



CAD Designer

Overview

The Designer is assistant to the PE's or Engineering Manager depending on the type of project. Designers are to handle full range of duties as assigned including handling all aspects of assigned design and drafting work, which conform to the standards of the city or local agency and consider the scale and economics as well.

Designers at this level should require 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.

Requirements

Education:

Required: Associates Degree. Post related work experience with a successful completion of a related trade school with equivalent course work in engineering, drafting, or related field may be substituted for two-year degree.

Preferred: BSME working toward P.E. along with up to four years of supervisory and technical engineering experience in the areas of drafting and design. Six (6) years of post related work experience along with supervisory experience can be substituted for a BSME.

Licenses/Registrations:

- Working towards E.I.T. or P.E. credentials, preferred
- Must have a valid driver's license and be insurable under the Company's insurance carrier.

Experience:

- Experience in a mechanical engineering field, experience in refrigeration systems is a plus.
- Advanced technical skills related to design of commercial building mechanical systems.
- Extensive experience in the use of AutoCAD or similar, and 3D modeling.
- Experience with research and identification of components.

Skill, Knowledge and Abilities:

2945 NE Argyle Street • Portland, OR 97211 • (503) 249-8190 • (800) 455-8585 • Fax (503) 249-8322
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- Using analytical and observation skills, which demonstrate the ability to set a course or direction.
- Ability to effectively utilize AutoCAD, Microsoft Word, Excel, Microsoft Project.
- Ability to design innovative products from a clean sheet and follow through to production.
- Ability to use 3D parametric CAD software.
- Ability to use simulation software and Computational Fluid Dynamics (CFD) analysis software helpful.
- Knowledge of refrigeration plant design and construction theory and engineering design standards.
- Ability to calculate loads and select refrigeration system components like compressors, vessels, evaporator coils, and size of piping.
- Knowledge of materials, methods, and techniques of modern construction.
- Knowledge of applicable laws, regulations, codes, department policies.
- Ability to perform journey level mechanical engineering design and drafting work.
- Ability to interpret and apply state and local policies, procedures, laws, codes, and regulations.
- Ability to produce engineered construction documents and/or studies relating to the advancement of engineered systems for client's refrigeration installation.
- Ability to understand and interpret engineering plans and specifications.
- Ability to deal tactfully deal with clients, engineers, and contractors.
- Possess strong communication skills.
- Must show ability to work in multi-disciplinary environments.
- Skills in Word, Outlook, file drop boxes, PowerPoint

Physical:

- Sitting for an extended period time using a computer.
- Climb up and down stairs.
- Able to climb ladders and walk long distances for jobsites

Mental:

- Requires statistical and analytical knowledge using business math.
- Must have the ability to read and comprehend plans and drawings.
- Language requirements are reading, writing, spelling and the ability to communicate clearly on all business levels.

Working Conditions

Office and demanding engineering environment.

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Reporting Relationships

The Designer reports directly to the Engineering Manager.

This position will work very closely with PE's on assigned projects and will be taking directions from them related to the project design and standards.

Authority

The Designer is provided limited authority with the responsibility delegated by the Engineering Manager.

Responsibilities and Duties

- To accurately design industrial refrigeration systems in a timely manner.
- Design of prototypical refrigeration drawings to address changes in layout, use, and technology driven engineering changes.
- To be actively involved in professional organizations and research into new refrigeration designs to improve operational performance and reduce life cycle in engineering designs.
- To research and improve specifications for refrigeration systems and installation.
- To accurately produce refrigeration related mechanical drawings for the client site.
- To support the service and construction department and external contractors to assure successful completion of refrigeration installations.
- To visit job site as required to inspect equipment, installations, and system operation; incorporate construction team feedback into ongoing refrigeration design.
- To work in concert with the rest of the engineering team to resolve issues in a timely manner.
- To provide as required, verbal and written documentation describing refrigeration system operational procedures.
- To submit and process plans in a timely manner.
- Has the ability to translate the ideas, information, and computations relative to plans and charts into diagrammatic form on paper.
- To prepare quantity and cost estimates.
- To effectively coordinate with clients, city, utility companies, contractors, pertaining to any design plan issues.
- Must be organized to follow-up on an as needed basis. This includes the follow-up with the City or Local Agency on plan checks.
- Assists Engineering Manager with client service issues. Works out problems with clients to fulfill the needs of the job request.
- Works in conjunction with less experienced Draftspersons/Designers to ensure plans are completed accurately and in a timely fashion.
- To check plans for accuracy and compliance with City standards and general design practices.



- To provide information to the client, contractors, consultants, our construction team relative to technical design matters.
- To follow the policies and procedures established in the company operating and CAD Standards manual.
- To have another set of eyes review the work before being sent out to the client especially on the second plan check.
- Performs any other duties or responsibilities as assigned by the Engineering Manager.

Measurements of Performance

- Has accurately designed plans with minimal rework.
- Has become knowledgeable to accurately design large refrigeration systems.
- Has accurately calculated loads and selected refrigeration systems.
- Has submitted process plans in a timely manner.
- Has accurately translate the ideas, information, and computations relative to plans, and charts into diagrammatic form on paper.
- Has accurately prepared quantity and cost estimates.
- Has effectively communicated with clients, city, utility companies, contractors, and supervisor pertaining to any design plan issues.
- Has stayed organized to follow-up on an as needed basis. This includes the follow-up with the City or Local Agency on plan checks.
- Has complied with the standards set forth in the company procedures and AutoCAD manual.
- Has assisted as necessary in resolving client service issues.
- Works in conjunction with the other Draftspersons/Designers to ensure plans are completed accurately and in a timely fashion.
- Has trained and assisted other Designers in the preparation of engineering designs, related drawings, specifications and project estimates.
- Has checked plans for accuracy and compliance with City, State, and Federal standards and general construction practices.
- Achieved company and team goals as outlined by the Engineering Manager.
- Demonstrates the ability to tactfully handle difficult situations.
- Consistently shows ability to recognize and deal with priorities.
- Work assignments are completed within or under budget.
- Has effectively contributed to training of less skilled personnel on the team.
- Provided information to the client, contractors, and consultants in a timely manner relative to technical design matters.
- Had the design work reviewed for accuracy (second set of eyes) before being sent out.
- Has coordinated with the appropriate construction team to ensure they understand the design intent when necessary.
- Has visited the sites as required during the construction process to assist in the execution of the design intent.



Contract/Full Time

Location - 2945 N.E. Argyle Street in Portland, Oregon

Hours – M-F, 8am to 4:30 pm, in office only

Travel – 10 to 20% mostly local

Full time Benefits

- Holidays, vacation, sick leave
- Full medical, dental, vision packages
- 401k matching
- Education reimbursement

Communications and Dress Code

- Professional and strong communication skills are required due to customer interactions
- Business casual with jeans allowed in office. Durable clothing and safety PPE for construction sites.