# ASSISTANT ENGINEER

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are* ***not*** *intended to reflect all duties performed within the job.*

# SUMMARY DESCRIPTION

Under direct supervision, performs professional and technical engineering work in design of public agency sanitary sewer and stormwater infrastructure, capital improvement projects and street and sidewalk improvements related to these projects.

# DISTINGUISHING CHARACTERISTICS

**Assistant Engineer** - This is an entry level class in the engineering series. Positions in this class possess the applicable educational and training background required of classes in the engineering series, yet typically have only limited or unrelated work experience. The Assistant Engineer class is distinguished from the Engineering Associate by the performance of less than the full range of duties as assigned to the journey level class within this series. This class is typically used as a training class. Incumbents work under direct supervision while learning job tasks.

# REPRESENTATIVE DUTIES

*The following duties are typical. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.*

1. Perform professional and technical engineering work relative to assigned area of responsibility, such as sewer and storm drain design, sanitary sewer and storm drain development, and capital improvement projects. Prefer field construction project observation skills.
2. Design and prepare plans and specifications for public works projects including pumping stations, sewer replacement projects, streets, storm drains, and related projects; research project design requirements; perform calculations and prepare estimates of time and material costs.
3. Prepare and assist with the preparation of engineering drawings, using the current or recent AutoCAD version. Applicant must be able to demonstrate competency in AutoCAD.
4. Answer inquiries from client agency staff, developers, engineers, and the general public.
5. Implement design and construction standards for public works structures and appurtenances.
6. Serve as construction observer to ensure compliance on client agency projects, and encroachments.
7. Investigate field problems affecting property owners, contractors, and maintenance operations; resolve problems or refer as appropriate; coordinate or perform field work associated with infrastructure projects.
8. Administer contracts; coordinate and review comments from client staff members, consultants, and subconsultants; review and recommend payments and billing for contracted services related to assigned projects.
9. Request and participate in the collection of survey and mapping data.
10. Prepare estimates and feasibility reports for new or modified services and structures.
11. Attend and participate in professional group meetings; maintain awareness of new trends and developments in the field of municipal engineering; incorporate new developments as appropriate into programs.
12. Prepare visual presentations and reports.
13. Prepare special engineering studies and reports.
14. Perform related duties as required.

# QUALIFICATIONS

*The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.*

# Knowledge of:

Principles and practices of engineering as applied to public works, utilities, road and sidewalk improvements or land development

Methods, materials, techniques, tools, and equipment used in engineering construction

Principles of algebra, geometry, and trigonometry and their application to engineering

Operation, principles, and practices of engineering drafting with AutoCAD application software

Topographic and construction surveying

Strengths, properties, and uses of engineering construction materials

Knowledge of office procedures, methods, and equipment including computers and applicable software applications such as word processing, spreadsheets, and databases

Pertinent federal, state, and local codes, laws, and regulations

# Ability to:

Prepare plans and drawings neatly and accurately with AutoCAD and its design tools.

Prepare engineering design computations and check, design, and prepare engineering plans and studies.

Learn and understand agency client engineering policies and procedures.

Develop contracts and coordinate and review the work of outside subconsultants.

Learn applicable laws and regulatory codes.

Prepare quantity and cost estimates.

Use and care for engineering equipment.

Prepare reports encompassing raw technical data; prepare effective cost estimates and recommendations.

Operate office equipment including computers and supporting word processing, spreadsheet, and database applications.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with a diverse clientele in the course of work.

**Education and Experience Guidelines -** *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:*

# Education/Training:

A Bachelor’s degree from an accredited college or university with major course work in civil engineering or a related field. Experience and an LSIT or EIT certificate may substitute for a Bachelor’s degree.

# Experience:

This is an entry level engineering position.

# License or Certificate:

Possession of an appropriate, valid driver’s license. Possession of an EIT certificate.

# PHYSICAL DEMANDS AND WORKING ENVIRONMENT

*The conditions 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 job functions.*

**Environment:** Work is performed in an indoor and outdoor setting with exposure to all types of weather and temperature conditions, and travel from site to site.

**Physical:** Primary functions require sufficient physical ability and mobility to work in an office setting and field environment; to walk, stand, and sit for prolonged periods of time; to frequently stoop, bend, kneel, crouch, crawl, climb, reach, twist, grasp, and make repetitive hand movement in the performance of daily duties; to lift, carry, push, and/or pull moderate amounts of weight; to operate assigned equipment and vehicles; and to verbally communicate to exchange information.

**Vision:** See in the normal visual range with or without correction.

**Hearing:** Hear in the normal audio range with or without correction.

# ACKNOWLEDGMENT

I acknowledge that I have read the job description and requirements for the Assistant Engineer position and I certify that I can perform these functions.

Applicant Signature Date Witness

\*Management has the right to add or change these duties of the position at any time.