Transforming the way you live
Palo Alto Passive
Palo Alto Passive INSULATION

- Insulated basement construction - 2” XPS - under slab, 2” XPS walls - external
- Framed walls R- 19 open cell spray with 1.5” external XPS. Total wall R-26.5, insulated headers
- S.I.P.’s roof R- 12” EPS= R-45
AIR SEALING

• STS exterior, liquid applied air and moisture barrier system
• SIGA tape air sealing, interior and exterior
STS Liquid Applied Air Barrier

- Wall Guardian FW-100A
- One component, liquid applied, elastomeric air and water barrier
- Vapor permeable
Superior Windows

• H & H Windows and Doors
  – Triple glaze
  – U values 0.19 to 0.29
  – SHGC 0.19 to 0.51
  – Extreme durability
  – Easy tilt-turn operation
Mechanical Systems

- Zhender Heat Recovery Ventilator
  - ComfoAir 550
HEATING AND COOLING

• Fujitsu heat pump system with 3 mini-air handlers.
• 3 zone system
• 4 ton condenser
• MERV 13 filters
Renewable Energy Sources

• Solar Thermal:
  – Velux system, 2 panels, 80 gallon storage.

• Photo Voltaic System:
  – 7.8 Kw SunPower panels with SMA inverter
Passive House Cost Delta

- 4,304 square foot of livable floor space
- Total project construction cost per sq. ft. $370
- Elements included for PH:
  - Mechanical systems
  - Upgraded windows
  - Air sealing/enhanced insulation

PH cost delta for this project $15 per sq. ft. or 4%
Passive Home Inspired!

• Principles of PH should be incorporated into every new home and renovation:

  – Air tightness
  – Elimination of thermal bridging
  – Enhanced insulation
  – Quality windows
  – Efficient mechanical systems and heat recovery
PASSIVE HOMES BY CLARUM