

# SURVEY DEFINITIONS

## **Land Surveyor: ORS 672.005(2)**

"Practice of land surveying" means that branch of the practice of engineering in which:

- (a) Surveys are made to determine area or topography, to establish or reestablish land boundaries, corners or monuments or to subdivide or plat land;
- (b) Surveys are made to establish lines, grades or elevations, or to determine or estimate quantities of materials required, removed or in place;
- (c) Surveys are made for horizontal or vertical mapping control or geodetic control; or
- (d) Consultation, investigation, evaluation or planning relating to land surveying matters is required.

672.045 Prohibited activities relating to practices of engineering and land surveying. A person shall not:

(1) Engage in the practice of engineering or land surveying without having a valid certificate or permit to so practice issued in accordance with ORS 672.002 to 672.325.

### **Exceptions:**

672.060 Exceptions to application of ORS 672.002 to 672.325. ORS 672.002 to 672.325 do not apply to:

(4) Any person practicing land surveying under the supervision of a registered professional land surveyor or registered professional engineer. The exemption in this subsection does not allow an engineer to supervise any land surveying activity the engineer could not personally perform under ORS 672.025.

(5) An individual, firm, partnership or corporation practicing engineering or land surveying:

(a) On property owned or leased by the individual, firm, partnership or corporation, or on property in which the individual, firm, partnership or corporation has an interest, estate or possessory right; and

(b) Which affects exclusively the property or interests of the individual, firm, partnership or corporation, unless the safety or health of the public, including employees and visitors, is involved.

## **820-010-0010**

### **Definitions**

(6) "Practice of land surveying" refers to ORS 672.005(3) and 672.007. It is interpreted by the Board as the application of all technologies for quantitative measurement of the earth surface, sub-surface, and sub-oceanic features for the purpose of, but not limited to, location and relocation of boundaries, construction of maps, and the determination of positions, elevations, areas, and volumes. The practice requires fundamental knowledge of mathematics and science as applied to instrumentation, observations, and measurements and the rigid adjustments of data to useful and practical mapping and

survey systems. The practice also requires authoritative knowledge of common law in boundary locations particularly with regard to unwritten title transfer and admissible evidence, as well as the current statutory laws in the State of Oregon with respect to land subdivision and the legal responsibilities of a land surveyor.

**AREA:** The extent of a surface, or an appropriately defined portion of a surface. \*1, p13.

**AREA:** the surface within a set of lines. Area is measured in square units. \*2, 5-1

**BOUNDARY (mathamatical):** An  $(N-1)$  dimensional region separating two  $N$ -dimensional regions.

**BOUNDARY (land):** A line of demarcation between adjoining political or legally distinct areas of land.\*1, p25.

**CONTROL:** A control station. The coordinates of a control station. The geometric data associated with the collection of control stations, such as coordinates, distance, angles, or directions between control stations. \*1, p41.

**CONTROL (horizontal):** A control station whose horizontal coordinates have been determined of a control station. \*1, p42.

**CONTROL (vertical):** A control station whose elevations are accurately known can be identified with physical points on the Earth, and can be used to provide elevations for other surveys. \*1, p42.

**CORNER (land surveying):** A point on a land boundary at which two or more boundaries meet (not the same as a monument). \*1, p49.

**ELEVATIONS:** The distance of a point above a specific surface of constant potential; the distance is measured along the direction of gravity between the point and the surface. \*1, p69.

**GEODESY:** The science concerned with determining the size and shape of the Earth. The science that locates positions on the Earth and determines the Earth's gravity field. The branch of surveying in which the curvature of the Earth must be taken in to account when determining directions and distances. \*1, p86.

**GRADES:** Rate of slope or degree of inclination. In surveying for construction, the difference in elevation above or below a reference surface. \*1, p90.

**MAP:** A conventional representation, usually on a plane surface and at an established scale, of the physical features (natural, artificial, or both) of a part or the whole of the Earth's surface. Features are identified by means of signs, symbols, and geographic orientation is indicated. \*1, p141.

**MONUMENTS:** A structure that marks the location of a corner or point determined by surveying. Generally, any material, object, or collection of objects which indicates the location, on the ground, of a survey station or corner. \*1, p164.

**PLAT:** A diagram or map, drawn to scale showing all the essential data pertaining to the boundaries and subdivisions of a tract of land. \*1, p185.

**TOPOGRAPHY:** The form of the features of the actual surface of the Earth in a particular region considered collectively. A single feature, such as a mountain or valley, is called a topographic feature. \*1, p244.

**TOPOGRAPHY CONTROL:** Transferring the relative positions of points and objects on the surface of the Earth to the surface of the map. \*2, 17-5.

**TOPOGRAPHIC MAP:** A map showing the horizontal and vertical locations of natural and artificial features. A map whose principle purpose is to portray and identify the natural of the Earth's surface as faithfully as possible within the limitations imposed by scale. \*1, p144.

**TOPOGRAPHIC MAP:** topographic maps provide a plan view of a portion of the Earth's surface, showing natural and man made features such as rivers, lakes, roads, buildings and canals. The shape, or relief, of the area shown by contour lines, hachures, or shading. \*2, 17-1

\*1 = GLOSSARIES OF SURVEYORS, Second Edition, Roy Minnick

\*2 = LAND SURVEYOR REFERENCE MANUAL, Second Edition, Andrew L. Harbin