
ROGER GRAVELLE



Title: Principal, LEED AP BD+C, CPD

Education: Bachelor of Science ➤ Education Mathematics ➤ University of Nevada, Reno, 2008.

Professional Affiliations: American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), American Society of Plumbing Engineers (ASPE)

Experience & Qualifications: Roger has over 14 years' experience with mechanical design, primarily in the areas of Education and Healthcare Facility Design.

ROGER HAS 14 YEARS OF EXPERIENCE IN HVAC & PLUMBING DESIGN AND BUILDING ENERGY MODELING.

As a mechanical designer, Roger is responsible for HVAC and plumbing system design activities, as well as specification writing and construction administration. As a firm principal, Roger is responsible for HVAC and plumbing system design oversight.

Roger also has experience with Computer Aided Drafting and Design software, Building Information Modeling (BIM) and has applied design software such as Autodesk's Revit to model the mechanical and plumbing systems of buildings. Roger has been responsible for the calculations and documentation for mechanical related LEED credits on over seven projects. He also has experience in energy analysis and measurement and verification of high-efficiency equipment performance. Further, Roger has achieved his professional certifications for LEED BD+C as well as Certified Plumbing Designer.

PROJECTS:

RENOWN REGIONAL MEDICAL CENTER MICROBIOLOGY RENOVATION

NORTHERN NEVADA CORRECTIONAL CENTER BOILER AND UNDERGROUND PIPE REPLACEMENT

UNIVERSITY OF NEVADA, RENO PENNINGTON ENGINEERING BUILDING

Roger served as Principal for the HVAC retrofit project of the central microbiology wet lab department at the region's largest healthcare facility. The project's main purpose was to decouple the microbiology laboratory from the core laboratory to address pressure and temperature concerns. The project included laboratory exhaust fans, a 100% outside air custom air handler with energy recovery, humidification, increased filtration, N+1 equipment redundancy, full Building Management System integration, and extra capacity for future added heat loads or department remodels.

Roger was the lead designer on this mechanical prime project that renovated the existing 24 MBTUh boiler plant. The project replaced over 6 miles of underground piping and included a new central domestic hot water plant to generate and distribute hot water to the numerous building's plumbing fixtures while consolidating maintenance to the boiler plant. The project was designed using Autodesk's Revit software to develop a spatial understanding of the new plant.

Roger was the lead mechanical designer on this new 80,000 square foot state of the art laboratory building. The project included a mix of dry, wet, and teaching labs with strict pressure relations, as well as a large classroom and several mixed-use graduate support spaces. The HVAC system consisted of 5 custom rooftop air handlers serving over 200 VAV boxes and venturi style airflow control valves serving the labs. The mechanical design supported a large Clean Room component with make-up and exhaust air and HVAC for chemical storage. The building was designed and coordinated using Autodesk's Revit software.