

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: Engineering Technician

EXAM NO: 69481

SALARY: \$18.75/hour 2017 Hire Rate

EXAM DATE: 10/28/17

ISSUE DATE: 09/13/17

THE FINAL DATE TO FILE APPLICATIONS: 09/28/17

DATE THAT THIS ANNOUNCEMENT SHOULD BE REMOVED FROM POSTING: 10/29/17

RESIDENCY WAIVED

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

LOCATION OF POSITIONS/VACANCIES:

There is currently two full-time vacancies in the title of Engineering Technician located in the Tompkins County Highway Department. The eligible list resulting from this examination may be used to fill any full-time, part-time or temporary vacancies that may occur during the life of the eligible list

MINIMUM QUALIFICATIONS:

(a) Graduation from a regionally accredited or New York State registered two year college with an Associates degree in Engineering Technology , Civil Technology, Construction Technology, **AND** one year of full time paid (or the equivalent part-time and/or volunteer) broadly based experience in the design and/or construction of highways or in the construction industry; **OR**

(b) Graduation from a high school technical education program (recognized by the New York State Education Department as meeting acceptable program practices and standards) with knowledge of one or more of the following: CAD, construction technology, drafting, engineering, or engineering graphics **AND** two years of full-time paid (or the equivalent part-time and/or volunteer) broadly based experience in the design and/or construction of highways or in the construction industry ; **OR**

(c) Any combination of training and experience equal to or greater than that specified in (a) and (b) above.

SPECIAL REQUIREMENTS: The candidate will possess a valid New York State Class D Drivers License at the time of application and maintain such license for the duration of employment.

DISTINGUISHING FEATURES OF THE CLASS:

An Engineering Technician performs basic labor or technical tasks. He or she may also perform standard laboratory testing in a CADD room, office or laboratory. An Engineering Technician works with equipment used in surveying activities; reduces and plots notes; prepares maps and plans, performs mathematical computations and assists with observations, inspections, laboratory

tests and report preparation. The employee performs quality control on various projects and may assist in monitoring environmental quality in relation to projects. The Engineering Technician is expected to use various computer applications in order to perform the duties of the position. The work is performed under the direct supervision of a Civil Engineer or Associate Civil Engineer. Moderate autonomy and independent judgment is exercised when performing the duties of this position. Supervision of others is not generally a function of this class. The incumbent will perform all related duties as assigned.

TYPICAL WORK ACTIVITIES: (Illustrative, but not all-inclusive)

- Assists in the development of Highway and Engineering technical requirements;
- Assists in the development of budgets and schedules for Engineering projects;
- Assists with and may perform all types of surveys including photogrammetric, construction, property, topographic, traffic, route, and hydrographic;
- Performs and coordinates construction inspection to ensure proper implementation of plans, specifications, regulations and codes;
- Performs and coordinates material and construction testing in the field and/or lab.
- Manages the County Engineering Resource Room;

KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

- Working knowledge of the practices and principles of engineering and construction;
- Working knowledge of the operation of the instruments and materials used in engineering and construction projects;
- Working knowledge of survey and engineering terminology;
- Working knowledge of rules, regulations and codes pertaining to engineering projects;
- Ability to interpret engineering drawings and specifications;
- Assists in the formulation of budgets and schedules;
- Ability to assist in surveys including but may not be limited to photogrammetric, construction, property, topographic, traffic, route, and hydrographic;
- Ability to perform material and construction tests in the field and lab;
- Ability to understand and interpret complex oral and written information;
- Ability to use a personal computer to manipulate engineering software programs;
- Ability to understand basic laboratory instrumentation and electronics;

Originally created 5/93

E15

Complete Scope of the examination and Expanded subtest descriptions:

1. Mathematics, including algebra, geometry and trigonometry

These questions test for the ability to read, analyze, and solve technician-level written problems involving addition, subtraction, multiplication, division, algebraic equations, geometric concepts and figures, and basic trigonometric functions.

2. Methods and materials used in the construction and maintenance of roads, bridges and other structures and facilities

These questions test for knowledge of the proper procedures, materials, and equipment used in the construction, reconstruction, and repair of various types of public works projects, including such typical construction work as roadways, bridges, excavations, embankments, drainage structures, retaining walls, and similar facilities.

3. Understanding and interpreting engineering plans and descriptive specifications

These questions test for the ability to read and analyze technical drawings and written technical presentations, and to perform related computations. Some technical knowledge of construction and estimating terminology and methods will be required.

4. Land surveying principles and practices, including map interpretation

These questions test for fundamental knowledge of the concepts, computations, and proper procedures involved in performing surveys for construction projects and land areas, including the use of theodolites, total stations, automatic levels, and other contemporary field survey equipment; and for the ability to read, analyze, and perform technical computations based on topographic and survey maps and site plans.

5. Principles and knowledge related to computer-assisted drafting (CAD) technology

These questions test for knowledge of the basic concepts, terminology, and proper procedures to use when creating technical drawings utilizing computerized drafting software.

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 on line 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