

Job Title: Engineer
SCA Equivalent: None
Effective Date: January 1, 2012
Latest Revision: January 1, 2018
AIP Target: 14% of Base Earnings
Profit Centers: 100

Primary Accountability - Responsible for performing basic engineering work in connection with the planning, design and construction of water/wastewater and related engineering projects.

Description of Primary Responsibilities

- 1) Provides project support to smaller scale projects:
 - a) Supports and assists in the preparation of designs, plans, specifications, estimates and reports for specific projects,
 - b) Compiles data (i.e. equipment data, flow data, surveying data, GIS data, etc.) and prepares and reviews engineering drawings, maps, plans and project specifications,
 - c) Attends and documents client meetings as required,
 - d) Attends and documents general public meetings, workshops, or conferences as required,
 - e) Assists in the design and analysis of pipelines, water/wastewater facilities including treatment plants and pump stations and other concrete, steel and timber structures, sanitary sewer systems and lift stations,
 - f) Coordinates capital improvement plan (CIP) and repair and replacement (R&R) projects,
 - g) Assists in client contact and communications pertaining to specific project,
 - h) Assists with drafting of requests for proposal,
 - i) Maintains and updates contract operations plans including the quality control plan, service discontinuation plan, and spill response plan,
 - j) Prepares and maintains detailed records of installations and inspections.
- 2) Supports facility regulatory compliance and permitting as requested by Operations:
 - a) Assists with identifying engineering and regulatory compliance issues related to the treatment plants, pump stations, or the collection systems,
 - b) Supports the review of site plans for compliance with federal, state, and local ordinances and standards,
 - c) Inspects construction, maintenance and repair projects to ensure conformance with plans and specifications.
- 3) Provides construction support:
 - a) Reviews and verifies contractor's progress invoices,
 - b) Responsible for supporting the construction of water/wastewater treatment plants, pump stations, collection systems, and other related facilities,
 - c) Serves as the onsite project representative,
 - d) Generates cost analyses,
 - e) Reviews project schedules and monitors contractor's work to ensure milestones are met,
 - f) Performs hydrologic and hydraulic analysis for selected watersheds for water, wastewater and storm sewer systems,
 - g) Estimates costs; collects quotes and estimates from prospective contractors and equipment vendors,
 - h) Coordinates with subcontractors and team members to ensure successful completion of projects.

- 4) Provides engineering support:
 - a) Coordinates design with design consultants, plant operators and construction services,
 - b) Assists in preparing design computations and quantity estimates,
 - c) Assists and reviews the analysis of reports, maps, drawings, prints, tests, and other related documents related to the project,
 - d) Revises maps based on survey specifications and as-built drawings,
 - e) Provides support for obtaining required project permits,
 - f) Reviews and verifies the project invoices,
 - g) Provides engineering services during the construction phase of projects.

Description of Primary Attributes

General Development:

- 1) Possesses basic organizational skills.
- 2) Has the ability to work independently and as part of a team.
- 3) Performs work in response to workflow or ongoing direction by supervisors or others.
- 4) Has the ability to effectively select from both established alternatives and to modify approaches in response to situations encountered.
- 5) Considers the impact of work product on other employees in the work process.
- 6) Has the ability to define problems, collect data, establish facts, and draw valid conclusions.
- 7) Has the ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.

Professional & Technical Knowledge:

- 1) Possesses advanced level general skills, including written and verbal communications skills, computational and computer skills, and mathematical knowledge at a technical level equivalent to that of a bachelor's degree in engineering from an accredited four-year college or university.
- 2) Possesses a bachelor's degree in engineering from an accredited four-year college or university.
- 3) Possesses knowledge of state and federal regulations related to wastewater, basic operation and maintenance of wastewater treatment plants, pump stations, and collection system.

Technical Skills:

- 1) Has the ability to prepare complex documents in Microsoft Word, including creating tables, charts, graphs and other elements.
- 2) Has the ability to use Microsoft Excel to analyze data, including the use of formulas, functions, lookup tables and other standard spreadsheet elements.
- 3) Has the ability to create basic presentations in Microsoft PowerPoint.
- 4) Proficient in the use of engineering/design software used by the department.
- 5) Has the ability to use Microsoft Project software or other acceptable scheduling software.

Licenses & Certifications:

- 1) Possesses a valid Driver License.
- 2) Possesses a Fundamentals of Engineering (FE) Certification.

3) Possesses a Hawaii Professional Engineers License.

Communications Skills:

- 1) Has the ability to read, analyze, and interpret general business periodicals, professional journals, technical procedures, and governmental regulations.
- 2) Effectively communicates opinions and extrapolations of information collected and synthesized/analyzed.
- 3) Resolves conflicts that may arise because of disagreements between employees, between employees and customers/clients, or with the public, other legal entities or governmental authorities.
- 4) Compiles, analyzes and prepares information in an effective written form, including correspondence, reports, articles, manuals, or other documentation.
- 5) Convinces others to take actions, or to behave in a specific way desired by Aqua.
- 6) Has the ability to make effective presentations and respond to questions from groups of managers, clients, customers, regulators and the general public.

Physical Demands:

- 1) Meets the health and physical condition standards deemed necessary and proper for performance of these duties.
- 2) May be exposed to hazardous, filthy and/or obnoxious conditions.
- 3) May also be subject to shift, weekend and holiday work.
- 4) Ability to perform heavy lifting (50#) and other manual work under adverse conditions.