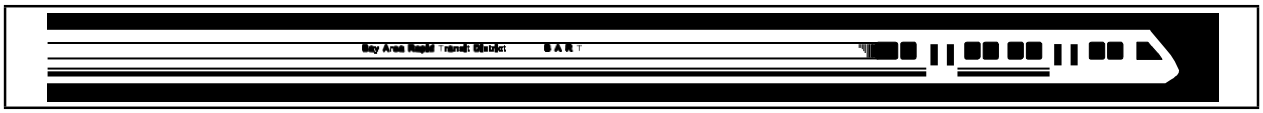

ENGINEER

JC: EF500
PB: 6
FLSA: Exempt

BU: 92 (NR)
Created: July 2000
Revised: July 2019

*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.*

DEFINITION

Under direction, performs a variety of professional engineering duties in the subject department; provides design, oversight, and administration of various engineering projects; evaluates and reviews engineering changes; ensures work quality and adherence to specifications; and performs related duties as assigned.

CLASS CHARACTERISTICS

This is the full journey level class within the Engineer series. Classifications at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. This classification is distinguished from the Senior level in that the latter possesses a specialized, technical or functional expertise within the area of assignment or may exercise lead supervision over assigned lower level staff.

EXAMPLES OF DUTIES – *Duties may include, but are not limited to, the following:*

1. Performs a variety of professional engineering duties related to the subject department. Duties may include preparing engineering specifications, preliminary cost estimates, engineering drawings, sketches, calculations and analyses.

2. Prepares engineering designs, specifications, costs and quantity estimates for engineering construction projects; prepares and/or reviews the adequacy and accuracy of computations.

3. Assists in the establishment of schedules and methods for providing engineering project oversight services; responsible for the verification of quantities of materials and adherence to specifications; may recommend resources to be allocated.

4. Monitors work activities to ensure compliance with established policies and procedures; evaluates proposed changes to approved plans and specifications.

5. Recommends approval of and submits contractor's progress payment applications; performs audits of contractor and suppliers to ensure adherence to established policies procedures.

6. Prepares a variety of reports and correspondence on project matters including Inspector's Daily Reports, monthly and final completion reports, contract modifications negotiations, field and design engineering changes, and correspondence with the contractor on fulfillment of requirements.

7. Discusses and coordinates engineering design or construction project activities with design engineering staff and other affected engineering personnel.

8. Maintains awareness of progress on assigned engineering design or construction projects to ensure compliance with designated time and cost schedules.

9. Provides assistance to inspectors in the interpretation of plans and resolution of problems during construction.

10. Reviews construction design plans to evaluate potential construction problems; monitors construction project expenditures.

11. Utilizes a variety of engineering programs and application including CADD.

12. Attends and participates in professional group meetings; stays abreast of new trends and innovations in the field of engineering design and construction.

13. Conducts field inspections; ensures compliance with specifications.

QUALIFICATIONS

Knowledge of:

- Principles and practices of engineering in assigned discipline area
- Operations, services and activities of an engineering design and construction program
- Principles and practices of engineering cost estimating
- Methods and techniques of field measuring and testing
- Engineering contract administration principles and practices
- Materials and equipment methods utilized in engineering
- Terminology, methods, practices, and techniques used in related engineering report preparation
- Advanced mathematical principles
- Current office procedures, methods, and equipment including computers
- Specialized computer programs or systems utilized in construction engineering design including CADD
- Related building codes, regulations and provisions
- Related Federal, State, and local laws, codes and regulations

Skill/Ability in:

- Applying principles and practices in engineering design and construction in assigned projects

- Interpreting and explaining District policies and procedures
- Preparing clear and concise reports
- Interpreting and preparing revisions to engineering plans, drawings, and specifications
- Communicating clearly and concisely, both orally and in writing
- Establishing and maintaining effective working relationships with those contacted in the course of work

MINIMUM QUALIFICATIONS

Education:
Bachelor's degree in engineering or a related field from an accredited college or university.

Experience:
Two (2) years of (full-time equivalent) verifiable engineering design and construction project experience.

Substitution:
Additional engineering experience as outlined above may be substituted for the above education on a year-for-year basis. A college degree is preferred.

WORKING CONDITIONS

Environmental Conditions:
Office environment; field environment; exposure to computer screens.

Physical Conditions:
Requires maintaining physical condition necessary for walking, standing or sitting for prolonged periods of time; ability to conduct field inspections and testing as assigned.

BART EEO-1 Job Group: 3000 - Engineers
Census Code: 1500 – Miscellaneous Engineers
Safety Sensitive: N