

09.13.06.00

Title 09 DEPARTMENT OF LABOR, LICENSING, AND REGULATION

Subtitle 13 BOARD FOR PROFESSIONAL LAND SURVEYORS

Chapter 06 Minimum Standards of Practice

**Authority: Business Occupations and Professions Article, §15-308(b)(4), Annotated
Code of Maryland**

09.13.06.01

.01 Purpose.

A. In the general interest of the public, these standards are promulgated to set forth the minimum acceptable level of performance to be exercised by all individuals practicing professional land surveying and property line surveying in Maryland.

B. If anything contained in these regulations conflicts with other federal or State requirements, the more stringent requirements shall be followed.

09.13.06.02

.02 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) "As-constructed survey" has the meaning stated in Regulation .07 of this chapter.

(2) "Bench mark" means an identifiable stable reference point established as a record for future use or reestablishment of the elevation datum of a survey requiring vertical data.

(3) "Boundary survey" has the meaning stated in Regulation .03 of this chapter.

(4) "Consumer" means a property owner or a prospective property owner, as the case may be, for whose benefit surveying services are performed.

- (5) "Date" means the date of the latest field work.
- (6) "Licensee" means:
- (a) A professional land surveyor as stated in Business Occupations and Professions Article, §15-101(l), Annotated Code of Maryland; or
 - (b) A licensed property line surveyor as stated in Business Occupations and Professions Article, §15-101(g), Annotated Code of Maryland.
- (7) "Metes and bounds description" has the meaning stated in Regulation .08 of this chapter.
- (8) "Monument" means an identifiable object or marker which physically identifies the location of property division lines or other survey points on the ground.
- (9) "Planimetric survey" has the meaning stated in Regulation .05 of this chapter.
- (10) "Plat" means a drawing prepared at an appropriate scale to show the results of the findings and conclusions of a survey.
- (11) "Positional tolerance" means the maximum acceptable amount of positional uncertainty for any physical point on a survey relative to any other physical point on the survey, including lead-in courses.
- (12) "Positional uncertainty" means the uncertainty in location due to random errors in measurement of any physical point on a survey based on the 95 percent confidence level.
- (13) "Right of way/easement survey" has the meaning stated in Regulation .09 of this chapter.
- (14) "Special purpose survey" has the meaning stated in Regulation .10 of this chapter.
- (15) "Survey" means the process of conducting research, performing field measurements and observations, and applying mathematical principles to determine or obtain the data necessary to record, display, or indicate, or all of these, land boundaries, land areas, and the position and characteristics of any natural or artificial, or both, features on or near the surface of the earth.
- (16) "Survey marker" means, within the meaning of COMAR 09.13.03, an identifiable point, object, or mark which physically identifies the location of any point utilized or established to fix the position of a survey control station.
- (17) "Surveyor" means:

- (a) A professional land surveyor as stated in Business Occupations and Professions Article, §15-101(l), Annotated Code of Maryland;
- (b) A licensed property line surveyor as stated in Business Occupations and Professions Article, §15-101(g), Annotated Code of Maryland; or
- (c) An individual otherwise authorized to practice professional land surveying or property line surveying under Business Occupations and Professions Article, §15-303, Annotated Code of Maryland.

(18) "Topographic survey" has the meaning stated in Regulation .04 of this chapter.

(19) "Witness monument" means an identifiable point, object, or marker offset from the position of a survey marker, boundary point, or line which is used for the purpose of identifying the position of the survey marker, boundary point, or point on line through the use of distance measurements or angular measurements, or both.

09.13.06.03

.03 Boundary Surveys.

A. Purpose.

- (1) The boundary survey is a means of marking boundaries for sufficient definition and identification to uniquely locate each lot, parcel, or tract.
- (2) The purpose of a boundary survey is to establish, reestablish, or describe, or all of these, the physical position and extent of the boundaries of real property.

B. Product.

- (1) Unless otherwise directed by the party requesting the survey, sufficient monuments or reference control points which were used to determine the property lines shall be:
 - (a) Set or recovered on the ground, to the extent feasible; and
 - (b) Shown on a plat upon completion of the boundary survey so that the property lines can be determined or readily reestablished.
- (2) If a plat is not required by the party requesting the survey, the surveyor shall make a reasonable effort to maintain adequate records to substantiate the surveyor's professional opinion in reestablishing property lines and corners on a survey.

C. Research and Investigation.

(1) The surveyor shall be provided by the party requesting the survey with copies of public records and private records, if any, in sufficient scope and depth that a surveyor of ordinary prudence and skill may consider in identifying with reasonable certainty the following:

(a) The location of the property's record boundaries, so long as the information exists in the public records and is properly indexed; and

(b) Conflicting record property boundary line locations which may differently locate the property's boundaries.

(2) The surveyor shall make a reasonable effort to identify, locate, and review private survey records which are cited in the provided public records and which may:

(a) Be material in locating the property's boundaries,

(b) Have the potential for disclosing conflicting descriptions of the property's boundaries, or

(c) Affect the location of the property's boundaries.

D. Monumentation. In providing appropriate monumentation for boundary surveys, a surveyor shall comply with the minimum standards for survey markers set forth in COMAR 09.13.03.

E. Field Procedures.

(1) Field measurements shall be made by methods that will provide the precision required by this regulation.

(2) Observable physical evidence, including boundary, possession, visible encroachments, and visible indications of rights, including evidence of recorded servitudes or those that may be acquired by prescription or adverse possession, shall be located.

F. Plats.

(1) An original plat of a boundary survey shall be a reproducible drawing at a suitable scale, clearly indicating the results of the field work, computations, research, and record information, as compiled, checked, and analyzed.

(2) A plat shall be prepared in conformity with the following procedures:

(a) A reasonably stable and durable drawing paper, linen, or film of reproducible quality, is considered suitable material for boundary survey plats;

- (b) Plats may not be smaller than 8-1/2 X 11 inches;
- (c) Dimensions, bearings, or angles, including sufficient data to define curves, shall be neatly and legibly shown with respect to each property boundary line;
- (d) Markers shall be labeled as "found" or "set", with a brief description of the marker and relevant reference markers, if any, along with their spatial relationship to the subject corner;
- (e) Relevant natural or artificial visible features shall be labeled, dimensioned, and referenced to the nearest property boundary line or represented by a symbol on the plat in its proper location, and each symbol shall clearly indicate what is represented or shall be labeled for identification either individually or in a separate key to symbols;
- (f) Plats shall show a north arrow;
- (g) A statement indicating the origin and method of determination of the bearings or coordinate system shall be made on a plat, and shall include one of the following:
 - (i) A reference to true north, as determined by astronomic observation,
 - (ii) A reference to the Maryland Coordinate System with the controlling stations and a combination factor comprised of an elevation factor and a scale factor noted,
 - (iii) A reference to a local coordinate system with the controlling stations listed,
 - (iv) A reference to the record bearing of a well-established line found monumented on the ground, as called for in a relevant deed or plat, or
 - (v) If the above alternatives in this paragraph are not practical, a dated magnetic bearing may be used;
- (h) If separate intricate details or inserts are required for clarity, they shall be properly referenced to the portion of the plat where they apply, particularly in areas where:
 - (i) Lines of occupation do not conform to the deed lines, and
 - (ii) A comparison of adjoining properties' deed descriptions indicates the existence of a gap or an overlap;
- (i) Cemeteries and burial grounds found by the surveyor within the premises being surveyed shall be noted on the plat;
- (j) All relevant evidence of monuments found beyond the subject tract, on which establishment of the corners of the subject tract are dependent, and their application related to the survey shall be indicated;

(k) Different line weights or delineating letters or numbers shall be used to clearly show the limits of the survey; and

(l) Each plat shall show the following:

(i) Caption or title and general location of the property or a vicinity map,

(ii) Scale,

(iii) Date,

(iv) Land area,

(v) Name and address of the surveyor or firm, and

(vi) A statement to the effect that a licensee either personally prepared a boundary survey or was in responsible charge over its preparation and the surveying work reflected in it, all in compliance with requirements set forth in Regulation .12 of this chapter.

(3) The surveyor shall make a reasonable effort to maintain records, including names or initials of all personnel, dates of service, references to field data, such as book number, loose-leaf pages, and other relevant data.

G. Accuracy Standards.

(1) These accuracy standards address positional uncertainty and minimum angle, distance, and closure requirements for surveys.

(2) To meet these standards, the surveyor shall ascertain that the positional uncertainties resulting from the survey measurements do not exceed the allowable positional tolerance.

(3) If the size or configuration of the property to be surveyed or the relief, vegetation, or improvements on the property will result in survey measurements for which the positional uncertainty will exceed the allowable positional tolerance, the surveyor shall either:

(a) Apply the table of Minimum Angle, Distance, and Closure Requirements for Survey Measurements set forth below to the measurements made on the survey; or

(b) Employ proper field procedures and instrumentation to achieve comparable results.

(4) The surveyor shall, to the extent necessary to achieve the standards set forth in §G of this regulation, compensate or correct for systematic errors, including those associated with instrument calibration.

(5) The surveyor shall use appropriate effort propagation and other measurement design theory to select the proper instruments, field procedures, geometric layouts, and computational procedures to control and adjust random errors to achieve the allowable positional tolerance or required traverse closure.

(6) If radial survey methods are used to locate or establish points in the survey, the surveyor shall apply appropriate procedures to assure that the allowable positional tolerance of the points is not exceeded.

(7) The positional uncertainty of any physical point on a survey may be computed using a minimally constrained, correctly weighted least adjustable of the points on the survey.

(8) Positional Tolerance of Controlling Points for Boundary Surveys shall be 0.07 feet (or 20 millimeters (mm)) + 50 parts per million (ppm).

(9) The combined precision of a survey may be statistically assured by employing a combination of the following survey closure and specified procedures:

Minimum Angle, Distance, and Closure Requirements for Survey Measurements

Direct Reading of Instrument Note (2)	Instrument Reading Estimated Note (3)	Number of Observations Per Station Note (4)	Spread from Mean of D&R Not to Exceed Note (5)	Angle Closure Where N = N. of Stations Not to Exceed	Linear Closure Note (6)	Distance Measurement	Minimum Length of Measurements Notes (8), (9), (10)
20" <1>(10")	5" <0.1'>N. A.	2 D&R	5" <0.1'>	10"- (square root)N	1:15,000	EDM or Double tape with Steel tape	(8) 81m, (9) 153m, (10) 20m

Note (1) All requirements of each class shall be satisfied in order to qualify for that particular class of survey. The use of a more precise instrument does not change the other requirements, such as number of angles turned, etc.

Note (2) Instrument must have a direct reading of at least the amount specified (not an estimated reading), i.e., 20" = Micrometer reading theodolite, <1'> = Scale reading theodolite, 10" = Electronic reading theodolite.

Note (3) Instrument shall have the capability of allowing an estimated reading below the direct reading to the specified reading.

Note (4) D&R means the Direct and Reverse positions of the instrument telescope.

Note (5) Any angle measured that exceeds the specified amount from the mean shall be rejected and the set of angles remeasured.

Note (6) Ratio of closure after angles are balanced and closure calculated.

Note (7) All distance measurements shall be made with a properly calibrated EDM or steel tape, applying atmospheric, temperature, sag, tension, slope scale factor, and sea level corrections as necessary.

Note (8) EDM having an error of 5mm, independent of distance measured (manufacturer's specifications).

Note (9) EDM having an error of 10mm, independent of distance measured (manufacturer's specifications).

Note (10) Calibrated steel tape.

09.13.06.04

.04 Field Run Topographic Surveys.

A. Purpose. The purpose of a field run topographic survey is to locate, describe, or map, or all of these, the elevations and positions of the physical features and characteristics of the surface of the earth including spot elevations, contours, and other features.

B. Product.

(1) The results of a topographic survey shall clearly show the results of the field and office work and shall be presented, depending on the type of professional services requested, in the form of:

- (a) A plat;
- (b) A worksheet;
- (c) Raw data; or
- (d) Adjusted data.

(2) Plats are intended for a release as stand-alone products. Worksheets and raw data are intended as components to be included in other surveying or engineering documents and are not intended as stand-alone products. Worksheets and raw data are not required to comply with this regulation.

C. Field Procedures.

(1) Field work shall be performed in accordance with accepted surveying theory, practice, and procedures as specified in this section.

(2) A surveyor in responsible charge shall adhere to the following procedures:

- (a) The vertical datum of a topographic survey shall run from a known bench mark, if possible, or as otherwise specified in the scope of survey services for the project;
- (b) A closed level loop, where practical, shall run through or include a second established bench mark to confirm the vertical datum;
- (c) A minimum of one bench mark shall be established on or near the surveyed site;
- (d) Topographic data may be obtained based on an assumed vertical datum, if the base elevation of the datum is obviously different than the existing datum, and if the final document clearly indicates that the data was obtained based on an assumed vertical datum; and
- (e) Field data satisfying the requirements of these regulations shall be gathered, and the surveyor shall make a reasonable effort to maintain the data.

D. Plats.

(1) An original plat of a topographic survey shall be a reproducible drawing at a suitable scale clearly indicating the results of the field work, computations, research, and record information as compiled, checked, and analyzed.

(2) A plat shall be prepared in conformity with the following procedures:

- (a) A reasonable stable and durable drawing paper, linen, or film of reproducible quality is considered suitable material for topographic survey plats;
- (b) Plats may not be smaller than 8-1/3 X 11 inches;
- (c) The source of the vertical datum shall be noted on the plat;
- (d) Relevant natural or artificial visible features shall be labeled and represented by a symbol on the plat in its proper location, and each symbol shall clearly indicate what is being represented or shall be labeled for identification either individually or in a separate key to symbols;
- (e) Plats shall show a north arrow;
- (f) A statement indicating the source of the bearings shall be made on the plat;
- (g) The source of a coordinate system, if used on the plat, shall be identified;
- (h) A description and the elevation of at least one bench mark established on or near the site for the survey shall be indicated on the plat;

- (i) Cemeteries and burial grounds found by the surveyor within the premises being surveyed shall be noted on the plat;
- (j) Different line weights or delineating letters or numbers shall be used to clearly show the limits of the survey;
- (k) The plat shall show the following:
 - (i) Caption or title and general location of the property or a vicinity map,
 - (ii) Scale,
 - (iii) Date,
 - (iv) Name and address of the firm or surveyor, and
 - (v) A statement to the effect that a licensee either personally prepared a topographic survey or was in responsible charge over its preparation and the surveying work reflected in it, all in compliance with requirements set forth in Regulation .12 of this chapter; and
- (l) Spot elevations shall be shown in accordance with vertical accuracy standards as specified in §E(3) of this regulation.
- (3) The surveyor shall make a reasonable effort to maintain records, including names or initials of all personnel, date of service, and references to field data, such as book number, loose-leaf pages, and other relevant data.

E. Tolerances.

- (1) Horizontal tolerances for topographic mapping shall meet the following accuracy standards of this subsection. On maps with publication scales larger than 1:20,000, not more than 10 percent of the points tested shall be in error by more than 1/30 inch, measured on the publication scale, and on maps with publication scales of 1:20,000 or smaller, 1/50 inch. These limits of accuracy shall apply in all cases to positions of well-defined points only. Well defined points are those that are easily visible or recoverable on the ground, such as monuments or markers, including:
 - (a) Bench marks;
 - (b) Property boundary monuments;
 - (c) Intersections of roads;
 - (d) Railroads;
 - (e) Corners of large buildings; and

(f) Other similar points.

(2) In general, what is well defined may also be determined by what is plottable on the scale of the map within 1/100 inch.

(3) Vertical tolerances for topographic mapping shall meet the accuracy standards of this subsection. Vertical accuracy, as applied to contour maps on all publication scales, shall be such that not more than 10 percent of the elevations tested shall be in error more than 1/2 the contour interval. In checking elevations taken from the map, the apparent vertical error may be decreased by assuming a horizontal displacement within the permissible horizontal error for a map of that scale.

09.13.06.05

.05 Field Run Planimetric Surveys.

A. Purpose. The purpose of a field run planimetric survey is to locate, describe, or map, or all of these, the horizontal positions of the physical features and characteristics of the surface of the earth and other features.

B. Product.

(1) The results of a planimetric survey shall clearly show the results of the field and office work, and shall be presented, depending on the type of professional services requested, in the form of:

(a) A plat;

(b) A worksheet;

(c) Raw data; or

(d) Adjusted data.

(2) Plats are intended for a release as stand-alone products. Worksheets and raw data are intended as components to be included in other surveying or engineering documents and are not intended as stand-alone products. Worksheets and raw data are not required to comply with this regulation.

C. Field Procedures.

(1) Field work shall be performed in accordance with accepted surveying theory, practice, and procedures specified in this section.

(2) Field data satisfying the requirements of these regulations shall be gathered, and the surveyor shall make a reasonable effort to maintain the data.

D. Plats.

(1) An original plat of a planimetric survey shall be a reproducible drawing at a suitable scale clearly indicating the results of the field work, computations, research, and record information, as compiled, checked, and analyzed.

(2) The plat shall be prepared in conformity with the following procedures:

(a) A reasonably stable and durable drawing paper, linen, or film of reproducible quality is considered suitable material for planimetric survey drawings;

(b) Plats may not be smaller than 8-1/2 X 11 inches;

(c) Relevant natural or artificial visible features shall be labeled and represented by a symbol on the plat in its proper location, and each symbol shall clearly indicate what is being represented or shall be labeled for identification either individually or in a separate key to symbols;

(d) The plat shall show a north arrow;

(e) A statement indicating the source of the bearings shall be made on the plat;

(f) The source of a coordinate system, if used on the plat, shall be identified;

(g) Cemeteries and burial grounds found by the surveyor within the premises being surveyed shall be noted on the plat;

(h) Different line weights or delineating letters or numbers shall be used to clearly show the limits of the survey;

(i) The plat shall show the following:

(i) Caption or title and general location of the property or a vicinity map;

(ii) Scale;

(iii) Date;

(iv) Name and address of the firm or surveyor; and

(v) A statement to the effect that a licensee either personally prepared a planimetric survey or was in responsible charge over its preparation and the surveying work reflected in it, all in compliance with requirements set forth in Regulation .12 of this chapter.

(3) The surveyor shall make a reasonable effort to maintain records, including names or initials of all personnel, date of service, references to field data, such as book number, loose-leaf pages, and other relevant data.

E. Tolerances.

(1) Horizontal tolerances for planimetric mapping shall meet the accuracy standards of this subsection. On maps with publication scales larger than 1:20,000, not more than 10 percent of the points tested shall be in error by more than 1/30 inch, measured on the publication scale, and on maps with publication scales of 1:20,000 or smaller, 1/50 inch. These limits of accuracy shall apply in all cases to positions of well-defined points only. Well-defined points are those that are easily visible or recoverable on the ground, such as the following monuments or markers, including:

- (a) Property boundary monuments;
- (b) Intersections of roads;
- (c) Railroads;
- (d) Corners of large buildings; and
- (e) Other similar points.

(2) In general, what is well defined may also be determined by what is plottable on the scale of the map within 1/100 inch.

09.13.06.06

.06 Location Drawings.

A. Purpose. The purpose of a location drawing is to locate, describe, and represent the positions of buildings or other visible improvements affecting the subject property.

B. Product. The location drawing shall delineate the subject property and the location of the buildings and other visible improvements on the property. Location drawings do not include foundation certifications or wall checks.

C. Approval by the Consumer and Disclosures.

(1) The surveyor may not accept compensation pursuant to this regulation until the surveyor receives a signed approval form as described in this section.

(2) A surveyor is presumed to have received the approval form, if it is delivered to the surveyor by the following means:

- (a) Personal delivery;
- (b) Regular, registered, or certified mail, return receipt requested; or
- (c) Facsimile device or email transmission capable of producing a tangible record of delivery.

(3) The approval form shall be sufficient if it is signed by the consumer, whether one or more, with respect to the property for which services pursuant to this regulation are sought.

(4) The approval form shall contain at least the following statements:

Approval Form

In connection with the purchase or refinancing of the property located at _____ (this office has been requested) (a licensed Maryland surveyor will be engaged) to prepare a location drawing. A location drawing shows the property inspected and the locations of buildings or other visible improvements affecting the property. **A LOCATION DRAWING IS NOT A BOUNDARY SURVEY AND CANNOT BE RELIED UPON BY ANYONE TO SHOW WHERE THE PROPERTY'S BOUNDARIES ARE.** The only purpose of a location drawing is to provide some assurance that improvements are located on the property. This assurance is for the use of a lender or an insurer only.

If a boundary survey, which could be relied upon for various purposes (for example setting the property markers, erecting a fence, building a garage, or making other improvements on the property), is desired, a surveyor should be contacted independently. The cost of a boundary survey will be greater than the cost of a location drawing.

For further information, contact:

Surveyor's/Company's Name:

Address:

Telephone Number:

Initial appropriate lines:

_____ I/we approve the preparation of a location drawing. I/we have read and understand that, in the absence of any problem revealed by or during the preparation of this drawing, it will be all that is required by the lending institutions and title companies for settlement.

_____ I/we request a boundary survey that will include a location drawing, and will identify property boundary lines and mark property boundary corners. I/we have read and understand that this may not be required for settlement purposes.

Consumer's Signature Consumer's Signature

Date _____ Date _____

Contact Phone Number _____

(5) Upon receipt of an approval form which complies with this section and upon complying with Regulation .12A of this chapter, the surveyor shall perform the services approved by the consumer. If the consumer requests a boundary survey which includes a location drawing, the survey shall be consistent with the provisions set forth in Regulation .03 of this chapter and the requirements set forth in §D(5) of this regulation.

(6) If the consumer approves the preparation of a location drawing, the surveyor shall perform at least the following procedures:

(a) Examine the current deed to and recorded plat, if any, of the subject parcel; and

(b) Take sufficient on-site measurements to enable the surveyor to perform the tasks called for by this regulation with regard to the:

(i) Approximate locations of buildings and those other improvements referenced in this regulation,

(ii) Possible encroachments reasonably determined based on a visual inspection, and

(iii) A flood hazard zone, if requested.

(7) If, in connection with the preparation of a location drawing, a surveyor finds evidence to warrant, in the surveyor's professional opinion, the performance of a boundary survey, the surveyor shall so notify the consumer.

(8) Disclosures.

(a) If the consumer, pursuant to this regulation, has approved a location drawing, the plat prepared by the surveyor shall prominently display, at a minimum, advice to the effect that the plat:

(i) Is of benefit to a consumer only insofar as it is required by a lender or a title insurance company or its agent in connection with contemplated transfer, financing, or refinancing;

(ii) Is not to be relied upon for the establishment or location of fences, garages, buildings, or other existing or future improvements; and

(iii) Does not provide for the accurate identification of property boundary lines, but this identification may not be required, for the transfer of title or securing financing or refinancing.

(b) The statements under this regulation may be written on a separate page, if the:

(i) Separate page is stapled or otherwise permanently affixed to the plat; and

(ii) Page containing the plat bears a prominent statement to the effect that the advice is an integral part of the plat, and is to be found on the affixed page.

(9) If the consumer, pursuant to this regulation, has approved a location drawing, the following shall be shown:

(a) Significant buildings, structures, and other improvements, in their approximate relationship to the apparent property lines reflected in the deed, based on the field measurements taken by the surveyor, and any other evidence considered by the surveyor;

(b) Statement with regard to the level of accuracy of distances to apparent property lines; and

(c) Possible encroachments to the extent reasonably determined by a visual inspection of the property either way across property lines.

E. Plats.

(1) The original plat of a location drawing shall be a reproducible drawing at a scale which clearly shows the results of the field work, computations, research, and record information, as compiled, checked, and analyzed.

(2) The plat shall be prepared in accordance with the following procedures:

(a) A reasonably stable and durable drawing paper, linen, or film is considered a suitable material;

(b) Plats may not be smaller than 8-1/2 × 11 inches;

(c) Plats shall show a north arrow;

(d) A statement indicating the source of the bearings shall be made on the plat;

(e) The source of a coordinate system, if used on the plat, shall be identified; and

(f) The plat shall show the following:

(i) Caption or title and address of the property or a vicinity map,

(ii) Scale,

(iii) Date,

(iv) Name and address of the firm or surveyor, and

(v) A statement to the effect that a licensee either personally prepared a location drawing or was in responsible charge over its preparation and the surveying work reflected in it, all in compliance with requirements set forth in Regulation .12 of this chapter.

(3) The surveyor shall make a reasonable effort to maintain records, including names or initials of all personnel, date of performance, and references to field data, such as book number, loose-leaf pages, and other relevant data.

09.13.06.07

.07 As-Constructed or Record Surveys.

A. General. At the time the surveyor performs as-constructed, sometimes referred to as an as-built, or record surveys, the surveyor shall obtain field measurements of vertical or horizontal dimensions, or both, of constructed improvements. The constructed improvements located by the survey shall be shown by symbols, notations, or delineations and shall be so certified. All plats prepared shall meet these minimum technical standards as applicable.

B. Accuracy. The horizontal or vertical accuracy, or both, shall permit the determination of whether the position of visible constructed improvements encroach upon adjoining properties or whether they are properly placed on the subject property, in rights-of-way, or in easements provided. The vertical accuracy or horizontal accuracy, or both, shall be such that it may be determined whether the position of visible improvements is in accordance with the plans or other documents as approved by appropriate jurisdictions.

C. Records. The surveyor shall make a reasonable effort to maintain records, including names or initials of all personnel, dates of service, and references to field data, such as book number, loose-leaf pages, and other relevant data.

09.13.06.08

.08 Metes and Bounds Descriptions.

A. Purpose. The purpose of a metes and bounds description is to create a written legal description of the subject tract of land that provides information necessary to properly locate the property on the ground and distinctly set it apart from all other properties.

B. Product.

(1) A metes and bounds description shall indicate the general location of the property by:

(a) Naming the particular lot or block, or other acceptable identification within which it is located, if the property is located in a subdivision; or

(b) By reference to the deed for the parcel being described, and information with regard to tax or election district, county, and state.

(2) The description shall also logically compile and incorporate calls for the following:

(a) Courses and distances with a statement regarding the basis of bearing;

(b) Adjoining record title lines, and rights-of-way as appropriate; and

(c) Statement of the subject land area.

(3) The point of beginning shall be carefully chosen and described in a manner which will distinguish it indisputably from any other point.

(4) Curved boundaries shall include sufficient data to define the curve, including the direction of curve, radius, arc length, chord bearing, and chord length. The description shall also include the identification of nontangent curves.

(5) If a metes and bounds description is based upon a boundary survey performed in accordance with Regulation .03 of this chapter, sufficient monuments or reference control points which were used to determine the property lines shall be called in the metes and bounds description.

(6) The metes and bounds description shall contain a statement to the effect that a licensee either personally prepared a metes and bounds description or was in responsible charge over its preparation and the surveying work reflected in it, all in compliance with requirements set forth in Regulation .12 of this chapter.

(7) The surveyor shall make a reasonable effort to maintain records, including names or initials of all personnel, dates of service, and references to field data, such as book number, loose-leaf pages, and other relevant data.

09.13.06.09

.09 Right-of-Way/Easement Surveys.

A. General. A right-of-way/easement survey is a means of obtaining, reporting, or displaying, or all of these, the necessary data to establish or reestablish the location of sufficient property lines of the affected tract of land to assure the accurate location of the strip or parcel of land being described for the use and benefit of others.

B. Product. A right-of-way/easement survey shall result in the establishment of the location of lines, areas, if needed, and other relevant data. The surveyor is not required to set markers on a right-of-way/easement survey, unless required by a party requesting surveying services.

C. Compliance. In performing the right-of-way/easement survey, the surveyor shall comply with all terms, conditions, standards, and procedures that are set forth in Regulation .03 of this chapter, except as may be otherwise modified by this regulation, or by the State, its instrumentalities, or any public or corporate body having the power of eminent domain.

09.13.06.10

.10 Special Purpose Surveys.

A. General. A survey not previously defined in these regulations is classified as a special purpose survey and is permitted. The purpose and conditions of this survey shall be clearly shown on the survey plats. A survey performed in accordance with this regulation may not be construed to constitute a variance from these standards.

B. Special Conditions. If special conditions exist that effectively prevent the survey from meeting the minimum standards set forth in this chapter, the special conditions and any necessary deviation from the standards shall be noted on the plat. It is a violation of regulations in this chapter to use special conditions to circumvent the intent and purpose of the minimum standards set forth in this chapter.

C. Information Purposes. Copies of a plat provided for informational purposes only may be issued without the signature or seal, or both, of the surveyor in responsible charge when it is clearly shown that the plat is invalid without the signature or seal. It is a violation of the regulations of this chapter to use this section to circumvent the intent and purpose of the minimum standards set forth in this chapter.

D. Records. The surveyor shall make a reasonable effort to maintain records, including names or initials of all personnel, dates of service, and references to field data, such as book number, loose-leaf pages, and other relevant data.

09.13.06.11

.11 Compliance with Federal, State, and Local Requirements.

The surveyor shall comply with all applicable federal, State, and local requirements related to the preparation of site plans, road and street plans, subdivision plans and plats, condominium plats, foundation certifications, wall checks, sediment and erosion control plans, storm drain plans, stormwater management design plans, and any other surveying work products.

09.13.06.12

.12 Business Practices.

A. Before undertaking the performance of professional services for which payment or other consideration is expected, a surveyor or a duly authorized agent of the surveyor shall discuss at least the following with the requesting party:

- (1) The type of survey required;
- (2) The limits to be surveyed;
- (3) The specific survey services to be provided;
- (4) An approximate completion time schedule; and
- (5) An agreement for payment.

B. For mutual protection, it is encouraged that a written agreement be executed by both parties. The agreement may be in the form of a memorandum, services letter, confirmation of work ordered, or any other mutually acceptable form. The agreement may also establish the extent and limitations of the surveyor's responsibilities.

C. If previously unknown factors are discovered during work that significantly affects either cost or completion schedule, the surveyor shall immediately notify the party responsible for the payment of the cost of the surveying services.

D. A licensee may not sign or seal surveys, plats, drawings, certificates, or other professional documents unless the licensee personally prepared the documents or the documents were prepared under the licensee's responsible charge.

E. Licensee In Responsible Charge. A licensee shall be considered to be in responsible charge within the meaning of Business Occupations and Professions Article, §15-101(n), Annotated Code of Maryland, if the licensee:

- (1) Has authority to make necessary revisions to surveying documents during their preparation by the licensee's employees or other subordinates;
- (2) Provides a detailed review and personal inspection of surveying documents; and

(3) Has authority to direct the surveying tasks and provides actual direction of the specific surveying tasks performed.

F. A licensee in responsible charge shall be readily available to the licensee's employees or other subordinates on a reasonable basis to provide personal direction and direct control, as necessary and appropriate.

G. By signing and sealing surveying documents, a licensee assumes full responsibility for the preparation of the surveying documents described in this chapter and for the accuracy and adequacy of the surveying work reflected in the documents.

09.13.06.13

.13 Violation of Minimum Standards.

Violation of the minimum standards of practice by a professional land surveyor or a property line surveyor shall constitute grounds for disciplinary actions under Business Occupations and Professions Article, Title 15, Annotated Code of Maryland.

09.13.06.14

.14 Review.

The Board shall undertake a periodic review of the minimum standards of practice set forth in these regulations to assure their accuracy and completeness and shall make those changes, if any, it deems appropriate.

09.13.06.9999

Administrative History

Effective date: December 1, 1994 (21:22 Md. R. 1875)

Annotation: Regulations .01—.10, which were adopted effective December 1, 1994, can be found at 21:21 Md. R. 1875 and 21:11 Md. R. 958. Judicial action stayed the effectiveness of these regulations. *Maryland Society of Surveyors et al. v. William A. Fogle et al.*, Case No. 94314037/CE 188625, Circuit Court for Baltimore City. A consent order, dated January 27, 1995, required the repeal of these regulations without taking effect. The consent order included new regulations to be adopted.

Regulations .01—.10 repealed and new Regulations .01—.14 adopted as an emergency provision effective March 1, 1995 (22:5 Md. R. 364); adopted permanently effective June 5, 1995 (22:11 Md. R. 820)

Regulation .03A, F amended effective February 10, 1997 (24:3 Md. R. 186)

Regulation .04 amended effective February 10, 1997 (24:3 Md. R. 186)

Regulation .05D amended effective February 10, 1997 (24:3 Md. R. 186)

Regulation .06A, D, E amended effective February 10, 1997 (24:3 Md. R. 186)

Regulation .08 amended effective February 10, 1997 (24:3 Md. R. 186)

Regulation .10C amended effective February 10, 1997 (24:3 Md. R. 186)

Regulation .11 amended effective February 10, 1997 (24:3 Md. R. 186)

Regulation .12A, D amended effective February 10, 1997 (24:3 Md. R. 186)

Regulation .13 amended effective February 10, 1997 (24:3 Md. R. 186)

Chapter revised effective August 1, 2005 (32:15 Md. R. 1320)