

## CITY OF MADISON POSITION DESCRIPTION

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

Vacant

Work Phone:

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

TBD

3. Working Title (if any):

Streets & Urban Forestry (StUF) GIS/Asset Management Specialist

4. Name & Class of First-Line Supervisor:

Charlie Romines, Streets & Urban Forestry Supt.

Work Phone: 266-4819

5. Department, Division & Section:

Public Works – Streets & Urban Forestry

6. Work Address:

1501 W. Badger Rd

7. Hours/Week: 38.75

Start time: Flexible      End time: Flexible

8. Date of hire in this position:

03\01\2022

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

N\A

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10. Position Summary:

This is specialized technical and professional work in the development and application of the Streets & Urban Forestry Divisions computerized mapping\geographic information system (hardware & software) The work involves system management activities, providing technical support to Streets & Forestry staff and utilizing the system to meet related information needs. Under the general supervision of the Streets & Urban Forestry Superintendent, responsibilities include updating and maintaining related geographical databases for use

throughout the agency, developing specialized databases and sources of information as required, and conducting related technical analysis. Further provides related training , develops, tests, installs and documents new applications and systems. Coordinates data exchange with other agencies. Work is performed under limited supervision and involves the exercise of considerable independent judgement and product development.

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

40% A. Develop, implement and maintain StUF Division Mapping and Routing software and systems.

1. Focus on improved employee and equipment efficiencies using available data, including but not limited to GPS, GIS and additionally gathered operations data to analyze workflows.
2. Update and digitize Division specific maps including but not limited to various snow maps, solid waste districts, tree and brush districts as well as pruning and street sweeping maps appropriate for operations staff use.
3. Develop real time updating maps to reflect progress on set Division tasks such as plowing, solid waste collection, cycle pruning, tree planting, street sweeping, yard waste and brush collection.
4. Integrate and automate large item and brush collection customer generated work orders into a routing software.
5. Plan and implement short & long term goals and plans related to Computer Mapping\GIS including recommending routing improvements based on GIS and relevant GPS and operations gathered data for plowing, yardwaste, solid waste, recycling and large item collections as well as for seasonal EAB treatment crews and for spring and fall planting.

40% B. Develop, implement and maintain the Divisions asset management databases.

1. Provide GIS database support including maintaining accurate customer database for the Urban Forestry Special Charge as well as the development and maintenance of the customer database for the Sorting Special Charge.
2. Digitize and maintain division's databases and integrations
3. Create and maintain various digital files including pictures of assets where appropriate.
4. Participate in continuous update of the Division's Street Tree Inventory.
5. For GIS related projects participate in vendor selection, setting contract parameters and ensuring data is collected in proper format for our systems use.
6. Coordinate, develop and maintain assets and functions required by the Asset management\Work Order system
7. Identify and aid in the development of service requests, work orders, preventative maintenance and asset inspections.
8. Develop automated processes and dashboards for collecting and reporting data and visualizing related metrics.
9. Provide maintenance and support of existing TreeKeeper, MS Access & Excel databases
10. Administer bulk uploads of data
11. Maintain updated digital library of the numerous division maps including those showing established fixed routes as appropriate.

20% C. Related Functions

1. Maintain technical expertise in all GIS|Asset Management software used by the division.
2. Recommend improvements including research and purchasing recommendations for new technologies related to GIS|Asset Management with emphasis on mapping, updated routing, integrating work orders and the automated collection and display of data.
3. Assist with tools and technology related to Engineering and private development projects.
4. Assist with Public Information requests for data.
5. Administer related contracts and agreements with vendors, IT and Attorneys office related to GIS\Asset Management
6. Perform Quality control and assurance on software and data compilation.
7. Manage Divisions mobile laptops and Toughbook program.
8. Mentor and train division staff on use of hardware and software including the use of laptops, tablets and GPS as well as other mobile devices as they relate to GIS|Asset Management including but not limited to Treekeeper, ArcGIS, Accela, CityWorks and routing software to meet operational needs.
9. Collaborate and coordinate with other City agencies and GIS coordinators on program direction and best practices.
10. Perform other related duties as required.

12. Primary knowledge, skills and abilities required:

**Knowledge, Skills and Abilities:**

The primary focus of the position is to provide technical GIS and asset management support to the Streets and Urban Forestry Division. The Forestry work unit is currently in the early stages of building out and implementing the Treekeeper asset management system. This position will be key in this process as well as ongoing improvements, updates and system maintenance. Provide the necessary support to improve the divisions tracking, maintaining and use of data to allow for further increases in efficiency and informed decision making. This position will be expected to use currently collected operations section data (collection weights, GPS info, resident generated work orders etc) along with their own GIS technical knowledge and abilities to advise operations staff on available efficiencies. Improved curbside collection routes and snow plowing routes as an example. The position requires the ability to think creatively, to collect organize and understand information and to communicate effectively both orally and in writing including reports. Position requires the ability to work and communicate effectively with both office and field staff. Thorough knowledge of the application of computerized mapping and routing systems, equipment and software. Thorough knowledge of a variety of software development tools and techniques including geographic information system software (ESRI ArcGIS Desktop, Pro and Server), SQL and relational databases. Thorough knowledge of desktop, server, and browser-based computer system technology (hardware and software) and its effective application. Working knowledge of computer system design and business process analysis. Working knowledge of asset management and computerized maintenance management systems (Cityworks AMS/PLL, Accela Automation, Treekeeper and reporting tools (SSRS and Crystal Reports). Working knowledge of management information system networking

considerations. Knowledge of project management techniques, practices and principles. Ability to develop and maintain effective working relationships with internal staff and staff of other agencies. Ability to problem solve, apply logic, and perform process identification and systems thinking. Ability to learn new technologies that emerge and impact our systems, and resolve any problems involved in integrating them within our systems. Ability to resolve problems in a timely and effective manner, and to maintain an awareness of project deadlines and communicate project status, risks, and other issues. Ability to use various computer applications including Word processing, Excel spreadsheets, Powerpoint, AdobeSuite and computer aided design. Ability to multi-task and prioritize responsibilities. Ability to effectively participate in team efforts to improve/develop departmental programs and services. Ability to evaluate software and recommend purchase. Ability to determine customer needs and define the scope of projects. Ability to exercise considerable judgment and discretion in completing assigned tasks. Ability to provide consultation, training and leadership to Streets and Forestry staff. Ability to work effectively with multicultural populations. Ability to maintain adequate attendance.

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13. Special tools and equipment required:

GIS\CAD Workstation, Adobe Suite, ESRI software products, ARCGIS, AutoCAD, GPS data collection hardware

14. Required licenses and/or registration:

Possession of a valid driver's license.

15. Physical requirements:

Ability to stand or sit at computer workstation and desk for long hours, to operate motor vehicle, to get to and observe field locations.

16. Supervision received (level and type):

Work is performed under general supervision.

17. 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).

18. 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).

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EMPLOYEE

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DATE

19. 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).

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SUPERVISOR

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DATE

Note: Instructions and additional forms are available from the Human Resources Dept., Room 501, City-County Bldg. or by calling 266-4615.