

Department of State Division of Publications 312 Rosa L. Parks Ave., 8th Floor, Snodgrass/TN Tower Nashville, TN 37243 Phone: 615-741-2650 Email: publications.information@tn.gov	For Department of State Use Only
	Sequence Number: <u>02-07-24</u>
	Notice ID(s): <u>3794</u>
	File Date: <u>2/20/2024</u>

Notice of Rulemaking Hearing

Hearings will be conducted in the manner prescribed by the Uniform Administrative Procedures Act, T.C.A. § 4-5-204. For questions and copies of the notice, contact the person listed below.

Agency/Board/Commission:	Tennessee Board of Examiners for Land Surveyors
Division:	Department of Commerce and Insurance Regulatory Boards Division
Contact Person:	Stuart Huffman
Address:	500 James Robertson Parkway, Nashville, TN, 37243
Phone:	615-741-3072
Email:	Stuart.Huffman@tn.gov

Any Individuals with disabilities who wish to participate in these proceedings (to review these filings) and may require aid to facilitate such participation should contact the following at least 10 days prior to the hearing:

ADA Contact:	Don Coleman
Address:	500 James Robertson Parkway, Nashville, TN 37243
Phone:	615-741-6500
Email:	Don.Coleman@tn.gov

Hearing Location(s) (for additional locations, copy and paste table)

Address 1:	500 James Robertson Parkway	
Address 2:	Conference Room 1-B	
City:	Nashville, TN	
Zip:	37243	
Hearing Date:	May 16, 2024	
Hearing Time:	9:00 a.m.	<u> X </u> CST/CDT <u> </u>

Additional Hearing Information:

In the event that this in-person hearing is prohibited by reason of Executive Order, closure of the building, or a determination by the Board, this hearing will be conducted via Microsoft Teams. In such a case, the meeting may be accessed here:

Please visit www.tn.gov/commerce/regboards/surveyors/public-meeting-information.html. On this webpage, please look at the table and the “5/16/2024” row. In the location description, please click on the “**Connect**” link. This link will take you to the Microsoft Teams meeting scheduled for this date.

Revision Type (check all that apply):

- Amendment
 New
 Repeal

Rule(s) (ALL chapters and rules contained in filing must be listed. If needed, copy and paste additional tables to accommodate more than one chapter. Please enter only **ONE** Rule Number/Rule Title per row.)

Chapter Number	Chapter Title
0820-03	Standards of Practice
Rule Number	Rule Title
0820-03-.02	General
0820-03-.03	Definitions
0820-03-.05	Accuracy of Surveys
0820-03-.06	Plats, Maps, and Mapping
0820-03-.07	Survey Types and Requirements
0820-03-.08	Marking of Property Boundaries
0820-03-.09	Land Descriptions
0820-03-.11	Global Position Systems Surveys

Rules of the Tennessee Board of Examiners for Land Surveyors
Chapter 0820-03
Standards of Practice

TABLE OF CONTENTS

0820-03-.01	Applicability	0820-03-.07	Survey Types and Requirements
0820-03-.02	General	0820-03-.08	Making of Property Boundaries
0820-03-.03	Definitions	0820-03-.09	Land Descriptions
0820-03-.04	Reserved	0820-03-.10	Instruments and Apparatus
0820-03-.05	Accuracy of Surveys	0820-03-.11	Repealed
0820-03-.06	Survey Plats and Mapping		

Rule 0820-03-.02 General is amended by deleting the word “map” in paragraph (1) wherever it appears and replacing it with “document” instead so that, as amended, the rule shall read:

- (1) The proper execution of land surveying and mapping procedures and all other details of a land survey shall be the direct responsibility of the Land Surveyor whose stamp or seal and/or signature appear on the document, plat or other newly original survey documents. The fact that a document, plat or other newly original survey document(s) is accepted by the Register of Deeds for recordation in no way relieves such Land Surveyor of this responsibility.

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

Rule 0820-03-.02 General is amended by deleting the word “map(s)” and “map” in paragraph (2) and replacing each with “document and/or plat” instead so that, as amended, the rule shall read:

- (2) Authorship of the original document and/or plat is the intellectual property of the Land Surveyor, unless otherwise specified by written contract; therefore, it should be professionally and accurately prepared as a permanent record. After reproducible prints or copies have been made for recordation or other purposes, the document and/or plat should be carefully preserved with the Land Surveyor's original field notes, calculations, work sheets, data, and other project documents for the statutory period as defined at T.C.A. § 28-3-114(a).

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

Rule 0820-03-.03 Definitions is amended by adding the following language so that, as amended, the rule shall read:

- (1) "Land description". "Legal description", "Property description", or "Written description", means a detailed statement of appropriate information necessary to completely locate, relocate, or define the boundaries of a certain area or tract of land.
- (2) "Leveling Survey" means a survey involving the control of levels for land areas where a common Datum is necessary.
- (3) "Survey Plat" or "Survey Map" means an accurate graphical representation of a finite piece of surveyed property, including pertinent and important data and information pertaining to the surveyed land.
- (4) "Suburban Land Survey" means a survey of land which is located within the limits of an incorporated city or town.

- (5) "Global Navigation Satellite Systems" or "GNSS" is defined as a network of orbiting satellites providing the navigation and positioning data necessary to determine the location on the earth. Systems that comprise the GNSS include NAVSTAR, GLONASS, GALILEO, COMPASS, and any other satellite-based navigation and positioning systems. For purposes of this Chapter, "Global Positioning Systems" or "GPS" shall have the same meaning as GNSS.

Authority: T.C.A. §§ 62-2-105(d), 62-2-106(c), 62-18-105(d), and 62-18-106(c).

Rule 0820-03-.05 Accuracy of Surveys is amended by deleting the language in its entirety and replacing language instead so that, as amended, the rule shall read:

Surveys for Categories I, II, and III as defined below must meet the minimum accuracy requirements provided below for the category where the survey is located. The category must be determined by the Land Surveyor to the best of his knowledge and belief at the time of the survey. Nothing in this rule shall preclude a Land Surveyor from using a greater degree of accuracy than that required as a minimum for any category provided below.

- (1) Urban and Subdivision Property Surveys (Category I). For Category I surveys in Tennessee, the angular closure shall not exceed fifteen (15) seconds times the square root of the number of angles turned. The linear error of closure shall be equal to or less than 1 foot per 10,000 feet of perimeter of the lot of land (1:10,000). When a land parcel of one (1) acre or less is encountered, the allowable error shall not exceed one tenth (1/10) of a foot of positional accuracy at any corner.
- (2) Suburban and Subdivision Property Surveys (Category II). For Category II surveys in Tennessee, the angular error of closure shall not exceed twenty-five (25) seconds times the square root of the number of angles turned. The linear error of closure shall be equal to or less than 1 foot per 7,500 feet of perimeter of the lot of land (1:7,500). When a land parcel of one (1) acre or less is encountered, the allowable error shall not exceed one tenth (1/10) of a foot of positional accuracy at any corner.
- (3) Other Property Surveys (Category III). For Category III surveys in Tennessee, the angular error of closure shall not exceed thirty (30) seconds times the square root of the number of angles turned. The linear error of closure shall be equal to or less than 1 foot per 5,000 feet of perimeter of the lot of land (1:5,000). When a land parcel of one (1) acre or less is encountered, the allowable error shall not exceed one tenth (1/10) of a foot of positional accuracy at any corner.
- (4) Remote Sensing Surveys (Category IV). For Category IV surveys in Tennessee, it is acceptable practice to incorporate the use of Global Navigation Satellite Systems (GNSS) equipment into any survey. The precision of all measurements made with such equipment must, at a minimum, meet all precision standards required otherwise by the rules under Chapter 0820-03. GNSS surveys performed to provide control networks shall be performed in such a manner to obtain a ninety-five percent (95%) confidence level of the positional accuracy of each point relative to the published positions of the control points used.
- (5) Differential Leveling Surveys. The surveying process in which a horizontal line of sight of known elevation is intercepted by a graduated standard, or rod, held vertically on the point being checked (does not apply to Trigonometric or GNSS surveys).
 - (a) Urban Differential Leveling Surveys. Leveling employed for commercial, industrial or urban land surveys shall be executed with an error of closure (Y) not to exceed in feet

0.5

$$Y = 0.04 \quad (M)$$

(Y equals 0.04 times the square root of M) Where Y = discrepancy in vertical measurement (in feet) and M = distance from datum reference (in miles).

- (b) Other Differential Leveling Surveys. Other leveling surveys shall be conducted with an error of closure (Y) not to exceed in feet

0.5

$$Y = 0.10 \quad (M)$$

(Y equals 0.10 times the square root of M) Where Y = discrepancy in vertical measurement (in feet) and M = distance from datum reference (in miles).

- (c) Agreement for Leveling Surveys. Prior to any type of Leveling Survey, including control for photogrammetric mapping, the Land Surveyor may determine and set forth in a written agreement with his client to perform a more accurate Leveling Survey and the general procedure to be employed.

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

0820-03-.06 Maps and Mapping is amended by deleting the language in its entirety and replacing language instead so that, as amended, the rule shall read:

0820-03-.06 Survey Plats and Mapping

- (1) When a Land Surveyor furnishes a Survey Plat, it shall be properly and accurately drawn, and should legibly depict information developed by and during the survey.
- (2) The size of the Survey Plat shall be such that details can be shown clearly and be of a size no less than 8.5"x11".
- (3) Preliminary documents must be clearly marked as such prominently on the face of the document. In reference to Rule 0820-04-.08(2), working drawings or preliminary documents are not required to have a seal and signature if the working drawing or preliminary document contains a statement in large bold letters to the effect "PRELIMINARY, NOT FOR CONSTRUCTION, RECORDING PURPOSES, OR IMPLEMENTATION".
- (4) Property lines which are not actually surveyed must be clearly indicated as such on the Survey Plat. A statement shall be included revealing the source of information from which the lines are derived. In the compilation of a composite Survey Plat, the Land Surveyor shall indicate and cite the source of all lines copied from a previous source.
- (5) Unless containing a digital signature and seal in reference to Rule 0820-04-.08(10), electronic or digital survey documents such as, but not limited to, CAD files, PDF files, and word processor files or other digital media are considered "Preliminary" or "Draft" documents.
- (6) Pertinent information on the Survey Plat shall be correctly plotted to the scale shown or noted otherwise. Enlargement "Detail" of a portion of a Plat is acceptable in the interest of

clarity, where shown as inserts on the same sheet and/or with a description of where to find the "Detail" if it is located on another sheet of the same Survey Plat.

- (7) Visible and apparent rights-of-way, utilities, and roadways where crossing or forming any boundary line of the property shall be accurately located and shown on the Survey Plat.
- (8) Easements evidenced by Record Documents which have been provided to the Land Surveyor shall be shown. These include both those burdening and those benefiting the property surveyed, indicating recording information. If an easement cannot be located, a note to this effect shall be included. Observable evidence of easements and/or servitudes of all kinds, such as those created by roads; rights-of-way; water courses; drains; or utilities on or across the surveyed property and on adjoining properties if they appear to affect the surveyed property, shall be located and noted. If the Land Surveyor has knowledge of any such easements and/or servitudes, not observable at the time of the survey, such lack of observable evidence shall be noted. Surface indications, if any, of underground easements and/or servitudes shall also be shown and noted. Where non-observable data is shown relative to existing utilities in reliance on apparent surface markings or available utility plans or the apparent surface indicators which are not visible to the Land Surveyor, a statement as to the source of the data shall be included on the Survey Plat as well as a note stating such data should not be relied upon without verification from the proper utility authority having jurisdiction.
- (9) Area: When a boundary is formed by a closed survey, the area shall be shown in acres and/or square feet. Area computations by estimation, planimeter, by scale, or copying from another source are not acceptable methods except in preliminary maps and non-accessible areas, in which case the method shall be clearly stated. If the survey is a new/original tract or the area is different from the recorded area, then the survey must show the area of any closed surveyed tracts.
- (10) When using abbreviations and/or symbols, a thorough legend describing all abbreviations and symbols used shall be included on the Survey Plat.
- (11) The presence of a Land Surveyor's seal and personal signature upon the face of a Survey Plat or document shall constitute a certification that the Plat or document conforms to the minimum Standards of Practice for Land Surveying in Tennessee as defined by the Rules of the Tennessee State Board of Examiners for Land Surveyors.

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

Rule 0820-03-.07 Survey Types and Requirements is amended by deleting the language in its entirety and replacing language instead so that, as amended, the rule shall read:

A Land Surveyor shall comply with the minimum requirements provided below for all surveys and Survey Plats prepared therefrom.

- (1) General Property Surveys.
 - (a) A Survey Plat shall be a copy, print or tracing on tangible media, and shall be dated, stamped, or sealed and wet ink signed by a registered Land Surveyor responsible for the survey in compliance with applicable law. This shall include surveys in an electronic format that contain the Land Surveyor's seal and a digital signature in reference to Rule 0820-04-.08(10).
 - (b) A Survey Plat shall have a title and contain the following information:

1. A descriptive location of the property surveyed or vicinity map, and a corner of the property surveyed must be tied by bearing and distance either:
 - i. to a corner of a subdivision,
 - ii. to a corner of the parent tract from which property is carved from,
 - iii. to a permanent identifiable corner,
 - iv. to a permanent identifiable reference point, or
 - v. to a nearest road intersection.

In the case of a formation of a new tract, a tie must be made by bearing and distance to an identifiable corner of the parent tract.

2. The city or district, county, and the state where the property is located;
 3. The name of the grantor or grantee of the property, or the name of the person or entity who requested or required the Survey Plat;
 4. The date of the Survey Plat;
 5. A graphic scale and numeral scale;
 6. The name, registration number, address, company name (if applicable), email address, and telephone number of the Land Surveyor in responsible charge; and
 7. A certification on the face of the final Survey Plat shall contain the following minimum content:
 - i. Certification as to Category I, II, III, or IV and that the survey meets or exceeds the accuracy requirements thereof.
- (c) A north arrow shall be shown correlated with the courses, azimuths and/or bearings to which the survey was performed, with the source of reference clearly indicated.
- (d) All lines shall be defined by horizontal distances, azimuths, and/or bearings, and shall be plotted to the scale shown on the Survey Plat. Units of distance (U.S. survey feet, international feet, meter, etc.) used for the survey shall be noted on the Survey Plat.
- (e) Where a boundary is formed by a curve, the curve shall be defined by the arc length, curve radius, long-chord bearing, and long chord distance.
- (f) The Land Surveyor shall show and label the widths and/or center lines of easements and rights-of-way within the property which are obvious and apparent. The survey shall be completed using the recorded deeds to the property and include pertinent information as described in Rule 0820-03-.06(7).

- (g) Boundaries formed by water course shall be located and plotted to the scale of the survey. Traverse lines and/or offset lines used to close water course boundaries shall be shown plotted to scale and defined by interior angle, azimuth, and or/ bearing and distance.
- (h) Monumentation requirements:
 - 1. New property monuments, including reference monuments, shall be composed of material(s) suitable to perpetuate the position and location of the monument. A notation on the Survey Plat shall state whether the monuments were found or set and include the material and size.
 - 2. Metal monuments shall be no less than one-half ($\frac{1}{2}$) inch in diameter; concrete monuments shall be no less than four (4) inches on each side or in diameter and shall contain ferrous or magnetic material; and both shall be no less than eighteen (18) inches in length unless some impregnable material is encountered.
 - 3. No monument should be set if, in the opinion of the Land Surveyor, the existing monument is found undisturbed and adequate to perpetuate the corner position and can be reasonably made to conform to the angle point in the boundary. Large or indefinite monuments which cannot be measured to within the positional accuracy requirements contained herein, such as trees, rock piles or fence corners, may be marked with reference monuments as deemed necessary by the Land Surveyor.
 - 4. When conditions warrant setting a reference for a monument on an offset, the location shall be selected so that the monument lies on a line of the survey, or a prolongation of such line.
 - 5. New metal or concrete monuments set shall have an identifying mark or cap with the Land Surveyor's registration number or company name permanently fixed upon it. Concrete monuments shall have a permanent mark for the survey point.
 - 6. Survey points that do not divide land ownership, such as point of intersection (P.I.), centerline of water course, etc. may be established with or without monumentation at the Land Surveyor's discretion. Newly created and/or existing public right of way is/are excluded and shall comply with the monumentation requirements herein.
- (i) In the compilation of a composite Survey Plat, the Land Surveyor shall indicate and cite the source of all lines copied from a previous survey on the Survey Plat, and qualify the Survey Plat as prepared from other sources and does not represent a current survey. A composite Survey Plat may not be used for the creation of a new parcel from within a parent tract when produced in conjunction with TCA 13-4-301(4)(A) and/or TCA 13-4-301(4)(B)(i).
- (j) The names of adjoining land owners and deed references, if available from the county property assessor's office. This shall include lot and/or block numbers, and highways, streets, and named waterways.
- (k) The point of beginning (POB) in the metes and bounds description prepared by the Land Surveyor shall be shown on the Survey Plat (except in the case of a subdivision plat).

- (2) Topographic Surveys.
- (a) A Survey Plat shall be a copy print or tracing on tangible media, and shall be dated, stamped, or sealed, and signed by the registered Land Surveyor responsible for the survey, in compliance with applicable law.
 - (b) A Survey Plat shall have a title and contain the following information:
 - 1. A descriptive location of the property surveyed or a vicinity map;
 - 2. The city or district, county, and the state where the property is located;
 - 3. The name of the grantor or grantee of the property, or the name of the person or entity who requested the Survey Plat;
 - 4. The date of the Survey Plat;
 - 5. A graphic scale and a numerical scale; and
 - 6. The name, registration number, company name (if applicable), email address, telephone number, and address of the Land Surveyor in responsible charge.
 - (c) A north arrow shall be shown correlated with the horizontal datum, courses, azimuths, and/or bearings to which the survey was performed, with the source of reference clearly indicated.
 - (d) Property lines, if shown on the Topographic Survey, shall be shown as needed and/or as deemed necessary by the Land Surveyor and shall be plotted to the scale of the Survey Plat. If shown, the following shall also be included:
 - 1. The Land Surveyor shall show and label the widths and/or centerline of easements and rights-of-way which are obvious and apparent;
 - 2. The cite and the source of any lines copied from other sources; and
 - 3. The names of adjacent land owners, deed references, block numbers, highways, streets, and named waterways.
 - (e) If limits of the topographic survey are formed by water course, then the water course shall be located and plotted to the scale shown in the title.
 - (f) Visible, obvious, and apparent surface indications of physical features such as utilities, buildings, water bodies, etc. shall be shown and plotted to the scale of the Survey Plat.
 - (g) Elevations shall be shown as spot elevations and/or contours. The contour interval shall be noted and shall meet national mapping accuracies.
 - (h) An on-site project vertical benchmark shall be established with reference to the project vertical datum. The benchmark location shall be shown, adequately described, and plotted to the scale of the Survey Plat. The vertical datum referenced shall be noted on the face of the Survey Plat.

- (i) If contours, elevations, and/or features are generated by remote sensing methods, the registered Land Surveyor in responsible charge of the ground control shall certify, sign, stamp, or seal the Survey Plat for the ground control portion of the survey.
- (3) Oil and Gas Well Location Surveys.
- (a) Oil and gas well location surveys must be made in compliance with the provisions of T.C.A., Title 60, Chapter 1, and the rules of the Tennessee State Oil and Gas Board (Chapters 1040-01-01 through 1040-08-01).
 - (b) Where surveyed lines or areas must be located or calculated, they must also comply with the accuracy standards set forth in Rule 0820-03-.05 of this chapter for the category in which the survey is located.
 - (c) The Survey Plat shall have a title and contain the same information as required under this Chapter relative to General Property Surveys.
- (4) Geodetic Control Surveys (GCS).
- (a) All Geodetic Control Surveys must be made in accordance with the Federal Geodetic Control Standards (F.G.C.S.). Horizontal and vertical control work must meet or exceed those accuracy specification standards as published by the Federal Geodetic Control Committee, September 1984, in the bulletin titled "Standards and Specification for Geodetic Control Networks" or any subsequently published bulletins modifying such class standards. Copies of said bulletins may be obtained from the United States Department of Commerce.
 - (b) The Survey Plat shall have a title and contain the same information as normally
- (5) Remote Sensing Surveys.
- (a) Minimum Standards for Remote Sensing Surveys.

When using GNSS equipment in the course of a survey, the Land Surveyor shall state on the face of the Survey Plat, or within the report in cases where there is no Survey Plat, the following:
 - 1. The Land Surveyor in responsible charge of such GNSS surveys shall date, stamp, or seal and sign the prepared documents in compliance with all applicable law;
 - 2. A note stating what portion (or all) of the survey was performed using GNSS equipment;
 - 3. The type of GNSS equipment used, including manufacturer and model number, and whether single or dual frequency receivers were used;
 - 4. The type of GNSS survey that was performed, such as static, real time kinematic (RTK), network adjusted real time kinematics, etc.;
 - 5. A note that discloses the precision of the GNSS work done, either in relative positional accuracy, vector closure, or other mathematical expression chosen by the Land Surveyor;

6. Date of the survey;
 7. Data for any fixed station(s) used for the GNSS survey shall appear on the Survey Plat or report. The minimum data shown for each fixed station shall include the fixed station name, horizontal position (defined by northing/easting or latitude/longitude), elevation (ellipsoid or orthometric), datum and epoch;
 8. Geoid model used; and
 9. Combined scale factor.
- (6) Hydrographic Surveys (also referred to as Bathymetric Surveys).
- (a) Hydrographic surveying is the term applied to the process used in surveying any body of water. In the case of lakes and rivers, this may include the determination of shore lines, soundings, characteristics of the bottom, location of buoys, etc. The survey of a river may also include the determination of the velocity and characteristics of the flow. In its broad sense the term may be applied to the survey of drainage areas and proposed locations for reservoirs for the storage of water. Hydrographic Surveys shall be prepared as follows:
1. A Survey Plat shall be a copy, print or tracing, on tangible media and shall be dated, stamped, or sealed and signed by the registered Land Surveyor responsible for the survey, in compliance with all applicable law.
 2. The Survey Plat shall have a title and contain the same information as normally would be required under this Chapter for Topographic Surveys.
 3. In addition to the above required data, the Survey Plat shall show the shore line, designated with the heaviest line on the Survey Plat, and the low-water line designated with the next heaviest line on the Survey Plat.
 4. Topography to be shown outside the shore line shall be determined by the use for which the Survey Plat is intended, and requested in writing by the client. Topography of the submerged portions shall be shown with a dashed line.
 5. Hydrographic charts prepared for purposes of navigation shall include sufficient topography to show the location of any landmarks which may be of use to the navigator, such as conspicuous objects on the shore.
 6. Sufficient survey control points shall be shown on the Survey Plat for the survey to be tied to other maps or adjacent surveys.
 7. Where soundings are represented on the Survey Plat, they shall be shown in feet and tenths of a foot in black, the number representing the depth of the water below the datum. Where the datum is mean low water, these soundings which are below shall be shown in black, and those that are above the datum shall be shown in another color or method of line designation.
 8. In preparation of the navigation chart of a small river the soundings shall be recorded in feet and tenths of a foot, and contours drawn every three (3) or six (6) feet. The direction of the current shall be shown with an arrow.

Rapids or waterfalls shall be shown on the Survey Plat when encountered in the survey.

- (b) Hydrographic surveys must conform to the above minimum standards if no other more stringent standards or specifications are provided by the client, or other standards are required by the jurisdiction of the U.S. Corps of Engineers, or other legal authority, in the area where the survey project is located.

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

Rule 0820-03-.08 Marking of Property Boundaries is amended by adding the following language so that, as amended, the rule shall read:

The marking of lines between corners is not a requirement of a General Property Survey; however, if needed, contracted, or requested, the marking shall be the responsibility of the registered Land Surveyor who performs the survey. The marking of property corners shall comply with Subparagraph 0820.03-.07(1)(h) of this Chapter.

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

Rule 0820-03-.09 Land Descriptions is amended by deleting the language in its entirety and replacing language instead so that, as amended, the rule shall read:

- (1) Terminology. The following terminology shall be used in land descriptions:
 - (a) "Beginning" shall mean a well-defined, readily located and permanent point or monument which is both the starting point and final point for a written metes and bounds description.
 - (b) "Boundary line" shall mean an adequately dimensioned and described line or curve bounding an area or dividing separate properties.
 - (c) "Conveyance" shall mean the act of transferring title or rights in a property.
 - (d) "Coordinate description" shall mean a description of lands in which the angle points or other points in the boundary are each referred to grid coordinates on the Tennessee or similar coordinate system.
 - (e) "Description by lot number" shall mean a description which identifies a lot or tract of land by reference to book and page or recorded instrument numbers of a county register in which a Survey Plat is recorded with other pertinent information.
 - (f) "Grantor" shall mean a person or party conveying property or rights therein to a grantee.
 - (g) "Grantee" shall mean a person or party receiving title to or rights in property.
 - (h) "Grid coordinates" shall mean distances measured at right angles to each other in a rectangular system having two base lines at right angles to each other.
 - (i) "Metes and bounds description" shall mean a written description in which the boundary lines starting from a given point are described by listing the direction, distance and description of corners of the lines and/or curves forming the boundary.

- (j) "Title" shall mean a written claim or right which constitutes a just and legal cause of exclusive possession.
- (2) Preparation. The Land Surveyor may prepare a written land description but shall not engage in the writing of a deed. In the preparation of a land description, the Land Surveyor shall include within the document their full name, registration number, and the date of the survey from which the information was procured (or the book and page numbers of the recorded Survey Plat or deed, if used in preparing the description).
- (3) Content.
 - (a) In the description by a lot number of a lot located in a subdivision, the following information shall appear: the name of the subdivision; the general location of the property to include the city, county, and state, the lot number, the name of the subdivision plat, the book and page number of the subdivision plat, and the county register's office in which the subdivision plat is recorded.
 - (b) A metes and bounds description shall include the general location of the property being described with sufficient accuracy so that the property be readily located on the ground. The beginning point must be so selected that it can readily and accurately be located from some previously established monument, corner of record, etc., and can be readily described. The description shall include the names of adjoining property owners and/or a reference to any adjoining lots within a plat of record. The description shall include all found/set corner monuments and/or reference monuments, and each shall be described by size and material. A metes and bounds description shall describe a course around the property in a clockwise direction. All lines adjacent to streets, roads or other rights-of-way shall be referenced to same; and all pertinent distances and curve data shall be listed. Curves shall be defined at a minimum by the arc length, curve radius, long chord bearing and long chord distance. Corners falling in inaccessible locations shall be referenced to nearby and permanent points.

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

Rule 0820-03-.11 Global Position System Surveys is amended by deleting the text of the rule in its entirety and substituting instead language so that, as amended, the rule shall read:

0820-03-.11 Repealed.

Authority: T.C.A. § 62-18-106(c).

I certify that the information included in this filing is an accurate and complete representation of the intent and scope of rulemaking proposed by the agency.

Date: February 20, 2024

Signature: 

Name of Officer: Stuart Huffman

Title of Officer: Associate General Counsel

Department of State Use Only

Filed with the Department of State on: 2/20/2024



Tre Hargett
Secretary of State

RECEIVED

Feb 20 2024, 11:32 am

Secretary of State
Division of Publications

Department of State Division of Publications 312 Rosa L. Parks Ave., 8th Floor, Snodgrass/TN Tower Nashville, TN 37243 Phone: 615-741-2650 Email: publications.information@tn.gov	For Department of State Use Only
	Sequence Number: _____
	Notice ID(s): _____
	File Date: _____

Notice of Rulemaking Hearing - **REDLINE**

Hearings will be conducted in the manner prescribed by the Uniform Administrative Procedures Act, T.C.A. § 4-5-204. For questions and copies of the notice, contact the person listed below.

Agency/Board/Commission:	Tennessee Board of Examiners for Land Surveyors
Division:	Department of Commerce and Insurance Regulatory Boards Division
Contact Person:	Stuart Huffman
Address:	500 James Robertson Parkway, Nashville, TN, 37243
Phone:	615-741-3072
Email:	Stuart.Huffman@tn.gov

Any Individuals with disabilities who wish to participate in these proceedings (to review these filings) and may require aid to facilitate such participation should contact the following at least 10 days prior to the hearing:

ADA Contact:	Don Coleman
Address:	500 James Robertson Parkway, Nashville, TN 37243
Phone:	615-741-6500
Email:	Don.Coleman@tn.gov

Hearing Location(s) (for additional locations, copy and paste table)

Address 1:	500 James Robertson Parkway		
Address 2:	Conference Room 1-B		
City:	Nashville, TN		
Zip:	37243		
Hearing Date:	May 16, 2024		
Hearing Time:	9:00 a.m.	<input checked="" type="checkbox"/> CST/CDT	<input type="checkbox"/>

Additional Hearing Information:

In the event that this in-person hearing is prohibited by reason of Executive Order, closure of the building, or a determination by the Board, this hearing will be conducted via Microsoft Teams. In such a case, the meeting may be accessed here:

Please visit www.tn.gov/commerce/regboards/surveyors/public-meeting-information.html. On this webpage, please look at the table and the “5/16/2024” row. In the location description, please click on the “**Connect**” link. This link will take you to the Microsoft Teams meeting scheduled for this date.

Revision Type (check all that apply):

- Amendment
 New
 Repeal

Rule(s) (ALL chapters and rules contained in filing must be listed. If needed, copy and paste additional tables to accommodate more than one chapter. Please enter only **ONE** Rule Number/Rule Title per row.)

Chapter Number	Chapter Title
0820-03	Standards of Practice
Rule Number	Rule Title
0820-03-.02	General
0820-03-.03	Definitions
0820-03-.05	Accuracy of Surveys
0820-03-.06	Plats, Maps, and Mapping
0820-03-.07	Survey Types and Requirements
0820-03-.08	Marking of Property Boundaries
0820-03-.09	Land Descriptions
0820-03-.11	Global Position Systems Surveys

Rules of the Tennessee Board of Examiners for Land Surveyors
Chapter 0820-03
Standards of Practice

TABLE OF CONTENTS

0820-03-01	Applicability	0820-03-07	Survey Types and Requirements
0820-03-02	General	0820-03-08	Making of Property Boundaries
0820-03-03	Definitions	0820-03-09	Land Descriptions
0820-03-04	Reserved	0820-03-10	Instruments and Apparatus
0820-03-05	Accuracy of Surveys	0820-03-11	Repealed Global Position System Surveys
0820-03-06	Survey Plats Maps and Mapping		

Rule 0820-03-.02 General is amended by deleting the word “map” in paragraph (1) wherever it appears and replacing it with “document” instead so that, as amended, the rule shall read:

- (1) The proper execution of land surveying and mapping procedures and all other details of a land survey shall be the direct responsibility of the Land Surveyor whose stamp or seal and/or signature appear on the ~~document map~~, plat or other newly original survey documents. The fact that a ~~document map~~, plat or other newly original survey document(s) is accepted by the Register of Deeds for recordation in no way relieves such Land Surveyor of this responsibility.

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

Rule 0820-03-.02 General is amended by deleting the word “map(s)” and “map” in paragraph (2) and replacing each with “document and/or plat” instead so that, as amended, the rule shall read:

- (2) Authorship of the original ~~document and/or plat map(s)~~ is the intellectual property of the Land Surveyor, unless otherwise specified by written contract; therefore, it should be professionally and accurately prepared as a permanent record. After reproducible prints or copies have been made for recordation or other purposes, the ~~document and/or plat map~~ should be carefully preserved with the Land Surveyor's original field notes, calculations, work sheets, data, and other project documents for the statutory period as defined at T.C.A. § 28-3-114(a).

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

Rule 0820-03-.03 Definitions is amended by adding the following language so that, as amended, the rule shall read:

- (1) "Land description". ~~"Legal description", "Property description", or "Written description"~~, means a detailed statement of appropriate information necessary to completely locate, relocate, or define the boundaries of a certain area or tract of land.
- (2) "Leveling Survey" means a survey involving the control of levels for land areas where a common Datum is necessary.
- (3) "Survey Plat" or ~~"Survey Map"~~, means an accurate graphical representation of a finite piece of surveyed property, including pertinent and important data and information pertaining to the surveyed land.
- (4) "Suburban Land Survey" means a survey of land which is located within the limits of an ~~an~~ incorporated city or town.

- (5) “Global Navigation Satellite Systems” or “GNSS” is defined as a network of orbiting satellites providing the navigation and positioning data necessary to determine the location on the earth. Systems that comprise the GNSS include NAVSTAR, GLONASS, GALILEO, COMPASS, and any other satellite-based navigation and positioning systems. For purposes of this Chapter, “Global Positioning Systems” or “GPS” shall have the same meaning as GNSS.

Authority: T.C.A. §§ 62-2-105(d), 62-2-106(c), 62-18-105(d), and 62-18-106(c).

Rule 0820-03-.05 Accuracy of Surveys is amended by deleting the language in its entirety and replacing language instead so that, as amended, the rule shall read:

Surveys for Categories ~~categories~~ I, II, and III as defined below must meet the minimum accuracy requirements provided below for the category where the survey is located. The category must be determined by the Land Surveyor to the best of his knowledge and belief at the time of the survey. Nothing in this rule shall preclude a Land Surveyor from using a greater degree of accuracy than that required as a minimum for any category provided below.

- (1) Urban and Subdivision Property Surveys (Category I). For Category I surveys in Tennessee, the angular closure shall not exceed fifteen (15) seconds times the square root of the number of angles turned. The linear error of closure shall be equal to or less than ~~not exceed~~ 1 foot per 10,000 feet of perimeter of the lot of land (1:10,000). When a land parcel ~~very small lots~~ of one (1) acre or less is ~~are~~ encountered, the allowable error shall not exceed one tenth (1/10) of a foot of positional accuracy at any corner.
- (2) Suburban and Subdivision Property Surveys (Category II). For Category II surveys in Tennessee, the angular error of closure shall not exceed twenty-five (25) seconds times the square root of the number of angles turned. The linear error of closure shall be equal to or less than ~~not exceed~~ 1 foot per 7,500 feet of perimeter of the lot of land (1:7,500). When a land parcel ~~very small lots~~ of one (1) acre or less is ~~are~~ encountered, the allowable error shall not exceed one tenth (1/10) of a foot of positional accuracy at any corner.
- (3) Other Property Surveys (Category III). For Category III surveys in Tennessee, the angular error of closure shall not exceed thirty (30) seconds times the square root of the number of angles turned. The linear error of closure shall be equal to or less than ~~shall not exceed~~ 1 foot per 5,000 feet of perimeter of the lot of land (1:5,000). When a land parcel ~~very small lots~~ of one (1) acre or less is ~~are~~ encountered, the allowable error shall not exceed one tenth (1/10) of a foot of positional accuracy at any corner.
- (4) Remote Sensing Surveys (Category IV). For Category IV surveys in Tennessee, it is acceptable practice to incorporate the use of Global Navigation Satellite Systems (GNSS) equipment into any survey. The precision of all measurements made with such equipment must, at a minimum, meet all precision ~~the Land Surveyor is to use the current~~ standards required otherwise ~~and applications set~~ by the rules under Chapter 0820-03. GNSS surveys performed to provide control networks shall be performed in such a manner to obtain a ninety-five percent (95%) confidence level of the positional accuracy of each point relative to the published positions of the control points used ~~Rule 0820-03-.07(5) of this Chapter.~~
- (5) Differential Leveling Surveys. The surveying process in which a horizontal line of sight of known elevation is intercepted by a graduated standard, or rod, held vertically on the point being checked (does not apply to Trigonometric or GNSS ~~GPS~~ surveys).

- (a) Urban Differential Leveling Surveys. Leveling employed for commercial, industrial or urban land surveys shall be executed with an error of closure (Y) not to exceed in feet

0.5

$$Y = 0.04 \quad (M)$$

(Y equals 0.04 times the square root of M) Where Y = discrepancy in vertical measurement (in feet) and M = distance from datum reference (in miles).

- (b) Other Differential Leveling Surveys. Other leveling surveys shall be conducted with an error of closure (Y) not to exceed in feet

0.5

$$Y = 0.10 \quad (M)$$

(Y equals 0.10 times the square root of M) Where Y = discrepancy in vertical measurement (in feet) and M = distance from datum reference (in miles).

- (c) Agreement for Leveling Surveys. Prior to any type of Leveling Survey, including control for photogrammetric mapping, the Land Surveyor may determine and set forth in a written agreement with his client to perform a more accurate Leveling Survey and the general procedure to be employed.

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

0820-03-.06 Maps and Mapping is amended by deleting the language in its entirety and replacing language instead so that, as amended, the rule shall read:

0820-03-.06 Survey Plats ~~Maps~~ and Mapping

- (1) When a Land Surveyor furnishes a Survey Plat ~~or Survey Map~~, it shall be properly and accurately drawn, and should legibly depict information developed by and during the survey.
- (2) The size of the Survey Plat ~~or Survey Map~~ shall be such that details can be shown clearly and be of a size no less than 8.5"x11".
- (3) Preliminary documents must be clearly marked as such prominently on the face of the document. ~~The Land Surveyor has the professional discretion not to sign, stamp or seal any preliminary survey, documents, drafts, drawings, or composite drawings. In the compilation of a composite Survey Map or Survey Plat, the Land Surveyor shall indicate and cite the source of all lines copied from a previous source. In reference to Rule 0820-04-.08(2), working drawings or preliminary documents are not required to have a seal and signature if the working drawing or preliminary document contains a statement in large bold letters to the effect "PRELIMINARY, NOT FOR CONSTRUCTION, RECORDING PURPOSES, OR IMPLEMENTATION".~~
- (4) Property lines which are not actually surveyed must be clearly indicated as such on the Survey Plat ~~or Survey Map~~. A statement shall be included revealing the source of information from which the lines ~~are~~ is derived. In the compilation of a composite Survey Plat, the Land Surveyor shall indicate and cite the source of all lines copied from a previous source.

- (5) Unless containing a digital secure electronic signature and seal in reference to Rule 0820-04-.08(10), electronic or digital ~~Electronic~~ survey documents such as, but not limited to, CAD files, PDF ~~files~~ copies, and word processor ~~files or documents~~ or other digital media ~~emailed or digitally copied and/or other electronically forwarded information and documents~~ are considered "Preliminary" or "Draft" documents.
- (6) Pertinent information on the Survey Plat ~~or Survey Map~~ shall be correctly plotted to the scale shown or noted otherwise. Enlargement "Detail" of a portion of a Plat ~~or Map~~ is acceptable in the interest of clarity, where shown as inserts on the same sheet and/or with a description of where to find the "Detail" if it is located on another sheet of the same ~~Survey Map or~~ Survey Plat.
- (7) Visible and apparent rights-of-way, utilities, and roadways ~~shall be accurately located~~ where crossing or forming any boundary line of the property shall be accurately located and shown on the Survey Plat.
- (8) Easements evidenced by Record Documents which have been provided delivered to the Land Surveyor shall be shown. These include both those burdening and those benefiting the property surveyed, indicating recording information. If an ~~apparent~~ easement cannot be located, a note to this effect shall be included. Observable evidence of easements and/or servitudes of all kinds, such as those created by roads; rights-of-way; water courses; drains; or utilities on or across the surveyed property and on adjoining properties if they appear to affect the surveyed property, shall be located and noted. If the Land Surveyor has knowledge of any such easements and/or servitudes, not observable at the time of the survey, such lack of observable evidence shall be noted. Surface indications, if any, of underground easements and/or servitudes shall also be shown and noted. Where non-observable data is shown relative to existing utilities in reliance on apparent surface markings or available utility plans or the apparent surface indicators which are not visible to the Land Surveyor, a statement as to the source of the data shall be included on the ~~Survey Map or~~ Survey Plat as well as a note stating such data should not be relied upon without verification from the proper utility authority having jurisdiction.
- (9) Area: When a boundary is formed by a closed survey, the area shall be shown in acres and/or square feet. ~~Area is to be computed by double meridian distance or equally accurate method.~~ Area computations by estimation, planimeter, by scale, or copying from another source, ~~or non-accessible areas,~~ are not acceptable methods except in preliminary maps and non-accessible areas, in which case the method shall will be clearly stated. If the survey is a new/original tract or the area is different from the recorded area, then the survey must show the area of any closed surveyed tracts ~~or lots~~.
- (10) When using abbreviations and/or symbols, a thorough legend describing all ~~Unless necessary because of space or other limitations,~~ abbreviations and symbols used shall ~~should not~~ be included on the Survey Plat, used in land surveying work. ~~However, when it is deemed necessary, a thorough legend, describing all symbols and abbreviations used, shall be included on the Survey Plat or Survey Map.~~
- (11) The presence of a Land Surveyor's seal and personal signature upon the face of a Survey Plat or document shall constitute a certification that the Plat or document conforms to the minimum Standards of Practice for Land Surveying in Tennessee as defined by the Rules of the Tennessee State Board of Examiners for Land Surveyors.

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

Rule 0820-03-.07 Survey Types and Requirements is amended by deleting the language in its entirety and replacing language instead so that, as amended, the rule shall read:

A Land Surveyor shall comply with the minimum requirements provided below for all surveys and Survey Plats ~~or Survey Maps~~ prepared therefrom.

(1) General Property Surveys.

- (a) A ~~Survey Map or~~ Survey Plat shall be a copy, print or tracing on tangible media, and shall be dated, ~~and~~ stamped, or sealed and wet ink signed by a registered Land Surveyor, responsible for the survey in compliance with applicable law. This shall include surveys in an electronic format that contain the Land Surveyor's seal and a digital signature in reference to Rule 0820-04-.08(10).
- (b) A ~~Survey Map or~~ Survey Plat shall have a title and contain the following information:
1. A descriptive location of the property, surveyed or vicinity map, and a corner of the property surveyed must be tied by bearing and distance either:
 - i. to a corner of a subdivision.
 - ii. to a corner of the parent tract from which property is carved from.
 - iii. to a permanent identifiable corner.
 - iv. to a permanent identifiable reference point, or
 - v. to a nearest road intersection.
 - ~~• to a corner of a subdivision, or~~
 - ~~• to a tract from which property is carved, or~~
 - ~~• to a permanent identifiable corner, or~~
 - ~~• to a nearby permanent identifiable reference point~~

~~A corner of the property may be tied to the nearest road intersection by distance only.~~

In the case of a formation of a new tract, a tie must be made by bearing and distance to an identifiable corner of the parent tract.

2. The city or district, county, and the state where the property is located;
3. The name of the grantor or grantee of the property, or the name of the person or entity who requested or required the ~~Survey Map or~~ Survey Plat;
4. The date of the ~~Survey Map or~~ Survey Plat;
5. A graphic scale and numeral scale;
6. The name, registration number, address, company name (if applicable), email address, and telephone number of the Land Surveyor in responsible charge; and
7. A certification on the face of the final ~~Survey Map or~~ Survey Plat ~~as to the category of the survey and the ratio or precision of the unadjusted survey, which~~ shall contain ~~have~~ the following minimum content:

i. Certification as to Category I, II, III, or IV and that the survey meets or exceeds the accuracy requirements thereof.

- ~~• Certification as to the Category I, II, III, or IV;~~
- ~~• Ratio of Precision of the unadjusted survey;~~
- ~~• Statement that the survey was done in compliance with current Tennessee Minimum Standards of Practice;~~
- ~~• Signature; and~~
- ~~• Registration number.~~

- (c) ~~A~~ ~~The~~ north arrow shall be shown correlated with the courses, azimuths and/or bearings to which the survey was performed ~~shown, and shall be correlated with, the courses or bearings,~~ with the source of reference clearly indicated.
- (d) All ~~property~~ lines shall be defined by horizontal distances, azimuths, and/or ~~and~~ bearings, and shall be plotted to the scale shown on the Survey Plat. Units of distance (U.S. survey feet, international feet, meter, etc.) used for the survey shall be noted on the Survey Plat. ~~in the title block.~~
- (e) Where a boundary is formed by a curve curved line, the curve shall be defined by the arc with the length, and radius of each curve, together with elements necessary to mathematically define each curve radius, in the description. ~~When intersecting boundary lines are non-radial or nontangential, the long-chord bearing, and long chord distance, distance shall be shown.~~
- (f) The Land Surveyor shall show and label the widths and/or center lines ~~center lines~~ of easements and rights-of-way within the property which are obvious and apparent. ~~The to him and also the~~ survey shall be completed using the relevant recorded deeds to the property, and include pertinent information as ~~but shall show pertinent information, such as easements, joint driveways, etc. as~~ described in Rule 0820-03-.06(7).
- (g) Boundaries formed by water course shall be located and plotted to the scale of the survey shown in the Survey Map or Survey Plat title block. Traverse lines and/or offset lines used to close water course boundaries shall be shown plotted to scale and defined by interior angle, azimuth, and or/ bearing and distance.
- (h) Monumentation requirements:
1. New property monuments, including reference monuments, shall be composed of material(s) suitable to perpetuate the position and location of the monument. A notation on the ~~Survey Map or~~ Survey Plat shall state whether the monuments were found or set, and include the ~~in addition, the statement shall indicate the~~ material and size ~~of the monument found or set.~~
 2. Metal monuments shall be no less than one-half (½) inch in diameter; concrete monuments shall be no less than four (4) inches on each side or in diameter and shall contain ferrous or magnetic material; and both shall be no less than eighteen (18) inches in length unless some impenetrable material is encountered.

3. ~~The type of monument (old or new) shall be indicated on the Survey Map or Survey Plat along with the size and type of material.~~ No monument should be set placed if, in the opinion of the Land Surveyor, the existing ~~monument is~~ monument, whether original or not, is found undisturbed and adequate to perpetuate the corner position and can be reasonably made to conform to the angle point in the boundary. Large or indefinite monuments which cannot be measured to within the positional accuracy requirements contained herein, such as trees, rock piles or fence corners, ~~may will~~ be marked with reference monuments ~~witness monuments~~ as deemed necessary by the Land Surveyor.
 4. When conditions warrant setting a reference for a monument on an offset, the location shall be selected so that the monument ~~reference~~ lies on a line of the survey, or a prolongation of such line.
 5. New metal or concrete monuments ~~set placed~~ shall have an identifying mark or a cap with the Land Surveyor's registration number or company name permanently fixed stamped upon it. ~~Concrete monuments in the case of placement of a concrete marker, the marker~~ shall have a permanent mark for the survey point ~~and shall have the Land Surveyor's registration number or company name attached or stamped upon it.~~
 6. Survey points that do not divide land ownership, such as point of intersection (P.I.), centerline of water course, etc. may be established with or without monumentation at the Land Surveyor's discretion. Newly created and/or existing public right of way is/are excluded and shall comply with the monumentation requirements herein.
- (i) In the compilation of a composite ~~Survey Map or~~ Survey Plat, the Land Surveyor shall indicate and cite the source of all lines copied from a previous survey on the ~~Survey Map or~~ Survey Plat, and qualify the ~~Survey Map or~~ Survey Plat as prepared from other sources and does not represent a current survey. A composite Survey Plat may not be used for the creation of a new parcel from within a parent tract when produced in conjunction with TCA 13-4-301(4)(A) and/or TCA 13-4-301(4)(B)(i).
 - (j) The names of adjoining land owners and deed references, if available from the county ~~at the~~ property assessor's office. This shall include lot ~~office, and/or lots~~ and/or block numbers, and highways, streets, and named waterways ~~shall be shown.~~
 - (k) The point of beginning (POB) in the metes and bounds description prepared by the Land Surveyor shall be shown on the ~~Survey Map or~~ Survey Plat ~~of the survey~~ (except in the case of a subdivision plat).
- (2) Topographic Surveys.
- (a) A ~~Survey Map or~~ Survey Plat shall be a copy print or tracing on tangible media, and shall be dated, ~~and~~ stamped, or sealed, and signed by the registered Land Surveyor responsible for the survey, in compliance with applicable law.
 - (b) A ~~Survey Map or~~ Survey Plat shall have a title and contain the following information:
 1. A descriptive location of the property surveyed or a vicinity map;

2. The city or district, county, and the state where the property is located;
 3. The name of the grantor or grantee of the property, or the name of the person or entity who requested the ~~Survey Map or~~ Survey Plat;
 4. The date of the ~~survey or Survey Map or~~ Survey Plat;
 5. A graphic scale and a numerical scale; and
 6. The name, registration number, company name (if applicable), email address, telephone number, and address of the Land Surveyor in responsible charge.
- (c) A north arrow shall be shown correlated with the horizontal datum, courses, azimuths, and/or bearings to which the survey was performed, with the source of reference clearly indicated.
- (d) Property lines, if shown on the Topographic Survey ~~topographic map~~, shall be shown as needed and/or as deemed necessary by the Land Surveyor and shall be plotted to the scale ~~shown~~ of the Survey Plat. If shown, the following shall also be included: in the title.
1. The Land Surveyor shall show and label the widths and/or centerline of easements and rights-of-way which are obvious and apparent;
 2. The cite and the source of any lines copied from other sources; and
 3. The names of adjacent land owners, deed references, block numbers, highways, streets, and named waterways.
- ~~(e) The Land Surveyor shall show the widths of the easements and rights-of-way which are obvious and apparent to him;~~
- ~~(f)~~(e) If limits of the topographic survey are formed by water course, then the water course shall be located and plotted to the scale shown in the title.
- ~~(g) The Land Surveyor shall indicate and cite the source of any lines copied from previous sources.~~
- ~~(h) The names of adjacent land owners, deed references, block numbers, highways, streets and named waterways shall be shown if applicable.~~
- ~~(i) Topographic Topography Surveys shall be referenced to a boundary line or to a point and/or line of reference only as deemed appropriate by the Land Surveyor.~~
- ~~(j)~~(f) Visible, obvious, and apparent surface indications of physical features such as utilities, buildings, water bodies, etc. shall be shown and plotted to the scale of the Survey Plat ~~shown in the title.~~
- ~~(k)~~(g) Elevations shall be shown as spot elevations and/or contours. The contour interval shall be noted and shall meet national mapping accuracies.
- ~~(l)~~(h) An on-site project vertical benchmark ~~bench-mark~~ shall be established with reference to the project vertical datum, ~~;~~ The benchmark location shall be shown,

adequately described, ~~assumed or otherwise,~~ and plotted to the scale of the Survey Plat shown in the title block. The vertical datum referenced shall be noted on the face of the Survey Plat.

~~(m)~~(i) If contours, elevations, and/or features are generated by remote sensing methods, ~~the~~ The registered Land Surveyor in responsible charge of the ground control shall certify, sign, stamp, or seal the ~~Survey Map or~~ Survey Plat for the ground control portion of the survey.

(3) Oil and Gas Well Location Surveys.

- (a) Oil and gas well location surveys must be made in compliance with the provisions of T.C.A., Title 60, Chapter 1, and the rules of the Tennessee State Oil and Gas Board (Chapters 1040-01-01 through 1040-08-01).
- (b) Where surveyed lines or areas must be located or calculated, they must also comply with the accuracy standards set forth in Rule 0820-03-.05 of this chapter for the category in which the survey is located.
- (c) The ~~Survey Map or~~ Survey Plat shall have a title and contain the same information as required under this Chapter relative to General Property Surveys.

(4) Geodetic Control Surveys (GCS).

- (a) All Geodetic Control Surveys must be made in accordance with the Federal Geodetic Control Standards (F.G.C.S.). Horizontal and vertical control work must meet or exceed those accuracy specification standards as published by the Federal Geodetic Control Committee, September 1984, in the bulletin titled "Standards and Specification for Geodetic Control Networks" or any subsequently published bulletins modifying such class standards. Copies of said bulletins may be obtained from the United States Department of Commerce.
- (b) The ~~Survey Map or~~ Survey Plat shall have a title and contain the same information as normally would be required under this Chapter for General Property Surveys.
- ~~(c) It shall be acceptable practice to incorporate the use of Global Positioning Systems (commonly known as GPS) equipment into any survey. The precision of all measurements made with such equipment must, at a minimum, meet all precision standards required otherwise by applicable state law. When using GPS equipment in the course of a survey, the Land Surveyor shall state on the face of the Survey Plat, or within the report in cases where this no Survey Plat, the following:~~
 - ~~1. A note stating what portion (or all) of the survey was performed using GPS equipment;~~
 - ~~2. The type of GPS equipment used including manufacturer and model number, and whether single or dual frequency receivers were used;~~
 - ~~3. The type of GPS survey that was performed, such as static, real time kinematics ("RTK"), network adjusted real time kinematics, etc.;~~4
 - ~~4. A note that discloses the precision of the GPS work done, either in relative positional accuracy, vector closure, or other mathematical expression chosen by the Land Surveyor; and~~

- ~~5. The registered Land Surveyor in responsible charge of such GPS survey shall date, stamp or seal and sign the prepared documents in compliance with all applicable law.~~

(5) Remote Sensing Surveys.

(a) Minimum Standards for Remote Sensing Surveys.

When using GNSS equipment in the course of a survey, the Land Surveyor shall state on the face of the Survey Plat, or within the report in cases where there is no Survey Plat, the following:

1. The Land Surveyor in responsible charge of such GNSS surveys shall date, stamp, or seal and sign the prepared documents in compliance with all applicable law;
2. A note stating what portion (or all) of the survey was performed using GNSS equipment;
3. The type of GNSS equipment used, including manufacturer and model number, and whether single or dual frequency receivers were used;
4. The type of GNSS survey that was performed, such as static, real time kinematic (RTK), network adjusted real time kinematics, etc.;
5. A note that discloses the precision of the GNSS work done, either in relative positional accuracy, vector closure, or other mathematical expression chosen by the Land Surveyor;
6. Date of the survey;
7. Data for any fixed station(s) used for the GNSS survey shall appear on the Survey Plat or report. The minimum data shown for each fixed station shall include the fixed station name, horizontal position (defined by northing/easting or latitude/longitude), elevation (ellipsoid or orthometric), datum and epoch;
8. Geoid model used; and
9. Combined scale factor.

~~(a) Global Positioning System (GPS) surveys are defined as any survey performed using the GPS three-dimensional (3D) measurement system based on satellite observation signals. GPS surveys include, but are not limited to: General Property Surveys; Topography Surveys; Oil and Gas Surveys; Local Control Surveys; Network Surveys; Construction Surveys; Geodetic Control Surveys; Aerial Photography Control Surveys; Geographic Information Systems and/or Land Information Systems Data Collection Surveys and any other application listed with the Board's specifications shall be performed by a Land Surveyor licensed in Tennessee. Minimum Standards from Remote Sensing Surveys are as follows:~~

- ~~1. Static GPS Surveys - The Land Surveyor must use the current GPS standards as set by the Board.~~

2. ~~Real Time Kinematic (RTK) Surveys – The Land Surveyor must use the current GPS standards as set by the Board.~~

(6) Hydrographic Surveys (also referred to as Bathymetric Surveys).

(a) Hydrographic surveying is the term applied to the process used in surveying any body of water. In the case of lakes and rivers, this may include the determination of shore lines, soundings, characteristics of the bottom, location of buoys, etc. The survey of a river may also include the determination of the velocity and characteristics of the flow. In its broad sense the term may be applied to the survey of drainage areas and proposed locations for reservoirs for the storage of water. Hydrographic Surveys ~~maps~~ shall be prepared as follows:

1. A ~~Survey Map or~~ Survey Plat shall be a copy, print or tracing, on tangible media and shall be dated, ~~and~~ stamped, or sealed and signed by the registered Land Surveyor responsible for the survey, in compliance with all applicable law.
2. The ~~Survey Map or~~ Survey Plat shall have a title and contain the same information as normally would be required under this Chapter for Topographic Surveys.
3. In addition to the above required data, the ~~Survey Map or~~ Survey Plat shall show the shore line, designated with the heaviest line on the ~~Survey Map or~~ Survey Plat, and the low-water line designated with the next heaviest line on the ~~Survey Map or~~ Survey Plat.
4. Topography to be shown outside the shore line shall be determined by the use for which the ~~Survey Map or~~ Survey Plat is intended, and requested in writing by the client. Topography of the submerged portions shall be shown with a dashed line.
5. Hydrographic charts prepared for purposes of navigation shall include sufficient topography to show the location of any landmarks which may be of use to the navigator, such as conspicuous objects on the shore.
6. Sufficient survey control points shall be shown on the ~~Survey Map or~~ Survey Plat ~~in order~~ for the survey to be tied to other maps or adjacent surveys.
7. Where soundings are represented on the ~~Survey Map or~~ Survey Plat, they shall be shown in feet and tenths of a foot in black, the number representing the depth of the water below the datum. Where the datum is mean low water, these soundings which are below shall be shown in black, and those that are above the datum shall be shown in another color or method of line designation.
8. In preparation of the navigation chart of a small river the soundings shall be recorded in feet and tenths of a foot, and contours drawn every three (3) or six (6) feet. The direction of the current shall be shown with an arrow. Rapids or waterfalls shall be shown on the ~~Survey Map or~~ Survey Plat when encountered in the survey.

(b) Hydrographic surveys must conform to the above minimum standards if no other more stringent standards or specifications are provided by the client, or other

standards are required by the jurisdiction of the U.S. Corps of Engineers, or other legal authority, in the area where the survey project is located.

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

Rule 0820-03-.08 Marking of Property Boundaries is amended by adding the following language so that, as amended, the rule shall read:

The marking of lines between corners is not a requirement of a General Property Survey; however, if needed, contracted, or requested, the marking shall be the responsibility of the registered Land Surveyor who performs the survey. The marking of property corners shall comply with Subparagraph 0820.03-.07(1)(h) of this Chapter.

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

Rule 0820-03-.09 Land Descriptions is amended by deleting the language in its entirety and replacing language instead so that, as amended, the rule shall read:

- (1) Terminology. The following terminology shall be used in land descriptions:
 - (a) "Beginning" shall mean a well-defined, readily located and permanent point or monument which is both the starting point and final point for a written metes and bounds description.
 - (b) "Boundary line" shall mean an adequately dimensioned and described line or curve ~~(which may be straight, irregular, circular or spiral)~~ bounding an area or dividing separate properties.
 - (c) "Conveyance" shall mean the act of transferring title or rights in a property.
 - (d) "Coordinate description" shall mean a description of lands in which the angle points or other points in the boundary are each referred to grid coordinates on the Tennessee or similar coordinate system.
 - (e) "Description by lot number" shall mean a description which identifies a lot or tract of land ~~by~~ be reference to book and page or recorded instrument numbers of a county register in which a ~~Survey Map or~~ Survey Plat is recorded with other pertinent information.
 - (f) "Grantor" shall mean a person or party conveying property or rights therein to a grantee.
 - (g) "Grantee" shall mean a person or party receiving title to or rights in property.
 - (h) "Grid coordinates" shall mean distances measured at right angles to each other in a rectangular system having two base lines at right angles to each other.
 - (i) "Metes and bounds description" shall mean a written description in which the boundary lines starting from a given point are described by listing the direction, distance and description of corners of the lines and/or curves forming the boundary.
 - (j) "Title" shall mean a written claim or right which constitutes a just and legal cause of exclusive possession.

- (2) Preparation. The Land Surveyor may prepare ~~the land description in~~ a written land description land survey, but shall not engage in the writing of a deed. In the preparation of a land description, the Land Surveyor shall include within the ~~on the~~ document their full ~~his full~~ name, ~~his~~ registration number, and the date of the survey from which the information was procured (or the book and page numbers of the recorded ~~Survey Map~~, Survey Plat or deed, if used in preparing the description).
- (3) Content.
 - (a) In the description by a lot number of a lot located in a subdivision ~~by number~~, the following information shall appear: the name of the subdivision; the general location of the property to include the city, county, and state, the lot number, the name of the subdivision plat, Survey Map or Survey Plat referred to; the Land Surveyor's name; the general location of the property and the book and page number of the subdivision plat, and the county register's office ~~register~~ in which the subdivision plat ~~lot~~ is recorded.
 - (b) A metes and bounds description shall include the general location of the property being described ~~tract or lot~~ with sufficient accuracy so that the property ~~tract can~~ be readily located on the ground. The beginning point must be so selected that it can readily and accurately be located from some previously established monument, corner of record, etc., and can be readily described. The description shall include the names of adjoining property owners and/or a reference to any adjoining lots within a plat of record. The description shall include all found/set corner monuments and/or reference monuments, the monument or marker if found or placed and each shall be described by size, ~~material~~, and material ~~whether found or placed~~. A metes and bounds description shall describe a course around the property in a tract or lot in a clockwise direction. All lines adjacent to streets, roads or other rights-of-way shall be referenced to same; and all pertinent distances and curve data shall be listed. Curves shall be defined at a minimum by the arc length, curve radius, long chord bearing and long chord distance. Chord bearing and distance shall be included in all curb descriptions. All c ~~Chord bearing and distance shall be included in all curb descriptions. All c~~ Corners falling in ~~roads or other~~ inaccessible locations shall be referenced to nearby and permanent points.

Authority: T.C.A. §§ 62-18-105(d) and 62-18-106(c).

Rule 0820-03-.11 Global Position System Surveys is amended by deleting the text of the rule in its entirety and substituting instead language so that, as amended, the rule shall read:

0820-03-.11 ~~Repealed. Global Position System Surveys.~~

- ~~(1) Global Positioning Systems (GPS) are defined as the navigation and positioning systems that comprise the Global Navigation Satellite System (GNSS), which includes NAVSTAR, GLONASS, GALILEO, COMPASS, and any other satellite-based navigation and positioning systems.~~
- ~~(2) The professional Land Surveyor in responsible charge of the GPS survey shall note on all prepared documents the following information. When a map or document consists of more than one (1) sheet, only one (1) sheet must contain the notes.~~
 - ~~(a) Type of GPS field procedure, such as Static, Kinematic, Pseudo-Kinematic, Real-time Kinematic, Real-time Kinematic networks, and Online Position User Service;~~

- ~~(b) Relative positional accuracy or other mathematical expression as chosen by the Land Surveyor;~~
 - ~~(c) Dates of survey;~~
 - ~~(d) What datum and epoch coordinates or geographic positions are based on;~~
 - ~~(e) Designation of fixed control stations and their positional data;~~
 - ~~(f) Geoid model used; and~~
 - ~~(g) Combined grid factor(s).~~
- ~~(3) GPS surveys performed to provide control networks shall be performed in such a manner to obtain a ninety-five percent (95%) confidence level of the positional accuracy of each point relative to the published positions of the control points used.~~
- ~~(4) Fixed station(s) used for the project shall appear on the map, plat, or report. The minimum data shown for each fixed station shall be station name, horizontal position (northing and easting) or latitude, longitude, elevation (ellipsoid or orthometric), and datum and epoch.~~

Authority: T.C.A. § 62-18-106(c).

I certify that the information included in this filing is an accurate and complete representation of the intent and scope of rulemaking proposed by the agency.

Date: _____

Signature: _____

Name of Officer: Stuart Huffman

Title of Officer: Associate General Counsel

Department of State Use Only

Filed with the Department of State on: _____

Tre Hargett
Secretary of State