

August 2, 2010

PROFESSIONAL LAND SURVEYORS CANDIDATE GUIDE

INTRODUCTION

The Texas Board of Professional Land Surveying is responsible for regulating the practice of professional land surveying in Texas in order to safeguard the life, health, or property of the public. The Board regulates the practice of the profession by following the **Professional Land Surveying Practices Act**. The Board is responsible for a variety of activities related to regulating the practice of professional land surveying in Texas. This Candidate Guide has been prepared to help you in preparing for each section of the examination required by the Board.

To develop a reliable and valid examination, the Board conducts test development and validation workshops on a regular basis using the guidelines established in the Technical Standards for Educational and Psychological Testing (1999). All workshops are intended to maximize the fairness and quality of the examinations as measures of minimum competency. Currently, the Board develops the Legal (LEG) (2 hours), Analytical (ANP) (6 hours) and Reciprocal (4 hours) sections of the examination.

In addition, the Board requires that candidates pass the Fundamentals of Land Surveying (8 hours) section prepared by the National Council of Examiners for Engineering and Surveying (NCEES). Candidates may purchase a copy of the NCEES Principles and Practices of Surveying Sample Questions and Solutions. (NCEES, P.O. Box 1686, Clemson, South Carolina 29633-1686, (864) 654 - 6824, www.ncees.org) for use in preparing for this particular section.

The NCEES is responsible for developing examinations for candidates for licensure as professional engineers and/or professional land surveyors. The membership of the NCEES is comprised of boards of registration from all states and five jurisdictions. By providing these boards with uniform examinations which are valid measures of competency related to the practice of the professions, public protection is enhanced in that competent candidates have a greater chance of passing the examinations while incompetent candidates have a greater chance of failing.

Examinations are given in April and October and are the result of careful preparation by committees comprised of professional land surveyors. These land surveyors supply the content expertise, which is essential in developing fair and impartial examinations for measuring minimum competency within the profession. When a candidate has passed the appropriate section(s) of the examination, he/she is entitled to certification as a surveyor-in-training, registration as a registered professional land surveyor, or licensure as a licensed state land surveyor.

August 2, 2010

LICENSING REQUIREMENTS

ELIGIBILITY

The primary purpose of regulation is to protect the public by evaluating the qualifications of candidates seeking registration. While the examination offers one means of measuring the competency levels of candidates, the Board also screens candidates based upon education and experience requirements which are set forth in the Professional Land Surveying Practices Act.

An unlicensed person may **NOT** engage or continue in the practice of professional land surveying unless the person takes, and successfully passes, the required sections of the written examination approved by the Board. You should carefully review all education and experience requirements set forth in the law as they relate to each class of registration or licensure.

The process to become registered is divided into two phases,

1. First, one must meet the requirements of Section 1071.253 (includes varying amounts of education and/or experience) and pass the eight hour Fundamentals of Land Surveying examination.
2. Second, one must meet the requirements of Section 1071.254 (includes 2 years of additional experience and a four year bachelor's degree that contains 32 semester hours of survey related courses) and pass an eight hour Board developed exam.

APPLICATION PROCEDURES FILING DEADLINES/SCHEDULE

Application forms for the examination are available from the Texas Board of Professional Land Surveying, 12100 Park 35 Circle, Bldg A, Suite 156, MC-230, Austin, Texas 78753, (512) 239-5263. Forms are also available on the Board's web site, www.txls.state.tx.us. You are responsible for contacting the board office for this type of information. You are encouraged to allow sufficient time to complete the application process and assemble required data such as transcripts, references and any other information required by the Board. Reciprocal applicants must have the Verification of Registration Form completed and included as part of their application in order for their application to be considered complete. The Board must receive all applicant information by January 15 to be considered for the April examination and by July 15 to be considered for the October examination. The Board will notify you regarding your approval status (i.e., accept/reject). If you are approved for the examination, you must submit an examination fee of \$150.

Each section of the examination is multiple-choice and is given during April and October of each year (two days per administration). The Board will furnish you with information regarding the specific date and location. You are advised to thoroughly read the Professional Land Surveying Practices Act and Board Rules.

August 2, 2010

Section 1071.253 (b), on proof of qualification as provided by Sub-section (a) of this section, the board shall allow a surveyor-in-training applicant to take parts of the examination, the contents of which shall be determined or approved by the board. The Board shall issue each applicant who successfully passes those parts of the examination a surveyor-in-training certificate that is valid until the earlier of the expiration of eight years or the date the applicant becomes registered as a registered professional land surveyor.

Section 1071.258, "An applicant who fails an examination may apply to take a subsequent examination by filing an updated application and paying an additional examination fee set by the board." The examination fee is \$150.00.

Section 1071.253 (5) requires the presentation of evidence satisfactory to the board that the applicant is self-educated in professional land surveying. The board considers the following forms of evidence satisfactory:

1. Completion certificates of courses/seminars attended.
2. Certified transcripts showing successful completion of college courses (courses must be survey related).
3. Report covering books and/or materials studied,
4. Signed statement from the RPLS supervisor that details the contents of any self-guided curriculum used by the applicant to become self-educated.

August 2, 2010

EXAMINATION DEVELOPMENT

EXAMINATION CONTENT

The scope of the Texas Board of Professional Land Surveying examination will cover, but not necessarily be limited to, the following essential elements:

Legal Section (LEG)

Reading and Understanding of Court Opinions

The Professional Land Surveying Practices Act

Preparation of Metes and Bounds Descriptions

Surveying Terms

Conflicting Elements of Land Descriptions

Aliquot Descriptions

Natural Resource Code of Texas

Gradient Boundary of Navigable Stream

Legal Units of Measure in Texas

Adverse Possession

Specifics Concerning Original Land Grants

Court Opinions will cover, but not necessarily be limited to:

State v. Heard - 199 SW2 191,
146 Tex 139, 204 SW2 344;
Humble Oil and Refining Co. v. State -

162 SW2 119;
State v. Sulflow, et al - 128 SW 652;
State of Texas v. E. B. Sullivan et al -
92 SW2 228;
Kirby Lumber v. T. A. Campbell -
331 SW2 388;
Port Aransas Properties, Inc., et al
v. Ellis - 129 SW2 699;
Town of Refugio v. Strauch -
29 SW2 1041;
Duval County Ranch Company v.
Foster - 318 SW2 25;
Stafford v. King - 30 Tex 257;
Diversion Lake Club v. Heath -
86 SW2 441;
Rio Bravo Oil Co. et al v. J. F. Weed et
al - 50 SW2 1080;
Luttes v. State of Texas - 289 SW2 357,
324 SW2 167;
Black's Law Dictionary

Analytical Section (ANP)

Determining Seniority of Surveys and the Retracement of Original Survey Lines

Determining Seniority of Tracts/Deeds and the Retracement/Location of the Lines Thereof

Application of the Dignity of Calls

Recognition of Ambiguities, Conflicts and Other Discrepancies

Partitioning of Real Property

Simultaneous Conveyancing

August 2, 2010

TEST DEVELOPMENT/REVIEW

Test development and review workshops are held regularly to assure the questions remain current with respect to the profession. The content, format, and statistical performance of the questions are carefully reviewed in order to maintain the accuracy of the questions across time.

Committees of land surveyors carefully review each of the questions in the examination **before** they are used on a test to assure the quality and fairness of the examination for all candidates.

These surveyors are representative of the profession in terms of geography, ethnicity, gender, and area of practice.

MINIMUM COMPETENCY

One of the most critical considerations in developing fair and impartial examinations centers upon the procedures used in establishing passing scores, which reflect a standard of minimum competency within the profession.

The Board and the NCEES do not utilize fixed-percentage passing scores like 70% or 75% because they fail to take into account the difficulty levels of the questions in an examination and their relationship to minimum competency.

Similarly, "grading on the curve" is avoided because licensure is designed to ensure that practitioners possess enough knowledge to perform professional activities in a manner, which protects the public welfare. The key issue is whether or not candidates are competent to practice and not whether they are competent compared to other candidates.

SCORING PROCEDURES

Scores are calculated by summing the number of correct responses within a section. For scoring purposes, each question has the same weight. 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 which contain two or more marked responses or all blank responses (i.e., omitted questions) are scored as incorrect responses.

Following completion of the examination, grading requires three to four months. You will be advised of the results as soon as possible.

August 2, 2010

EXAMINATION POLICIES

Computers, lap-tops or any device with word processing capabilities are not permitted in the exam room. **The entire examination is closed book.**

Your attention is called to Board Rule 661.45(f),

"The contents of all exam materials are confidential. Any applicant who takes an action with the intent to compromise the confidentiality of the examination is subject to disciplinary sanctions, administrative penalties, or both. In assessing an appropriate penalty or sanction, the Board may consider:

- (1) the penalties and sanctions set out in Texas Civil Statutes, Article 5282c;
- (2) disqualifying the applicant from taking future exams for a period of three years; and
- (3) disqualifying the applicant from taking future exams until the applicant successfully completes a Board-approved study of professional ethics."

RECIPROCAL EXAMINATIONS

Reciprocal applicants, who have been approved under Section 1071.259 of the Act, will be required to take a four-hour Texas specific examination.

The scope of the examination will be similar to the outline provided on page 3, but limited to Texas specific questions. **The entire reciprocal examination is closed book.**

SPECIAL ACCOMMODATIONS

If you have a disability and may require special accommodations when taking this examination, please call or write the Board and request an Accommodation Request Form. **This form must be completed and submitted with the application.**

The Texas Board of Professional Land Surveying does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provision of services.

August 2, 2010

EXAMINATION PROCEDURES AND INSTRUCTIONS

IDENTIFICATION AND CHECK-IN

You must be prepared to show one form of photo identification (driver's license preferred) and an admission notice. Admission notices are mailed to examinees within 2 weeks of receipt of the examination fee. Check-in and identification will begin at least 15 minutes prior to each section of the examination. You will not be admitted to the examination once instructions have begun. Upon entering the examination room, please find your seat (assigned alphabetically) and place your identification and admission notice by your name tag. You may not leave the examination room once you have entered, except in the case of an emergency or you have been excused by a proctor.

ANSWER SHEETS

All sections of the examination are machine scored. To ensure proper scoring of your examination, you should listen to the proctor's instructions and read the instructions printed on the examination booklets and answer sheets. The answer spaces must be blackened completely. You should use #2 pencils or mechanical pencils with HB lead. Marks in ink or felt-tip pens will not be scanned properly.

You should select the best answer from the choices given. No credit will be given for multiple answers. If you decide to change an answer, you must erase the first answer completely. Incomplete erasures and stray marks may be read as intended answers.

CALCULATORS

Only hand-held, battery-operated, silent, non-printing, non-text editing, non-communicating calculators will be permitted in the examination room. Calculating and computing devices having a QWERTY keypad arrangement similar to a typewriter or keyboard are not permitted. Calculators with alphanumeric keypads are permitted. Turn all beepers off on calculators and watches before entering the exam room. No communication/imaging device of any type will be permitted, including but not limited to pagers and cellular phones. It is suggested that you bring extra battery packs. Calculator manuals are **NOT** permitted in the examination room. Examples of calculators that are not permitted in the exam room are: HP 48 series, HP 49 series, HP 39 series, HP 41 series, HP 42 S, TI 82, TI 83, TI 84 Plus, TI 85, TI 86, TI 89, TI 92, Casio Algebra FX 2.0 Plus, Casio Class Pad 300, Casio FX 7400G Plus, Casio FX 9750G Plus, Casio CFX 9850GB Plus, Casio CFX 9850GC Plus and Voyage 200. This is not an all-inclusive listing, any calculator that has either communication or text-editing capabilities is prohibited. The Board currently uses a calculator list approved from NCEES. This list changes frequently. Please use the NCEES website for the latest updated list. The website is www.ncees.org.

August 2, 2010

Only the following models of calculators listed are permitted in the exam room for the exams.

Hewlett Packard – HP 33s and HP 35s models, but no others

Casio – All fx-115 models. Any Casio calculator must contain fx-115 in its model name.

Texas Instruments – All TI-30X and TI-36X models. Any Texas Instruments calculator must contain either TI-30X or TI-36X in its models name.

THE EXAM

All Exam Candidates: You must notify the Board in writing 10 days prior to the examination only if you cannot take the examination. Failure to notify the Board will result in forfeiture of the examination fee.

The Fundamentals of Land Surveying Exam

Note: New SIT examination requirements from NCEES beginning with the October 2010 FS exam. **NCEES registration must be completed before you will be allowed to take the FS exam.**

Beginning with the October 2010 FS exam administration, all SIT applicants will be required to register with NCEES through their web site at www.ncees.org. Your approval letter will contain instructions on how to register with NCEES. **NCEES registration must be completed before you will be allowed to take the FS exam.**

Mechanical pencils and erasers will be provided for the Fundamentals of Land Surveying examination. You will not be allowed to have any other writing or erasing instruments at the examination site.

Analytical, Legal and Reciprocal Exams

You should bring #2 pencils or mechanical pencils with HB lead and erasers to the Analytical, Legal and Reciprocal examinations. You may bring rulers, triangles, protractors and small scales to this exam. It is suggested you use clear plastic bags to carry such items into the exam room. NO BRIEFCASES, PURSES, LARGE ENVELOPES, FOLDERS, BINDERS, SPIRAL NOTEBOOKS, TABLETS, PAPERS, PHONES, LETTERS, HATS WITH BRIMS OR BILLS ETC., WILL BE ALLOWED IN THE EXAMINATION ROOM.

You are not to open the examination booklet until instructed to do so by your proctor. If you have questions, raise your hand and a proctor will come to you. When you finish the exam, raise your hand a proctor will come and take your examination. If you must be excused from the room for any reason raise your hand a proctor will assist you. Examinees are responsible for returning examination booklets.

August 2, 2010

**COURSES THAT MEET THE REQUIREMENTS OF
SECTION 1071.253 and 1071.254 and 1071.259**

Note that Section 1071.253 (a) (2) (A) and 1071.254 (a) (3) contains the language,
...”courses acceptable to the board”.....

Note that Section 1071.253 (4) (A) contains the language,
...”board approved courses related to surveying”... (emphasis added)

<u>TOPIC</u>	<u>COURSE</u>	<u>MAXIMUM HOURS</u>
Civil Engineering	Engineering Problem Solving	3
	Mechanics of Materials	3
	Engineering Graphics	4
	Transportation Courses	4
	Land Planning	4
Surveying	Unlimited unless courses are determined repetitive.	
Math	Algebra	6
	Trigonometry	3
	Analytical Geometry	3
	Calculus	6
	Statistics	6
Photogrammetry	(Including Labs)	12
Forestry		3
Land Law	Unlimited unless courses are determined repetitive.	
Business Law	Business Law, Management, Economics or Finance	6
Physical Sciences	Physics (Including labs)	4
	Geology (Including labs)	4
	Astronomy (Including labs)	4
Computer Science	(Including Drafting)	12
Cartography		4
Technical Writing		3
Geography		3
Ethics		3

August 2, 2010

ATTENTION RECIPROCAL APPLICANTS

If you plan to apply under Section 1071.259 of the Professional Surveying Practices Act, the Board must have information from states you are registered in. This information must be received before the deadline dates, July 15 for the October examination and January 15 for the April examination.

You are instructed to send the following Verification of Registration form to each state you are registered in. Instructions on the form state that the state office is to complete the form and return it to this Board office. Only forms received directly from other state offices will be accepted.

Some states require a fee for completion of the form; you must pay any charges necessary for completion of the form. You may photocopy the form as needed.

August 2, 2010

TEXAS BOARD OF PROFESSIONAL LAND SURVEYING

12100 Park 35 Circle, Bldg. A, Suite 156, MC-230
Austin, Texas 78753
(512) 239 5263
(512) 239 5253 (Fax)

VERIFICATION OF REGISTRATION

To: Texas Board of Professional Land Surveying

From: _____
Name of State Completing Form

_____ has indicated that they hold registration in your state as a land surveyor.

Name of applicant

Please answer the following questions regarding the individual named above.

1. Was registered on _____ as a _____
(Date)

2. Registration Number _____

3. Now hold a valid registration, which will expire
on _____

4. Held a valid registration which will expire on _____

5. Was found to be qualified for registration on the basis of (please check the phrase or phrases
that apply):

Written Examination If registered by written examination, please give scope and grades of
examination and Total Hours

Oral Examination _____ Hours in _____

Education and Experience

Reciprocity, registrant of (State) _____

This state does does not grant the same privilege of reciprocal registration to Texas
Registrants. If your state does not, please give requirements on reverse for Texas Registrants.

Grandfathers' Clause in law

Other: Please give details on other side

6. Investigations, Complaints and/or Disciplinary Actions

An investigation is in progress on the above named person, details given on reverse side.

A complaint has been filed against the above named person, details given on reverse side.

Disciplinary action has been taken against the above named person, details on reverse side.

I certify that the information contained herein is true and correct according to the official records
of this State.

BY _____

TITLE _____

(BOARD SEAL)

August 2, 2010

Application Checklist

The following checklist is offered for your convenience. Items not completed or incorrectly completed can result in your application being rejected.

Did you follow the Instructions For Filing Applications?

Did you complete all questions?

Did you sign and date a recent, recognizable passport photo?

Did you complete Sections 3, 4, 5 and 6?

Did you sign Section 6?

If you are applying under Section 1071.253 and 1071.259, have you given reference forms to at least three RPLS having personal knowledge of your surveying experience? Did you give reference forms to all RPLS employers listed in Section 3? Only experience verified by reference will be counted toward meeting the experience requirements.

If applying under Section 1071.253 (1), did you include a Certified Transcript that shows the earned degree?

If applying under Section 1071.253 (2), did you include a Certified Transcript that shows the earned degree and contains at least 32 semester hours of courses acceptable to the Board (review list in Candidate Guideline)? Did you complete Section 3 and have at least one year of Responsible Charge Time in Professional Land Surveying? Responsible Charge Time (Column 3) times the percentage of time (Question 7) must equal 1 year.

If applying under Section 1071.253 (3), did you include a Certified Transcript that shows the Associate Degree in Surveying? Did you complete Section 3 and have at least two years of Responsible Charge Time in Professional Land Surveying? Responsible Charge Time (Column 3) times the percentage of time (Question 7) must equal 2 years.

If applying under Section 1071.253 (4), did you include a Certified Transcript that contains at least 32 semester hours of courses acceptable to the Board (review list in Candidate Guideline)? Did you complete Section 3 and have at least 2 years of Responsible Charge Time in Professional Land Surveying? Responsible Charge Time (Column 3) times the percentage of time (Question 7) must equal 2 years.

If applying under Section 1071.253 (5), did you include evidence of self education (review list of acceptable evidence in the Candidate Guideline)? Did you complete Section 3 and have at least four years of Responsible Charge Time in Professional Land Surveying? Responsible Charge Time (Column 3) times the percentage of time (Question 7) must equal 4 years.

If applying under Section 1071.259, did you send a Verification of Registration Form to each state that you passed a 16 hour examination in?

Did you submit your sample survey reports (sketch, map or plat)?

If you are applying under Section 1071.254 did you include signed Compliance Verification forms that comply with Board Rule 661.50? Did Section 3 include only experience gained after your Certification date? If applying under the provisions of Board Rule 661.41 (f) did you

August 2, 2010

furnish evidence of Certification and passing the NCEES FS exam in another state? Pursuant to Section 1071.254 (a) (3), applicants applying after January 1, 2003 must hold a bachelor's degree with 32 semester hours of survey related courses. A list of survey related courses can be found in the Candidate Guideline.

Did you submit your sample survey reports (Sketch, map or plat)?

The Board will compare the time given in Section 3 of the application to the time each RPLS verifies on a Reference/Compliance Verification Form. If the numbers are not essentially the same, the application could be rejected; for this reason, it is important for you and your reference to discuss time in Responsible Charge of Professional Land Surveying. Complete Section 3 and include attachments only if additional space is needed. Do not state, "see attachment" and fail to complete Section 3. You may photocopy Section 3 if necessary.