

**CLASS SPECIFICATION**  
**GIS Technician III**

FLSA Status: Covered  
Union Representation: Professional and Technical Employees (PTE)

**GENERAL PURPOSE**

Under general direction, performs advanced specialized work in the development and use of Geographic Information Systems (GIS); coordinates large, multiple and/or complex GIS projects including developing time lines, schedules and budgets; provides lead direction to other GIS Technicians; performs complex database design and analysis using multiple data sources; and performs related duties as assigned.

**DISTINGUISHING CHARACTERISTICS**

GIS Technicians III independently perform advanced, complex GIS mapping and analysis duties. Incumbents may be assigned to coordinate large, multiple or complex GIS projects and provide lead work direction, guidance and training to other GIS Technicians.

GIS Technician III is distinguished from Mapping and GIS Supervisor in that incumbents in the latter class are responsible for supervising professional and technical staff. Incumbents have less involvement in the technical and operational work and more supervisory and managerial responsibilities.

**ESSENTIAL DUTIES AND RESPONSIBILITIES**

Any one position in this class may not perform all the duties listed below, nor do the listed examples of duties include all similar and related duties that may be assigned to this class.

1. Plans and organizes work assignments and provides lead work direction to other technicians in a mapping, records and GIS work group; develops and implements standards, policies and procedures; prioritizes, plans and schedules projects and processes and checks work; and manages work flow.
2. Consults with clients and section management to assess scope of mapping requests; estimates time and resources needed to complete mapping services; researches and evaluates available data and proposes methods to be used; develops procedures and preliminary layouts; makes final determinations on methods to be used and develops procedures accordingly; designs final map layouts and executes design drafts.
3. Prepares, designs and produces a variety of maps and other graphic representations displaying layers and attribute data from the database, using cartographic techniques to represent spatial data; develops and maintains data layers, using GIS tools, CAD tools and relational databases; enters attribute data pertaining to specific features into a relational database; incorporates maps, charts, spreadsheet data and text into reports.

4. Serves as liaison with GIS stakeholders in other work units, bureaus and organizations in the development and maintenance of GIS data and to share information and coordinate projects.
5. Researches GIS and CAD techniques, identifies sound methodologies and implements results of research.
6. Provides technical support on GIS software; serves as technical resource for other staff on difficult GIS database and application issues; coordinates and leads data conversion and process improvement initiatives.
7. Provides training and ongoing education to bureau and work group staff in GIS application usage, CAD/GIS mapping, work order and as-built interpretation, records processes and process improvements or changes.
8. Communicates project information and requirements to consultants and reports critical issues to management as deemed necessary.
9. Performs complex spatial analysis and database queries; designs, creates, implements and maintains databases.
10. Represents the bureau on special projects and/or committees.
11. Translates CAD drawings into GIS format; creates GIS maps and drawings and posts map updates.
12. Translates GIS data files to and from various formats, including CAD formats, as needed.
13. Geocodes or otherwise links non-spatial data with existing spatial data, where reliable and reasonable linkages exist.

## **MINIMUM QUALIFICATIONS**

### **Knowledge of:**

1. Advanced geographic information system concepts, principles, practices and techniques, including computer mapping and attribute data conversion, transfer, manipulation and analysis.
2. Methods and techniques used in providing lead work direction to other technical staff, including work planning, organization, monitoring and goal development.
3. Procedures and practices of project management and evaluation.
4. GIS software, tools and applications.
5. Relational database concepts, methods and practices.
6. CAD software and hardware drafting media.
7. Terminology, methods and techniques used in engineering maps and records.

8. Data gathering and research skills.
9. Use of word processing, spreadsheet and database software.
10. Operating system fundamentals and procedures for the use of computer systems and related equipment.
11. Algebra, geometry and trigonometry as applied to engineering and mapping formulas.
12. City operating policies and departmental work procedures and quality standards.

**Ability to:**

1. Utilize a variety of GIS software, computer-aided drafting, graphics and other applications to carry out complex work responsibilities.
2. Review, organize and guide the work of work group; motivate assigned staff and provide for their training and development.
3. Perform difficult technical research and analyze complex GIS related problems, evaluate alternatives and recommend or adopt effective courses of action.
4. Assess GIS user needs and project and production schedules.
5. Independently perform advanced GIS assignments with initiative and creativity.
6. Clearly present technical information in oral, written, graphic or other forms.
7. Establish and maintain effective working relationships with bureau staff and management, the public and others encountered in the course of work.

**Training and Experience:**

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from high school or G.E.D. equivalent, technical school or vocational school, supplemented by course work in architectural, civil and mechanical engineering drafting and geographical information systems; and four years of progressively responsible experience in the use and operations of GIS systems and applications; or an equivalent combination of training and experience. Experience in a public agency is preferred.

**Licenses; Certificates; Special Requirements:**

A valid state driver's license may be required for certain assignments.

**PHYSICAL AND MENTAL DEMANDS**

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depends, in part, on the specific requirements for the job, the limitations related to disability and the ability of the

hiring bureau to accommodate the limitation.

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**Class History:**

Adopted: 08-30-96 Engineering Technician III (3109) – GIS specialty created.

Revised: 07-01-01 Spec revised as part of the COPPEA Classification and Compensation study. GIS Technician III (6063) class created from the following COPPEA classes:  
3109 Technician III (GIS specialty)

Revised: 08-01-06 Spec history revised to reflect pre-2001 COPPEA Study history. Spec formatting modified.

Revised: 08-07-06 Revised FLSA status from “Non-exempt” to “Covered.”

June 2009 - Change Job Class number from 6063 to 30000343, due to system change.

July 2017 – Updated union name from COPPEA to PTE