

# Re(NEW) the Gordon Wilson Flats

Faster, greener and more affordable.

# **Design Statement**

The adapted reuse of the Gordon Wilson Flats transforms the building into modern postgraduate and faculty housing that is designed to bring together living, learning and community into the heart of Wellington.

The refurbished building will provide a mix of high-quality apartments alongside shared study rooms, communal lounges, and social spaces. A rooftop terrace will create a unique outdoor amenity for relaxation and play with sweeping views across the city.

Beyond delivering safe, warm, dry housing; sustainability and resilience are central to the design, with upgraded building performance, seismic strengthening, energy-efficient mechanical systems, and new green infrastructure. The redevelopment also creates a generous landscaped forecourt toward the city, creating a welcoming connection between the university and its urban surroundings.

Through this transformation, the Gordon Wilson Flats would become a model for adaptive reuse. Once again providing a socially vibrant housing community that will support generations to come.

The Architectural Centre.

### <u>Design Objectives + Strategies</u>

- To meet the demand for affordable, healthy inner-city housing.
- To align with sustainable building practices and to reduce waste.

REUSE - what is still useful and salvageable.

RENEW - what needs repair + strengthening.

RESTORE - what can enhance a healthy environment

### The Gordon Wilson Flats (GWF)

- 80 apartments 70 townhouse-style 2-bed 'maisonettes' and 10 fully accessible flats for 150-300 postgraduate students or faculty.
- 5 communal lounges and 5 study lounges.
- Housing for 2 on-site custodians.
- Shared family room and sundecks.
- Landscaped roof terrace and playground.
- Landscaped forecourt and access to the main campus though a native bush walk.
- Off street parking and bike storage.
- Basement loading dock and service access.

#### The Maclean Flats

• 18 serviced apartments - for 23-46 guests and visiting faculty

#### Other potential uses:

(GWF + Maclean Flats) – The site is large enough to accommodate more buildings.

A mix of postgraduate + undergraduate student housing (260-390ppl)
Fully serviced apartments 100 apartments (175-350ppl)

Co-Housing - a mix of 2-5br apartments (165-330ppl) + 10 accessible units (10-20ppl)

Rental Units or Condos - 100 apartments (175-350ppl)

# Sustainable Design Features:

- The reuse of the existing concrete core + recycled interior materials.
- The use of carbon neutral/negative materials including engineered mass-timber.
- Recycled greywater and rainwater collection for irrigation
- Passive heating/cooling systems to reduce energy use.
- Low energy appliances (induction cooktops, hot water heat pumps).
- Increased natural light to interiors to reduce the need for artificial lighting.
- A green roof to control solar heat gain and minimise heat loss during evenings.
- Solar panels to generate supplementary power.

## Passive Design Strategies:

- A super insulated envelope (new facade and roof insulation).
- An air tight construction that wraps the existing core.
- New high performance curtainwall and cladding.
- A heat recovery ventilation system for heating + cooling.
- Moisture control + natural ventilation.
- Exterior sun shading.

#### The Existing Building

- The existing pre-cast concrete facade is earthquake prone which is defined as
   <34% NBS New Building Standard. This governs the building's overall rating.</li>
- Without the facade, the main concrete core is rated 50-67% NBS which is sufficient for reuse and re-strengthening.
- The foundations cannot be accurately assessed without further investigation but they do not show any signs of settlement and are likely to be able to withstand future seismic loads (per 2017 BECA evidence).

# **Proposed Building Modifications**

- 1. Remove the pre-cast concrete facade elements.
- 2. Minimise demolition, environmental impact and site work by retaining the existing concrete core which represents the bulk of the building.
- 3. Repair the existing wall and slab edges and add new reinforcing and inserts as required.
- 4. Add exterior seismic strengthening to the existing core to increase the NBS rating as required and to minimise interior modification and construction time.
- 5. Replace the existing facade with a new lighter curtainwall to improve the building's energy efficiency and thermal performance.
- 6. Improve natural daylighting and utilise passive heating/cooling technology to improve comfort and further reduce operational costs.
- 7. Widen the exterior walkway and add balconies and sun decks to encourage social interaction and to help foster a sense of community.
- 8. *Biophilic design* Connect the building to the natural environment by the addition of a landscaped roof, wintergardens (conservatories) and planters.