

TOMPKINS COUNTY CIVIL SERVICE EXAMINATION

Inclusion Through Diversity



OPEN TO THE PUBLIC

Tompkins County Department of Human Resources Office
125 E. Court Street
Ithaca, NY 14850
(607) 274-5526

Tompkins County is an Equal Opportunity/Affirmative Action employer. Minorities and women are encouraged to apply

TITLE: Associate Civil Engineer

EXAM NO: 69477

SALARY: \$33.36 per hour - 2017 Hire Rate

EXAM DATE: 03/03/18

ISSUE DATE: 01/10/18

THE FINAL DATE TO FILE APPLICATIONS: 01/25/18

DATE THAT THIS ANNOUNCEMENT SHOULD BE REMOVED FROM POSTING: 03/04/18

RESIDENCY WAIVED

THE USE OF A QUIET HAND-HELD CALCULATOR WILL BE ALLOWED FOR THIS EXAMINATION.

LOCATION OF POSITIONS/VACANCIES:

There is currently one vacancy in the title of Civil Engineer Opportunity located at the Tompkins County Highway Department. The eligible list resulting from this examination may be used to fill any full-time, part-time, or temporary vacancy that may occur during the life of the list.

MINIMUM QUALIFICATIONS: No later than the final filing date announced, the applicant must demonstrate -

- (a) Graduation from a regionally accredited or New York State registered four-year college or university with a Bachelors Degree in Engineering, Architecture, Engineering Technology, Highway Technology or a related field **AND** eight years of full-time paid (or the equivalent part-time and/or volunteer) experience in an engineering or architectural design position; **OR**
- (b) Graduation from a regionally accredited or New York State registered two-year college with an Associates Degree in Engineering, Architecture, Engineering Technology, Highway Technology or a related field **AND** ten years of full-time paid (or the equivalent part-time and/or volunteer) experience assisting in Civil Engineering work involving designing highway facilities and/or structures including bridges and buildings; **OR**
- (c) Graduation from high school or possession of a high school equivalency diploma, possession of some professional level of training in the field of surveying **AND** at least twelve years of full-time paid (or the equivalent part-time and/or volunteer) experience assisting in Civil Engineering work involving designing highway facilities and/or structures including bridges and buildings; **OR**
- (d) Any combination of training and experience equal to or greater than that specified in (a), (b), and (c) above.

SPECIAL REQUIREMENT:

The candidate must possess a valid New York state driver's license at the time of application and maintain such license for the duration of employment.

DISTINGUISHING FEATURES OF THE CLASS:

This is a professional position requiring knowledge of engineering theory and principals and the ability to apply this knowledge in evaluating and preparing plans, proposals, reports, designs, specifications and estimates for complex engineering projects. The incumbent in this position must evaluate the condition of highways, bridges, and related structures to determine repair, replacement and rehabilitation needs. The ability to elect a project direction from a wide variety of alternatives and provide the most effective and efficient plan of work is required. This position is afforded a high level of autonomy and considerable latitude to exercise independent judgment and decision making in carrying out assignments. This position works under the general supervision of the Highway Manager and works directly with consultants, contractors, and other staff to complete assigned tasks. The incumbent will perform all related duties as required.

TYPICAL WORK ACTIVITIES:

- Supervises, coordinates, inspects, and has oversight responsibilities of the work of consultants and contractors;
- Prepares or directs the preparation of complex project designs, proposals, specifications, estimates and contract proposals;
- Oversees activities of consultants or contractors to ensure conformity to contract requirements including attendance, time on job, performance and the quantity and quality of work performed;
- Oversees, prepares and develops project feasibility (including economic analysis) and scoping studies, forecasts, design criteria, environmental studies and, highway capacity analysis;
- Develops design criteria for highways and bridges and/or safety systems to set work on a cost-effective basis;
- Manages consulting firms performing design services for projects. This includes defining the scope, negotiating agreements, directing and monitoring the consultant's work to ensure adherence to budget and schedule, coordinating the activities of the consultant with County organizations, coordinating changes in the scope of the agreements and /or requests for supplemental agreements, and preparing performance evaluations of consultant;
- Must possess a high level of interpersonal skills to understand conflicts and to motivate or influence staff consultants to come to conclusion on difficult matters or conflicting issues;
- Develops quality control requirements and quality assurance programs to assure that designs and materials used in projects meet the specified requirements;
- Develops solutions to complex highway and/or bridge construction problems resulting in field changes and orders-on-contract;
- Oversees contractor construction activities to ensure conformity to contract requirements including the quality of construction in adherence to predetermined schedules;
- Oversees contractor construction activities to ensure conformance to contract requirements for quality and adherence to schedules;
- Works directly with officials and administrators of other municipalities on projects as needed;
- Performs project inspections;
- Reviews contract documents and submittals for conformance with agency policies and standards;
- Attends, participates in and/or conducts public meetings;
- Management of all phases of Federal Aid projects related to highways and bridges;
- Develops designs, contracts, and all other material related to projects;
- Participates in preliminary and final review of complicated project proposals;
- Prioritizes projects and project activities for Federal Aid and projects;
- Participates in design and project management of in-house highway and bridge projects as needed;
- Organizes, supervises and coordinates projects and the work of consultants, and project assigned support staff as required.

KNOWLEDGE, SKILLS, ABILITY AND PERSONAL CHARACTERISTICS:

- Through knowledge of the principles, practices, theories, and procedures of engineering. applicable to a municipal setting;
- Thorough knowledge of construction materials, methods, standards (NYSDOT), and tests;
- Knowledge of the principles of supervision;
- Knowledge of project management;
- Knowledge of applicable codes, laws, rules, regulations, and policies governing and impacting on design and construction, applicable to a municipal setting;

- Ability to prepare, in final form, complex plans, designs, specifications, reports, contracts and narrative technical material;
- Ability to plan, schedule, coordinate, and evaluate design, construction and maintenance programs;
- Ability to establish cooperative relationships with subordinates, public officials, staff, and representatives of contractors, consultants, and the public;
- Ability to evaluate complicated proposals and designs and select the most practical plan of work accomplishment;
- Ability to establish project and work priorities;
- Ability to perform independently and carry out difficult assignments;
- Ability to use computer software for administrative and design applications;
- Ability to use computers and technical instruments, requiring considerable precision, for administrative and design applications;
- Ability to perform activities requiring physical effort (walking, climbing or reaching);
- May be exposed to considerable risk of minimal injury and/or some risk of moderate injury visiting structures and construction sites;
- Ability to perform work requiring prolonged visual concentration and considerable visual effort;
- Initiative and resourcefulness in problem solving;
- Tact and mental alertness are required.
- The employee's physical condition shall be commensurate with the demands of the position.

Originally created December 17, 1991

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Complete Scope of the examination and Expanded subtest descriptions:

1. Principles and practices of civil engineering

These questions test for knowledge of engineering concepts and their practical applications to the construction, operation and maip.tenance of public works projects,.including roadways, bridges, buildings, water and sewage systems and similar types of infrastructure.

2. Engineering plans, specifications and estimates

These questions test for knowledge of and the ability to read and interpret construction drawings and technical specifications, and for the ability. to calculate cost and quantity estimates from technical presentations and/or engineering and construction drawings. Knowledge of estimating techniques and the proper method of construction for specified projects will be required.

3. Methods and materials of construction

These questions test for knowledge of the proper procedures and materials used in the construction, maintenance and repair of various types of public works projects, including such typical construction work as excavations, roadways, embankments, and building and related structural improvements.

4. Construction and maintenance of highways, bridges, drainage systems and other related structures

These questions test for knowledge of the engineering concepts, practices, testing procedures, materials and computations used in the installation, repair and upkeep of roadways, overpasses, abutments, retaining walls, embankments, drainage structures and related appurtenances.

5. Principles of project management, including contracts, contract administration and construction economics

These questions test for knowledge of the concepts, tenninology, proper procedures and computations used in the planning, scheduling and oversight. of contractual agreements for public works projects, including economic and scheduling techniques such as cost/benefit analysis and the critical path method.

6. Preparing written material

These questions test for the ability to present information clearly and accurately, and to organize paragraphs logically and comprehensibly. For some questions, you will be given information in two or three sentences followed by four restatements of the information. You must then choose the best version. For other questions, you will be given paragraphs with their sentences out of order. You must then choose, from four suggestions, the best order for the sentences.

7. Supervision

These questions test for knowledge of the principles and practices employed in planning, organizing, and controlling the activities of a work unit toward predetermined objectives. The concepts covered, usually in a situational question format, include such topics as assigning and reviewing work; evaluating performance; maintaining work standards; motivating and developing subordinates; implementing procedural change; increasing efficiency; and dealing with problems of absenteeism, morale, and discipline.

The New York State Department of Civil Service has not prepared a test guide for this examination. However, candidates may find information in the publication "How to take a written test" helpful in preparing for this test. This publication is available online at: www.cs.ny.gov/testing/localtestguides.cfm

FURTHER INFORMATION AND INSTRUCTIONS

Falsification of any part of the "Application for Employment" will result in disqualification.

Accepted candidates will be notified when and where to appear for the examination. If you do not receive your notice to appear at least three days before the date of the written examination, call Tompkins County Department of Human Resources at 274-5526. If an application is disapproved, due notice will be sent. This department does not make formal acknowledgment of the receipt of an application or take responsibility for non-delivery or postal delay.

Applicants must answer every question on the application form and make sure that the application is complete in all respects. Incomplete applications will be disapproved.

ACTIVE MILITARY PERSONNEL, VETERANS OR DISABLED VETERANS desiring to claim additional credit will request the Veterans Credits application form, at any time between the date of application for examination(s) and the date of the establishment of the resulting eligible list. You must meet the requirements set by NYS for these credits and they may be used only once. **YOU MAY NOT CLAIM ADDITIONAL CREDITS AFTER THE ELIGIBLE LIST HAS BEEN ESTABLISHED. IT IS THE CANDIDATE'S RESPONSIBILITY TO REQUEST THE VETERANS CREDIT APPLICATION FORMS AND TO SUBMIT THESE FORMS AND ANY SUPPORTING PAPERWORK BEFORE THE ELIGIBLE LIST IS ESTABLISHED.**

Tompkins County's written examinations are prepared and rated by the New York State Department of Civil Service in accordance with Section 23-2 of Civil Service Law. The provisions of the New York State Civil Service Rules and Regulations, which deal with the rating and review of the examinations apply.

The duration of the eligible lists may be fixed for a minimum of one and a maximum of four years and may be extended beyond four years if there has been a restriction against the filling of vacancies in that title.

The candidates must complete a separate "Application for Employment" for each open-competitive and/or promotional examination that the candidate is eligible to take.

All experience required meeting the acceptable training and experience is full-time experience. (Part-time experience will be credited on a prorated basis).

Appointment from an eligible list must be made from the top three candidates willing to accept the appointment.

Tompkins County is an Equal Opportunity Employer. As part of its efforts to provide employment opportunities to the physically handicapped, Tompkins County Civil Service has adopted a rule permitting the employment of qualified physically handicapped persons without competitive examination (pursuant to Section 55 of Civil Service Law). If you meet the minimum qualifications for this position and wish to know more about this rule, please contact the Tompkins County Department of Human Resources Office.

Unless otherwise notified, candidates are permitted to use quiet, hand-held, and solar or battery powered calculators. Devices with Typewriter Keyboards, Spell Checkers, Personal Digital Assistants, Address Books, Language Translators, Dictionaries or any similar devices are prohibited. You may not bring books or other reference materials.

CROSS-FILING - APPLYING FOR CIVIL SERVICE EXAMINATIONS IN MULTIPLE JURISDICTIONS WHEN EXAMINATIONS ARE SCHEDULED ON THE SAME DATE: When applying for examinations across multiple jurisdictions - all of which are scheduled on the same day - you must submit a Tompkins County Cross-Filing Form. This form must be submitted no later than 4:30 PM on the final filing date of the examination. On this form, list each examination that you are taking and then tell us where you would like to sit. The purpose is to ensure that all of the test materials for the various examinations that you are taking will be available in one location. If you do not provide the cross-filing form to us by the final filing date, we cannot ensure that we can accommodate your desire to cross-file. If any of the examinations are State level examinations, you must sit at the State test center. You will still need to complete the Tompkins County cross-filing form. If sitting at the State site, the State will notify you of when and where to report for your examination(s) and you should bring all admittance letters to the State site. If you are not taking a State examination, bring all admittance letters to your chosen testing site. If you have any question please call Tompkins County Department of Human Resources Department (607) 274-5526. The Cross File form is located at <http://www.tompkins-co.org/personnel/CivilSrvForms/index.html>

FOR RELIGIOUS ACCOMMODATION AND HANDICAPPED PERSONS: If special arrangements for testing are required, please indicate this on your application.

ALL CANDIDATES FOR EMPLOYMENT FOR POSITIONS IN SCHOOL DISTRICTS AND BOCES GOVERNED BY TOMPKINS COUNTY CIVIL SERVICE MAY HAVE THE FOLLOWING SPECIAL REQUIREMENT. PER CHAPTER 180 OF THE LAWS OF 2000, AND BY REGULATIONS OF THE COMMISSIONER OF EDUCATION, TO BE EMPLOYED IN A POSITION DESIGNATED BY A SCHOOL DISTRICT OR BOCES AS INVOLVING DIRECT CONTACT WITH STUDENTS, A CLEARANCE FOR EMPLOYMENT FROM THE STATE EDUCATION DEPARTMENT IS REQUIRED.

In conformance with Section 85-a of the Civil Service Law, children of firefighters and police officers killed in the line of duties shall be entitled to receive an additional ten points in a competitive examination for original appointment in the same municipality in which his or her parent has served. If you are qualified to participate in this examination and are a child of firefighter or police officer killed in the line of duties in this municipality, please inform this office of this matter when you submit your application for examination. A candidate claiming such credit has a minimum of two months from the application deadline to provide the necessary documentation to verify additional credit eligibility. However, no credit may be added after the eligible list has been established.

BACKGROUND INVESTIGATION: Applicants may be required to undergo a State and national criminal history background investigation, which will include a fingerprint check, to determine suitability for appointment. Failure to meet the standards for the background investigation may result in disqualification.

TOMPKINS COUNTY PERSONNEL DEPARTMENT, 125 EAST COURT STREET, ITHACA, NY 14850