Sustainable Social Housing in New Zealand
“GREEN” SOCIAL HOUSING

The picture of success is typically ..

- Mixed communities (tenure and use)
- “Sustainable” land use strategies
- Energy efficiency (Passive; solar)
- Air tightness & Ventilation
- Energy efficient heating
- Recycled materials
- Green walls & technology
- Shared services (cars; heating etc)
- Gardens & communal spaces
- Waste minimisation
- Water management
SUSTAIN = RETAIN & MAINTAIN

Unsafe flats: Tenants told to leave within week

SUSTAIN (ABILITY) = MAINTAIN (ABILITY)
SUSTAIN (ABILITY) = MAINTAIN (ABILITY)

- **MAINTAIN** communities
- **MAINTAIN** the portfolio  
  (replenish and repair)
- **MAINTAIN** ideas  
  (retain design integrity  
  from concept to construction)
Good time to have this discussion

- New Leadership (Glen Sowry CE; Sean Bignell GM – led Hobsonville; )
- Large number of HNZC programmes taking off (e.g. Right Size Programme)
- Major changes in social housing landscape: No Social Housing Monopoly; new 3rd sector
- No social housing monopoly
- New third sector e.g. NZ Housing Foundation
- Fragmented Industry with few players focussed only on social & affordable housing
- Strong post war legacy of NZ social housing projects but weak periods followed
- Potential for a new renaissance ahead: need design led integrated industry (one stop shop)
THE CHALLENGES:

- Wide range of typologies, stock condition and age
- International trends of deferred maintenance legacies

<table>
<thead>
<tr>
<th>Housing the Poor</th>
<th>Golden Age</th>
<th>Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Period</td>
<td>1800s to World War 1</td>
<td>1950s-1970s</td>
</tr>
<tr>
<td>Target</td>
<td>The most needy, typically the urban poor in inner-city slums</td>
<td>Broadly based, benefiting more income groups, triggered by returning soldiers, marriages</td>
</tr>
</tbody>
</table>
LARGE SCALE PORTFOLIO & LAND HOLDINGS:

- 67,700 households housed by HNZC
- Five percent of NZ Housing Stock (1.6m total)
- Fifteen percent of all rental accommodation
Wide range of tenants and cultures

<table>
<thead>
<tr>
<th>Percentage by Ethnicity</th>
<th>Asian</th>
<th>European</th>
<th>MELAA</th>
<th>Pacific Peoples</th>
<th>Maori</th>
<th>Residual</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Areas Managed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GLEN INNES/PANMIURE</td>
<td>8.89%</td>
<td>23.73%</td>
<td>1.62%</td>
<td>34.69%</td>
<td>32.37%</td>
<td>0.00%</td>
<td>2.70%</td>
</tr>
<tr>
<td>GREYS AVE/MORNINGSIDE</td>
<td>14.04%</td>
<td>38.81%</td>
<td>6.90%</td>
<td>17.87%</td>
<td>24.82%</td>
<td>0.21%</td>
<td>3.12%</td>
</tr>
<tr>
<td>HENDERSON/WESTGATE</td>
<td>8.07%</td>
<td>32.05%</td>
<td>4.07%</td>
<td>25.00%</td>
<td>22.14%</td>
<td>0.12%</td>
<td>2.60%</td>
</tr>
<tr>
<td>MANGERE</td>
<td>3.16%</td>
<td>12.02%</td>
<td>0.95%</td>
<td>52.94%</td>
<td>31.86%</td>
<td>0.00%</td>
<td>0.95%</td>
</tr>
<tr>
<td>MANUREWA/OLENDON</td>
<td>6.70%</td>
<td>12.02%</td>
<td>6.19%</td>
<td>43.81%</td>
<td>22.90%</td>
<td>0.00%</td>
<td>1.03%</td>
</tr>
<tr>
<td>MT ROSKILL/ONEHUNGA</td>
<td>24.02%</td>
<td>24.02%</td>
<td>11.50%</td>
<td>29.40%</td>
<td>32.22%</td>
<td>0.00%</td>
<td>2.61%</td>
</tr>
<tr>
<td>NEW LYNN/TAKAPUNA</td>
<td>13.89%</td>
<td>40.05%</td>
<td>6.95%</td>
<td>24.69%</td>
<td>17.41%</td>
<td>0.00%</td>
<td>2.99%</td>
</tr>
<tr>
<td>OTARA</td>
<td>7.00%</td>
<td>9.05%</td>
<td>2.47%</td>
<td>80.09%</td>
<td>20.09%</td>
<td>0.00%</td>
<td>1.23%</td>
</tr>
<tr>
<td>PAPAKURA</td>
<td>2.33%</td>
<td>11.80%</td>
<td>4.85%</td>
<td>23.26%</td>
<td>65.12%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>12.41%</td>
<td>29.92%</td>
<td>6.38%</td>
<td>33.12%</td>
<td>26.14%</td>
<td>0.00%</td>
<td>2.33%</td>
</tr>
</tbody>
</table>

N.B. Percentages do not add up to 100% as primary tenant can be more than one ethnicity.
Need to reconfigure the Portfolio
TENANT DEMOGRAPHIC:
40 to 50% of Auckland waitlist aged 40-64

<table>
<thead>
<tr>
<th>Area Manager</th>
<th>Age &lt;25</th>
<th>Age 25 - 39</th>
<th>Age 40 - 64</th>
<th>Age 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLEN INNES/PANMURE</td>
<td>8.06%</td>
<td>32.43%</td>
<td>44.88%</td>
<td>14.06%</td>
</tr>
<tr>
<td>GREYS AVE/MORNINGSIDE</td>
<td>4.26%</td>
<td>22.13%</td>
<td>55.74%</td>
<td>17.87%</td>
</tr>
<tr>
<td>HENDERSON/WESTGATE</td>
<td>10.98%</td>
<td>31.56%</td>
<td>45.43%</td>
<td>12.02%</td>
</tr>
<tr>
<td>MANGERE</td>
<td>14.51%</td>
<td>40.38%</td>
<td>40.08%</td>
<td>5.08%</td>
</tr>
<tr>
<td>MANUREWA/OLENDON</td>
<td>11.80%</td>
<td>37.11%</td>
<td>38.60%</td>
<td>12.37%</td>
</tr>
<tr>
<td>MIT ROSSKILL/ONEHUNGA</td>
<td>7.04%</td>
<td>28.86%</td>
<td>44.97%</td>
<td>19.10%</td>
</tr>
<tr>
<td>NEWLYNN/TAKAPUNA</td>
<td>7.75%</td>
<td>24.50%</td>
<td>45.09%</td>
<td>22.63%</td>
</tr>
<tr>
<td>OTARA</td>
<td>11.93%</td>
<td>42.80%</td>
<td>37.46%</td>
<td>7.82%</td>
</tr>
<tr>
<td>PAPAKURA</td>
<td>0.20%</td>
<td>37.21%</td>
<td>44.10%</td>
<td>0.30%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>9.26%</td>
<td>30.68%</td>
<td>45.23%</td>
<td>14.82%</td>
</tr>
</tbody>
</table>
THREE LEVELS OF HNZC PORTFOLIO MANAGEMENT

1) **Strategic:**
Management of portfolio

2) **Tactical:**
management of programme

3) **Operational:**
management of projects

The higher design can rise the more influential it can be..
1) STRATEGIC: Management of the Portfolio

Direction for portfolio management is set in the Asset Management strategy (AMS)

• AMS Identifies areas of demand/surplus
  Churning the portfolio: quantity & quality

Numbers = (acquisitions + new build) minus disposals

Quality: Broad Portfolio Performance Indicators:
  Property Quality Indicators (PQI); Minimum Acceptable Condition; Point of Obsolescence etc;
2) TACTICAL: Management of the Programmes

A range of programmes for a range of sites

- **XL** Maintenance PBMC
- **L** Major Redevelopment
  - Large amalgamated sites
- **M** Minor Redevelopment on
  - Fragmented sites
- **S** Right size modular

Programmes of significant scale & complexity
- High Dollar Value; Time pressures to deliver
- Need strong tactical planning to deliver quality
2) OPERATIONAL: (Design) Management of Projects

How do you maintain an idea (lost in translation?)
Requires integrated Design management.
Integrated Design Management:
Social housing tenants often have complex needs.....

<table>
<thead>
<tr>
<th>Design Expectations</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Site Design &amp; Layout (Placemaking, Orientation, Buffer Zones and Privacy)</td>
</tr>
<tr>
<td>1.2</td>
<td>Building Design (Size of Rooms &amp; Configuration)</td>
</tr>
<tr>
<td>1.3</td>
<td>Materials and Finishes (Lifecycle + Durability)</td>
</tr>
<tr>
<td>1.4</td>
<td>Safety and Stewardship (OPTED &amp; Fire Safety design)</td>
</tr>
<tr>
<td>1.5</td>
<td>Site Risk Identification and Management (Operations and Infrastructure)</td>
</tr>
<tr>
<td>1.6</td>
<td>Sustainability and Health (Energy and Resource Efficiency)</td>
</tr>
</tbody>
</table>
My background: Not a fan of compliance rules and compliance !!
Work with the right experts, rules don’t make good buildings.

<table>
<thead>
<tr>
<th>Design Expectations</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Site Design &amp; Layout (Placemaking, Orientation, Buffer Zones and Privacy)</td>
<td></td>
</tr>
<tr>
<td>1.2 Building Design (Size of Rooms &amp; Configuration)</td>
<td></td>
</tr>
<tr>
<td>1.3 Materials and Finishes (Lifecycle + Durability)</td>
<td></td>
</tr>
<tr>
<td>1.4 Safety and Stewardship (OPTED &amp; Fire Safety design)</td>
<td></td>
</tr>
<tr>
<td>1.5 Site Risk Identification and Management (Operations and Infrastructure)</td>
<td></td>
</tr>
<tr>
<td>1.6 Sustainability and Health (Energy and Resource Efficiency)</td>
<td></td>
</tr>
</tbody>
</table>

However!! wide range of suppliers, wide range of capabilities
Fragmented industry with dispersed knowledge
Important to manage quality to avoid failures

Audience: Anthony Flannery for his good wolf bad wolf story!
Place-Making

- Operationally focus on urban planning
- Enable sustainable communities (mixed tenure & use)
- Key design “gates”:
  - Quality of open space & amenity
  - CPTED (crime prevention design; passive surveillance & legibility)
  - Privacy & Orientation
- Failure is expensive!
- Banal environments, downstream anti social environments
- Social polarisation
- design management can be seen as hand brake in wrong hands; requires right expertise & support
Architecture

- Build-able; economic
- Fit for purpose
- Specific Issues for social housing
  - Fuel Poverty: Orientation;
  - Passive Solar Design
- Insulation & Air tightness

- Failure is expensive!
- Downstream health costs;
- Increased maintenance costs

- Biggest challenge – getting right size – cost versus space.
Large Volume builds:

Managing Building performance (Weathertightness & lifecycle costs)

Keep It Simple
No parapets;
internal gutters;
membrane decks

Minimise
Weathertightness risks
Maintain (Sustain) Value of Asset

• Heating & Ventilation
• Design reviews to encourage passive ventilation
• Minimise reliance on mechanical heating (tenants often use unflued LPG heaters)
• Potential for innovation – central heating; heat exchange kits etc
SUSTAIN (ABILITY) = MAINTAIN (ABILITY)