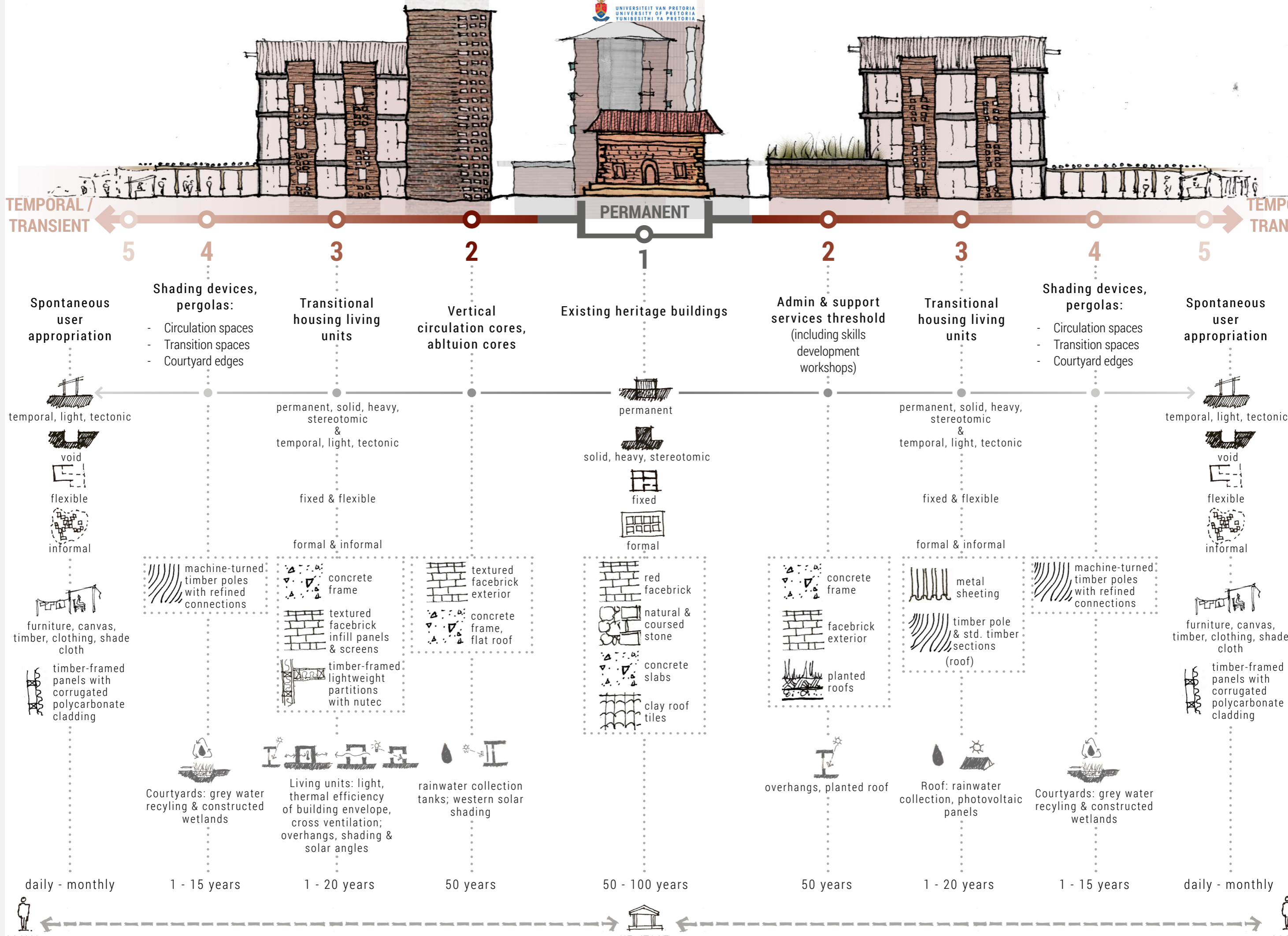


13.2. Concept sketch for transitional housing (Author 2021).

Fig. 13.1. Previous page: Iteration 2 of transitional housing plan (Author 2021)



13.3. Process sketch of "Scale of permanence" (Author 2021).



TEMPORAL / TRANSIENT ← 5 4 3 2 1 2 3 4 5 → TEMPORAL / TRANSIENT

PROGRAMME / FUNCTION PART 01

Spontaneous user appropriation
 Shading devices, pergolas:
 - Circulation spaces
 - Transition spaces
 - Courtyard edges
 Transitional housing living units
 Vertical circulation cores, abltuion cores
 Existing heritage buildings
 Admin & support services threshold (including skills development workshops)
 Transitional housing living units
 Shading devices, pergolas:
 - Circulation spaces
 - Transition spaces
 - Courtyard edges
 Spontaneous user appropriation

temporal, light, tectonic
 void
 flexible
 informal
 permanent, solid, heavy, stereotomic & temporal, light, tectonic
 permanent
 solid, heavy, stereotomic
 fixed
 formal
 permanent, solid, heavy, stereotomic & temporal, light, tectonic
 void
 flexible
 informal
 temporal, light, tectonic
 void
 flexible
 informal

machine-turned timber poles with refined connections
 concrete frame
 textured facebrick infill panels & screens
 timber-framed lightweight partitions with nutec
 textured facebrick exterior
 concrete frame, flat roof
 red facebrick
 natural & coursed stone
 concrete slabs
 clay roof tiles
 concrete frame
 facebrick exterior
 planted roofs
 metal sheeting
 timber pole & std. timber sections (roof)
 machine-turned timber poles with refined connections
 furniture, canvas, timber, clothing, shade cloth
 timber-framed panels with corrugated polycarbonate cladding
 furniture, canvas, timber, clothing, shade cloth
 timber-framed panels with corrugated polycarbonate cladding

Courtyards: grey water recycling & constructed wetlands
 Living units: light, thermal efficiency of building envelope, cross ventilation; overhangs, shading & solar angles
 rainwater collection tanks; western solar shading
 overhangs, planted roof
 Roof: rainwater collection, photovoltaic panels
 Courtyards: grey water recycling & constructed wetlands

daily - monthly
 1 - 15 years
 1 - 20 years
 50 years
 50 - 100 years
 50 years
 1 - 20 years
 1 - 15 years
 daily - monthly