

CITY OF MADISON POSITION DESCRIPTION

1. Name of Employee (or "vacant"):

Dan Seidensticker

Work Phone: 608-266-9119

2. Class Title (i.e. payroll title):

Planning GIS Manager (NEW – Proposed)

3. Working Title (if any):

4. Name & Class of First-Line Supervisor:

William Schaefer, Transportation Planning Manager

Work Phone: 608-266-9115

5. Department, Division & Section:

Department of Planning, Community, & Economic Development, Planning Division, MPO

6. Work Address:

100 State Street, Suite 400, Madison, WI 53703

7. Hours/Week: 38.75

Start time: 8:00 am End time: 4:30 pm

8. Date of hire in this position:

March 6, 2000

9. From approximately what date has employee performed the work currently assigned:

January, 2015

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10. Position Purpose: (How this position fits into the overall mission, vision, and goals of your agency and work unit.)

Provide GIS oversight and management and mentorship and training to Planning staff and interns. Establish GIS coordination between City of Madison, Dane County, local municipalities, and State of Wisconsin. Determine short- and long-term technology needs.

11. Position Summary:

This is responsible professional and administrative work involving the coordination of enterprise Planning GIS (Geographic Information System) for use by city agencies. This involves developing GIS standards, metadata, and procedures and guidelines for accessing and using Planning GIS. Perform all work of the GIS Planning Specialist in addition to management of GIS data, applications, and development, and delegating and overseeing GIS related work and providing GIS and other data related technical assistance to staff and interns. Position participates in city-wide and regional GIS teams. The position requires coordinating GIS activities with City of Madison agencies, county, state, and other governmental and private agencies. Work includes advanced

technical GIS duties, including management of enterprise GIS databases, web-based GIS applications, spatial and statistical analysis, research and development, and documentation. Work also includes working with and managing other datasets, including "big data" acquired from private vendors such as StreetLight Data, and converting that data into GIS environment for further analysis and mapping. This work has considerable independent judgement and leadership with limited general supervision.

12. Functions and Worker Activities: (Do NOT include duties done on an "Out-of-Class" basis.)

- 25% A. Provide GIS coordination and management, and mentorship and technical training to staff and interns.
 - 1. Train staff and interns on using GIS applications, data entry and analysis, and oversee that work.
 - 2. Participate in City of Madison, Dane County, and state GIS teams, Wisconsin Land Information Association, and others. Participate in staff interviews and selection process.
 - 3. Provide GIS project leadership, overseeing staff work and assigning tasks to interns.
 - 4. Serve as liaison with City of Madison IT Department. Troubleshoot GIS and IT issues. Conduct research and development to advance agency GIS technology. Recommend purchases of hardware and software.
 - 5. Maintain government agency GIS coordination and partnerships, and working relationships with City of Madison departments, Dane County, State of Wisconsin, UW-Madison, local municipalities, and private agencies.

- 25% B. Management and administration of GIS databases and applications in an enterprise environment.
 - 1. Manage workflow of GIS databases in enterprise and local repositories. Develop automated methods to maintain database content.
 - 2. Install, test, manage, and troubleshoot Esri GIS applications and extensions.
 - 3. Write GIS metadata, technical data development procedures, end user documentation.
 - 4. Handle internal and external GIS technical support and data requests.
 - 5. Contact vendors, evaluate desktop and cloud-based applications and data. Follow data sharing agreements and policies.

- 20% C. Advanced GIS data development and analysis.
 - 1. Design, develop, and maintain transportation GIS databases and multi-modal networks.
 - 2. Conduct advanced statistical and spatial analysis using GIS and other applications.
 - 3. Automate data entry and validation procedures.
 - 4. Research, evaluate, acquire, and document federal, state, local, and private party GIS data sets.
 - 5. Convert and format various datasets for use in an Esri GIS environment, including "big data" from private vendors such as StreetLight Data.

- 15% D. Urban and regional transportation planning support.
 - 1. Prepare GIS and socioeconomic data for use as input into the MPO's regional travel demand forecast model.
 - 2. Format and analyze large relational databases of census, socioeconomic, commuter flow, and other transportation related data for planning purposes.
 - 3. Design and create advanced cartographic products for transportation planning purposes.
 - 4. Maintain GIS data sets of roadways, transit, bicycle, and pedestrian facilities using applied knowledge of transportation planning principles.
 - 5. Oversee design, development, and content of agency Website.

- 15% E. Develop advanced GIS products for city staff, local officials, and the public.
 - 1. Oversee, develop, and test interactive cloud-based GIS applications with analysis, display, and reporting tools.
 - 2. Develop and test tools through scripting, coding, and customization in GIS applications for use by staff.
 - 3. Present on GIS topics at conferences, webinars, city and county user groups, and technical committees.
 - 4. Maintain technical expertise and best practices in development of GIS.

5. Prepare and assist in creation of maps, graphics, and layouts for publication.

13. Primary knowledge, skills and abilities required:

Thorough knowledge of the principles and practices of GIS, cartography, and geography. Extensive experience using Esri applications including ArcGIS Desktop Advanced (ArcMap, ArcCatalog, ArcToolbox), ArcGIS Pro and their related extensions (Network Analyst, Spatial Analyst, 3D Analyst, Publisher, Geostatistical Analyst) and ArcGIS Online. Experience using ArcInfo, ArcGIS Server, ArcSDE, ArcGlobe, ArcScene, City Engine, and FME. Thorough knowledge of map projections, coordinate systems, spatial data file types (personal and file geodatabase, CAD, shape, image, grid, cover), relational databases, open data sources, statistical and spatial analysis. Strong background designing and building Web maps, dashboards, and other GIS applications using API and REST services with ArcGIS Online. Working knowledge of scripting and coding using SQL, Python, Arcade, and VBA in Esri applications. Strong background building multi-modal transportation networks with Network Analyst for routing and analysis, and using Model Builder to automate tasks. Working knowledge of Microsoft Office Suite (Word, Excel, PowerPoint, Access, and Outlook), SharePoint, and familiarity with Adobe Creative Suite. Ability to research and evaluate hardware and software and keep pace with changes in GIS technology. Strong attention to detail, ability to communicate effectively orally and in writing and chair user groups and lead meetings. Ability to provide training and project management. Ability to develop guidelines, best practices, and maintain metadata. Working knowledge of land use and transportation planning principles. Knowledge of travel demand modeling process and data needs. Ability to work independently, exercise judgement, and prioritize and complete projects with minimal supervision. Establish and maintain effective working relationships with Information Technology and other city staff, vendors, and other public and private agencies.

14. Special tools and equipment required:

None

15. Required licenses and/or registration:

None

16. Physical requirements:

Ability to stand or sit at computer workstation and desk.

17. Supervision received (level and type):

None or minimal.

18. Leadership Responsibilities:

This position: is responsible for supervisory activities (Supervisory Analysis Form attached).
 has no leadership responsibility.
 provides general leadership (please provide detail under Function Statement).

19. Employee Acknowledgment:

I prepared this form and believe that it accurately describes my position.
 I have been provided with this description of my assignment by my supervisor.
 Other comments (see attached).

EMPLOYEE

DATE

20. Supervisor Statement:

- I have prepared this form and believe that it accurately describes this position.
- I have reviewed this form, as prepared by the employee, and believe that it accurately describes this position.
- I have reviewed this form, as prepared by the employee, and find that it differs from my assessment of the position. I have discussed these concerns with the employee and provided them with my written comments (which are attached).
- I do not believe that the document should be used as the official description of this position (i.e., for purposes of official decisions).
- Other comments (see attached).

SUPERVISOR

DATE

Instructions and additional forms are available from the Human Resources Dept., Room 261, Madison Municipal Bldg., calling 266-4615 or visiting cityofmadison.com/employeeenet/policies-procedures/position-descriptions.