

MINUTES

BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS

POSITIONAL ACCURACY AND MTS WORKSHOP

January 12, 2004

Casa Monica
95 Cordova
St. Augustine, Florida

The meeting was called to order by Mr. Lou Bush, Chair, at 11:35 a.m.

Members Present:

Lou Bush
Pam Nobles
Jeff Cooner
Omar Armenteros
Dennis Blankenship
Jeff Cooner
Beverly Sutphin
Louis Lebron

Members Not Present

Fran Poppell
Sidney Greer

Others Present:

- 1 Paul Martin, Asst. Attorney General
- 2 Christa Patterson, Government Analyst I
- 3 Juanita Chastain, Executive Director
- 4 David Melvin
- 5 Harley Gilmore
- 6 Alvin Gloer
- 7 Gail Oliver
- 8 David Schryver
- 9 Jessica Porter
- 10 Stephen Gordon
- 11 Marilyn Evers
- 12 Allen Nobles
- 13 Henry Echezabal
- 14

**REVIEW AND APPROVAL OF THE OCTOBER 9, 2003 POSITIONAL ACCURACY
COMMITTEE MEETING MINUTES**

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- 18 The committee reviewed the positional accuracy committee meeting minutes and made the
- 19 following motion.
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21 MOTION: Mr. Cooner made a motion to approve the October 9, 2003 positional accuracy
22 committee meeting minutes.

23 SECOND: Ms. Nobles seconded the motion and it passed unanimously.
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25 **STEVE GORDON PRESENTATION OF METADATA**

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27 Mr. Gordon was present at the meeting and addressed the board. Mr. Gordon handed out a
28 written summary of metadata for the board to review. Mr. Gordon reviewed some of the
29 different definitions for metadata and stated he felt it was important to include digital data. Mr.
30 Gordon stated that the Federal Government had been using metadata for the past five years
31 and that it was important for the board to consider since there is new technology being used by
32 professionals in the field.

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34 Mr. Bush thanked Mr. Gordon for addressing the board and providing information on metadata.
35 Mr. Bush asked the board to hold on to the materials Mr. Gordon provided.
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37 Mr. Bush stated he felt that the board's primary responsibility was to protect the public welfare
38 and changing rules to follow new technology was an avenue that the board should pursue. Mr.
39 Bush stated that the intent of the Workshop was not to over regulate surveyors and mappers but
40 to provide standards and guidelines.

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42 Mr. Cooner stated that the board in the past discussed disclosure, and intended use. Mr.
43 Gordon stated the MTS rules already include metadata.
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45 Ms. Nobles advised the board that she felt metadata should not be defined but the board should
46 consider including the word metadata in the definition of survey reports. Ms. Nobles stated that
47 she felt a survey report should be a requirement no matter how the survey was produced or how
48 it was presented. Ms. Nobles stated that the surveyors and mappers did not need standards
49 for accountability except for boundary surveys.
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51 Mr. Cooner stated he felt the public needed to be protected and that he has seen survey
52 products that have limiting language in the product and it was delivered to the consumer. Mr.
53 Cooner stated that the consumer with the limited language would not be able to understand the
54 use of the product.
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56 Ms. Nobles stated that there are licensees practicing that do a very poor job and other licensed
57 professionals should not have to be penalized.
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60 **REVIEW AND DISCUSSION OF 61G17-6, FLORIDA ADMINISTRATIVE CODE**

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62 Mr. Cooner prepared a written proposal of changes to 61G17-6, F.A.C. and Ms. Oliver prepared
63 a power point presentation. Mr. Cooner and Ms. Oliver presented the power point presentation.
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65 Mr. Cooner reviewed each page with the board and during the review changes or deletions
66 were made. The board reviewed the document to page 17 and Mr. Cooner tabled review of the
67 rest of the document to the next meeting.
68

69 During the presentation Ms. Oliver made changes and deletions to pages 1-16 of the proposed
70 changes to 61G17-6, F.A.C. Below is the language agreed upon by the board.
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**Draft Rewrite Of 61G17-6
Florida Minimum Technical Standards For
Surveying and Mapping**

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I. Rule Sections

- A. Section I - Index of Sections
- B. Section II – Definitions
- C. Section III – General Mapping Requirements Applicable to all Survey Maps/Products
- D. Section IV – Types of Surveys and Survey Products
- E. Section V – Seals and Certifications

II. Definitions.

As used in this chapter, the following terms have the following meanings:

(1) Benchmark: a relatively permanent material object, natural or artificial, bearing a marked point whose elevation above or below an adopted datum plane is known.

(2) Corner: a point on a land boundary that designates a change in direction, for example: points of curvature, points of tangency, points of compound curvature and so forth.

(3) Geodetic: a survey or mapping process that takes into account the curvature of the earth and astronomic observations, and which results in positions expressed on a recognized datum.

(5) Map of Survey (or Survey Map): a graphical or digital depiction of the facts of size, shape, identity, geodetic location, or legal location determined by a survey. The term "Map of Survey" (Survey Map) includes the terms: Sketch of Survey, Plat of Survey, Right-of-Way Survey, or other similar titles. "Map of Survey" or "Survey Map" may also be referred to as "a map" or "the map." (4) For the purpose of this rule, the word "map" shall also mean drawing, sketch or plat.

(7) Monument: an artificial or natural object that is permanent or semi-permanent, and used or presumed to occupy any real property corner, point on a boundary line, or reference point.

(9) Photogrammetric Methods: a means of surveying and mapping that involves: making precise measurements from a combination of ground control, photographs and other sources of imagery, to document, within pre-ordained accuracies, the existence, the identity, the location and the size of selected features.

(10) Reference Point: any defined position that is or can be established in relation to another defined position.

(12) Survey: the orderly process of determining facts of size, shape, identity, geodetic location, or legal location by viewing and applying direct measurement of features on or near the earth's surface using field or image methods; defined as follows according to the type of data obtained, the methods used, and the purpose(s) to be served:

(a) As-Built Survey: a survey performed to obtain horizontal and/or vertical dimensional data so that constructed improvements may be located and delineated; also known as a Record Survey.

(b) Boundary Survey: a survey, the primary purpose of which is to document the perimeters, or any one of them, of a parcel or tract of land by establishing or re-establishing corners, monuments, and boundary lines for the purposes of describing the parcel, locating fixed improvements on the parcel, dividing the parcel, or platting.

(c) Condominium Survey: a survey performed pursuant to Chapter 718, Florida Statutes; includes a Boundary Survey.

- 124 (d) Construction Layout Survey: the measurements made, prior to or while construction
125 is in progress, to control elevation, configuration, and horizontal position and
126 dimensions.
- 127 (e) Control Survey: a survey which provides horizontal or vertical position data for the
128 support or control of subordinate surveys or for mapping.
- 129 (g) Hydrographic Survey: a survey having as its principal purpose the determination of
130 data relating to bodies of water, and which may consist of the determination of one or
131 several of the following classes of data: depth of water and configuration of bottom;
132 directions and force of current; heights and times of water stages; and location of fixed
133 objects for survey and navigation purposes.
- 134 (h) Mean High Water Line Survey: a survey to document the mean high water line as
135 defined in Part II, Chapter 177, Florida Statutes.
- 136 (i) Quantity Survey: a survey to obtain measurements of quantity.
- 137 (j) Record Survey: a survey performed to obtain horizontal and/or vertical dimensional
138 data so that constructed improvements may be located and delineated; also known as
139 an As-Built Survey.
- 140 (k) Specific or Special Purpose Survey: a survey performed for a purpose other than the
141 purposes detailed in (8)(a) -- (j) or (l) of this rule.
- 142 (l) Topographic Survey: a survey of selected natural and artificial features of a part of
143 the earth's surface to determine horizontal and vertical spatial relations.
- 144 (13) Survey and Map Report: a written document, sometimes referred to as "a report" or
145 "the report," detailing methods used, measurements and computations made,
146 accuracies obtained, and information obtained or developed by surveying and mapping
147 techniques.
- 148 (14) Surveying and Mapping: a process of direct measurement and analysis specifically
149 designed to document the existence, the identity, the location, and the dimension or
150 size of natural or artificial features on land or in the air, space or water for the purpose
151 of producing accurate and reliable maps, suitable for visualization if needed, of such
152 documentation.

153 154 III. General Survey, Map and Report Requirements

- 155 A. Regulatory Objectives - The public must be able to rely on the accuracy of
156 measurements and maps produced by a surveyor and mapper. In meeting this objective,
157 surveyors and mappers must achieve the following minimum standards of accuracy,
158 completeness, and quality:

159 (1) The accuracy of the survey measurements shall be premised upon the type of
160 survey and the expected use of the survey and map. All measurements must be in
161 accordance with the United States standard, using either feet or meters. (2) Records
162 of these measurements shall be maintained for each survey by either the individual
163 surveyor and mapper or the surveying and mapping business entity. Measurement
164 and computation records must be dated and must contain sufficient data to
165 substantiate the survey map and insure that the accuracy portion of these standards
166 has been met.

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168 B. Other More Stringent Requirements

169 (1) When more stringent survey standards than those set forth in this chapter are
170 required by federal, state, or local governmental agencies, the survey shall comply
171 with those standards. When more stringent survey standards or requirements than
172 those set forth in this chapter are mandated by the client and agreed to by the
173 surveyor and mapper, the survey shall comply with those survey standards,
174 providing said survey requirements are within the scope of the surveyor and
175 mapper's expertise.

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C. Other Standards/Requirements that Apply to All Surveys, Maps and/or Survey Products:

- (1) REGULATIONAL OBJECTIVE: In order to avoid misuse of a survey and map, the surveyor and mapper must adequately communicate the survey results to the public through a map, report, or report with an attached map. Any survey map or report must identify the responsible surveyor and mapper and contain standard content. In meeting this objective, surveyors and mappers must meet the following minimum standards of accuracy, completeness, and quality:
- (2) Each survey map and report shall state the type of survey it depicts consistent with the types of surveys defined in items above (12)(a) -- (k). The purpose of a survey, as set out in said items (12)(a) -- (k), dictates the type of survey to be performed and depicted, and a licensee may not avoid the minimum standards required by rule of a particular survey type merely by changing the name of the survey type to conform with what standards or lack of them the licensee chooses to follow.
- (3) All survey maps and reports must bear the name, certificate of authorization number, and street and mailing address of the business entity issuing the map and report, along with the name and license number of the surveyor and mapper in responsible charge. The name, license number, and street and mailing address of a surveyor and mapper practicing independent of any business entity must be shown on each survey map and report.
- (4) All survey maps must reflect a survey date, which is the date of data acquisition . If the graphics of a map are revised, but the survey date stays the same, the map must list dates for all revisions.
- (5) The survey map and report and the copies of the survey map and report, except those with electronic signature and electronic seal, must contain a statement indicating that the survey map and report or the copies thereof are not valid without the signature and the original raised seal of a Florida licensed surveyor and mapper. In addition, if neither the business entity nor the individual licensee has professional liability insurance, the map and the report, if there is a report, must contain the following printed statement in letters at least 1/8" high: The survey depicted here is not covered by professional liability insurance. Additions or deletions to survey maps or reports by other than the signing party or parties is prohibited without written consent of the signing party or parties.
- (6) All computed data or plotted features shown on survey maps must be supported by accurate survey measurements unless clearly stated otherwise. Bearings, distances, coordinates, and elevations shown on a survey map shall be substantiated by survey measurements unless clearly stated otherwise.
- (7) A reference to all bearings shown on a survey map or report must be clearly stated, i.e., whether to "True North"; "Grid North as established by the NOS"; "Assumed North based on a bearing for a well defined line, such as the center line of a road or right of way, etc."; "a Deed Call for a particular line"; or "the bearing of a particular line shown upon a plat." References to Magnetic North should be avoided except in the cases where a comparison is necessitated by a Deed Call. In all cases, the bearings used shall be referenced to some well-established and monumented line.
- (8) A designated "north arrow" and either a stated scale or graphic scale of the map shall be prominently shown upon the survey map.
- (9) Abbreviations generally used by the public or in proper names that do not relate to matters of survey are excluded from the legend requirement.
- (a) Acceptable abbreviations on the face of survey maps are:

228 N = North
229 S = South
230 E = East
231 W = West
232 or any combination such as NE, SW, etc.
233 0 = Degrees
234 ' = Minutes when used in a bearing
235 " = Seconds when used in a bearing
236 ' = Feet when used in a distance
237 " = Inches when used in a distance
238 AC = Acres
239 +/- = More or less (or Plus or Minus)
240 metric notation
241 (b) Any other abbreviations relating to survey matters must be clearly
242 shown within a legend or notes appearing on the face of the map or report.
243 (10) When special conditions exist that effectively prevent the survey from
244 meeting these minimum standards, the special conditions and any
245 necessary deviation from the standards shall be noted upon the map or
246 report.
247 (11) Responsibility Clearly Stated. The responsibility for all mapped
248 features must be clearly depicted on any map or report signed by a Florida
249 licensed surveyor and mapper. In the case that features surveyed by the
250 signing surveyor and mapper have been integrated with features surveyed
251 by others, then the full extent of responsibility shall be clearly depicted on
252 the map or report, and the signing surveyor and mapper shall include in the
253 map or report an assessment of the quality and accuracy of all mapped
254 features delivered.

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256 **OLD/NEW BUSINESS**

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258 Mr. Cooner asked staff to schedule another Workshop at the April meeting and to allow
259 additional time for Workshop.

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261 There being no other business the meeting adjourned at 2:50 p.m.
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