
JACOB FALCONER



Title: Mechanical Designer

Education: Bachelor of Science ➤ Mechanical Engineering ➤ University of Nevada, Reno

Experience & Qualifications: Before joining Ainsworth Associates Mechanical Engineers, Jacob worked as a commissioning agent intern in construction where he learned valuable information on mechanical, electrical, and plumbing equipment and operation firsthand. He uses this firsthand knowledge in the design and implementation of the projects he helps lead at Ainsworth.

JACOB HAS OVER
THREE YEARS'
EXPERIENCE IN THE
CONSTRUCTION
AND MECHANICAL
ENGINEERING
INDUSTRY.

As a Mechanical Designer, Jacob works directly with Architects, Electrical Engineers, contractors, and facility owners to design new or replacement heating, cooling, and refrigeration systems specific to the project needs. He is also responsible for creating construction drawings utilizing design software such as AutoCAD, Revit, BIM360, and Bluebeam Revu.

Jacob's education includes coursework consisting of Heat Transfer, Thermodynamics, Fluid Mechanics, and Intermediate Fluid Mechanics. Jacob is versed in design software including AutoCAD, Revit, HAP, BIM360, and Bluebeam Revu. Jacob has over three years' experience in the construction and mechanical engineering industry.

PROJECTS:

INCLINE VILLAGE COMMUNITY
HOSPITAL AIR HANDLER
REPLACEMENT

CARSON TAHOE HOSPITAL
CENTRAL PLANT CHILLED WATER
CAPACITY STUDY

NDOT ELY MAINTENANCE
STATION – EMERGENCY HEATING
SYSTEM REPLACEMENT

Jacob played a key role in the design for the replacement of two built up indoor air handlers at the Incline Village Community Hospital. Jacob used his prior knowledge of HVAC systems to create construction drawings that included demo and new work plans while designing temporary systems as needed to keep the healthcare facility functioning through construction. The air handlers provide critical ventilation and space conditioning for the entire west half of the facility.

Jacob oversaw the research, load calculations, and report writing needed to guide the facility group through the intent to expand the campus and the existing chilled water plant. Jacob worked closely with equipment representatives and contractors to develop an accurate target budget so that the facility group could acquire funding for the plant expansion project. Jacob's experience with water cooled chiller systems played a vital roll in guiding the Client towards the equipment expansion.

Jacob was the lead designer for this emergency project that removed the maintenance heavy steam boiler system and replaced them with high efficiency condensing style propane unit heaters. Keeping heat to the building in an extremely cold climate involved direct and daily coordination with the contractor, owner, and equipment vendors alike.