

Civil Engineer Class Comparison Chart

	Civil Engineer I	Civil Engineer II	Civil Engineer III
Equivalent ASCE Grade	III	IV	V
Pay Grade	41 Minimum-Normal-Maximum \$26.82 - \$28.44 - \$35.91/hr. \$55,785.60 - \$59,155.20 - \$74,692.80	46 Minimum-Normal-Maximum \$31.11 - \$32.97 - \$41.62/hr. \$64,708.80 - \$68,577.60 - \$86,569.60	47 Minimum-Normal-Maximum \$32.04 - \$33.96 - \$41.62/hr. \$66,643.20 - \$70,636.80 - \$89,169.60
Education	<p>Bachelor's degree in Civil Engineering or a related engineering field.</p> <p>A degree in agricultural engineering may be considered depending on the courses taken and major emphasis.</p> <p>Drainage and Development Section – Emphasis in the studies of hydrology, hydraulics, and collection systems.</p> <p>Transportation Section – Emphasis in the studies of transportation engineering.</p>	<p>In addition to CE I requirements, a Master's Degree in Civil Engineering is preferred but not required.</p>	<p>In addition to CE II requirements, a Master's Degree in Civil Engineering, Public Administration or Business Administration is preferred but not required.</p>
Experience	<p>Previous internship or cooperative education experience in municipal, county, state, or federal engineering, or engineering consulting, is preferred.</p>	<p>Four (4) years of increasingly responsible professional engineering experience. A Master's Degree in Civil Engineering may substitute for one (1) year of experience.</p>	<p>Eight (8) or more years of increasingly responsible engineering experience in municipal engineering, construction, surveying and including the management of capital improvement projects with three (3) years of supervisory experience. A Master's Degree in Civil Engineering, Public Administration, or Business Administration may substitute for one (1) year of experience.</p>

	Civil Engineer I	Civil Engineer II	Civil Engineer III
Licensure/ Certifications	Successful completion of the Fundamentals of Engineering examination and enrollment as an Engineering Intern in the State of Illinois.	Active Illinois Professional Engineer license (P.E.) or ability to obtain license within 12 months of employment. Transportation Section - IDOT Documentation of Contract Quantities certificate.	Active Illinois Professional Engineer license (P.E.) Completion of IPSI Program or equivalent supervisory program. Drainage and Development Section – Certification as Program Manager for NBIS by IDOT.
Supervision Exercised	Engineering part-time personnel.	Engineering Technicians and/or Engineering part-time personnel.	Civil Engineers Engineering Technicians, and Engineering part-time personnel.
Computer Skills	Word; Excel; Access; PowerPoint; Outlook; AutoCAD or Microstation; and the Internet	Word; Excel; Access; PowerPoint; Outlook; AutoCAD or Microstation; ArcGIS; Haestad Methods Programs, Hydraflow Storm Sewers, StormCAD; and the Internet. Drainage and Development Section – US Corp of Engineers HEC programs, PondCAD. Transportation Section – AutoCAD Civil 3D or Geopak, IDOT ICORS, Microsoft Project, Transoftsolutions AutoTURN, McTrans HCS, and Trafficware Synchro.	Word; Excel; Access; PowerPoint; Outlook; AutoCAD or Microstation, ArcGIS; Hydraflow Storm Sewers, StormCAD; and the Internet. Drainage and Development – US Corp of Engineers HEC programs, PondCAD. Transportation Section – AutoCAD Civil 3D or Geopak, IDOT ICORS, Microsoft Project, Transoftsolutions AutoTURN, McTrans HCS, Trafficware Synchro.



CITY OF URBANA
Human Resources Division

CIVIL ENGINEER I

JOB DESCRIPTION

Department: Public Works	Division: Engineering
Work Location: Urbana City Building	Percent Time: 100%
Job Type: Civil Service	FLSA Status: Exempt
Reports To: Assistant City Engineer/Civil Engineer III	Union: Non-Union

JOB SUMMARY:

Designs improvements and prepares construction plans for municipal infrastructure projects; conducts field investigations; prepares technical reports; monitors construction work; supervises work of part-time staff.

Defining Characteristics of the Class

This is the entry-level class in the Civil Engineer series. This class is distinguished from the Civil Engineer II and III levels by the performance of the more routine tasks and duties assigned to positions within the series. Since this class is typically used as a training class, employees may have only limited or no directly related work experience. The incumbent performs beginning-level professional engineering work which involves responsibility for coordinating projects of limited scope in the Public Works Department. Assignments require the application of basic professional knowledge and skills to various public works engineering matters. Work is performed under the supervision of a higher-level professional engineer who reviews work procedures and results.

This job description reflects the general concept and intent of the classification and should not be construed as a detailed statement of all of the job requirements that may be inherent in the position.

JOB DUTIES:

- Collects and analyzes field data, researches property histories and old project plans, prepares technical reports and cost estimates, and recommends improvements;
- Designs and prepares plans, specifications, contract documents, and estimates of cost and monitors construction and maintenance of municipal infrastructure projects;
- Monitors construction of contract work to ensure work is performed in compliance with contract plans and specifications and required quality is obtained; measures quantities and prepares pay estimates;
- Supervises work of survey parties, observing and recording data, establishing line and grade control;
- Prepares documentation and facilitates acquisition of easements and rights-of-way;
- Maintains files on correspondence and documentation on projects;
- Maintains effective relations with governmental officials, community leaders, citizens, Illinois Department of Transportation (IDOT), Illinois Environmental Protection Agency (IEPA), Village of Savoy, City of Champaign, University of Illinois, Champaign County, adjacent rural townships, the Urbana Park District, Urbana School District 116, Illinois American Water, Ameren, various communication utility companies, engineering consultants, citizens, contractors, and other City departments;
- Provides technical support to various City departments;
- Handles requests for information, service or complaints over the phone, via electronic or regular mail and in person, or makes referrals to appropriate staff in a concerned manner that reflects an effort to be helpful while at the same time acting responsibly on behalf of the City of Urbana; all calls are promptly returned;
- Serves as a Public Works Department/Engineering Division representative on special intergovernmental and interagency committees, when necessary; and
- Performs other related duties as assigned.

JOB REQUIREMENTS:

PREFERENCES

- Previous internship or cooperative education experience in municipal, county, state, or federal engineering, or engineering consulting.

EDUCATION

GENERAL

- Bachelor of Science degree in Civil Engineering or related engineering field from an Accreditation Board for Technology, Inc.(ABET)/Engineering Accreditation Commission (EAC) accredited program. A degree in agricultural engineering may be considered depending on the courses taken and major emphasis.

DRAINAGE AND DEVELOPMENT ENGINEERING SECTION

- Degree with emphasis in the studies of hydrology, hydraulics, and collection systems.

TRANSPORTATION ENGINEERING SECTION

- Degree with emphasis in the studies of transportation engineering.

LICENSES AND CERTIFICATIONS

- Successful completion of the Fundamentals of Engineering examination and registration as an Engineering Intern in the State of Illinois or in another state with the ability to reciprocate with Illinois within six months of beginning employment.
- Possess or obtain a valid State of Illinois Class D driver's license within fifteen (15) days of employment.

COMPUTER SKILLS

- Knowledge of Microsoft Office applications, including Word, Excel, Access, PowerPoint and Outlook; AutoCAD or Microstation; and the Internet.

KNOWLEDGE & EXPERIENCE

Any combination of education and experience that would likely provide the required knowledge and abilities is qualifying. Typical ways the knowledge and abilities would be attained are:

- Demonstrated ability to apply principles and practices of civil engineering toward the completion of projects;
- Knowledge and skill in the use of field survey instruments and knowledge of operation of construction machinery;
- Basic operations, services and activities of a comprehensive Civil Engineering program;
- Principles and practices of Civil Engineering program development and implementation; and/or
- Study of recent developments, current literature and information related to Civil Engineering.

ABILITY TO:

- Organize, analyze, interpret, and evaluate scientific civil engineering problems and provide practical, cost effective solutions;
- Keep abreast of changes in scientific knowledge and engineering technology, and utilize such changes in solution of theoretical or practical civil engineering problems;
- Prepare written analytical reports;
- Produce written documents in the English language with clearly-organized thoughts with proper sentence construction, punctuation, and grammar;

- Observe, compare, or monitor objects and data to determine compliance with prescribed operating or safety standards;
- Measure distances using calibrated instruments;
- Use graphic instructions, such as blue prints, schematic drawings, layouts, or other visual aids;
- Use a personal computer, engineering applications, and data management software;
- Communicate clearly and concisely, both orally and in writing, applying strong verbal and written skills for the preparation of technical and administrative reports and the presentation of recommendations;
- Learn and interpret IDOT design and construction manuals, standard specifications and highway standards as well as American Association of State Highway and Transportation Officials (AASHTO) design manuals, Standard Specifications of Water and Sewer Construction in Illinois and Manual on Uniform Traffic Control Devices (MUTCD) standards;
- Work effectively and cooperatively with others, monitor contractors, and manage work of paraprofessional staff;
- Manage work to conform to project scope, schedule, and budget;
- Facilitate public meetings to gather input from various shareholders;
- Work with confidential information;
- Make public presentations to City Council, government agencies, and other organizations;
- Learn procedures, methods and techniques of budget preparation and control;
- Learn principles and practices of civil engineering project management;
- Learn principles and practices of construction administration including inspection, materials testing, project scheduling and related functional areas;
- Learn to prepare and administer assigned project budgets;
- Learn to allocate limited resources in a cost-effective manner;
- Perform a variety of civil engineering projects;
- Ensure contractual compliance as related to construction and other assigned activities;
- Inspect work sites to ensure compliance with all applicable federal, state and local laws, codes and regulations;
- Interpret and explain City policies and procedures; and
- Establish and maintain effective working relationships with those contacted in the course of work including City officials and the general public.

RESPONSIBLE FOR:

- Investigating problems, designing improvements, and preparing construction plans;
- Monitoring construction of municipal infrastructure type projects; and
- Supervising the work of Engineering part-time personnel.

CONTACTS: INTERNAL/EXTERNAL

- Daily contact with construction contractors and general public.
- Frequent contact with other Public Works employees, other City departments, City Council, utilities, businesses, and government agencies.

WORK ENVIRONMENT:

- Works indoors and out-of-doors year round.
- Works around traffic and automobile fumes.

SUPPLEMENTAL INFORMATION:

WORKING ENVIRONMENT:

The work environment characteristics described herein are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The work will occur in an office and field environment. Incumbents may be subjected to dusts, fumes, extreme temperatures, inadequate lighting, and intense noises. Typical work schedule: Monday - Friday, 8:00 a.m. - 5:00 p.m. with flexibility depending upon the needs of the department. May be required to work in excess of 40 hours a week and/or work irregular hours, particularly during construction projects or emergency situations.

PHYSICAL REQUIREMENTS:

The physical demands described herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Sit for extended periods, frequently stand and walk;
- Have manual dexterity and eye-hand coordination needed to use a variety of office equipment such as computers, telephones, calculators, copiers, and topographic surveying equipment;
- Have corrected vision in order to review plans and specifications and perform other essential functions of the job; and
- Occasionally walk on uneven terrain at construction sites, etc.

ADDITIONAL PHYSICAL REQUIREMENTS:

VISION AND HEARING

See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; visually inspect work in progress. Ability to hear in the normal audio range with or without correction.

Equivalent American Society of Civil Engineers (ASCE) Grade: III

The physical demands described herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

Prepared By: Brad Bennett, Elizabeth Borman, and Craig Shonkwiler 12/9/2014
Signature Date

Approved By: _____
Department Head Date

Approved By: _____
Personnel Manager Date

Class Specification History

Revised definition, minimum qualifications, and add distinguishing characteristics: 09/03/2014.

For HR/Finance Use

Title Code 109	Pay Grade 41
EEO Category 2- Professionals	



CITY OF URBANA
Human Resources Division

CIVIL ENGINEER II

JOB DESCRIPTION

Department: Public Works	Division: Engineering
Work Location: Urbana City Building	Percent Time: 100%
Job Type: Civil Service	FLSA Status: Exempt
Reports To: Assistant City Engineer	Union: Non-Union

JOB SUMMARY:

Designs improvements and prepares construction plans for municipal infrastructure projects; conducts field investigations; prepares technical reports; monitors construction work; supervises work of permanent and part-time staff.

Defining Characteristics of the Class

This is the full journey level class within the Civil Engineer series. Employees within this class are distinguished from the Civil Engineer I by the performance of the full range of duties as assigned. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the division. Positions in this class are normally filled by advancement from the I level, or when filled from the outside, have prior experience.

This job description reflects the general concept and intent of the classification and should not be construed as a detailed statement of all of the job requirements that may be inherent in the position.

JOB DUTIES:

- Collects and analyzes field data; researches property histories and old project plans; prepares technical reports and cost estimates, and recommends improvements;
- Designs, prepares plans, specifications, contract documents and estimates of cost and monitors construction and maintenance of municipal infrastructure projects;

- Monitors construction of contract work to ensure work is performed in compliance with contract plans and specifications and required quality is obtained; measures quantities and prepares pay estimates;
- Supervises work of survey parties, observing and recording data, establishing line and grade control;
- Prepares documentation and facilitates acquisition of easements and rights-of-way;
- Maintains files on correspondence and documentation on projects;
- Maintains effective relations with governmental officials, community leaders, citizens, Illinois Department of Transportation (IDOT), Illinois Environmental Protection Agency, Village of Savoy, City of Champaign, University of Illinois, Champaign County, adjacent rural townships, the Urbana Park District, Urbana School District 116, Illinois American Water, Ameren, various communication utility companies, engineering consultants, citizens, contractors, and other City departments;
- Provides technical support to various City departments;
- Handles requests for information, service or complaints over the phone, via electronic or regular mail and in person, or makes referrals to appropriate staff in a concerned manner that reflects an effort to be helpful while at the same time acting responsibly on behalf of the City of Urbana; all calls are promptly returned;
- Serve as a Public Works Department/Engineering Division representative, when necessary, on special intergovernmental and interagency committees; and
- Performs other related duties as assigned.

JOB REQUIREMENTS:

In addition to the qualifications for Civil Engineer I:

PREFERENCES

GENERAL:

- Previous experience in municipal, county, state, or federal engineering or engineering consulting.

DRAINAGE AND DEVELOPMENT ENGINEERING SECTION:

- Familiar with sewer televising and manhole inspection software.

TRANSPORTATION ENGINEERING SECTION:

- Familiar with intersection traffic signalization.
- Familiar with documentation required for federal and state funded projects.
- Familiar with the design of bicycle facilities.

EDUCATION:

- Bachelor of Science degree in Civil Engineering or related engineering field from an Accreditation Board for Technology, Inc.(ABET)/Engineering Accreditation Commission (EAC) accredited program.
- A Master's Degree in Civil Engineering from an Accreditation Board for Technology, Inc. (ABET)/Engineering Accreditation Commission (EAC) accredited program is preferred, but not required.

LICENSES AND CERTIFICATIONS:

GENERAL:

- Active Illinois Professional Engineer (P.E.) license, or active registration in another state with the ability to reciprocate to Illinois within six months of beginning employment, or ability to obtain license within 12 months of employment.
- Possess or obtain a valid State of Illinois Class D driver's license within fifteen (15) days of employment.

TRANSPORTATION ENGINEERING SECTION:

- IDOT Documentation of Contract Quantities certificate.

COMPUTER SKILLS:

GENERAL:

- Proficient in Microsoft Office applications, including Word, Excel, Access, PowerPoint, and Outlook; AutoCAD or Microstation; and the Internet.
- Familiar with ArcGIS, and drainage analysis programs (e.g., Haestad Methods programs, Hydraflow Storm Sewers, StormCAD).

DRAINAGE AND DEVELOPMENT ENGINEERING SECTION:

- Familiar with drainage analysis software (e.g., U.S. Army Corp of Engineers HEC programs, PondCAD).

TRANSPORTATION ENGINEERING SECTION:

- Familiar with AutoCAD Civil 3D or Geopak, IDOT ICORS software, project management software (e.g., Microsoft Project), vehicle turning movement software (e.g., Transoftsolutions AutoTURN, and traffic engineering software (e.g., McTrans HCS, Trafficware Synchro).

KNOWLEDGE & EXPERIENCE:

Any combination of education and experience that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

GENERAL:

- A Master's Degree in Civil Engineering may substitute for one (1) year of experience.
- Knowledge of investigation, design, construction, and documentation phases of engineering projects.
- Demonstrated ability to apply principles and practices of civil engineering toward the completion of projects.
- Knowledge and skill in the use of field survey instruments and knowledge of operation of construction machinery.
- Knowledge of Americans with Disabilities Act (ADA) regulations and experience with design of ADA sidewalk facilities.

DRAINAGE AND DEVELOPMENT ENGINEERING SECTION:

- A minimum of four years of increasingly responsible professional engineering experience, with hydrology, hydraulics, and collection systems background.
- Knowledge and experience with stormwater and wastewater regulations.
- Obtain Pipeline Assessment Certification Program (PACP) and Manhole Assessment Certification Program (MACP) certifications.

TRANSPORTATION ENGINEERING SECTION:

- A minimum of four years of increasingly responsible professional engineering experience, with transportation engineering background
- Knowledge of investigation, design, construction, and documentation phases of engineering projects. In particular, Phase I/II experience with IDOT and other governmental agencies, districts, counties and/or municipalities. The applicant should have the ability to direct and perform work to complete Phase I engineering and environmental studies, including traffic studies, crash analysis, geometric studies; hydraulic/drainage evaluations, environmental compliance and project development reports. Also, the applicant must have the ability to direct and perform work to complete Phase II engineering plans, specifications, and estimates for transportation improvements.

ABILITY TO:

- Apply strong verbal and written skills required for the preparation of technical reports and the presentation of recommendations orally and in writing;
- Learn and interpret IDOT design and construction manuals, standard specifications and highway standards as well as American Association of State Highway and Transportation Officials (AASHTO) design manuals Standard Specifications of Water and Sewer Construction in Illinois, and Manual on Uniform Traffic Control Devices (MUTCD) standards;
- Work effectively with others, monitor contractors, and manage work of technical and paraprofessional staff;
- Manage work to conform to project scope, schedule, and budget;
- Facilitate public meetings to gather input from various shareholders;
- Work with confidential information; and

- Make public presentations to City Council, government agencies, and other organizations.

RESPONSIBLE FOR:

- Investigating problems, designing improvements, and preparing construction plans.
- Monitoring construction of municipal infrastructure type projects.
- Supervising the work of Engineering Technicians and/or Engineering part-time personnel.

CONTACTS: INTERNAL/EXTERNAL

- Daily contact with construction contractors and general public.
- Frequent contact with other Public Works employees, other City departments, City Council, utilities, businesses, and government agencies.

WORK ENVIRONMENT:

- Works indoors and out-of-doors year round.
- Works around traffic and automobile fumes.

SUPPLEMENTAL INFORMATION:

WORKING ENVIRONMENT:

The work environment characteristics described herein are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The work will occur in an office and field environment. Incumbents may be subjected to dusts, fumes, extreme temperatures, inadequate lighting, and intense noises. Typical work schedule: Monday - Friday, 8:00 a.m. - 5:00 p.m. with flexibility depending upon the needs of the department. May be required to work in excess of 40 hours a week and/or work irregular hours, particularly during construction projects or emergency situations.

PHYSICAL REQUIREMENTS:

The physical demands described herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Sit for extended periods, frequently stand and walk;
- Have manual dexterity and eye-hand coordination needed to use a variety of office equipment such as computers, telephones, calculators, copiers, and topographic surveying equipment;

- Have corrected vision in order to review plans and specifications and perform other essential functions of the job; and
- Occasionally walk on uneven terrain at construction sites, etc.

ADDITIONAL PHYSICAL REQUIREMENTS:

VISION AND HEARING

See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; visually inspect work in progress. Ability to hear in the normal audio range with or without correction.

Equivalent American Society of Civil Engineers (ASCE) Grade: IV

The physical demands described herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

Prepared By: Brad Bennett, Elizabeth Borman, and Craig Shonkwiler 12/9/2014
Signature Date

Approved By: _____
Department Head Date

Approved By: _____
Personnel Manager Date

Class Specification History

Revised definition, minimum qualifications, and add distinguishing characteristics: 09/03/2014.

For HR/Finance Use

Title Code 109	Pay Grade 46
EEO Category 2- Professionals	



CIVIL ENGINEER III

JOB DESCRIPTION

Department: Public Works	Division: Engineering
Work Location: Urbana City Building	Percent Time: 100%
Job Type: Civil Service	FLSA Status: Exempt
Reports To: Assistant City Engineer	Union: Non-Union

JOB SUMMARY:

This position is responsible for performing highly complex professional civil engineering projects, project management and coordination of a variety of public works and transportation projects which require significant administrative, analytical and technical skills acquired by advanced professional training and experience. Incumbents of this classification are expected to have a breadth of knowledge and experience to successfully manage complex projects with considerable independence. Incumbents are responsible for designing improvements, preparing construction plans, and administering bid process for public infrastructure and special funds projects; acquiring field data; researching property histories and old project plans; ensuring that work performed and materials used by divisional staff and contractors comply with safety, engineering, and City standards; supervising and evaluating permanent and part-time staff.

Defining Characteristics of the Class

An employee within this class is a fully competent Civil Engineer in all conventional aspects of the subject matter of the functional area of the assignments, who plans and conducts work requiring judgment in the independent evaluation, selection, and substantial adaptation and modification of standard techniques, procedures, and criteria. The employee devises new approaches to problems encountered. This position requires sufficient professional experience to assure competence as an engineering supervisor, a program manager, and a licensed professional engineer. The employee serves as a project and team leader in the field and office. Those in this position display leadership in the area

of executing the City's mission in a manner that is consistent with the mission and values of the City of Urbana and the Public Works Department. The employee serves as a liaison between individuals and units within or outside his/her organization with responsibility for acting independently on technical matters pertaining to this field. Work at this level usually requires extensive progressive experience.

ESSENTIAL FUNCTIONS:

- Supervises the implementation of the design and construction of special fund projects; coordinates the acquisition of field data; acquires right-of-way and easements; researches property histories and old project plans; designs improvements; implements bid process; computes quantities built and prepares pay estimates; supervises drafting of as-built quantities and field changes;
- Plans, delegates, assigns, and evaluates the work of Civil Engineers, Engineering Technicians, and part-time personnel;
- Reviews performance appraisals for Civil Engineers and Engineering Technicians to monitor overall performance levels;
- Provides input for long range planning to establish future equipment and manpower needs;
- Supervises and manages project engineering consultants; prepares and manages timetable activities; coordinates the design and preparation of construction plans and specifications;
- Provides technical support for projects to various City departments; plans, coordinates, and leads project related public meetings; presents project material and information at committee and City Council meetings;
- Reviews project documentation and reports prepared by divisional staff for accuracy and completeness;
- Develops and recommends standard operating procedures utilized by the Division;
- Monitors operations and activities in the field to help assure standard operating procedures are followed and performance standards are met;
- Manages pay item bid-price data; determines estimated prices to be used by Civil Engineers in contract estimating and long-range planning;
- Maintains files of bidding proposals, correspondence, documentation, and payments on projects for Division;
- Assists in the management of activities relating to construction of new and replacement municipal infrastructure such as sanitary and storm sewers, streets, streets sidewalks, bridges, and street lights;
- Maintains effective relations with governmental officials, community leaders, citizens, Illinois Department of Transportation (IDOT), Illinois Environmental Protection Agency, Village of

Savoy, City of Champaign, University of Illinois, Champaign County, adjacent rural townships, the Urbana Park District, Urbana School District 116, Illinois American Water, Ameren, various communication utility companies, engineering consultants, citizens, contractors, and other City departments;

- Handles requests for information, service or complaints over the phone, via electronic or regular mail and in person, or makes referrals to appropriate staff in a concerned manner that reflects an effort to be helpful while at the same time acting responsibly on behalf of the City of Urbana; all calls are promptly returned;
- Serves as the Public Works Department/Engineering representative on special intergovernmental and interagency committees; and
- Performs other related duties as assigned.

JOB REQUIREMENTS:

In addition to the qualifications for Civil Engineer II:

PREFERENCES:

- Previous experience in municipal engineering.
- Additional experience in a non-governmental engineering organization.
- Prior experience in budget development and management, and managing public works activities in a team-oriented organization.

EDUCATION:

- Bachelor of Science degree in Civil Engineering or related engineering field from an Accreditation Board for Technology, Inc. (ABET)/Engineering Accreditation Commission (EAC) accredited program.
- A Master's Degree in Civil Engineering, Public Administration or Business Administration is preferred, but not required.

LICENSES AND CERTIFICATIONS:

GENERAL:

- Active Illinois Professional Engineer (P.E.) license or active registration in another state with the ability to reciprocate to Illinois within six months of beginning employment.
- Possess or obtain a valid State of Illinois Class D driver's license within fifteen (15) days of employment.
- Completion of Illinois Public Service Institute Program or equivalent supervisory program.

DRAINAGE AND DEVELOPMENT ENGINEERING SECTION:

- Certification as Program Manager for National Bridge Inspection System (NBIS) by IDOT.

COMPUTER SKILLS:

GENERAL:

- Advanced proficiency level utilizing Microsoft Office applications including Word, Excel, Access, PowerPoint, and Outlook; AutoCAD or Microstation; and the Internet
- Proficient with drainage analysis programs (e.g., Haestad Methods programs, Hydraflow Storm Sewers, StormCAD).

DRAINAGE AND DEVELOPMENT ENGINEERING SECTION:

- Proficient with ArcGIS, and drainage analysis software (e.g., U.S. Army Corp of Engineers HEC programs, PondCAD).

TRANSPORTATION ENGINEERING SECTION:

- Proficient with AutoCAD Civil 3D or Geopak, project management software (e.g., Microsoft Project), vehicle turning movement software (e.g., Transoftsolutions AutoTURN, and traffic engineering software (e.g., McTrans HCS, Trafficware Synchro).
- Knowledgeable with ArcGIS and IDOT ICORS software.

KNOWLEDGE & EXPERIENCE:

Any combination of education and experience that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

GENERAL:

- A Master's Degree in Civil Engineering, Public Administration, or Business Administration may substitute for one (1) year of experience;
- Knowledge typically acquired through completion of a Bachelor Degree in Civil Engineering; plus a minimum of eight years of experience in municipal engineering including the management of capital improvement projects with three (3) years of supervisory experience;
- Knowledge of investigation, design, construction, and documentation phases of engineering projects;
- Demonstrated ability to apply principles and practices of civil engineering toward the completion of projects;
- Knowledge of investigation, survey, design, drafting, construction, inspection, and documentation phases of engineering projects;
- Extensive knowledge of principles and practices of civil engineering or related fields; and
- Knowledge of the use of field survey instruments and knowledge of operation of construction machinery.

DRAINAGE AND DEVELOPMENT ENGINEERING SECTION:

- Experience emphasizing hydraulics, hydrology, collection systems, construction, and surveying.

TRANSPORTATION ENGINEERING SECTION:

- Experience emphasizing transportation engineering, construction, and surveying; and
- In particular, Phase I/II experience with IDOT and other governmental agencies, districts, counties and/or municipalities. The applicant should have the ability to direct and perform work to complete Phase I engineering and environmental studies, including traffic studies, crash analysis, geometric studies; hydraulic/drainage evaluations, environmental compliance and project development reports. Also, the applicant must have the ability to direct and perform work to complete Phase II engineering plans, specifications, and estimates for transportation improvements.

ABILITY TO:

- Plan and supervise work of Civil Engineers and Engineering Technicians and part-time personnel; and
- Prepare technical reports and present recommendations orally and in writing.

RESPONSIBLE FOR:

- Supervising and evaluating Civil Engineers and Engineering Technicians, interns, and part-time personnel;
- Administering the Division's budget;
- Designing improvements, preparing construction plans, and administering bid process;
- Ensuring that work performed and materials used by divisional staff and contractors comply with safety, engineering, and City standards;
- Administration and management of activities relating to the construction of new and replacement municipal infrastructure such as sanitary and storm sewers, streets, sidewalks, bridges, and street lights; and
- Management of Engineering Division in the absence of Division Manager;

CONTACTS: INTERNAL/EXTERNAL

- Daily contact with other divisions;
- Weekly contact with other departments;
- Frequent contact with utilities, other businesses, and government agencies;
- Daily contact with contractors during construction; and
- Daily contact with general public.

SUPPLEMENTAL INFORMATION:

WORKING ENVIRONMENT:

The work environment characteristics described herein are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The work will occur in an office and field environment. Incumbents may be subjected to dusts, fumes, extreme temperatures, inadequate lighting, and intense noises. Typical work schedule: Monday - Friday, 8:00 a.m. - 5:00 p.m. with flexibility depending upon the needs of the department. May be required to work in excess of 40 hours a week and/or work irregular hours, particularly during construction projects or emergency situations.

PHYSICAL REQUIREMENTS:

The physical demands described herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Sit for extended periods, frequently stand and walk;
- Have manual dexterity and eye-hand coordination needed to use a variety of office equipment such as computers, telephones, calculators, copiers, and topographic surveying equipment;
- Have corrected vision in order to review plans and specifications and perform other essential functions of the job; and
- Occasionally walk on uneven terrain at construction sites, etc.

ADDITIONAL PHYSICAL REQUIREMENTS:

VISION AND HEARING

See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; visually inspect work in progress. Ability to hear in the normal audio range with or without correction.

Equivalent American Society of Civil Engineers (ASCE) Grade: V

The physical demands described herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

City of Urbana
Civil Engineer III

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

Prepared By: Brad Bennett, Elizabeth Borman and Craig Shonkwiler 12/9/2014

Signature

Date

Approved By: _____

Department Head

Date

Approved By: _____

Personnel Manager

Date

Class Specification History

Revised definition, minimum qualifications, and add distinguishing characteristics: 09/03/2014.

For HR/Finance Use

Title Code 109	Pay Grade 47
EEO Category 2- Professionals	