

Mantell-Hecathorn Builders

ZERO
ENERGY READY HOME

2019 WINNER
Housing
Innovation
Awards

Glacier Club Modern Home | Durango, CO | M-HBuilders.com



"We are so pleased with our new home." Home owner









PROJECT DATA

- **Layout:** 3 bdrm, 3.5 bath, 3 fls + bsmt, 4,937ft²
- Climate: IECC 5B, coldCompleted: 2018
- Category: custom for buyer

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 46; with PV 20
- Annual Energy Costs: without PV \$2,550; with PV \$1,000
- Annual Energy Cost Savings: (vs typical new homes) without PV \$1,400; with PV \$2,900
- Annual Energy Savings: without PV 2,400 kWh, 2,000 CCF; with PV 14,700 kWh, 2,000 CCF
- Savings in the First 30 Years: \$138,400

CONTACT

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KEY FEATURES

- **Walls:** 2x6 24" o.c. advanced framing, R-38 total: 5%" drywall; in cavity 2.5" closed-cell spray foam plus 3" loose-fill fiberglass; on exterior coated OSB sheathing, 2" rigid foam, rainscreen under stucco or stone, or 34" furring strips under siding.
- Roof: Shed roof, 5/8" coated OSB sheathing, ice-and-water shield, metal roof.
- Attic: Cathedral ceilings: $\frac{3}{4}$ " tongue-and-groove Douglas Fir, $\frac{5}{8}$ " drywall, $\frac{11}{8}$ " I-joists, R-19 batt, 7" closed cell spray foam.
- **Foundation:** Insulated basement, R-23 total: 5/8" drywall, 2x4 studs 24" o.c.; 3" closed-cell spray foam, 8" poured concrete, water proofing, 2" rigid foam, drainage board.
- **Windows:** Triple-pane, low-e2, aluminum-clad wood fixed frames, interior motorized blinds, U=0.19, SHGC=0.50.
- Air Sealing: 1.5 ACH 50.
- Ventilation: HRV, continuous ventilation, boost switches in bathroom, MERV 13 filters.
- HVAC: Radiant floor heat from wall-hung gas boiler, 96% AFUE; 22 SEER AC; passive solar.
- Hot Water: Wall hung gas-fired boiler, 96% AFUE, 80-gal., push button recirculation pump.
- Lighting: 100% LED, integrated lighting controls.
- **Appliances:** ENERGY STAR dishwasher, clothes washer, and refrigerator.
- Solar: 7.2-kW PV system.
- Water Conservation: WaterSense fixtures; drought-resistant landscaping.
- Energy Management System: Smart thermostats, lighting automation, PV tracking.
- Other: Aging-in-place, all low-to-no-VOC and formaldehyde-free products.





