The Landscape Architect Registration Examination

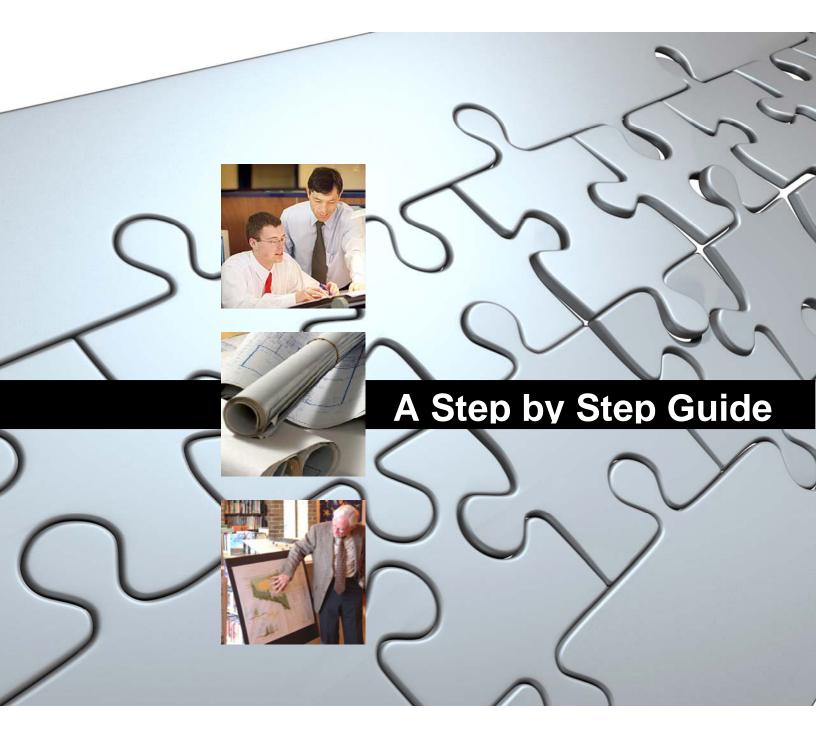


Table of Contents

Table of Contents	
Step One - Applying	1
When to Apply for the L.A.R.E.	1
How to Apply for the L.A.R.E.	
Tools to Help You Apply	3
Step Two - Preparing for the L.A.R.E	5
Identifying Your Strengths and Weaknesses	5
CLARB sponsored Study Materials	
Practice Tests for Multiple-choice Sections A, B and D	
Simplifying Your L.A.R.E. Experience, Sections C and E	
Diagnostic Vignettes - An Exam Preview and Diagnostic Critique	
Non-sponsored Preparation and Review Courses	
Understanding the Content of the L.A.R.E.	
Format	
Using the Content Guide	8
Section A - Project and Construction Administration	
Communication	
Standards of Practice	9
Contract Administration	9
Construction Evaluation	
Construction Practices	9
Section B - Inventory, Analysis and Program Development	0
Problem Definition	
Inventory1	
Analysis	0
Programming1	
Section C - Site Design1	
Section D - Design and Construction Documentation1	
Design Principles1	
Resource Conservation and Management1	
Graphic Communication	2
Construction Documentation1	2
Materials and Methods of Construction1	2
Section E - Grading, Drainage and Stormwater Management1	3
Step Three - Taking the L.A.R.E	
Introduction	
Multiple-choice Sections1	
What Materials Will I Need to Bring to the Exam?1	5

Multiple-choice Sections (A, B and D)	15
Required	15
Provided	16
Prohibited	16
Special Accommodations	16
Frequently Asked Questions About the Exam Procedure	17
Graphic Sections	
Problem Statement - Explicit vs. Implicit Instructions	18
Completing the Sample Vignette Problems	19
Pre-exam Orientation Information	20
The L.A.R.E. Reference Manual	
What Materials Will I Need to Bring to the Exam	20
Graphic Sections (C and E)	
Required	20
Recommended	20
Prohibited	21
Frequently Asked Questions About the Exam Procedure	
The L.A.R.E. in Metric and Imperial	23
Sample exam item with Canadian reference and Metric conversions	
Step Four - After you have taken the L.A.R.E.	
Receiving Your L.A.R.E. Scores	
Multiple-choice Sections (A, B and D)	
Graphic Sections (C and E)	
Preliminary Scores Available On-line	
Interpreting Your L.A.R.E. Scores	
Section A - Project and Construction Administration	
Section B - Inventory, Analysis and Program Development	25
Section C - Site Design	
Section D - Design and Construction Documentation	
Section E - Grading, Drainage and Stormwater Management	
Review Options Available	
Standard Review	
Red-line Review	
Review Process	
Step Five - Getting Your License	
Having Your Exam Scores Transmitted	
Transmitting your Multiple Choice Scores	
Transmitting with a Council Record	
Transmitting without a Council Record	
Transmitting your Graphic Scores	
Transmitting with a Council Record	
Transmitting without a Council Record	
Appendix 1 - How the L.A.R.E. is Prepared	31

Task Analysis Studies of the Profession	31
L.A.R.E. Committees	31
Preparing the Multiple-choice Sections	31
Preparing the Graphic Sections	
Evaluation of the L.A.R.E	
Establishing the Raw Score for the Multiple-choice Sections	
Scoring the Graphic Solutions	
An Inside Look at the Grading Session	
Appendix 2 -Reference Materials for the L.A.R.E.	
Section A – Project and Construction Administration	
Section B – Inventory, Analysis and Program Development	
Section C – Site Design	
Section D – Design and Construction Documentation	
Section E – Grading, Drainage and Stormwater Management	
Appendix 3 - L.A.R.E. Rules of Conduct	40
Further Examples of Exam Impropriety	
Appendix 4 - The True Cost of the L.A.R.E.	
What Does it Take to Produce a Licensure Exam	
The Total Cost	
The Cost Per Candidate	43
Is the L.A.R.E. Worth the Cost	

Step One - Applying

When to Apply for the L.A.R.E.

Licensure of professionals is controlled by state or provincial government, so each registration board establishes the minimum amount of education and experience required to sit for the L.A.R.E. for that jurisdiction. Unfortunately, these standards vary considerably. Some jurisdictions will allow candidates to sit for the examination upon completion of an accredited degree in landscape architecture, while others require a degree and two or three years of experience under the supervision of a licensed landscape architect. In most jurisdictions, the multiple-choice sections (A, B and D) can be taken right after graduation and the graphic sections (C and E) typically require you to have two to three years of experience. Obviously, it is important to determine what the minimum requirements are in the jurisdiction in which you wish to sit for the exam. The L.A.R.E. Advisor, on the CLARB web site will explain the application process in the jurisdiction where you wish to seek initial licensure.

Many candidates assume that if they are admitted to the L.A.R.E., they have enough education and experience to pass the test. This is not necessarily true. Candidates may satisfy а Boards' minimum requirements to sit the exam, but this does not mean that all candidates will have acquired all of the knowledge and skill needed to pass the test by this time in their career. Requirements are written in terms of duration of experience, but there are many other variables that will have major influence on a candidate's preparedness. The quality of the work experience, the diversity of the experience, the natural ability of the candidate, the qualifications of the supervisor, and the extent to which a candidate continues his or her educational process outside the office will all affect whether and how quickly an individual acquires the knowledge, skill and ability required to successfully complete the licensure exam. More experience does not necessarily mean better preparation. If a work setting does not provide exposure to a required skill area, the individual will never acquire the needed skill, regardless of the amount of time spent in that work setting.

Exam statistics indicate that different amounts of experience are required for different sections of the test. Generally speaking, the sections that are primarily knowledge-based (i.e., Sections A, B and D) require less experience than the sections that are primarily skill-based (i.e., Sections C and E.)

So, when should you apply for the L.A.R.E.? Whenever you meet CLARB's or your board's minimum standards and you believe that your education and experience have provided you with the knowledge, skills and abilities covered in each section of the L.A.R.E. You may want to take those sections for which you feel most prepared first, waiting to take the others until you acquire sufficient experience in those areas.

The L.A.R.E. is not designed to be a learning experience, so taking the test to see what it is like or to determine your strengths and weaknesses is not

recommended. You will find that it is less costly and less frustrating to use other sources of information (such as CLARB sponsored study materials) for education

How to Apply for the L.A.R.E.

The multiple-choice sections of the L.A.R.E. (A, B and D) are given on computer in April and October. You must register for the multiple-choice sections of the exam on the CLARB web site. It is a good idea to check the *L.A.R.E. Advisor* to find out if the jurisdiction where you wish to receive initial licensure has any special requirements you must meet before taking the L.A.R.E. You should also contact the jurisdiction directly to verify the requirements and procedures for that jurisdiction.

The graphic sections of the L.A.R.E. (C and E) are given simultaneously in CLARB regional test centers and in boardestablished test centers throughout North America in June and December. You can apply for the exam through CLARB and through your local registration board for landscape architects. You are encouraged and feedback. More importantly, you need to determine objectively when you are truly prepared to take the test.

to apply to take the L.A.R.E. as early as possible as deadlines vary.

When you apply for the L.A.R.E. through your local board, you will be required to verify your education and experience history. School transcripts, employment verifications (from each firm where you have been employed) and references from other landscape architects are usually required. It is also required that all verifications must come directly from the reference source.

There are fees associated with the process, such as application and administration fees. Because fees vary, you may want to compare all the associated costs of all your options so you can make an informed decision about where to apply and take the exam.

The True Cost of the L.A.R.E.

Students today are exposed to a variety of standardized examinations throughout their academic career. Most of these tests are administered as a part of the educational process with the cost paid by the school. Other tests, such as the SAT, have a fairly modest fee to the student. It is quite understandable, therefore, that licensure candidates are often surprised at the cost of licensure exams like the L.A.R.E. The difference in price has to do with significant differences in the exams themselves and in the population of candidates taking the exam.

(Go to Appendix 4 to see more on the true cost of the L.A.R.E.)

Tools to Help You Apply

CLARB has developed a tool to help you understand the application process for the exam. *The L.A.R.E. Advisor* takes into account your education, experience, test section choice and jurisdiction preference to determine your personalized path to registration. You can find *The L.A.R.E. Advisor* on the CLARB web site at http://www.clarb.org/Pages/Exams_Getting Started.asp. In addition, CLARB's Council Record and certification system can help you throughout the examination process (see inset). Most states/provinces will accept the Council Record as the application for the L.A.R.E *The L.A.R.E. Advisor* will direct you to links to the state/provincial registration boards so you may verify their requirements and acceptance of the Council Record for application.

The Benefits of the CLARB Council Record and Certification System

In order to sit for the L.A.R.E., you must first provide documented evidence that you have met the education and experience requirements. This evidence consists of college transcripts, references from previous and current employers and recommendations from licensed landscape architects. Once this documentation is compiled, it is reviewed against the standards in effect in the jurisdiction for which you wish to take the L.A.R.E.

The best way to apply for the L.A.R.E. and licensure is to complete CLARB's on-line application at www.clarb.org. This is a fast and interactive way to create a permanent, documented history of your professional development (a CLARB Council Record). A CLARB Council Record contains verified documentation of the education, experience and examination history of a landscape architect. It provides a single, permanent location for all of the information required to apply for the exam, and initial or reciprocal registration. So why should you apply for the exam and for licensure on-line at www.clarb.org?

Convenience – Completing the on-line application not only saves time, but allows you to review your application and determine what portions need to be finished at a later date. If you prefer, the application can be mailed for your review and completion.

Flexibility – You can elect to take the exam in board-established test centers or in CLARB regional test centers across the United States and Canada.

Efficiency – The Council Record eliminates the redundancy of verifying credentials for each jurisdiction in which licensure is desired. Verified copies of your record are transmitted to registration boards quickly and easily. Some boards already require the Council Record for reciprocal registration or to sit for the registration exam.

Security – The Council Record protects against loss of records and the inability to secure the necessary verifications for a registration application if, for example, a previous employer goes out of business. Once established, a simple, one-page form, completed annually, keeps your Council Record up-to-date and in an active status.

Confidentiality – The contents of a Council Record are strictly confidential. The information contained in the Council Record may only be disclosed to registration boards as you direct.

Recognition – A Council Record is an excellent way to show prospective employers that you are committed to your professional development.

Support of Reciprocity – The Council Record helps facilitate and maintain a uniform reciprocity system. Council Record fees support CLARB's committees and activities as we continue to work toward uniform licensure standards for landscape architects in every jurisdiction.

Special Discounts – Council Record holders enjoy special discounts on the exam registration, the latest exam preparation resources, and structured continuing education activities available exclusively through CLARB. You will also receive updates on important licensure issues affecting landscape architects.

CLARB Certification – After licensure, your credentials and commitment to professionalism can be formally acknowledged. Not only will you receive a special certificate commemorating your distinction, but you will also be enabled to use "CLARB Certified Landscape Architect" logos on marketing materials. Certification also carries CLARB's recommendation of reciprocal registration in any member jurisdiction without further national examination.

You can begin your on-line Council Record application at www.clarb.org. Follow the "Council Records" link.

Step Two - Preparing for the L.A.R.E.

Identifying Your Strengths and Weaknesses

You may prepare for the L.A.R.E. in several ways: such as studying reference materials, talking with other professionals, working on sample problems, attending exam preparation workshops, etc. Participation in these activities should enable you to identify the areas in your knowledge you need to brush up on.

Reviewing the exam content later in this chapter will help you identify your general strengths and target areas for further study. For example, Section A – Project and Construction Administration will test your knowledge of communication, standards of practice, contract administration, construction evaluation and construction practices. If you do not write construction contracts at your office, for example, you might determine that you need to find information on this subject before taking this section of the examination.

The knowledge, skills and abilities (KSAs) tested in the examination are learned through a combination of education and experience. Once you have identified the subject matter that you need to focus on, there are several sources that you can tap for assistance. One of these sources is the Reference Material List in Appendix 2. This is a compilation of the resources that the Examination Committee believes would be most helpful to candidates preparing for the exam. Keep in mind that this list is not intended to be so exhaustive as to encompass every aspect of the profession covered by the exam.

Your professional colleagues can also be an invaluable resource for you in your

preparation. Using the previous example of writing construction contracts, if there is a colleague in your office who has experience in that area, he or she might be able to give you insight into that process that you could not get from reference materials.

Finally, you can purchase CLARB sponsored study material through the CLARB web site. Diagnostic tools are provided to help you understand what is required for the L.A.R.E. and how to better prepare for the examination.

CLARB sponsored Study Materials

CLARB has produced a number of materials to help you better understand the L.A.R.E. and prepare for it.

Practice Tests for Multiple-choice Sections A, B and D

Practice exams for sections A, B and D of the Landscape Architect Registration Examination (L.A.R.E.) are available online through C^2Ed (www.c2ed.com).

These practice exams provide an in-depth preview of the item formats and the subject matter being tested on the licensure exam, and are designed to help you identify potential weaknesses before taking the actual exam.

Each practice exam includes diagnostic information to help you determine how prepared you are to take the actual exam. At the end of each 30-question practice exam, you can view and print out your score as well as the practice exam questions, answers, rationales, and an indication of the knowledge or skill tested for in each question. You can also download exam specifications and additional materials to help you prepare for the L.A.R.E.

Simplifying Your L.A.R.E. Experience, Sections C and E

Presenter James T. Penrod, CLARB's Director of Examinations, gives specific advice on:

- Understanding Exam Content
- Interpreting the Code and Zoning Information found in the L.A.R.E. Reference Manual.

- Dissecting the Problem Statements
- Organizing Information
- Satisfying the Scoring Criteria

Simplifying Your L.A.R.E. Experience is available for purchase at www.c2ed.com. Section C provides a complete overview of the Site Design portion of the Landscape Architect Registration Examination and includes two sample vignette problems.

Section E provides a complete overview of the Grading, Drainage and Stormwater Management portion of the Landscape Architect Registration Examination and also includes two sample vignette problems.

Diagnostic Vignettes - An Exam Preview and Diagnostic Critique

The L.A.R.E. contains graphic response sections that use vignette-style problems to test your ability in situations similar to those encountered in practice. To give you a preview of the L.A.R.E. format and to help you identify areas to strengthen before you take the real test, CLARB has created Diagnostic Vignettes.

Diagnostic Vignettes are practice problems that are formatted exactly like the vignettes in the actual L.A.R.E. You will be able to download the problems along with the *L.A.R.E. Reference Manual*, which contains code and zoning information you will use to create your solution. Once you complete your solution, you will send it back to CLARB to be reviewed. In four to six weeks, your solution will be returned with redline comments, descriptive information about any errors that you made and a list of references that you can use to strengthen your weaknesses and improve your skills before taking the real test. While you will not receive a score on your solution, you will be advised of any errors you made.

The knowledge, skills and abilities required to pass the L.A.R.E. can only be acquired through years of education and practical training for which no exam preparation process can substitute. Understanding the exam content and format, and identifying potential weaknesses for further study are legitimate objectives for exam preparation, and Diagnostic Vignettes can help accomplish these goals.

For availability and ordering information, please consult the CLARB web site at http://www.clarb.org/pages/Exams_Prep.as p?target=mla.

Non-sponsored Preparation and Review Courses

A variety of organizations offer examination prep courses or workshops on how to prepare for and complete the Landscape Architect Registration Examination. Although these courses vary widely, most will give you tips on how to study for the exam and review strategies for completing the performance problems.

CLARB does not offer prep courses for the L.A.R.E. nor do individuals conducting these courses seek endorsement or authorization from CLARB. Before you enroll in a prep course to prepare for the L.A.R.E., you should ask for references, and check with colleagues to verifv the quality of information offered in that particular course. Unfortunately, there is no mechanism in place at this time to evaluate these courses at a national level.

Understanding the Content of the L.A.R.E.

The Landscape Architect Registration Examination (L.A.R.E.) tests applicants for the knowledge and skill that is required to practice those aspects of landscape architecture that impact the health, safety and welfare of the public.

The exam is based on a scientific "Job Analysis" study conducted in 2005 in which 6,000 practicing landscape architects from across the United States and Canada were asked to rate a series of tasks, knowledge areas and competencies needed to provide landscape architectural services. Only those tasks. knowledge areas and competencies that were identified by these practitioners as being important for the protection of public health, safety and welfare are included in the content of the L.A.R.E.

Format

The L.A.R.E. consists of five (5) test sections. Each section is independent of the others. Sections A, B and D are multiple-choice sections that are administered on computer. Sections C and E consist of 11"x17" vignette problems that require a drafted solution. The number of multiple-choice items or vignette problems for each section is listed after the title for each section of the L.A.R.E. in the Content Guide.

Using the Content Guide

The content guide describes the material that will be tested under each section of the examination. For the multiple-choice sections, subsection breakdowns indicate a more detailed description of specific subject matter found on these portions of the examination as well as the percentage of items that will be included in that subsection topic.

For additional information about the exam including requirements to take the test, the application process and the scoring process, please visit the CLARB web site at www.clarb.org. CLARB's staff is also available to answer your questions via email at info@clarb.org or by phone at 571/432-0332.

Section A - Project and Construction Administration (70 Items) - Multiple Choice Section

Section A is a multiple-choice examination that will test your knowledge of construction contracts and the administration of a project. The section is based on the findings in the Job Analysis that landscape architects need to know how to coordinate and manage design teams. They must understand construction contracts and the responsibilities of various parties under such contracts, their responsibilities during construction observation, and processes for assessing and reviewing projects or plans after they are complete.

Communication (20%)

This subsection will assess your knowledge of communication methods and consensus and team building techniques as it relates to coordinating and managing consultants and design team members.

Standards of Practice (23%)

You will be required to show an understanding of the code of conduct for landscape architects and standards of practice as it relates to administering a project. This subsection includes an understanding of how to resolve ethical dilemmas and professional liability issues.

Contract Administration (17%)

This subsection will test your knowledge of construction contracts. This includes your knowledge of construction law as it relates to the responsibilities of various parties under the construction contract. You will also be tested on your knowledge of the landscape architect's role in the design and bidding processes.

Construction Evaluation (20%)

You will be tested on your understanding of the construction administration process including techniques for construction observation, review of shop drawings, approvals or rejections of materials, and evaluation of the substantial completion of a project. You will also need to understand the reasons for performing post occupancy evaluations as well as the sequencing of design, approval, permitting, and construction activities.

Construction Practices (20%)

The Construction Practices subsection tests your knowledge of the technical aspects of construction administration. You will be expected to understand construction equipment and technologies, quality control procedures for construction as well as sustainable construction practices.

Section B - Inventory, Analysis and Program Development (90 items) - Multiple Choice Section

Section B is a multiple-choice examination that will test for knowledge that is used in the predesign stages of a project. The Job Analysis Survey found that landscape architects must know how to define a problem through the understanding of the client's intentions and needs, determine project user values through focus groups and surveys, and define the project goals and objectives. Landscape architects are also required to understand how and where to gather information for a project and how to analyze that information to make design decisions. They must understand how to analyze the relationships of all of the project elements and formulate the project requirements.

Problem Definition (11%)

Problem Definition will test your knowledge of techniques to elicit client and user intentions and needs. You will need to understand methods for determination of user values, such as focus groups and surveys. You will also need to demonstrate your knowledge of a project's parameters such as the problem statement, goals, objectives, purpose, needs, and expected outcomes.

Inventory (29%)

In the Inventory subsection, you will be required to demonstrate your knowledge of planning and land use laws including zoning, development restrictions and design guidelines. You will need to understand information such as accessibility regulations, natural features, cultural features, characteristics of plant material, land information sources, and the political and regulatory approval processes.

Analysis (36%)

This subsection tests your knowledge of factors influencing selection of plant materials, human factors influencing design, natural factors influencing design, patterns of land use and built form, regional hazard design considerations, and social and cultural influences on design. You will be expected to understand research methods including interpretation, visual resource assessment, and components of site analysis documents.

Programming (24%)

The Programming subsection will test your knowledge of project requirements such as the relationship and function of elements. You will need to understand how to develop preliminary

project budgets and schedules. You will be required to demonstrate your knowledge of the process to define relationships among design elements by determining opportunities and constraints, and the process to develop a design program based on users' needs and clients' goals and resources. You will also need to show an understanding of how performance criteria drives a project, such as program and/or project quality level, sustainability, or requirements for water quality.

Section C - Site Design (4 Vignette Problems) - Graphic Section

Section C is a graphic response section that will test your ability to produce and evaluate site design solutions. Landscape architects are expected to develop site or land use plans that take into consideration the off-site and on-site influences. Landscape architects must consider various codes, consultant studies and principles of sustainability when creating a site design. They should be able to evaluate the design solutions of others and possess the ability to create alternative solutions to a problem.

You will be tested on your ability to develop design, planning, and management solutions considering on-site and off-site influences and convey the information through text and in drawings. You will be required to incorporate consultant studies into your design and predict the implications of your design, planning, and management proposals on the natural and cultural systems both within the site and in the larger context. You must be able to evaluate design alternatives to determine the appropriate solution and create design alternatives to demonstrate the range of options. You will also be expected to incorporate the design of circulation systems such as equestrian, bicycle, pedestrian, and vehicular systems into your design solutions.

Section D - Design and Construction Documentation (120 items) - Multiple Choice Section

Section D is a multiple-choice examination that tests your knowledge of the design and construction process. Landscape architects must be able to refine the preferred solution to a problem and prepare plans and contract documents to ensure the project can be built correctly. A landscape architect must have knowledge of design principles, resource conservation, graphic communication, construction documentation, and materials and methods of construction to ensure the project is completed in a safe manner.

Design Principles (16%)

This subsection will test your knowledge of design principles including aesthetic principles of design, design theory, problem-solving strategies, planning principles, design principles for safety, security and crime prevention, social responsibility in design, and therapeutic aspects of

design. You will be required to understand planting design including the location of plant material types to meet various requirements, such as strategies for security and crime prevention.

Resource Conservation and Management (18%)

You will be required to demonstrate your knowledge of resource conservation and management in this subsection. This includes conservation of natural resources, ecological planning principles, environmental ethics, floodplain management, and land and water reclamation procedures. You will also need to show an understanding of the relationship between human and natural systems such as water resource management, habitat restoration and creation, urban ecology, and sustainability.

Graphic Communication (8%)

This subsection will test your knowledge of the roles of visual communication, including photographic and video documentation, and graphic presentation techniques, systems and symbols including when certain systems are appropriate.

Construction Documentation (20%)

The Construction Documentation subsection will test your knowledge of the administrative procedures required throughout the construction process. You will be required to demonstrate your knowledge of the general and supplemental conditions, special provisions, and technical specifications and their organization, including specification types and components for a project. You must demonstrate an understanding of the construction process, including sequencing, staging, and construction technology. You must have knowledge of the various construction documents such as layout plans, grading plans, drainage plans, demolition plans, erosion and sediment control plans, planting plans, and irrigation plans. You will also be required to produce construction cost computations such as area calculations, volume, quantity, and unit prices.

Materials and Methods of Construction (38%)

In the Materials and Methods of Construction subsection, you will be required to show your understanding of various construction materials and how those materials are joined together. In order to demonstrate your understanding, you will need to have knowledge of typical construction details and site amenities, construction equipment and technologies, design needs for special populations, elements of circulation systems, and their design requirements, lighting systems, noise attenuation and mitigation techniques, structural considerations, and factors influencing selection of site construction materials.

You will be tested on your knowledge of erosion and sedimentation control, irrigation systems, biofiltration and other alternative drainage methods, grading, drainage and stormwater treatment. You will also need to understand utility systems including the relationships of different systems to each other and how to perform subsurface storm drain calculations and determine pipe sizes.

Section E - Grading, Drainage and Stormwater Management (4 Vignette Problems) - Graphic Section

Section E will test your ability to complete grading, drainage and stormwater management plans. Landscape architects are required to manipulate landforms to convey runoff, meet design requirements, and minimize environmental impact. Landscape architects are also expected to evaluate the impact of their decisions on existing off-site conditions and develop strategies for water conservation and preservation of land resources.

You will be tested on your ability to develop grading and drainage plans considering on-site and off-site influences and convey the information in drawings. You must be able to manipulate contours to demonstrate your ability to convey water to meet design requirements while protecting land and water resources. You will be expected to evaluate existing landforms and drainage systems to locate program elements minimizing environmental or economic impacts. You will also be required to think three-dimensionally to manipulate landforms to meet design requirements.

Step Three - Taking the L.A.R.E.

Introduction

The Landscape Architect Registration Examination (L.A.R.E.) is designed to determine whether applicants for landscape architectural licensure possess sufficient knowledge, skills and abilities to provide landscape architectural services without endangering the health, safety and welfare of the public. It is prepared and scored by the Council of Landscape Architectural Registration Boards (CLARB) in accordance with all current standards for fairness and quality of licensure exams. CLARB is a nonprofit association of the state and provincial registration boards that regulate the profession of landscape architecture in North America.

The graphic sections of the exam are administered by state and provincial registration boards or by CLARB in regional The testing centers. multiple-choice sections of the exam are administered by CLARB using a national system of computer testing centers. While the requirements to sit for the exam vary by jurisdiction, the administration dates and exam. the procedures, and the passing standards are the same in every jurisdiction.

The L.A.R.E. consists of five sections. Each section receives a pass or fail score independently from the other sections. All five sections must be passed prior to licensure.

Each section of the L.A.R.E. is designed to test for minimum competency in a specific subject area that is important to the health, safety and welfare of the public. The design of the test and the content of each section are determined through scientific studies of the profession of landscape architecture. These studies, known as "task analyses" or "job analyses," identify the knowledge, skills and abilities – commonly referred to as KSAs – required of newly licensed landscape architects in order to perform landscape architectural services without endangering the health, safety and welfare of the public. A task analysis study is performed every five to seven years to ensure that the content of the L.A.R.E. remains up-to-date with the current practice of the profession.

We recommend checking the web site at www.clarb.org periodically to find out about exam improvements, exam adjustments and new resources designed to assist candidates for landscape architectural licensure.

Multiple-choice Sections

Sections A, B and D of the L.A.R.E. consist exclusively of multiple-choice type items or questions. Each item addresses one of the areas of knowledge described in the content of the exam and is worth one point each. There are two types of multiple-choice items used in the examination. The type most widely used is the multiple-choice item with four answer choices. The second type of item may have up to nine answer choices. The candidate chooses the answer choice which best answers the question or completes the statement.

Example 1:

What is the maximum allowable slope for a ramp?

- A. 3:1
- B. 4:1
- C. 8:1
- D. 12:1

The score for each of the multiple-choice sections is determined by the number of questions answered correctly. Points are not subtracted for an incorrect answer and every question is weighted equally, so it is advisable to try to answer every question. If you are not sure of the correct answer for a question, but can eliminate one or more of the choices, your chance of getting the right answer is improved. You should examine the answer choices given and select the answer that seems best to you. If necessary, you should guess.

Use your time effectively, working as rapidly as you can without losing accuracy. Do not spend too much time on a question that is too difficult. Skip that question and go on to other questions. Come back to that question later if you have the time.

After you have decided which of the answers you feel is correct for a question, click on the answer box using the mouse and move on to the next question. You will be able to go back to any unanswered questions at the end of the test.

What Materials Will I Need to Bring to the Exam?

Multiple-choice Sections (A, B and D):

Required:

You must present two forms of valid identification when arriving at the testing center. At least one must be an Official ID with a photograph and the other may be a Secondary ID. The name on the ID must match the name under which you registered for the exam.

Acceptable forms of Official ID with photograph:

- Driver's license
- Military ID card
- Valid passport
- State ID card

Acceptable forms of Secondary ID:

- Credit card
- Check, ATM or Debit card

All candidates will be required to provide a fingerprint to enter the testing room. Fingerprints are collected electronically and will only be stored for the day of the exam to ensure that if a candidate leaves the room for a break, the same candidate returns to complete the exam.

Biometrics is an increasingly popular tool used in the testing industry to improve the security of the testing program.

Provided:

- A calculator will be provided on the computer or a hand held calculator will be provided by the test center.
- The test proctor will provide a white board to use as scratch paper.

Prohibited:

- No items including reference material, calculators, pencils, pens, paper, drafting supplies, etc., will be allowed in the testing room.
- No personal items (including purses, fanny packs, food items) will be allowed in the testing room. Personal items must be left with the test proctor for test security purposes, so please limit what you bring to the examination center. You may not bring cellular phones, pagers, devices with a computer memory chip, or any device with an alphanumeric keyboard (e.g., а language translation tool) to the test site.

Special Accommodations

CLARB follows the standards set by the Americans with Disabilities Act (ADA) for reasonable accommodations for disabled candidates. Should you require special accommodations for a disability, please contact CLARB as soon as possible to ensure that the testing environment will meet your needs. Requests for special accommodations for a disability must be made at least 60 days prior to the testing date.

Frequently Asked Questions About the Exam Procedure

Q. - Are there practice tests available?

A. - There will be a practice exam available over the internet in the same format as the L.A.R.E. Multiple-Choice Sections. Check the CLARB web site at http://www.clarb.org/pages/Exams_Prep.as p?target=nho. After completing the practice exam, you will be able to print a document containing all of the questions, the answers, and the rationales (i.e. where the question came from).

Q. - Can I find out what the exam interface looks like without taking the practice exam?

A. - There is a tutorial on the CLARB web site at

http://www.clarb.org/Pages/Exams_RegMC. asp?target=pcc that will allow you to see the exam interface.

Q. - When should I arrive for the exam?

A. - Plan to arrive 30 minutes before the scheduled appointment to allow time for check-in procedures. Candidates who arrive late will NOT be allowed to take the examination.

Q. - When will I get my scores?

A. - Your scores will be posted on the CLARB web site approximately 4 weeks following the last day of testing.

Graphic Sections

For each graphic response section of the L.A.R.E., you will be asked to complete a set of vignette problems in a given period of time. Each vignette problem is very straightforward and is intended as a sketch problem. Some vignette problems will take longer to complete than others; however, you will have about an hour to complete each vignette. You will be responsible for budgeting your time to complete all of the vignettes in the given time period.

Each vignette includes a problem statement that describes the context of the site and specific requirements that you must address in your solution. The first thing to do is to read the problem statement very carefully. It is extremely important for you to completely understand the problem statement before attempting to create a solution. Your solution must respond to all of the requirements stated.

The second source of information that you must incorporate into your solution is the L.A.R.E. Reference Manual. The L.A.R.E. Reference Manual provides graphic standards for portions of the exam as well as zoning and construction standards that must be followed when completing all of the vignette problems. This manual is similar to a local zoning code that you would use when designing a project in an unfamiliar jurisdiction. Although the standards in the L.A.R.E. Reference Manual may differ from your local codes, the exam is evaluated based on the standards provided in this manual. Most of the standards are taken directly from widely recognized codes and All the codes have been standards. reviewed to ensure that they are similar to most U.S. and Canadian codes. It is

important for you to review the L.A.R.E. Reference Manual so that you know where to find information during the examination. It is not necessary to memorize these standards, but you must understand the concepts given and when they must be applied.

The L.A.R.E. Reference Manual is available the CLARB web site on at http://www.clarb.org/pages/Exams_Prep.as An updated version of the p?target=cs. manual is made available approximately two months prior to the exam administration. You may print the document from the web site and review it, but you may not bring this copy with you to the test site. A copy will be given to you at the beginning of the test administration by the proctor for use as a reference source.

Problem Statement - Explicit vs. Implicit Instructions

There are two types of requirements in each vignette problem statement that you must address vour solution. Explicit in requirements are those listed directly on the page, in bullet format, that you can highlight and refer to as you complete. Implicit requirements are those unstated standards that a minimally competent landscape architect is expected to satisfy. A minimally competent landscape architect is expected to provide a solution that not only responds to the explicit instructions given on the problem statement, but also to factors such as safety, efficiency and code regulations.

For example, even though you are not told in the problem statement to provide a safe design, it is expected that a minimally competent landscape architect would provide such a design. If a client were to give you a project, that client would expect you to follow codes, provide a safe design, and not waste money on an over-designed project.

Similarly, it is expected that a minimally competent landscape architect would apply the codes in the *L.A.R.E. Reference Manual*, even if the problem statement does not specifically direct you there.

And some degree of efficiency is expected. For example, you would not place 50 cubic yards of concrete in a detail that only requires five. Similarly, you would not place parking for a building on the opposite side of a major road, nor would you compromise the safety of a vehicle passenger by designing parking that requires the vehicle to back into the major flow of traffic.

It is necessary to satisfy the implicit requirements as well as the explicit ones outlined in the problem statement for each vignette.

Completing the Sample Vignette Problems

One of the leading causes of anxiety for exam candidates is "fear of the unknown": unfamiliarity with the test format, testing conditions and time constraints. It is helpful to learn as much as possible about the exam format and to practice problems under test-like conditions to alleviate some of these concerns. The sample vignette problems are in the same format as the actual exam, and practicing them will increase your comfort level. To accustom yourself to the time constraints of the actual exam, you should allowing approximately an hour for each vignette. You should also make note of any problem that takes you significantly more (or less) time to complete, and target that subject matter for further review.

As noted previously, it is imperative that you read and understand the entire problem statement before you begin your solution. If you jump directly into the solution before thoroughly understanding the problem statement, you are bound to leave information out of your solution.

The best way to ensure you include all the necessary information is to simply highlight the requirements in the problem statement before you begin. When you are finished, review the problem statement again to make sure your solution contains everything required. Make sure that you have followed the requested format and provided the correct number of program elements. Be sure that you have responded to all site conditions and any site context. If you take the time to thoroughly read and highlight the problem statement at the beginning, you will save more time than if, at the end, you have to change your solution to include some element you forgot.

Do not try to embellish your drawings with additional information. Your solution is evaluated based only on the required elements and how you put them together. Adding information that is not required will only take up time that you could spend completing other solutions.

After you have completed all of the sample problems, you should review your solutions and see which areas you may need to obtain additional knowledge in before the exam. Included in this publication is a reference material list. These publications might not contain all the answers that you may need, but they can be good resources.

Pre-exam Orientation Information

Approximately three weeks before the examination date, you will receive a pre-exam orientation information packet. This contains specifics about the testing site, exam schedule, required drafting materials, and any special instructions or requirements, such as instructions for a local exam section, if required.

At this time, you will be instructed to go to the CLARB web site and download the most current versions of the Pre-Exam Orientation Instructions and the *L.A.R.E. Reference Manual.*

The L.A.R.E. Reference Manual

Some of the vignette problems on Sections C and E of the L.A.R.E. require you to incorporate zoning and/or construction standards into your solutions. Local codes vary widely, so CLARB provides a constant reference base for all examinees by setting the vignette problems in a hypothetical, generic city. The zoning and construction standards for this "city" are contained in the *L.A.R.E. Reference Manual.* You must comply with these standards when creating solutions to the vignette problems, even if they differ from your local codes.

You can access the *L.A.R.E. Reference Manual* online at CLARB's web site prior to the exam, and you will also receive a copy at the exam site for use during the test administration. The manual is updated annually to reflect changes in the content of the examination.

What Materials Will I Need to Bring to the Exam?

Graphic Sections (C and E):

Required:

- You are required to bring drawing scales to perform each of the vignette problems.
- You are required to bring whatever drafting equipment you would use to draw an 11" x 17" sketch type drawing. Solutions may be drawn in hard line or free hand style.
- You are required to bring at least one No. 2 pencil to complete the score sheets.

Recommended:

- You should bring a calculator for computations. You may use a silent, hand-held, non-programmable electronic calculator, but you may not use any other devices.
- You should bring sketch paper to complete any rough studies for a problem; however, you should note that all drawings for the graphic response sections of the examination must be made on the problem sheets provided at the time of the examination. Overlays will not be considered as part of your final solution.
- You should bring a smooth drawing surface, such as a sheet of cardboard or a small drafting board. You must check with your registration board before bringing large drafting boards or electronic equipment such as lights or electric erasers to determine if the test site can accommodate these items.

Prohibited:

- You may not bring cellular phones, pagers, devices with a computer memory chip, or any device with an alphanumeric keyboard (e.g., a language translation tool) to the test site.
- No reference material will be permitted in the test room. Any reference material necessary for any section of the examination will be provided with the test booklet at the time of the examination.
- No stamps or press-ons will be permitted on any of the vignette problems.
- The use of color is not permitted on any of the vignette problems.

Frequently Asked Questions About the Exam Procedure

Q. - Can I use shades of gray on the performance tests or is that considered a color?

A. -You may use pencil and black or gray markers on the exam. Evaluation of the graphic communication portion of each test is based on your understanding of drafting principles such as line weight and overall legibility. Rendering techniques are not graded.

Q. - If I want to highlight a feature on my solution, can I use a little bit of color?

A. - NO. Using any color will cause your solution to be failed without further evaluation.

Q. - Can I use a highlighter to mark the requirements in the problem statement?

A. -Highlighting the problem statement is acceptable; however, if you use the marker on your solution, it will cause your vignette to fail.

Q. - Can I use a non-reproducible blue or purple pencil, or is that considered a color?

A. -You may use a non-reproducible blue or purple pencil to sketch your solution before finalizing it with pencil or ink. Anything which is drawn in blue or purple pencil that has not been re-drawn with pencil or ink will NOT be evaluated by the graders.

Q. - Do I need to bring a lamp or an extension cord to the test location?

A. - Check the information included with this booklet or with your registration board for

the test room specifications. If sufficient outlets exist, you may need to bring an extension cord to operate a lamp or an electric eraser.

Q. - When should I arrive for the exam?

A. - You should give yourself plenty of time to find the exam site and set up your equipment. The exam proctor will not delay the administration of the exam to accommodate latecomers. Many boards will prohibit entrance to the testing room once the exam has started.

Q. - Who will grade my exam?

A. -The performance problems are graded in a national grading session by licensed landscape architects including practitioners and educators from across the United States and Canada. Each grader must meet stringent eligibility requirements and participate in a complete training program.

Q. - When will I get my scores?

A. -The scores are typically sent to the member boards approximately 10 - 12 weeks after the exam administration. If you took the exam through a registration board, they will report your score to you. If you took the exam through CLARB, CLARB will report your score to you. It is possible for candidates to receive preliminary, unofficial scores several weeks earlier on our web site at www.clarb.org. A few jurisdictions do not permit candidates to view preliminary scores online. Check the CLARB web site for details.

The L.A.R.E. in Metric and Imperial

The L.A.R.E. is international in scope with the U.S. and Canadian registration boards participating in the examination process. The examination is therefore produced in the Imperial and Metric dimensional systems. A standard set of construction codes is also provided.

Candidates may prepare themselves for the L.A.R.E. using either the Imperial system or the Metric system of measurement. In the examination. questions or problems requiring a dimension or scale will indicate Imperial values followed by Metric values in square brackets ([]). References to Canadian standards will also be presented in this fashion. Certain vignette problems may be presented in both an Imperial scale and a Metric scale. You will be required to choose the scale you will be working in when you sign up for the exam.

No conversions will be required from one scale to the other. Since the Metric

equivalents will not be exact conversions, you are warned that converting or switching units within a question to check answers may result in an incorrect answer.

U.S. and Canadian examinees are also issued the same *L.A.R.E. Reference Manual* for use on the exam. This manual contains building and related construction codes that will be required to complete the examination.

Sample exam item with Canadian reference and Metric conversions:

According to U.S. standards [Canadian standards], the minimum width of an accessible parking space is

A. 8' [2.5m] B. 10' [3.1m] C. 12' [3.7m] D. 15' [4.6m]

Step Four - After you have taken the L.A.R.E.

Receiving Your L.A.R.E. Scores

Multiple-choice Sections (A, B and D):

Scores for the L.A.R.E. Multiple-Choice Sections available will be online approximately 4 weeks after you have completed the examination. This is due to the analysis performed on the exam to ensure that each item is correct, fair and accurately addresses the subject matter being tested. CLARB's testing experts look at the difficulty of the items, the response patterns by candidates and the ability of the items to discriminate between candidates of differing ability levels.

When this analysis is complete, you will be sent an email informing you of the availability of the scores online and containing instructions on how to obtain your scores. CLARB will NOT send paper copies of scores to the candidates. If you would like a paper copy of your scores for your records, you should print them from the web site.

Exam scores are reported as "pass" or "fail". Candidates with failing scores will receive additional information regarding the areas of difficulty. The score report includes footnotes which may help the candidate identify areas for improvement.

Graphic Sections (C and E):

After the exam has been graded and the results have been accepted, (see Appendix 1) you will receive your official L.A.R.E. scores directly from the organization through which you took the exam, (i.e., either a registration board or CLARB.) You will also receive an exam information pamphlet that will help you in interpreting your results.

Preliminary Scores Available Online

You can access your preliminary "unofficial" exam scores from CLARB via our web site. The scores will not have been reviewed, approved or validated by any registration authority and convey no rights or privileges of any sort. This feature gives candidates additional preparation time to retake a section, request a Red-line Review of a solution, or continue their preparation for initial licensure. For more information on this free service, visit the CLARB website at http://www.clarb.org/Pages/Exams_Results. asp?target=mla.

Interpreting Your L.A.R.E. Scores

All scores for the L.A.R.E. are reported to candidates as "pass" or "fail." Numeric scores are not used in order to protect the candidate from the unauthorized use of scores for employment purposes. If you receive a failing score on any section of the exam, the score report includes footnotes which may help you identify areas for improvement.

Each section of the L.A.R.E. is divided into several content areas. The footnotes in parenthesis after a failing score indicate your performance on each of the content areas within that section of the exam

1 = At or above minimum competence. These are the content areas in which your performance was at or above minimal competence.

2 = Slightly below minimum competence. These are the content areas in which your performance was below minimal competence.

3 = Well below minimum competence. These are the content areas in which your performance was well below minimal competence.

The content areas on the score report appear as follows:

Section A – Project and Construction Administration

- Project Administration
- Construction Administration
- Assessment and Review

Section B - Inventory, Analysis and Program Development

- Problem Definition
- Inventory
- Analysis
- Programming

Section C - Site Design

- Evaluate design alternatives to determine the appropriate solution
- Design circulation systems (e.g., equestrian, bicycle, pedestrian, vehicular)
- Create of design alternatives to demonstrate the range of options
- Develop conceptual design, planning, and management solutions considering on-site and off-site influences
- Predict implications of design, planning, and management proposals on natural and cultural systems both within the site and in the larger context
- Synthesize and make connections between aspects of landscape architecture and disciplines outside of landscape architecture including consultant studies

Section D - Design and Construction Documentation

- Design Principles
- Resource Conservation and Management
- Graphic Communication
- Construction Documentation
- Materials and Methods of Construction

Section E - Grading, Drainage and Stormwater Management

Synthesize and make connections between aspects of landscape

architecture and disciplines outside of landscape architecture including consultant studies

- Design for protection and management of land resources (e.g., land forms, grading, drainage, vegetation, habitat, erosion and sedimentation control)
- Design for protection and management of water resources (e.g., storm water, water supply, ground water)

For example, a score report for Section B may appear as F(1,2,1,3). In this case, the candidate received a failing score. The numbers in parenthesis represent the candidate's performance in each of the four content areas of Section B. The "1" in the first and third positions indicate that the candidate's performance was at or above minimal competence in content areas 1 and 3. The "2" in the second position and "3" in the fourth position indicate performance slightly below minimal competence in content area 2, and well below minimal competence in content area 4. These content area listings are not indicative of your future performance.

Review Options Available

Like other parts of the examination process, the ability to review failed graphic sections of the L.A.R.E. depends on a number of factors. First, exam reviews must be allowed by the law, rules and regulations in effect in the jurisdiction for which the exam Then processes must be was taken. adopted to provide facilities, proctors and other security measures in accordance with CLARB standards and schedules. For these reasons, the availability of review processes varies by jurisdiction. When you receive your official scores, contact your registration board directly to see what postexam feedback options are available to you.

CLARB has developed the following reviewing failed graphic programs for sections. Exam reviews are conducted in a secure environment under controlled conditions and require you to travel to the location established by the board or a regional location provided by CLARB. These processes are intended to help you gain insight into your strengths and weaknesses in the subject matter of the test.

Standard Review

The Standard Review is a procedure whereby you compare your actual failing exam solutions with the criteria that was used to grade the exams. The Standard Review is the least expensive process, but requires you to determine your own weaknesses. You should not expect to see any marks on your solutions, nor should you expect to receive the specific reason that the problem was failed. You must review the evaluation criteria and determine which of the specific items was lacking in your solution. The Standard Review is an effective process for many candidates. Most of the errors on the problems can be easily spotted upon review of the evaluation criteria. However, if you do not possess a certain knowledge about a subject, you may want to have the Red-line Review to point out the weakness.

Red-line Review

The Red-line Review provides you with a marked-up copy of your failing vignette problems that indicate areas of weakness. The red-lining is completed outside of the grading process to eliminate any bias during the grading of exams.

The comments provided represent the advice of the landscape architect reviewing your solution. They are meant to be educational in nature and do not represent the specific grading criteria or the specific grading of your solution. You should not expect to see the correct solution to the vignette problems.

The procedure is more expensive than the Standard Review, but provides a clearer indication of areas of weakness. You will receive general comments on the weakness exhibited on each problem. For example, a circulation design may have a comment near it that reads, "Vehicular circulation conflicts with pedestrian circulation." Such comments are intended to help you pinpoint your areas of weakness so that you can better prepare for the next administration of the exam.

Review Process

So what can candidates participating in either Standard or Red-lined Reviews expect? Your Board will establish deadlines and fees for reviews. Requests should be made as early as possible. Typically, Red-line Reviews must be requested by the Board before October 12th for the June exam or April 12th for the December exam. After signing in for the review procedure you will have up to one hour to review your solution in a secure area in the presence of a Board representative. You will not be allowed to bring any materials with you to the review, nor will you be able to make notes or remove any information when you Standard Review procedures are leave. permitted for a period of nine months from the date of exam administration. Also, keep in mind that if you choose the Standard Review for an exam section, you may not make an additional request for a Red-line Review of the same section.

Step Five - Getting Your License

Passing all the sections of the L.A.R.E. is one component of the process of getting licensed as a Landscape Architect. You should document your accomplishment by having your exam scores sent to the jurisdiction of your choice for initial licensure; the following paragraphs detail the process.

Each registration board has additional requirements for licensure that you must satisfy, such as earning a specific college degree, achieving a certain amount and/or type of experience, and demonstrating further knowledge of local laws and practice issues. As you fulfill these requirements over time, you can submit further documentation in support of your application for initial licensure.

Having Your Exam Scores Transmitted

Transmitting your Multiple Choice Scores

Candidates who have completed all sections of the L.A.R.E. must request that their multiple-choice scores be sent to the jurisdiction in which they wish to obtain initial licensure. The computer-administered multiple-choice scores are not automatically sent to the registration boards; it is necessary for every candidate to authorize CLARB to release his or her scores.

Transmitting with a Council Record

If you have a Council Record, have completed all sections of the L.A.R.E. and wish to transmit your Council Record, please download the Transmittal Request Form to authorize release of your Council Record to the jurisdiction in which you wish obtain initial licensure. You may to download the reauest form at http://www.clarb.org/Pages/Exams Results. asp?target=fp.

Transmitting without a Council Record

If you do not have a Council Record, it is important for you to apply directly to a state or provincial board before having your scores transmitted for licensure.

As stated earlier, each board has different requirements for sitting for the examination and for becoming licensed. It is important that you understand the requirements before directing CLARB to transmit your scores to a board.

Once you have made application with your board, have passed all three multiple-choice sections and are ready to transmit your scores to the board, you must complete the Score Release Authorization document that authorizes CLARB to send your scores to the board. You can download the *Score Release Authorization* form at http://www.clarb.org/Pages/Exams_Results. asp?target=fp. Once you have completed the form, please send or fax (571/432-0442) the completed form to the Council office.

Transmitting your Graphic Scores

Scores for the graphic section of the L.A.R.E. are only transmitted by CLARB for candidates who have taken the exam at a CLARB Regional Test Center.

Transmitting with a Council Record

If you have a Council Record, have completed all sections of the L.A.R.E. and wish to transmit your Council Record, please download the Transmittal Request Form to authorize release of your Council Record to the jurisdiction in which you wish to obtain initial licensure. You may download a Transmittal Request form at http://www.clarb.org/pages/CRInformation.a sp?target=psv.

Transmitting without a Council Record

If you do not have a Council Record, it is important for you to apply directly to a state or provincial board before having your scores transmitted for licensure.

Once you have made application with your board, have passed all portions of the L.A.R.E. and are ready to transmit your scores to the board, you must complete the Score Release Authorization document that authorizes CLARB to send your scores to the board. You can download the *Score Release Authorization* form at http://www.clarb.org/Pages/Exams_Results. asp?target=fp. Once you have completed the form, please send or fax (571/432-0442) the completed form to the Council office.

Appendix 1 - How the L.A.R.E. is Prepared

Task Analysis Studies of the Profession

The terms "Task Analysis" or "Job Analysis" both refer to a variety of systematic procedures designed to obtain descriptive information about the tasks performed on a job and/or the knowledge, skills, and abilities thought necessary to perform those tasks.

More simply, a Task Analysis is a carefully constructed, scientific study of a profession that asks two questions: "What do these professionals do?" and "What do they need to know?"

When used in conjunction with a licensure program, such studies provide an accurate and legally defensible method of defining the knowledge, skills and abilities (KSAs) required to safely practice that profession. These same KSAs form the appropriate content for a licensing examination, in this case, the Landscape Architect Registration Examination (L.A.R.E.).

Registration boards need to know what services the profession is currently performing and what knowledge and skills are required to perform those services. They also need to separate those functions that affect the health, safety and welfare of the public from those that do not.

There is also a need to identify those tasks that a newly licensed individual should be able to perform. By requiring only this minimum level of knowledge and skill, boards are able to protect the public with a minimum of restriction on entry to the profession.

To this end, CLARB conducts the Task Analysis Study every five to seven years to provide landscape architectural registration boards with the information that is vital to their function of protecting the public.

L.A.R.E. Committees

The development of the examination is the responsibility of the L.A.R.E. Committees, consisting of landscape architects appointed by the CLARB President. To ensure the widest and most representative viewpoint, the committee members are selected from various geographical areas and practice situations, and include both genders and various ethnic groups.

In addition to analyzing and refining the Task Analysis Results into an exam specification, the L.A.R.E. Committees perform the task of drafting and reviewing each edition of the L.A.R.E.

Preparing the Multiple-choice Sections

New multiple-choice questions are subjected to several reviews and pretesting before they are included in the L.A.R.E. This process helps ensure that:

1. The content of the questions is accurate, up-to-date and relevant to the knowledge, skills and abilities identified in the exam specification;

- 2. The questions are written clearly and in such a way that a "test-wise" candidate would not have an advantage in responding; and
- 3. No question content is biased against any region, ethnic group, race or gender.

Questions are selected by category to ensure that all required subject matter is covered in accordance with the exam specification. The statistical performance of items is also used to help determine which items will be included in the examination.

Following a review by the Multiple-choice Section Committee, some of the new questions are chosen to be used as pretest items on the actual examination. These pretest items do not contribute to the score of a candidate and the candidate does not know which of the questions are pretest items. The statistics gathered from pretesting the new items are used to determine whether or not they will be included as operational items in future examinations.

Preparing the Graphic Sections

The graphic portions of the examination are prepared in a "vignette" format to give the candidates more than one opportunity to demonstrate their ability to perform at a minimally competent level. The Graphic Committee is responsible for preparing multiple vignette problems for each section of the examination.

Before they appear on the L.A.R.E., these graphic sections are pretested on licensed landscape architects. The committee then reviews each item to determine which vignette problems will be used on the examination. A final review by the committee produces the final draft of the examination. Once the final L.A.R.E. has been assembled, it is reviewed by a professional editor for grammar, syntax, and other editorial considerations. The editor's recommendations are reviewed in turn by the Exam Committees to ensure that no changes in meaning were unintentionally made during the editing process.

Evaluation of the L.A.R.E.

In scoring the multiple-choice and graphic response sections of the Landscape Architect Registration Examination, there are two distinct tasks that must be accomplished:

- Raw scores must be established for each portion of the exam. Raw scores are the points a candidate earns on each portion of the exam.
- Passing levels must be established for each portion of the exam. The passing level is the number of points candidates must earn to pass a given portion of the exam.

Establishing the Raw Score for the Multiple-choice Sections

The raw score for each multiple-choice section is the number of questions a candidate answers correctly. Items that are left blank are counted as incorrect.

Establishing the Passing Level for the Multiple-choice Sections

The passing level, or "cut score" for each of the multiple-choice sections is based on the level of performance expected of minimally qualified candidates taking that particular section.

There are several steps in the process of determining a cut score for a multiple-choice

test. The first step is a cut score analysis process completed in the first year of the examination.

It should be noted that the process for establishing cut scores occurs without the knowledge of the candidates' raw scores. This avoids any possibility of bias or consideration of passing rates in the process. After the test is administered, the cut scores are applied to the raw scores to determine which candidates pass the exam.

It is important to recognize that the cut score is NOT a pre-determined percentage of points, such as a 75%, which candidates must achieve. It is simply the minimum number of correct responses required to pass. This number may vary from section to section.

The raw score required to pass each section may vary from exam administration to exam administration based on the difficulty of the questions for that particular section. Cut scores for all editions of the exam after the first are established using a process called "equating." Equating is a statistical process that ensures that the level of performance required to pass the test remains constant from year to year, even though the difficulty of the exam and the ability of the candidates may change. This process automatically adjusts the cut score up or down depending on the difficulty of the test.

Scoring the Graphic Solutions

The vignette problems are evaluated by graders who are licensed landscape architects with at least five years of experience after licensure, working in academic settings and/or in public or private practice. Representatives from each jurisdiction administering the examination are invited to serve as graders. The evaluation itself takes place at a single grading session conducted by CLARB where all of the examinations are scored at one time.

The L.A.R.E. Committee is given the exam specifications (the skills, and abilities designated by the task analysis) and develops problems to test certain items in the specification. The committee then drafts Evaluation Criteria for grading the problems. The evaluation criteria are developed so that only the skills and abilities that the problem was designed to test will be graded. The committee will revise the problem if it finds that there are elements in the problem that are irrelevant to the skills and abilities being evaluated.

After the exam administration, the problems and evaluation criteria are reviewed by the Graders Committee. Master Master Graders typically are individuals with extensive experience evaluating graphic response problems. The Master Graders are not given any information about the intent of the problems, and approach the problems as if they were candidates. If they feel that there are items in the problem statement that are ambiguous or unclear, they will modify the evaluation criteria accordingly. The Master Graders then review a number of actual exam solutions to ensure that the criteria fairly evaluates all possible responses to each problem. Finally, the Master Graders conduct a training session to completely explain the grading process and the evaluation criteria to the exam graders. They are present at the grading session to resolve questions that the graders might have about unique solutions.

Before actually evaluating any candidate solutions, graders become completely knowledgeable about each problem by reading and studying the problem statement, reviewing the base plan, and thoroughly discussing the evaluation criteria. All graders attempt to establish a common understanding of the meaning and application of the evaluation criteria. Several examples of solutions are scored as group until the graders become а comfortable with the application of the criteria. Throughout the grading session, Master Graders "correlate" exams to ensure that all graders apply the grading criteria uniformly to all solutions. If any grader starts to deviate from established criteria. the Master Grader provides additional instruction until the grader is back on track.

During the grading session, each exam solution is evaluated by two different graders. Exam booklets are given to graders randomly. Graders do not know the jurisdiction from which the exam originated nor the identity of the examinee. In addition, the scores assigned by the first grader are concealed from the second grader.

Each grader applies the evaluation criteria to assign the appropriate score for each vignette problem. The graders must first ascertain whether the vignette can be scored. If the solution is blank or does not follow basic problem instructions, the grader will not evaluate the solution further. Next, the graders evaluate the critical components of the solution. The critical components would include life/safety issues and the main knowledge, skill or ability being tested by that problem. If the solution is scoreable and meets all of the critical components of the problem, then the qualitative aspects of the solution are evaluated.

Each vignette receives one of four scores for the qualitative evaluation: pass, borderline pass, borderline fail or fail. Solutions that demonstrate at least minimum competence in the KSAs being tested receive "pass" or "borderline pass" scores. Solutions in which the candidate has failed to demonstrate some ability in the primary KSAs are scored as a "borderline fail." Solutions that fail to demonstrate minimum competence in the subject area are scored as "fail."

If the scores of the first two graders are not the same for any one vignette, and if the resolution of that discrepancy could affect the pass/fail status of the candidate, the vignette is rescored by a Master Grader.

The graders complete a computer-scanned score sheet for each exam booklet, using the evaluation criteria for each problem. The completed score sheet is removed from the test booklet and sent through a computer scanner to record the grader's score before the exam booklet is sent on to receive additional evaluations. This process ensures that no grader will be biased by marks recorded from another grader.

An Inside Look at the Grading Session

The Landscape Architect Registration Examination (L.A.R.E.) graphic section grading process was developed to be as fair to the candidate as possible while ensuring that the public is being adequately protected. Each step of the grading process ensures that every candidate receives a fair evaluation.

The graphic sections of the L.A.R.E. are graded at L.A.R.E. Grading Sessions conducted by CLARB. All graders must be licensed landscape architects with at least five years of experience. The evaluation criteria is drafted by the Examination Committee and reviewed and finalized by the Master Graders Committee. The master graders conduct a training session to explain the evaluation criteria to the exam graders. Also, during the grading session the master graders supervise the work of the exam graders.

During the grading session, each exam solution is evaluated by two different graders. Exam booklets are given to graders randomly. Graders do not know the jurisdiction from which the exam originated nor the identity of the examinee. In addition, the scores assigned by the first grader are concealed from the second grader. If the scores of the first two graders are not the same for any vignette, and if the resolution of that discrepancy could affect the pass/fail status of the candidate's exam, the vignette is rescored.

CLARB has structured the grading process to best achieve the primary goal of ensuring accurate and fair scoring for every examination. Accurate score tracking and reporting is also essential. During one grading session alone there can be 60,000 scores assigned by the graders and 18,000 areas of weakness indicated. In order to accurately record every score and area of weakness assigned, CLARB has developed a computer scannable score sheet to record scores, and uses an on-site scanner and computerized scoring system to record and analyze the scores.

Graders make no marks of any kind on the exam. "We want every grader to focus on the exam," says CLARB Director of Examinations Jim Penrod. "The more time graders are asked to spend on other tasks such as completing score sheets and considering candidate feedback, the greater the potential for inconsistent scoring."

With the grading session being the most expensive component of the exam process, cost is also an important consideration. The more tasks that graders are asked to do, the more graders are required to score the exams and the greater the exam cost per candidate. "This," Penrod explains, "is the reason that the Red-line Review process is conducted outside of the grading process for a separate fee."

Appendix 2 -Reference Materials for the L.A.R.E.

The following is a reference material list that has been prepared by the CLARB Examination Committee.

While the committee believes that mastery of the topics dealt with in the volumes on this list will be of assistance to you in preparing for the L.A.R.E., no representation is made that mastery of the topics dealt with by these volumes will ensure a passing grade on the examination, and no representation is made that the examination questions will be limited in scope to topics dealt with by the volumes contained on this list. Candidates are not expected to review all of the books on this list, as subject areas may be covered by several references. CLARB in no way guarantees that the contents of these references are accurate.

Please note that titles marked with an "*", are not longer in print; however, they may be available at a local library.

Section A – Project and Construction Administration

- A Concise Guide to Community Planning/Hall & Porterfield
- The Architect's Guide to Law and Practice/Greenstreet & Greenstreet *
- Building Construction Handbook/Merrit
- Business Law for Landscape Architects/Beery, Boehmer, Crowley, Hoyt and Weatherly, Jr.
- Construction Contracting/Clough & Sears
- Construction Contracts/Hinze
- Construction Contracts and Specifications/Hardie
- Construction Law: Principles & Practice/Jervis & Levin *
- Contracting Design Services/Karner *
- Developing Difficult Sites/Brandes & Luzier
- Engineering Contracts and Specifications/Abbett
- Guidelines to Professional Practice/Marshall
- The Legal Landscape/Smardon & Karp
- Plans, Specs and Contracts for Building Professionals/Waller *
- Professional Liability of Architects & Engineers/Streeter
- Ready, Set, Practice/Sharky
- Real Estate Principles and Practices/North & Ring
- Time-Saver Standards for Landscape Architecture/Harris

Section B - Inventory, Analysis and Program Development

- Amenity Landscape Management/Cobham
- Anatomy of a Park/Molnar & Rutledge
- Architectural Graphic Standards, 9th Ed./Ramsey
- Barrier-Free Residential Design/Peloquin
- Basic Elements of Landscape Architectural Design/Booth
- Beazley's Design & Detail of the Space Between Buildings/Pinder & Pinder
- A Concise Guide to Community Planning/Hall & Porterfield
- Design with Nature/McHarg
- A Dictionary of Landscape Architecture/Morrow
- Earthscape/Simonds
- Ecology and Field Biology/Smith
- Environmental Planning for Site Development/Beer *
- Environmental Restoration/Berger
- Introduction to Hydrology/Viessman, Knapp, Lewis & Harbaugh
- Landscape Architecture, 2nd Ed./Simonds
- A Guide to Site & Environmental Planning/Rubenstein
- Introduction to Geology/Stokes & Judson
- Landscape Management/Feucht & Butler
- Landscape Planning: Environmental Applications/Marsh
- Managing Our Wildlife Resources/Anderson
- Microclimatic Landscape Design/Brown & Gillespie *
- Natural Landscaping, Designing with Native Plant Communities/Diekelmann & Schuster
- Physical Geology/Hamblin & Howard
- Plants in the Landscape/Carpenter
- Simplified Site Design/Ambrose & Brandow
- Simplified Site Engineering, 2nd Ed./Parker & MacGuire
- Site Planning/Lynch & Hack
- Site Planning & Design for the Elderly/Carstens
- Site Reconnaissance and Engineering/Landphair & Motloch
- Site, Space and Structure/Todd
- Terrain Analysis: A Guide to Site Selection Using Aerial Photographic Interpretation/Way
- Time-Saver Standards for Landscape Architecture/Harris
- Time-Saver Standards for Housing & Residential Development/DeChiara
- Urban Planning and Design Criteria/Dechiara & Koppelman
- Wildlife, Forests & Forestry/Hunter

Section C — Site Design

- Anatomy of a Park/Molnar & Rutledge
- Architectural Graphic Standards, 9th Ed./Ramsey
- A Concise Guide to Community Planning/Hall & Porterfield
- Basic Elements of Landscape Architectural Design/Booth
- Construction Methods & Planning/Illingworth
- Design for Dignity/Lebovich
- Environmental Planning for Site Development/Beer
- A Guide to Site & Environmental Planning/Rubenstein
- Handbook of Landscape Architectural Construction/Nelischer
- Landscape Architecture, 2nd Ed./Simonds
- Landscape Architecture Construction, 2nd Ed./Landphair & Klatt
- Site Planning/Lynch & Hack
- Site Planning & Design for the Elderly/Carstens
- Time-Saver Standards for Landscape Architecture/Harris
- Time-Saver Standards for Housing & Residential Development/DeChiara

Section D – Design and Construction Documentation

- Architectural Graphic Standards, 9th Ed./Ramsey
- Beazley's Design & Detail of the Space Between Buildings/Pinder & Pinder
- Construction Equipment Guide/Day
- Construction Glossary/Stein
- Construction Materials, Their Nature & Behavior/Illston *
- Construction Materials, Types, Uses & Applications, 2nd Ed./Hornbostel
- Construction Methods & Planning/Illingworth
- Construction Specifications Writing/Rosen & Heineman
- Construction Materials, Types, Uses & Applications, 2nd Ed./Hornbostel
- Developing Difficult Sites/Brandes & Luzier
- Dictionary of Architecture and Construction/Harris
- A Guide to Site & Environmental Planning/Rubenstein
- Handbook of Landscape Architectural Construction/Nelischer
- Handbook of Public Playground Safety/US Consumer Product Safety Commission
- Lakes and Ponds/Tourbier & Westmacott
- Landscape Architecture Construction, 2nd Ed./Landphair & Klatt
- Landscape Irrigation: Design and Management/Smith
- The Landscape Lighting Book/Moyer
- Landscape Plants/Bridwell
- Manual of Woody Landscape Plants/Dirr
- Native Trees, Shrubs & Vines for Urban and Rural America/Hightshoe
- North American Plantfile/Hightshoe & Groe *
- People Places/Marcus & Francis *
- Planting Design, 2nd Ed./Walker
- Pools and Fountains/Aurans *
- Shrubs and Vines for American Gardens/Wyman

- Simplified Engineering for Architects and Builders/Parker
- Simplified Irrigation Design, 2nd Ed./Melby
- Site Design and Construction Detailing/Walker
- Site Details from Architectural Graphic Standards/Ramsey
- Site Engineering for Landscape Architects, 2nd Ed./Strom & Nathan
- Site Reconnaissance and Engineering/Landphair & Motloch
- Soil Mechanics, 5th Ed./Craig
- Soils & Foundations for Architects & Engineers/Duncan
- Stormwater: Best Management Practices and Detention for Water Quality, Drainage and CSO Management, 2nd Ed./Stahre & Urbonas *
- Stormwater Management, Quantity and Quality/Wanielista,
- Timber Construction Manual, 4th Ed./A.I.T.C.
- Time-Saver Standards for Landscape Architecture/Harris
- Trees for Architecture & Landscape, 2nd Ed./Zion
- Urban Soil in Landscape Design/Craul
- Wood Reference Handbook/Canadian Wood Council

Section E – Grading, Drainage and Stormwater Management

- A Guide to Site & Environmental Planning/Rubenstein
- Grade Easy/Untermann
- On-Site Stormwater Management/Ferguson & Debo
- Simplified Site Engineering, 2nd Ed./Parker & MacGuire
- Site Engineering for Landscape Architects, 2nd Ed./Strom & Nathan
- Stormwater: Best Management Practices for Water Quality, Drainage and Cso Management, 2nd Ed./Stahre, Urbonas
- Time-Saver Standards for Landscape Architecture/Harris

Appendix 3 - L.A.R.E. Rules of Conduct

If a candidate knowingly violates or attempts to circumvent the rules and procedures of the exam, established by CLARB, the results of that exam may not be scored or accepted. CLARB reserves the right to take remedial action-including, but not limited to, barring the candidate from future testing, canceling the candidate's exam scores or filing of civil or criminal charges. lf a candidate's scores are canceled, they will not be reported, and the associated fees will not be refunded. The candidate will be notified of the alleged violation(s) and be given an opportunity to provide evidence to the contrary and reasons that the exam score(s) should not be cancelled or withheld.

Although tests are administered under strict supervision and security measures, testing irregularities may sometimes occur. Candidates are encouraged to contact CLARB as soon as possible to report any behavior that violates exam standards and may lead to an invalid score. All information will be held in strictest confidence.

- Phone: 571/432-0332
- E-mail/Internet: Info@CLARB.org

Further Examples of Exam Impropriety

The following are examples of exam improprieties. This list is not meant to be exhaustive and CLARB reserves the right to take action on other items considered by the Conduct Committee to be an attempt to gain unfair advantage or circumvent the intent of the exam.

- Swearing to or providing false information on the exam affidavit
- Attempting to take the exam for someone else or having someone else

take the exam or any portion of the exam for you

- Failing to provide acceptable identification
- Obtaining improper access to the exam, a part of the exam, or information about the exam
- Using a telephone or cellular phone during the exam session or during breaks
- Using any aids in connection with the exam other than those provided at the exam site. For example: pagers, beepers, calculators, watch calculators, books, pamphlets, notes, stereos or radios with headphones, telephones, cell phones, watch alarms (including those with flashing lights or alarm sounds), stop watches, dictionaries. translators, hand-held and any electronic or photographic devices.
- Creating a disturbance (disruptive behavior in any form will not be tolerated; the exam administrator/supervisor has sole discretion in determining what constitutes disruptive behavior)
- Attempting to give or receive assistance or otherwise communicate in any manner with another person about the content of the exam during the administration, during breaks, or after the exam.
- Removing or attempting to remove exam content from the test center. Under no circumstances may exam content or any part of the exam content be removed, reproduced, and/or disclosed by any means (e.g., hard copy, verbally, electronically) to any person or entity.
- Tampering with a computer
- Attempting to remove scratch paper from the exam room

- Bringing a weapon or firearm into the exam center
- Bringing food, drink, or tobacco into the exam room
- Leaving the exam center vicinity during the exam session or during breaks
- Leaving the exam room without permission
- Taking excessive or extended unscheduled breaks during the test session. Exam center supervisors are required to strictly monitor unscheduled breaks and report examinees who take excessive or extended breaks.
- Referring to, looking through, or working on any exam, or exam section, when not authorized to do so, or working after time has been called
- Failing to follow any of the exam administration regulations contained in any Examination Orientation Guides, given by the exam administrator/supervisor, or specified in any exam materials

Appendix 4 - The True Cost of the L.A.R.E.

(Continued from page 2):

Let us first look at the differences in licensure exams as compared to exams that you took in school. Educational exams are "low usually considered stakes" examinations in that the actions that are taken as a result of the exam do not have a significant, long-term impact on the public or the candidate. While such exams certainly affect your grade in a class, their impact is usually weighed with a variety of other measurements such as reports, quizzes and homework assignments. It is the sum of all parts of the educational process that have an overall effect on your career.

By contrast, licensure exams are "high stakes" exams in that the result of the test has a direct effect on your professional options and directly impacts the public. Such tests are often a major factor in determining whether you become licensed and whether you are legally able to provide professional services to the public. If these tests are poorly prepared, you and the public may be harmed.

Since the tests have different effects, they also have different standards. Educational exams are required by the class instructor or the school and are designed to meet the standards of that teacher or school. Licensure exams, however, are required by law and must be legally defensible in a court of law. To meet these legal obligations, such high stakes tests must satisfy nationally recognized testing standards. What Does it Take to Produce a Licensure Exam?

Because licensure exams must meet significantly higher standards than educational exams, the exam development process is considerably longer and more involved. Whereas one teacher usually decides what is on a test, how the test is written and how it is scored, licensure involve multiple exams groups of professionals working over long periods to make such judgments. In fact, it takes more than 18 months and more than 70 professionals to produce and grade every edition of the L.A.R.E.

scientifically The process starts by determining the appropriate content for the licensure examination. As explained in other parts of this book, this takes a formal study known as a "Task (or Job) Analysis," involving a panel of licensed professionals and professional consultants. It takes over a year to prepare the document, survey thousands of licensed professionals and analyze the results. To ensure that the exam keeps up with any changes in the profession, this study must be repeated every five to seven years.

Once the exam content is known, a panel of experts must draft exam questions or problems to test candidates' knowledge or ability in the content areas. These committees must be supervised and testing supported bv experts and professional staff. The draft items must be pre-tested by other professionals and

revised repeatedly. Final draft items are then reviewed by professional test editors who check for appropriateness and clarity and ensure that the exams are not biased against any candidate sub-population.

The exams are then printed and securely distributed to test centers for administration. Completed exams are collected for scoring and two more rounds of statistical analysis and review. Graphic solutions are graded at least twice and as many as four times by licensed professionals.

Another group of professionals meets under the supervision of testing experts to review the overall difficulty of the test and to establish the minimum level of performance necessary to pass. Finally, the results of the test are communicated to the candidates. When appropriate or necessary, this process is followed by exam reviews or appeals processes.

The Total Cost

Obviously, the costs for producing a high stakes test like the L.A.R.E. are significant. Each edition involves more than 8,000 person/hours of labor to produce and grade. There are also costs for consultants, meeting facilities, printing and shipping, in addition to other indirect expenses such as management, insurance, interest and other overhead items.

If added together, the cost of producing each edition of the L.A.R.E. would exceed Fortunately for exam \$1.000.000! candidates, the actual cost of producing the L.A.R.E. is heavily subsidized by licensed landscape architects from across the U.S. and Canada. These professionals donate their time to work on CLARB committees to prepare and grade the L.A.R.E. In total, thev contribute more than 3,500 person/hours each year. Their only compensation is the satisfaction that they get from knowing that their efforts are helping to ensure the future of landscape architecture.

The Cost Per Candidate

As in any business, the cost per unit of a product is equal to the total production cost divided by the number of units produced. For the L.A.R.E., the cost per candidate is equal to the total production cost divided by the number of exam candidates.

Landscape architecture is a fairly small profession as compared to other design professions like architecture or engineering. Similarly, the number of exam candidates for the L.A.R.E. is small. Less than 2.000 exam candidates sit for one or more L.A.R.E. sections of the in four administrations each vear. This is 40.000 significantly less than the engineering students who take the entire Fundamentals of Engineering exam each year.

With the exception of the printing and scoring of graphic exams, however, the cost to produce the L.A.R.E. is not volume dependent. That is, it takes the same level of effort to produce a test for 1,000 candidates as it does for 10,000 candidates.

Obviously, when we divide the total cost to produce the L.A.R.E. by the number of candidates, the cost per candidate should be in excess of \$2,000, not including the cost for application and administration expenses. Fortunately, due to the significant subsidy provided by the landscape architect volunteers, the actual cost to the candidate for the L.A.R.E. is less than \$1,000 and is in keeping with the cost of licensing exams for many other licensed professions.

Is the L.A.R.E. Worth the Cost?

The cost to take the Landscape Architect Registration Examination is significant. You should carefully consider whether you are ready to take the test and you should prepare carefully to do so. In the end, is it worth the time, effort and cost? Most definitely!

Strictly from a financial point of view, taking the L.A.R.E. may be one of the best investments you can make. Studies show that, on average, licensed professionals make considerably more income each year than unlicensed individuals. It is easy to see that licensed professionals have many opportunities for employment, more advancement and ownership positions than do non-licensed individuals. Over the course of a professional career, the licensure process will return in income many times the amount of money it cost.

Licensure is also an important part of your professional development process. It puts you on par with other professionals with whom you will interact. It allows you to lead design teams, to be the decision-maker and to take professional responsibility for your work. Licensure allows you to legally call yourself a landscape architect.

For a person to go through college, acquire the needed practical experience and not get licensed would be similar to a person not getting a degree after completing all but one course in a college curriculum. Given that the cost of the L.A.R.E. is less than the cost of a typical three credit hour course in college, it is illogical that an individual who is otherwise qualified would not complete this important step in his/her professional development process.

The bottom line is that the investment in terms of time and money that you put into becoming a licensed landscape architect is one of the best investments that you will ever make.