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

PROFESSIONAL LAND SURVEYING EXAM CANDIDATE HANDBOOK

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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 exam.

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 Surveying (FS) and the Principles and Practice of Surveying (PS) Examinations prepared by the National Council of Examiners for Engineering and Surveying (NCEES). Candidates may obtain NCEES exam preparation materials for use in preparing for the FS and PS Examinations at:

http://ncees.org

This candidate handbook is designed to help you prepare for the AKLS Examination. We hope you find the information useful.

DESCRIPTION OF EXAMINATION

Examination Schedule and Timetable

The AKLS Examination is administered two times each year (April and October). The examination is comprised of 60 multiple-choice questions administered in a two-hour session.

Examination Validity

The content of the AKLS Examination has been determined by reviewing the 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.

AKLS Test Blueprint

The AKLS Test Blueprint (page 6) 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 and answer key for the AKLS Examination are presented on pages 7 – 11.

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

Your exam results are determined by the number of items answered correctly for the exam in its entirety. You are not penalized for incorrect answers. Note that only one response should be marked for each question.

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 the 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 scan properly. For proper scoring, the answer spaces must be blackened completely.

Select the <u>best</u> 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 and references are permitted. You may only use approved hand-held calculators from the current NCEES Calculator Policy (https://www.ncees.org). 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 two hours. Familiarity with the reference material (see AKLS Test Blueprint, page 6) 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 exam within two 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 <u>Professional Land Surveyors</u>, 4th Edition. This manual is now available on the ASPLS website at: https://www.alaskapls.org/standards

Alaska Society of Professional Land Surveyors PO Box 112835 Anchorage, AK 99511-2835

NOTE: The statutes and regulations located at https://www.alaskapls.org are the version being tested. 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

Pdf file available for download:

https://www.blm.gov/or/gis/geoscience/files/1973Manual.pdf

3. BLM Manual of Surveying Instructions (2009)

Hard copy can be purchased at: https://nsps.site-ym.com/store/default.aspx

Pdf file available for download:

https://www.blm.gov/sites/blm.gov/files/Manual Of Surveying Instructions 2009.pdf

4. BLM Publication BLM/AK/AE-90/026+2000+973 Rev. June 2001

Public Land Laws of Alaska can be purchased 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.
- Statutes and Regulations Architects, Engineers, Land Surveyors,
 and Landscape Architects
 Department of Commerce and Economic Development
 Division of Occupational Licensing
 (most recent edition)

https://www.commerce.alaska.gov/web/Portals/5/pub/aelsstatutesregs.pdf

7. State of Alaska, Department of Transportation & Public Facilities (DOT/PF), Construction Manual. The Manual is located at the following website:

http://dot.alaska.gov/stwddes/dcsconst/constructionmanual.shtml

8. State of Alaska, Department of Natural Resources Survey Unit Website:

http://www.dnr.alaska.gov/mlw/survey/

9. <u>Definitions of Surveying and Associated Terms</u>

Hard Copy can be purchased at NSPS: https://www.nsps.us.com/store/viewproduct.aspx?id=3895782

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

https://www.alaskapls.org

11. Federal Statute 25 CFR, Parts 150 and 169 (May 2016)

https://www.ecfr.gov/current/title-25/chapter-I/subchapter-H/part-150

https://www.ecfr.gov/current/title-25/chapter-I/subchapter-H/part-169

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

https://www.alaskarailroad.com/sites/default/files/akrr pdfs/Corp ARTA 2005.pdf

ADA Accommodations

The AELS Board provides reasonable and appropriate accommodations for individuals with documented disabilities within the meaning of the Americans with Disabilities Act, as amended (ADA). If you believe that you have a disability that prevents you from taking the exam under standard conditions, you may request accommodations by the deadline date listed on the exam application to the:

Department of Commerce, Community, and Economic Development Division of Occupational Licensing PO Box 110806 Juneau, AK 99811-0806

Phone: (907) 465-2540

AKLS Examination Test Blueprint (2023 - 2025)

No.	Content Domains	Number of Items
1	AS Titles 8, 9, 10 and AAC Title 12 - Professional Statutes & 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 & Recorders	3
9	AS Title 44 - State Government	1
10	AAC Title 11 - Natural Resources	5
11	Federal Statute 25 CFR, Parts 150 & 169	2
12	ASPLS Standards of Practice for Professional Land Surveyors, 4th ed. (Chapter 1) ASPLS	2
13	ASPLS Standards of Practice for Professional Land Surveyors, 4th ed. (Chapter 2) Standards	4
14	ASPLS Standards of Practice for Professional Land Surveyors, 4th ed. (Chapter 3) Guidelines	5
15	ASPLS Standards of Practice for Professional Land Surveyors, 4th ed. (Chapter 4) Sources of Information	1
16	Alaska Native Claims Settlement Act	2
17	Alaska Statehood Act	1
18	Alaska State Plane Coordinate System/Geodetic Surveying	5
19	Public Land Survey System (Federal)	9
20	Boundary Law	3
	Total Number of Items	60

AKLS Sample Questions

- 1. According to the statutory rules for construing real estate descriptions, when a road or stream of water not navigable is the boundary, the rights of the grantor extend to the middle of the road or the thread of the stream and are included in the conveyance, EXCEPT:
- A) when the land is located within the unorganized borough.
- B) where the road or bed of the stream is held under another title.
- C) where the road or stream is at least 2 chains wide.
- D) where the Department of Environmental Conservation denies approval.
- 2. In order for title to land condemned for a highway right-of-way to become vested in the State of Alaska, a Declaration of Taking must be:
- A) legally delivered to the owner of the property by a process server.
- B) filed in the proper court and in the recording district where the land is located.
- C) issued by the Superior Court upon resolution of the value of the land.
- D) reviewed and approved by the Interior Board of Land Appeals.
- 3. A second class city may exercise the power of eminent domain within its boundaries by:
- A) ordinance that is submitted to voters.
- B) its own authority.
- C) petitioning the Department of Natural Resources.
- D) public notice.
- 4. When after making a survey in conformity with the practice and definition of land surveying, and the survey discloses material evidence or physical change that in whole or in part does not appear on a plat of record previously filed or recorded in the office of the district recorder or in the records of the BLM, and the land surveyor does not file a record of survey within 90 days, he/she must file a plat of survey disclosing the material evidence or physical change within how many months?
- **A)** 6
- B) 12
- C) 18
- D) 24

- 5. When state lands are surveyed for the purposes of private use, legal access:
- A) may not include trails that have been established by historical use.
- B) shall be reserved by the director.
- C) will be dedicated by the surveyor.
- D) is automatically created by the Bureau of Land Management prior to State patent.
- 6. What type of plat copy is admissible for evidence in all courts in the State of Alaska with the same effect as the original plat?
- A) A copy of the plat certified by the original surveyor with an original stamp.
- B) A copy of the plat certified by the Recorder of the local Recording District.
- C) A copy of the plat certified by the local Borough or City Clerk.
- D) A copy of the plat certified by a title officer in a local title company.
- 7. What is the only source that would ensure you have property subdivision plats for individually-owned Indian lands that are in trust status, such as Native allotments that title was issued under an allotment certificate, that have been properly executed in accordance to the requirements of Federal statute?
- A) appropriate State Recorders Office
- **B)** Borough Platting Department
- C) Bureau of Land Management Public Room
- D) Bureau of Indian Affairs Land Titles and Records Office
- 8. Native allotments, under Federal Statutes, may have an area not to exceed a total of:
- A) 40 acres in one parcel.
- B) 80 acres in one or two parcels.
- C) 160 acres in one parcel.
- D) 160 acres in one or several parcels.
- 9. On a fractional section 15, all four section corners were set, but the N. 1/4 corner was not set, and cannot be set. The N-S centerline should be run from the S. 1/4 corner:
- A) on a due North bearing.
- B) northerly, parallel with East boundary.
- C) on a mean northerly bearing.
- D) northerly through a point which is 40 chains west of the East 1/4 corner.

- 10. During the retracement survey of a section, you find the West 1/4 corner GLO monument correctly marked and apparently undisturbed, within 0.25 feet of the record location between the section corner monuments. You also find bearing trees of the appropriate species, diameter and orientation, properly scribed which would indicate the 1/4 corner position 66 feet further south along the line. You should:
- A) set a new monument, using record calls from the bearing trees.
- B) request adjudication of the 1/4 corner position by BLM.
- C) accept the monument in its present location.
- D) remove the monument and restore it to the position indicated using record calls from the bearing trees.
- 11. 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.
- 12. 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
- 13. 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.

- 14. Alaska legislation has adopted the Alaska Coordinate System of 1983. 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.
- 15. 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

Answer Key for AKLS Sample Questions

- 1. B
- 2. B
- 3. A 4. C
- 5. B
- 6. B
- 7. D
- 8. D
- 9. C
- 10. C
- 11. B
- 12. B
- 13. D
- 14. D
- 15. A