

# 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**

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**TITLE:** Public Health Engineer

**EXAM NO:** 65828

**SALARY:** \$32.42 per hour - 2018 Hire Rate

**LOCATION:** Health Department

**EXAM DATE:** 09/29/18

**ISSUE DATE:** 08/01/18

**THE FINAL DATE TO FILE APPLICATIONS:** 08/16/18

**DATE THAT THIS ANNOUNCEMENT SHOULD BE REMOVED FROM POSTING:** 09/30/18

**RESIDENCY WAIVED**

### **LOCATION OF POSITION/VACANCIES:**

There is currently one vacancy in the title of Public Health Engineer located at the Tompkins County Public Health Department. The eligible list resulting from this open competitive 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 ABET/EAC accredited four year college or university with a Bachelors Degree in Engineering **AND** four years full-time paid (or the equivalent part-time) experience in engineering or in a public health related field; **OR**
- (b) Graduation from a regionally accredited or New York State registered four year college or university with a Bachelors Degree in Architecture or Technology **AND** eight years full-time paid (or the equivalent part-time) experience in engineering or in a public health related field; **OR**
- (c) Graduation from a regionally accredited or New York State registered two year college or university with an Associate's Degree in Engineering Technology **AND** ten years full-time paid (or the equivalent part-time) experience in engineering or in a public health related field; **OR**
- (d) Any combination of training and experience equal to or greater than that specified in (a), (b) and (c) above.

### **SPECIAL REQUIRMENTS:**

The candidate must meet the qualifications outlined above in order to be eligible for a New York State Professional Engineer's license **AND** must obtain a New York State Professional Engineering license within one year from the date of hire. The employee must thereafter maintain New York State Professional Engineer licensure for the duration of employment.

The candidate must possess a valid driver's license at the time of application and obtain a New York State Class D driver's license within one month from the date of appointment. The employee must maintain a valid New York State driver's license for the duration of employment.

**NOTE:**

Knowledge of and/or experience working with Computer Aided Design (CAD) software (BRICSCad preferred) is highly desirable. If you possess such education and/or experience, please outline this information in your application, cover letter or résumé.

**DISTINGUISHING FEATURES OF THE CLASS:**

This position exists in the County Health Department, Division of Environmental Health, and has responsibility for planning, administration and performance of one or more environmental health programs. The work entails reviewing and approving under his/her Professional Engineering license of engineering designs and projects to ensure the safeguarding of life, health and/or property; advising public officials or individuals on problems requiring professional public health engineering expertise, including measures for improvement and compliance with legal requirements and promoting public health through the application of environmental health practices; assisting in the enforcement of the local and state laws including the New York State and Tompkins County Sanitary Codes and other rules and regulations; and investigation of related conditions and matters. A high level of interpersonal skills are necessary in order to persuade, motivate or influence others under tense conditions or to present/defend matters involving sharp disagreement. Internal contacts are across divisions within the department and require professional collaboration on overlapping work projects and issues. External contacts are with professional associates and liaisons, builders, the community in general and involve the administration of specific Environmental Health programs. The work is performed under general supervision of the Director of Environmental Health, exercising considerable autonomy and independent judgment when carrying out details of the work. The Public Health Engineer has final review and responsibility for all Division activities requiring a Professional Engineer's license and will supervise projects from conceptual meetings through approval and construction under the authority of a Professional Engineer's license to safeguard life, health and/or property. Supervision is exercised over a work group and the incumbent is responsible for the technical and engineering quality of work of assigned public health personnel. The incumbent will perform all related duties as required.

**TYPICAL WORK ACTIVITIES:**

- Supervises and administers one or more programs such as residential Realty Subdivisions, Hazardous Waste Site Investigations, Onsite Wastewater Treatment Systems (OWTS), Indoor Air Complaints, Municipal Public Water Systems, Emergency Spill Response, etc.;
- Responsible for and supervises the technical quality of work of Public Health Sanitarians designing OWTS for individual residences and similar properties and issues OWTS Permits under his/her Professional Engineering license;
- Supervises State Pollution Discharge Elimination System permit process for sewage systems and ensures all Division permits meet New York State Department of Environmental Conservation requirements;
- Investigates and may take the lead role in developing public health concerns on emerging issues;
- Develops program goals and objectives, evaluates and reports on program progress, advises the Director of Environmental Health on program policy and priorities;
- In the course of administering program duties, supervises other Public Health staff such as providing training,
- assigning duties and reviewing the quality and quantity of work;
- Inspects, evaluates and reports on public and private water systems, sewage systems, swimming and bathing places, stream pollution, temporary residences, mobile home parks, hazardous waste sites, spills of hazardous materials, and other public health regulated facilities and nuisances, suitability of soil for sewage treatment, and development proposals;
- Makes engineering evaluations and prepares engineering reports about disease outbreaks, public health and environmental hazards and nuisances, suitability of soil for sewage treatment, and development proposals;
- Maintains relationships and cooperates with state and federal agencies whose work or policies affect environmental health programs;
- Aids in developing public health engineering and environmental health policies and procedures;
- Represents the Department in meetings and enforcement proceedings including giving testimony at hearings;
- Collects environmental samples of water, food, paint, soil, etc., prepares them for laboratory analysis and interprets laboratory results for other staff and the public;
- Performs deep and shallow soil tests in the field to determine soil type, permeability, restrictions for use as sewage systems;

- Performs engineering reviews and may issue approvals of engineering or architectural plans and specifications submitted to the Division for water and sewage systems, temporary residences, swimming and bathing facilities, realty subdivisions, and related programs;
- Provides advice and assistance on public health engineering matters to consulting engineers, local officials and the public;
- Represents the Division in meetings, enforcement proceedings, and public contacts; and
- Provides advice and training to other staff members and the public about public health policies, practices, and engineering matters.

**KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:**

- Thorough knowledge of the principles, practices and techniques of public health engineering and environmental health related to water supplies and purification, wastewater treatment systems, subdivisions and other developments, water pollution, air pollution, solid waste control, swimming pools and bathing beaches, indoor air, chemical and oil spills, etc.;
- Good knowledge of the Public Health Laws, and State and County Sanitary Codes relating to the activities of the division;
- Good knowledge of computer-aided design software applications;
- Working knowledge of basic computer applications (word processing, data management, spreadsheet);
- Skill in public health engineering techniques and practices;
- Ability to plan, develop, direct, and administer one or more public health programs;
- Ability to prepare reports and correspondence;
- Ability to plan and supervise the work of others;
- Ability to develop and maintain good public relations in difficult and controversial situations; and
- The employee's physical and mental condition shall be commensurate with the demands of the position, either with or without reasonable accommodation.

**PHYSICAL, MENTAL AND ENVIRONMENTAL:**

**Physical:** This position entails a combination of physical and sedentary activities. When in the field the employee will perform inspections of public and private water systems, sewage systems, swimming and bathing places, stream pollution, temporary residences, mobile home parks, hazardous waste sites, spills of hazardous materials, and other public health regulated facilities and nuisances, suitability of soil for sewage treatment. This work requires moderate physical effort such as periods of standing, walking, bending, climbing. The office component entails a minimal amount of walking, bending, standing, etc. There may be considerable visual effort involved, and repetitive hand/finger movements associated with the execution of the tasks delegated with this role. The incumbent must be able to accurately manage and manipulate information, using computer software and hardware systems, with or without reasonable accommodations. Machines, tools, instruments and equipment typically require considerable precision, manual dexterity and/or knowledge and skill.

**Mental:** The employee's ability to communicate (verbal or written) must be sufficiently adequate to enable them to understand and carry out detailed instructions. The work normally involves considerable demands from unpredictable fluctuations in work volume, frequent interruptions, regular changes in work priority, the tight and conflicting deadlines. The employee must possess the knowledge and ability needed to utilize office equipment, including computer systems, inclusive of necessary software and operating systems, with or without reasonable accommodations.

**Environmental:** The work occasionally has moderate exposure to disagreeable outdoor conditions such as weather, mud, rain, snow, construction sites/debris, etc. Working partially outdoors and around construction sites, there is considerable risk of moderate and some risk of serious injury.

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**Complete Scope of the examination and Expanded subtest descriptions:**

1. Inspection and interviewing techniques

These questions test your ability to select the proper course of action in situations which might occur during routine inspections. Question topics may cover, but will not be limited to, such areas as interviewing, gathering information and evidence, maintaining proper attitude, and handling irregularities and violations with integrity and sound judgment: Some questions may be in a situational format while others may deal with the proper principles and practices of inspection.

## 2. Understanding and interpreting technical written material and engineering plans and specifications

These questions test for the ability to read and analyze written technical material and specifications and various types of technical drawings, and to perform related simple computations. All the information needed to answer the questions will be provided in the written material and/or drawings.

## 3. 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.

## 4. Program planning and evaluation

These questions test for knowledge of the principles and practices involved in effective program planning and management and may include such areas as designing programs to achieve certain goals, staffing program activities, coordinating and guiding the progress of program activities, and evaluating the effectiveness of such programs.

## 5. Public health and sanitary engineering including water sources; water treatment and distribution; pollution control and subdivision control

These questions test for knowledge of the principles and practices involved in the areas of public health sanitary engineering involving water supply, treatment, and distribution processes; identification and control of potential sources of water and wastewater pollution; and the application of environmental and sanitary principles to housing subdivision review and control.

## 6. 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 on line at: <https://www.cs.ny.gov/testing/testguides.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