

## **STRUCTURAL ENGINEER**

(Class Code 7956)

### **TASK LIST**

1. Supervises the preparation or the plan checking of designs, specifications, estimates, and reports necessary for the construction, maintenance, and operation of a wide variety of reinforced concrete, steel, masonry, and timber structures including bridges, buildings, tunnels, retaining structures, port marine structures, wastewater treatment structures/facilities, steam and hydro-electric generating plants, transmission line towers, receiving and distributing stations, and concrete reservoirs and concrete and earth dams, including underground structures, sewage collection systems , drainage conduits and foundations.
2. Reviews work of subordinates for conformance to job requirements, recognized current procedures and accepted standards, engineering practice, and applicable legal requirements.
3. May evaluate and/or comment on engineering reports on soil engineering and geotechnical information for proposed structures and earth subsidence.
4. May supervise, evaluate, and/or inspect project site conditions and job progress.
5. Performs complex design work and difficult stress analyses.
6. Supervises the checking of plans and/or the issuance of building permits for all types of structures or checks plans for complex structures involving structural features of considerable complexity for conformance to all applicable current codes, regulations, and specifications.
7. Confers with engineers, architects, builders, government officials, and the general public regarding proposed construction, alterations, or changes in buildings or structures under construction for conformance with applicable local, State, and/or Federal Codes.
8. May inspect and recommend solutions for buildings or structures involving unusual problems of a structural nature.
9. May occasionally be assigned to other duties for supervisory or technical purposes or to meet technological changes or unexpected emergencies.
10. Evaluates test data on the acceptability of new materials and methods of construction and design.

11. May supervise, coordinate, or perform post disaster evaluations of buildings and structures after earthquake, tsunami, hurricanes, and flooding.
12. May supervise or participate in the preparation and presentation of written and oral reports to department superiors, governmental agencies, and citizen groups.
13. May act as a project engineer in such areas as scheduling, budgeting, and liaison with other governmental agencies.
14. Engages in analysis, development, and implementation of departmental operational procedures to determine needs for revised or new operational procedures, including interfacing with other City personnel.
15. Reviews and comments proposed legislation or code amendments for feasibility and compatibility with other code sections as they apply to all applicable codes.
16. Reviews requests by the public for innovative materials of construction or structure design systems. Imposes condition of approval.
17. Reviews and performs various structural design methods and calculations including those generated by state of the art computer software application.
18. Prepares, evaluates and/or comments on the seismic design criteria, or reports for buildings and structures.
19. Provide construction support services including response to request for information (RFI), plan clarification, shop drawing and submittal reviews and structural observations.
20. Supervises and participates in obtaining multiple permits.
21. Supervises and/or prepares structural drawings for buildings and other structures.