

1992, 5:00 p.m.: 16 IR 896; errata filed Sep 14, 1994, 2:50 p.m.: 18 IR 268; readopted filed May 22, 2001, 9:55 a.m.: 24 IR 3237; filed May 4, 2006, 1:25 p.m.: 29 IR 3020; readopted filed Nov 9, 2012, 11:26 a.m.: 20121205-IR-865120390RFA; readopted filed Nov 29, 2018, 10:35 a.m.: 20181226-IR-865180404RFA) NOTE: 864 IAC 1.1-13-44 was renumbered by Legislative Services Agency as 865 IAC 1-12-29.

865 IAC 1-12-30 Section corner perpetuation

Authority: IC 25-21.5-2-14

Affected: IC 25-21.5; IC 36-2-12

Sec. 30. (a) This section outlines the procedures and requirements for registered land surveyors when perpetuating the location of original public land survey or grant corners. As used in this section, "grant" means a subdivision, parcel, or tract of land that existed, or the parent tract of which existed, prior to the commencement of the United States Public Land Survey adjoining such subdivision, parcel, or tract.

(b) The purported location of an original public land survey or grant corner as referenced by the county surveyor of the county in which the corner exists is prima facie evidence of that corner's location. The registered land surveyor's responsibility with regard to the use of or need for original public land survey corners or grant corners in association with an original or retracement survey is not met by merely contacting the county surveyor.

(c) If the:

(1) location of an original public land survey or grant corner is not monumented and referenced by the county surveyor in accordance with Indiana Code 36-2-12; or

(2) registered land surveyor discovers evidence, or otherwise has reason to believe, that a monument purporting to mark the location of an original public land survey or grant corner is not in the proper location;

and if that corner is necessary for purposes of conducting an original, retracement, or route survey as defined in this rule, the registered land surveyor shall contact the county surveyor and perpetuate that corner's location in accordance with this section if the county surveyor is unable to perpetuate the corner in the time frame required by the registered land surveyor.

(d) A registered land surveyor shall perpetuate the location of an original public land survey or grant corner by gathering evidence that may assist in determining the original location of that corner. This evidence includes, but is not limited to, the following:

(1) Copies of:

(A) The original public land survey field notes and plat or transcribed copies of same.

(B) Deeds and plats that reference the location of the corner.

(C) Historic survey records, road, street, highway, and bridge plans, corner records, recorded surveys and other relevant information from the county surveyor, county recorder or other county, state and municipal offices.

(D) Current or historic aerial photographs.

(E) Records from private surveyors who practice or used to practice in the vicinity of the corner.

(2) Parol evidence from knowledgeable landowners or others who may have information relating to the corner.

(3) The field location of:

(A) Fences.

(B) Walls.

(C) Roadways.

(D) Survey markers.

(E) Tree lines.

(F) Other lines of possession.

(G) Interrelated or nearby section corners, quarter section corners, quarter-quarter corners, or other aliquot corner of a section, and corners of common report.

(e) After evaluating and weighing the evidence outlined in subsection (d), the registered land surveyor shall do the following:

(1) Apply appropriate theory of location to determine the probable locations of the corner.

(2) Excavate or otherwise determine if there is a subsurface monument in those locations unless, in the registered land surveyor's opinion, there is no substantial possibility of:

(A) a corner stone; or

(B) other historical survey monument;

being found in those locations. Examples of such situations include, but are not limited to, corner locations that fall in concrete highways, in areas where other excavations have previously taken place, such as, for culverts or sewers, or in areas of substantial cut or fill, such as, for interstate highway overpasses or underpasses.

Before excavating, the registered land surveyor shall notify the appropriate jurisdictional agencies.

(f) If, as a result of the corner investigation:

- (1) a corner stone;
- (2) historical survey monument; or
- (3) other evidence;

is found marking the corner, the registered land surveyor shall remonument and reference the corner if necessary to facilitate its recovery by other surveyors.

(g) If, after excavating or otherwise conducting subsurface investigations of the probable locations outlined in subsection (e), a corner stone, historical survey monument, or other evidence of the corner is not found, the registered land surveyor shall do the following:

(1) Establish the location of the corner:

(A) based on the best available evidence; and

(B) in accordance with procedures for lost or obliterated corners outlined in or authorized by the United States Code in 43 U.S.C. 751, 43 U.S.C. 752, and 43 U.S.C. 753, which are hereby incorporated by reference.

(2) Monument that location.

(h) If the corner was perpetuated for use on an original, retracement, or route survey, the registered land surveyor shall do the following:

(1) Describe and reference the monument in such a manner that facilitates its recovery by other surveyors.

(2) Document the following:

(A) The chain of history of the corner to the best of his or her knowledge.

(B) The evidence found and weighed.

(C) The search area or areas.

(D) The theory of location applied in re-establishing the corner.

(E) Other relevant information regarding the perpetuation of the corner in the surveyor's report or on the plat of survey, or both.

(3) Provide a copy of the surveyor's report and plat of survey to the county surveyor.

(State Board of Registration for Professional Surveyors; 865 IAC 1-12-30; filed May 4, 2006, 1:25 p.m.: 29 IR 3021; readopted filed Nov 9, 2012, 11:26 a.m.: 20121205-IR-865120390RFA; readopted filed Nov 29, 2018, 10:35 a.m.: 20181226-IR-865180404RFA)

865 IAC 1-10. Rules of Professional Conduct

Sec. 1. (a) This rule establishes requirements concerning ethical, economic, and legal principles and unprofessional conduct in the practice of land surveying.

(b) The failure of a registered land surveyor to comply with the provisions of this rule constitutes professional incompetence.

Sec. 2. Each applicant shall certify on the application that he has read and agrees to abide by IC 25-21.5 and the rules of the board in force at the time.

Sec. 3. Such knowledge shall encompass the understanding that the practice of land surveying is a privilege, as opposed to a right, and the registrant shall be forthright and candid in statements or written response to the board or its representatives on matters pertaining to professional conduct.

Sec. 4. The land surveyor shall at all times recognize the primary obligation to protect the safety, health, and welfare of the public in the performance of professional duties. If the land surveyor's professional judgment is overruled under circumstances where the safety, health, and welfare of the public are endangered, the land surveyor shall inform the land surveyor's employer of the possible consequences and notify such other proper authority of the situation, as may be appropriate.

Sec. 5. The land surveyor shall undertake to perform land surveying assignments only when qualified by education or experience in the specific technical field of land surveying involved.

Sec. 6. The land surveyor may accept an assignment requiring education or experience outside of the land surveyor's field of competence, but only to the extent that services are restricted to those phases of the project in which the land surveyor is qualified. All other phases of such project shall be performed by qualified associates, consultants, or employees.

Sec. 7. The land surveyor shall not affix a signature and/or seal to any land surveying plan or document dealing with subject matter in which the land surveyor lacks competence by virtue of insufficient education or experience, or to any such plan or document not prepared as described in 865 IAC 1-7-3.

Sec. 8. The land surveyor shall be completely objective and truthful in all professional reports, statements, or testimony. The land surveyor shall include all relevant and pertinent information in such reports, statements, or testimony.

Sec. 9. The land surveyor, when serving as an expert or technical witness before any court, commission, or other tribunal, shall express an opinion only when it is founded upon adequate knowledge of the facts in issue, upon a background of technical competence in the subject matter, and upon honest conviction of the accuracy and propriety of the land surveyor's testimony.

Sec. 10. The land surveyor will issue no statement, criticism, or argument on land surveying matters connected with public policy which are inspired or paid for by an interested party, or parties, unless the land surveyor has prefaced the comment:

- (1) by explicitly identifying himself or herself;
- (2) by disclosing the identities of the party, or parties, on whose behalf the land surveyor is speaking; and
- (3) (3) by revealing the existence of any pecuniary interest the land surveyor may have in the instant matters.

[Section 11 has been repealed]

Sec. 12. The land surveyor shall:

- (1) avoid all known conflicts of interest with an employer or client; or
- (2) promptly inform the employer or client of any business association, interest, or circumstances that could influence judgment or quality of services.

Sec. 13. The land surveyor shall not accept compensation, financial or otherwise, from more than one (1) party for services on the same project, unless the circumstances are fully disclosed to, and agreed to, by all interested parties.

Sec. 14. The land surveyor shall not solicit or accept gratuities, directly or indirectly, from contractors, their agents, or other parties dealing with the client or employer in connection with work for which the land surveyor is responsible.

Sec. 15. The land surveyor shall not solicit or accept financial or other valuable considerations from material or equipment suppliers for specifying their products.

Sec. 16. When in public service as a member, advisor, or employee of a governmental body or department, the land surveyor shall not participate in considerations or actions with respect to services provided by the land surveyor or the land surveyor's organizations in private land surveying practices.

Sec. 17. The land surveyor shall not solicit or accept a land surveying contract from a governmental body on which a principal or officer of the land surveyor's organization serves as a member.

Sec. 18. The land surveyor shall not offer to pay, either directly or indirectly, any commission, political contribution, gift, or other consideration in order to secure work, exclusive of securing a salaried position through employment agencies.

Sec. 19. The land surveyor shall seek professional employment on the basis of qualification and competence in the proper accomplishment of similar work.

Sec. 20. The land surveyor shall not falsify or permit misrepresentation of the land surveyor's or the land surveyor's associates' academic or professional qualifications. The land surveyor shall not misrepresent or exaggerate the degree of responsibility in or for the subject matter of prior assignments. Brochures or other presentations incident to the solicitation of employment shall not misrepresent pertinent facts concerning employers, employees, associates, joint ventures or their past accomplishments, or the land surveyor's past accomplishments, with the intent and purpose of enhancing the land surveyor's qualifications and work.

Sec. 21. The land surveyor shall not knowingly associate with or permit the use of the land surveyor's name or firm name in a business venture by any person or firm which the land surveyor knows, or has reason to believe, is engaging in business or professional practices of a fraudulent or dishonest nature.

[Sections 22-24 have been repealed]

Sec. 25. The land surveyor shall notify the board, in writing, within thirty (30) days of any disciplinary action taken against the:

- (1) land surveyor; or
- (2) the land surveyor's license or registration;
in any other state or jurisdiction.

865 IAC 1-15 Continuing education

Sec. 1. (a) This rule establishes the continuing education requirements for registered land surveyors.

(b) Failure to comply with this rule may subject the registered land surveyor to action under IC 25-1-4-5 and IC 25-1-4-6.

Sec. 2. (a) Registered land surveyors must complete a minimum of twenty-four (24) hours of continuing education in order to qualify for the biennial renewal of the land surveyor's license in an active status. The twenty-four (24) hours of continuing education requirement must include both of the following:

(1) A minimum of six (6) continuing education hours in mandatory topics as defined in section 6 of this rule.

(2) A minimum of eighteen (18) continuing education hours in elective topics as defined in section 7 of this rule.

(b) New registrants are not required to comply with the continuing education requirements stated in subsection (a) at the first renewal of his or her license.

(c) No single elective course may count for more than twelve (12) hours of continuing education. Hours in excess of twelve (12) granted for any single elective course shall not be applied to the hours of continuing education required in the renewal period except as otherwise allowed under subsection (e).

(d) College courses taken after licensure that qualify for continuing education credit under section 5 of this rule will be counted as follows:

(1) Ten (10) hours of continuing education credit per credit hour taken in a quarter system.

(2) Fifteen (15) hours of continuing education credit per credit hour taken in a semester system.

However, college credit earned under this section and applied as elective continuing education hours must comply with the requirements of subsection (c).

(e) Up to four (4) hours of elective continuing education topics earned, but not used, in one (1) renewal period may be applied to the hours required in the next renewal period. Proper documentation of any such hours shall be submitted as required by the board.

Sec. 3. (a) One (1) hour of continuing education must contain at least fifty (50) minutes of instruction.

(b) A continuing education course shall be a minimum of one (1) hour of instruction.

Sec. 4. (a) Two (2) hours of continuing education credit will be granted per hour of time spent as a lecturer, instructor, or discussion leader in a continuing education course that meets the requirements of sections 5 through 7 of this rule.

(b) Continuing education credit as provided for under subsection (a) will be granted only the first time an approved course is presented per biennium.

Sec. 5. (a) To qualify as continuing education under this rule as provided for in IC 25-1-4-0.5, a course must be an orderly process of instruction that is:

(1) approved by an approved organization (as defined by IC 25-1-4-0.2) or the board; and

(2) designed to directly enhance the land surveyor's knowledge and skill in providing land surveying services relevant to the profession of land surveying.

(b) Qualifying continuing education courses are categorized either as mandatory under section 6 of this rule or elective under section 7 of this rule.

Sec. 6. The following topics and course content are defined as mandatory by the board in qualifying as continuing education under IC 25-1-4-0.5 and section 5 of this rule:

(1) 865 IAC 1-10, rules of professional conduct.

(2) 865 IAC 1-12, if taught in a comprehensive manner.

(3) 865 IAC 1-12-3, surveyor responsibility.

(4) 865 IAC 1-12-7, measurements for retracement surveys, original surveys, and route surveys.

(5) 865 IAC 1-12-11, surveyor conclusions in retracement surveys.

(6) 865 IAC 1-12-12, publication of retracement and original survey results.

(7) 865 IAC 1-12-13, retracement and original survey plats.

(8) 865 IAC 1-12-20 through 865 IAC 1-12-25, route surveys.

(9) 865 IAC 1-12-27 through 865 IAC 1-12-29, surveyor location reports.

(10) 865 IAC 1-12-30, section corner perpetuation.

(11) IC 25-21.5, Indiana land surveyor's registration act.

(12) IC 25-21.5-1-7(a)(4), the preparation of legal descriptions for tracts of land to be used in the preparation of deeds of conveyance or other instruments.

Sec. 7. The following topics and course content are defined as elective by the board in qualifying as continuing education under IC 25-1-4-0.5 and section 5 of this rule:

(1) Mandatory topics as defined in section 6 of this rule.

(2) College level mathematics.

(3) College level physical sciences.

- (4) Federal and state laws, rules, regulations, and practices pertaining to the following:
 - (A) The establishment or reestablishment of land boundaries in Indiana. Indiana Administrative Code
 - (B) The practice of land surveying in Indiana.
- (5) The design, planning, and platting of subdivisions.
- (6) Preparation of plans and profiles for:
 - (A) roads;
 - (B) storm drainage; and
 - (C) sanitary sewer extensions; in subdivisions.
- (7) The ethical, economic, and legal principles that pertain to the practice of land surveying.
- (8) Topographic and hydrographic surveying.
- (9) Construction layout.
- (10) Remote data acquisition systems, such as the following:
 - (A) Photogrammetry.
 - (B) LiDAR.
 - (C) Remote sensing.
- (11) Surveying applications, such as the following:
 - (A) GIS.
 - (B) LIS.
- (12) Advanced surveying procedures and equipment, such as the following:
 - (A) GPS.
 - (B) Laser scanning.
- (13) Computer applications for land surveyors. (14) Communication, such as the following:
 - (A) Public speaking.
 - (B) Technical writing.

Sec. 8. (a) Up to twelve (12) hours of the continuing education credits required under this rule may be obtained by distance learning methods.

(b) For a distance learning course to be acceptable to the board, it must:

- (1) meet the requirements of sections 5 through 7 of this rule;
- (2) be presented or otherwise formatted in a logical order and may make use of a variety of media or delivery techniques, including:
 - (A) printed materials;
 - (B) video or DVD;
 - (C) live broadcast; or
 - (D) the Internet;

- (3) include, at the end of the course, an examination that is graded by the provider;
- (4) be completed within one (1) year of enrollment in the course; and
- (5) provide for confirmation of successful completion of the course by the provider.

Sec. 9. (a) A course qualifies for continuing education credit if it:

- (1) meets the requirements of sections 5 through 7 of this rule;
- (2) if the course is a distance learning course, meets the requirements of section 8 of this rule; and
- (3) either is approved by:
 - (A) an approved organization as defined in IC 25-1-4-0.2; or
 - (B) the board under subsection (b) or (c).

(b) A course provider that is not approved by an approved organization as defined in IC 25-1-4-0.2 may request specific board approval of a continuing education course by submitting on a form provided by the board the following information:

- (1) A course outline demonstrating that the course content meets the requirements of sections 5 through 7 of this rule.
- (2) The name and address of the provider.
- (3) The telephone number of a contact person for the provider.
- (4) The name and address of each instructor.
- (5) Biographical information for each instructor sufficient to demonstrate their qualifications to competently teach the course as provided for in section 11 of this rule.
- (6) The number of mandatory or elective hours being requested for approval.
- (7) The student evaluation form for evaluations under section 23 of this rule.

(c) A registered land surveyor may request specific board approval of any continuing education course by submitting course material.

The following information must be provided:

- (1) The following information about the course:
 - (A) The course title.
 - (B) The course outline or a description demonstrating that the course content meets the requirements of section 5 of this rule and section 6 or 7 of this rule.
 - (C) The location where the course was taught.
 - (D) The date the course was taught.
 - (E) The name, telephone number, and address of the provider.
 - (F) The name and address of each instructor.

(G) Biographical information for each instructor sufficient to demonstrate their qualifications to competently teach the course content as provided for in section 11 of this rule.

(2) The name and license number of the registered land surveyor requesting approval.

(3) A certified statement signed by the registered land surveyor stating that the entire course was completed.

(4) The number of mandatory or elective hours as defined in section 6 or 7 of this rule being requested for approval.

Sec. 10. (a) The registered land surveyor is responsible for obtaining the evidence necessary to demonstrate that:

(1) any course for which continuing education credit will subsequently be claimed was completed; and

(2) the course met the requirements of this rule.

(b) The registered land surveyor shall retain the evidence required in subsection (a) for not less than three (3) years as provided for in IC 25-1-4-3(a)(2).

Sec. 11. (a) This section applies to board approval of continuing education courses under section 9(b) of this rule.

(b) Anyone whose professional license or certification is under sanction in any jurisdiction may not instruct while the disciplinary sanction is in effect.

(c) Anyone who does not have an advanced knowledge of the course material being taught may not instruct.

Sec. 12. Credit will not be given for any of the following:

(1) Any education obtained before licensure.

(2) Motivational classes or seminars.

(3) Meetings of the board.

(4) Business, social, or other noneducational meetings of professional groups, or subgroups, such as the Indiana Society of Professional Land Surveyors.

(5) Committee work with local, state, or national professional organizations.

(6) Staff meetings.

(7) Courses taken for a second or subsequent time during a renewal period.

(8) Courses not completed due to dismissal by the provider for disruption of the course.

Sec. 13. (a) Registered land surveyors may apply to the board to renew their licenses in an inactive status.

(b) No continuing education is required to renew inactive.

(c) An inactive registered land surveyor may not practice land surveying while in an inactive status. (State Board of

Sec. 14. To reactivate an inactive license, a registered land surveyor must:

(1) apply to the board for reactivation on the application form supplied by the board; and

(2) pay the same fee required to renew an active license.

Sec. 15. Registered land surveyors who have been inactive for a period of six (6) years or less at the date the reactivation application is filed must either:

(1) pass part IIB of the next regularly scheduled land surveyor examination; or

(2) show proof of having completed twenty-four (24) hours of continuing education in accordance with section 2 of this rule, within the two (2) year period immediately prior to the date the reactivation application is filed.

Sec. 16. Registered land surveyors who have been inactive for a period of more than six (6) years at the date the reactivation application is filed must:

(1) pass part IIB of the next regularly scheduled land surveyor examination; and

(2) show proof of having completed twenty-four (24) hours of continuing education in accordance with section 2 of this rule, within the two (2) year period immediately prior to the date the reactivation application is filed.

Sec. 17. This section applies to all registered land surveyors who reactivate an inactive license by establishing the number of hours of continuing education required for the time period between reactivation and the renewal date in the table in this section in order to qualify to renew active. Registered land surveyors must complete the mandatory continuing education required in section 6 of this rule unless the requirement in the table in this section is zero (0). Additional hours of continuing education required in the following table may be met by taking courses of elective topics that meet the requirements of section 7 of this rule:

Date of Activation [Hours required to renew active]

August 1 to October 31 of first 12 months of license period [24 hours]

November 1 to January 31 of first 12 months of license period [21 hours]

February 1 to April 30 of first 12 months of license period [18 hours]

May 1 to July 31 of first 12 months of license period [15 hours]

August 1 to October 31 of second 12 months of license period [12 hours]

November 1 to January 31 of second 12 months of license period [9 hours]

February 1 to April 30 of second 12 months of license period [6 hours]
May 1 to July 31 of second 12 months of license period [0 hours]

MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS *(Effective February 23, 2021)*

1. **Purpose** - Members of the American Land Title Association® (ALTA) have specific needs, unique to title insurance matters, when asked to insure title to land without exception as to the many matters which might be discoverable from survey and inspection, and which are not evidenced by the public records.

For a survey of real property, and the plat, map or record of such survey, to be acceptable to a title insurance company for the purpose of insuring title to said real property free and clear of survey matters (except those matters disclosed by the survey and indicated on the plat or map), certain specific and pertinent information must be presented for the distinct and clear understanding between the insured, the client (if different from the insured), the title insurance company (insurer), the lender, and the surveyor professionally responsible for the survey.

In order to meet such needs, clients, insurers, insureds, and lenders are entitled to rely on surveyors to conduct surveys and prepare associated plats or maps that are of a professional quality and appropriately uniform, complete, and accurate. To that end, and in the interests of the general public, the surveying profession, title insurers, and abstracters, the ALTA and the NSPS jointly promulgate the within details and criteria setting forth a minimum standard of performance for ALTA/NSPS Land Title Surveys. A complete 2021 ALTA/NSPS Land Title Survey includes:

- (i) the on-site fieldwork required pursuant to Section 5,
- (ii) the preparation of a plat or map pursuant to Section 6 showing the results of the fieldwork and its relationship to documents provided to or obtained by the surveyor pursuant to Section 4,
- (iii) any information from Table A items requested by the client, and
- (iv) the certification outlined in Section 7.

2. **Request for Survey** - The client shall request the survey, or arrange for the survey to be requested, and shall provide a written authorization to proceed from the person or entity responsible for paying for the survey. Unless specifically authorized in writing by the insurer, the insurer shall not be responsible for any costs associated with the preparation of the survey. The request must specify that an "**ALTA/NSPS LAND TITLE SURVEY**" is required and which of the optional items listed in Table A, if any, are to be incorporated. Certain properties or interests in real properties may present issues outside those normally encountered on an ALTA/NSPS Land Title Survey (e.g., marinas, campgrounds, mobile home parks, easements, leases, mineral interests, other non-fee simple interests). The scope of work related to surveys of such properties or interests in real properties should be discussed with the client, lender, and insurer, and agreed upon in writing prior to commencing work on the survey. When required, the client shall secure permission for the surveyor to enter upon the property to be surveyed, adjoining properties, or offsite easements.

3. **Surveying Standards and Standards of Care**

- A. **Effective Date** - The 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys are effective February 23, 2021. As of that date, all previous versions of the Minimum Standard Detail Requirements for ALTA/ACSM or ALTA/NSPS Land Title Surveys are superseded by these standards.
- B. **Other Requirements and Standards of Practice** - Many states and some local jurisdictions have adopted statutes, administrative rules, and/or ordinances that set out standards regulating the practice of surveying within their jurisdictions. In addition to the standards set forth herein, surveyors must also conduct their surveys in accordance with applicable jurisdictional survey requirements and standards of practice. Where conflicts between the standards set forth herein and any such jurisdictional requirements and standards of practice occur, the more stringent must apply.

- C. **The Normal Standard of Care** - Surveyors should recognize that there may be unwritten local, state, and/or regional standards of care defined by the practice of the “prudent surveyor” in those locales.
- D. **Boundary** - The boundary lines and corners of any property or interest in real property being surveyed (hereafter, the “surveyed property” or “property to be surveyed”) as part of an ALTA/NSPS Land Title Survey must be established and/or retraced in accordance with appropriate boundary law principles governed by the set of facts and evidence found in the course of performing the research and fieldwork.
- E. **Measurement Standards** - The following measurement standards address Relative Positional Precision for the monuments or witnesses marking the corners of the surveyed property.
- i. “Relative Positional Precision” means the length of the semi-major axis, expressed in meters or feet, of the error ellipse representing the uncertainty in the position of the monument or witness marking any boundary corner of the surveyed property relative to the position of the monument or witness marking an immediately adjacent boundary corner of the surveyed property resulting from random errors in the measurements made in determining those positions at the 95 percent confidence level. Relative Positional Precision can be estimated by the results of a correctly weighted least squares adjustment of the survey. Alternatively, Relative Positional Precision can be estimated by the standard deviation of the distance between the monument or witness marking any boundary corner of the surveyed property and the monument or witness marking an immediately adjacent boundary corner of the surveyed property (called local accuracy) that can be computed using the full covariance matrix of the coordinate inverse between any given pair of points, understanding that Relative Positional Precision is based on the 95 percent confidence level, or approximately 2 standard deviations.
 - ii. Any boundary lines and corners established or retraced may have uncertainties in location resulting from (1) the availability, condition, history and integrity of reference or controlling monuments, (2) ambiguities in the record descriptions or plats of the surveyed property or its adjoiners, (3) occupation or possession lines as they may differ from the written title lines, or (4) Relative Positional Precision. Of these four sources of uncertainty, only Relative Positional Precision is controllable, although, due to the inherent errors in any measurement, it cannot be eliminated. The magnitude of the first three uncertainties can be projected based on evidence; Relative Positional Precision is estimated using statistical means (see Section 3.E.i. above and Section 3.E.v. below).
 - iii. The first three of these sources of uncertainty must be weighed as part of the evidence in the determination of where, in the surveyor’s opinion, the boundary lines and corners of the surveyed property should be located (see Section 3.D. above). Relative Positional Precision is a measure of how precisely the surveyor is able to monument and report those positions; it is not a substitute for the application of proper boundary law principles. A boundary corner or line may have a small Relative Positional Precision because the survey measurements were precise, yet still be in the wrong position (i.e., inaccurate) if it was established or retraced using faulty or improper application of boundary law principles.
 - iv. For any measurement technology or procedure used on an ALTA/NSPS Land Title Survey, the surveyor must (1) use appropriately trained personnel, (2) compensate for systematic errors, including those associated with instrument calibration, and (3) use appropriate error propagation and measurement design theory (selecting the proper instruments, geometric layouts, and field and computational procedures) to control random errors such that the maximum allowable Relative Positional Precision outlined in Section 3.E.v. below is not exceeded.
 - v. The maximum allowable Relative Positional Precision for an ALTA/NSPS Land Title Survey is 2 cm (0.07 feet) plus 50 parts per million (based on the direct distance between the two corners being tested). It is recognized that in certain circumstances, the size or configuration of the surveyed property, or the relief, vegetation, or improvements on the surveyed property, will result in survey measurements for which the maximum allowable Relative Positional Precision may be exceeded in which case the reason shall be noted pursuant to Section

6.B.x. below.

4. **Records Research** - It is recognized that for the performance of an ALTA/NSPS Land Title Survey, the surveyor will be provided with appropriate and, when possible, legible data that can be relied upon in the preparation of the survey. In order to complete an ALTA/NSPS Land Title Survey, the surveyor must be provided with the following:
- A. The current record description of the real property to be surveyed or, in the case of an original survey prepared for purposes of locating and describing real property that has not been previously separately described in documents conveying an interest in the real property, the current record description of the parent parcel that contains the property to be surveyed;
 - B. Complete copies of the most recent title commitment or, if a title commitment is not available, other title evidence satisfactory to the title insurer;
 - C. The following documents from records established under state statutes for the purpose of imparting constructive notice of matters relating to real property (public records):
 - i. The current record descriptions of any adjoiners to the property to be surveyed, except where such adjoiners are lots in platted, recorded subdivisions;
 - ii. Any recorded easements benefitting the property to be surveyed; and
 - iii. Any recorded easements, servitudes, or covenants burdening the property to be surveyed; and
 - D. If desired by the client, any unrecorded documents affecting the property to be surveyed and containing information to which the survey shall make reference.

Except, however, if the documents outlined in this section are not provided to the surveyor or if non-public or quasi-public documents are otherwise required to complete the survey, the surveyor must conduct that research which is required pursuant to the statutory or administrative requirements of the jurisdiction where the surveyed property is located and that research (if any) which is negotiated and outlined in the terms of the contract between the surveyor and the client.

5. **Fieldwork** - The survey must be performed on the ground (except as may be otherwise negotiated pursuant to Table A, Item 15 below). Except as related to the precision of the boundary, which is addressed in Section 3.E. above, features located during the fieldwork shall be located to what is, in the surveyor's professional opinion, the appropriate degree of precision based on (a) the planned use of the surveyed property, if reported in writing to the surveyor by the client, lender, or insurer, or (b) the existing use, if the planned use is not so reported. The fieldwork shall include the following:

A. Monuments

- i. The location, size, character, and type of any monuments found during the fieldwork.
- ii. The location, size, character, and type of any monuments set during the fieldwork, if item 1 of Table A was selected or if otherwise required by applicable jurisdictional requirements and/or standards of practice.
- iii. The location, description, and character of any lines that control the boundaries of the surveyed property.

B. Rights of Way and Access

- i. The distance from the appropriate corner or corners of the surveyed property to the nearest right of way line, if the surveyed property does not abut a right of way.
- ii. The name of any street, highway, or other public or private way abutting the surveyed property, together with the width of the travelled way and the location of each edge of the travelled way including on divided streets and highways. If the documents provided to or obtained by the surveyor pursuant to Section 4 indicate no access from the surveyed property to the abutting street or highway, the width and location of the travelled way need not be located.
- iii. Visible evidence of physical access (e.g., curb cuts, driveways) to any abutting streets, highways, or other public or private ways.
- iv. The location and character of vehicular, pedestrian, or other forms of access by other than the apparent occupants of the surveyed property to or across the surveyed property observed in the process of conducting the fieldwork (e.g., driveways, alleys, private roads, railroads, railroad sidings and spurs, sidewalks, footpaths).

- v. Without expressing a legal opinion as to ownership or nature, the location and extent of any potentially encroaching driveways, alleys, and other ways of access from adjoining properties onto the surveyed property observed in the process of conducting the fieldwork.
 - vi. Where documentation of the location of any street, road, or highway right of way abutting, on, or crossing the surveyed property was not disclosed in documents provided to or obtained by the surveyor, or was not otherwise available from the controlling jurisdiction (see Section 6.C.iv. below), the evidence and location of parcel corners on the same side of the street as the surveyed property recovered in the process of conducting the fieldwork which may indicate the location of such right of way lines (e.g., lines of occupation, survey monuments).
 - vii. Evidence of access to and from waters adjoining the surveyed property observed in the process of conducting the fieldwork (e.g., paths, boat slips, launches, piers, docks).
- C. Lines of Possession and Improvements along the Boundaries**
- i. The character and location of evidence of possession or occupation along the perimeter of the surveyed property, both by the occupants of the surveyed property and by adjoining, observed in the process of conducting the fieldwork.
 - ii. Unless physical access is restricted, the character and location of all walls, buildings, fences, and other improvements within five feet of each side of the boundary lines observed in the process of conducting the fieldwork (see Section 5.E.iv. regarding utility poles). Trees, bushes, shrubs, and other vegetation need not be located other than as specified in the contract, unless they are deemed by the surveyor to be evidence of possession or occupation pursuant to Section 5.C.i.
 - iii. Without expressing a legal opinion as to the ownership or nature of the potential encroachment, the evidence, location, and extent of potentially encroaching structural appurtenances and projections observed in the process of conducting the fieldwork (e.g., fire escapes, bay windows, windows and doors that open out, flue pipes, stoops, eaves, cornices, areaways, steps, trim) by or onto adjoining property, or onto rights of way, easements, or setback lines disclosed in documents provided to or obtained by the surveyor.
- D. Buildings**
- The location of buildings on the surveyed property observed in the process of conducting the fieldwork.
- E. Easements and Servitudes**
- i. Evidence of any easements or servitudes burdening the surveyed property as disclosed in the documents provided to or obtained by the surveyor pursuant to Section 4 and observed in the process of conducting the fieldwork.
 - ii. Evidence of easements, servitudes, or other uses by other than the apparent occupants of the surveyed property not disclosed in the documents provided to or obtained by the surveyor pursuant to Section 4, but observed in the process of conducting the fieldwork if they are on or across the surveyed property (e.g., roads, drives, sidewalks, paths and other ways of access, utility service lines, utility locate markings (including the source of the markings, with a note if unknown), water courses, ditches, drains, telephone lines, fiber optic lines, electric lines, water lines, sewer lines, oil pipelines, gas pipelines).
 - iii. Surface indications of underground easements or servitudes on or across the surveyed property observed in the process of conducting the fieldwork (e.g., utility cuts, vent pipes, filler pipes, utility locate markings (including the source of the markings, with a note if unknown)).
 - iv. Evidence on or above the surface of the surveyed property observed in the process of conducting the fieldwork, which evidence may indicate utilities located on, over, or beneath the surveyed property. Examples of such evidence include pipeline markers, utility locate markings (including the source of the markings, with a note if unknown), manholes, valves, meters, transformers, pedestals, clean-outs, overhead lines, guy wires, and utility poles on or within ten feet of the surveyed property. Without expressing a legal opinion as to the ownership or nature of the potential encroachment, the extent of all encroaching utility pole crossmembers or overhangs.
- F. Cemeteries**