

1.0 - Preamble and Bylaws

1.1 - Preamble.

The basis of these Bylaws and Rules is the authority granted the board by Sections 12-25-107(1)(a), 12-25-107(1)(b), 12-25-108(1)(e), and 12-25-207(1), 12-25-207(1)(a), and 12-25-208(1)(e), Colorado Revised Statutes.

The Bylaws and Rules are necessary to insure the proper performance of the duties of the board by the regulation of meetings, records, examinations, and the procedures thereof and to safeguard life, health, and property, to promote the public welfare, and to establish and maintain a high standard of integrity and practice. The Rules shall be binding on every person holding a certificate of registration and on all partnerships or corporations or other legal entities authorized to offer or perform engineering or land surveying services in Colorado.

All persons registered under Title 12, Article 25, parts 1 and 2 of the Colorado Revised Statutes are charged with having knowledge of the existence of these Rules and shall be deemed to be familiar with their provisions and to understand them. In these Rules, the word "registrant" shall mean any person holding a license, certificate, or enrollment issued by this board.

1.2 - Board Bylaws

1.2.1 - Board Name. The name of the board shall be the State Board of Registration for Professional Engineers and Professional Land Surveyors, hereinafter referred to as the board.

1.2.2 - Board Meetings. The board shall hold at least 6 regular meetings a year as required by law. Notice of regular meetings shall be given as required by Section 24-6-402(2), Colorado Revised Statutes. All meetings of the board are open to the public except when the board meets in executive session as allowed by Section 24-6-402, Colorado Revised Statutes.

Special meetings may be called at any time by order of the Chair of the board, or upon the written request therefore signed by three members of the board; the written request shall be filed with the program administrator. The program administrator shall mail notice of all special meetings to each member of the board at least two weeks prior to said meeting unless a majority of the members of the board waive such notice.

1.2.3 - Board Organization. At the regular meeting of the board in November, the board shall organize by electing from its members a Chair, Vice-Chair, and Secretary. The Chair shall appoint from the members of the board such standing committees as he/she deems necessary.

No officer shall serve more than two successive one-year terms in any elective office.

1.2.4 - Board Voting. All members of the board including the Chair are entitled to vote and to make or to second motions. A majority vote of those present is required to pass a motion. The Chair shall vote as a member of the board.

1.2.5 - Rules of Order. To the extent practicable, the latest edition of "Roberts Rules of Order" shall govern the normal proceedings of the board.

1.2.6 - Board Seal. The seal of the State Board of Registration for Professional Engineers and Professional Land Surveyors is of the impression type and consists of two concentric

circles. The outer circle shall be 2 inches in diameter and the inner circle shall be 1 1/2 inches in diameter. The outer circle shall contain the name "State Board of Registration for Professional Engineers and Professional Land Surveyors". The inner circle shall contain "State of Colorado" with the word "Seal" across the diameter.

2.0 - Abbreviations and Definitions

2.1 - Abbreviations

ABET - Accreditation Board for Engineering and Technology

B.L.M. - Bureau of Land Management

CAB - Canadian Accreditation Board

C.R.C.P. - Colorado Rules of Civil Procedure

C.R.S. - Colorado Revised Statutes

EAC - Engineering Accreditation Commission

ECPD - Engineers' Council of Professional Development

EI - Engineer-Intern

EIT - Engineer-in-training (term no longer used)

FE - Fundamentals of Engineering Examination

G.L.O. - General Land Office

ILC - Improvement Location Certificate

LSI - Land Surveyor Intern

NCEES - National Council of Examiners for Engineering and Surveying

PE - Professional Engineer

PLS - Professional Land Surveyor

PLSM - Public Land Survey Monument

PLSS - Public Land Survey System

RAC - Related Accreditation Commission

SIT - Surveyor in Training (term no longer used)

TAC - Technology Accreditation Commission

2.2 - Definitions

Educational Coursework Definitions

Basic Sciences. Basic sciences are considered to include not only physics and chemistry, but also selected subjects from the areas of life sciences and the earth sciences. In a study of basic sciences, the objective is to acquire fundamental knowledge about nature and its phenomena, preferably including quantitative expression.

Engineering Sciences. Engineering sciences have their roots in mathematics and the basic sciences, but carry knowledge further toward creative application. When a field of mathematics or basic science proves pertinent to an engineering application, corresponding courses in engineering science are developed to afford a bridge between the basic science and engineering practice. The engineering sciences studied by the applicant are not limited to those having direct relevance to his or her major field.

Engineering Design. The requirements of coursework in engineering design have been established in recognition of the need to orient the applicant toward the solution of important technological problems of society. In this context, engineering design is the process of devising a system, component or process, in which the basic sciences, mathematics and engineering sciences are applied to convert resources to meet a stated objective. Among the fundamental elements of the design process are the establishment of objectives and criteria, synthesis, analysis, construction, testing, and evaluation. The major portion of the design requirement is to be satisfied by courses that depend upon mathematics, basic sciences, and engineering sciences.

Surveying and Mapping Science. This coursework shall expand topics of basic science toward application in professional practice. A topic shall be identified as a surveying and mapping science course if it amplifies basic science or mathematics, is taught by surveying and mapping faculty, and contains quantitative expression. A surveying and mapping science course must include one or more of the following topics: field surveying instruments and methods; photogrammetric mapping and image interpretation and remote sensing; surveying calculation and data adjustments; geodetic coordinates and astronomy; cartographic representation, projections, and map production; and/or computer-based multipurpose cadastre, geographic information systems.

Exemptions

For Themselves. The Board of Registration for Professional Engineers and Professional Land Surveyors interprets the language of Sections 12-25-103(b) and 12-25-103(c), C.R.S., as follows.

- (a) Individuals and organizations do not qualify for exemption under Sections 12-25-103(b) or 12-25-103(c), C.R.S., if they are offering or providing engineering services to others.
- (b) Individuals and organizations offering or providing products and/or services to others that are not engineering services qualify for an exemption under Sections 12-25-103(b) or 12-25-103(c), C.R.S. In these instances, engineering may be vital in developing an individual's or organization's product or service, but that practice of engineering is specifically exempted from licensure under Sections 12-25-103(b) and 12-25-103(c), C.R.S.
- (c) In the case of an individual, "others" includes any person but the person offering or providing engineering services. In the case of an organization, "others" includes any person, or entity, other than the organization or its affiliates. Engineering services that are not limited to the internal use of the organization or its affiliates are not exempt. Engineering consulting services are specifically not exempted from registration under Sections 12-25-103(b) or 12-25-103(c), C.R.S.

Forms of Organizations Permitted to Practice. The Board of Registration for Professional Engineers and Professional Land Surveyors interprets the language of Sections 12-25-104 and

12-25-204, C.R.S., to mean the same structure and supervision requirements are required of all organizations offering and/or providing engineering or land surveying services for others whether they are organized as sole proprietorships, firms, partnerships, joint stock associations, corporations or another legally constituted entity. Further, the Board interprets this language to mean that for engineering or land surveying services that affect the life, health, property, or public welfare in Colorado, an employee who has the authority to define the scope of such services to be provided shall be a Colorado registrant and any individual employee in responsible charge of such services performed by the organization shall be a Colorado registrant.

Previous board policy 11 is hereby incorporated and superseded by this rule.

Practice of Engineering. The Board of Registration for Professional Engineers and Professional Land Surveyors interprets the language of Section 12-25-102(10), C.R.S., the “practice of engineering” to include, or exclude, but not be limited to the following.

(a) Exclusions. The Board of Registration for Professional Engineers and Professional Land Surveyors interprets the language of Section 12-25-102(10), C.R.S., the “practice of engineering” to exclude those individuals or entities performing activities exempted from registration by Section 12-25-103(1), C.R.S. Any individual or entity exempted from registration pursuant to Section 12-25-103(1), C.R.S., does not practice engineering as defined by Section 12-25-102(10), C.R.S., for the purpose of registration so long as his/her practice is limited to the activity intended by a specific exemption within Section 12-25-103(1), C.R.S.

(b) Inspections. Inspection and examination of single or multiple family residential, commercial, industrial or institutional buildings, regarding their structural, electrical, mechanical, thermal, insulation and roofing/waterproofing subsystems for proper integrity or capacity, constitutes the practice of engineering as defined in C.R.S. 12-25, Part 1. Any attempt to determine the structural integrity or capacity of a building, or any subsystem thereof, other than detection of problems by visual inspection or normal operation of the user's controls, constitutes the practice of engineering. This would include the diagnosis and analysis of problems with buildings and/or the design of remedial actions. Therefore, an individual who advertises or practices in this area shall be registered as a professional engineer in the State of Colorado.

(c) Design of Fire Protection Systems. The design of fire protection systems constitutes the practice of engineering as defined by Section 12-25-102(10), C.R.S. Fire protection systems are interpreted by the board to include, but not be limited to, fire detection systems, fire alarm systems, and fire suppression systems. The board acknowledges the provisions of Section 24-33.5-1206.2, C.R.S., (1993 Supp.) administered by the Department of Public Safety, Division of Fire Safety.

Previous board policies 1 and 12 are hereby incorporated and superseded by this rule.

Responsible Charge of Engineering. The Board shall interpret “responsible charge” of engineering, as defined in Section 12-25-102(14), C.R.S., as follows.

“Responsible charge” of engineering shall mean that degree of control an engineer is required to maintain over engineering decisions made personally or by others over which the engineer exercises supervisory direction and control authority.

(a) The degree of control necessary for an engineer to be in responsible charge shall be such that the engineer:

(i) Personally makes engineering decisions, or personally reviews and approves

proposed decisions prior to their implementation, including consideration of alternatives whenever engineering decisions that could affect the life, health, property, and welfare of the public are made. In making said engineering decisions, the engineer shall be physically present or, through the use of communication devices, be available in a reasonable period of time as appropriate.

- (ii) Judges the validity and applicability of recommendations prior to their incorporation into the work, including the qualifications of those making the recommendations.
- (b) Engineering decisions that are made by, and are the responsibility of, the professional engineer in responsible charge are those decisions concerning permanent or temporary work that could create a danger to the life, health, property, and welfare of the public, such as, but not limited to, the following:
- (i) The selection of engineering alternatives to be investigated and comparison of alternatives for engineering works.
 - (ii) The selection or development of design standards or methods, and materials to be used.
 - (iii) The selection or development of techniques or methods of testing to be used in evaluating materials or completed works, either new or existing.
- (c) As a test to evaluate whether an engineer is in responsible charge the following must be considered. An engineer who signs and seals engineering documents in responsible charge must be capable of answering questions as to the engineering decisions made during the engineer's work on the project in sufficient detail as to leave little doubt as to the engineer's proficiency for the work performed. It is not necessary to defend decisions as in an adversary situation, but only to demonstrate that the engineer in responsible charge made them and possessed sufficient knowledge of the project to make them. Examples of questions to be answered by the engineer could relate to criteria for design, methods of analysis, selection of materials and systems, economics of alternate solutions, and environmental considerations. The individual should be able to clearly define the degree of control and how it was exercised and be able to demonstrate that the engineer was answerable within said degree of control necessary for the engineering work done.
- (d) The term "responsible charge" does not refer to financial liability.
- (e) A professional engineer who adopts, signs, and seals work previously engineered shall perform sufficient review and calculation to ensure that all standards of practice required of registrants are met, including satisfying the relevant criteria stated in paragraphs (b) and (c) above, and shall take professional and legal responsibility for documents signed and sealed under his/her responsible charge.

Responsible Charge of Land Surveying. The Board shall interpret "responsible charge" of land surveying, as defined in Section 12-25-202(10), C.R.S., as follows.

"Responsible charge" of land surveying shall mean that degree of control a professional land surveyor is required to maintain over land surveying decisions made personally or by others over which the land surveyor exercises supervisory direction and control authority.

- (a) The degree of control necessary for a land surveyor to be in responsible charge shall be such that the land surveyor:

- (i) Personally makes surveying decisions, or personally reviews and approves proposed decisions including consideration of field observation, physical evidence, and recorded data whenever surveying decisions that could affect the life, health, property, and welfare of the public are made. In making said surveying decisions, the land surveyor shall be physically present or, through the use of communication devices, be available in a reasonable period of time as appropriate.
 - (ii) Judges the validity and applicability of recommendations prior to their incorporation into the work, including the qualifications of those making the recommendations.
- (b) Land surveying decisions that are made by, and are the responsibility of, the professional land surveyor in responsible charge are those decisions concerning work that could create a danger to the life, health, property, and welfare of the public, such as, but not limited to, the following:
 - (i) The selection of field observations, physical evidence, and recorded data to be investigated, compared, and analyzed.
 - (ii) The selection of methods or procedures to be used to accomplish the work.
 - (iii) Work products that comply with all relevant surveying statutes.
- (c) As a test to evaluate whether a land surveyor is in responsible charge the following must be considered. A land surveyor who signs and seals documents in responsible charge must be capable of answering questions as to the surveying decisions made during the land surveyor's work on the project in sufficient detail as to leave little doubt as to the land surveyor's proficiency for the work performed. It is not necessary to defend decisions as in an adversary situation, but only to demonstrate that the land surveyor in responsible charge made them and possessed sufficient knowledge of the survey project to make them. Examples of questions to be answered by the land surveyor could relate to criteria for the procedures of data collection, analysis of field data, recorded data and final determinations. The individual should be able to clearly define the degree of control and how it was exercised and be able to demonstrate that the land surveyor was answerable within said degree of control necessary for the surveying work done.
- (d) The term "responsible charge" does not refer to financial liability.
- (e) A professional land surveyor who adopts, signs, and seals work previously surveyed shall perform sufficient review and calculation to ensure that all standards of practice required of registrants are met, including satisfying the relevant criteria stated in paragraphs (b) and (c) above, and shall take professional and legal responsibility for documents signed and sealed under his/her responsible charge.

Signature. The term signature shall include the terms "manual signature" or "electronic signature" and shall be defined as follows.

- (a) **Manual Signature.** A manual signature is the handwritten name of a person applied to a document that identifies the person, serves as a means of authentication of the contents of the document, provides responsibility for the creation of the document and provides for accountability for the contents of the document.
- (b) **Electronic Signature.** An electronic signature is a digital authentication process attached to or logically associated with an electronic document and shall carry the same weight, authority, and effects as a manual signature. The electronic signature, which can be

generated by using either public key infrastructure or signature dynamics technology, must be as follows.

- (i) Unique to the person using it.
- (ii) Capable of verification.
- (iii) Under the sole control of the person using it.
- (iv) Linked to a document in such a manner that the electronic signature is invalidated if any data in the document are changed.

3.0 - Rules of Conduct

3.1 - Registrants Shall Hold Paramount the Safety, Health, and Welfare of the Public in the Performance of Their Professional Duties. This rule shall include, but not be limited to, the following.

3.1.1 - Primary Obligation of Registrants. Registrants shall at all times recognize that their primary obligation is to protect the safety, health, property, and welfare of the public. If their professional judgment is overruled under circumstances where the safety, health, property, or welfare of the public is endangered, they shall notify their employer or client and/or such other authority as may be appropriate.

3.1.2 - Responsibility for Seal. Registrants shall be personally and professionally responsible and accountable for the care, custody, control, and use of their seals.

3.1.2.1 - Responsibility for Monument Caps. A professional land surveyor shall be held reasonably responsible for maintaining control of any unused monument caps bearing his/her registration number.

3.1.3 - Work Product Must Be Safe and Meet Accepted Standards. Registrants shall approve and seal only those design documents and surveys that are safe for public health, property, and welfare in conformity with accepted engineering and surveying standards.

3.1.4 - Maintenance of Confidentiality. Registrants shall not reveal confidential facts, data, or information obtained in a professional capacity without prior consent except as authorized or required by law.

3.1.5 - Caliber of Association. Registrants shall not permit the use of their name or firm name nor associate in business ventures with any person or firm that they have reason or should have reason to believe is engaged in fraudulent or dishonest business or professional practices.

3.1.6 - Cooperation with Board Investigations. Registrants having knowledge of, and/or involvement in, any alleged violation of any of Title 12, Article 25, Parts 1 and 2, C.R.S., or the board's rules, shall cooperate with any investigation initiated by the board and furnish such information or assistance as may be requested.

3.1.7 - Compliance with Applicable Laws, Regulations and Codes. Registrants shall exercise appropriate skill, care, and judgement in the application of federal, state, and local laws, regulations, and codes in the rendering of professional services and in the performance of their professional duties.

3.2 - Registrants Shall Perform Services Only in the Areas of Their Competence. This rule shall

include, but not be limited to, the following.

3.2.1 - Practice Only within Expertise. Registrants shall undertake assignments only when qualified by education or experience in the specific technical fields of engineering or land surveying involved.

3.2.2 - Seal and Sign Only Documents under Responsible Charge. Registrants shall only affix their signatures or seals to plans or documents prepared under their responsible charge.

3.2.3 - Sealing and Signing for Entire Projects. For projects encompassing one or more disciplines beyond the registrant's competence, registrants may accept responsibility for, and sign and seal the documents for, the total project only when the registrant has first determined that all phases of the project have been performed by associates, consultants, or employees who are:

(a) competent and qualified to perform such services; and,

(b) are registered or licensed.

3.3 - Registrants Shall Issue Professional Statements Only in an Objective and Truthful Manner.

This rule shall include, but not be limited to, the following.

3.3.1 - Objectivity and Truth. Registrants shall be objective and truthful in professional reports, statement, or testimony.

3.3.2 - Serving as Expert or Technical Witness. The registrant, when serving as an expert or technical witness before any court, commission, or other tribunal, shall express an opinion regarding matters pertaining to professional practice only when founded upon adequate knowledge of the facts at issue, upon a background of technical competence in this subject matter, and upon honest conviction of the accuracy and propriety of his/her testimony.

3.3.3 - Identification of Interested Parties. Registrants shall not issue professional statements on technical matters that are initiated or paid for by interested parties, unless the registrants have prefaced their statements by explicitly identifying the interested parties on whose behalf they are speaking, and by revealing the existence of any interest the registrants may have in the matters.

3.3.4 - Statements beyond Engineering and/or Land Surveying. Registrants shall not issue a professional statement in a field of expertise outside of the practice of engineering and/or land surveying unless they hold a proper registration from the lawful authority that issues such registration.

3.3.5 - Land Surveying Statements by Engineers. Registrants holding registration as a professional engineer shall not issue a professional statement requiring expertise in land surveying unless such registrant holds registration as both a professional engineer and a professional land surveyor.

3.3.6 - Engineering Statements by Land Surveyors. Registrants holding registration as a professional land surveyor shall not issue a professional statement requiring expertise in engineering unless such registrant holds registration as both a professional engineer and a professional land surveyor.

3.4 - Registrants Shall Act in a Professional Manner for Each Employer or Client and Shall Avoid Conflicts of Interest. This rule shall include, but not be limited to, the following.

3.4.1 - Conduct that Discredits the Profession. A registrant shall not engage in any conduct in the course of promoting or rendering services for an employer or client that discredits or tends to discredit another engineer or land surveyor and/or the profession of engineering or land surveying.

3.4.2 - Appearance of Impropriety. A registrant shall avoid the appearance of impropriety in the course of representing or rendering services of an employer or client.

3.4.3 - Undue Influence. When representing a client or employer, a registrant shall not exert or attempt to exert undue influence over other professionals, contractors, or public officials. Undue influence means any improper or wrongful exercise of persuasion or control by a registrant in an effort to cause another to do what he or she would not otherwise do if left to act freely.

3.4.4 - Conflicts of Interest. Registrants shall disclose all known conflicts of interest to their employers or clients by promptly informing them of any business association, interest, or other circumstances that could influence their judgment or the quality of their services.

3.4.5 - More Than One Source of Compensation. Registrants shall not accept compensation, financial or otherwise, from more than one party for services on the same project, or for services pertaining to the same project, unless the circumstances are fully disclosed to, and agreed to, by all interested parties.

3.4.6 - Solicitation or Acceptance of Compensation. Registrants shall not solicit or accept financial or other valuable consideration, directly or indirectly, from contractors, their agents, or other parties in connection with work for employers or clients for which the registrant is responsible.

3.4.7 - Registrants in Public Service. Registrants, who work for private organizations that provide engineering and/or land surveying services, who are also in public service as members, advisors, or employees of a governmental body or department shall not participate in decisions with respect to professional services solicited or provided to the governmental body or department by their private organization.

3.4.8 - Government Contracts. Registrants shall not solicit or accept a professional contract from a governmental body on which a principal or officer of their organization serves as a member, except upon public disclosure of all pertinent facts and circumstances and consent of appropriate public authority.

3.4.9 - Status or Scope of Registration. Registrants shall not misrepresent the status or scope of their registration for any purpose.

3.5 - Registrants Shall Avoid Improper Solicitation of Professional Employment. This rule shall include, but not be limited to, the following.

3.5.1 - Academic Qualifications and Professional Experience. Registrants or their associates shall not misrepresent or falsify academic or professional qualifications, or exaggerate or misrepresent the pertinent facts or the degree of responsibility for prior work assignments for the purpose of securing or retaining employment by a client.

3.5.2 - Recommendations and Employment. Registrants or their associates shall not compensate or give anything of substantial value to a person or organization, except for a disclosed sales representative, in order to obtain a recommendation for, or secure or retain employment by a client.

3.5.3 - Use of Seal. Registrants or their associates shall not publicize or promote themselves for the purpose of securing or retaining employment by the use of a professional engineer seal or professional land surveyor seal or any reproduction thereof.

3.6 - Registrants Shall Exercise Independent Professional Judgment. This rule shall include, but not be limited to, the following.

3.6.1 - Exercise of Judgment. Registrants shall not permit a client, employer, another person, or organization to direct, control, or otherwise affect the registrant's exercise of independent professional judgment in rendering professional services for the client.

4.0 - Rules of Administrative Procedure

4.1 - Applications and Reapplications

4.1.1 - Complete Applications and Reapplications. A complete application or reapplication requires that an applicant must submit the application, the required fee, and all required documentation as set forth in the board's published application procedures. Required documentation includes that which the applicant is responsible for submitting and any other documentation that may be required from other sources to support the applicant's file. Any application not complying with these procedures shall be returned.

4.1.1.1 - Applications Eligible for Board Review. To be eligible for board review, a complete application or reapplication must be received on the first day of the month prior to the month of the board meeting at which applications and reapplications will be reviewed.

4.1.1.2 - Experience Record. In relating experience on the application or reapplication form, the applicant must account for all employment or work experience. If not employed, or employed in other kinds of work, this should be indicated in the experience record. Engagements of less than six months with one employer will not count as creditable experience. Experience may not be anticipated, i.e., the experience must have been received by the time the application is submitted.

4.1.1.3 - Verification of Registration, Enrollment, Certification. If verification of an applicant's enrollment, certification, or registration must be obtained from another state or jurisdiction as part of the application or reapplication process, that verification must be made in writing on a form approved by the board and in accordance with published board procedures. Such verification shall be made under the seal of that state board or jurisdiction. Oral verification shall not be accepted.

4.1.1.4 - Board Denial of an Application. An applicant whose application has been denied may submit a request for reconsideration of a decision by the board, accompanied by additional supporting documentation or information, or may request a personal interview before the board. These requests must be submitted within 60 days of the date on which the board made the decision. No additional supporting documentation, requests for reconsideration, or interviews will be considered by the board if they are not filed within this time limit.

4.1.1.5 - Applications are Reviewed under Current Statutes. Applications to sit for the examination and for registration, enrollment, or certification are evaluated under the statutes, rules, and regulations in effect at the time that the application is complete. Subsequent applications, including reapplication within the three year period within which denied applications are retained, are likewise evaluated

under the statutes, rules, and regulations in effect at the time the subsequent application or reapplication is complete.

4.1.1.6 - Student Application for FE Exam. Students eligible to take the fundamentals of engineering examination pursuant to board Rule 4.7.1.1 shall make application in accordance with the procedures established by the board and the college or university. The college or university shall certify to the board that the students who have applied for the fundamentals of engineering examination meet the requirements of board Rule 4.7.1.1.

4.1.1.7 - Endorsement Applications. Applicants currently in good standing in another jurisdiction may apply for licensure as a professional engineer or professional land surveyor based upon endorsement by the original licensing state.

To obtain a license by endorsement, an applicant must qualify for registration under the provisions of Section 12-25-114(1)(a) or 12-25-214(1)(a), C.R.S., and submit an application according to the board's published application procedures. The Colorado board must receive written verification from the original licensing state indicating how the applicant qualified for licensure and the status of his/her license.

If the applicant's license is no longer valid in the original state of licensure, the applicant shall do one of the following in order to be considered for endorsement.

- (a) Bring his/her license into active status with the original state of licensure prior to application with this board.
- (b) Provide verification of a valid license from a second state licensing board and disciplinary history from the original state of licensure, if the applicant is currently licensed by another state board.

4.1.1.8 - Applicants for Licensure Who Have Passed Required NCEES Examinations in Another State. Applicants who have passed the required NCEES examinations but have not yet completed the licensing process begun in another state may make application to the Colorado board. The applicant must meet the current licensing requirements in Colorado. It is the applicant's responsibility to request written verification from the state in which the applicant completed the NCEES examinations. If the Colorado board determines that the applicant qualifies for licensure, the applicant's original state of licensure will be Colorado.

4.2 - Applicants with Degrees from Foreign Schools.

Applicants who have degrees from foreign colleges, universities, or their equivalents for which they wish to receive educational credit are required to have their foreign transcripts evaluated by a transcript evaluation service approved by the board. This evaluation will be performed at the applicant's expense and the applicant will be responsible for submitting all the necessary information to the evaluation service. The board will consider awarding credit for a foreign degree only if it is evaluated by the board-approved service. Information regarding the evaluation of foreign degrees is published in the board's application procedures.

Applicants who have degrees from foreign colleges, universities, or their equivalents who do not wish to receive educational credit for their college education need to submit a transcript verifying completion of the equivalent of the high school level of education. An original transcript shall be provided directly from the high school or equivalent educational institution in a sealed envelope. If this transcript is not in the English language, it is the responsibility of the applicant to have the transcript translated into English and

submitted directly by the translator to the board office. This translation will be performed at the applicant's expense.

4.3 - Retention of Applications.

The board retains applications as described in the following paragraphs and only for the time periods noted. Once an application is removed from the board files, a new original application and supporting documents must be submitted along with the appropriate fee.

4.3.1 - Incomplete Applications. The board will retain an incomplete application for enrollment, certification, or registration in its pending file, pending receipt from the applicant of all necessary documentation. If all the documentation has not been received in a one-year period, the application will be removed from the board files.

4.3.2 - Approved Applications. The board retains application forms and supporting documents for persons who have been approved to sit for the fundamentals of engineering, principles and practice of engineering, fundamentals of surveying, principles and practice of land surveying, or the Colorado state specific surveying examinations for a period of two years from the date of approval by the board. If an applicant does not take the examination within that two-year period, the application will be removed from the board files. If an applicant fails an examination, the applicant has two years from the date of that examination to retake the examination or the application will be removed from the board files.

4.3.3 - Denied Applications. The board retains application forms and supporting documents for persons who have been denied permission to sit for an examination or who have been denied registration, enrollment, or certification, for a period of three years from the date of denial by the board. After denial of an application, it is necessary for an applicant who wishes to reapply to file a request for reapplication on a form provided by the board. If reapplication is made within the three-year period within which the board retains denied applications, an applicant may request that transcripts, letters of reference, or other supporting documents retained by the board be transferred to, and considered in support of, the reapplication. If reapplication is not made within the three-year period, the application will be removed from the board's files.

4.3.4 - Student Applications. The board does not retain the application forms for students who sit for the fundamentals of engineering examination pursuant to board Rule 4.7.1.1 who fail the exam. Those applications are immediately purged following notification of the exam results. Applicants that still meet the requirements of board Rule 4.7.1.1 may reapply through the college or university to retake the exam. Applicants that no longer meet the requirements of board Rule 4.7.1.1 must submit a new application to the board office for approval to take the fundamentals of engineering examination.

4.4 - References.

Completed references shall be submitted on the forms approved by the board and in accordance with published board procedures. An applicant shall submit the number of completed references necessary to verify at least the minimum number of years of experience required by statute for the particular section under which the applicant is applying (e.g. Section 12-25-114(3)(b)(1), C.R.S., requires 12 years of experience - references verifying 12 years of progressive engineering experience must be submitted).

4.5 - Experience

4.5.1 - Progressive Engineering Experience Criteria. In evaluating experience to determine if it

is progressive engineering experience, the following will be considered.

4.5.1.1 - Increasing Quality and Responsibility. Experience must indicate that it is of increasing quality and requiring greater responsibility.

4.5.1.2 - No Violation of Act. Experience must not be obtained in violation of this registration act.

4.5.1.3 - Armed Services Experience. Experience gained in the Armed Services, to be creditable, must be of a character equivalent to that which would have been gained in the civilian sector doing similar work. Normally it would be expected that the applicant while in the Armed Services would have served in an engineering-related group.

4.5.1.4 - Teaching Experience. Experience as a full-time instructor or at a higher level, in a board-approved engineering curriculum, may be considered as progressive engineering experience at the discretion of the board.

4.5.1.5 - Engineering Education. Engineering education shall be considered as progressive engineering experience. Graduation from an engineering curriculum of four or more years approved by the board shall be considered as four years of progressive engineering experience (also see Rule 4.6.1). The award of a Master of Science degree in engineering shall be considered as an additional year of progressive engineering experience, provided it meets the requirements set forth in Rule 4.6.1.9. The award of a Doctorate in engineering shall be considered as an additional year of progressive engineering experience, provided it meets the requirements set forth in Rule 4.6.1.9. The award of a graduate level engineering degree (M.S. or Ph.D.) that does not meet the requirements of Rule 4.6.1.9 shall be considered as an additional six months of engineering experience for each degree. Six years shall be the maximum educational credit that may be received.

4.5.1.6 - Construction Experience. The execution, as a contractor, of work designed by a professional engineer, or the supervision of the construction of such work as a foreman or superintendent, shall not be deemed to be the practice of engineering. But if such experience, in the opinion of the board, has involved responsible supervision of a character that will tend to expand the engineering knowledge and skill of the applicant, the board may in its discretion give such credit for said experience as it deems proper.

4.5.1.7 - Sales or Estimating Experience. For sales or estimating experience to be creditable, it must be demonstrated that engineering principles were required and used in gaining the experience.

4.5.1.8 - Research Experience. For experience as a research assistant or a research associate at a college or university to be creditable it must be demonstrated that this was full-time engineering experience that was not gained as part of completing a graduate degree program.

4.5.1.9 - Technician Experience. Engineering technician experience may be considered as an entry-level phase of progressive engineering experience at the discretion of the board.

4.5.2 - Progressive Land Surveying Experience Criteria. In evaluating experience to determine if it is progressive land surveying experience the following will be considered.

4.5.2.1 - Increasing Quality and Responsibility. Experience must indicate that it is of increasing quality and requiring greater responsibility.

4.5.2.2 - No Violation of Act. Experience must not be obtained in violation of this registration act.

4.5.2.3 - Armed Services Experience. Experience gained in the Armed Services, to be creditable, must be of a character equivalent to that which would have been gained in the civilian sector doing similar work. Normally it would be expected that the applicant, while in the Armed Services, would have served in a land surveying group.

4.5.2.4 - Teaching Experience. Experience as a full-time instructor or at a higher level, in a board-approved land surveying curriculum, may be considered as progressive land surveying experience at the discretion of the board.

4.5.3 - Actual Experience Required. Experience may not be anticipated. The experience must have been received at the time the application is made.

4.5.4 - Employment While a Full-Time Undergraduate Student. Full-time engineering or land surveying undergraduate students will not receive employment credit for summer jobs, part-time, or full-time jobs when these students get a full 12 months of credit for a year of undergraduate education, up to a maximum of four years.

4.5.5 - Short-Term Duration Employment Not Counted. No engineering or land surveying experience of less than six months duration with one employer shall be credited.

4.6 - Educational Credit for Engineering and Surveying Applicants

4.6.1 - Engineering Education

4.6.1.1 - Board-Approved Engineering Curriculum. Pursuant to Sections 12-25-112(2)(b)(I) and (II) and 12-25-114(2)(b)(I)(A), C.R.S., a board-approved engineering curriculum of four or more years is an engineering curriculum accredited by the Accreditation Board for Engineering and Technology/Engineering Accreditation Commission (ABET/EAC).

4.6.1.2 - Board-Approved Engineering Technology Curriculum. Pursuant to Sections 12-25-112(3)(b)(I) and 12-25-114(2)(b)(II)(A), C.R.S., a board-approved engineering technology curriculum of four or more years is a technology degree accredited by the Accreditation Board for Engineering and Technology/Technology Accreditation Commission (ABET/TAC).

4.6.1.3 - Reserved.

4.6.1.4 - Experience Credit for an Engineering Degree. Four years of progressive engineering experience for education may be granted for an undergraduate degree in engineering of four or more years that is accredited by the Accreditation Board for Engineering and Technology/Engineering Accreditation Commission (ABET/EAC). Four years of progressive engineering experience for education may be granted for an undergraduate degree of four or more years in engineering technology that is accredited by the Accreditation Board for Engineering and Technology/Technology Accreditation Commission (ABET/TAC).

4.6.1.5 - Experience Credit Without an Engineering Degree. For those applicants who

have not graduated from a degree program as specified in Rule 4.6.1.4, progressive engineering experience credit for education will be granted as set forth below or for other professional coursework equivalent to that set forth below when that equivalency is established to the board's satisfaction. The applicant requesting this equivalency determination bears the burden of presenting evidence regarding equivalency to the board.

4.6.1.5.1 - Specific Credit Given. Progressive engineering experience for education may be granted for the completion of the following coursework.

4.6.1.5.1.1 - Three Years of Credit. A minimum of 90 semester hours, or the equivalent, that includes all of the following.

- (a) A minimum of 12 semester hours, or the equivalent, of mathematics beyond trigonometry. This must include the equivalent of six semester hours of analytic geometry and calculus and three semester hours of differential equations - statistics, probability, college algebra, and business math will not be counted toward this requirement.
- (b) A minimum of 12 semester hours, or the equivalent, of basic sciences.
- (c) A minimum of 36 semester hours, or the equivalent, of engineering science and/or engineering design.

4.6.1.5.1.2 - Two Years of Credit. A minimum of 60 semester hours, or the equivalent, that includes all of the following.

- (a) A minimum of 12 semester hours, or the equivalent, of mathematics beyond trigonometry. This must include the equivalent of six semester hours of analytic geometry and calculus and three semester hours of differential equations - statistics, probability, college algebra, and business math will not be counted toward this requirement.
- (b) A minimum of 18 semester hours, or the equivalent, in basic sciences and/or engineering sciences and/or engineering design.

4.6.1.5.1.3 - One Year of Credit. A minimum of 30 semester hours, or the equivalent, that includes all of the following.

- (a) Minimum of six semester hours, or the equivalent, of mathematics beyond trigonometry. Statistics, probability, college algebra, and business math will not be counted toward this requirement.
- (b) A minimum of six semester hours, or the equivalent, of basic sciences.

4.6.1.6 - Credit for a "Related Science" Degree. For a curriculum to be defined as a "related science" curriculum as specified in Sections 12-25-112(3)(b)(II)(A), 12-25-114(2)(b)(III)(A), and 12-25-114(2)(b)(IV)(A), C.R.S., the curriculum must contain all of the following.

- (a) A minimum of 12 semester hours, or the equivalent of mathematics beyond

trigonometry. This must include the equivalent of six semester hours of analytic geometry and calculus and three semester hours of differential equations - statistics, probability, college algebra, and business math will not be counted toward this requirement.

- (b) A minimum of 18 semester hours, or the equivalent, of basic sciences and/or engineering sciences and/or engineering design.

4.6.1.7 - Credit Given Only for Coursework with Grade of “C” or Better. Progressive engineering experience for education pursuant to Rules 4.6.1.5 and 4.6.1.6 may only be granted for completed coursework in which the applicant achieved a grade of “C” or better.

4.6.1.8 - Additional Detail May Be Required. If transcripts do not provide adequate detail to determine the number of hours or the content of coursework in each of the specified areas, it is the responsibility of the applicant to submit such information, such as course descriptions and other related materials, that will provide the necessary detail.

4.6.1.9 - Credit Given for Masters and Doctorate Degrees in Engineering. Applicants who have obtained a Master of Science degree or a Doctorate in engineering from a university that offers an ABET/EAC accredited undergraduate degree in the same area of study shall receive one year of educational credit for each degree. Applicants who have obtained a Master of Science degree or Doctorate in engineering from a university that does not offer an ABET/EAC accredited undergraduate degree in the same area of study shall receive six months of educational credit for each degree.

4.6.1.10 - Credit for Correspondence Courses and Other Forms of Distance Learning. Progressive engineering experience for education may be granted for completed correspondence courses or other forms of distance learning if, according to the educational institution, there is oversight by an accredited degree program department of the course content, examinations, and faculty.

4.6.2 - Surveying Education

4.6.2.1 - Board-Approved Surveying Curriculum of Four or More Years. Pursuant to Sections 12-25-212(2)(b) and 12-25-214(2)(b)(I)(A), C.R.S., a board-approved surveying curriculum of four or more years shall be one that has been accredited by the Accreditation Board for Engineering and Technology (ABET) or conforms with the board guidelines for approval of land surveying programs.

4.6.2.2 - Board-Approved Two-Year Surveying Curriculum. For a curriculum to be defined as a “board-approved two-year surveying curriculum” as specified in Section 12-25-214(2)(b)(III)(A), C.R.S., the curriculum must contain all of the following.

- (a) A minimum of 11 semester hours, or the equivalent, of college-level mathematics beyond trigonometry. Statistics and/or probability will count toward this requirement. Business math and college algebra will not count toward this requirement.
- (b) A minimum of 20 semester hours, or the equivalent, of basic science and/or surveying sciences and/or surveying practice and/or technological or business courses.

4.6.2.3 - Reserved.

4.6.2.4 - Reserved.

4.6.2.5 - Experience Credit Without a Surveying Degree. Pursuant to Section 12-25-214(4)(d), C.R.S., for those applicants who have not graduated from a degree program as specified in Section 12-25-212 or 12-25-214, C.R.S., progressive land surveying experience credit for education will be granted as set forth below or for other professional coursework equivalent to that set forth below when that equivalency is established to the board's satisfaction. The applicant requesting this equivalency bears the burden of presenting evidence regarding equivalency to the board.

4.6.2.5.1 - Specific Credit Given. Progressive surveying experience for education may be granted for the completion of the following coursework.

4.6.2.5.1.1 - Three Years of Credit. A minimum of 90 semester hours, or the equivalent, that includes all of the following.

- (a) A minimum of 22 semester hours, or the equivalent, of technological and/or business courses.
- (b) A minimum of 11 semester hours, or the equivalent, of college-level mathematics beyond trigonometry. Statistics and/or probability will count toward this requirement. Business math and college algebra will not count toward this requirement.
- (c) A minimum of 11 semester hours, or the equivalent, of basic sciences.
- (d) A minimum of 22 semester hours, or the equivalent, of surveying and mapping science and/or surveying and mapping professional practice.

4.6.2.5.1.2 - Two Years of Credit. A minimum of 60 semester hours, or the equivalent, that includes all of the following.

- (a) A minimum of 11 semester hours, or the equivalent, of college-level mathematics beyond trigonometry. Statistics and/or probability will count toward this requirement. Business math and college algebra will not count toward this requirement.
- (b) A minimum of 20 semester hours, or the equivalent, of basic sciences and/or surveying sciences and/or surveying practice and/or technological or business courses.

4.6.2.5.1.3 - One Year of Credit. A minimum of 30 semester hours, or the equivalent, that includes all of the following.

- (a) A minimum of six semester hours, or the equivalent, of college-level mathematics beyond trigonometry. Statistics and/or probability will count toward this requirement. Business math and college algebra will not count toward this requirement.
- (b) A minimum of six semester hours, or the equivalent, of basic

sciences and or surveying sciences.

4.6.2.6 - Reserved.

4.6.2.7 - Credit Given Only for Coursework with Grade of “C” or Better. Progressive land surveying experience for education gained in other than board-approved curricula may only be granted for completed coursework in which the applicant achieved a grade of “C” or better.

4.6.2.8. - Additional Detail May Be Required. If transcripts do not provide adequate detail to determine the number of hours or the content of coursework in each of the specified areas, it is the responsibility of the applicant to submit such information, such as course descriptions and other related materials, that will provide the necessary detail.

4.6.2.9 - Reserved.

4.6.2.10 - Credit for Correspondence Courses and Other Forms of Distance Learning. Progressive land surveying experience for education may be granted for completed correspondence courses or other forms of distance learning if, according to the educational institution, there is oversight by an accredited degree program department of the course content, examinations, and faculty.

4.7 - Examinations

4.7.1 - Applicants Must Receive Board Approval to Sit for an Examination. No applicant may sit for the fundamentals of engineering examination, the principles and practice of engineering examination, the fundamentals of land surveying examination, the principles and practice of land surveying examination, or the state specific land surveying examination until the board has established that the applicant is eligible for the examination.

4.7.1.1 - Eligibility to Take the FE Exam with Senior Status in a Board-Approved Engineering Curriculum. C.R.S. 12-25-112 (2)(b)(II) references senior status in a board-approved engineering curriculum of four or more years. The board interprets this provision to take the fundamentals of engineering exam to include senior status in a curriculum at a college or university within the State of Colorado that is accredited by one of the commissions of the Accreditation Board for Engineering and Technology (ABET), or contained within a College of Engineering and Applied Science or its equivalent.

All remaining provisions of C.R.S. 12-25, Part 1, and the bylaws and rules of the State Board of Registration for Professional Engineers and Professional Land Surveyors will govern the requirements for enrollment as an engineer-intern and for qualification to become licensed as a professional engineer.

4.7.2 - Sequencing of Engineering Examinations. An applicant for registration as a professional engineer will not be permitted to sit for the principles and practice of engineering examination until the fundamentals of engineering examination has been passed.

4.7.3 - Sequencing of Surveying Examinations. An applicant for registration as a professional land surveyor will not be permitted to sit for the principles and practice of land surveying examination until the fundamentals of land surveying examination has been passed.

4.7.4 - Forfeiture of Examination Fee. Failure of an applicant to attend an examination for which he/she has been scheduled and has not indicated in writing to the board office no later than 45 days in advance of the examination date that he/she cannot attend, will result in the forfeiture of the applicant's examination fee. The applicant's examination fee will be refunded in the case of unavoidable causes (e.g., illness, death in the family, etc.), if the applicant submits the necessary documentation to the board office no later than 30 days after the examination date.

4.7.5 - Non-Attendance at Examination. Failure of an applicant to attend an examination for which he/she has scheduled attendance does not count as a failure of the examination.

4.7.6 - Examination Results. Examination results, after review and approval of the passing score, will be supplied in writing to each examinee showing the applicant's score and the passing score. Results will not be given in any other manner.

4.7.7 - Language of Examinations. The language of the examinations will be English.

4.8 - Expired Licenses.

Pursuant to Sections 12-25-115(4) and 12-25-215(4), C.R.S., a registrant whose license has lapsed for more than two years must prove to the board that he/she has maintained an active practice in another jurisdiction or otherwise is still competent to practice engineering or land surveying. The registrant must complete and submit reference forms as supplied by the board for the period the license has been lapsed that verify his/her work experience during that time. The board will then make a decision whether or not the registrant should be reinstated. The board has the discretion to require further examination and/or education of registrants who do not otherwise demonstrate active practice or competence. Payment of the appropriate fees will be required once reinstatement has been granted.

4.9 - Reporting of Malpractice Claims That Have Been Settled or Upon Which Judgment Has Been Rendered

4.9.1 - Malpractice Claim Defined. For purposes of compliance with Sections 12-25-108(1)(k) and 12-25-208(1)(k), C.R.S., the term "malpractice claim" is defined as a claim for damages asserted by any person against a licensee in a court of competent jurisdiction or submitted to alternative dispute resolution. This rule applies to claims that engineering and/or land surveying services performed at any location by such licensee failed in any manner to meet generally accepted standards for such professional practice.

4.9.2 - Malpractice Report Forms. Reports filed by professional engineers and professional land surveyors pursuant to Sections 12-25-108(1)(k) and 12-25-208(1)(k), C.R.S., shall be submitted on forms as provided by the board.

4.9.3 - Board Jurisdiction. The jurisdiction of the board relates to individual licensees and not to engineering or land surveying firms. Thus, it shall be the responsibility of the licensee to file the foregoing reports with the board. If more than one engineer and/or land surveyor is a party to the same settlement or judgment, each licensee shall file a report with the board.

4.10 - Registration by Endorsement from a Foreign Country.

When an applicant seeks registration by endorsement based on a certificate of registration, or its equivalent, issued by a proper authority in a foreign country, the board reserves the right to request that the applicant provide information as to the registration standards in effect in that country at the time the certificate of registration, or its equivalent, was issued.

5.0 - Rules of Professional Engineering Practice

5.1 - Sealing Requirements for Professional Engineers

5.1.1 - Seal Specifications. Pursuant to Section 12-25-117(1), C.R.S., the seal authorized by the State Board of Registration for Professional Engineers and Professional Land Surveyors for registrants is of the crimp type, rubber stamp type, and/or computer generated type. The seal shall be of a design and size shown below. The diameter of the outer circle shall be nominally 1 5/8 inches (41 mm) and the diameter of the inner circle shall be nominally 15/16 inches (24 mm). The registration number assigned shall be centered in the inner area of the seal in the space occupied by the word "NUMBER" and the size of the numbers shall be the same size of the letters in the word "NUMBER". The word "NUMBER" should not appear on the seal. Seals obtained prior to April 1, 1993 shall be deemed acceptable.



5.1.2 - Seal Application. A seal must be applied to either the final reproducible or final reproduction of all of the following.

- (a) Each sheet of engineering drawings.
- (b) The cover, title page, and table of contents of specifications bound in book form.
- (c) The title page of details bound in book form and prepared specifically to supplement project drawings.
- (d) The title or signature page of engineering reports.

5.1.3 - Signature and Date Required. The signature (manual or electronic) of the registrant and date of signature shall be affixed to the document. If a manual signature is used, the signature of the registrant and date of signature shall appear through the seal.

5.1.3.1 - Signature May Be Required By Public Agencies. A public agency may require

signature (manual or electronic) of the registrant on reproductions.

5.1.4 - Sealing Documents That Are Not Final. When a registrant seals engineering documents that are not final, the status of the engineering documents must be identified as preliminary. Further qualifying descriptors may be added, e.g. "for review," "not for construction," "for bid only."

5.1.5 - Limiting Scope of Responsibility. When a registrant signs and seals a document, the registrant is responsible for the entire document unless the registrant limits the seal to one or more disciplines (e.g. civil, structural, mechanical, etc.) shown on the document. To limit the scope of responsibility for an engineering document to one or more disciplines, on the face of such document, the registrant must include a specific written statement adjacent to the seal that accurately reflects the scope of responsibility for the document.

All disciplines or aspects of the work shown on that document must be signed and sealed by the person(s) in responsible charge.

5.1.6 - Specifying Manufactured Components in Designs. Registrants may specify manufactured components that are exempted by statute as part of design documents. "Manufactured components" for the purposes of this rule shall consist of such items as a pump, motor, prefabricated truss, or other type of item that is manufactured in multiple units for selection and use in projects that must be designed by professional engineers. Systems of manufactured components that are specific to a particular use or application must also be designed by a professional engineer. The registrant may show the manufactured component on the drawing or document and is responsible for the correct selection and specification of the manufactured components, but is not responsible for the proper design and manufacture of the manufactured components selected.

5.1.7 - Retaining Engineering Documents. The sealed, signed, and dated reproducible, or a copy of all documents displaying the registrant's seal, signature, and date, shall be retained by the registrant or the registrant's employer for a minimum of three years from the beginning of beneficial use.

5.2 - Engineer's Certification

5.2.1 - Circumstances and Applicable Actions. When a professional engineer is presented with a certification to be signed and/or sealed, the professional engineer should carefully evaluate that certification to determine if any of the following circumstances apply.

- (a) Matters that are beyond the professional engineer's competence, training, or education.
- (b) Matters that are beyond the professional engineer's services actually provided.
- (c) Matters that were not prepared under the professional engineer's responsible charge.

If any of these circumstances apply, that engineer shall take either of the following actions.

- (i) Modify such certification to limit its scope to those matters that the professional engineer can properly sign and/or seal.
- (ii) Decline to sign such certification.

5.2.2 - Certification Defined. Certification is defined as a statement that includes all of the following.

- (a) Is signed and/or sealed by a professional engineer representing that the engineering services addressed therein have been performed by the professional engineer or under the professional engineer in responsible charge.
- (b) Is based upon the professional engineer's knowledge, information, and belief.
- (c) Is in accordance with applicable standards of practice.
- (d) Is not a guaranty or warranty, either expressed or implied.

5.3 - Construction Observation as the Practice of Engineering.

Section 12-25-102(10), C.R.S., defines the "... observation of construction to evaluate compliance with plans and specifications..." as the practice of engineering. Observation of construction to evaluate compliance with plans and specifications includes, but is not limited to, the following activities.

- (a) Observing construction operations and interpreting the project plans and specifications to monitor general compliance with the plans, specifications, and the intent of the design.
- (b) Evaluation or analysis of design problems due to actual field conditions encountered.
- (c) Evaluation or analysis of the testing of materials, equipment, or systems for acceptance, when appropriate to the project.

A person who is performing, or is obligated to perform, any of the above listed activities is engaging in the practice of engineering and must either be licensed as a professional engineer in Colorado or must be supervised by a Colorado professional engineer.

5.4 - Reserved.

5.5 - Reserved.

5.6 - Reserved.

5.7 - Reserved.

5.8 - Establishing Horizontal and Vertical Controls.

The Colorado Statutes permit both professional engineers and professional land surveyors to establish horizontal and vertical control for Aerial Mapping, Topographic Mapping, and Planimetric Mapping. When any of the previously mentioned horizontal and vertical controls are tied to, referenced to, or controlled by land lines or property lines, these controls shall be established under the direct supervision of a professional land surveyor registered in Colorado.

6.0 - Rules of Professional Land Surveying Practice

6.1 - Sealing Requirements for Professional Land Surveyors

- 6.1.1 - Seal Specifications.** Pursuant to Section 12-25-217(1), C.R.S., the seal authorized by the State Board of Registration for Professional Engineers and Professional Land Surveyors for registrants is of the crimp type, rubber stamp type, and/or computer generated type. The seal shall be of a design and size shown below. The diameter of the outer circle shall be nominally 1 5/8 inches (41 mm) and the diameter of the inner circle shall be nominally 15/16 inches (24 mm). The registration number assigned shall be centered in the inner area of the seal in the space occupied by the word "NUMBER" and the size of the

numbers shall be the same size of the letters in the word "NUMBER". The word "NUMBER" should not appear on the seal. Seals obtained prior to April 1, 1993 shall be deemed acceptable.



6.1.2 - Seal Application. Pursuant to Section 12-25-217, C.R.S., the professional land surveyor's seal must be applied to either the final reproducible or final reproduction of any of the following being delivered to the public.

- (a) Each sheet of documents and plats resulting from the practice of land surveying.
- (b) The title or signature page of surveying reports.

6.1.3 - Signature and Date Required. The signature (manual or electronic) of the registrant and date of signature shall be affixed to the document. If a manual signature is used, the signature of the registrant and date of signature shall appear through the seal.

6.1.3.1 - Signature May Be Required By Public Agencies. A public agency may require signature (manual or electronic) of the registrant on reproductions.

6.1.4 - Sealing Documents That Are Not Final. When a registrant seals surveying documents that are not final, the status of the surveying documents must be identified as preliminary. Further qualifying descriptors may be added, e.g. "for review."

6.1.5 - Reserved.

6.1.6 - Reserved.

6.1.7 - Retaining Land Surveying Documents. The sealed, signed, and dated reproducible, or a copy of all documents displaying the registrant's seal, signature, and date, shall be retained by the registrant or the registrant's employer for a minimum of three years from the date such documents are tendered to the client.

6.2 - Land Surveyor's Certification

6.2.1 - Circumstances and Applicable Actions. When a professional land surveyor is presented with a certification to be signed and/or sealed, the professional land surveyor should carefully evaluate that certification to determine if any of the following circumstances apply.

- (a) Matters that are beyond the professional land surveyor's competence, training, or education.
- (b) Matters that are beyond the professional land surveyor's services actually provided.
- (c) Matters that were not prepared under the professional land surveyor's responsible charge.

If any of these circumstances apply, that professional land surveyor shall take either of the following actions.

- (i) Shall modify such certification to limit its scope to those matters that the professional land surveyor can properly sign and/or seal.
- (ii) Shall decline to sign such certification.

6.2.2 - Certification Defined. Certification is defined as a statement that includes the following.

- (a) Is signed and/or sealed by a professional land surveyor representing that the surveying services addressed therein have been performed by the professional land surveyor or under the professional land surveyor in responsible charge.
- (b) Is based upon the professional land surveyor's knowledge, information and belief.
- (c) Is in accordance with applicable standards of practice.
- (d) Is not a guaranty or warranty, either expressed or implied.

6.3 - Reserved.

6.4 - Physical Standards for Public Land Survey System Monuments

6.4.1 - Physical Standards for Establishing New Monuments or Upgrading Existing Monuments

6.4.1.1 - Requirements for Monumenting. Whenever a professional land surveyor monuments any section corner, quarter section corner, one-sixteenth section corner, General Land Office/Bureau of Land Management (government) lot corner, or any corner established by a Public Land Survey Monument (PLSM), as defined in Section 38-53-103(18), C.R.S. (1994), the corner shall be monumented with a metallic pipe or rod possessing a magnetic field and having a minimum outside diameter of 3/4 inch, a minimum length of 30 inches, and a two-inch minimum diameter durable metallic cap.

6.4.1.2 - When an Existing Monument Must Be Upgraded. Whenever a professional land surveyor uses as a control corner, as defined in Section 38-53-103(6), C.R.S. (1994), any existing monument that represents any of the corners described in Rule 6.4.1.1 and said existing monument is smaller than 5/8 inch diameter, the monument must be upgraded to the monument size described in Rule 6.4.1.1.

6.4.2 - Exceptions to the Physical Standards for Establishing New Monuments or Upgrading Existing Monuments

6.4.2.1 - Original Monuments That Do Not Have to be Upgraded. If the PLSM still exists in its originally set location and said monument is readily identifiable and reasonably durable, it does not have to be upgraded.

6.4.2.2 - Existing Monuments That Do Not Have to be Upgraded. Existing monuments having a minimum outside diameter of 5/8 inch do not have to be verified as to length or upgraded so long as they are readily identifiable and reasonably durable.

6.4.2.3 - Existing Monuments That Must be Upgraded. A properly stamped, two-inch minimum diameter, durable metallic cap must be attached if the found monument has any of the following qualities.

- (a) The monument has no cap.
- (b) The monument has a cap other than a durable metallic cap.
- (c) The monument has a cap with a diameter less than 1 1/2 inches.

6.4.2.4 - Monumenting in Rock Outcroppings, Concrete and Concrete Posts. A durable metallic disk not less than two inches in diameter, on a stem not less than three inches long, is suitable for placing in rock outcroppings, concrete, and for embedding in concrete posts (monuments).

6.4.2.5 - Monumenting in Adverse Terrain. In the event corners described in Rule 6.4.1.1 cannot practically be set because of steep terrain, water, marsh, or existing structures, or if they would be lost as a result of a proposed street, road, or other construction, one or more reference monuments shall be set. The reference monuments shall be set according to Sections 38-51-104(3)(b)(1), 38-51-104(3)(b)(11), 38-51-104(3)(c) and 38-51-104(3)(d), C.R.S. (1994).

6.4.3 - Physical Standards for Cap Markings. All caps shall be marked as set forth in Chapter IV of the Manual of Instructions for the Survey of Public Lands of the United States, 1973, published by the United States Department of the Interior, Bureau of Land Management and shall conform with Section 38-51-104, C.R.S. (1994). This rule does not include any later amendments or editions to the Manual of Instructions for the Survey of Public Lands of the United States, 1973, if available. A copy of the Manual of Instructions for the Survey of Public Lands of the United States, 1973 is available for public inspection. For information regarding how this material can be obtained or examined, contact the board's program administrator, at 1560 Broadway, Suite 1370, Denver, Colorado, 80202. This material may also be examined at any state publications depository library.

6.5 - Standards for Property Boundary Surveys

6.5.1 - Definition of Property Boundary Survey. Property boundary survey means one or more of the following.

- (a) The establishment of boundaries or the restoration or rehabilitation of any monument marking a corner that controls the location of real property.
- (b) The location on the ground of any encumbrance affecting the rights or enjoyment of real property.
- (c) The determination of the position of any monument, reference point, or any other mark, when such monument or mark controls the location of boundaries or rights of ownership in or use of real property.
- (d) The preparation of maps, plats, descriptions, or any other document for the purpose of preserving the location or conveyance of any and all rights in real property and the subdivision thereof.
- (e) The measurements and computations made to determine the size, shape, or area of parcels for the purpose of marking on the ground, or the conveyance of, any or all rights of ownership in real property.

(f) All other applicable services that are defined in the Section 12-25-202(6)(a), C.R.S.

6.5.1.1 - Distinction from Improvement Location Certificates. Improvement Location Certificates are not property boundary surveys. Standards for Improvement Location Certificates are contained in Rule 6.6.

6.5.2 - Responsibility to Research Records. The licensed professional land surveyor shall conduct or be responsible for conducting such research activities that are needed to properly define the property boundary relative to instruments of record and show all visible evidence that may affect ownership and property rights. This may include record research at the County Clerk and Recorder's Office, the Colorado Department of Highways, the State Office of the Bureau of Land Management, the County Surveyor's Office, an abstractor's office, and any other appropriate local offices; as well as field research of physical features and monuments and any other features significant in the locality. Instruments of record may be obtained from an abstract, title commitment, or title policy.

6.5.3 - Procedural Techniques

6.5.3.1 - Professional Land Surveyor Responsibility. The registered professional land surveyor shall, under his personal direction, cause a survey to be executed, connecting all available monuments necessary for the boundary location as well as physical and parol evidence and coordinate the facts of such survey.

6.5.3.2 - Surveys Shall Reference Corners. Surveys based on the United States Public Land Survey System shall be referenced to original or properly restored corners. The Manual of Instructions for the Survey of Public Lands of the United States shall be used as a guide for the restoration of lost or obliterated corners and subdivision of sections into aliquot parts. Residential subdivision layouts shall conform to local subdivision ordinances (standards and regulations). Lot surveys within such subdivisions shall be referenced to existing corner monuments within the subdivision as necessary to verify the survey.

This rule does not include any later amendments or editions to the Manual of Instructions for the Survey of Public Lands of the United States, 1973, if available. A copy of the Manual of Instructions for the Survey of Public Lands of the United States, 1973 is available for public inspection. For information regarding how this material can be obtained or examined, contact the board's program administrator, at 1560 Broadway, Suite 1370, Denver, Colorado, 80202. This material may also be examined at any state publications depository library.

6.5.4 - Monuments Shall Conform to Statutes. The professional land surveyor will assure that the monuments established or re-established conform both in location and physical character with the specifications called for in Section 38-51-104, C.R.S. Each found monument verified in location shall be restored or rehabilitated as necessary so as to leave it readily identifiable and reasonably durable. Physical standards for Public Land Survey System monuments can be found in Rule 6.4.

6.5.4.1 Monumentation of Natural Water Boundaries. A stream, creek, river, or shoreline is itself a natural monument. The surveyor must conduct research to determine if the stream, or any part thereof, is the intended boundary line. The acceptance of the stream, creek, river or shoreline as a natural monument complies with Section 38-51-104 (1) (a), and Section 38-51-105 (1) (a), C.R.S. Where a riparian boundary is described as the thread of a nonnavigable stream or to some water boundary, no further artificial monumentation is required.

6.5.5 - Plat Deposit Requirements

6.5.5.1 - Plats to be Deposited. All plats required to be prepared pursuant to Section 38-51-107, C.R.S., shall be deposited with the county in which said survey was performed and a copy of the plat shall be delivered to the client. In addition to the requirements set forth in Section 38-51-107, C.R.S., a plat must also be prepared and deposited for any monument found substantially at variance (according to Rule 6.5.6), with dimensions shown on deposited or filed plats or if the monument results in conflicting boundary evidence which has not previously been shown on a plat deposited or filed in accordance with Section 38-51-107(1), C.R.S. Said plat shall comply with all applicable provisions of Sections 38-51-107 and 38-50-101 C.R.S.

6.5.5.2 - Documents Other Than Plats or Improvement Location Certificates Require Statement. If under the terms of a contract or by client agreement, a professional land surveyor performs work other than that which specifically calls for a land survey plat, improvement survey plat, or Improvement Location Certificate ("ILC"), the professional land surveyor must provide a written explanation on the document of the nature and purpose of the document being supplied to the client. Any such explanatory statement shall be provided solely for the purpose of clarifying the nature and purpose of the client's document and shall not be a means by which the professional land surveyor may avoid professional responsibilities as established by Colorado law and the generally accepted standards of the practice of land surveying.

6.5.6 - Precision and Accuracy Standards. The professional land surveyor shall use his/her professional expertise and judgment to determine the precision and accuracy required for a given project. The precision and accuracy standards shall meet or exceed the minimum standard of care established by the profession in Colorado.

6.6 - Minimum Standards for Improvement Location Certificates

6.6.1 - Field Procedures. Professional notes shall be taken on all Improvement Location Certificates ("ILCs") and kept as part of the surveyor's permanent record. A diligent search for existing control shall be made by field crews and the highest order of control available shall be used. The professional land surveyor must use such control as is necessary to accurately locate all lines, structures, and topographic features shown on the ILC.

6.6.2. - Drafting. A sketch or diagram of the parcel shall be used in support of the certificate required by Section 38-51-108, C.R.S. (1994) and the following standards shall be used.

- (a) Deed lines with the boundary dimensions from the deed description or plat shall be shown.
- (b) Major improvements (permanent structures) shall be shown with dimensions and descriptions (e.g. residences, garages, in-ground pools).
- (c) Major improvement locations shall be shown with dimensions to the nearest property lines, with a minimum of two dimensions shown, and shall be sufficient to locate structures.
- (d) Minor improvement locations shall be shown graphically (e.g. out buildings with foundations, concrete walks, drives).
- (e) Plat and apparent easements shall be shown.

- (f) The posted address shall be shown; if not posted, so state.
- (g) The legal description shall be shown, and the source shall be stated.
- (h) A north arrow and statement of scale shall be shown.
- (i) Apparent encroachments shall be noted and shown in an obvious manner. When the level of certainty of dimensions to possible encroachments are not precise enough for a positive determination, a boundary survey shall be recommended.
- (j) State specifically or graphically show evidence used to determine the apparent deed lines.
- (k) State source of where record easement information was obtained and graphically show on the improvement location certificate sketch. If information was obtained from a title company, state which title company and the commitment number.

6.6.3 - Research, Documentation and Information. The surveyor shall perform adequate research, maintain adequate documentation in his/her records, and provide the field crews with adequate information to determine the property dimensions in the field.

6.7 - Boundary Control Portions of Geographic Information Systems.

As used in Section 12-25-202(6)(a)(VI), C.R.S., ‘;boundary control portions of Geographic Information Systems (“GIS”) and Land Information Systems (“LIS”)’ means any professional land surveying activity representing Public Land Survey System (PLSS) corners or other land boundary corners or monuments as defined in Sections 38-51-102(2), (6), (6.3), (12.3) and (18), C.R.S., and must be performed in accordance with Title 12, Article 25, C.R.S., and generally accepted standards of land surveying.

6.7.1 - GIS Land Positions Not Included in Definition of Professional Land Surveying.

Boundary control portions of Geographic Information Systems and Land Information Systems does not include GIS Land Positions as defined in Section 38-51-102(7.5), C.R.S.

The establishment of a GIS Land Position, as that term is defined in Section 38-51-102(7.5), C.R.S., does not constitute the preparation of boundary control portions of Geographic Information Systems and Land Information Systems so long as the GIS Land Position is not:

- (a) A newly set object or physical structure that could be confused with a monument, as that term is defined in Section 38-51-102(12.3) and (18), 38-51-104 and 38-51-105, C.R.S.
- (b) Represented at any time to be an “aliquot corner,” “control corner,” “corner,” or a position within a “land survey.”

6.8 - Establishing Horizontal and Vertical Controls.

The Colorado Statutes permit both professional engineers and professional land surveyors to establish horizontal and vertical control for Aerial Mapping, Topographic Mapping, and Planimetric Mapping. When any of the previously mentioned horizontal and vertical controls are tied to, referenced to, or controlled by land lines or property lines, these controls shall be established under the direct supervision of a professional land surveyor registered in Colorado.

6.9 - Subdivision Plats

6.9.1 - Interpretation of Term “within a platted subdivision.” The Board of Registration for Professional Engineers and Professional Land Surveyors interprets the language of

Section 38-51-107 (2), C.R.S., “within a platted subdivision” to mean the interior and along the exterior of the perimeter of the subdivision.

7.0 - Rules of Board Procedure

7.1 - Declaratory Orders

7.1.1 - Basis of Declaratory Orders. Any person may petition the board for a Declaratory Order to terminate controversies or to remove uncertainties as to the applicability to the petitioner of any statutory provision or of any rule or order of the board.

7.1.2 - Board Discretion in Considering Petitions. The board will determine, in its discretion and without notice to petitioner, whether to rule upon any such petition. If the board determines that it will not rule upon such a petition, the board shall promptly notify the petitioner of its action and state the reasons for such action.

7.1.3 - Basis of Board Consideration of Petitions. In determining whether to rule upon a petition filed pursuant to this rule, the board will consider the following matters, among others.

- (a) Whether a ruling on the petition will terminate a controversy or remove uncertainties as to the applicability to the petitioner of any statutory provision or rule or order of the board.
- (b) Whether the petition involves any subject, question, or issue that is the subject of a formal or informal matter of investigation currently pending before the board or a court involving one or more of the petitioners.
- (c) Whether the petition involves any subject, question, or issue that is the subject of a formal or informal matter or investigation currently pending before the board or a court but not involving any petitioner.
- (d) Whether the petition seeks a ruling on a moot or hypothetical question or will result in an advisory ruling or opinion.
- (e) Whether the petitioner has some other adequate legal remedy, other than an action for declaratory relief pursuant to Rule 57, Colorado Rules of Civil Procedure, that will terminate the controversy or remove any uncertainty as to the applicability to the petitioner of the statute, rule or order in question.

7.1.4 - Requirements of Petitioner. Any petition filed pursuant to this rule shall set forth all of the following.

- (a) The name and address of the petitioner and whether the petitioner is licensed pursuant to Section 12-25-101 et seq. or Section 12-25-201 et seq., C.R.S.
- (b) The statute, rule, or order to which the petition relates.
- (c) A concise statement of all of the facts necessary to show the nature of the controversy or uncertainty and the manner in which the statute, rule, or order in question applies or potentially applies to the petitioner.

7.1.5 - Applicable Procedures. If the board determines that it will rule on the petition, the following procedures shall apply.

- (a) The board may rule upon the petition based solely upon the facts presented in the petition. In

such a case, the following applies.

- (i) Any ruling of the board will apply only to the extent of the facts presented in the petition and any amendment to the petition.
 - (ii) The board may order the petitioner to file a written brief, memorandum, or statement of position.
 - (iii) The board may set the petition, upon due notice to the petitioner, for a non-evidentiary hearing.
 - (iv) The board may dispose of the petition on the sole basis of the matters set forth in the petition.
 - (v) The board may request the petitioner to submit additional facts, in writing. In such event, such additional facts will be considered as an amendment to the petition.
 - (vi) The board may take administrative notice of facts pursuant to the Administrative Procedures Act (Section 24-4-105(8), C.R.S.) and may utilize its experience, technical competence, and specialized knowledge in the disposition of the petition.
 - (vii) If the board rules upon the petition without a hearing, it shall promptly notify the petitioner of its decision.
- (b) The board may, in its discretion, set the petition for hearing, upon due notice to petitioner, for the purpose of obtaining additional facts or information or to determine the truth of any facts set forth in the petition or to hear oral argument on the petition. The notice to the petitioner setting such hearing shall set forth, to the extent necessary, that the petitioner shall have the burden of proving all of the facts stated in the petition, all of the facts necessary to show the nature of the controversy or uncertainty and the manner in which the statute, rule, or order in question applies or potentially applies to the petitioner, and any other facts the petitioner desires the board to consider.

7.1.6 - Parties to the Proceeding. The parties to any proceeding pursuant to this rule shall be the board and the petitioner. Any other person may seek leave of the board to intervene in such a proceeding, and leave to intervene will be granted at the sole discretion of the board. A petition to intervene shall set forth the same matters as required by Rule 7.1.4. Any reference to a "petitioner" in this rule also refers to any person who has been granted leave to intervene by the board.

7.1.7 - Standing of Declaratory Orders. Any Declaratory Order or other order disposing of a petition pursuant to this rule shall constitute an agency action subject to judicial review pursuant to Section 24-4-106, C.R.S.