



**BOARD OF PROFESSIONAL ENGINEERS
AND PROFESSIONAL LAND SURVEYORS**

1510 E. Watertower St., Suite 110
Meridian, Idaho 83642-7993
Phone: (208) 373-7210 Fax: (208) 373-7213
<http://www.ipels.idaho.gov>

LEGISLATIVE BRIEFING PAPER

Topic: Updated Definition of Land Surveying
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Contact: Keith Simila
(208) 332-1783

Background

The Idaho Society of Professional Land Surveyors together with the Board of Licensure for Professional Engineers and Professional Land Surveyors is undertaking an effort to change the definition in Idaho Code. The primary reason is to ensure law aligns with actual practice and to better provide protections for public health, safety and property.

Issue

The current law is focused only on property boundary surveying and flood elevation certification. The law is outdated and needs to be upgraded for the following reasons:

- Land Surveyors are called upon by Idaho Statute to protect the health, welfare, and well-being of the general public. Under the current law, Land Surveyors are only licensed to work on property boundaries yet are asked by their clients to sign and seal work that they perform which is not authorized by code.
- The current law is a barrier to entry for new professionals. Very few young surveyors are entering the workforce and becoming a licensed professional land surveyor since they can only credit boundary surveying experience toward the 4-year experience requirement.
- The States surrounding Idaho have recognized the need to protect their public by revising the definition of land surveying to better reflect what surveyors are called upon to do in their states and to recognize the experience and judgment of a licensed professional land surveyor.

New legislation is planned for the 2015 legislature. Your interest and support for this effort is greatly appreciated.



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Survey Work Authorized by Idaho Code

Land Surveying is a profession that the public and businesses relies on to measure land and various features on the land. Property boundaries and corners are routinely measured and monumented so property ownership on the ground is defined and known. Surveyors develop plats for subdivisions, set the property corner monuments, post property boundaries and file records in county courthouses to preserve a record of the survey and property monuments. Other property boundaries such as lease boundaries, easements, rights-of-way, mining claims, and other land interests are surveyed, and recorded by land surveyors. Many homeowners and businesses rely on surveyors to certify flood elevations to determine if the buildings on their property require flood insurance, and if so, they determine the respective flood hazard zone that influences the insurance rates. These activities are included in the current definition of land surveying.

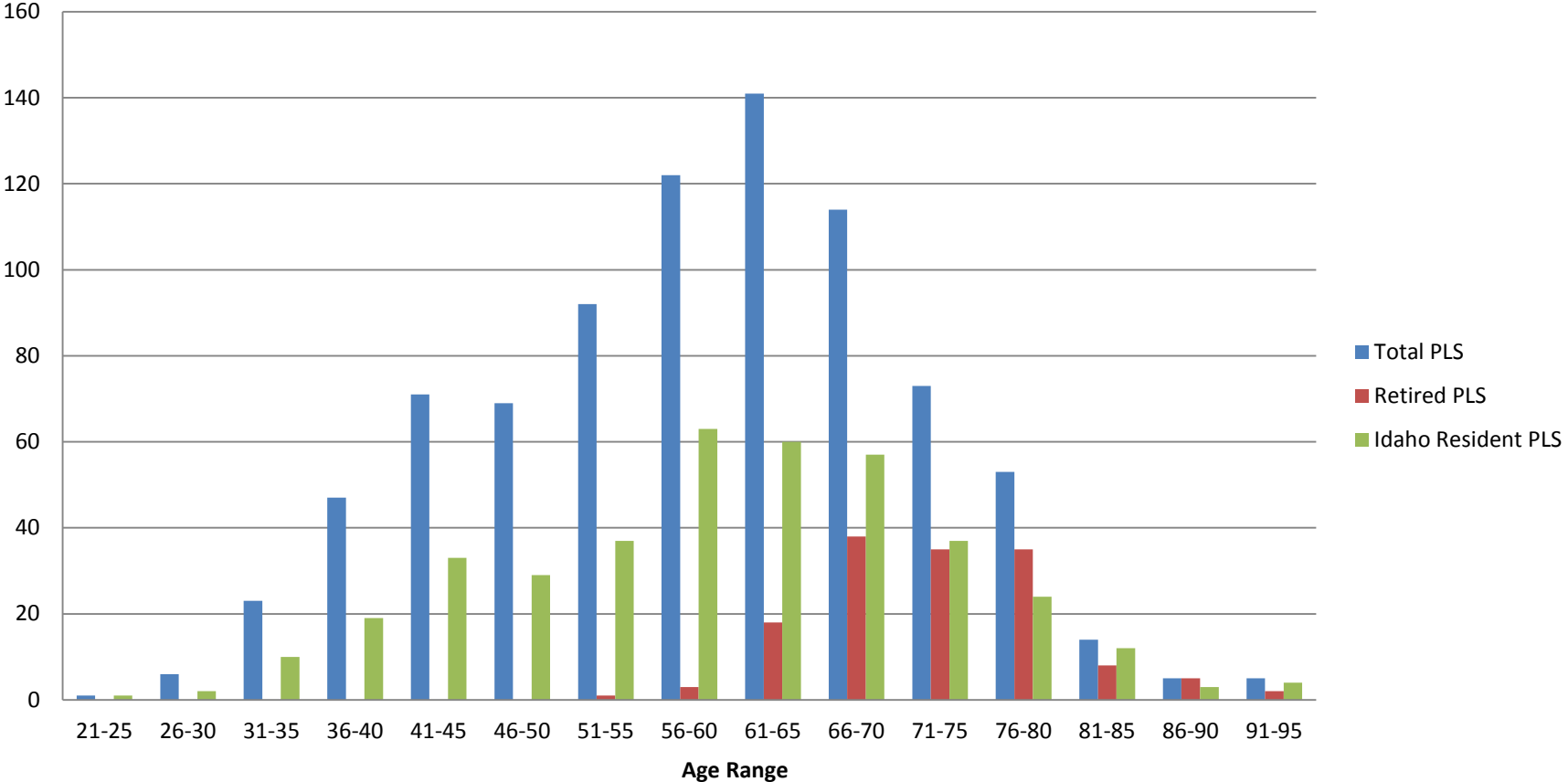
Survey Work Not Authorized by Idaho Code

But Land Surveyors measure much more than property boundaries and flood elevations. They measure routes for roads, power lines, pipelines, canals, ditches and other utilities to determine the location and grade. They measure points on the earth to determine elevations and coordinates – useful for locating communication towers, oil and gas wells, boundaries of water bodies and wetlands, and geological features. Surveyors make maps used to define topography used by engineers and architects to design infrastructure projects. They survey construction projects to insure constructed features are built at the proper grade and location. They measure quantities of earth moved and materials used in construction to determine payment for construction contractors. They develop as-built drawings and maps so the accurate location of infrastructure can be recorded in geographic information systems (GIS) used by city and county organizations to keep an inventory of utilities and their location. Surveyors establish and survey horizontal and vertical control for use in aerial mapping of large parcels of land. These land surveying services and products are not included in Idaho Code that defines Land Surveying.

Surveyor Workforce Demographics

Finally, Idaho has an age demographic problem as very few young people are entering the profession. It takes too long for new surveyors to get the required boundary surveying experience to qualify for licensure. The experience they gain within the legal definition in Idaho Code is the only experience that can be counted toward licensure. This results in many young surveyors moving on to other career options, resulting in very few new surveyors getting licensed.

Idaho Professional Land Surveyors



Age Demographics for Licensed Professional Land Surveyors

The average age of practicing surveyors is over 50 years old

TITLE 54
PROFESSIONS, VOCATIONS, AND BUSINESSES
CHAPTER 12
ENGINEERS AND SURVEYORS

54-1202. Definitions. As used in this chapter, unless the context or subject matter requires otherwise:

(1) "Authoritative" means certified by a professional land surveyor in accordance with established principles of professional land surveying when used to describe products, processes, applications, or data resulting from the practice of professional land surveying.

(2) ~~(1)~~ "Benchmark" means a material object, natural or artificial, whose elevation is referenced to an adopted datum.

(3) ~~(2)~~ "Board" means the Idaho board of licensure of professional engineers and professional land surveyors, hereinafter provided by this chapter.

(4) ~~(3)~~ "Business entity" means a corporation, professional corporation, limited liability company, professional limited liability company, general partnership, limited partnership, limited liability partnership, professional limited liability partnership or any other form of business except a sole proprietorship.

(5) ~~(4)~~ "Consulting engineer" means a professional engineer whose principal occupation is the independent practice of professional engineering; whose livelihood is obtained by offering engineering services to the public; who is devoid of public, commercial and product affiliation that might tend to infer a conflict of interest; and who is cognizant of his public and legal responsibilities, and is capable of discharging them.

(6) ~~(5)~~ "Engineer" means a person who is qualified to practice engineering by reason of his special knowledge and use of mathematical, physical and engineering sciences, and the principles and methods of engineering analysis and design, acquired by professional education and engineering experience.

(7) ~~(6)~~ "Engineer intern" means a person who has qualified for, taken and passed an examination in the fundamentals of engineering subjects as provided in this chapter.

(7) "Land survey" means measuring the field location of corners that:
(a) Determine the boundary or boundaries common to two (2) or more ownerships;
(b) Retrace or establish land boundaries;
(c) Retrace or establish boundary lines of public roads, streets, alleys or trails; or
(d) Plat lands and subdivisions thereof.

(8) "Land surveyor intern" means a person who has qualified for, taken and passed an examination in the fundamentals of surveying subjects as provided in this chapter.

(9) "Professional engineer" means a person who has been duly licensed as a professional engineer by the board under this chapter.

(10) "Professional engineering" and "practice of professional engineering" mean any service or creative work offered to or performed for the public for any project physically located in this state, such as consultation, investigation, evaluation, planning, designing, teaching upper division engineering design subjects, and responsible charge of observation of construction in connection with any public or private utilities, structures, buildings, machines, equipment, processes, works or projects or to certify elevation information, wherein the public welfare or the safeguarding of life, health, or property is concerned or involved, when such service requires the application of engineering principles and data. A person shall be construed to practice or offer to practice professional engineering within the meaning and intent of this chapter who practices or offers to practice any of the branches of the profession of engineering for the public for any project physically located in this state or who, by verbal claim, sign, advertisement, letterhead, card, or in any other way

represents himself to be a professional engineer or through the use of some other title implies that he is a professional engineer or that he is licensed under this chapter, or holds himself out as able to perform or who does perform for the public for any project physically located in this state, any engineering service or work or any other service designated by the practitioner which is the practice of professional engineering.

(11) "Professional land surveying" and "practice of professional land surveying" mean responsible charge of land surveying to determine the correct boundary description, to establish or reestablish land boundaries, to plat lands and subdivisions thereof, or to certify elevation information. services using such sciences as mathematics, geodesy, photogrammetry and involving both (1) the making of geometric measurements and gathering related information pertaining to the physical or legal features of the earth, improvement on the earth, the space above, on or below the earth and (2) providing, utilizing, or developing the same into survey products such as graphics, data, maps, plans, reports, descriptions, or projects; or to provide acts of consultation, investigation, testimony, planning, mapping, assembling, and interpreting, gathering measurements and information related to any one or more of the following:

a. Determining by measurement the configuration or contour of the earth's surface or the position of any fixed objects thereon;

b. Determining by performing geodetic surveys the size and shape of the earth or the position on any point on the earth;

c. Locating, relocating, establishing, reestablishing, or retracing property lines or boundaries of any tract of land, road, right of way, easement, or real property lease;

d. Making any survey for the division or subdivision, or consolidation of any tract(s) of land;

e. Locating or laying out of alignments, positions, or elevations in the field for the construction of fixed works;

f. Determining, by the use of principles of surveying, the position for any survey monument (boundary or non-boundary) or reference point; establishing or replacing any such monument or reference point;

g. Certifying elevation information;

h. Preparing narrative land descriptions.

i. Creating, preparing, or modifying electronic or computerized or other data, necessary for the performance of the activities in items a-i above.

Exempted from this section are: (i) mapping or geographic information system work that is for non-authoritative boundaries and non-authoritative elevations; (ii) construction survey work that is unrelated to establishing vertical and horizontal project control; and (iii) construction staking of fixed works or the development and use of electronic models for machine controlled construction, that by design are unrelated to boundaries described in subsection 11(c). Any person shall be construed to practice or offer to practice professional land surveying who engages in professional land surveying, or who, by verbal claim, sign, advertisement, letterhead, card, or in any other way represents himself to be a professional land surveyor, or who represents himself as able to perform or who does perform any professional land surveying service or work or any other service designated by the practitioner which is professional land surveying.

(12) "Professional land surveyor" means a person who is qualified by reason of his knowledge of the principles of land surveying acquired by education and practical experience to engage in the practice of professional land surveying and who has been duly licensed as a professional land surveyor by the board under this chapter.

(13) "Public" means any person, firm, corporation, partnership, company, government agency, institution or any other entity recognized by law.

(14) "Responsible charge" means the control and direction of engineering work, or the control and direction of land surveying work, requiring initiative, professional skill, independent judgment and professional knowledge of the content of relevant documents during their preparation. Except as allowed under section 54-1223, Idaho Code, reviewing, or reviewing and correcting, documents after they have been prepared by others does not constitute the exercise of responsible charge.

(15) "Rules of professional responsibility" means those rules, if any, promulgated by the board, as authorized by the Idaho Code.

(16) "Signature" means either: an original handwritten message identification containing the name of the person who applied it; or a digital signature which is an electronic authentication process attached to or logically associated with an electronic document. The digital signature must be unique to the person using it; must be capable of verification; must be under the sole control of the person using it; and must be linked to a document in such a manner that the digital signature is invalidated if any data in the document is changed.

(17) "Standard design plan" means a building, structure, equipment or facility which is intended to be constructed or sited at multiple locations and for which some or all of the plans must be prepared by a professional engineer.

History:

[54-1202, added 1939, ch. 231, sec. 2, p. 516; am. 1957, ch. 234, sec. 2, p. 547; am. 1961, ch. 258, sec. 1, p. 422; am. 1978, ch. 170, sec. 1, p. 372; am. 1986, ch. 140, sec. 2, p. 377; am. 1996, ch. 357, sec. 2, p. 1187; am. 2000, ch. 289, sec. 1, p. 991; am. 2001, ch. 247, sec. 2, p. 890; am. 2002, ch. 6, sec. 1, p. 6; am. 2007, ch. 219, sec. 1, p. 655; am. 2008, ch. 378, sec. 3, p. 1024; am. 2011, ch. 136, sec. 10, p. 389; am. 2013, ch. 339, sec. 1, p. 886.]

54-1227. Surveys – Authority and Duties of Professional Land Surveyors and Professional Engineers. Every licensed professional land surveyor is hereby authorized to make land surveys and it shall be the duty of each licensed professional land surveyor, whenever making any **such boundary** land survey **pursuant to section 54-1202, Idaho Code,** that is not preliminary in nature, to set permanent and reliable magnetically detectable monuments at all unmonumented corners field located, the minimum size of which shall be one-half (1/2) inch in least dimension and two (2) feet long iron or steel rod unless special circumstances preclude use of such monument; and such monuments must be permanently marked with the license number of the professional land surveyor responsible for placing the monument. Professional engineers qualified and duly licensed pursuant to this chapter may also perform those nonboundary surveys necessary and incidental to the work customarily performed by them. [(54-1227) 1903, p. 81, sec. 7; reen. R.C. & C.L., sec. 1408; C.S., sec. 2240; am. 1921, ch. 158, sec. 1, p. 351; I.C.A., sec. 53-2306; am. 1957, ch. 234, sec. 17, p. 547; am. 1978, ch. 170, sec. 20, p. 388; am. 1986, ch. 140, sec. 22, p. 395; am. 1992, ch. 61, sec. 2, p. 194; am. 1996, ch. 357, sec. 19, p. 1202; am. 2008, ch. 378, sec. 22, p. 1043; am. 2011, ch. 136, sec. 11, p. 391.]

Keith Simila, P. E



Keith Simila is the Executive Director to the Idaho Board of Professional Engineers and Professional Land Surveyors. He began in this position in 2013. As a licensed professional engineer his current job is to assist the board in licensing new engineers and land surveyors, work with the legislature and other stakeholders to update the laws and rules of the board, to engage in disciplinary actions that enforce the laws and rules of the board and to educate licensees, certificate holders and others in regard to licensure and professional practice issues.

Prior to 2013, Keith spent 33 years as an engineer with the US Forest Service. He retired as the Director of Engineering for a 4 state region (located in Ogden, Utah) which included Southern Idaho. Keith also worked as a practicing engineer in Boise, Salmon, and Priest River, Idaho, Missoula, Montana, Juneau, Alaska and Washington, DC.

Originally from Portland, Oregon, Keith graduated with a B.S. in Civil Engineering and Forest Engineering from Oregon State University. He has a Masters of Administrative Management from Regent University School of Business in Virginia Beach, Virginia.

Keith is now a Boise resident with his wife Anne of 32 years. He has 2 children and 3 grandchildren.

John M Clark
Idaho PLS 4732

John M. (Jack) Clark is a Professional Land Surveyor licensed by the State of Idaho since 1983. He has retired from the Ada County Assessor's Office after seventeen years of service. He is currently employed by Accurate Surveying and Mapping Company, a local Surveying Services firm where he acts as surveying consultant.

Born in San Francisco, California in 1949, Jack was raised as a US Air Force dependent. Both his parents were Idaho natives and each had a grandparent in Idaho during the territorial days. Being a military dependent he has lived in the states of Colorado, Hawaii (as a territory), New York and Montana, but Idaho was always home. He served in the US Army as a legal clerk and construction surveyor in South Vietnam in 70-71, and relocated from Colorado following his discharge from active and reserve duty. He has been involved with the Idaho Society of Professional Land Surveyors since the mid 80's, serving as Treasurer, Southwest Section Director, and editor of their quarterly publication, the *Gem State Surveyor* for over a decade.

Jack worked for Morrison-Knudsen Company from the mid 70s through the early 80s. As an employee of M-K, Jack surveyed overseas in central Africa and on numerous projects in the Pacific Northwest and Alaska in support of the companies' projects. After earning his license in 1983 he surveyed in Ada and surrounding counties for consultants until 1990. Prior to joining the Assessor's Office in 1996, Jack worked for Infotec, the contractor to the Bureau of Land Management on their Geographic Co-ordinate Data Base (GCDB) project. This digital mapping project is based upon survey records that originated in the 1860's. Jack had the opportunity to receive advanced cadastral training through the BLM in order to do the work. At Ada County, he was involved in the mapping and determination of real property ownership for tax assessment purposes, and mentoring the land records staff to achieve those goals. Jack also served a three-year term on the Ada County Historic Preservation Council.

His interest in and appreciation of the practice of surveying is his passion. Jack is a vocal advocate for the surveying profession and closely follows legislative issues that affect it. He believes that many real estate boundary problems would be solved by more surveyor involvement at the beginning of a dispute. His knowledge of land records and years of field experience are assets that can be utilized to bring a successful conclusion to surveying challenges.