

RETAIN REPAIR  
REINVEST

Retain, Repair, Reinvest: Flemington Estate

**OFFICE**





Retain, Repair, Reinvest is a site specific strategy for evaluating the refurbishment potential of existing public housing.

- Retain existing communities by not relocating residents,
- Repair existing buildings to reduce environmental impact,
- Reinvest savings to improve comfort and upgrade public housing.



# Ascot Vale Estate Retrofit Findings

Through a retrofit approach the government would be able to:

- Save \$2.8 million in construction cost per block of flats.
- Achieve compliance with all contemporary apartment standards.
- Meeting all new-build energy and sustainability targets. 38% reduction in occupants energy use.
- Avoid relocating any tenants off the estate during construction saving \$15.7 million.
- Avoid health, well being and educational cost caused by relocation \$544,043.
- Create a 875% saving in embodied energy from avoiding new materials.



Ascot Vale Estate Existing Building



Ascot Vale Estate Retrofit Proposal



## Barak Beacon Estate Findings

Through a retrofit approach the government would be able to:

- Save \$7.1 million in construction cost:
- Achieve compliance with all contemporary apartment standards.
- Meeting all new-build energy targets.  
29% reduction in occupants energy use.
- Provide required increase in density (+238 new apartments)
- Avoid relocating any tenants off the estate during construction saving \$16.2 million.
- Avoid health, well being and educational cost caused by relocation \$674,800.





Gueterstrasse 30, Pforzheim, Germany - Freivogel Architekten



Telli Row B and C, Aarau, Switzerland - Meili, Peter and Partner



Cedar Court, Glasgow, Scotland - Collective Architecture



Wilmcote House, Portsmouth, England - ECD Architects







## Project Benefits

- Minimise demolition & construction costs (labour and materials)
- Upskilling and providing work for construction workers
- Reduce environmental Impact
- Minimise relocation costs
- Reduced health and well-being impact
- Upgrade housing stock to contemporary standards
- Address ongoing maintenance issues



Proposed Flemington Estate



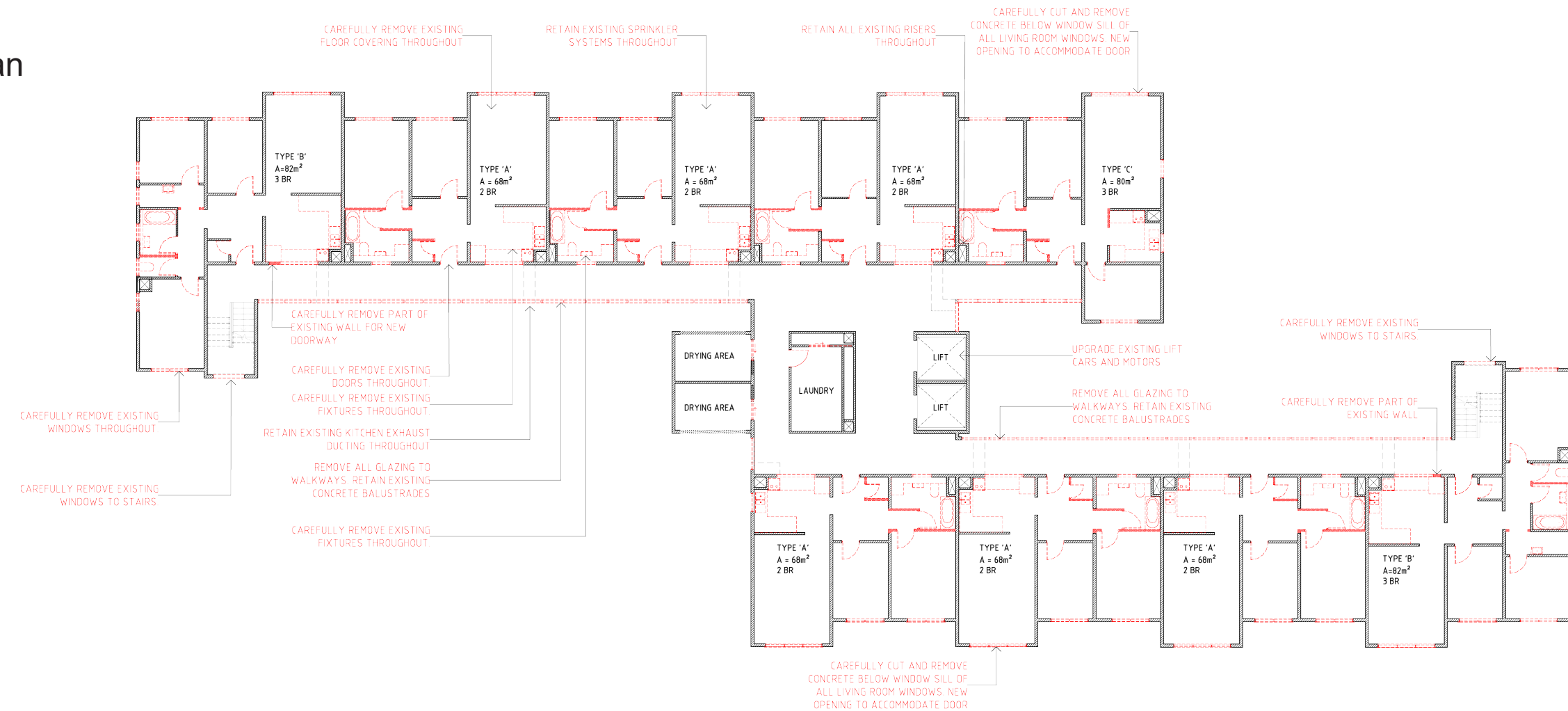


# Proposed Ground Floor

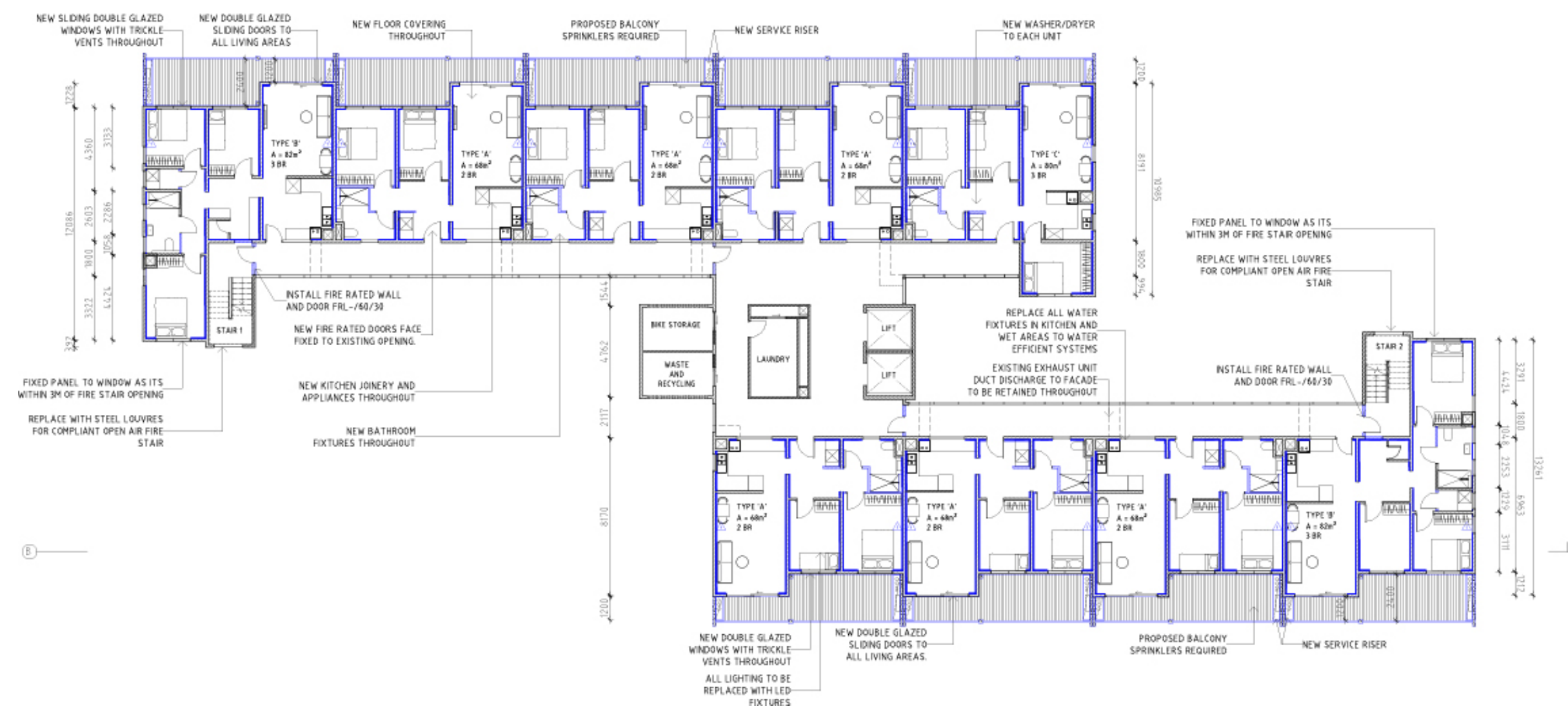




Typical Floor Plan  
Demolition



Proposed



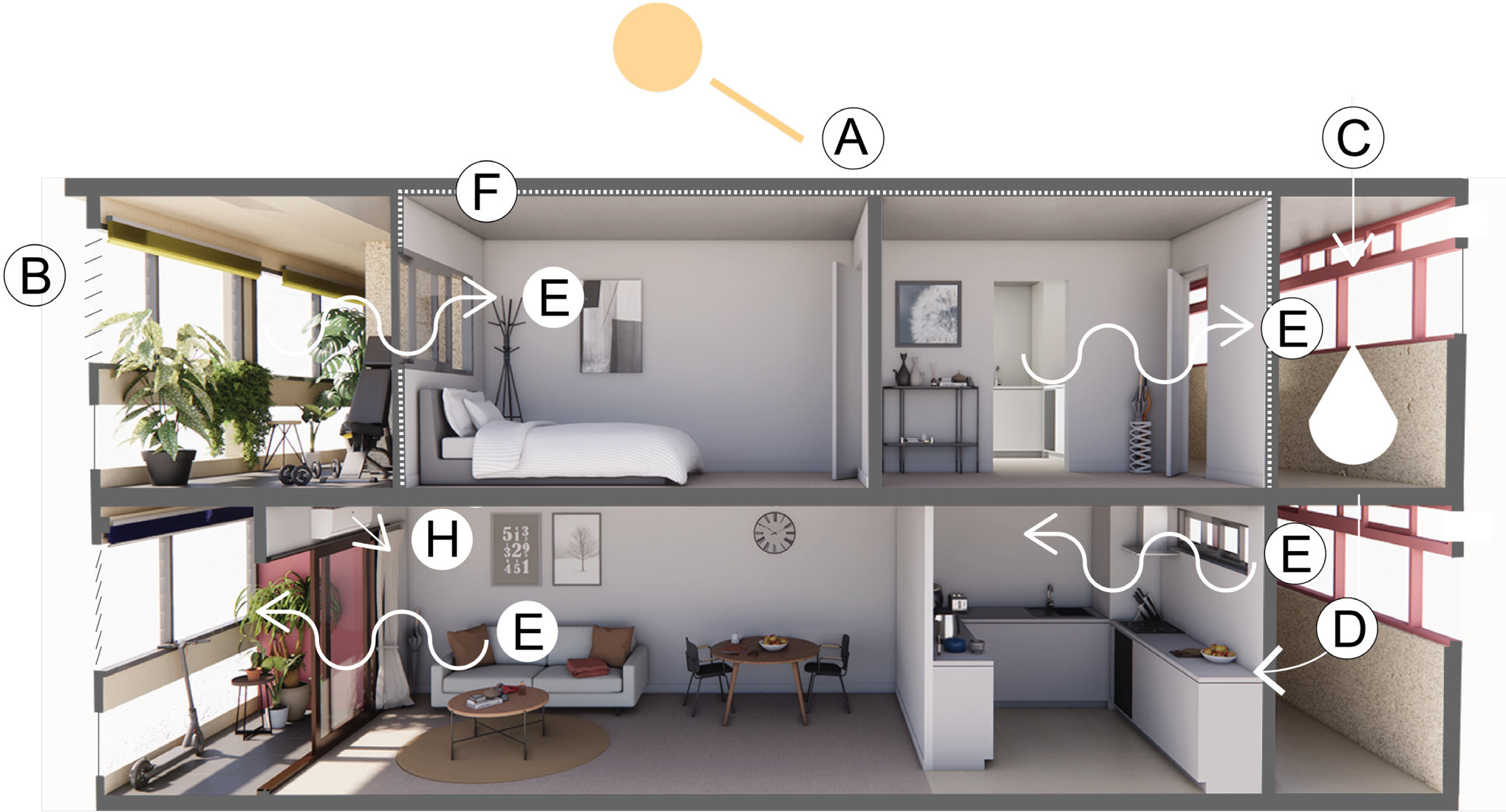


Environmentally Sustainable Design

- A. SOLAR PV SYSTEM
- B. OPERABLE LOURVES
- C. RAINWATER CAPTURE
- D. RAINWATER REUSE

- E. CROSS VENTILATION
- F. ADDITIONAL INSULATION
- G. OPERABLE SHADING
- H. AC UNIT

7.5 AVERAGE NATHERS  
55% GLOBAL WARMING  
POTENTIAL SAVING  
(36,463t CARBON)

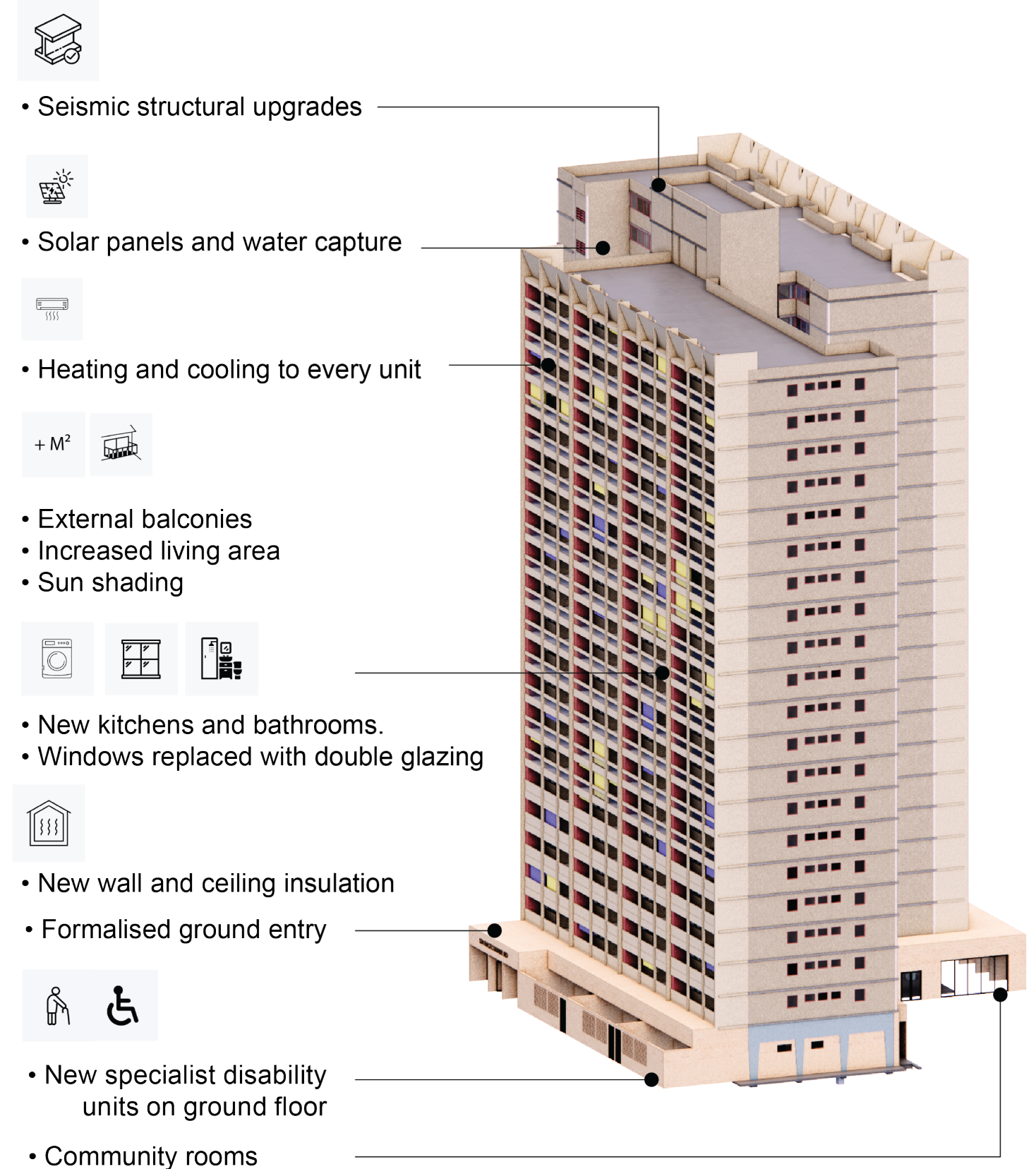




# Flemington Estate Findings

Through a retrofit and infill approach the government would be able to:

- Provide required increase in density (+577 new apartments)
- Save \$131.3 million in construction cost:
- Achieve compliance with all contemporary apartment standards.
- Upgrade structure for seismic compliance
- Meeting all new-build energy targets.  
Average 7.5 natHERS rating
- Avoid relocating any tenants off the estate during construction saving \$227.7 million.
- Avoid health, well being and educational cost caused by relocation \$4.5 million







120 RACECOURSE RD









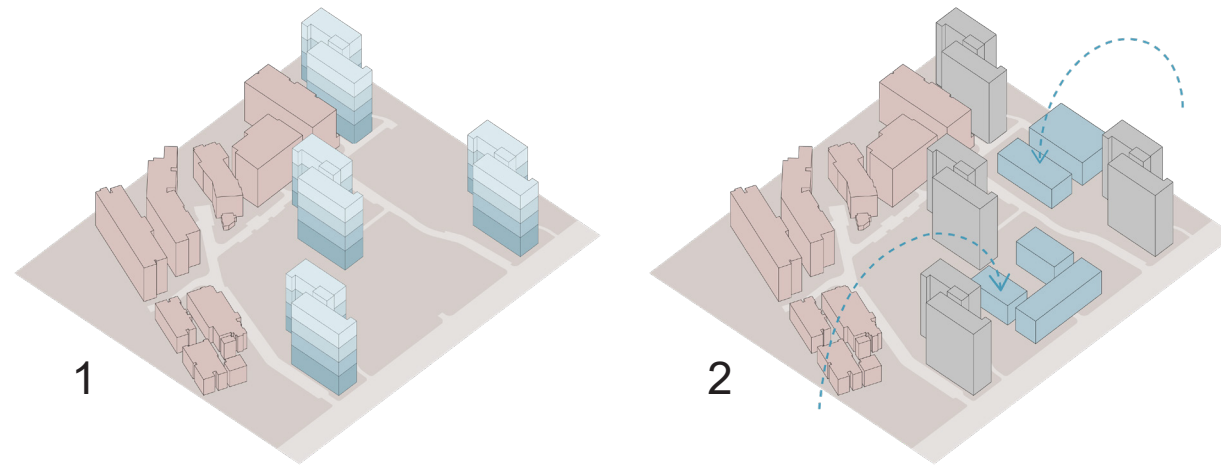




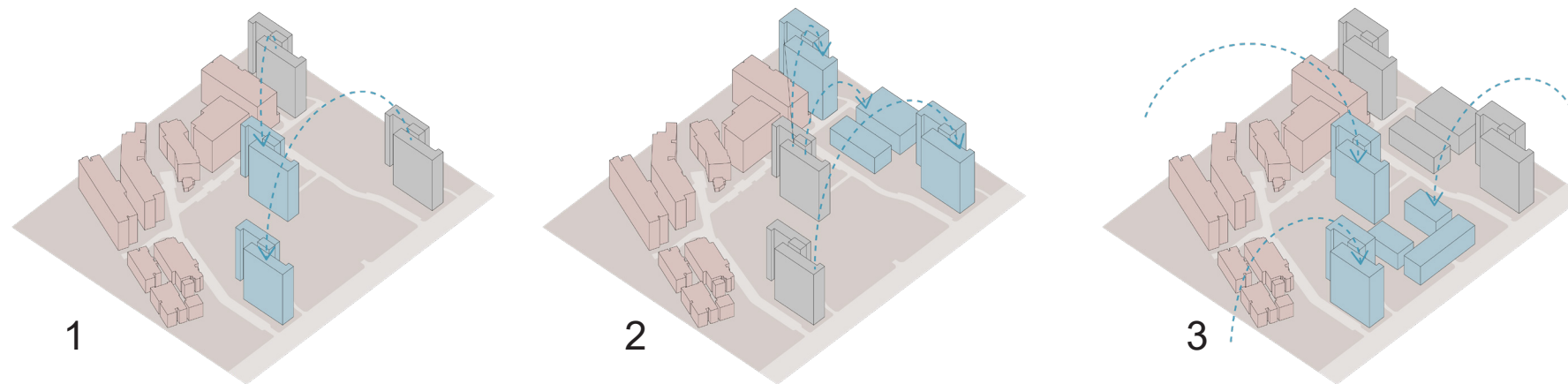


## Construction Sequence - Three Options

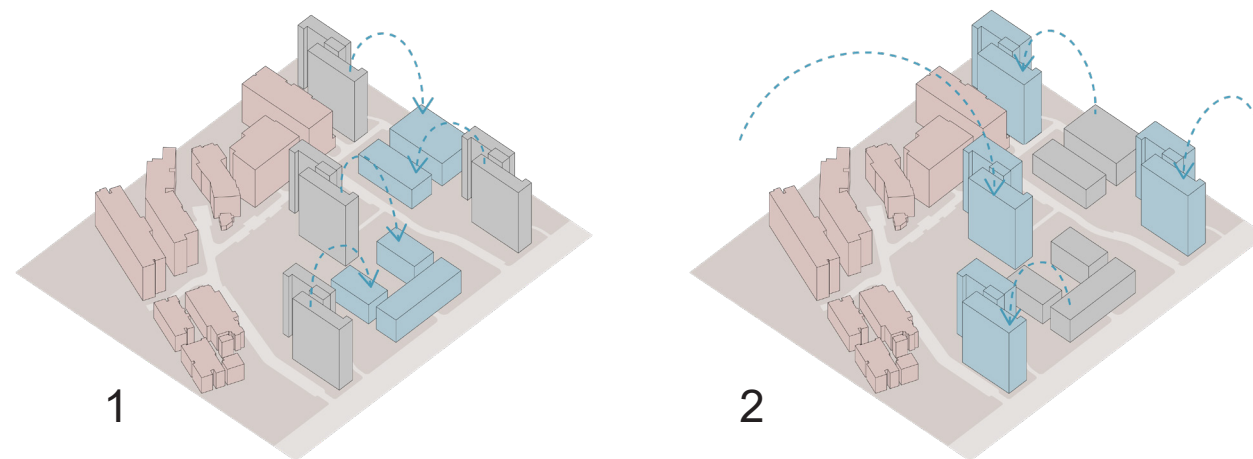
Stage refurbishment of inhabited tower.



Stage refurbishment of uninhabited tower.



Infill developments are completed first.





## Development Comparisons



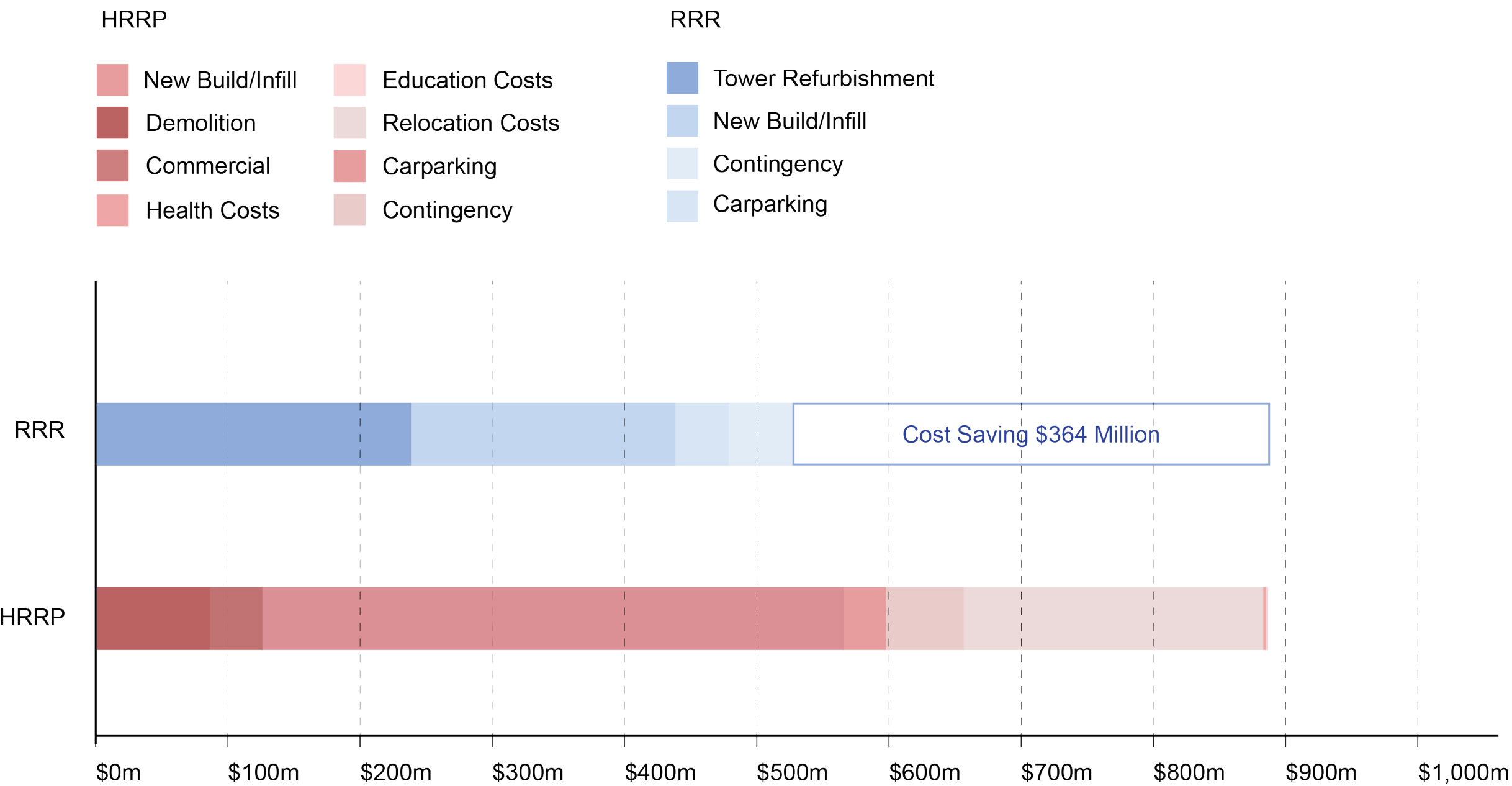
High-rise redevelopment proposal



RRR Flemington



Development Comparisons



Construction Costs / dwelling

- Refurbishment

-

\$320,459 per dwelling
- Infill + Refurb

-

\$400,000 per dwelling
- New build

-

\$500,000 per dwelling



