



Illinois Department of Transportation

Memorandum

To: DEPUTY SECRETARIES, DIRECTORS AND BUREAU CHIEFS
From: Dianna L. Taylor
Bureau Chief of Personnel Management
Subject: Technical Vacancy
Date: August 4, 2017

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement August 7, 2017 in the designated areas.

The deadline for applicants to submit their names for consideration is **4:30 p.m.** on **Friday, August 18, 2017**. Applicants will not be accepted after that time and date.

NOTE: Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.

All applicants will receive a position description for the position they are applying for. If you have any questions, please contact the Bureau of Personnel Management at 217/782-5594.

TM V

Technology Policy & Support Manager
Bureau of Design & Environment
Office of Program Development
Springfield

Attachments
41912

Technical Applications [PM1080 rev 6/1/17](#)****must be received** by the Bureau of Personnel Management, Room 113, 2300 South Dirksen Parkway, Springfield, IL 62764 (Fax# 217/557-3134) or emailed to DOT.CO.BPM.EmploymentApplications@Illinois.gov by **Friday, August 18, 2017**, 4:30 p.m. Please include address, daytime phone and position for which applying if not already listed on application. Applicants will be notified in writing to schedule interviews.

NOTE: Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.



An Equal Opportunity Employer

Position Summary Sheet

Classification:	Technical Manager V	Salary:	\$6,020 - \$8,115*
Position Title:	Technology Policy & Support Manager	Union Position:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Position Number:	PW415-23-65-307-60-01	IPR#:	41912

Office/Central Bureau/District/Work Address:

Office of Program Development / Bureau of Design and Environment/2300 S. Dirksen Parkway/Springfield, IL

Description Of Duties:

This position is accountable for the development and implementation of computer aided design and drafting (CADD) and geographic information systems (GIS) policies, software, and training programs utilized in the development and maintenance of construction, reconstruction, and rehabilitation of highways, intersections, and interchanges on the state highway system. The position is accountable for development, integration, and technical support of GIS and CADD technologies into the Department's core processes; managing the content and publishing revisions to the IDOT CADD Manual, and ensuring the integration of engineering policies into both CADD and GIS software.

Special Qualifications:

Required:

- Valid driver's license
- Occasional travel to attend meetings and trainings

Desired:

- Bachelor's degree preferably with courses in computer science, engineering technology or engineering field
- Seven years' experience in the support and management of complex data processing activities and technological systems, including computer aided design and drafting (CADD) and geographic information systems (GIS), with special emphasis on highway design /plan preparation utilizing CADD software
- Knowledge of modern methods applicable to the survey, design, construction, and maintenance of highways
- Five years of progressively responsible supervisory experience
- Strong oral and/or written communication skills
- Good organization, leadership, and self-motivational skills
- Ability to develop and maintain cooperative working relationships

Shift/Remarks:

8:00 am – 4:30 pm / Monday – Friday

*Individual salary offers are computed based on an applicant's current position and experience level in comparison to the posted title as well as internal equity of staff in the organizational unit.

**Technical Application PM1080 (revised 6/1/17) is required. No previous version of the PM1080 will be accepted.

**ILLINOIS DEPARTMENT OF TRANSPORTATION
POSITION DESCRIPTION**

DATE:	March 27, 2017	POSITION:	Technology Policy & Support Manager
APPROVED BY:	<i>Maureen Addis</i>	OFFICE/DIVISION:	Office of Program Development / Bureau of Design and Environment
CODE:	PW415-23-65-307-60-01	REPORTS TO:	Policy & Procedures Section Chief

Position Purpose

This position is accountable for the development and implementation of both computer aided design and drafting (CADD) and geographic information systems (GIS) policies, software, and training programs utilized in the development and maintenance of construction, reconstruction, and rehabilitation of highways, intersections, and interchanges on the state highway system. The position is accountable for development, integration, and technical support of GIS and CADD technologies into the Department's core processes. This position is also accountable for managing the content and publishing revisions to the IDOT CADD Manual, and ensuring the integration of engineering policies into both CADD and GIS software utilized within the Department.

Dimensions

Annual # of Policies Developed	10-20
Annual # of Presentations Given	6-12
Annual # of Support Requests	100-150
District CADD Managers and GIS Coordinators	+/- 18

Nature and Scope

This position reports to the Policy and procedures Engineer as does the Engineering Policy Unit Chief, the Standards and Specifications Unit Chief, the Environmental Policy Unit Manager, and an Executive Secretary. Reporting to this position are two Senior CADD Support Specialists, a Senior GIS Support Specialist, two CADD Support Technicians, a GIS Support Technician, and two CADD Technician Draftspersons.

The policies and procedures under this position provide detailed and specific Microstation, GEOPAK, OpenRoads, other design and modeling information, and geographically coded information that shall be used for:

- The preparation of roadway and structures plans for the Illinois Department of Transportation.
- The preparation of 3-D models used for measurements and Automated Machine Guidance (AMG) in construction projects of the Illinois Department of Transportation and its contractors.
- The preparation of deliverable files to various groups within the Department, at various stages in the project lifecycle.
- The development of geographically coded asset information on roadway and structure projects for use by various groups within the Department, at various stages in the project lifecycle.

The policies established by this position ensure that for any given project, IDOT will receive Computer Aided Design and Drafting (CADD) drawings, three-dimensional models, and geographically coded information that is in a standard and consistent format. These policies and procedures are used by the district offices and consulting engineers to prepare Phase I studies and to develop construction plans for highway projects on the State Highway System. The incumbent develops requirements for providing acceptable CADD and GIS deliverables throughout all phases of the project, in a uniform format. The end product must be a deliverable that the Department and its consultants and contractors can use, one that facilitates the use of technology,

including 3-D CADD, AMG, and GIS; and one that is compatible with all other associated processes the Department manages.

Typical problems include coordination and oversight of CADD and GIS software support issues with districts; interpreting engineering policies and procedures to ensure integration in the design software package; and recommending and implementing CADD and GIS training programs under limited budgets. The greatest challenge to the position is to develop timely policies and procedures through the use of technology and innovation, research and evaluation, field observations, continuing education and seminar attendance, and interoffice coordination of technical issues. Effectively written policies and procedures promote statewide uniformity in the preparation of Phase I Studies and in the design and maintenance of highways. With sound policies and procedures, cost-effective highway improvements can be developed to maximize safety and minimize adverse social and environmental impacts.

This position is personally responsible for the development of policies which govern preferred workflow and CADD deliverables; the integration of engineering policies regarding the design of new roadways and the rehabilitation of existing highways encompassing all aspects of geometric design, cross-sections, alignment, slopes, etc.; and the maintenance and support of the Department's existing CADD workspace environment and emerging GIS environment. In addition, this position is responsible for recommending and overseeing training programs for internal and external CADD and GIS users. The incumbent must monitor technology and evaluate new technological advances with a view toward improving current design practices and workflows. This position also serves on various IDOT task forces and working groups.

The incumbent accomplishes accountabilities directly and through staff who help set, maintain, and update CADD and GIS working functions statewide. This position is given latitude in accomplishing its duties; however, unusual circumstances should be directed to the Engineer of Policy & Procedures. The incumbent is constrained by state, federal, and national policies and by the rules and regulations of the Department.

The incumbent's regular contacts within the Department involve GIS users, CADD users, surveyors, designers, and/or supervisors in the other central bureaus and district offices within IDOT. Coordination of technical issues with district and bureau users, CADD Managers, GIS coordinators, and with IT staff internal and external to the Department, is an integral part of the incumbent's daily activities. In addition, contacts are frequently made with software vendors, engineering consultant contacts, other state highway agencies, and FHWA. S/He is occasionally required to travel outside the state to attend technical meetings of regional or national significance.

The effectiveness of the position can be measured by the ability to develop timely CADD and GIS policies, procedures, applications, and training programs which are understood and are used by technical staff, and which support overall Departmental functions. Such policies, procedures, and training programs will promote the uniform and efficient preparation of Phase I studies and the design and maintenance of highways which are cost-safety effective.

Principal Accountabilities

1. Sets CADD and GIS policy statewide and ensures relevant engineering policies and data linkages are developed and fully integrated into the CADD and GIS software utilized by the Department.
2. Oversees the maintenance of both the existing IDOT CADD workspace environment, including ProjectWise, preferred fonts, annotation scales, cell libraries, and civil cell libraries, and the developing GIS environment.

3. Oversees development, maintenance, and support of pertinent computer aided design and drafting (CADD) applications, including MicroStation, Geopak, OpenRoads, ProjectWise, and Autoturn, for bureau and district users. Also uses Microsoft Office applications and geographic information systems (GIS) as appropriate in developing system needs and priorities, training programs, policy documents, and necessary technical presentations.
4. Maintains and updates the IDOT CADD Manual.
5. Oversees and manages liaison activities between bureaus, districts, engineering consultants, CADD software vendor(s), internal and external IT staff, and CADD and GIS users throughout the department.
6. Oversees the development and support of additional CADD civil cells for use for use by departmental technical staff.
7. Utilizes real world district CADD design projects to keep staff up to date on current design, best practices.
8. Researches, recommends, and oversees the development of GIS applications and other technological advancements for implementation within the Department.
9. Communicates both CADD and GIS best practices and technological advances to internal and external users.
10. Fosters communication between software application users and developers.
11. Oversees technical support for 2-D and 3-D survey and design CADD functions and GIS applications, within the bureau and districts.
12. Develops and oversees necessary CADD and GIS training across the Department.
13. Supports innovative technologies.
14. Motivates subordinate staff. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
15. Performs other duties as assigned.