JOHN M. ROPHAEL, P.E.



Engineering Design & Testing Corp. Post Office Box 320 | Windsor, Connecticut 06095

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EDUCATION

2016 Masters of Engineering, Mechanical Engineering

Rensselaer Polytechnic Institute, Hartford, CT

2011 Bachelors of Science, Mechanical Engineering

Rutgers, the State University of New Jersey, New Brunswick, NJ

EXPERIENCE

January 2023 to Present

Engineering Design & Testing Corp. Hartford, Connecticut

Consulting Engineer

Evaluate causes of failure of various mechanical components, systems, and devices by performing thorough on-site and off-site examinations and tests. Apply sound engineering principles, techniques, and calculations to support conclusions.

Provide written reports to clients in a clear and concise manner detailing engineering conclusions with supporting documentation and explanation.

Engage in client outreach to build, expand, and maintain a client base for the firm and ensure steady business. Provide high quality services in an expert, professional, and ethical manner to retain repeat clientele.

August 2011 to January 2023

General Dynamics Electric Boat Groton, CT

Test Equipment Engineer

Designed multiple testing systems for various shipboard tests by performing extensive system analyses and calculations to ensure a robust design that exceeds rigorous technical requirements and supports aggressive testing schedules.

Resolved emergent issues during testing evolutions of multiple ship programs by engaging with tradesmen to fully analyze and understand problems and develop technically appropriate solutions without impacting testing and delivery schedules.

Improved team efficiency by integrating multiple process improvement initiatives.

Developed Matlab code and excel spreadsheets to centralize technical information.

Developed multiple procedures to train new hires in developing drawings and using software programs for typical duties.

Coordinated COLUMBIA class submarine test equipment design products and shipyard temporary systems. Worked with supervision to assign drawings scheduled for development to appropriate engineers and designers. Organized appropriate supporting information to aid in drawing development by coordinating with ship system owners, test engineers, and test writers.

Construction Support Engineer

Resolved new construction issues on VIRGINIA class submarines by observing non-conformances, engaging with tradesmen and relevant stakeholders, and reviewing construction drawings and military standards.

Collaborated with other engineering departments to ensure resolutions to construction related issues are resolved in accordance with correct technical specifications, standards, and procedures.

Provided engineering resolution direction to tradesmen by submitting engineering reports in clear, concise language and in a timely manner to support construction and delivery schedule.

Component Engineer

Procured components for the COLUMBIA Class submarine by developing technical documentation that clearly communicates Navy requirements through various design phases of each project. Evaluated vendor proposals and design deliverables for compliance with technical, cost, and schedule requirements.

Supported component and ship development schedule by participating in program reviews, ship arrangement development meetings, and drawing disclosure development meetings.

Ensured designed components met technical requirements by witnessing testing relevant to the development of cognizant components.

REGISTRATIONS and CERTIFICATIONS

Registered Professional Engineer in Connecticut (License # 33250)

Registered Professional Engineer in Maine (License # 17926)

Registered Professional Engineer in Massachussetts (License # 58015)

Registered Professional Engineer in Vermont (License # 135505)

Registered Professional Engineer in Rhode Island (License # 17429)

Registered Professional Engineer in New Hampshire (License # 17526)

National Council of Examiners for Engineers and Surveying Record (#13-906-08)

PROFESSIONAL ORGANIZATIONS

American Society of Mechanical Engineers (ASME)

ASM International

National Fire Protection Association (NFPA)

April 2023