

**SENIOR CIVIL ENGINEERING DRAFTING TECHNICIAN
(CLASS CODE 7207)**

Task List – 2022

Technical

1. Calculates or supervises the calculation of bearings, distances, areas, and elevations from tract maps, legal descriptions, or other legal documents in order to assist in the preparation of maps, final design plans, assessment, or other studies.
2. Prepares cross-sections and calculates, or supervises the calculations of the estimated volume of earthwork, with the use of computer aided drafting (CAD) or other software, such as AutoCAD and Revit, in order to complete design plans, make assessments, or estimate the required cut or fill.
3. Calculates alignments, tangent lengths, horizontal and vertical curve data, and stationing; calculates or supervises the calculations of lengths and weights of concrete and structural steel members for transmission towers and electrical equipment racks; and creates plans and profiles of pipes in order to prepare design plans for conduit, streets, or pipelines.
4. Prepares and maintains drawings of buildings, concrete and steel structures for sewage treatment plants or power generating, distributing, commercial, and service facilities; prepares or supervises the preparation of drawings, charts, or graphs for preliminary and final construction and design plans, profiles, and cross-sections; and prepares or supervises the preparation of right-of-way drawings and plot maps of legal descriptions, ordinances of intention or ordinances in order to provide specific information for engineering projects.
5. Analyzes, prepares, or supervises the preparation of elementary surveys and record maps and maintains or supervises the maintenance of record maps in order to show the existing locations and conditions of structures, such as storm drains, sewers, street lighting systems, water and power transmission and distribution systems, easements, boundaries, and tracts substructures of outside utility agencies.
6. Researches legal descriptions and addresses using City, county, and state records, and field observation in order to complete construction drawings or record maps, or to verify addresses and property descriptions on building permits and other documents.
7. Participates in or supervises the research of maps and records to obtain engineering, financial, legal, or historical information in order to update records or provide other sections or agencies with information.

8. Researches records and makes field observations to obtain information on district boundaries, water pipelines, property lines, street, sewer, storm drain, and drainage areas in order to maintain permanent office records and complete design plans.
9. Reads and analyzes ordinances, legal descriptions, technical manuals, engineering instructions, field notes, sketches, and other documents in order to assist in the completion of own work or the coordination of work for the unit.
10. Makes trips into the field as necessary in order to verify physical conditions, obtain information necessary to complete plans, observe construction techniques, or approve permit applications.
11. Prepares or assists in the preparation of groundwater contour maps, substructure maps, design plans, isohyetal maps, and population density maps in order to have relevant information to accompany environmental impact reports, assist in storm drain designs, etc.
12. Reviews improvement design plans in order to assess for possible conflicts with existing utilities.

Oral Communication

13. Confers with engineers, contractors, the public, or employees from other City departments in order to secure data, design interpretations, or clarification of facts.
14. Consults with engineers, subordinates, or print shop employees in order to inform them on methods of reproduction to be used for each project, including photocopy, printing, or plotting to a digital format, such as PDF, DWF, and JPEG.

Written Communication

15. Prepares and assists in the preparation of drafting standards and procedure manuals for the squad, section, and division in order to ensure staff have up-to-date information and adhere to standards.
16. Assists in the preparation of narrative and standard reports on individual and unit productivity, workload, and backlog in order to track productivity and workload.

Supervision

17. Supervises a group of employees, reviews assignments, drawings, and calculations; considers assignments in terms of content, difficulty, safety, and timeframe as well as employee workload, capabilities, and developmental needs; and assigns responsibility and explains assignments, while providing technical expertise in difficult phases of assignments, in order to ensure workload is appropriately distributed among staff and that they are prepared to complete it as directed.

18. Observes employee performance, reviews work of employees, and monitors job progress in order to ensure that the work is completed safely, timely, and up to standards; and makes necessary adjustments to work in progress.
19. Documents incidents of noteworthy good or poor job performance; evaluates employees in areas relevant to the job; documents employee evaluations and discusses evaluations with the employee, including quantity and quality, timeliness, and problems encountered; and provides verbal and/or written praise and/or constructive criticism in order to provide recognition of good/poor performance and to coach them for effective performance for future assignments.
20. Conveys information to employees orally or in writing, including information from management, such as policy changes or department objectives, safety requirements, updated safety and new product information, and training and promotional opportunities; listens to employee suggestions and concerns and follows-up as appropriate; discusses and coordinates activities of unit with other supervisors and/or other staff; and documents and informs management of completed work activities, deviations from planned work, concerns, ideas, and suggestions in order to ensure everyone is provided relevant information.
21. Schedules employee time at work; approves/disapproves employee requests for time off; and verifies that timesheets properly account for employee work time in order to ensure necessary levels of staffing, timely completion of work, and appropriate documentation.
22. Applies the principles of Equal Employment Opportunity; listens to employee grievances and disputes to identify a fair solution based on facts; counsels employees regarding problems such as rule infractions, inappropriate conduct, or safety violations; and/or disciplines employees following departmental progressive disciplinary procedures in order to perform personnel policy functions.
23. Trains employees by periodically taking employees into the field to observe construction jobs, explaining and demonstrating work procedures, and then observing employee performance; assists employees in preparation for promotional opportunities; facilitates employees' work by ensuring necessary resources (e.g., tools, equipment, manuals, software, and contact information to departments, other governmental agencies, utility companies, or private industry) are available in order to ensure employees are properly trained and provide relevant equipment and information.