MEMORANDUM OF UNDERSTANDING

Between

STATE CARTOGRAPHER'S OFFICE, UNIVERSITY OF WISCONSIN-MADISON

And

THE DEPARTMENT OF ADMINISTRATION, DIVISION OF INTERGOVERNMENTAL RELATIONS

Regarding V5 Statewide Parcel Map Database Project

January 1, 2019 to December 31, 2019

1. Purpose

The purpose of this document is to define the scope of work for the State Cartographer's Office (SCO) role in the "Version 5 Statewide Parcel Map Database Project" (V5 Project). The V5 Project is a joint effort with the Wisconsin Department of Administration (DOA) Division of Intergovernmental Relations (DIR) to run between January 1, 2019 and December 31, 2019. This scope of work refers only to the V5 Project, not to the larger Statewide Digital Parcel Map Initiative (Parcel Initiative) nor subsequent phases of the Parcel Initiative that may be covered by other scope of work documents.

2. Background

Wisconsin Act 20, the biennial state budget for 2013-2015, created statutory directives for state and local governments to coordinate on the development of a statewide digital parcel map. As required by statute 59.72(2)(a), counties are now required to have certain parcel information online in a searchable format. These statutory directives can be grouped together as the Statewide Digital Parcel Map Initiative and will continue to be fulfilled by the V5 Project.

The V5 Project follows successful collaboration between DOA and SCO on similar efforts. DOA and SCO have partnered on projects to create statewide parcel layers for the LinkWISCONSIN Address Point and Parcel Mapping Project, and Version 1-4 Projects. Each iteration of the project has created a statewide parcel database and map layer based on an aggregation of existing local parcel datasets. Counties must submit data according the "Searchable Format," a set of standards for parcel data that followed from the directives in Act 20. Attaining the Searchable Format entails meeting certain benchmarks for county parcel data improvement, which are tied to WLIP Strategic Initiative grant requirements. V5 is necessary to continue progress toward achieving the Searchable Format standard statewide in a way that can be continuously maintained. Because DOA has followed an iterative model that further develops the map with each new annual version, V5 seeks to build on efficiencies, and further improve and enhance the statewide parcel map.

3. Project Goals

- **Tracking progress**. The statewide parcel layer is built in an iterative fashion. V5 will continue to track progress made with investments to local governments, specifically on benchmarks for parcel dataset development instituted with the 2016 WLIP grant application and continued in the 2017 and 2018 grant applications.
- **Incremental improvement**. Improvement of the statewide parcel layer itself, as well as workflow and methods for each step in the aggregation process, with each new version of the layer. As with the database, the hosting and display should keep pace with current technology and be continually improved to meet users' needs. Intake and aggregation process should become more efficient with time, facilitating other improvements and/or opportunities for value-added products.
- **Four A's – Authoritative Automated Asynchronous Aggregation**. A long-term goal is to achieve these "four A's" so county data stewards can submit datasets at any time or interval by automatically merging the local data with the most current statewide database. The objective

for this project is to move toward a more efficient, automated process for data aggregation which would require fewer state resources be dedicated to the aggregation process and thereby reduce state costs for sustaining the statewide digital parcel map.

- **Moving to a contributor model of aggregation**. A long-term goal is to move toward a more efficient, automated process for data aggregation (the end of a continuum where the locus of standardization labor is on the data contributors, known as a "contributor model"), rather than an aggregator model requires which requires more state resources be dedicated to the aggregation process. The contributor model should require fewer staff resources and thereby reduce state costs for sustaining the statewide digital parcel map.
- **Outreach and technical assistance to counties**. This may take the form of further development of existing technical tools or the creation of new tools for counties and municipalities to use. It could also involve site visits and direct assistance.
- **Lean government principles**. The V5 Project should seek to create and realize efficiencies in general, eliminate waste, and integrate or collaborate with other state GIS services where possible.
- **Responsiveness to public needs and economic development goals**. Evaluate parcel layer user suggestions and implement improvements where feasible.

4. Project Deliverables

- **A statewide parcel database and map layer** aggregated from existing county and municipal parcel datasets using a documented update process that, at a minimum, includes the parcel attributes required by s. 59.72(2)(a), those listed in the parcel schema and Searchable Format standard detailed by the *V4 Submission Documentation* and recommended in the *V4 Final Report*, and, if statewide benefits clearly outweigh the costs of implementation, enhanced with additional data fields (i.e., "Searchable Format 2.0").
- **Hosting and display of V5 parcel layers**. Employ a hosting solution for the statewide parcel database and map layer (with the potential for a third-party hosting solution), and publicly display the statewide parcel database and map layer.
- **Download/Export of data and data subset capabilities**, including a clip, zip, and ship, download by filter, or download subset function.
- **Benchmarking data**. Provide data evaluating counties against current benchmarks, with parcel benchmark data to be provided to counties within six weeks after data submission date.
- **Collection and delivery of ancillary data layers to the UW-Madison Arthur H. Robinson Map Library**, including county-maintained zoning layers that are not collected and/or aggregated by another government entity.
- **Collection of PLSS corner data for V5**. Collection of PLSS corner data as part of V5 call for data, with the exception of datasets that have not changed since they were last submitted to PLSSFinder.
- **Version 1 Statewide PLSS database**. Create a Version 1 (V1) statewide PLSS database aggregated from current county datasets using a documented process that, at a minimum, has the following characteristics:
    - Based on accurate county corner coordinate values where available
    - Uses the Wisconsin Department of Natural Resources 1994 PLSS layer (Landnet) corner coordinates where county data is not available
    - Is compatible with the long-term goal of performing automated updates of corner coordinates, including replacement of Landnet coordinates
    - Contains polygons down to the section level at minimum based on best-available corner coordinate data
    - Uses standardized indexing system for corner point identification throughout the state

    - Provides mechanism to separate non-PLSS areas
    - Uses industry-standard format for delivery and distribution, including download capability and web app (with map services potentially hosted by third-party)
    - Integration into parcel web app
    - Based on existing federal PLSS standards tailored to the specific needs of Wisconsin
- **A final project report**, by September 30, 2019, written in collaboration with DOA. At a minimum, the report shall address:
    - Project Background
    - Technical Approach
    - Benchmark Progress Assessment – Assessment of where each county is at in terms of meeting the four benchmarks listed by the *V1 Interim Report* and the requirement for counties to achieve by the V6 call for data deadline of March 31, 2019.
        - Benchmark 1 – Parcel and Zoning Data Submission
        - Benchmark 2 – Extended Parcel Attribute Set Submission
        - Benchmark 3 – Completion of County Parcel Fabric
        - Benchmark 4 – Completion and Integration of PLSS
        - Expanded Benchmark 4 – Specifications for the submission of PLSS corner data
    - Recommendations for V6
- **Final Project Report Addendum**, by December 31, 2019, containing PLSS Evaluation:
    - PLSS Evaluation – Evaluation of PLSS deliverable and progress on the V0 and V1 PLSS databases, along with an outline of steps that would facilitate future updates to PLSS corner data, as well as evaluate the feasibility of:
        - Annual automated updates using new data contributed by counties
        - Enhancements based on outreach to dataset users
        - Begin working with counties and surveying community to resolve county boundary discrepancies, and to implement methods to incorporate PLSS data into parcel maps to improve accuracy
        - Develop visualizations and metrics to portray progress of PLSS and parcel improvements and completion

5. Responsibilities and Logistics

Responsibilities of the SCO and DIR will be essentially the same as with the V1, V2, and V3/V4 Projects. SCO will be responsible for the following logistics:

- **Data development**. The SCO will perform all data development for the V5 Project including data model, database design, interpretation, ingest, ETL, editing, attribute mapping, spatial manipulation, data assembly, and integration, QA/QC, and data assessment.
- **Standards development**. Identification of specific standards to improve the efficiency of data integration, data submission standards, timetables, and benchmarks for counties.
- **Benchmarking**. SCO to generate benchmark data by county, based on benchmarks developed in consultation with DOA.
- **Public access to data**. SCO will be responsible for working to locate and configure an appropriate solution and technology for visualization of the final parcel map database, as well as access to the statewide parcel map database. Features such as data hosting, tiered governmental and public access, and other features beyond simple display, search and query functions are beyond the scope of the SCO's responsibilities.
- **Project management**. Project management and administration will reside primarily in the SCO for the V5 Project. This includes hiring, managing, and oversight of GIS staff and students.

- **Technical assistance for statewide parcel map layer hosting and display**. The SCO will provide technical assistance for maintaining a functional statewide parcel layer application online.
- **Final deliverables**. The SCO will deliver the final V5 database and map layer by June 30, 2019; the final parcel project report by September 30, 2019, and the final PLSS deliverable and final report addendum by December 31, 2019.

DIR will be responsible for the following logistics:

- **Data acquisition**. The DIR will be responsible for making formal data requests to county and/or municipal GIS offices, including follow-up steps such as open records requests.
- **Data sharing**. The DIR will review and implement licensing agreements as needed and document data sharing issues.
- **Software and hosting/display technology**. Provide access to commercially-licensed desktop GIS software. DOA will provide access to three basic desktop ArcGIS licenses for the SCO use on the project, access ArcGIS Online, and all necessary credits for ArcGIS Online.

Both the SCO and DIR will participate in community outreach efforts. In consultation with DIR, the SCO will conduct outreach and publicize project goals and status. Both the SCO and DIR will provide project liaisons to facilitate collaboration.

6. Project Timeline

Date	Milestone
January 1, 2019	V5 Project start
March 31, 2019	V5 Data submissions due
June 30, 2019	V5 Parcel map available online Publication of PLSS schema modifications for future versions of project, if needed
September 30, 2019	V5 Final report due
December 31, 2019	Final PLSS Version 1 deliverable due with final report addendum

7. Payments to SCO

SCO shall receive, during the term of this scope of work, reimbursement of expenses up to the amount of $122,572 for staff time, materials and incidental expenses in executing the V5 Project. SCO shall submit invoices to the DOA on a quarterly basis. Such invoices will include major budget category detail, e.g., salary, fringe, supplies, travel, etc. The final invoice shall be submitted to the DOA within 60 days of contract end date.

8. Project Budget

Item	Description	Amount
Staff salary and fringe	David Vogel (50%), Project Staff (100%), and Howard Veregin (3%)	$ 84,621
Student assistant(s)	1500 hours	$ 18,963
Travel and supplies	Computer hardware, data storage, outreach, travel, conferences, etc.	$ 3,000
Indirect	15%	$ 15,988
TOTAL		**$ 122,572**

9. Primary Project Contacts

State Cartographer's Office:
Howard Veregin
608-262-6852
veregin@wisc.edu

Department of Administration:
Mike Friis, Program Manager
Peter Herreid, Project Liaison
608-267-3369
peter.herreid@wisconsin.gov

For the University of Wisconsin-Madison

Robert Gratzl, Managing Officer, RSP

1/10/2018
Date

For the Department of Administration,
Division of Intergovernmental Relations

Administrator
Division of Intergovernmental Relations

1/16/2018
Date