

**TERRY P. IRWIN, PLS**  
**SURVEY MANAGER – WHIPPLE CONSULTING ENGINEERS, INC.**

AAS, Survey Technology, Anchorage Community College, 1980  
Coursework, Forestry Engineering, Eastern Montana College, 1966  
Coursework, Survey Technology, U.S. Army Corps of Engineers, 1978

Mr. Irwin has over 30 years of surveying, planning and engineering experience, more than 25 of those in Washington, Oregon and Alaska. During the majority of this time he worked with two very reputable engineering firms as a Professional Land Surveyor. In 1979-1981, Mr. Irwin completed a three-year contract with the Alaska District Corp of Engineers-Anchorage, Alaska in the Survey Section, as Chief of Surveys. Mr. Irwin's experience includes various types of surveys throughout Alaska, Oregon, Montana, North Dakota, Washington and Russia. Mr. Irwin has surveyed roads, subdivisions, right of ways, easements, trails, record of surveys, pre-design topographic surveys, hydrographic surveys and many types of retracement surveys. His final products such as land surveys; maps, plats and engineering documents have been utilized by numerous engineers and communities for design and construction of various projects and legal transfer of land. When employed as Chief of Surveys/Senior Land Surveyor, Mr. Irwin was responsible for review and certification of all final deliverables.

Mr. Irwin most recently (2002-2003) was busy supporting Alaska, Oregon and Washington clients with project management and survey activities. He previously traveled throughout these states on a regular basis completing contracts as needed.

Some areas of expertise that Mr. Irwin has spent considerable time in are:

Land Surveys, to include boundary surveys, retracement surveys, record of surveys, original section surveys, and cadastral control surveys.

Subdivision Activities, to include parent parcel survey, subdivision design, permitting, lot and tract monumentation, platting board representation, road construction, plot plans, asbuilt surveys.

Engineering Design Assistance, for sewer and water projects, subdivision road design, bridge design, dock design, civil activities and various quantity calculations as needed.

Development/Planning Activities, for subdivisions, planned unit developments, master plans and establishment or revisions of project Right of Ways. Assist municipalities and federal agencies with development of comprehensive plans, platting regulations, lease programs and budgetary details.

Hydrographic Surveys, utilize depth sounders, side scan sonar and GPS systems for ocean bottom topography, river sections, and lakes to facilitate dock design, fiber optic location, power cable and pipeline routes.

Hydrologic Surveys, for stream flow data, culvert sizing, stream rating charts, discharge measurements and definition of peak flow characteristics.

Construction Surveys, include horizontal and vertical control layout, slope staking, centerline staking, blue tops, PI references, structure layout, bridge construction layout, curb and gutter staking.

Logistics and Planning, for coordinating many survey crews and field personnel that require other than standard equipment, supplies and transportation in areas such as remote Alaska or northern Russia.

Survey Department Manager establishing and operating a survey group within an engineering company. Initial meetings establish exactly what role the survey group is to play within the engineering company. As senior registered surveyor, he oversees operation and quality control issues of survey crews, to reach the goals set forth in the survey group mission statement.

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Project Management, in charge of engineering and survey projects from initial contact, proposals, budget discussions, field orientation, field and product review, claims, asbuilt surveys and final payment approval. Works closely with staff engineers to identify survey scopes, estimate costs and explain proposed work products.

Office Activities include proposal writing, budget and scheduling. Oversee survey field note reduction, adjustments and monumentation. Utilize cad software to complete final maps, legal plats and parcel summaries. Generate final submittals and reports. Surveyor in charge of marketing, client contact and project generation for survey projects.

Expert Witness, for riparian boundary disputes, jurisdiction boundaries and as investigator/witness for Alaska Division of Occupational Licensing for professional review for public versus surveyor disputes.

Permits and Permitting, for intertidal and near shore projects that require Corp. of Engineers, and state permits for fill and dredging. Other federal, state, county and municipal permits as needed to study, survey or construct.

Mr. Irwin has worked for many private and public sector survey organizations these include:

- 2005-Present; WCE Whipple Consulting Engineers, Spokane Valley, Washington, Senior Land Surveyor
- 2003-2005; AST Surveys, Newman Lake, Washington. Owner operator.
- 1987-2003; PN&D Engineers Inc., Senior Land Surveyor in charge of all survey activities in support of Seattle, Astoria, Anchorage and Juneau offices
- 1981-1986; Alaska Development Consultants-Consulting Engineers and Surveying, Anchorage Alaska; Civil Engineer Assistant and Surveyor Coordinator
- 1978-1981; Corps of Engineers, Alaska District, Anchorage, Alaska; Survey Section, Chief of Surveys, Civil Engineering Technician
- 1977-1978; Morrison and Maierle Consulting Engineers-Bozeman, Montana; Project Manager, Surveyor
- 1975-1976; Department of the Interior, US Geological Surveys-Billings, Montana; Hydrologic Technician
- 1971-1975; Atlas Engineers Inc., Consulting Engineers-Billings, Montana; Party Chief, Instrument Man
- 1970-1971; Christian, Spring, Seilbach and Associates, Consulting Engineers-Billings, Montana; Party Chief, Instrument Man
- 1967-1970; USMC-Active duty
- 1967-1967; Montana Highway Department-Billings, Montana, summer Survey Crew Helper
- 1966-1966; Atlas Engineers Inc. Consulting Engineers-Billings Montana, summer Survey Crew work

Mr. Irwin has many examples of his surveys, proposals, field projects, plats, subdivision designs and assignments that he would be happy to share with prospective employers. References are also available from Professional Land Surveyors, Professional Engineers, Professional Architects, Municipal clients, state officials and federal contracting officer representatives.