

Christopher Garland, P.E.

RR 2 Box 4599
Pahoa, HI 96778
808 756-8657

Resume

12/20/2009

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Interested in civil, structural, construction, and architectural engineering; energy management; community planning; education; Computer-Aided Drafting and Design; personal computers; GIS; photography

EDUCATION

University of Massachusetts, Amherst, MA
B.S., Civil Engineering, graduated with honors, February, 1986
Concentrated in Structural Engineering

April, 1994 Registered Professional Engineer, Civil

WORK EXPERIENCE

April, 1994 to present **Professional Engineer**, Self-employed
Design of on-site sewage disposal systems. Tasks included: topographic survey; digital terrain modeling for existing and proposed grades; cut & fill volume calculations; gravity pipe flow calculations; pump and pressure pipe calculations; computer-aided drafting and design.

Design of subdivisions. Tasks included: municipal sewerage including gravity pipe flow calculations and sizing for residential flows; road layout including horizontal and vertical curves and cross-sections; and stormwater management including hydrology, pre- and post-development stormwater calculations, design of retention, diversion, and outlet structures; municipal water; computer-aided drafting and design.

Stormwater management for other projects. Tasks included: hydrology; pre- and post-development stormwater calculations; design of retention, diversion, and outlet structures; computer-aided drafting and design.

July, 1994 to February, 1995 **Computer Draftsman**, Southern Vermont Engineering, Brattleboro, Vt.
Use AutoCAD and DCA/Softdesk software for the drafting of engineering projects. Engineering and AutoCAD experience required. Responsibilities include surface modeling; piping design; surveying; COGO; site design; and data reduction and entry, both manually and from data collection devices.

March, 1992 to April, 1994 **Self-employed**
Computer drafting and engineering consulting. Started originally as part-time in addition to regular employment, full-time since June, 1992.

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- October, 1986
to June, 1992
- Engineer**, Construction Operations, Daniel O'Connell's Sons, Inc., Holyoke, MA
Engineering responsibilities included the design of earth retention, staging, formworks, and shoring systems; scheduling; site logistics; solving engineering problems during construction; and preparing alternative designs. Prepared computer graphic presentations for proposals and helped with estimating. Self-trained in AutoCAD; developed CAD system for company. Responsible for CAD drawing and management, including computer maintenance and optimization. Extensive use of personal computers (PC).
- January to
September,
1986
- Engineer**, Tighe and Bond, Inc., Easthampton, MA
Intern engineer for environmental engineering firm. Operated municipal wastewater treatment pilot plant, performing all operational tests and calculations as well as physical operation. Involved in all aspects in the design of municipal sewers, including the design of sanitary sewers, the writing of construction specifications, assessing treatment plant efficiency, investigating soil and watershed conditions, developing demographics, and legal and technical research.
- 1982 to 1983
Part-time
- Learning Assistant/Tutor**, Greenfield Community College, Greenfield, MA
Tutored in math/science through two semesters of calculus and two semesters of physics; statistics; English for foreign students; learning skills. During academic months.
- 1981 to 1985
- Carpenter**, several companies, seasonal. Names available on request.
Journeyman carpenter during school breaks. Varied experience included all aspects of custom residential carpentry from foundation through finish.
- 1973 to 1980
- Carpenter**
Primarily custom residential framing: new construction, renovations, and additions. Started as carpenter's assistant and developed to foreman, working for different companies. Experienced varied designs, conditions, and locations. The challenge of solving unique problems led to interest in engineering.
- 1966 to 1974
- Construction labor, carpenter's helper, farm hand, stage lighting and sound, silk-screening, film and video, photography and photo developing, volunteer youth counselor.

PERSONAL INFORMATION

Born September 2, 1948
Married 1969--1975. Two children, born 1969 and 1972. Divorced 1974
Married 1999 to present
Own residence, Greenfield, MA October, 1982 to January, 1999
Own residence, Northfield, MA June, 1998 to May, 2007
Moved to Pahoia, HI March, 2006

REFERENCES

References and sample work available upon request.