

# **Recommended Guidelines for the Practice of Land Surveying in South Dakota**

This document was prepared by the South Dakota Society of Professional Land Surveyors and is intended to provide recommended guidelines for the practice of land surveying in the State of South Dakota.

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# Table of Contents

		<b>Page</b>
<b>Section 1</b>	<b>Introduction</b> .....	<b>1</b>
<b>Section 2</b>	<b>Definitions</b> .....	<b>1</b>
<b>Section 3</b>	<b>Procedural Outline</b> .....	<b>2</b>
	3.1 Determine the Scope of the Job	
	3.2 Evidence of Land Descriptions	
	3.3 Evaluation of Capabilities	
	3.4 Acceptance of the Project	
<b>Section 4</b>	<b>Technical Specifications</b> .....	<b>3</b>
	4.1 Records and Research	
	4.2 Accuracy Standards for Property Boundary Surveys	
	4.3 Monumentation	
<b>Section 5</b>	<b>Technical Outline for Boundary Surveys</b> .....	<b>5</b>
	5.1 Preliminary Record Research and Investigation	
	5.2 Analysis of Research and Preliminary Conclusions	
	5.3 Field Investigation	
	5.4 Conclusions	
<b>Section 6</b>	<b>Standards for Classification of LIS/GIS Surveys</b> ..	<b>6</b>
	6.1 General	
	6.2 Responsibilities of Land Surveyor in Charge	
<b>Section 7</b>	<b>GPS Survey Guidelines</b> .....	<b>7</b>
	7.1 General	
	7.2 Responsibilities of Land Surveyor In Charge	
	7.3 Minimum Procedures for First or Second Order GPS Surveys	
<b>Section 8</b>	<b>Graphic Representation of Survey Results</b> .....	<b>10</b>
	8.1 Record of Survey	
	8.2 Title Surveys	
	8.3 Mortgage Loan Inspections	
	8.4 As-Built Surveys	
	8.5 Topographical Surveys for Mapping	
	8.6 Site Plans	
	8.7 Compiled Map	
<b>Section 9</b>	<b>Land Surveys, ROW Plats and Subdivision Plats</b>	<b>16</b>
<b>Section 10</b>	<b>Legal Land Descriptions</b> .....	<b>16</b>
<b>Section 11</b>	<b>Survey Reports</b> .....	<b>17</b>
<b>Section 12</b>	<b>Certifications</b> .....	<b>17</b>
<b>Section 13</b>	<b>Data Preservation</b> .....	<b>17</b>

## **Section 1 Introduction**

In order to promote safeguards for property, and to promote public welfare, a manual of *Recommended Guidelines for the Practice of Surveying in the State of South Dakota* is hereby adopted.

All persons, in either public or private capacity, practicing or offering to practice Land Surveying as defined in South Dakota Codified Law Chapters 36-18 are charged with having knowledge of the existence of these recommended guidelines, and shall be deemed to be familiar with the provisions thereof and to understand them.

The standards for surveying contained herein are recommended for all surveys relating to the establishment or retracement of property boundaries in the State of South Dakota, whether on public or private lands. These recommended guidelines shall apply to every survey performed in this state.

It is anticipated that these standards will assist in meeting public needs as follows:

1. That the property be mapped in a manner that can be understood by the user.
2. That the newly created parcels be properly described.
3. That, if a retracement survey, the client be made aware of gaps and/or overlaps, and encroachments with adjoining properties that are known to the surveyor.
4. That the monuments placed can be readily located for a reasonable period of time by the land owner and other surveyors.
5. That the precision and resulting accuracy of the survey be such that if a monument is destroyed it may be replaced within the standards prescribed herein.

This document intends to provide the land surveyor and the users of land surveys with a realistic and prudent standard of adequate surveying performance. The Land Surveyor will continue to exercise individual skill, discretion and judgment in each specific task he or she performs.

## **Section 2 Definitions**

The Land Surveyor should refer to *South Dakota Codified Laws, Definitions of Surveying and Associated Terms* by the American Congress on Surveying and Mapping and the American Society of Civil Engineers, latest edition thereof, and the *BLM Manual of Surveying Instructions, 1973*.

## **Section 3      Procedural Outline**

### **3.1)    Determine the Scope of the Job**

1. The Land Surveyor serves the client faithfully. The Land Surveyor should question the client in sufficient detail to obtain an understanding of the client's need and requirements. If it is necessary to obtain additional information the client has not supplied, the Land Surveyor should advise the client that such information must be furnished or obtained prior to determining the necessary services.

### **3.2)    Evidence of Land Descriptions**

1. Tax statements are usually inadequate evidence of a proper land description. Abstracts, deeds, Certificates of Title, title opinions, title binders or combinations thereof are better evidence of proper land descriptions. The Land Surveyor should request additional information that may be available on such matters as prior surveys, easements, or other encumbrances.
2. It may be necessary for the Land Surveyor to obtain legal descriptions of adjoining in the area. Prior to commencing the survey, Land Surveyors can be expected to exercise reasonable care during record research, but cannot be held liable for errors or omissions caused by defects in the chain of title for the property being surveyed, or that of the adjoining. Title defects may be revealed through an examination of title by those professionals trained and experienced in this area.

### **3.3)    Evaluation of Capabilities**

1. It is the Land Surveyor's responsibility to determine whether he or she is properly qualified, or has the proper knowledge, experience, personnel, equipment and resources available to undertake the contemplated project. Having appraised the problem and evaluated the foregoing criteria, the Land Surveyor should plan a method of operation to accomplish the intended purpose of the land survey.

### **3.4)    Acceptance of the Project**

1. For the mutual protection of both client and Land Surveyor, the Land Surveyor should prepare and supply the client or his agent with a memorandum, letter of confirmation of work ordered, or contract for the project. The Land Surveyor should also establish with the client the extent of any known limitations to the Surveyor's professional liability and responsibility.

## **Section 4      Technical Specifications**

### **4.1)      Records and Research**

1. When a land survey is to be conducted, it is incumbent upon the client to provide a land description of the property to be surveyed. A tax statement or a purchase agreement is usually not adequate. Also the Land Surveyor should consult other sources of information in order to assemble the best possible written evidence of the corners and lines of the property being surveyed. Important records include, but are not limited to:

deeds, records of previous surveys; land descriptions of adjoining properties; records of nearby highways, railroads and utilities; records of applicable public agencies, e.g., subdivision plats, section mapping, aerial photographs, quadrangle and other topographic maps, and other private sources as may be available.

After all written documents have been analyzed, the Land Surveyor shall conduct a field investigation of the property. The Land Surveyor shall make a thorough search for all monumentation, note evidence of occupation and obtain parole testimony as he deems it necessary to substantiate unrecorded historical evidence recovered at the site.

### **4.2)      Accuracy Standards for Property Boundary Surveys**

1. The land surveyor shall select the proper equipment and method necessary to achieve either the required relative position tolerance, required radial survey measurement tolerance or required traverse closure.
2. The relative position tolerance and traverse closure at sixty-eight percent (68%) confidence level shall be one-tenth of a foot (0.10') or 1:10,000 for distances greater than one thousand feet (1000').

### **4.3)      Monumentation**

1. Every boundary survey performed in South Dakota shall be monumented, or witness monumented, at all boundary corner locations. All corners shall be marked with a physical monument of a permanent and easily distinguishable type or character, and set in a manner providing a degree of permanency consistent with that of adjacent terrain and physical features. Monuments set by a Land Surveyor shall be made of durable material and should include an element that makes it possible to detect the monuments by means of some device for finding ferrous or magnetic objects. Monuments set by a Land Surveyor shall bear a cap with the identification of the Land Surveyor by his registration number.
2. Monuments may be any of a large assortment of markers including iron pipe, cast concrete, cast iron, iron rods or pins, chiseled crosses, etc. Wood stakes shall not be used as monuments. Also, small rods and masonry nails are to be used only in such cases in which it is impossible to set a more substantial monument and shall be noted as such on the Record of Survey.
3. Examples of acceptable monuments would be:

- a) Steel rebar: ½ inch diameter or larger a minimum of 18” long with properly stamped survey cap.
  - b) Steel pipe: ½ inch inside diameter or larger a minimum of 18” long with properly stamped survey cap.
  - c) Concrete markers: minimum of 4 inch diameter or 4 inch square, a minimum of 18” long and buried in the ground, with a rebar or metal pipe and properly stamped cap encased in the concrete.
  - d) A drill hole, or a clearly scribed or chiseled mark, in existing concrete or stone. This shall only be used if it is totally impractical to set any other type of monument. If it is necessary to use this type of mark, it must be accompanied by a witness mark or reference ties to existing features.
  - e) A 3" hardened steel spike with a washer properly stamped with the LS number is acceptable in paved surfaces where other monuments are impractical.
4. “Witness Monumentation” refers to the setting of offset corners when it is not possible or practical to set the actual corner. For example, in business sections of urban areas, buildings may be erected upon the property line. In such cases, chiseled crosses could be set on the extension of the lot lines at a convenient distance from the true corner. In such cases where the placement of a required monument at its proper location is impractical, it shall be permissible to set a reference monument close by the point, and if such reference monument is set, its location shall be properly shown on the plat of the survey. When conditions warrant setting a monument on an offset, the location shall be selected so the monument lies on a line of the survey or on the prolongation of such line. Offsets shall not be in fractional feet unless a physical obstruction affects their location.
5. It is recommended that all monuments be prominently marked by the Land Surveyor in such a manner as to enable the client to easily find the monument. The markings should be appropriate to the conditions and vegetative cover, and may range from paint on pavement in urban areas, to substantial wood stakes. The Land Surveyor should caution the client on the value and importance of his boundary monuments and recommend various methods whereby they can be protected and preserved. Also caution the client on the legal ramifications of moving or damaging a monument and/or noticing any disturbance by other parties.

## **Section 5      Technical Outline for Boundary Surveys**

### **5.1) Preliminary Record Research and Investigation**

### **5.2) Analysis of Research and Preliminary Conclusions**

The Land Surveyor should:

1. Examine and analyze data obtained.
2. Form preliminary conclusions.
3. Plan procedure for performing the field survey.

### **5.3) Field Investigation**

The Land Surveyor should:

1. Search for, locate and identify monuments and other real evidence that may affect the survey.
2. Investigate direct and circumstantial parol evidence, identify obliterated control monument positions and take testimony when possible.
3. Take necessary measurements to correlate found evidence.
4. Where relevant, locate occupation between adjoining.
5. Record information in appropriate form.
6. Conduct the survey in the field with appropriate equipment and procedures. (See Section 4)

### **5.4) Conclusions**

The Land Surveyor should:

1. Make computations to verify measurements.
2. Evaluate the evidence.
3. Contact the other Land Surveyor when his or her work does not agree with that being done. The disagreement should be investigated and resolved if possible.
4. Apply the proper theory of location in accordance with law or precedent, using the *BLM Manual of Surveying Instruction of Public Lands* in use at the time of the original survey as a guide when appropriate.
5. Set appropriate monuments to delineate the boundary lines surveyed. (See Section 4)
6. Prepare a Record of Survey showing the results of the boundary survey. The Record of Survey should be accompanied by a written Survey Report when appropriate. (See Section 11)

## **Section 6                      Standards for Classification of LIS/GIS Surveys**

### **6.1)    General**

Land Information System / Geographic Information System (LIS/GIS) surveys are defined as the measurement of existing surface and subsurface features for the purpose of determining their accurate geospatial location. All LIS/GIS surveys shall be performed under the direction of a Land Surveyor. For the purpose of specifying minimum allowable surveying standards, three general classifications LIS/GIS surveys are established:

1. Urban and Suburban LIS/GIS surveys (Class A). Urban and suburban LIS/GIS surveys include the location of features within lands which lie in or adjoining a town or city. For Class A LIS/GIS surveys, the relative accuracy shall be equal to or less than 1.2 meters (4.0 feet)  $2\sigma$  RMS.
2. Rural LIS/GIS surveys (Class B). Rural LIS/GIS surveys include the location of features within lands that lie outside of suburban areas. For Class B LIS/GIS surveys, the relative accuracy shall be equal to or less than 2.5 meters (8.20 feet)  $2\sigma$  RMS.
3. Regional LIS/GIS surveys (Class C). Regional LIS/GIS surveys include the location of features within lands that lie in multi-county areas. For Class C LIS/GIS surveys, the relative accuracy shall be equal to or less than 5 meters (16.40 feet)  $2\sigma$  RMS.

### **6.2)    Responsibilities of the Land Surveyor in Charge**

The Land Surveyor in responsible charge of the LIS/GIS survey shall certify to all of the following in either written or digital form:

1. Class of LIS/GIS survey.
2. Method of measurement (ie, global positioning system, theodolite and electronic distance meter, transit and tape).
3. Date(s) of the survey.
4. Datum used for the survey.

## Section 7                    GPS Survey Guidelines

### 7.1)    **General**

Global Positioning System (GPS) surveys are defined as any survey performed by using the GPS 3-dimensional measurement system based on observations of the radio signals of the Department of Defense's (Navigation Satellite Timing and Ranging) GPS System. All GPS boundary and geodetic control surveys shall be performed under the direction of a Land Surveyor.

### 7.2)    **Responsibilities of Land Surveyor in Charge**

The Land Surveyor in responsible charge of the GPS survey shall sign and seal all prepared documents. When a map or document consists of more than one sheet, only one sheet must contain the certificate. However, all maps or drawings consisting of more than one sheet shall be signed and sealed on each sheet. The certificate shall contain the following information:

1. Class of GPS survey, as defined by Federal Geodetic Control Subcommittee (FGCS).
2. Type of GPS field procedure (Static, Kinematic, Real Time Kinematic, Pseudo-Kinematic).
3. Type of adjustment used.
4. Date(s) of survey.
5. Type and model of GPS receivers used.
6. What datum coordinates or geographic positions are based on.

The certificate may be substantially in the following form:

"I, \_\_\_\_\_, declare that this map was drawn under my supervision from an actual GPS survey made under my supervision and that I used \_\_\_\_\_ GPS field procedures. Coordinates were obtained by \_\_\_\_\_ adjustment. This survey was performed on \_\_\_\_\_ using \_\_\_\_\_ (number) \_\_\_\_\_ (type) of receivers and all coordinates are based on \_\_\_\_\_.

### 7.3)    **Minimum Procedures for First and Second Order GPS Surveys**

The following guidelines prescribe the minimum procedures that should be used for first or second order GPS surveys:

1. Direct connections must be made to any adjacent observable National Geographic Reference System (NGRS) and/or South Dakota HARN station located five kilometers (5 km) or less from any new station.
2. At least three (3) existing higher or equal order control points must be included in any proposed Global Positioning System (GPS) survey. Whenever possible these should be three (3) 3-d control points. Otherwise, two (2) sets of three (3) points (three 2-d horizontal points and three vertical control points) must be used. These control points should

be chosen to be roughly equidistant on the periphery of the network so that they enclose as much of the proposed network as possible.

3. Each new point to be established by the proposed GPS survey must be occupied at least two (2) separate times to enable proper checking of blunders (for example, incorrect point, setup errors, incorrect antenna heights). A separate occupation is one where the antenna has been taken down and set up again and the receiver restarted.
4. Each point must be connected by simultaneous occupations (that is, base line) to at least three (3) other points in the network after outlier base lines have been rejected from the adjustment. Because it is generally easier to resolve the integer phase ambiguities over shorter base line, adjacent points should be connected wherever possible.
5. At least two (2) receivers must be used for relative positioning, although three (3) or more may be used for more efficient operation and increased station reoccupation and base line repeatability.
6. A preanalysis should be performed to determine the minimum occupation time required to achieve the required standard of accuracy. In addition, the most appropriate satellites to observe at each site should also be selected for receivers unable to track all of the “visible” satellites. The preanalysis should be specific for carrier phase relative positioning.
7. In order to meet second order accuracies, the carrier beat phase must be observed together with a time tag for each observation. Pseudo-range observations are not precise enough for control surveys and cannot be used.
8. A detailed field log must be kept during observations taken at each station. At the very least, the following information must be recorded:
  - a. Universal Time Correction (UTC) date of observations;
  - b. Station identification (name and number);
  - c. Session identification;
  - d. Serial numbers of receiver, antenna, and data logger;
  - e. Receiver operator;
  - f. Antenna height and offset from monument, if any, to one millimeter (1 mm). Note should be made of any deviation from standard method of measuring HI;
  - g. Diagram illustrating stamping on the monument;
  - h. Other stations observed during session;
  - i. Starting and ending time (UTC) of observations;
  - j. Satellites observed (including time of changes); and
  - k. Completed field log data forms should be maintained for each station occupation.

9. Station description information must be documented for each station occupied. Station descriptions must include station name, county, township, range, section, United States Geological Survey (USGS) 7.5' quadrangle name, date monumented, date of observations, complete descriptions of the station, azimuth and all reference monuments, a current "to reach" description, and any special information such as property owner name, address, and phone number. A sketch depicting the station and reference marks with dimensions and directions shown should accompany all narrative data.
10. If the GPS survey project includes any surveys using conventional or terrestrial horizontal surveying techniques, copies of all field notes and associated data must be maintained.
11. When the GPS survey project includes surveys performed using conventional differential leveling techniques, copies of all field notes and associated data must be maintained. An example of this would be a vertical tie from a non-occupied benchmark to a GPS station.
12. A tabulation of the results of the repeat base line comparisons should be included in the project report.
13. A minimally constrained (free) least squares, three dimensional (3-d) adjustment must be performed and documented.

## **Section 8      Graphic Representation of Survey Results**

### **8.1)    Record of Survey**

A record of survey within the purpose and intent of this document is defined as a graphic representation of any parcel or tract of real property whose primary purpose is to show the results of a boundary survey. Records of Survey shall be neatly drawn to a convenient scale; contain proper linear and angular dimensions; show the method of orientation or basis of bearing; correctly designate lines; contain pertinent physical features (natural, artificial or both); and include other data and information developed by and during the survey that is pertinent, relevant, or important to the boundary surveyed.

#### 1. Recommendations for Record of Survey

- A) The size of the documents should conform to the requirements of the project. A minimum size of eight and one-half inches by eleven inches is recommended. A larger size drawing may be used so that the drawing will be of sufficient size and scale to easily note the features required in E) below.
- B) Prints of the documents should be reproductions of the original tracing that produce clear and lasting results.
- C) The original should be retained by the Land Surveyor as part of his permanent records. He shall have free use of this tracing, the field notes, and other records so developed to facilitate future surveys. The Land Surveyor should be cautious and exercise good judgment in such use to reasonably protect the interest of the client for whom the survey was prepared.
- D) The Record of Survey shall be signed and sealed by the Land Surveyor who performed or supervised the survey.
- E) All Records of Survey shall contain the following information:
  - 1) Title (Type of Survey).
  - 2) A north arrow accurately correlated to the courses shown on the property lines.
  - 3) Indication of basis of bearings or azimuths, whether true meridian is state grid or assumed bearing.
  - 4) A numerical and graphic scale.
  - 5) Date of survey.
  - 6) Horizontal length of each boundary line.
  - 7) Direction of each line or angle between all intersecting lines. Under certain circumstances, such as a simple rectangular lot or tract, only one angle may be appropriate and acceptable.
  - 8) The central angle, length of curve and radius, and the length and bearing of chord from the beginning to end of curve for each curved common boundary line or individual boundary line. Additional curve functions may be shown.
  - 9) Visible encroachments, or others discovered.
  - 10) Legal land description of the property.
  - 11) Land Surveyor's Certification.

- 12) Known boundary or description gaps or overlaps due to previous surveys. Gaps and overlaps should be dimensioned whenever possible.
  - 13) Legend showing monuments recovered and monuments set, etc., or as shown on a plat of record.
  - 14) Easements located in accordance with descriptions furnished, or as shown on a plat of record.
  - 15) A location map and/or a descriptive location of the property by township, city, or county, in addition to the legal land description.
  - 16) Lot and block numbers, names of thoroughfares and waterways.
  - 17) Area of parcel surveyed. On small city lots, square footage may be preferable.
  - 18) Boundaries formed by water courses shall be located by traverse or offset lines and defined with bearing and distance.
- F) Records of Survey may also contain the following information:
- 1) Name of owner of the property or the name of the person who requested the survey.
  - 2) Measurements to the nearest foot from a traverse or offset line to the water's edge.
  - 3) Dimensions of structures showing size and location together with the type of construction, obvious use, and street address, if any.
  - 4) Written survey report.

## **8.2) Title Surveys**

1. Title surveys shall adhere to all provisions of "Minimum Standard Detail Requirements" for Land Title Surveys, ACSM-ALTA, current at the time of the survey. Modifications to these standards or elimination of some of the ALTA requirements are acceptable if agreed upon in advance with the client to better suit his needs.

## **8.3) Mortgage Loan Inspections**

1. Recommendations for Mortgage Loan Inspections
  - A) All mortgage loan inspection drawings shall contain the following information:
    - 1) Title (Mortgage Loan Inspection).
    - 2) A north arrow correlated to the courses shown on the property lines.
    - 3) The name, address, and telephone number of the land surveyor responsible for the inspection.
    - 4) A numerical and graphic scale.
    - 5) Date of inspection.
    - 6) Visible encroachments.
    - 7) Land description of the property.
    - 8) Land Surveyor's Certification.
    - 9) A descriptive location of the property by township, city, or county, in addition to the land description.

- 10) Legend.
  - 11) Lot and block numbers, names of thoroughfares and waterways.
  - 12) Dimensions of structures showing size and location together with the type of construction, obvious use, and street names, if any.
  - 13) All property corner monuments found and identified as to character.
  - 14) Known boundary or description gaps or overlaps. Gaps and overlaps should be dimensioned wherever possible.
- B) The mortgage loan inspection shall be signed and sealed by the Land Surveyor who performed or supervised the inspection.
  - C) Mortgage loan inspection drawings may also contain the following information:
    - 1) Name of owner of the property or the name of the person who requested the inspection.
    - 2) Horizontal lengths of lines of the subject property wherein such lengths are of public record as in a deed or on a recorded plat.
    - 3) Easements located in accordance with descriptions furnished or as shown on a plat of record.

2. Certification

- A) A mortgage title inspection shall not contain the word survey in any part of the certification unless all of the property corners have been set, reset or verified.
- B) The certification shall contain the name, address, and telephone number of the land surveyor responsible for the inspection, in addition to the following:
  - 1) A statement that the inspection was either conducted by the land surveyor or that the land surveyor caused the inspection to be made, the date the inspection was made and the legal description of the property inspected.
  - 2) A statement that the accompanying sketch is a true representation of the conditions that were found at the time of the inspection and that the inspection was prepared for mortgagee title insurance only, and that the document does not constitute a boundary survey and is subject to any inaccuracies that a subsequent boundary survey may disclose. It shall state the fact that no property corners were set, and that the information shown on the sketch should not be used to establish any fence, structure or other improvements. It should be stated that the linear or angular values shown on the sketch, if any, are based on record or deed information and have not been verified unless noted. Include notification that the land surveyor is not extending a warranty to the present or future owners or occupants.
  - 3) The land surveyor shall sign and seal the document. All lettering on the documents should be legible.

**8.4) As-Built Surveys**

- 1. In this context with respect to tracts of land, and to those linear facility surveys wherein the purpose of the survey is to gather data to prepare land descriptions and show all improvements on these parcels.

- A) The as-built survey shall be signed and sealed by the Land Surveyor who performed or supervised the survey.
- B) All as-built survey drawings shall contain the following information:
  - 1) Title (As-Built Survey).
  - 2) A north arrow correlated to the courses shown on the property lines.
  - 3) Indication of basis of bearings or azimuths when used.
  - 4) A numerical and graphic scale.
  - 5) Date of survey.
  - 6) Horizontal length of each boundary line.
  - 7) Direction of each line or angle between all intersecting lines. Under certain circumstances, such as a simple rectangular lot or tract, only one angle may be appropriate and acceptable.
  - 8) The central angle, length of curve and radius, and the length and bearing of chord from the beginning to end of curve for each curved common boundary line or individual boundary line. Additional curve functions may be shown.
  - 9) Visible encroachments, or others discovered.
  - 10) Legal land description of the property.
  - 11) Land Surveyor's Certification.
  - 12) Legend showing monuments recovered and monuments set, etc.
  - 13) Lot and block numbers, names of thoroughfares and waterways.
  - 14) Dimensions of structures showing size and location together with the type of construction, obvious use, and street address, if any.
  - 15) Known boundary or description gaps or overlaps. Gaps and overlaps should be dimensioned wherever possible.
- C) As-Built Survey drawings may also contain any or all of the following information, as may be requested by the client:
  - 1) Name of owner of the property or the name of the person who requested the survey.
  - 2) A location map and/or a descriptive location of the property by township, city, or county, in addition to the legal land description.
  - 3) Easements located in accordance with descriptions furnished, or as shown on a plat of record.
  - 4) Measurements to the nearest foot from a traverse or offset line to the water's edge.
  - 5) Area of parcel surveyed.
  - 6) Boundaries formed by water course shall be located by traverse or offset lines and defined with bearing and distance.
  - 7) Written survey report.

### **8.5) Topographical Surveys for Mapping**

- 1. When the topographical map is combined with a boundary survey, the certification shall be signed by the Land Surveyor who performed or supervised the survey and shall adhere to all provisions of Section 5 "Boundary Surveys".
- 2. When there is no boundary survey:

- A) All topographic maps shall contain the following information:
  - 1) Title (Topographic Map)
  - 2) A north arrow.
  - 3) A numerical and graphic scale.
  - 4) Date.
  - 5) Contour interval.
  - 6) Vertical datum (NGVD 1929, NAVD 1988, or local datum as appropriate).
  - 7) Benchmark.
  - 8) Identify the person and/or firm who prepared the map, and provide a certificate of the Land Surveyor that performed or supervised the survey for the map.
  - 9) Identify the location of the property.
  - 10) Legend.
  - 11) Indication of basis of bearings or azimuths when used.
  - 12) Names of thoroughfares and waterways.
- B) Topographic Maps may also contain any or all of the following information, as may be requested by the client:
  - 1) Name of owner of the property or the name of the person who requested the map.
  - 2) Size and location of structures showing together with the type of construction, obvious use, and street address, if any.
- 3. Care must be taken that the purpose and limitations of this type of map are understood by the user. It is suggested that the words "*This is not a Boundary Survey*" be prominently printed upon the map unless it is combined with a boundary survey.

**8.6) Site Plans**

- 1. Site plans are planimetric surveys depicting existing and/or proposed physical features on a parcel of property. When combined with a boundary survey, this plan shall adhere to the provisions of Section 5 "Boundary Surveys".
- 2. Care must be taken that the purpose and limitations of this plan are understood by the user. It is suggested that the words "*This is not a Boundary Survey*" be prominently printed upon the certificate. If it is combined with a boundary survey, than the boundary survey shall be performed by a Land Surveyor or under his supervision.

**8.7) Compiled Maps**

- 1. The purpose of this map will dictate what generally will be shown.
  - A) All compiled maps shall contain the following information:
    - 1) Title (do not use the word "survey").
    - 2) A north arrow.
    - 3) A numerical and graphic scale.

- 4) Date.
- B) Compiled maps may also contain the following information as requested by the client:
- 1) Name of owner or client.
  - 2) A location map and/or a descriptive location of the property by township, city, or county.
  - 3) Legend.
  - 4) Description of source of material.
2. Care must be taken that the purpose and limitations of this type of map is understood by the user. It is suggested that the words "*This is not a Boundary Survey*" be prominently printed upon the map, unless it is combined with a boundary survey.

## **Section 9 Land Surveys, Right-of-Way Plats and Subdivision Plats**

1. Land surveys, right-of-way plats and subdivision plats shall be surveyed and platted as provided in South Dakota Codified Law. If a Land Surveyor encounters a local or state regulation or planning request that is in violation of state statute, the Land Surveyor should point out such discrepancy and refrain from perpetuating a non-conforming subdivision procedure. If a Land Surveyor in the employ of the state or in the private sector is engaged in the preparation of right-of-way plats, such plats shall be prepared with the same standard of care as other subdivision plats, including parent tract boundary retracement, and permanent monumentation at or beyond the limits of proposed construction.
2. All land surveyors shall complete, sign and file with the register of deeds of the appropriate county a corner record for every public land survey corner and accessory to the corner which is established, re-established, monumented, re-monumented, restored, rehabilitated, perpetuated or used as control in any survey. The corner record must be filed within ninety days of the survey. This requirement is waived if the corner and its accessories are substantially as described in an existing corner record previously filed.

## **Section 10 Legal Land Descriptions**

**10.1)** When a new land description is to be drafted but is restricted along one or more boundary lines because of undesirable wording, and is already of record, every attempt should be made to:

- 1) clarify the existing description as much as possible, within limitations, to eliminate doubts as to that description's intent; or
- 2) write the "new" portion of this description to comply as much as possible with accepted guidelines.

Such a new description is often called "*A Suggested Revised Land Description*".

When preparing a Retracement Survey, the existing land description should be examined within itself, with respect to its adjoiners, and with respect to encroachments. If necessary, "*A Suggested Revised Land Description*" may be prepared. The client should then be advised to seek competent and experienced legal help. The Land Surveyor should recognize his limitations, and refrain from giving legal advice. Platting of the existing deeded land can clarify the description with respect to its adjoiners.

Metes and bounds descriptions cannot be legally recorded for the transfer of land in South Dakota.

## **Section 11            Survey Reports**

- 11.1)** Due to insufficient field evidence, ambiguous legal descriptions, other errors and/or omissions in available research material, the physical location for boundary lines may be uncertain. The Land Surveyor should clearly indicate the nature of discrepancy on his Record of Survey, and may include a written report offering his professional opinion as to the nature of the problem and the probable cause and effect. The Land Surveyor may want to recommend that his client seek legal assistance. It should be kept in mind that the duty of the Land Surveyor is to locate and mark lines indicated by deeds and descriptions, and not to confirm the validity of these lines as property lines. The question of a line being a property line must be resolved by a court of law.

## **Section 12            Certifications**

- 12.1)** All certifications for boundary surveys must follow SDCL and be signed and sealed by the Land Surveyor who performed or supervised the survey. The wide variety of client needs may require other types of certification. The form used should express the type of service and may be used to limit responsibility. (See SDCL #11-3-4 and 36-18-27.1)

The Land Surveyor should use sound and practical reason when certifying a drawing, and should take care that the requirements of the client are necessary and do not legally bind him to those things to which he does not wish to be bound.

## **Section 13    Data Preservation**

- 13.1)** Every Land Surveyor is encouraged to preserve his records, field notes and plats. It is of particular importance that arrangements be made for proper transfer of records. Filing records in a public place may excuse this obligation.
- 13.2)** The Land Surveyor should keep a file and index of all field notes, calculations, maps, plats, photographs, and other data accumulated during surveys.
- 13.3)** Land Surveyors are encouraged to accumulate information on the historical development of surveys in the geographical area of their practice.
- 13.4)** Although communications between the Land Surveyor and client are confidential, he or she must be prepared to discuss the technical aspects of surveys with other Land Surveyors.

- 1) first draft Jan. 1985
- 2) second draft Jan. 1986
- 3) third draft Jan. 1989
- 4) fourth draft Dec. 1991
- 5) fifth draft Jan. 2000
- 6) sixth draft Apr. 2000