



**Civil Engineer III (1 position)
Bridge Standards Engineer**

IPR Number:	44699	Union Position:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Position Number:	PW113-23-75-904-82-01	Shift:	8:00 am – 4:30 pm
Opening Date:	October 5, 2020		Monday – Friday
Closing Date:	October 19, 2020	Salary:	\$5,430 – \$9,000*

Office/Central Bureau/District/Work Address:

Office of Highways Project Implementation / Bureau of Bridges and Structures / 2300 S. Dirksen Parkway, Springfield, IL

Position Purpose:

This position is responsible for the structural analysis and design of bridge standards projects, including projects related to the Bridge Manual, Culvert Manual, All Bridge Design Memoranda, and associated details and base sheets. This position is also responsible for conducting special investigations concerning design specifications, design concepts, and construction procedures for the department.

Qualifications:

Position Requirements:

- Education/Experience:
 - Completion of a bachelor's or master's degree in engineering from an ABET accredited college OR
 - A current Engineer Intern license in the state of Illinois; plus 43 months of civil engineering experience
- Valid driver's license
- Occasional statewide travel with overnight stays

Position Desirables:

- Current Illinois Professional Engineer License
- Current Illinois Structural Engineer License
- Knowledge of principles and practices of civil engineering with emphasis in structures
- Good oral and written communication skills

How to Apply/Remarks:

Technical Applications PM1080 (rev 8/23/19) 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 4:30 pm on the closing date listed above. Applications will not be accepted after this date and time.

Agency Contact: Bureau of Personnel Management, 217/782-5594

Unofficial college transcripts must be included with application. Official college transcripts must be submitted upon date of employment. Applicants possessing an Engineer Intern License must also include a copy with application. Applicants not submitting these documents by the posting deadline will not be considered for employment. Please include IPR number on the application.

To be considered for a permanent position within IDOT, you must either be a US citizen or a non-citizen with permanent work authorization.

Only education/coursework and experience listed within the application will be considered for determining eligibility for this position.

Please be advised that if a high volume of applications is 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.

Applicants will be notified in writing to schedule interviews.

*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.

**ILLINOIS DEPARTMENT OF TRANSPORTATION
POSITION DESCRIPTION**

DATE:	February 25, 2020	WORKING TITLE:	Bridge Standards Engineer
POSITION CLASSIFICATION:	Civil Engineer III	OFFICE/BUREAU:	Office of Highways Project Implementation / Bureau of Bridges and Structures
POSITION NUMBER:	PW113-23-75-904-82-01	REGION/DISTRICT:	n/a

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Dimensions

Annual projects:	3 - 30
Contract value:	\$7,000,000 to \$15,000,000

Nature and Scope

This position reports to the Bridge Standard Group Engineer. There are no subordinates reporting to this position.

This position operates in an environment of performing the structural analysis and design of structures and structural components, including bridges, culverts, retaining walls, and components thereof. This requires the development of unique and innovative design as well as solutions to structural engineering problems. In order to accomplish these tasks, the incumbent must be knowledgeable of the latest technology, design methods, design concepts, and material utilization to ensure a design that is structurally adequate and cost effective.

Typical problems faced by the incumbent include the necessity to develop and maintain a comprehensive knowledge of structural engineering theories and principles so that s/he can create standard designs that will be used by licensed structural engineers throughout the state. Designs of these types frequently demand the resolution of difficult engineering problems and may require the development of creative solutions to situations never encountered. The greatest challenge faced by the incumbent is keeping abreast of the latest technological developments in structural materials and designs and in determining the potential applications to departmental projects.

In a typical project, the incumbent is personally responsible for calculating and enveloping the internal forces in a specific standard detail, such as a bridge railing, cross-frame, deck overhang, or approach slab. The enveloped moments, shears, axial forces, and torsional forces of each individual structural member are then used to generate a standard design or design procedure which can be used on most structures in the state. Other design parameters include fatigue analysis, geometric requirements, seismic analysis, and cost analysis. On occasion, the incumbent reviews proprietary designs prepared by external producers, such as mechanically stabilized earth (MSE) walls, modular joints, or bearings. The incumbent ensures completeness and structural adequacy of these products and offers recommendations for inclusion or rejection of these products for projects in Illinois. The incumbent aids in the incorporation of current standards and design procedures into design policy, including the Bridge Manual, Culvert Manual, and All Bridge Design Memoranda.

The incumbent is given latitude, commensurate with his/her experience, to act independently when performing the responsibilities assigned to this position but must refer to the Bridge Standard Group Engineer any problems concerning deviations from departmental policies, specifications, and standards. The incumbent is guided by the American Association of State Highways Transportation Officials (AASHTO) specifications and departmental policies.

The incumbent has internal contact with the districts when resolving structural problems occurring in the field and with other units within the Bridge Design Section as well as other sections within the Bureau of Bridges and Structures. S/He has external contact with university personnel involved with research. Occasional statewide travel with overnight stays is required.

The effectiveness of this position can be measured by the technical expertise displayed by the incumbent in the analysis required for the completion of design projects and the incumbent's ability to solve structural engineering problems in the time allotted.

Principal Accountabilities

1. Develops structural standards which incorporate current methods and technology.
2. Produces design computations utilized in the preparation of structural plans.
3. Aids in the updating of design policy documents, including the Bridge Manual, Culvert Manual, Design Guides, and All Bridge Design Memoranda.
4. Reviews and recommends approval/disapproval of proprietary products for qualified product lists in Illinois.
5. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
6. Performs other duties as assigned.

Subordinates of this position

Position Classification	Position Number	Working Title	Authorized Identical
n/a			

Supervisor of this position

Immediate Supervisor Position Classification: Civil Engineer V

Working Title: Bridge Standard Group Engineer

Position Number: PW115-23-75-904-82-01

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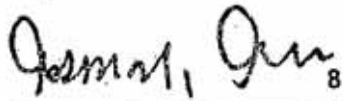
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Agency Approvals


Bureau Chief of Personnel Management


Secretary, Department of Transportation