

**One Year Trial - Memorandum of Understanding Between the  
Rhode Island Geographic Information System Executive Committee and  
the RI Board of Registration for Professional Land Surveyors**

**Purpose**

We recognize that the practices of Professional Land Surveying, and the use of Geographic Information System (GIS) technology are similar in some ways. Both result in digital files, paper map products, and other data which represent the coordinate positions of natural or man-made geographic features and/or events on the earth's surface (geospatial product). Furthermore, we understand how easily these works can be confused by end users including government agencies, local building officials, planning and zoning boards and the general public to misunderstand the intent and proper use of geospatial data products. With this MOU, the RI Geographic Information System Executive Committee and the RI Board of Registration for Professional Land Surveyors agree that clear distinctions and actions are necessary to avoid the potential for public harm arising from misuse of geospatial products. We define the term "Authoritative" in relation to physical locations for features and structures on the landscape and identify the most common examples of authoritative PLS work products and GIS derived non-authoritative products. We further agree that disclaimers stating the non-authoritative nature and limits of geospatial accuracy are necessary on GIS work products, that GIS producers must make a constant effort to ensure that their clients understand the distinctions between GIS and Survey products, and that extensive and on-going educational outreach to end-users is required.

We understand that not all professional concerns may be resolved by the actions described in this document. Therefore, the agreement will be revisited one year from the signing date at which time the RI Board of Registration for Professional Land Surveyors and the RIGIS Executive Committee will have the right to revise or suspend the agreement and take further steps as necessary.

**For the purpose of this MOU we define:**

"Authoritative" as:

Components or elements which:

- 1) Carry a PLS Stamp & Signature or are *explicitly declared or represented* as being equivalent or superior in accuracy to similar data depicted in any surveying activity referred to in RIGL Chapter 5-8.1;
- 2) Are *intended* to be used for any aspect of engineering design;
- 3) Are *intended* to be used for the determination of property boundaries, the location of fixed works, or topography;
- 4) Are *intended* to be utilized relative to any regulations, including but not limited to permit applications, that pertain to the location and bulk of improvements or fixed works;
- 5) Are to be utilized for the certification or declaration of positional accuracy of any spatial data.

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**We agree:**

that the following activities (not limited to) *must* be accomplished under the "Responsible Charge" of a RI Licensed Professional Land Surveyor:

1. The creation of maps and georeferenced databases representing *authoritative* locations for boundaries, the location of fixed works, or topography. This includes maps and georeferenced databases prepared by any person, firm, or government agency where those data are provided to the public as a survey product.
2. Original data acquisition, or the resolution of conflicts between multiple data sources, when used for the *authoritative* location of features within geodetic control, orthoimagery, elevation and hydrographic, fixed works, private and public boundaries, and cadastral information data themes.
3. Certification of positional accuracy of maps or measured positional and/or survey data.
4. *Authoritative* interpretation of raw survey data.
5. Geographic Information System (GIS) - based parcel or cadastral mapping used for *authoritative* boundary definition purposes wherein land title or development rights for individual parcels are, or may be, affected.
6. *Authoritative* interpretation of maps, deeds, or other land title documents and/or resolution of conflicting data elements.
7. Acquisition of field data required to *authoritatively* position fixed works or cadastral data relative to established horizontal and vertical datums.
8. Analysis, adjustment or transformation of cadastral data on the parcel layer(s) with respect to the geodetic control layer within a GIS/LIS resulting in the affirmation of positional accuracy.

**Examples of Authoritative Data:**

- 1) geospatial data for the legal determination of property boundaries as required for activities such as conveying property from one party to another, and resolving boundary disputes;
- 2) geospatial data for engineering designs, detailed engineering drawings, architectural plans, site plans, and / or construction drawings that are to be utilized in development / construction projects which, by municipal, state, or federal law, require the presence of either a board-certified surveyor's stamp/seal, a professional engineer's stamp/seal, or both;
- 3) geospatial data describing the location of fixed works, ground water table elevations, and for the creation of topographic and hydrographic surveys, drainage designs, ISDS/OWTS designs, highway designs, subdivision designs, or utility service designs, when required to have a specific precision and accuracy to ensure the safety and welfare of the public;
- 4) geospatial data relative to any regulations, including but not limited to permit applications, that pertain to the location and bulk of improvements or fixed works;
- 5) certify via stamp / seal the horizontal and vertical positional accuracy of geospatial data represented on engineering designs, detailed engineering drawings, architectural plans, site plans, and / or construction drawings that are to be utilized in development/construction projects.

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## Examples of Non-Authoritative Geospatial Data:

While not intended to be an exhaustive list, the activities described below are meant to clarify the role of GIS technology and its implementation by GIS Professionals/Practitioners as distinct from the disciplines and practices of land surveying or engineering.

1. The collection/creation of geospatial data and resulting digital or paper maps or other products which are: prepared by private firms or government agencies for use as guides to motorists, boaters, aviators, or pedestrians; prepared for publication in a gazetteer or atlas as an educational tool or reference publication; prepared for or by educational institutions for use in the curriculum of any course of study; produced in electronic or print media as an illustrative guide to the geographic location of any event, natural or man-made feature; prepared by laypersons for conversational or illustrative purposes. This includes advertising material and users guides.
2. The transcription of previously georeferenced data into a GIS or LIS by manual or electronic means, and the maintenance thereof, when the data are clearly not intended to: declare the legal, deeded location or definition of property boundaries, the precise definition of the shape or contour of the earth, and/or the precise coordinate location of fixed works, topography, and hydrology, that are required for such development / construction projects such as highway, ISDS/OWTS, utility, and subdivision designs.
3. GIS Professionals/Practitioners may create and maintain digital and paper geospatial data tax and zoning maps that are meant to: illustratively convey accepted property use (e.g. commercial, industrial, residential), ownership, property value, and accepted lot sizes on a particular parcel of land; and meant to enable efficient production of abutter's lists, notifications of zoning changes, and other types of routine municipal tasks.
4. The preparation of any document or geospatial database by any federal, state, or quasi-state government agency, academic institution, or private firm that does not define real property boundaries. This includes civilian and military versions of quadrangle topographic maps, military maps, satellite imagery, and other such documents, and the collection of geospatial data via Global Positioning Systems or any other measurement methods.
5. The incorporation or use of documents or geospatial databases prepared by any federal, state, or quasi-state agency, academic institution, or private firm into a GIS/LIS, including but not limited to federal census and demographic data, quadrangle topographic maps, and military maps.
6. Inventory maps and geospatial databases created by any organization (inclusive of contractors and sub-contractors employed by that organization) in either hard-copy or electronic form, of physical features, facilities, or infrastructure that are wholly contained within properties to which they have rights or for which they have management responsibility. If required by the organization's internal policies/procedures, the distribution of these maps and/or databases outside the organization will contain appropriate metadata describing, at a minimum, the accuracy, method of compilation, data source(s) and date(s), and disclaimers of use clearly indicating that the data are not intended to be used as a survey / engineering product.
7. The preparation of maps and geospatial databases made to depict and perform spatial analysis on the distribution of natural resources or phenomena prepared by foresters, geologists, soil scientists, wetland scientists, geophysicists, biologists, archeologists, historians, health practitioners, or other persons qualified to document, analyze and interpret such data in the performance of their jobs.
8. The creation of maps and geospatial databases made to depict and perform spatial analysis on the occurrence, evolution, and/or response to natural disasters, emergency events, or social

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phenomena including but not limited to criminal activities, health crises, and other similar situations.

9. Maps and georeferenced databases depicting physical features and events prepared by any government agency where the access to that data is restricted by statute. This includes georeferenced data generated by law enforcement and/or health agencies involving crime statistics, and health statistics respectively.
10. Use of geospatial data to perform spatial analyses including, but not limited to determining proximity, density, coincidence, and adjacency, when these techniques are not intended to declare the legal, deeded description/coordinate location of property boundaries, the precise definition of the shape or contour of the earth, and/or the precise coordinate location of fixed works that would be required for such development / construction projects such as highway, ISDS/OWTS, utility, and subdivision designs.

**Actions necessary to minimize misuse of geospatial data:**

Authoritative Geospatial Data will **always** include the stamp and signature of a RI Registered Professional Land Surveyor

Non-Authoritative data will **always** include a disclaimer to be prominently displayed on maps (including paper, digital files such as pdf, jpg, tif, gif, etc, and web pages. The intent of the disclaimer is to make it abundantly clear to the user that the data are non-authoritative in terms of definitive location, elevation, depth, area or volume of any natural or man-made feature depicted.

We strongly recommend that the following language be used to the fullest extent practicable.


**Disclaimer:** This (map, data, or geospatial product) is not the product of a Professional Land Survey. It was created by XXXX for general reference, informational, planning and guidance use, and is not a legally authoritative source as to **location** of natural or manmade features. Proper interpretation of this (map, data, or geospatial product) may require the assistance of appropriate professional services. XXXX makes no warranty, express or implied, related to the spatial accuracy, reliability, completeness, or currentness of this map.

It is understood however, that even when these disclaimers are in place, they can be ignored or dismissed. Ultimately, it is the **responsibility** of the person, agency, organization, or approving authority, using the geospatial product(s) provided to them to determine whether the materials, comply with the requirements, regulations and needs of their specific situation and as defined by current Rhode Island Statutes.

RIGIS & RISPLS will undertake a concerted and ongoing effort to educate both the producers and end users of our work on the vital distinctions described above.

  
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Chairman, RIGIS Executive Committee

11/9/09  
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Date

  
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Chairman, RI Board of Registration for  
Professional Land Surveyors

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