**RQ CONSTRUCTION, LLC**

Job Description

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| **Position Title:** | Mechanical Design Engineer – HVAC and Plumbing |
| **Department:** | Design |
| **Type of Position**: | Full-Time |
| **FLSA Status:** | Exempt |
| **Report Structure:** | Reports to the Design Business Leader (DBL) fulfilling project design and support for estimating, construction and commissioning of projects and other activities. This position has no direct reports. |

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| **GENERAL SUMMARY/ESSENTIAL PURPOSE:** |
| This position will be responsible for RQ’s mechanical and plumbing engineering design development practices in all regions of work performed by RQ, in adherence to U.S. Navy, Marine Corps, Air Force and Army surveying, planning and RFP design standards. |
| **COMPETENCIES REQUIRED:** |

* **Mechanical and Plumbing Design Processes & Procedures** – Maintains professional currency on industry standards, quality metrics and accuracy standards applicable to mechanical and plumbing design, and in coordination with all other disciplines as necessary, including adherence to Department of Defense requirements for professional mechanical and plumbing design services.
* **Project Planning & Execution** – Works collaboratively with estimators, preconstruction project managers, preconstruction designers, onsite construction teams, RQC senior management team, and subcontracted design teams to prepare project proposals, coordinate design work activities, complete project designs. Supports construction team workflow to meet shifting priorities, work requirements, and construction stakeout needs. Implements quality control to confirm accuracy and precision of work by internal and external design teams. Successfully interprets construction plans and specifications, incorporating requirements into project designs.
* **Project Team Contributions and Work** – Schedules and coordinates project design work, prioritizes execution and communicates priorities and status to project leadership team in an efficient and effective manner. Independently leads full scope of mechanical and plumbing design efforts, follows through on project commitments, establishes detailed quality review processes and accuracy standards.
* **Technical Expertise** – Demonstrates proficiency with computer aided design technology including REVIT, AutoCad, and BIM 360. Articulate and efficient in communicating technical requirements to clients and adhering to industry standards. Establishes performance benchmarks and standards.
* **Knowledge of Work** – Demonstrates comprehensive knowledge of mechanical HVAC and plumbing design profession and federal project design specifications. Maintains competency with continuing education and professional development. Applies innovative methods, procedures and techniques to excel within area of responsibility.
* **Quality and Quantity of Work** – Produces reports, correspondence, and other work products which meet the intended objectives, demonstrates professional competency and reflects outstanding quality. Personal work output meets or exceeds project quality and quantity goals. Displays confidence, decisiveness and clear strategic trajectory.
* **Organizing, Planning, and Prioritizing Work** – Develops specific goals and plans to prioritize, organize, and accomplish work in a professional manner. Reliably completes assignments in a timely manner, follows through on assignments and contributes to team success beyond expectation.
* **Effective Team Member/Interpersonal Relations** – Develops effective, positive working relationships; communicates clearly, effectively, and collaboratively throughout project hierarchy in written and verbal forms.
* **Initiative/Motivation/Leadership** – Thinks ahead to anticipate future needs and opportunities; identifies problems, obstacles, or opportunities and implements effective solutions. Executes duties with minor external guidance or supervision. Utilizes effective time management skills, maintains consistent work schedule and supports peak overtime efforts as required. Takes initiative on the behalf of others, motivates by example.
* **Communication** – Communicates clearly, listens effectively; keeps others informed of necessary technical information in a timely manner; deals effectively with conflict, communicates with integrity, builds trust; communicates and exemplifies positivity.

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| **PRINCIPAL DUTIES AND RESPONSIBILITIES:** |

**Estimating – 10% of Time (Variable)**

1. Responsible for developing detailed Mechanical/Plumbing estimates and initial execution strategies during the proposal phase.

**HVAC and Plumbing Engineering Design – 75% of Time (Variable)**

1. Coordinates with the Project team (e.g. DPM, VDCM, etc.) to facilitate the flow of design information amongst all project team members.
2. Demonstrates a developing understanding of owner contracts to the degree that it applies to Mechanical/Plumbing design.
3. Responsible for the transition of the project Mechanical/Plumbing estimate from Estimating to the creation of the actual project budget ensuring detail to allow for job cost tracking and performance throughout the duration of a project.
4. Collaborates with the Project team (e.g. DPM, DBL, VDCM, etc.) in development of the design schedule.
5. Leads the consultations with appropriate stakeholders regarding project proposals, schedules, strategies, submittal procedures, building system design, safety, LEED requirements, etc. to ensure quality conceptual design and construction methods meet or exceed requirements of RFP, proposal, and corporate objectives.
6. Maintains command of project requirements (e.g., RFP, specifications, plans, etc.) to collaboratively develop strategic approaches to a project, determine construction requirements, to plan procedures, to ensure safety features (temporary and permanent) are incorporated from the beginning of a project, to educate the team, and to ensure team training with project requirements.
7. Collaborates with Project teams on design submittals, constructability reviews, cost management, quality control, and approval processes.
8. Coordinates with stakeholders in development of a strategic plan for BIM/VDC requirements, as applicable.[[1]](#footnote-1)
9. Assists in Estimating and/or proposal processes.
10. Performs other duties as assigned and agreed upon with supervisor[[2]](#footnote-2).

**Post Design Construction and CA Assistance – 15% of Time (Variable)**

1. Provide guidance and coordination of construction RFI’s related to Mechanical and plumbing scope.
2. Provide guidance and assistance for QA/QC of work being installed during the construction of project.
3. Provide oversight and assistance during system startup and commissioning of Mechanical and Plumbing systems.
4. Other duties as assigned and agreed upon with supervisor[[3]](#footnote-3).

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| **QUALIFICATIONS: (Knowledge, skills, abilities, and other characteristics needed to perform job)** |

* Knowledge of and experience applying design techniques, tools, theories, and principles involved in the production and submittal of plans, drawings, models, specifications, construction details, etc. to Mechanical and Plumbing engineering design and permitting.
* Knowledge of and experience in reviewing, adjusting and applying UFGS, UFC, International Mechanical Code (IMC), International Plumbing Code, ASHRE 90.1, and LEED standards for application in Mechanical HVAC and Plumbing engineering designs.
* Knowledge of general practical application of mechanical engineering science and technology. This includes applying principles, techniques, and procedures toward the design and production of buildings and designs.
* Knowledge of and experience with analyzing and understanding a government RFP’s with the goal of creating the most cost-effective design solutions, with RQ Construction and the Client’s best interest in mind.
* Experienced in QA/QC of designs, equipment, fixtures, materials, for project construction across all types of Mechanical HVAC and Plumbing systems.
* Knowledge of and experience in DDC controls design, coordination, submittal review, and commissioning.
* Knowledge of and experience in total project commissioning of mechanical and plumbing systems.
* Demonstrates active listening and reading comprehension skills to facilitate the assigned tasks and answering of inquiries regarding design.
* Demonstrates critical thinking and communication skills, including written and verbal comprehension and speaking, to assist in the design development process.
* Demonstrates time management skills to facilitate project and departmental goals.
* Ability to read and understand design information and ideas presented in writing or through oral instruction.
* Ability to communicate design information through graphic hand sketching and computer modeling.
* Ability and experience operating Microsoft Office (Word, Excel, Outlook, Powerpoint, etc.) and MS Teams to assist in completing various design aspects of the position.
* Ability and experience operating various design tools within REVIT, BIM 360, Navisworks, to assist in the production of assigned work and development of project design models.
* Demonstrates a motivation to set and maintain high quality standards by paying attention to detail; minimizes errors and omissions, thoroughly self-checks work prior to submitting for designer of record review.
* Demonstrates the initiative and willingness to take on responsibility and proactively approach challenges as an active team member in a remote, independent role that requires a high degree of integrity, work discipline and trust. Demonstrates a consistent commitment to RQ’s Mission, Vision, and Values.

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| **EDUCATION & EXPERIENCE:** |
| * Bachelor Science Mechanical Engineering Degree – Focus on HVAC and Plumbing Engineering * P.E. license * 5+ years of MEP design experience within a consulting or design-build firm * LEED AP * Experience with ASHRAE 90.1, 62.1 and 55 * Experience with California Title 24 Energy Code * Experience with BIM and Revit/AutoCAD * Experience with sustainable design * Experience with Design Build and other Alternative Delivery practices * Experience with Government/DOD projects |
| **WORKING CONDITIONS:** |
| * Working conditions are typical for an office environment. While working on or traveling to the jobsite(s), individuals will be outside on an active construction site, in a trailer with job site management team, and at clients’ facilities. Job walks and inspections outdoors are required. Jobsite appropriate attire is necessary. Flexibility to work outside normal business hours and travel to project job sites will be required. Travel to job sites includes overnight travel and the possibility of relocation will be required. * Excellent individual performance is expected. Company goals will be realized through dedicated teamwork pursuing Company objectives. |
| **PHYSICAL DEMANDS:** |
| * May be required to lift up to 50 lbs. Requires basic office work, including sitting, walking, climbing stairs, kneeling, bending, and operating office equipment that is hand operated. Job site work will require exposure to the outdoors, some in extreme weather conditions, with limited physical requirements, including walking, climbing stairs, scaffolding, maneuvering around small obstacles, moving through cramped quarters, etc. Driving required – must have valid driver’s license for three or more years; proof of automobile liability insurance required when driving personal vehicle. |
| **WITHHELD AUTHORITY:** |
| * Consults with and seeks approval from supervisor for all work assignments. |

I have read and understand the essential requirements of this Job Description and have addressed any concerns or questions with the Regional Business Leader, East Coast and the Civil Department Manager I understand that this Job Description may not cover all the duties and responsibilities I may be required to perform in my position. I also understand that this Job Description does not create an employment contract, implied or otherwise, and that RQ Construction, LLC is an “at-will” employer.

1. This is considered a marginal function as defined by the Americans with Disabilities Act, meaning: 1) It is not one of the primary reasons that the position exists, 2) It does not require expertise to perform, and 3) There are other employees available who could perform the function, if needed. This duty is still required to be performed in this role, however. [↑](#footnote-ref-1)
2. 1 This is considered a marginal function as defined by the Americans with Disabilities Act, meaning: 1) It is not one of the primary reasons that the position exists, 2) It does not require expertise to perform, and 3) There are other employees available who could perform the function, if needed. This duty is still required to be performed in this role, however. [↑](#footnote-ref-2)
3. This is considered a marginal function as defined by the Americans with Disabilities Act, meaning: 1) It is not one of the primary reasons that the position exists, 2) It does not require expertise to perform, and 3) There are other employees available who could perform the function, if needed. This duty is still required to be performed in this role, however. [↑](#footnote-ref-3)