

## **Rule 21.0 STANDARDS OF PRACTICE FOR SURVEYING**

**21.01** Whenever a surveyor conducts a land survey of properties in Mississippi, a plat showing the results of this survey shall be prepared, and a copy furnished to the client.

The plat shall conform to the following requirements and shall include the following information:

- a. The plat shall be drawn on any reasonably stable and durable drawing paper, vellum, linen, or film of reproducible quality. No plat or map shall have dimensions of less than 8 1/2 x 11 inches.
- b. The plat shall show the scale, area, and classification of the survey (A,B,C or D). These classifications are based upon both the purposes for which the property is being used at the time the survey is performed and any proposed developments which are disclosed by the client. This classification must be based on the criteria in Appendix A, and the survey must meet the minimum specifications set forth in Appendix B. Scale shall be sufficient to show detail for the appropriate classification.
- c. The reference meridian used to conduct the survey shall be stated on the survey plat. A definitive north arrow shall be shown on the plat. All surveys will be referenced to a true meridian by accepted methods with the following exceptions: (a) those used in existing subdivisions; (b) those shown on city or town plats; or, (c) those shown on a previous survey when the current survey is a division of said previous survey and enough monumentation is available to establish the original orientation. If Global Positioning System equipment is used to obtain the reference meridian, it shall be stated on the plat whether the bearings are grid or geodetic. If any published horizontal control stations are occupied during the survey, they shall be listed on the plat and the horizontal datum used shall be listed on the plat. If a meridian established by the compass is used, the compass must be properly declinated and adjusted to a True Meridian. Regardless of the meridian used, the survey must be referenced to a well defined line, group of monuments, reference points, etc. of a normally assumed permanent nature so the orientation of the survey can be re-established. This reference line and its relation to the meridian used must be clearly shown on the survey plat.
- d. All monuments, natural and artificial (man-made), found or set shall be shown and described on the survey plat. The monuments shall be noted as found or set. All monuments set shall be ferrous metal, or contain ferrous metal, not less than 1/2 inch in diameter, and not less than eighteen inches in length. All corners shall be monumented, either by a found monument clearly described on the survey plat, or by a monument set as described above, except however, a corner which falls in a creek, stream or ditch, in a gravel or asphalt road or upon solid rock, concrete or other like materials shall be marked in a permanent manner and clearly identified on the plat or witnessed by Witness Corners. Witness Corners shall be set whenever a corner monument cannot be set or is likely to be disturbed. Such witness corners shall be set as close as practical to the true corner and shall meet the same physical standards that would be required for the true corner were it set. If only one (1) witness corner is set, it must be set on the actual boundary line or prolongation thereof. Otherwise, at least two (2) witness corners shall be set and so noted on the plat of the survey. Courses that intersect a creek, stream, ditch or the center of a public road that is to be used as a boundary of the parcel being surveyed, should have witness corners set on the line intersecting same, and be clearly shown on the plat. Concrete right-of-way markers may be acceptable as monuments on all roadways, streets, and utility rights-of-way, and may be placed only at points where right-of-way width or direction change.

- e. The plat of a metes and boundary survey must clearly describe and show the monument marking the commencing point and the point of beginning for the survey. Commencing Point is a well defined monumented point referenced to the U.S. Public Land (GLO) Survey system or other recorded subdivision plat, recorded and monumented City or County plat or map, compatible with Mississippi Statutes for filing and recording of land ownership that is used in a metes and bounds description. Point of Beginning is a well defined monumented point referenced to the U.S. Public Land (GLO) Survey system or recorded subdivision plat, recorded and monumented City or County plat or map, compatible with Mississippi Statutes for recording land ownership that is used as the beginning and ending point in a metes and bounds land description.
- f. All discrepancies between the survey and the record description, and the source of all information used in making the survey shall be indicated. When an inconsistency is found, including a gap or overlap, excess or deficiency, erroneously located boundary lines or monuments, or when any doubt as to the location on the ground of the true boundary or property rights exists, the nature of the inconsistency shall be clearly shown on the drawing.
- g. A description and location of any physical evidence of occupation found along a boundary line, including fences, walls, buildings or monuments.
- h. The horizontal length (distance) and direction (bearing or azimuth) of each line as specified in the legal description and as determined in the actual survey process.
- i. Four (4) elements of all circular curves shall be shown (radius, arc length, chord bearing and chord length).
- j. All information used by the surveyor in the property description shall be clearly shown on the plat, including the point of beginning, course bearings, distances, etc.
- k. The lot and block or tract numbers or other designations, including those of adjoining lots and tracts if the survey is within a recorded subdivision.
- l. Visible encroachments onto or from adjoining property or abutting streets with the extent of such encroachment. No sub-surface encroachments are required to be located unless their existence and location is furnished to the surveyor by the client.
- m. All public and private rights-of-way or easements which are known or observed adjoining or crossing the land surveyed.
- n. Location of all permanent improvements pertinent to the survey, with reference to the boundaries.
- o. Anytime State Plane Coordinates are used to designate the geographic position of a point on a survey in the State of Mississippi, these surveys must be performed in compliance with state Law (Chapter No.462, Senate Bill Number 2131, approved March 29, 1991) and in compliance with item (e) of this rule. State Plane Coordinates shall be clearly referenced to the appropriate horizontal datum on the plat. When State Plane Coordinates are used, the following information shall be shown on the plat: (1) the State Plane Coordinates System Zone, (2) the horizontal and/or vertical datum(s) used, (3) the method used to derive information such as Global Positioning System or conventional survey, (4) all horizontal and/or vertical control points used (5) a combined or correctional factor, (6) the convergence angle.
- p. A plat or survey shall bear the name, address, date of field survey, and signature and seal (either embossed or stamped) of the licensed surveyor in responsible charge. This signature and seal is certification that the survey meets the requirements of the Standards of Practice for Surveyors in Mississippi as adopted by the Mississippi Board of Licensure for Professional Engineers and Surveyors. Other regulations including the Manual of Instructions for the Survey of U.S. Public

Lands and all subdivision Laws and regulations of the State of Mississippi Statutes shall be followed.

**21.02 Enforcement** - Surveyors failing to meet these standards of practice will be subject to appropriate disciplinary action by the Licensure Board.

**APPENDIX A - Classification of Surveys**

- A. **Class A Surveys** - Surveys of extensively developed and expensive properties which require maximum surveying accuracy. This includes, but is not limited to, surveys of urban business district properties and highly developed commercial properties.
- B. **Class B Surveys** - Surveys of properties which are subject to costly improvements and justify a high degree of surveying accuracy. This includes, but is not limited to, surveys of commercial properties and higher priced residential properties located outside urban business districts and highly developed commercial areas.
- C. **Class C Surveys** - Surveys of residential and surrounding areas which are apt to increase rapidly in value. This includes, but is not necessarily limited to, surveys of residential areas which cannot be classified as Class A or Class B surveys
- D. **Class D Surveys** - Surveys of all remaining properties which cannot be classified as Class A, B, or C surveys. This includes, but is not limited to, surveys of farm lands and rural areas.

**APPENDIX B**

<b>CONDITION</b>	<b>D</b>	<b>C</b>	<b>B</b>	<b>A</b>	<b>Remarks and Formula</b>
	<b>Rural</b>	<b>Suburban</b>	<b>Urban</b>	<b>Urban Business District</b>	
Unadjusted Closure (Minimum)	<b>1:2000</b>	<b>1:5000</b>	<b>1:7500</b>	<b>1:10000</b>	Loop or between Control Monuments
Angular Closure (Minimum)	<b>60" √ N</b>	<b>30" √ N</b>	<b>25" √ N</b>	<b>15" √ N</b>	N=Number of Angles in Traverse
Accuracy of Bearing	<b>± 5 Min.</b>	<b>± 3 Min.</b>	<b>± 2 Min.</b>	<b>± 1 Min.</b>	Relative to Source
Accuracy of Distances	<b>0.10 ft. +200 ppm</b>	<b>0.07 ft. +150 ppm</b>	<b>0.05 ft. +100 ppm</b>	<b>0.03 ft. +50 ppm</b>	100 ppm = 1:10000
Elevations for Boundaries Controlled by Tides, Contours, Rivers, etc. Accurate to:	<b>± .30 ft.</b>	<b>± .20 ft.</b>	<b>±.10 ft.</b>	<b>± .05 ft.</b>	Based on NGVD
Location of Improvements Structures, Paving, etc. (Tie Measurement)	<b>± 2.0 ft.</b>	<b>± 1.0 ft.</b>	<b>± .2 ft.</b>	<b>± .1. ft.</b>	
Positional Error in Map Plotting not to Exceed: (Applies to original map only)	<b>25 ft.</b> <b>1"=1000'</b>	<b>10 ft.</b> <b>1"=400'</b>	<b>5 ft.</b> <b>1"=200'</b>	<b>2 ft.</b> <b>1"=100'</b>	Generally one fortieth of an inch (National Map accuracy calls for 1/50 <sup>th</sup> inch)