Kāhuna Kuhikuhipuʻuone Wilikī – Architecture & Engineering

Highly qualified architects and engineers designed and constructed temples, heiau’s and magnificent hale without the use of steel, iron or other metals. The intricate stone work of the walls, platforms and supporting structures were all made without the use of cement and are still visible around the Islands to this day. These kāhuna kuhikuhipuʻuone oversaw the buildings used in everyday life.

Cutting-edge science conducted from the tops of the tallest mountains to the depths of the deepest oceans rely on diverse technologies that are inspired, designed, created, tested and built by engineers and architects. This field of science includes the memory chip that runs your cell-phone, the software that designs an environmentally friendly subdivision, the robot that explores the ocean floor, creating renewable energy and the layout for a deep-sea pumping unit to cool a building as natural air conditioning.

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Building Construction Inspector I

Inspect the construction of buildings and structures of simple design to determine whether construction methods, practices, materials and workmanship conform to the provision of contracts, agreements, plans and specifications; and perform other related duties as assigned.

Education
High School Graduate. One year of any work experience.

Skills & Experiences Needed
Two years of work experience in the building construction trades which required the knowledge of building construction methods and materials, safety requirements and practices, and included the inspection of the quality of the construction materials and workmanship, and the reading of plans and specifications.

Yearly Salary
Starting at $33,720.00

Projects in Hawaii
- Renovations
- New developments
- Bridge Restructuring
- Private Homes
- Commercial complexes
- Rail or Transit

Employers
Government: Army Corp of Engineers, Dept of Transportation, Dept of Public Works
Non-Profits: Habitat for Humanity Int’l
Construction & Maintenance Superintendent

Plan, direct and coordinate a program of maintenance, repair, and construction for State highways, harbors, or airports and related structures and facilities in a district or area involving extensive and complex problems of planning, direction and coordination; maintain on-site surveillance of contract construction and maintenance projects. Positions in this series involve the management of a combination of skilled, semi-skilled and unskilled tradesmen, craftsmen, equipment operators and laborers, with no single trade or craft predominating, and require an application of administrative knowledge and abilities, and an intimate knowledge, gained through experience, of the general practices, methods, techniques, materials, costs and equipment used in the construction and maintenance of State projects.

Education
High school graduate.

Skills & Experiences
Five years of experience in construction, remodeling, repair, alteration or maintenance of highways, harbors, airports or other facilities and structures or Professional engineering work experience.

Yearly Salary
Starting at $49,944.00

Projects in Hawaii
- Renovations
- New developments
- Bridge Restructuring
- Private Homes
- Commercial complexes
- Rail or Transit

Employers
Government: Army Corp of Engineers, Dept of Transportation, Dept of Public Works
Private: Dowling Company, Hawaiian Dredging, Dillingham Construction
Non-Profits: Habitat for Humanity Int’l
Electrician II

Perform and supervise skilled electrical work in the repair, maintenance and installation of electrical systems and equipment; and perform other related duties as assigned. Five years of work experience in residential and/or commercial structural wiring and in the installation, alteration and repair of electrical equipment, wires and apparatus; or an equivalent combination of experience and training.

Education

Licensed electrician (AS degree)

Skills & Experience

Licensure as an electrician in the State of Hawaii. All journey worker electrician licenses are acceptable. Some positions require possession of a Type 4 or Commercial Driver’s License (CDL).

Yearly Salary

Starting at $48,648.00

Projects in Hawaii

- Renovations
- New developments
- Bridge Restructuring
- Private Homes
- Commercial complexes
- Rail or Transit

Employers

Government: Army Corp of Engineers, Dept of Transportation, Dept of Public Works

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Plumber I

Perform skilled plumbing work in the repair, maintenance and installation of plumbing systems and equipment; and perform other related duties as assigned.

Applicants must also have the ability to use the hand and power tools common to the plumbing trade; read and interpret blueprints, manuals and diagrams; compute material costs; estimate time and material needed to complete a job; do mechanical work; recognize hazards typical of the work; perform heavy lifting, moving and other manual work typical of the class; understand and follow oral and written instructions.

Education

Plumbing License (AS degree)

Skills and Experience

Five years of work experience in the installation, repair, and maintenance of plumbing systems and equipment as an apprentice or helper under a fully competent (journey worker) plumber; or an equivalent combination of experience and training.

Yearly Salary

Starting at $46,104.00

Projects in Hawaii

• Renovations
• New developments
• Bridge Restructuring
• Private Homes
• Commercial complexes
• Rail or Transit

Employers

Government: Army Corp of Engineers, Dept of Transportation, Dept of Public Works
Private: Dowling Company, Hawaiian Dredging, Dillingham Construction, Akin Ke & Assoc, Plumbers Union

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Land Boundary Surveyor IV

Has technical and supervisory responsibility for a major survey project or function for several minor projects; prepare, check and process subdivision and other cadastral maps; prepare legal descriptions for deeds, easement grants, File Plans, zoning or land use change exhibits, etc; obtain field surveys from outside firms; prepare and process subdivision applications and perform other related duties as assigned.

Education

A bachelor's degree from an accredited university in Surveying, Geodesy, or Engineering with at least three semester credits in surveying.

Skills and Experience

Experience with land boundary surveying (with a Hawaii Land Surveyor License); the proper use and methods of adjusting survey instruments such as transits, theodolites and levels; proper use of common drafting and computing tools and equipment (CADD and MS Office software).

Projects in Hawaii

- Development design plans
- Property boundary updates and reconciling
- Fence line surveys
- Receiving City and County or State approval

Employers

Government: Army Corp of Engineers, Dept of Transportation, Dept of Public Works
Private: Dowling Company, Community Planning, BeltCollins, M & E Pacific, Inc, ControlPoint Surveying, Inc, Austin, Tsutsumi & Assoc., Inc
Highway Construction Inspector I

Inspect a particular phase of the construction of highways, to ascertain whether construction methods, practices and materials conform to plans and specifications, contracts, agreements and standard methods of work; and perform other related duties as assigned.

Education

High School diploma

Skills and Experience

One year of work experience as a journey worker in a construction trade.

or

Progressively responsible experience performing a variety of technical, non-professional engineering tasks under general supervision. Such experience must have involved inspectional work and a variety of routine technical, non-professional engineering tasks under general supervision. Work assignments are of a frequently recurring nature, where detailed procedures are established.

Yearly Salary

Starting at $28,884.00

Projects in Hawaii

- Renovations
- New developments
- Bridge Restructuring
- Private Homes
- Commercial complexes

Employers

Government: Army Corp of Engineers, Dept of Transportation, Dept of Public Works
Engineer VI

Supervise the professional and nonprofessional personnel of a major engineering activity; develop procedures and standards for carrying out his/her specialty in the organization, and represent the organization with authority on technical engineering matters within the area of specialization; may direct a large engineering section or assist in directing a large engineering division or district office as a technical specialist in planning, development, design and/or research, may lead the efforts of a team engaged in carrying out difficult or critical project assignments with emphasis in the area of specialization; or serve as a staff specialist responsible for overall control and coordination of a number of major and complex engineering projects or programs; and perform other related duties as assigned.

Education
BS in engineering (4 yrs)

Skills and Experience
Administrative, professional or technical experience involving the application and knowledge of the fundamental physical and mathematical sciences underlying professional engineering.

Yearly Salary
Starting at $70,440.00

Projects in Hawaii
- Tunnels, Bridges, Highways, High-rises
- Infrastructure retrofit of old sewer and water pipes.
- Desalinization
- Alternative Power

Employers
Government: Army Corp of Engineers, Dept of Transportation, Dept of Public Works
Engineering Technician V

Under general supervision, perform moderately difficult sub-professional, technical functions in support of higher level professional and/or sub-professional engineering activities; or supervise and work with a small group of engineering aids performing work at the I to IV levels; and perform other related duties as assigned.

Education
Graduation from high school with courses in mathematics. Excess experience of the type and quality described below; or any responsible experience requiring a high degree of analytical skill may be substituted for Education on a year-for-year basis.

Skills and Experience
Four years of work experience in one or a combination of the engineering-oriented functions such as inspection, testing, designing, surveying, drafting, and constructing, which required the knowledge of engineering terminology and the ability to use mathematical skills in the solution of engineering-support or engineering problems.

Yearly Salary
Starting at $32,460.00

Projects in Hawaii
- Tunnels, Bridges, Highways, High-rises
- Infrastructure retrofit of old sewer and water pipes
- Desalinization
- Alternative Power

Employers
Government: Army Corp of Engineers, Dept of Transportation, Dept of Public Works
Ship Engineer

Repairs and maintains gasoline and diesel engines in boats, such as yachts, tugs, and trawlers, following specifications. Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision; typically reports to a supervisor or manager. A certain degree of creativity and latitude is required.

Education

Apprenticeship and/or formal training

Skills and Experience

2-4 years of experience in the field

Yearly Salary

$42,628-$63,166

Projects in Hawaii

- Engine repair and maintenance - Near-shore, off-shore, across Oceans
- Ship sizes range from small boats to barges

Employers

Government: Army Corp of Engineers, Dept of Transportation, Dept of Public Works, University research ships
Private: Dowling Company, Fishing Companies, Matson, Young Brothers
Environmental Manager

Oversees the analysis and evaluation of air, water, and land systems to determine if pollutants are present and directs the implementation of appropriate corrective action if necessary. Develops and plans policies and procedures related to air, water, and land systems in accordance with organization and government rules and regulations. Evaluates operations and makes recommendations to reduce waste or pollution. Familiar with a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of complex tasks. Leads and directs the work of others. A wide degree of creativity and latitude is required.

Education

Bachelor's degree

Skills and Experience

7 years of experience in the field or in a related area

Yearly Salary

$83,089-$111,340

Projects in Hawaii

- Agriculture conversion sites
- Forestry plans
- Military land mitigation
- Oil refineries
- Water quality

Employers

Government: Army Corp of Engineers, Dept of Transportation, Public Health, Board of Water Supply
Private: Dowling Company, Hawaiian Dredging, Kamehameha Schools, Belt Collins Hawaii, GeoEngineers Inc, Hawaii Pacific Engineers, Inc, BeltCollins
Energy Conservation Coordinator

Plans, develops implements and coordinates the energy-conservation program for facilities and performs other related duties as required. Promote commercialization of Hawaii’s sustainable energy resources and technologies to reduce the state’s high dependence on imported oil, increase local economic development, and reduce the potential negative economic impacts of oil price fluctuations. Increase energy efficiency and conservation and collect data on Hawaii’s energy supplies and systems.

Education

Bachelor’s degree in engineering, physics or architecture.

Skills and Experiences

Three and one-half (3½) years of progressively responsible professional work experience in the field of energy conservation.

Yearly Salary

Starting at $49,344.00

Projects in Hawaii

- Energy conserving equipment for buildings,
- Promoting environmental health
- Review engineering plans

Employers

Government: Army Corp of Engineers, Dept of Transportation, Public Health, Dept of Public Works, Board of Water Supply

Private: Thermal Engineering Corp, Notkin Hawaii Inc, Miyashiro and Assoc., Inc, GeoEngineers Inc, Brown and Caldwell, CH2M Hill

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