



**Alberta Land Surveyors' Association**

**Professional  
Examinations**

*including*

**Syllabus  
and  
Regulations**

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**The Alberta Land Surveyors' Association**  
1000 Phipps-McKinnon Building  
10020 – 101A Avenue  
Edmonton, AB T5J 2G3  
Phone: 429-8805 **1-800-665-ALSA** Fax: 429-3374  
[www.alsa.ab.ca](http://www.alsa.ab.ca)

*(Revisions by the Registration Committee up to January 2009)*

# Alberta Land Surveyors' Association

## PROFESSIONAL EXAMINATIONS

### 1. The Surveying Profession

Candidates will be expected to demonstrate a thorough knowledge of the surveying profession in Alberta which may include:

1. Scope of the surveying profession;
2. Professional responsibilities of land surveyors;
3. Interrelationships between members of the surveying profession and other land related disciplines such as law, planning, architecture, and engineering;
4. Ethical basis of professional practice and an understanding of the professional liability of survey technology, survey systems, survey organizations and the survey profession in general; and
5. Current affairs of the Alberta Land Surveyors' Association as well as current survey technologies.

#### **Textbooks:**

1. Code of Ethics - Alberta Land Surveyors' Association (AR324/82)
2. ALS News - emphasis on current issues however, could go back 10 years from current date (Boundaries is also an ALS News publication and is included).
3. Geomatica- emphasis on current issues however, could go back 10 years from current date.
4. Reports, relevant professional association, government, and industry reports, proceedings and seminars dealing with current technological, legal and professional issues based on the surveying profession.

#### **Reference Books:**

1. Survey Law in Canada - Chapter 11 - The Surveying Profession - Allred, G.K. (Carswell 1989).
2. Survey of the Geomatics Industry Report
3. Vision of an Ordered Land by MacGregor, J.G.
4. Men & Meridians (Volumes I, II, III) by Thomson, D.W.
5. Surveyors of Canada 1867 - 1967 by Bond, Courtney - Canadian Institute of Surveying and Mapping
6. Early Surveys and Settlements in Central Alberta by Doug Barnett
7. Mapping a Northern Land: The Survey of Canada 1947-1994, edited by McGrath, Gerald and Sebert, Louis
8. The Law and Practice of Land Surveying in Alberta, Dr. Alec McEwen, 2007

### 2. Statute Law

Candidates will be examined on their knowledge and comprehension of the Canadian and Alberta legal systems and the statute law as it applies to surveying in Alberta. In particular, candidates are expected to have a complete understanding of all of the statutes contained in the current Alberta Land Surveyors' Manual including recent amendments.

#### **Textbooks:**

1. ALSA Manual (including the Manual of Standard Practice) and current amendments. *Note: additional statutes may be added.*
2. Those sections of the Land Titles Procedures Manual referenced in the Manual of Standard Practice.
2. Manual of Instruction for the Survey of Canada Lands.
3. Survey Law in Canada - Chapter 1 - The Canadian Legal System - Campbell, B. (Carswell - 1989).

### 3. Practical Surveying

This examination will include questions on survey requirements, legalities, problems, and possibilities of a practical nature likely to be encountered in surveys of land in Alberta. Typical calculations related to these surveys may be required, and may include, but are not limited to: the D.L.S. township system, positioning of wellsites in surveyed and unsurveyed territory, Survey Control networks, curve problems, area problems, and traverse problems. Emphasis will be placed on situations requiring some degree of discretion and professional judgement. Although no textbooks are specified, candidates should be familiar with the reference material.

**Reference Books:**

1. Supplement to the Manual of Instructions for the Survey of Canada Lands.
2. Manual of Instructions for the Survey of Canada Lands (1961) Appendix "C".
3. ALSA Manual (including the Manual of Standard Practice) with current amendments.
4. Cadastral Studies Lecture Notes: Teskey, Swanby, Usher, Hittel, Division of Surveying Engineering, University of Calgary, 1983.
5. Survey Theory & Practice, 6th Edition, Davis, Foote, Anderson, Mikhail, McGraw Hill Book Co. 1981.
6. Notes of Instruction on the Subject of Curves, W.J. Baird, 1957.
7. Curve Problems, W.J. Baird, 1960.
8. The Law and Practice of Land Surveying in Alberta, Dr. Alec McEwen, 2007

**4. Project Reports**

A total of three project reports (two copies) shall be completed in order to qualify for the final qualifying examination.

For articulated students, a minimum of one project report must be submitted within two years of the student signing articles with a minimum of one project report per year thereafter.

The following categories or heading must be identified and incorporated into the project report. The comments provided by the candidate should be brief and to the point.

**Project Categories:**

Projects shall be in one of each of the following project categories:

- A. A Parcel Survey/Subdivision (must be a plan of survey or a bare land condominium);
- B. A stand-alone Right-of-Way or Road Survey;
- C. Pupil selected, (the pupil may not repeat a project from group A or B). This option will require pre-approval from the Committee unless written on a real property report, a condominium survey, or a wellsite survey.

It will be up to the pupil and the principal to determine the **ORDER IN** which these projects are completed. However, pupils may submit only one project in any one category.

**Initial Contact:**

An account of at least the following:

- Initial client contact method, i.e. telephone, fax, letter.
- How was compensation arrived at?
- Was there a formal contract?
- How was the scope of work arrived at?
- Provide the components of your cost estimate (do not give hourly rates). Examples of components are crew time, ALS time, drafting, third party, disbursements and so on. This is not an exhaustive list.

**Approvals Required:**

This will of course depend on the project but in nearly all cases there is some type of approval, either explicit or implied, required before proceeding with a survey. The report should have a paragraph outlining the approvals required, who obtained them and how this was confirmed.

**Job Setup:**

This category covers the research done prior to any actual preliminary plan preparation or field operations and would include all searches for information, i.e. Land Titles, SPIN etc. The report should outline which searches were done and why others were not done. Not all projects would require a search of all the possible sources of information.

**Field Work:**

- The pupil should be prepared to personally complete the field work for each of the three projects.
- The report should describe instructions to the field crew.
- A brief discussion of any re-establishments that were done, both the re-posted and the "on paper" types, with an explanation why the lost corners were not re-posted.
- Any boundary uncertainties encountered should be discussed in some detail.
- What unforeseen difficulties were encountered?

**Plan Preparation and Returns:**

Briefly outline the process followed to get from the field notes to a completed, checked and registered (where applicable) plan. The following steps should be included:

- Plan checking
- Approvals if any
- Endorsements by encumbrance holders.
- Partial discharges.
- Accompanying documents.
- Conclusions / Project Summary and Analysis

**Conclusions/Project Summary and Analysis:**

This section should outline the following:

- Any problems encountered during the completion of the project.
- What could have been done to avoid or minimize problems?
- Did you meet or exceed your projected budget? Why or why not? How was this handled with the client (no dollar values required).
- What did you learn from the project?

The completed written portion of the report should not exceed four pages (not including attachments). The report should document the process. Attachments should include the following

- job request form
- job setup sheet
- document searches
- title/disposition searches and related documents
- brief summary of any correspondence
- field notes
- check lists
- copies of all forms and documents required for submission to approving authorities
- listing of registered plans and documents searched and a copy of registered plans used.
- other supporting information
- final product
- signed principal certification form; if the land surveyor supervising the project is not your principal, please have the supervising ALS sign the principal certification form as well.

**The report shall be presented in a professional style suitable in format for presentation to a client and should address all significant aspects of the job along with cost justifications.**

**Time Line and Number of Copies:**

The schedule for submission of two paper copies or one digital copy (pdf format only) of the required three project reports is:

- For articulated students, a minimum of one project report must be submitted within two years of the student signing articles with a minimum of one project report per year thereafter.”

**Candidate Involvement:**

It is expected that the extent of the pupil's involvement with the project will increase substantially with each project. For instance the 'hands on' involvement with the first project will likely be confined to the field work and the pre drafting computations, while playing a lesser role in the client liaison, job setup and final submission phases. Pupil involvement with the last project shall be hand on in every aspect of the project; drafting the project excepted.

**Principal/Alberta Land Surveyor Involvement:**

*(For Affiliate Members, substitute principal with Alberta Land Surveyor.)*

The project is to be viewed as such, a project. The pupil shall complete each phase of the project under the supervision of the principal. The purpose of completing the project is to familiarize the pupil with each part of a survey project, from the initial inquiry by the client to the final product. One of the most fundamental reasons for doing a project is to provide an opportunity for the principal and the pupil to focus on each aspect of the project. It cannot be over emphasized that principal involvement in each project is paramount. The principal is expected to proofread the pupil's report. *(For Affiliate Members, substitute pupil with Affiliate Member.)*

The Certification Form contains the following table. *(For Affiliate Members, substitute pupil with Affiliate Member.)*  
 This form is on the ALSA website at [www.alsa.ab.ca](http://www.alsa.ab.ca)

PROJECT REPORT #A	Category	Reviewed by The Pupil	Completed by The Pupil
<b>Title:</b>	The initial contact was		
	The approval process was		
<b>Supervising ALS Signature:</b>	The project setup and research was		
	The field survey was		
<b>Principal Signature:</b>	The plan preparation was		
	Final checking of the returns was		
<b>Date:</b>	Final plan processing was		

PROJECT REPORT #B	Category	Reviewed by The Pupil	Completed by The Pupil
<b>Title:</b>	The initial contact was		
	The approval process was		
<b>Supervising ALS Signature:</b>	The project setup and research was		
	The field survey was		
<b>Principal Signature:</b>	The plan preparation was		
	Final checking of the returns was		
<b>Date:</b>	Final plan processing was		

PROJECT REPORT #C	Category	Reviewed by The Pupil	Completed by The Pupil
<b>Title:</b>	The initial contact was		
	The approval process was		
<b>Supervising ALS Signature:</b>	The project setup and research was		
	The field survey was		
<b>Principal Signature:</b>	The plan preparation was		
	Final checking of the returns was		
<b>Date:</b>	Final plan processing was		

Please check one item in each category.

**Reviewed by:** indicates that the particular function was actually completed by someone else but was subsequently reviewed by the pupil in conjunction with the principal.

**Completed by:** indicates the pupil actually completed that particular function by his own hand. The principal and the pupil then reviewed the task.

## **5. Qualifying Examination**

The Qualifying Examination consists of a defence of the three project reports, and an oral examination. The exam will be scheduled for a date convenient to the Examining Committee and the candidate. Examinations are normally held as needed during the year, dependent upon the number of applicants. The oral portion of the qualifying examination shall be approximately two to three hours in duration. The examination time shall be structured as follows:

### ***.1 Presentation***

Candidates will give a **brief** (a few minutes) biographical sketch of their education and work experience commencing with graduation from high school.

### ***.2 Project Reports***

Following the presentation (above), candidates will be examined on the content of their three project reports. Candidates must have a **thorough** understanding of all aspects of their report(s). This portion of the examination will be approximately 45 minutes in duration but will depend somewhat on each candidate's knowledge of their subject(s). Candidates should bring one copy of each final project report, and at least four copies of a synopsis of the project reports along with four copies of the final plans.

### ***.3 General Questioning***

This final portion of the examination will consist of general questioning on the surveying profession and practice. For the most part, the questions will address technical and professional matters as they pertain to cadastral surveying in the Province of Alberta. However, other general knowledge questions relating to technical, business, and ethical topics affecting the Alberta Land Surveyors' Association will be addressed. This portion of the examination can take anywhere from one to two hours.

At the completion of the examination, the candidate will be asked to leave the examination room while the Examination Board reaches its decision. The candidate will then be asked to reconvene with the Board and at this time, will be advised of the Board's findings.

### **Professional Examination Policies**

1. Candidates may apply to write the professional examinations upon approval of their articles by the Registration Committee. (95.02.09)
2. All of the Professional Examinations **including** the Qualifying Examination must be written and passed within 5 years of the commencement of articles.
3. (a) A mark of 75% must be obtained in each of the professional examinations.  
(b) Candidates may elect to write any number of professional examinations at any sitting of the examinations.
4. Examination fees:  
Single examinations at one sitting ..... \$100.00  
Appeal fee per examination ..... \$ 75.00  
Qualifying examination ..... \$200.00
5. Professional examinations (other than the qualifying examinations) will be held in one or more centres in the Province of Alberta at least once per year at the discretion of the Alberta Land Surveyors' Association. Each written examination shall be 3 hours in length (other than the Practical Surveying examination which shall be 4 hours in length).
6. A candidate may appeal for a review of any examination result by submitting a written application to the Registrar within 45 days of receiving the examination results. The fee for an appeal is \$75 per examination appealed.
7. A candidate is not eligible to take the qualifying examination until he has completed his period of articles (if any) and successfully completed all written examinations.
8. Written examinations will not be returned to individual candidates.
9. These fees and regulations are effective from September 2005.

REV. 2008.11

(this form is online at [www.alsa.ab.ca](http://www.alsa.ab.ca))

**Principal Certification Form**

This certificate must be completed by the principal and is to accompany the pupil's project report.

I, \_\_\_\_\_, Alberta Land Surveyor hereby declare that the attached project report was prepared by my articulated pupil and that involvement of the pupil was to the following extent:

<b>PROJECT REPORT #A</b>	<b>Category</b>	<b>Reviewed by The Pupil</b>	<b>Completed by The Pupil</b>
<b>Title:</b>	The initial contact was		
	The approval process was		
<b>Supervising ALS Signature:</b>	The project setup and research was		
	The field survey was		
<b>Principal Signature:</b>	The plan preparation was		
	Final checking of the returns was		
<b>Date:</b>	Final plan processing was		

<b>PROJECT REPORT #B</b>	<b>Category</b>	<b>Reviewed by The Pupil</b>	<b>Completed by The Pupil</b>
<b>Title:</b>	The initial contact was		
	The approval process was		
<b>Supervising ALS Signature:</b>	The project setup and research was		
	The field survey was		
<b>Principal Signature:</b>	The plan preparation was		
	Final checking of the returns was		
<b>Date:</b>	Final plan processing was		

<b>PROJECT REPORT #C</b>	<b>Category</b>	<b>Reviewed by The Pupil</b>	<b>Completed by The Pupil</b>
<b>Title:</b>	The initial contact was		
	The approval process was		
<b>Supervising ALS Signature:</b>	The project setup and research was		
	The field survey was		
<b>Principal Signature:</b>	The plan preparation was		
	Final checking of the returns was		
<b>Date:</b>	Final plan processing was		

*Notes: You do not have the option of reviewing the blacked out sections. In order for the Committee to be aware of which report is being submitted, please duplicate this form with each project report submission.*

**Certification Form**

This certificate must be completed by and Alberta Land Surveyor and is to accompany the project report.

I, \_\_\_\_\_, Alberta Land Surveyor hereby declare that the attached project report was prepared by \_\_\_\_\_ and that involvement was to the following extent:

<b>PROJECT REPORT #A</b>	<b>Category</b>	<b>Reviewed by The Affiliate Member</b>	<b>Completed by The Affiliate Member</b>
<b>Title:</b>	The initial contact was		
<b>Supervising ALS Signature:</b>	The approval process was		
	The project setup and research was		
	The field survey was		
<b>Date:</b>	The plan preparation was		
	Final checking of the returns was		
	Final plan processing was		

<b>PROJECT REPORT #B</b>	<b>Category</b>	<b>Reviewed by The Affiliate Member</b>	<b>Completed by The Affiliate Member</b>
<b>Title:</b>	The initial contact was		
<b>Supervising ALS Signature:</b>	The approval process was		
	The project setup and research was		
	The field survey was		
<b>Date:</b>	The plan preparation was		
	Final checking of the returns was		
	Final plan processing was		

<b>PROJECT REPORT #C</b>	<b>Category</b>	<b>Reviewed by The Affiliate Member</b>	<b>Completed by The Affiliate Member</b>
<b>Title:</b>	The initial contact was		
<b>Supervising ALS Signature:</b>	The approval process was		
	The project setup and research was		
	The field survey was		
<b>Date:</b>	The plan preparation was		
	Final checking of the returns was		
	Final plan processing was		

*Notes: You do not have the option of reviewing the blacked out sections.  
In order for the Committee to be aware of which report is being submitted, please duplicate this form with each project report submission.*

**Alberta Land Surveyors' Association**  
**Application for Professional Examinations**

( date )

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Postal Code: \_\_\_\_\_ E-mail: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

I hereby apply to write the following Professional Examinations:

- 1. The Surveying Profession
- 2. Statute Law
- 3. Practical Surveying

Examination Fees: \$100 for each exam.

**Payment Options:** *Cheque*  *Visa*  *MasterCard*  *Amex*  *Invoice*

**--- EXAM FEES MUST BE PAID ONE WEEK IN ADVANCE OF THE EXAM DATE ---**

Cheque enclosed for \$ \_\_\_\_\_ plus GST \$ \_\_\_\_\_ for a total of \$ \_\_\_\_\_ (*GST #R106693690*)

Cardholder Name: \_\_\_\_\_

Card # \_\_\_\_\_ Expiry Date \_\_\_\_\_

Send Invoice to: \_\_\_\_\_  
\_\_\_\_\_

The Professional Examinations will be held on (dates).

The examination schedule will be mailed or e-mailed by (date).

Please indicate your preference for location to write the Professional Examinations:

- Calgary       Edmonton       Grande Prairie       Medicine Hat

**PLEASE RETURN TO THE ALSA OFFICE  
OR REGISTER ONLINE AT**

**www.alsa.ab.ca**

**BY**

(Date)