DISTINGUISHING FEATURES OF THE CLASS: This is beginning professional engineering work requiring the ability to apply principles of physics, mathematics, mechanics and materials to engineering problems. The work requires independent judgment in devising new methods and adapting standard procedures to meet unusual conditions. The work is performed under the general supervision of the County Commissioner of Public Works and Deputy Commissioner of Public Works, with considerable leeway in the performance of assignments. Does related work as required.

TYPICAL WORK ACTIVITIES: (Illustrative only)

- Prepares specifications and designs for proposed engineering projects;
- Prepares information for the Commissioner of Public Works and Deputy Commissioner, including cost estimates on planned or active projects;
- Updates GIS maps based on changes to roadways, culverts, bridges, etc.;
- Inspects the work of building and road maintenance and construction personnel;
- Conducts inspection tours of County road network, including intersection studies;
- Assists in the prioritization of department projects;
- Receives and answers complaints and inquiries regarding Public Works operations;
- Confers and cooperates with contractors, town officials and other interested individuals and groups in solving engineering problems and in carrying out engineering activities;
- Reviews, analyzes and revises preliminary Project Worksheets for FEMA and/or SEMO;
- Processes Applications for driveway permits;
- May perform preliminary surveys for new bridge, highway and building construction.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS: Good knowledge of the principles of civil engineering, physics and mathematics; good knowledge of construction and engineering practices; ability to design moderately difficult engineering projects; skill in the use of surveying and drafting instruments; ability to make difficult technical computations and compile engineering data; ability to utilize various engineering related software systems; ability to read and interpret engineering drawings and specifications; ability to get along well with others; resourcefulness; accuracy; physical condition commensurate with the demands of the position.

MINIMUM QUALIFICATIONS (Either):

a. Graduation from a regionally accredited or New York State registered college or university with a Bachelor's Degree in Civil Engineering; OR
b. Graduation from a regionally accredited or New York State registered college or university with an Associate’s Degree in Civil Engineering Technology, Engineering Science or closely related field and two (2) years of full-time experience or its part-time equivalent in the fields of engineering, surveying, drafting and/or construction; OR
c. Graduation from High School or possession of a High School Equivalency Diploma and four (4) additional full-time years of any combination of the following:
   1. Assisting in civil engineering work;
   2. College study in engineering;
   3. Study in applied science or in curriculum such as construction, highway technology at a technical institute or two year college; OR
d. An equivalent combination of training and experience as indicated in (a), (b) and (c) above.