

FIVE MILE - A WHOLE NEW SUSTAINABLE TOWN

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Project Description –The \$2.2billion project 33 hectare Five Mile township, sited in Queenstown will include over 700,000m² of mixed use, office, retail, commercial, hotel, apartments and sports and educational facilities and 8000 underground car park. Population numbers in excess of 10,000 residents and 5,000 transient population.

It is the first town in New Zealand where all buildings shall be a minimum of 4 star Green Star Design rating. In addition numerous office buildings shall be 5 star rated and the town will provide the first 6 star rated buildings in New Zealand. This is a significant statement by the client Property Ventures of their belief and commitment to creating the world's most sustainable town. Some of the sustainable attributes are:

Energy

- Design to 4, 5 and 6 Star NZGBC model requirements with significant reduction of CO₂
- Shared plant with +700,000m² of other mixed use buildings, giving economies of scale, better shoulder loadings and greater redundancy
- High efficiency fully recyclable LED, T5 etc light fittings with automatic light sensing.
- Using solar for hot water energy
- Double glazed windows

Water

- Significant reduction in water consumption. 100% reuse of rain water.
- Dual flush toilets
- 5A rated shower heads

Innovation

- Ground water sourced energy for site wide air-conditioning and heating, reverse cycle heat pumps reducing overall energy consumption by 40% and capital cost by 20%. A world first on this scale.
- Maximised daylight, dimming and lower overall lighting levels with increased uniformity

Indoor Environmental Quality

- 100% outside air, exceeding NZ Standard by 185%
- Thermal modelling to ensure minimal temperature fluctuations
- External shading

Pollution

- All refrigerants will have Ozone Depleting Potential (ODP) of zero
- 100% on site Stormwater disposal
- Worlds first sustainable insinkerators to reduce solid waste
- Zero upward light pollution

