

## **RATIONALE DOCUMENT**

### **Geo-referencing requirements for digital plan submissions to the Land Titles Office and Public Lands.**

**The following information is provided to Alberta Land Surveyors from the Digital Submissions Review Committee.**

#### **1. What are the financial costs of the recommendation? Are there any ongoing financial commitments required?**

Land surveyors making digital plan submissions to the Land Titles Office and Sustainable Resource Development will be required to perform extra work to meet the new geo-referencing requirements. The extra work is expected to be minimal, with a large majority of the survey companies automating the functions.

#### **2. What is the genesis for the recommendation? (Did it arise from a new business recommendation? Or was it something that came out of committee discussions?)**

The Director of Surveys requested development of CAD file/geo-referencing standards and Council added the initiative to the 2007/08 Standards Committee terms of reference. Standards were developed for addition into the Manual of Standard Practice and brought to the April 2008 Annual General Meeting as recommendation #6. Recommendation #6 was discussed and tabled. Subsequently, the Director of Surveys called on the Digital Submissions Review Committee to address this initiative.

#### **3. Was anyone outside of the Association membership consulted? What was their reaction?**

The Digital Submissions Review Committee supports the geo-referencing requirements. Members included:

Bruce Gudim, ALSA representative  
Bill Elliott, Land Titles Office  
Mona Bichai, Land Titles Office  
Moez Murji, Land Titles Office  
Akram Din, Land Titles Office  
Jim Chorel, AltaLIS Ltd.  
Bill Martin, Martin Newby Consulting Ltd.  
Pat Drinnan, Spatial Data Warehouse Ltd.  
Brian Sobchyshyn, City of Edmonton  
Terry Wywal, Metis Settlements Land Registries  
Mike Michaud, Director of Surveys (chair/minutes)

#### **4. What is the overall intent of the recommendation?**

The requirements standardize geo-referencing of CAD file submissions and take advantage of precise GPS observations, allowing them to be used in updating the positional quality of the provincial mapping programs (cadastral and disposition mapping).

Today, a large majority of land surveys are being performed with GPS, but this wealth of positional knowledge has not been used to up-grade the positional quality of provincial mapping. By geo-referencing the CAD file with GPS data in a digital submission to Land Titles and Sustainable Resource Development, this precise positional data will be used in the maintenance of the two mapping data sets.

Each individual geo-referenced CAD files will still need to be integrated with the mapping framework to produce a homogeneous data set, which is the function of Spatial Data Warehouse Ltd and their joint partners.

#### **5. What problem is trying to be solved? How does the recommendation solve the problem?**

The problem was brought forward by the City of Edmonton. The City was having difficulty deciphering land surveyor's CAD files, in that the associated metadata seldom corresponded to the file data. The City was spending considerable time determining what the data was referenced to e.g. were the distances ground or grid, what mapping projection was used (3TM, UTM, 10TM), what were the files geo-referenced to (local, known point, ATS file, other).

After a review by the Standards Committee it became apparent the problem could be resolved by standardizing the geo-referencing, with a side benefit of significantly improving the positional quality of the mapping.

#### **6. How is the recommendation in the public interest?**

Standardizing CAD files submissions and utilizing precise positioning data in provincial mapping programs support effective and efficient land use, which is in the public interest.