

ARCHITECTURAL/RESIDENTIAL

Village Green Apartments, Pullman, Washington

Structural design for three types of apartment structures in an apartment complex. The structures included a one bedroom structure, a two bedroom unit structure and a vehicle storage garage. The structures were 3 story wood framed buildings with snow and seismic loads

Barragan Condominiums, Santa Barbara, California

Provided structural engineering calculations for a 6,000 SF condominium complex in Santa Barbara, California. The calculations were reviewed by a third party. Mr. Murar supported the Architect in answering the requests of the third party and satisfying the calculation requirements.

Lokahi Kau Apartments, Kailua-Kona, Hawaii

Designed three types of buildings for an apartment complex. Each building was 3 stories tall with the wood truss design. The framing was designed for panelized construction. The projects were in high seismic high wind environments. A total of 15 buildings were in the Apartment complex.



Stirlen Residence, Kailua-Kona, Hawaii

Designed the rebuild of an existing retaining wall that was located in the VE tsunami flood zone and in the shoreline set back. The existing concrete columns were removed and rebuilt to resist flood loads from waves, impact and water surge. Concrete admixtures were specified to resist the corrosive environment.

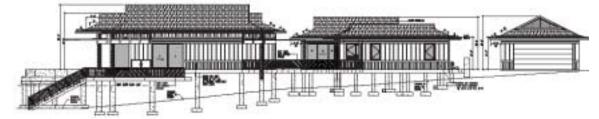
Pozner Residence, Kona Bay, Kailua-Kona, Hawaii

Designed the foundation and structure for a elevated residence in the coastal flood VE zone. The design required calculations of the wave impact forces on the lower concrete piers. The residence was a conventional stick framed house that was engineered to withstand major earthquake, and hurricane forces.



Alohi Kai, Lot 4, Ali'l Drive, Kailua-Kona, Hawaii

Engineered a 5,500 SF oceanfront residence in the coastal VE and AE zone. Designed an elevated concrete pool above the base flood elevation and elevated on concrete piers. The structure was conventionally framed and required attention to the architectural details in relation to the engineering requirements.



Vanderbilt Residence, Sun Valley, Idaho

Provided structural engineering for a residence using structural insulated panel (SIP) for the structural walls and roof. Work in conjunction with the SIP manufacturer to develop details and methods that would streamline the SIP manufacturing and construction process. The basement for the structure was designed to withstand buoyancy forces due to the proximity to ground water.

Fox Residence Sun Valley, Idaho

Structural Engineer responsible for designing a 6,000 square foot residence with exposed elliptical steel beams and moment frames. The timber framing and the steel construction were married into the overall structural system of the structure. Close coordination with the steel fabricator, contractor and architect were required to keep the tight schedule.



Woodward Canyon Reception Building, Walla Walla, Washington

Designed the structural aspects of a 4,500 SF commercial winery building with tasting facilities, kitchens, cellars and a library. Worked closely with the Architect to use finish treatment for structural strength (eg. rough sawn 2x6 ceiling with 1½ foam insulation and 3" concrete for a floor).



Brandman Residence Portola Valley, California

Structural engineer on a timber frame residence located 400 feet from the San Andreas Fault. Structural and Seismic calculations were checked by a third party review to ensure the proper seismic steps were taken. The foundations required drilled piers with grade beams to support the structure.

Baker Residence, Sun Valley, Idaho

Engineered a 10,000 square foot timber and steel residential structure in a high snow, medium seismic zone. The three story building used a structural insulated panel concrete basement wall supporting the toe of the slope. A second story large CMU fireplace was supported by steel beams. Several steel moment frames were used to resist lateral loads. A bridge between two wings of the residence was designed to be laterally isolated from the other two wings.



Moore Residence Mammoth Mountain, California

Structural engineer on a log structure addition in a high snow, high seismic area of California. The structure required calculations to be submitted to a third party for review.

Crumrine Trust Residence, Kailua-Kona, Hawaii

Designed and specified admixtures and chemicals to re-build existing CMU piers in VE tsunami flood zone. The piers were replaced with concrete piers designed to resist wave, surge and impact loads. A prestressed concrete slab deck was cut, cleaned and replaced with corrosion resistant grout.

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Whistleberry Farms, Government Camp, Oregon

Structural engineer on a conventional framed structure a high snow, high seismic and 110 mph high wind area at the foothills of Mount Hood. The structure required calculations to be submitted to a third party for review.



Callaghan Residence Sun Valley, Idaho

Structural engineer responsible for designing a 6,000 SF ICF residential structure in a high snow, moderate seismic area. This certified green building was the only structure west of the Mississippi, at the time of construction, to be certified a LEED platinum grade green environmental building, built from reclaimed and environmental friendly materials.

Wainani Estates, Kailua-Kona, Hawaii

Worked closely with the architect and contractor to engineer and design single family homes to bring the price points of construction to a minimum. Each home was designed with lessons learned from the previous designs.





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Cabi Residence, Kailua-Kona, Hawaii

A new residence located in the VE zone. The layout of the 3 story structure was modified to follow existing retaining walls. A pool and spa area was designed to resist flood loads. The existing residence was demolished to make room for the main residence and ohana unit.

