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COMMERCIAL PROJECTS

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Kanu O Ka Aina School, Waimea, Hawaii

Designed the light gauge steel structure for a single story trusses roof educational institution building. The building was originally designed with timber framed studs, and was redesigned to be used with steel studs.

Kaloa Landing, Kauai, Hawaii

Designed the curtain wall for 10 condominium structures. The scope of work included providing shop drawings, detail and calculations for a curtain wall between post tensioned slabs. Designed for hurricane force winds. Utilized deflection tracks and materials per the contractors request to optimize the construction budget.

Allure Condominium, Waikiki, Hawaii

Designed the connection of the pre-fabricated steel trusses for the 38 story condominium building on the Alawai canal. The building had gone through wind tunnel testing and the developed forces were used to design connections of the trusses to the post tensioned concrete slab. Innovative and new connections were required for the forces that were developed.

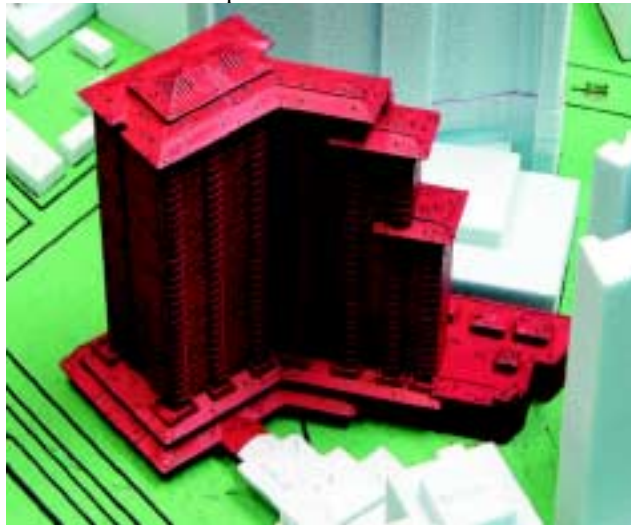


Figure 1 - Allure Model for Wind Testing

Lokahi Kau Apartments, Kailua-Kona, Hawaii

Designed buildings for a 21 building 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 and high wind environments. The project was designed for affordable housing.

ALCATEL, Cell 7 and 8 Fiber Optic Facility, Claremont, North Carolina

Structural Engineer for Cell 7 and Project Engineer for Cell 8 responsible for the structural engineering and the coordination of the design team for a seven-story 138,000-square-foot fiber optics draw tower at a fiber optic manufacturing facility. The design incorporated civil, structural, architectural, process piping, HVAC and electrical disciplines. The 100 foot structure used field welded moment frames with slab on deck.

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Americold Company, Multiple Projects, Portland, Oregon

Structural Engineer responsible for the design of cold storage facilities with offices, truck and railroad docks. The projects required foundation design, utility culverts and steel support platforms for condensing units and refrigerant piping. The facilities, ranging in size from 80,000 square-feet to 160,000 square-feet, are located in Idaho, Oregon, Washington, Illinois, and Wisconsin. Many of the foundations required design for the long span structures.

Le Jardin Academy Roof Trusses, Kailua, Oahu

Provided calculations for cold formed steel trusses for a new school building on Oahu. The project required hurricane force winds and greater importance factors for school buildings. Coordinated design of the truss with the contractor to develop cost effective connections for the trusses. Each truss was dimensioned and laid out.

Cedars Inn Hotel, East Wenatchee, Washington

Structural Engineer for a 150 room timber framed 3 story hotel structure. The lateral support was through timber shear walls. The structure used steel columns to support larger timber and steel beams. The design included a cantilevered steel moment frame over an open full span pool area.



Figure 2 - Cedars Inn Hotel

Snow Basin Ski Resort, Snow-Making Facility, Snow Basin, Utah

Provided construction support, both on-site and in-office, for a new snow-making building owned by Sinclair Oil Company. The building was a masonry exterior wall design with fabricated metal roof joists in heavy snow load environment.

Alawai Condominiums, Honolulu, Hawaii

Designed the curtain wall for an 8 story condominium structure. The scope of work included details and calculations for a curtain wall between post tensioned slabs. Designed for hurricane force winds. The design required a quick turn around to verify the products that the contractor had purchased would conform to the structural calculations.

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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.

Wailea Elua Village Condominium Renovation, Wailea, Maui, Hawaii

Structural engineer for a remodel to the common pavilion structure in a condominium project located in the shoreline flood area. Included the use of existing concrete masonry and heavy timber. Provided site visit support. Project concluded ahead of schedule and ahead of budget.



Figure 3- Wailea Elua Village

Woodward Canyon Winery 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 1 ½ foam insulation and 3” concrete for a floor).

Baker Boyer Bank, Walla Walla, Washington

Structural Engineer responsible for the design of a steel moment frame with a cantilevered foundation of a canopy for a drive-through teller window. The foundation was designed with zero clearance from the support point to an existing foundation.

Bellevue Square Building 733, Bellevue, Idaho

Structural engineer on a 10,000 two story office complex designed with Insulated Concrete Forms (ICF). The store front required a concrete moment frame to preserve the valuable store front window area. The building is in a high snow and moderate seismic area.

Hailey Business Park South, Hailey, Idaho

Structural engineer on a 31,000 two story office complex designed with Insulated Concrete Forms (ICF) and parallel chord wood trusses spanning up to 30 feet. The building is in a high snow area, moderate seismic and required a third party review of the calculations.

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Whitman College, Harper Joy Theater Remodel, Walla Walla, Washington

Re-designed the catwalk system for the Harper Joy Theater. The structural engineering required the determination of the existing roof system and its capacity for the new cat walk and equipment loads.

Northwest Winery Structures, Structural Designs, Southwest Washington

Structural Engineer responsible for the design of foundation, concrete masonry, wood frames and support pads for 20,000 gallon fire storage water tanks, located at

- L'Ecole Winery
- Mill Creek Winery
- Three Rivers Winery
- Waterbrook Winery
- Kiona Winery
- Woodward Winery

Attention to aesthetics played a major role in the structural design of these projects.



Figure 4- Three Rivers Winery

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