Population Distribution

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 to 24 yrs</td>
<td>6.34%</td>
</tr>
<tr>
<td>25 to 44 yrs</td>
<td>23.6%</td>
</tr>
<tr>
<td>45 to 64 yrs</td>
<td>17.64%</td>
</tr>
<tr>
<td>65 and over</td>
<td>9.05%</td>
</tr>
</tbody>
</table>

Housing Trend

- Median sale price: $2,75,000 from 2016 to 2021
- Median sale price: $3,25,000 from 2016 to 2021
- Construction
  - 906 workers in 2016 to 2021
- Health Care
  - 703 workers in 2016 to 2021
- Retail Trade
  - 397 workers in 2016 to 2021

Employment Opportunities

Why is there a Shortage of Housing?

- Cost burdened & detriment of daily necessities
- Housing instability & likelihood of eviction
- Population expansion of 25,000 people over the next decade
- Shortfall of 5,700 units due to growing population
- Growth in workforce (25 to 44 years) & senior age group (65 and older)

Case Studies

- WAPITI COMMONS, RIFLE, CO
- GREEN AFFORDABLE HOUSING

Orchards at Orenco, Hillsboro, OR
- Area: 53,000 SqFt
- Completion: Jun 2015

- NA first certified multifamily affordable Passive project
- Built on the property of mineral wool insulation, triple glazed argon filled window, poly-iso foam insulation with TPO membrane roofing
- HERS index score of -1, certified to be a zero-energy home
- Estimated cost benefits were $33,500, with 3.1% return on investment % $30-$45/ month/unit

Thomas/Salmon Residence, Seattle, WA
- Area: 1,915 SqFt
- Completion: Oct 2011

- Seattle’s first true zero-energy home
- Built on the property of thermal mass, SIP as a thermal blanket, air tight triple glazed windows, cross ventilation, XPS foundation, 6.44kW PV panels
- HERS index score of -1, certified to be a zero-energy home
- Projected annual utility cost savings of approximately $1,344 & a projected annual utility cost of $74

Key Findings

1. Life cycle approach increases private homeowners adopting green technology.
2. Green affordable housing is meaningful in terms of life cycle net present value.
3. Durable building material results in low maintenance costs & additional life cycle benefits.
4. Reduces maintenance costs although requires higher initial investment, using local sources.

Recommendations

- Reducing the optimal area to volume (A/V) ratio from 1.3 m²/m³ to a minimum of 0.7 m²/m³
- Buildings on NW corner to be displaced with openings on south-east or south-west, instead of south facing.
- HERS score of 8 based on metric of only PV panels, an energy usage of $290 & lifetime savings cost of $33k, close to a NetZero Home.
- HERS of -2 : PV & passive design -2, saving 1-2% usage, $124 energy/ yr & $43k lifetime cost savings.