



RESUME OF MARK G. NORDSTROM, P.E.

SUMMARY

Registered Professional Civil Engineer in Washington and California. Nine years experience in loss-related civil engineering investigation. Ten years experience in civil engineering design, fieldwork, project management and construction supervision. Seventeen years experience (concurrent with engineering) in technical research, site investigation, and project management related to illustrative legal media. Twenty years experience (concurrent with engineering) in digital 3D design, modeling, graphics, animation and interactive media.

PROFESSIONAL EXPERIENCE

MDE Inc. – Seattle, WA (2003 to Present)

Vice President and Principal (2009 to Present), Associate Forensic Engineer (2003 – 2009)

Forensic Engineering – Loss-related investigation, engineering research and expert testimony in matters pertaining to roadways and pavement, utilities, sanitary sewers, storm water conveyance systems, routing and control systems, flooding damage, structures and structural materials, building envelope failures (water infiltration), storm related property damage, foundations and soil mechanics, retaining walls and slope stability, building code compliance / construction defects pertaining to property loss and personal / pedestrian injury, construction disputes, land use disputes.

Illustrative Digital Media – Specializing in the accurate digital reconstruction and visualization of loss sites, accidents and accident scenes, illustration of the functional operation and failure of mechanisms. Analysis of existing photos and video. 3D digital modeling and animation, interactive 3D visualization tools, site mapping and modeling, event analysis and recreation, HD video, panoramic photography.

RaptorGraphics, LLC – Seattle, WA (1992 – 2009)

President, Co-Founder – RaptorGraphics was established in Tahoe City, CA in 1992. The concept of precision digital media grew out of applied work in civil design, product design and architectural visualization. RaptorGraphics produced illustrative media for legal cases totaling over one billion dollars in losses and disputed damages. The company conducted its own forensic research and site work, and worked closely with respected experts in the areas of fire loss, construction loss, vehicular accidents, product liability, personal injury, intellectual property, building and fire code compliance, and more. One of the industries earliest providers, RaptorGraphics innovated illustrative digital media ranging from graphic boards to forensically reconstructed, interactive virtual environments.

Pacific Interactive- Seattle, WA (Spring 1995)

Lead 3D Designer – Worked closely with the producer, art director and production team supervising the construction of a virtual 3D environment for Disney's "Bill Nye the Science Guy- Stop the Rock" CD-ROM game. The project was an "edutainment" game in which the player advances by learning science facts through interaction with a virtual environment filled with functional science equipment. Took a strong role in assuring the scientific validity of the virtual science experiments and story line. The product was released in the winter of 1995.

Harmsen and Associates, Inc. – Monroe, WA (1993 – 1995)

Civil Design Engineer – Computer-based civil design and planning for residential, commercial and municipal projects. Residential structural design and analysis (including log structures), grading and drainage design, roadway and parking design, foundation and retaining wall design, project administration, construction supervision and inspection, supervision of draft-persons, survey crews and administrative personnel.

Nordstrom Design – Tahoe City, CA (1991 – 1993)

Principal / owner – Residential structural design and analysis, site planning and grading design, project administration and construction supervision, CAD drafting, digital 3D modeling, photo-realistic project simulations for visualization and project approval. Emphasis was on design, analysis, and structural detailing of high-end residential and light commercial structures in areas of high snow, wind and seismic loading conditions, computer-assisted structural analysis of steel frames, foundations and retaining walls.

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Hale-Tippin Consultants – Tahoe City, CA (1990 – 1991)

Civil Designer / Project Manager – Computer-based civil design and drafting for residential, commercial and municipal projects. Minor residential structural design and analysis, grading and drainage design, roadway and parking design, foundation and retaining wall design, general project administration, construction supervision and inspection, CAD drafting, direction of draft-persons, survey crews, and administrative personnel.

Opitz Engineers – Kremmling, CO (1986 – 1989)

Civil Designer, Field Technician, Draftsperson – Design experience- over 40 percolation tests and septic system designs for residential and high occupancy facilities in areas of problematic clay soils, water system analysis and design, municipal road and utility design, small dam and spillway design, minor structural analysis, retaining wall design, ski industry specific roadway design and construction supervision in very difficult terrain, material quantity estimation, resolution of contract disputes, field / laboratory concrete and soil testing, extensive ink on mylar hand drafting. Field experience- preliminary and construction surveying, supervision and final inspection of rebar, forms, structural steel, pile driving, sub-grade preparation, soil compaction traffic control, demolition, sewer / water / storm drains.

Wisconsin Department of Transportation (Summer / Fall 1985)

Participated in all aspects of highway planning and design including preliminary roadway alignment, intersection design, earthwork estimation, drainage design and assessment of existing roadway surface conditions.

Wisconsin Department of Transportation (Summer 1984)

Hired in conjunction with student employee summer program. Participated in all aspects of highway construction surveying out of mobile field office. Selected as part of a special three-person crew to provide on-call surveying support to construction and planning projects in remote rural areas.

PROFESSIONAL REGISTRATION & CERTIFICATION

Registered Professional Civil Engineer, State of Washington- #30958, 1995 to current
Registered Professional Civil Engineer, State of California- #C49491, 1992 to current

EDUCATION & TRAINING

Bachelor's Degree – Civil and Environmental Engineering, University of Wisconsin- Madison, December 1984, Member Chi-Epsilon Honorary Society

Milwaukee School of Engineering, Fall 1979 to Spring 1980, Mechanical Engineering

Portland Cement Association - "Troubleshooting Concrete Floors" Seminar, September 2008

"ATC-20 Post Earthquake Safety Evaluation of Buildings", June 2010

University of Washington sponsored "Cold Regions Engineering" Five-Day Seminar, November 2010

ASCE Seminar "Investigation and Repair of Fire-Damaged Framing", July 2011

