
**Alaska Board of Registration for Architects,
Engineers, Land Surveyors and Landscape Architects**

**PROFESSIONAL LAND SURVEYING
CANDIDATE HANDBOOK**

2012

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INTRODUCTION

The Alaska Board of Registration for Architects, Engineers, Land Surveyors and Landscape Architects (AELS) is responsible for developing the Alaska Land Surveying Examination (AKLS) for candidates seeking licensure as professional land surveyors. The AELS Board devotes substantial time and effort developing a state-specific examination that is a valid measure of competency related to the practice of the profession. Public protection is enhanced in that competent candidates have a greater chance of passing the examination.

The AKLS Examination is a 60 question, open-book multiple-choice exam. The examination is given at least once per year and is the result of careful preparation by a committee comprised of professional land surveyors. These land surveyors supply the content expertise essential in developing a fair and impartial examination for measuring entry level competency in the profession.

In addition, the AELS Board requires that candidates pass the Fundamentals of Land Surveying (FLS) and the Principles and Practice of Land Surveying (PLS) Examinations prepared by the National Council of Examiners for Engineering and Surveying (NCEES). Candidates may purchase a copy of the NCEES Professional Land Surveying Candidate Handbook for use in preparing for the FLS and PLS Examinations:

National Council of Examiners
for Engineering and Surveying
ATTN: Publications Dept.
P.O. Box 1686
Clemson, SC 29633-1686

Telephone: 1-(864) 654-6824 ext.233
Fax: 1-(864) 654-6966
Toll Free: 1-800-250-3196 ext. 233
Homepage: <http://www.ncees.org>

This candidate handbook is designed to help you prepare for the AKLS Examination. We hope you find the information useful. We extend our best wishes for success on this examination and in the practice of land surveying.

DESCRIPTION OF EXAMINATION

Examination Schedule and Timetable

The AKLS Examination is given at least once each year, typically in April, on Friday afternoon right after the NCEES PLS Exam. The examination is comprised of 60 multiple-choice questions administered in a 2-hour session.

Examination Validity

Testing standards require that the questions on a licensing examination represent the important tasks needed for competent practice in the profession. The relation between the examination questions and the important tasks of a profession is established by conducting a task analysis of the profession. The task analysis is used to determine those tasks performed by the profession related to public protection *and the underlying knowledge and skills needed to perform those tasks*. This information is then used to develop test blueprints (content outlines) that guide the development of job-related questions that reflect the critical aspects of the profession.

The content of the AKLS Examination has been determined by evaluating the results of the NCEES Task Analysis and a review of statutes, rules and regulations that impact the practice of professional land surveying in Alaska. The AKLS Examination complements the knowledge and skills measured on the NCEES Examinations. This ensures the examination reflects those competencies related to public protection.

AKLS Test Blueprint

The AKLS Test Blueprint (page 5) specifies the content areas/domains for the examination. Each question on the examination is designed to test for knowledge of subject matter within one or more of these content domains. More weight is assigned to content domains that are most directly related to public protection issues.

The content and format of the questions have been

carefully reviewed to ensure the accuracy of the questions. Sample questions for the AKLS Examination are presented on page 6.

The sample questions do not make up a complete examination. However, they do illustrate the general content areas and format and should be helpful in your preparation for the examination.

Scoring Procedures

Scores are calculated based on the number of correct responses within an examination. Credit is given for correct responses while no points are received for incorrect responses.

Consequently, candidates should answer each question because there is no penalty for guessing. Note that only one response should be marked for each question because questions that contain two or more marked responses or all blank responses (i.e., omitted questions) are scored as incorrect responses.

TAKING THE EXAMINATION

Distribution of Test Booklets

Proctors will distribute test booklets and answer sheets. Read all instructions carefully. Special attention should be given to the information on the front of the booklet.

Copying, reproduction, or any action taken to reveal the contents of examination in whole or in part is unlawful. Copying questions or removing test booklets from the examination room is prohibited.

Answer Sheets

To ensure proper scoring of your examination, it is imperative that you listen to the proctor's instructions and read the instructions printed on the examination booklets and answer sheets. Use only #2 pencils or mechanical pencils with HB lead. Marks in ink or felt-tip pens will not be scanned properly. For proper scoring, the answer spaces must be blackened completely.

Select the best answer from the four choices. No credit is given for multiple answers. If you decide to change an answer, erase the first answer completely. Incomplete erasures and stray marks may be read as intended answers. NOTE: Your sketches, notes and calculations are NOT considered to be part of your answer and are not inspected or graded. All work, however, must be turned in with your test booklet.

Starting and Completing the Exam

Do not open the examination booklet until instructed to do so by your proctor. You are responsible for returning the numbered examination booklet assigned to you.

References

The AKLS Examination is open-book. References are permitted and you may also use hand-held calculators. A general GPS reference and a general

surveying text with surveying formulas may be helpful. However, remember that you have 60 multiple-choice questions to complete within 2 hours. Familiarity with the reference material (see AKLS Test Blueprint, page 5) should allow sufficient time to complete the examination. Failure to thoroughly learn and review the reference materials will result in insufficient time to complete the 60 item examination within 2 hours.

The exam questions are primarily developed from one or more of the references listed below. It is to your advantage to spend time learning and reviewing the relevant material.

1. ASPLS Standards of Practice for Professional Land Surveyors, Fourth Edition, 1994. This manual is now available on CD and is also located on the ASPLS website at: <http://www.alaskapls.org>

Alaska Society of Professional Land Surveyors
PO Box 101465
Anchorage, AK 99510-1465

NOTE: Older printed versions of the ASPLS Standards of Practice Manual contain some outdated statutes and regulations

2. Manual of Instructions for the Survey of the Public Lands of the United States 1973 available from the:

University of Alaska Anchorage
Bookstore
(907) 786-4759

or may be ordered from:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

3. BLM Manual of Surveying Instructions (2009)

<http://www.acsm.net>

4. **BLM Publication**
BLM/AK/AE-90/026+2000+973
Rev. June 2001
Public Land Laws of Alaska can be purchased for \$20.00 from:

Bureau of Land Management
Alaska State Office Information Center
222 West 7th Avenue #13
Anchorage, Alaska 99513
(907) 271-5960

or

Bureau of Land Management
Fairbanks Support Center
Public Information Office
1150 University Avenue
Fairbanks, Alaska 99709
(907) 474-2251

5. General reference materials on surveying and GPS.
6. Statutes and Regulations - Architects, Engineers, Land Surveyors, and Landscape Architects
Department of Commerce and Economic Development
Division of Occupational Licensing
(most recent edition)

<http://www.dced.state.ak.us/occ/pael.htm>

7. State of Alaska, Department of Transportation & Public Facilities (DOT/PF), Construction Surveying Requirements (Metric), July 1994, available at DOT/PF offices throughout Alaska. The Manual is also located at the following website:

8. <http://www.dot.state.ak.us/>
State of Alaska, Department of Natural Resources Survey Unit Website:

<http://www.dnr.state.ak.us/mlw/survey/>

9. Definitions of Surveying and Associated Terms
American Congress on Surveying & Mapping
6 Montgomery Village Ave., Suite 403
Gaithersburg, MD 20879
(240) 632-9716

10. Alaska Society for Professional Land Surveyors—at the following website:

<http://www.alaskapls.org>

11. Federal Statute 25 CFR, Parts 150 and 169

12. Alaska Railroad Transfer Act, 1982. U.S. Code: Title 45, 21, 1203.

Special Accommodations

If you require special accommodations in the test-taking procedure because of a disabling condition, communicate your need by the deadline date listed on the exam application to the:

Department of Commerce and
Economic Development
Division of Occupational Licensing
PO Box 110806
Juneau, AK 99811-0806
Phone: (907) 465-2540

AKLS Test Blueprint (2012)

<u>CONTENT DOMAINS</u>	<u>No. of Items</u>
1. AS Titles 8, 9, 10 and AAC Title 12 – Professional Statutes and Regulations.....	3
2. AS Title 19 - Highways & Ferries.....	2
3. AS Title 27 - Mining.....	1
4. AS Title 29 - Municipal Government.....	3
5. AS Title 34 - Property.....	4
6. AS Title 35 - Public Buildings, Works and Improvements.....	1
7. AS Title 38 - Public Lands.....	3
8. AS Title 40 - Public Records & Recordors.....	3
9. AS Title 44 - State Government.....	1
10. AAC Title 11 - Natural Resources.....	5
11. Federal Statute 25 CFR, Parts 150 and 169 - Indian Lands.....	2
12. Alaska Society of Professional Land Surveyors (Chapter 1).....	2
13. Standards (Chapter 2).....	4
14. Guidelines (Chapter 3).....	5
15. Sources of Information (Chapter 4).....	1
16. Alaska Native Claims Settlement Act.....	2
17. Alaska Statehood Act.....	1
18. Alaska State Plane Coordinate System/Geodetic Surveying.....	6
19. Public Land Survey System (Federal).....	9
20. Boundary Law.....	2

Total Items = 60

AKLS Sample Questions

1.

You are surveying a parcel of state land for public disposal and there is an existing ATV trail that does not have a reserved easement or right-of-way. When creating the plat, this trail should be shown with an easement:

- A) 50 feet wide centered on the trail.
- B) 30 feet on each side of the centerline.
- C) 20 feet wide, unless a need is demonstrated for a different width.
- D) No easement needs to be shown.

2.

The Federal Geodetic Control Committee defines the minimum distance accuracy for a Third-order, Class I survey as:

- A) 1:15,000
- B) 1:10,000
- C) 1:5,000
- D) 1:20,000

3.

Along an east-west section line:

1. The section corners were surveyed and set in June 1919.
2. The survey was approved by the GLO Surveyor General in July 1925.
3. Land north of the section line was entered in March 1919 and patented in July 1935 from the Federal Government.
4. Land south of the section line was entered in February 1949 and patented in February 1951 from the Territory.

Section line easements are:

- A) none
- B) 33' each side.
- C) 33' on north; none on south.
- D) 33' on south; none on north.

AKLS Sample Questions

4.

Alaska legislation has adopted the NAD 83 system for State Plane Coordinates. What does the legislation refer to regarding the units of measure?

- A) The legislation permits use of meters or International Feet.
- B) The legislation permits use of meters or U.S. Survey Feet.
- C) Legislation permits use of meters and either International Feet or U.S. Survey Feet, as long as it is specified.
- D) State legislation mentions meters, but is silent about any conversion to feet.

5.

In performing a retracement survey on a Public Land Survey where BLM monuments are lost, BLM procedures require that surveyors use which of the following adjustments for positioning the monuments?

- A) Single and double proportion
- B) Least squares adjustment
- C) Bowditch adjustment
- D) Bowditch and Grant adjustments

Key for: "AKLS Sample Questions"

1. B
2. B
3. D
4. D
5. A