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PROFESSIONAL EXPERIENCE

Civil/Structural engineer and former business owner with 18 years of experience both in design and construction. Strong leadership skills, construction background and design management.

PROFESSIONAL HISTORY

TECHNOLOGISTS INC. (2009 to Present)

Kabul, Afghanistan

Ti is a U.S.-based design/build construction company participating in the rebuilding effort providing infrastructure, and new and renovated security installations primarily for the U.S. Army Corps of Engineers (USACE) across Afghanistan. Types of projects include highways, wastewater treatment plants, primary power generation facilities and Afghan National Security Force (ANSF) installations for up to 5,000 personnel.

Director, Planning and Monitoring Division (April 2011 to Present)

- Report to the President, Vice President and Deputy Vice President.
- Management of 62 office and site staff, overseeing payroll, budgets, training and hiring activities.
- Implementation of the QC and Safety programs on 15 construction projects worth more than \$200 million throughout Afghanistan.
- Project start-up / closeout documentation and archiving.
- Implementation of the USACE RMS/QCS system for contract tracking.
- Continuing support of the Design and Construction Divisions resolving the most technical issues facing the Company.
- Writing sub-contracts, RFI's, serial letters, variation requests and contract modifications.
- Delay tracking and time-extension claims (using Primavera 6).
- Represent the Company during claims, negotiations and regular correspondence with the client.
- Responsible for wastewater treatment plant designs, coordinating the design with overseas consultants and manufacturers. Contract negotiation and management.

Senior Engineering Advisor (2009 to April 2011)

- Reported to the Director of the Design Division and the Deputy Vice President.
- Acted as Director in times of their absence and assisted in the management of all departments.
- Led the technical development of all departments (civil, structural, mechanical, electrical and architecture) implementing new management structures, peer review, design processes, drafting standards and design tools.
- Responsible for wastewater treatment plant designs, coordinating the design with overseas consultants and manufacturers. Contract negotiation and management.
- Composed serial letters and RFI's on all projects.
- Developed vendor contract templates for the Procurement Division.
- Directed solutions to highly technical problems that the Afghan design staff were unable to solve on their own.
- Ran HEC-RAS analyses to determine the hydraulic impact of projects on neighboring rivers.
- Represented the Design Division regularly at most USACE meetings.
- Work included structural steel frame analysis and detailing, reinforced concrete multi-story frame structures, CMU shearwall structures, pavement design, retaining walls, dual-system structural analysis, roadway and highway design, drainage analysis, water distribution, sanitary sewers, primary power generation facilities.

ODISEA LLC (1999 to 2009)

Boulder, Colorado

Odisea is a design/build civil and structural engineering firm specializing in green/sustainable and conventional development. Projects included custom and spec residential, light commercial, institutional and spiritual/religious buildings. Odisea also performed various civil engineering services including master planning, civil site design (drainage, utilities, road design). Odisea was instrumental in developing straw bale construction as a viable alternative to mainstream construction choices, acting as a pioneer in research and development through implementation on many of its projects. More information can be found at <http://www.odiseanet.com>.

Principal/Owner

I founded Odisea on the principal of the choices we make impact a larger sphere than our clients and education is the foundation of bringing more choices to the mainstream consumer. Most of our projects required truly green solutions. Odisea was a pioneer in the analysis of the wind and seismic design of straw bale structures, permitting of wetland and greywater waste treatment systems in Colorado, and the use of earthen/lime plaster and building systems in dry climates on mainstream projects. Managed up to 7 architects and engineers. Ran construction crews as large as 20 people and managed construction projects as large as \$1 million.

Structural engineering work included structural steel analysis and detailing, heavy timber design and detailing, multi-story wood-framed shearwall structures, retaining walls, reinforced concrete, pier and grade-beam foundations in expansive soils, mountain terrain (sloped site) foundation design, seismic analysis and detailing of wood and concrete structures.

Odisea performed civil engineering services on mainstream developments. Our services ranged from full site and utility design on residential complexes to roadway design in mountainous terrain. Odisea executed the technical design services (master planning and conceptual design, drainage reports, traffic reports, utility reports, zoning analysis, plan preparation and submittal) during annexation of a 5,000-unit mix-use development with two million square feet of commercial/industrial/institutional space. New Urban and Transit Oriented Design principals were used to guide the integration of sustainability, accessibility and a variety of uses. *More information can be found at <http://GoldenRun.com>*

In addition to our design experience, Odisea executed construction services on dozens of projects between 2002 and 2009 acting as both general and sub-contractor. Those project were a mix of commercial and residential uses. As owner of an AEC firm I understand inner business workings and possess a strong legal background. Some of the more notable achievements of Odisea were:

- Presenter at multiple ICBO (International Conference of Building Officials) regional conferences (during the 1990's) in Denver introducing straw bale construction to the regions building officials.
- Permitted the first straw bale buildings in eight Colorado counties.
- First interior greywater treatment system permitted in Colorado (Boulder County, Hanzel Residence).
- Founder of the Colorado Straw Bale Association (COSBA), a 501(c)(3) non-profit organization.
- Structural engineering and green/sustainable consulting, and construction of a grocery store in Helena, MT (straw bale structure in a seismically active area).
- Executed the first comprehensive compressive strength-testing program on straw bale walls with a graduate student at the University of Colorado, Boulder in 1999.
- Acted as general contractor on the largest (30,000 sf) straw bale structure in North America.
- Consulted for the U.S. Army, Ft. Hood, Texas on planned "green" facilities.
- Development of proprietary constructed wetland computer models for residential-scale wastewater treatment and disposal.
- Master planner and technical consultant during the annexation of a 320-acre planned unit development based on New Urban and sustainable design principals.

STRAWCRAFTERS LLC (1997 to 1999)

Boulder, Colorado

StrawCrafters was a pioneering element in straw bale and natural building at the beginning of the straw bale wall construction revival in the U.S. StrawCrafters was a small design/build firm focusing on bringing bale construction to a mainstream population. While short-lived it represented a quantum leap in the green construction community of Colorado and the entire Western U.S.

Principal/Co-Owner

StrawCrafters was created in 1996 as a design/build company focusing on residential and light commercial straw bale construction. I acted as general contractor on the first four projects and oversaw the design and engineering of dozens of projects working with a handful of architects and engineers.

In 1999 I worked with a graduate student at the University of Colorado, Boulder in the engineering department on his masters thesis modeling the compressive capacity of plastered straw bale walls. We built and tested nine full-size specimens, which resulted in the most comprehensive compression testing to-date on bale walls. A copy of the report can be found at <http://www.odiseanet.com/comprprt.pdf>.

ARU ENGINEERING (1996 to 1997)

Arvada, Colorado

ARU Engineering was a small consulting engineering firm specializing in highway and bridge construction in Colorado. ARU performed construction QC/QA on highway projects in the Denver metropolitan area and consulted for many other

firms during their design of highway infrastructure. The owner, Anthony R. Ursini, was a Colorado State engineer for many years prior to creating ARU to serve private sector firms working on Colorado State government projects.

Quality Control Inspector/EIT

I inspected highway and bridge projects around the Denver metropolitan area. My responsibilities included concrete, rebar, formwork and specialized equipment inspections on numerous highway construction projects as well as drainage, grading and alignment checks. I designed traffic control plans for construction routes.

LORIS & ASSOCIATES (1993 to 1996)

Boulder, Colorado

Loris & Associates is a small civil/structural engineering firm specializing in urban and suburban development. Their strengths are in the pedestrian and transportation sector with an emphasis on bridges and roadway structures.

Staff Engineer/EIT

- Structural and civil design of buildings, residential, commercial and institutional projects, bridges, retaining walls, site grading, drainage and hydrology (reinforced concrete, structural steel framing, masonry)
- Civil design of approach roadways to bridges, hydraulic structures, hydrological analysis of floodplains and impacts of development on waterways, culvert design.
- Bridge inspection and rehabilitation.
- Civil design of pedestrian trail networks and bridge underpasses along drainage corridors.

EDUCATION AND PROFESSIONAL LICENSURE

- Bachelor of Science in Civil Engineering (August 1993)
California State University, Fresno
- Registered Professional Engineer, Colorado License No. 32762 (May 1998)
- Registered Professional Engineer, California License No. 76296 (June 2010)

INTERNATIONAL PHILANTHROPY / WORKSHOPS

Construction Consultant / Workshop Leader – Annunciation House; Construction of a straw bale community hall in Ciudad Juarez's Anapra colonia, 2003. Consulted on structural design and waste treatment disposal system.

Workshop Leader – Builders Without Borders / Altai Project / 21st Century Altai; Leader of two week workshop designing and building a straw bale visitor center in the Southern Altai Region of Siberia, 2005. Focused on the use of local materials and sustainable systems.

Workshop Leader – Builders Without Borders / Altai Project / University of Barnaul; Leader of two week workshop constructing a straw bale meeting hall at the University of Barnaul dacha property, Barnaul, Siberia. Focused on earthen plasters, framing systems and the feasibility of bale construction in Siberia.

COMPUTER LITERACY

- AutoCAD, Architectural Desktop and Civil 3D
- Autodesk Storm and Sanitary Analysis
- Enercalc and RetainPro
- RISA(2&3D)
- HEC-RAS
- Microsoft Office Suite
- Microsoft Windows and Mac OS X Lion Operating Systems
- PHP, HTML and MySQL

PROFESSIONAL AFFILIATIONS

- Co-Founder/Chairman of the Colorado Straw Bale Construction Association (501(c)(3))
- Member/Trainer, Builder Without Borders
- Executive Board Member, Architects, Designers and Planners for Social Responsibility (ADPSR)
- Member, American Society of Civil Engineers (ASCE)

References available upon request