

JAKE SCHNEIDER, P.E.
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EDUCATION: Bachelor of Science Civil Engineering University of Wyoming Laramie, WY December 1996

LICENSES: Montana, California, Kansas, and NCEES Registration

WORK EXPERIENCE: **VICE PRESIDENT, SENIOR ENGINEER** May 2005 - Present
Apex Engineering Services, Inc., Missoula, MT

STRUCTURAL PROJECT ENGINEER June 2002 – May 2005
Beaudette Consulting Engineers, Missoula, MT

Responsibilities included preparation of contract drawings, specifications, and structural calculations, development of project proposals, shop drawing review, and construction administration. Projects comprised of commercial structures, residential log, timber frame, and stick framed structures. Projects as lead engineer included the design of a log residence built in an avalanche zone capable of withstanding avalanche generated loads and several 8,000 sf + log and stick framed residences. Other projects included the design of two aquatic centers and concrete stadium seating with an elevated concourse. Design included use of structural steel, concrete, masonry, and timber. Major projects listed on attached pages.

STRUCTURAL PROJECT ENGINEER May 2001 – June 2002
Access Consulting, P.C. Missoula, MT

Responsible for development of structural contract drawings. Design primarily included log, heavy timber, and stick-framed residential projects in conjunction with the use of structural steel and concrete to achieve specified aesthetics driven by owner and client expectations. Other responsibilities included preparation of structural calculations, project proposals, shop drawing review, and construction administration. Major projects listed on attached pages.

STRUCTURAL ENGINEER September 1998 – March 2001
Gordon-Prill-Drapes, Inc. Missoula, MT

Responsible for design of residential, commercial, and industrial structures. Majority of design located in high seismic zones in southern California and high seismic/high snow load regions in Montana and Wyoming. Designs included wood, heavy timber, structural steel, concrete, and masonry. Commercial projects included seismic analysis of existing 42-story commercial building in Los Angeles for change in occupancy, a seismic upgrade for an historic building at Santa Clara University, seismic and gravity analyses of multiple existing structures for Lockheed Martin, and several new structures consisting of structural steel, concrete, masonry, timber. Typical residential projects consisting of stick-framed, log, and timber frame structures, and hybrids of each. Major projects listed on attached pages.

CIVIL ENGINEER January 1997 – August 1997
STRUCTURAL ENGINEER August 1997 – September 1998

Jehn & Associates, Inc. Denver, CO

Civil responsibilities: Developed site plans, landscaping plans, grading plans, storm sewer plans, sanitary sewer plans, and water line plans, lot layout, and erosion control plans for commercial and residential developments within the Denver Metro area.

Structural responsibilities: Responsible for structural analysis and design of residential structures on expansive soils. This involved the design of elevated basement slabs and foundations on interrupted footings or drilled piers in soils capable of 6"-8" of swell. Responsible for structural analysis of Magic Carpet Ski Lift's conveyor lifts. Also responsible for providing Quality Assurance for the General Services Administration (GSA) as the owner's representative for \$24 million water quality laboratory in Denver, Colorado. Major projects listed on attached pages.

Jake Schneider
Miscellaneous Projects Summary

Apex Engineering Services

May 2005 – Present

Mullan Heights Apartments – Missoula, Montana

Lead Engineer – Two 4-story apartment structures with underground parking. Foundation consisted of conventional spread and strip footings. The main floor comprised of composite steel beams supporting a concrete deck. Upper floors consisted of conventional wood framing.

Montgomery Birthing Center – Missoula, Montana

Lead Engineer – Two story office/medical building with conventional wood floor framing supported on cold formed stud walls and steel beams constructed on conventional spread and strip footings.

Beaudette Consulting Engineers

June 2002 – May 2005

Washington-Grizzly Stadium North End Zone Addition – Missoula, Montana

Addition of approximately 4,000 seats and an elevated concourse with a concessions booth to the University of Montana's football stadium. The project consisted of cast in place footings and columns with pre-cast riser beams and concourse beams. Seating planks were pre-stressed concrete planks. The lateral force-resisting system consisted of cantilevered concrete columns and reinforced concrete frames using pre-cast and cast-in-place concrete. Challenges within the project consisted of extending the seating over an existing roadway and utilities and providing a gradual transition between new and existing walk-ways under the seating.

St. Anthony's – Missoula, MT

Lead Engineer – Two story commercial building with light gauge metal wall framing and composite floor on steel bar joists. Structural steel braced frames were used as the lateral force-resisting system.

Playfair Park Aquatic Center – Missoula, MT

Design of several structures for the Playfair Park aquatic center. Structures included the main shower and changing area, offices, and pool mechanical room. The main shower and changing rooms and the office building were both constructed on approximately 4' of fill, after approximately 8' of fill was removed. These two structures' foundations consisted of conventional strip footings and frost walls. The main floor system comprised of 8" concrete hollow-core planks and a 3" topping slab. Wall framing consisted of 8" reinforced masonry with wood framing above. Several cost estimates were performed to determine the most economical type of construction.

Whitefish Aquatic Center – Whitefish, MT

Lateral design of indoor pool facility. Structural steel braced frames were used as the lateral force-resisting system in conjunction with a system of helical piers within the footings to resist large overturning moments at the base of the braced frames.

Private Residence – Sun Valley, ID

Lead Engineer – Design of two story log and stick-framed residence within an avalanche zone. The structure was designed to resist loads produced from a direct hit from an avalanche. The foundation included a 24-foot cantilevered retaining wall with a counter fort system.

Access Consulting

May 2001 – June 2002

Missoula Aging Services – Missoula, MT

Lead Engineer – Renovation/remodel of existing structure comprised of reinforced masonry shell and conventional wood framed floors.

Private Residence – Jackson, WY

Lead Engineer – This project used several construction materials hidden within the structure to give an outward appearance of being constructed of stone and reclaimed timbers. Many portions of the residence had a 10” stone veneer on the interior and exterior. The total weight of the structure, in addition to large snow loads, made the seismic design very challenging, as it was located in seismic zone 4 (1997 UBC). Exterior wall framing consisted of structural steel frames with metal stud infill. Chimneys were used as one of the primary lateral force-resisting systems and were comprised of reinforced CMU and structural steel. The basement of the residence was placed approximately 6’ below the water table, so basement walls and slabs had to be specially designed to resist buoyant forces.

Gordon-Prill-Drapes, Inc.

June 2002 – May 2005

Compaq Building – Los Angeles, CA

Seismic and gravity analysis of existing 42-story building. New tenants wanted to use the structure as an internet exchange facility, requiring numerous racks of computers, adding weight to the structure. A lateral analysis was performed for the city of Los Angeles to verify seismic loads did not increase more than 3% of original design loads. All connections for the computer racks were designed to resist seismic loads prescribed by the 1997 UBC. Floor framing was also modified, enabling increased loading. WT sections were added to wide-flange floor beams to increase the section modulus and moment-of-inertia.

Los Altos Vault & Safe Deposit Company - Los Altos, Ca

Design of Vault for safe deposit company. The stand-alone structure, approximately 6,000 square feet, was constructed entirely of reinforced concrete. Vault areas were comprised of 12” thick walls and ceilings with three mats of reinforcing bars.

Alumni Science Building – Santa Clara, CA

Lead Engineer – Seismic upgrade for the existing historic Alumni Science Building at Santa Clara University. The existing structure consisted of a wood framed roof and reinforced concrete walls and floor systems. The lateral upgrade used existing concrete beams with new cables to form horizontal trusses to transfer lateral loads to new concrete shear walls below.

Flathead Valley Orthopedic Center – Kalispell, MT

Lead Engineer – Two story structure with conventional wood framing on structural steel beams and columns.

Private Residence – Medford, OR

Lead Engineer – Three story log structure with approximately 16,000 square feet of living space and 14,000 square feet of exterior decks. The primary lateral force-resisting system included a reinforced masonry chimney. However, during the design, the owner requested that the chimney terminate at the middle floor. A reinforced composite slab and steel beams were then used in the lower floor ceiling to drag lateral forces into an exterior concrete wall.

Jehn & Associates, Inc.

January 1997 – August 1998

National Water Quality Laboratory – Denver CO

Provided Quality Assurance for the General Services Administration (GSA) for a \$24,000,000 laboratory. The laboratory foundation was constructed with grade beams on concrete piers ranging in diameter from 36” to 96” and depths up to 30’ deep. Upper floors were built using concrete pan decks. In addition to quality assurance, I designed the two story curtain wall system and attachment for the laboratory.