JOB DESCRIPTION QUESTIONNAIRE (JDQ)

SECTION 1 - DEMOGRAPHIC INFORMATION

Class Title	GIS Developer	**Department**	Information Technology	**Division**	N/A
Classification per 2.76 RMC	☐ Executive (City Officer or Department Head) ☐ Managerial Service ☐ Deputy/Assistant Service ☐ Supervisory ☒ Professional ☐ Confidential ☐ General Employee	**Work Location**	☒ City Hall ☐ Fire ☐ Health ☐ Library ☐ PW ☐ Police		
Full-Time / Part-Time	☒ Full-time ☐ Part-time, Hours per week _____	**Supervisor Title**	Director of IT		
HR Only	***Working Title***	***Salary Grade -***		***FLSA Code:***	☐ *Exempt* *Non-exempt*

Position Summary – Summarize the purpose and primary responsibilities for this position. (Job Announcement Wording)

The GIS Developer is the City's lead for geographic information systems. The position maintains the City's authoritative spatial data and builds the web maps, dashboards, mobile field apps, and public-facing tools that City departments and residents rely on. Working within the IT Department, the position administers the City's ArcGIS platform at the application level, writes code and automation that connect GIS with other City systems, and partners with departments to turn manual processes into digital ones. The ideal candidate is a hands-on GIS professional with web and mobile development skills who can work independently and explain technical work in plain terms.

SECTION 2 - DESCRIPTION OF EXPECTED WORK HOURS/CORE FUNCTIONS, ESSENTIAL DUTIES & RESPONSIBILITIES

The core functions/essential duties/responsibilities of the job, which are the most important aspects of the job. This section is focused on WHAT is done rather than HOW it is done. Wording that provides a clear for someone not familiar with the work is used. Terminology or acronyms that are not widely known are avoided. The list includes the duties that are most important at the top, and the estimated percentage of the total annual time that each item takes. (FYI - *10% equates to roughly 200 hours of a work year.*) Duties and responsibilities that account for as close to 100% of work time as possible are listed. Catch-all categories may be included but are not evaluated as part of the classification for the position (e.g. misc. duties, other duties as assigned, etc.), those sections will likely NOT be evaluated. **Frequency Codes:** Daily [**D**] / Weekly [**W**] / Bi-Weekly (**B**) / Monthly [**M**] / Quarterly [**Q**] / Annually [**A**] / As Needed [**N**]

Expected Work Hours/Core Functions/Essential Duties and Responsibilities of the Position	Frequency	% of Annual Total Time
Expected Work Hours	☒ Normal Business Hours (M-F, 8 am- 4:30 pm); but may work alternative schedules as required ☒ Full-time salaried position[1] ☐ Emergency call outs, before and after standard scheduled hours of work including weekends and holidays ☐ Watch Duty ☐ Other, describe: Regular attendance is an essential function of this job to ensure continuity of service delivery.	
Designs, builds, tests, and maintains GIS web applications, dashboards, and story maps for City staff and the public, using Esri app builders and custom code (JavaScript, Python). Keeps code in version control and documents it so others can support it. Migrates and retires legacy applications as Esri products reach end of life.	D	20%
Maintains the City's authoritative spatial data, including address points, road centerlines, zoning, municipal, school, and ward boundaries, PLSS, and City infrastructure layers. Performs editing, quality control, and metadata upkeep so other departments and outside agencies can rely on the data.	D	15%
Builds and supports mobile field data collection solutions (forms, field maps, inspection and asset workflows) used by Public Works, Engineering, Health, Fire, and other departments. Visits field crews to observe workflows, troubleshoot, and improve the next release.	D	10%
Administers the ArcGIS application layer: publishes and maintains map and feature services, configures the ArcGIS Enterprise portal and server software, administers the enterprise geodatabase (schema, domains, versioning, and routine maintenance), applies Esri updates and version upgrades, and manages Esri licensing. Coordinates with IT, which owns the underlying servers, operating systems, database platform, network, security, and backups.	M	10%
Administers the City's ArcGIS Online and portal organizations: user accounts, groups, roles, sharing, content cleanup, and credit and license usage, following IT security standards.	W	8%
Integrates GIS with other City systems (asset management, permitting and land records, financial, public safety, and CAD/engineering drawings). Defines what GIS needs from each system and works with the Data Systems Administrator, who builds and owns the database views and feeds. Builds the GIS-side connection, automation, and spatial ETL.	W	8%
Works with department leaders and staff to understand current processes and identify where GIS can save time or improve service.	W	8%

Gathers requirements, scopes projects, estimates effort, and brings requests to the IT project prioritization process.		
Trains City staff on GIS tools and applications and resolves GIS support tickets escalated through the IT service desk.	W	10%
Produces maps, analysis, and data extracts for departments, Common Council, public hearings, and outside requests, including demographic and Census-based analysis.	W	4%
Writes and maintains GIS standards, standard operating procedures, and system documentation so that GIS services can continue without depending on any one person.	M	5%
Supports emergency preparedness exercises and actual events with mapping and data. Shares data and coordinates with Milwaukee County, neighboring communities, the State, and regional GIS groups.	N	2%

[1] with expectations for coverage during core business hours and flexibility required as necessary to accommodate business needs. Accessible by cell phone and/or to report to the worksite outside of regular office hours, including but not limited to, nights, weekends, holidays, etc.

SECTION 3 - COMPETENCIES, KNOWLEDGE, SKILLS AND ABILITIES

Customer Focus	Understands what departments and residents need and delivers maps, data, and apps that make their work easier.
Communication	Explains technical information clearly, in writing and in person, to staff, elected officials, and the public.
Problem Solving	Finds the root cause of data and application issues and puts practical, lasting fixes in place.
Technical Expertise	Keeps current on GIS and Esri technology and applies it to City needs.
Independence	Works with minimal oversight, anticipates needs, and follows through without being prompted.
Collaboration	Works effectively with IT staff, department staff, consultants, and outside agencies.
Accountability	Takes ownership of data accuracy and application reliability, and documents work so others can rely on it.

If checked the following are applicable to the position: ☐ maintains the ability to competently and credibly testify in court; ☒ maintains ability to lawfully operate designated motor vehicles at all times when driving duties are performed; ☒ maintains the ability to travel throughout and enter all different properties in the jurisdiction

Job Specific

List the desired knowledge, skills, and abilities needed to be successful in performing the position (e.g., knowledge of local government organization and administration; skill in listening, critical thinking, problem analysis and problem-solving; ability to quickly adapt and learn specialized software systems and databases)

- Knowledge of GIS principles, spatial data models, coordinate systems, and cartography, including municipal data such as parcels, addresses, and infrastructure.
- Advanced skill with Esri ArcGIS Pro, ArcGIS Enterprise, and ArcGIS Online, including publishing services and administering portal content, users, and licensing.
- Skill building web and mobile GIS applications with Experience Builder, Dashboards, StoryMaps, Field Maps, and Survey123, and extending them with custom JavaScript (ArcGIS Maps SDK for JavaScript).
- Skill writing maintainable Python (ArcPy, ArcGIS API for Python) to automate data processing, maintenance, and integration tasks.
- Knowledge of software development practices, including version control (Git), testing changes before release, and documenting code so others can maintain it.
- Working knowledge of relational databases and SQL, including Esri enterprise geodatabases, enough to maintain GIS data structures, define integration requirements, and use data from other City systems.
- Ability to plan, test, and carry out software upgrades and application migrations with minimal disruption to users.
- Ability to gather requirements from non-technical staff, explain technical options in plain terms, and train users at all skill levels.
- Ability to manage several projects independently, set priorities, document work, and meet deadlines as the City's only GIS position.

SECTION 4 - JUDGMENTS / DECISION-MAKING

Five of the most typical judgments/decisions made in performing the job as well as the solutions to these problems, and the resource, input or guidance others provide in arriving at the decision. Who reviews, if anyone.

Typical Problems/Challenges	Possible Solution(s) to Problem/Challenge	Resources Available and/or Used	Job Title of Who Reviews
A department asks for a new map, app, or mobile workflow	Decide whether an existing app can be reconfigured or a new build is needed; choose configuration vs. custom code; estimate effort	Esri documentation, department staff, IT project prioritization process	IT Director
An Esri product the City relies on is being retired or changed	Inventory affected apps; decide which to rebuild, consolidate, or drop; schedule the work around upgrades	Esri lifecycle notices, Esri support, consultant partner	IT Director
Planning and testing an ArcGIS software upgrade	Determine the upgrade path, test apps and services in a non-production setting, define rollback, coordinate outage timing	Esri upgrade guides, Network/Security Administrator, Data Systems Administrator, consultant partner	IT Director
Conflicting or inaccurate spatial data between departments	Identify the authoritative source, correct the data, and set an editing workflow that prevents it from happening again	Department data owners, Data Systems Administrator	Department Heads
Connecting GIS to another City system	Define the fields and refresh frequency GIS needs; decide whether a database view, service, or scheduled script is the right method	Data Systems Administrator, vendor documentation	Data Systems Administrator, IT Director

SECTION 5 - WORKING RELATIONSHIPS / INTERACTIONS / CONTACTS Typical work relationships with persons inside or outside of the City of West Allis.

Title of individuals with whom this position typically interacts	Interaction Description.	Why is it necessary?
City staff (all departments)	Training, support, requirements gathering	Staff depend on GIS maps and apps for daily work
Public Works and Engineering staff	Infrastructure data maintenance, field apps, drawing-to-GIS integration	Accurate infrastructure locations are critical to maintenance and safety
Department Heads, Alderpersons	Review needs, present maps and analysis, scope projects	Turn paper and manual processes into digital ones; support Council decisions

Data Systems Administrator	Agree on database views and feeds GIS uses; troubleshoot integrations	The database layer and GIS layer must stay aligned
Network/Security Administrator	Server, network, security, and backup needs for the GIS platform; upgrade coordination	IT owns the infrastructure GIS runs on
IT Director	Project priorities, workload, status, budget input	Keep GIS work aligned with City priorities
Administration and Communications	Public-facing maps, story maps, and dashboards	Promote the City and support strategic plan goals
Fire, Police, and emergency management staff	Address and street data, emergency mapping support	Public safety relies on accurate location data
Esri, consultants, software vendors	Technical support, licensing, upgrade assistance	Resolve product issues and add capacity when needed
Milwaukee County, State, neighboring communities, regional GIS groups	Data sharing and coordination	Shared boundaries and regional data

SECTION 6 - EDUCATION, EXPERIENCE, CERTIFICATION, LICENSURE, TRAINING REQUIRED[2]

Education	☐Less than High School ☐High School/GED ☐One Year Certificate ☐Associate's Degree ☒Bachelor's Degree ☐ Master's Degree ☐Professional Degree (Engineering, Law, Library, Medicine Nursing, etc.) Field of Study: GIS, geography, computer science, or a related field. Additional Information (e.g. specific coursework, etc.): An equivalent combination of education and directly related experience may substitute.
Experience	☐No Experience ☐< 2 yr. ☐2 to 3 yrs. ☒4 to 5 yrs. ☐6 to 7 yrs. ☐8 to 9 yrs. ☐10 to 11 yrs. ☐≥ 12 yrs. Describe Specifics regarding required experience (e.g. 5 total years of customer service experience 2 of which were in a supervisory capacity): At least 4 years of professional GIS experience, including at least 2 years writing Python automation, experience building web or mobile GIS applications, and hands-on administration of ArcGIS Online or ArcGIS Enterprise.

Required Certification/Licensure/Training[3]	How Attained/Provided	Required Upon Hire?	May Obtain After Hire?
Valid Wisconsin driver's license	Wisconsin DMV	Yes	No

Describe any current practices as it relates to licensure or certification (e.g. extra pay for certification, employer payment for obtaining or renewing, etc.):
The City of West Allis will pay for certifications directly related to job duties.

List preferred Education, Experience, Certification, Licensure or Training – Local government GIS experience. GISP (GIS Certification Institute). Esri technical certification (ArcGIS Enterprise Administration or Developer track). Experience migrating Web AppBuilder apps to Experience Builder.

SECTION 7 - SUPERVISION / MANAGEMENT

A. Supervision Received by this position upon successful completion of a training period:

☐ **Close Supervision**: Assigned duties according to specified procedures and receives detailed instructions. Work is checked frequently.
☐ **Supervision**: Performs a variety of routine work within established policies and procedures, and receives detailed instructions on new projects and assignments.
☐ **General Supervision**: Normally receives little instruction on day-to-day work and receives general instructions on new assignments.
☒ **Direction**: Establishes methods and procedures for attaining specific goals and objectives, and receives guidance in terms of broad goals. Only the final results of work are typically reviewed.
☐ **General Direction**: Exercises wide latitude in determining objectives and approaches to critical assignments.

B. Type of Responsibility/Area of Action performed by this position:	Yes	No	Provides Input
Screen / interview applicants		**X**	
Hire, promote, discipline, or terminate employees		**X**	
Evaluate performance of others		**X**	
Prepare work schedules or approve time off / overtime for others		**X**	
Project management (GIS projects, app migrations, upgrades)	**X**		
Provide work direction to consultants and contractors	**X**		
Train employees on GIS tools and applications	**X**		
Develop / implement GIS standards and procedures	**X**		
Counsel employees		**X**	

[2] Equivalencies are used where deemed appropriate with regard to education and experience requirements. Combinations of education and experience which are likely to lead to success with essential duties and responsibilities are considered. Generally 2 years of relevant experience may be substituted for each year of education. This does not apply to required professional degrees, licensures, or certifications (e.g., juris doctorate, public health nurse, etc.). If Equivalency was indicated for Educational requirements, it should be taken into consideration when determining work experience requirements.
3 including but not limited to: valid WI Driver's License, valid WI Commercial Driver's License [CDL], confined space training, blood borne pathogen training, etc.

Direct supervision[4] of any employees. ***Number of FTEs and job titles of those employees listed below:***			
Job Title	**# of FTEs**		
N/A	0		

SECTION 8 - PHYSICAL DEMANDS[5] AND REQUIREMENTS /WORK ENVIRONMENT/TOOLS

N=Never (0 minutes per day) **S**=Seldom (1 to 5% of time, 1-25 Minutes a Day) **O**=Occasional (5 to 33% of time, 26 minutes to 2.5 hours per day)
F=Frequent (34 to 66% of time, 2.6 – 5.25 hours per day) **C**=Constant (67 to 100% of time, 5.26 and above hours per day)

Possess the physical capacity to perform the duties of the position including, but not limited to –	**Never**	**Seldom**	**Occasional**	**Frequent**	**Constant**
Carry/Lift/Lower/Push/Pull Objects or Materials of 10 - 50 Pounds		**X**			
Carry/Lift/Push/Pull Objects or Materials of > 50 Pounds; Handle Odd Objects	**X**				
Alternate Sit/Stand or Walk at Will - The ability to alternate between sitting and standing is present when a worker has the flexibility to choose between sitting or standing as needed when this need cannot be accommodated by scheduled breaks and/or lunch period.				**X**	
Climbing Ramps/Stairs - Ascending or descending ramps and/or stairs using feet and legs. Hands and arms may be used for balance (e.g., to hold a railing).		**X**			
Climbing Ladders/Ropes/Scaffolding - Ascending or descending ladders, scaffolding, ropes, poles and the like using feet/legs and/or hands/arms.	**X**				
Communicating Verbally - Expressing or exchanging ideas by means of the spoken word to impart oral information to clients or the public and to convey detailed spoken instructions to other workers accurately, loudly, or quickly.					**X**
Crawling - Moving about on hands and knees or hands and feet.		**X**			
Crouching - Bending body downward and forward by bending legs and spine.		**X**			
Far Visual Acuity - Clarity of vision at 20 feet or more. This is not just the ability to see a person or object, but the ability to recognize features as well.		**X**			
Fine Manipulation - Picking, pinching, or otherwise working primarily with fingers rather than the whole hand or arm as in gross manipulation.					**X**
Foot/Leg Controls - Use of one or both feet or legs to move controls on machinery or equipment. Controls include, but are not limited to, pedals, buttons, levers, and cranks.		**X**			
Gross Manipulation - seizing, holding, grasping, turning, or otherwise working with hand(s). Note: Fingers are involved only to the extent that they are an extension of the hand.		**X**			
Hearing Requirements The ability to hear, understand, and distinguish speech and/or other sounds (e.g., machinery alarms, medical codes/alarms). A yes or no answer is captured for each of the five hearing requirements listed:					
One-on-one (in person)			Yes		
Group or conference (in person)			Yes		
Telephone			Yes		
Other sounds			Yes		
Passing of hearing test required	No				
Keyboarding - Entering text or data into a computer or other machine by means of a keyboard. Devices include traditional keyboard, tablet, 10 key pad, touch screen, smart phone, etc.					**X**
Kneeling - Bending legs at knees to come to rest on knee(s)		**X**			
Lifting/Carrying - Lifting is to raise or lower an object from one level to another (includes upward pulling). Carrying is to transport an object – usually by holding it in the hands or arms, but may occur on the shoulder.		**X**			

[4] Section 111.70 (1)(o) Wis. Stats. defines a **supervisor** as: "…any individual who has authority, in the interest of the municipal employer, to hire, transfer, suspend, lay off, recall, promote, discharge, assign, reward or discipline other employees, or to adjust their grievances or effectively to recommend such action, if in connection with the foregoing the exercise of such authority is not of a merely routine or clerical nature, but requires the use of independent judgment."
[5] https://www.bls.gov/ncs/ors/physical.htm

Near Visual Acuity - Clarity of vision at approximately 20 inches or less (i.e., working with small objects or reading small print), including use of computers						X
Peripheral Vision - Observing an area that can be seen up and down or to right or left while eyes are fixed on a given point.			X			
Pushing/Pulling - Pushing/pulling may involve use of hands/arms, feet/legs, and/or feet only done with one side of the body or both sides. **Pushing** - Exerting force upon an object so that the object moves away from the force; **Pulling** - Exerting force upon an object so that the object moves toward the force			X			
Reaching At/Below Shoulder Level - Extending hand and arms from 0 up to 150 degrees in a vertical arc. Reaching requires the straightening and extension of the arm and elbow and the engagement of the shoulder. The elbow does not need to be locked at any time and the arm does not need to remain in a continuously straight position.			X			
Reaching Overhead - Extending hands and arms in a 150 to 180 degrees vertical arc. Reaching requires the straightening and extension of the arm and elbow and the engagement of the shoulder. The elbow does not need to be locked at any time and the arm does not need to remain in a continuously straight position.			X			
Sitting - Remaining in a seated position.					X	
Standing/Walking - Standing is to remain on one's feet in an upright position at a workstation without moving about. Walking is to move about on foot.					X	
Stooping - Bending the body downward and forward by bending the spine at the waist - requiring full use of the lower extremities and back muscles.			X			
Possess the capacity to effectively and efficiently work with/in the following conditions -	**Never**	**Seldom**	**Occasional**	**Frequent**	**Constant**	
Indoor/Office Work Environment					X	
Outdoor Work Environment Extreme Hot/Cold Temperatures (>90 degrees / <40 degrees)		X				
Insects	X					
Rodents	X					
Exposure to Various Lighting Conditions (High, Low, LED, etc.)		X				
Noise >85dB (e.g. mower, heavy traffic, milling machine, etc.)		X				
Outdoor Weather Conditions (Dry/Wet/Slippery)		X				
Hazardous Fumes or Odors / Toxic Chemicals	X					
Confined Spaces (as identified by OSHA)	X					
Close Proximity to Moving Machinery / Equipment		X				
Bodily Fluids / Communicable Diseases	X					
Working Alongside Moving Traffic on Roads	X					
Electrical Hazards	X					
Vibrations	X					
Dust		X				
Interact with persons of various social, cultural, economic, personal hygiene standards, mental capacities, and educational backgrounds.				X		
Other:						

Tools Used (add as needed)	**Level of Proficiency[6] if applicable**	**Never**	**Seldom**	**Occasional**	**Frequent**	**Constant**
Office Equipment: Desktop Computer, Copier, Phone, Fax, Scanner, etc.	☐Basic ☒Intermediate ☐Advanced ☐Expert					X
Field Technology: Ipad/Laptop/Smartphone	☐Basic ☒Intermediate ☐Advanced ☐Expert				X	
Microsoft Outlook	☐Basic ☒Intermediate ☐Advanced ☐Expert				X	
Microsoft Word	☐Basic ☒Intermediate ☐Advanced ☐Expert				X	
Microsoft Excel	☐Basic ☒Intermediate ☐Advanced ☐Expert				X	
Microsoft Access	☒Basic ☐Intermediate ☐Advanced ☐Expert		X			
Microsoft PowerPoint	☐Basic ☒Intermediate ☐Advanced ☐Expert			X		
Adobe Acrobat Professional	☐Basic ☒Intermediate ☐Advanced ☐Expert		X			
Legistar/Granicus	☐Basic ☐Intermediate ☐Advanced ☐Expert	X				
BP Logix	☐Basic ☐Intermediate ☐Advanced ☐Expert	X				
Novatime	☒Basic ☐Intermediate ☐Advanced ☐Expert		X			
HTE/Sungard	☐Basic ☐Intermediate ☐Advanced ☐Expert	X				

[6] Basic – Fundamental knowledge of common usage; Intermediate – able to perform independently with occasional guidance a majority of tasks related to position, utilizes tools in the most efficient and effective manner on a regular basis; Advanced – able to perform independently all tasks related to position, constantly utilizes tools in the most efficient and effective manner, able to implement and make suggestions on how the tools could improve processes and productivity; Expert – Recognized Authority, Go to person, able to teach others

AssetWorks EAM	☐Basic ☒Intermediate ☐Advanced ☐Expert			X		
GIS: Esri ArcGIS Pro, ArcGIS Enterprise, ArcGIS Online	☐Basic ☐Intermediate ☐Advanced ☒Expert					X
Esri app builders: Experience Builder, Dashboards, StoryMaps, Instant	☐Basic ☐Intermediate ☒Advanced ☐Expert				X	
GPS / GNSS field collection (Field Maps, Survey123)	☐Basic ☒Intermediate ☐Advanced ☐Expert		X			
Python (ArcPy, ArcGIS API for Python), JavaScript (ArcGIS Maps SDK)	☐Basic ☐Intermediate ☒Advanced ☐Expert				X	
SQL Server Management Studio (query level)	☐Basic ☒Intermediate ☐Advanced ☐Expert			X		
Docuware (Document Management System)	☐Basic ☐Intermediate ☐Advanced ☐Expert	X				
Neogov (Insight, Perform)	☒Basic ☐Intermediate ☐Advanced ☐Expert		X			
Internet	☐Basic ☐Intermediate ☒Advanced ☐Expert				X	
Personal Vehicle	Maintain Wisconsin Driver's License.	☒Yes ☐No				
City Vehicle	Maintain Wisconsin Driver's License.	☐Yes ☒No				

Section 9 - Additional Comments

This is the City's only GIS position. Virtually every department uses GIS through web maps, dashboards, and mobile apps, and the public uses it through the City website. The position is expected to work independently, with no other GIS staff to learn from or hand work to.

The role is a hybrid by design. About half the work is analyst work: data quality, maps, analysis, training, and support. The other half is developer and platform work: building and rebuilding apps, scripting automation, publishing services, and handling Esri upgrades.

The position sits in IT so that GIS follows the same security, change, and project standards as other City systems.

The City of West Allis is an Equal Opportunity/Affirmative Action Employer and does not discriminate against individuals on the basis of race, color, religion, age, marital or veterans' status, sex, national origin, disability, or any other legally protected status in the admission or access to, or treatment or employment in, its services, programs or activities. Upon reasonable notice the City will furnish appropriate auxiliary aids and services when necessary to afford individuals with disabilities an equal opportunity to participate in and to enjoy the benefits of a service, program or activity provided by the City. It is the policy of the City of West Allis to provide language access services to populations of persons with Limited English Proficiency (LEP) who are eligible to be served or likely to be directly affected by our programs. Such services will be focused on providing meaningful access to our programs, services and/or benefits.

This JDQ has been prepared to assist in defining job responsibilities, physical demands, and skills needed. It is not intended as a complete list of job duties, responsibilities, and/or essential functions. This description is not intended to limit or modify the right of any supervisor to assign, direct, and control the work of employees under supervision. I understand that the City retains and reserves any or all rights to change, modify, amend, add to or delete from, any section of this document as it deems, in its judgment, to be proper.

EMPLOYEE:_____ DATE:_____ SUPERVISOR:_____ DATE:_____

DEPT. HEAD:_____ DATE:_____ HR REP:_____ DATE:_____