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Curriculum Vitae for Glen K. Leckie, P.E., P.Eng.

Senior Engineer, Structural Engineering
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EMPLOYMENT HISTORY

2012 – Present **Professional Analysis and Consulting, Inc., Naperville, IL**
Senior Engineer
1999 – 2012 **Packer Engineering, Inc., Ann Arbor, MI**
Senior Director

A senior engineer employed with both companies, responsible for investigating collapses, failures, disputes involving commercial and industrial buildings, industrial operations, foundations, roof/wall systems, civil roadway, sewer/drainage, and piping. He has provided testimony on behalf of individuals, corporations, and insurers, including deposition and trial.

Glen Leckie was responsible for over 1,200 investigations involving disciplines listed above and types of investigations highlighted below. Accidents and or damaging explosions or equipment failure as a result of inadequate design, construction, and or the failure to satisfactorily develop and follow SOPs'.

- Asphalt mixing tank failure and collapse – Michigan.
- Automotive supplier manufacturing accidents – Michigan
- Foundry melt operation failures, furnace explosions, handling accidents – Michigan & Ohio
- Finishing and stamping operations – Michigan & Ohio
- Resource recovery (crushing) of automobiles and recyclables, accidents and damaging fires, inadequate design and SOP - Ohio
- High reach crane collapses and failure to follow safety protocols in respect to power plant construction and maintenance – North Dakota and Missouri
- Blast and Concussion Damage due to mining, unplanned explosion above and below grade, and construction activity – Wisconsin, Michigan, Ohio
- Food processing silo collapses – Michigan
- Highway bridges damage and failure – Michigan
- Bascule (lift) bridge operating damage – Michigan
- Entertainment venue stage collapse - Indiana

1990 – 1998 **Kurdziel Industries, Inc., Muskegon, MI**
Vice President of Operations
New Haven Foundry, New Haven, MI
General Manger



First employed by Kurdziel Industries Inc. (KII produced gray iron castings for the lift/construction industry), and then by New Haven Foundry Inc., (NHF produced automotive engine head castings for Chrysler and GM). Both had individual annual sales of 60-70 million dollars. Managed all departments, including production, engineering, product development, safety, and human resource. In addition, while with Kurdziel Industries, Inc. managed facility design/construction of a cleaning and paint facility in Ohio and while with New Haven Foundry, Inc. managed/directed the ISO 9002 and QS9000 certification of the foundry facility.

1965 – 1990 **Whittaker Leckie, Alberta Ltd., Edmonton, Alberta**
Shelter Engineering Company Limited, Edmonton, Alberta
President and Managing Partner

A senior managing engineer of a multi-discipline prime consultant engineering and architectural firm that served clients in the commercial, institutional, petrochemical, building, and process industries. Responsible for the design and fast track of engineering/architectural projects, investigations, and the planning/design/project management undertaking in Canada, USA, and the Far East. Over this period, was responsible for over 2,000 projects ranging from small consultations to projects of more than \$10,000,000. Of these projects approximately 250 were investigations.

Glen Leckie was responsible for over 1,200 prime consultant design and investigations involving disciplines listed above and types of investigations highlighted below.

- Petrochemical expansion of facilities for Esso Petroleum, East Edmonton (Strathcona Refinery), Alberta. Control Center, personnel chemical wash, kitchen/lunchroom.
- Esso Refinery – Norman Wells, NWT, Modernization and replacement of deteriorated structure. Enclose and winterize the power generation for refinery and town power generation.
- GCOS – certain facilities, operations, fire department design, Fort McMurray, Alberta.
- Esso Petroleum Distribution Center – East Edmonton, Alberta, 200,000 plus sq. ft of product storage include hazardous materials.
- Solar Turbines (division of IH) planning, design, construction of East Edmonton, regional turbine maintenance and test facility (involving four separate buildings for their office, parts, maintenance/overhaul, and test operations).
- Preparation of structural drawings and specifications for standard Esso Service Station and Car Wash types for use throughout Canada.
- BP Canada – Preparation of design, construction of several facilities in Cold Lake, Alberta.
- Northern Transportation Company Limited (NTCL) – Maintenance Facility for Tug and Barge Operation. Other Dock and storage requirements through the network of their operations.

1961 – 1965 **Stacey & Skinner and Albert C. Martin Associates, Los Angeles, CA**
Assistant Project Structural Engineer



Structural engineer for many buildings and civil engineering projects including the Union Bank Building (43 stories), Music Center & Parkade, Los Angeles, CA and Camp Stuart Mesa, Camp Pendleton, Oceanside, CA.

ACADEMIC

Bachelor of Science, Civil Engineering, University of Alberta, Edmonton, Alberta

Master of Science, Civil Engineering (Structural), Sanford University, Palo Alto, California

Over a period of 35 years attended numerous seminars, involving building science, project management, and personal development to locations throughout the United States and Canada, both technical centers and universities.

PROFESSIONAL REGISTRATION AND CERTIFICATION

Professional Engineer, State of Michigan, License Number – 6201059817.

Professional Engineer, State of Texas, Member Number – 101146.

Professional Engineer, Association of Professional Engineers and Geoscientists of Alberta (APEGA), Member Number M15298.

Holder of National Council of Examiners for Engineering and Surveying (NCEES) Council Record Number 51143.

Restricted Practitioner in Architecture, Alberta Association of Architects, 1984-1990.

GENERAL ENGINEERING EXPERIENCE

Structural/Civil Design & Investigations

- Structural – Structural design of numerous commercial, residential high-rise buildings and parkades, institutional (hospitals, schools, university, civic), and bridge and ancillary structures.
- Industrial – Site planned, designed and project managed industrial projects for the petro-chemical, metals, and mining industries, including Imperial Oil Limited (a division of Exxon), British Petroleum, and Solar Turbines (a division of IH). Projects located in northern and eastern Canada, United States, and the Far East.
- Commercial – Prime Consultant in engineering and architectural for commercial retail, warehouse, restaurant, hotel/motel, banks, residential developments, office buildings, and parkades.
- Forensic Science Investigations – Investigated building and equipment failures to industrial, research, hospital, school, commercial, and residential buildings.
- Industrial Plan Operations – Investigated operation and safety of equipment/process procedures and policies.
- Civil engineering municipal structures, waste/storm water storage failures.
- Laboratory Design – Involved the design of industrial laboratories.



SPECIFIC INVESTIGATION/RESTORATION EXPERIENCE

Structural /Civil

- Foundation Settlement – Settlement – Settlement of piling and footings due to inferior design/construction, changing soil condition, or freezing action. Building Types: apartment, hospital, office, and school/college.
- Basement Wall and Slab Cracking – Swelling and shrinkage of clay soils, old building analysis, retaining wall failure.
- Slab on Grade Settlement or Heave – Due to failure or settlement of sub-grade as a result of poor design/construction, frost heave or buildup. Building Types: apartment, retail, warehouse space, ice arena.
- Slab and Beam Failure, Adverse Deflection – Due to poor design or construction.
- Concrete Shrinkage Cracking – Due to poor design, materials, and placement of control joints.
- Pre-stress and Post Tensioned Slabs and Beams – Involving failure or adverse deflection due to poor design or rusting of tendons.
- Roof Structure Failure or Adverse Deflection – Roof truss failure, wood and steel, wind, contraction shoring, welding and other similar type failures.
- Wall Cladding (including glazing) Attachment Failure – Poor design resulting in insufficient support or connection and possible rain/water penetration.
- Severe Wind and Tornado Damage – Causing loss of walls, cladding, roof, and or collapse of structure.
- Blast and concussion damage due to mining, unplanned explosions above and below grade, and nearby construction activity.
- Bridge and ancillary structure damage, deterioration due to impact, design and or long term deterioration.
- Roadway Pavement Failure – Subgrade and or asphalt failure due to poor design, construction, and maintenance.
- Sewer System Design, Construction Flooding, and Failure including pipe and manhole failure due to poor design or construction.
- Omissions or Errors to Design Drawings – Resulting in structural/civil failure and or disputes.

Architectural

- Institutional Building Restoration – Restoration and renovation of old buildings, residential, institutional, school, and university.
- Wall Cladding (including glazing) attachment and or Membrane Failure – Failure of wall and cladding design due to aging, inferior design or construction, fire, or severe wind damage resulting rain/water penetration.
- Roofing Design Failure – Due to failure of roofing material, jointing, curbing, or poor maintenance, causing water penetration and interior damage.
- Drywall and Concrete Block (CMU) Shrinkage – Investigation of drywall and concrete block shrinkage due to poor design (lack of control joints), sealer.



- Redevelopment of Warehouse Buildings – Involving inventory and assessment of structure for new use and occupancy.

Mechanical

- Equipment and Piping Failure – Due to inadequate design, controls, equipment selection, or maintenance.
- Industrial Equipment Vibration – Involving foundations and supporting structure or equipment.
- Manufacturing equipment processing – Involving industrial process engineering and departure from a prescribed or safe manufacturing process.
- Dangerous and or Hazardous Products and Processes – Involves the original design of processes and buildings or handle new products or material of manufacture. Closed loop environmentally safe processes.
- Equipment design and investigation, industrial lifting devices, bridge cranes, boom and telescopic mobile cranes, lift slab field manufacture, and lift technology.

Special Projects and Conditions

- Dangerous Buildings – Resulting from inferior design or construction. Hong Kong experience in detecting low strength concrete throughout that region of the industry. Extensive investigation in Hong Kong of numerous buildings over a two-year period.
- Foundation Repairs – Jacking and replacement with footing or jack piles.
- Construction Shoring/Bracing Failure – Concrete forming failure and construction shoring failure, construction bracing to concrete block wall (CMU) and roof trusses.
- Truss Failure During Erection – Due to lack of bracing and or attention to lifting and truss limberness or wind.
- Epoxy Repair – To delamination glulam wood beams and shrinkage/shear cracking to concrete beams.
- Buckling of Angles or channel Sections – To special structures, cranes, and lifting devices.
- Church and Synagogue – Restorations because of aging, fire, or severe wind damage.

PROFESSIONAL AND COMMUNITY SERVICE

Member, Structural Engineers Association of Michigan, SEAMI

Member, Acts and Bylaws Committee, APEGA, 1985 through 1989.

Member, Rotary International, Downtown Club, Edmonton, Alberta, 1969 through 1990.