



**Title:** Mechanical Designer

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

**Licenses:** State of Nevada, Engineer Intern (EI)

**Experience & Qualifications:** Zane has experience in HVAC & Plumbing design, building load calculations, and AutoCAD and Revit modeling.

As a mechanical designer, Zane performs various tasks necessary to design new or replacement heating, cooling, and refrigeration systems. This includes completing various calculations, selecting equipment, coordinating with sub-contractors, and sizing/routing ductwork. He is also responsible for plumbing design, performing and analyzing load calculations based on building parameters, duct and pipe sizing/routing, specification writing, and Building Information Modeling (BIM).

Zane's coursework in the Mechanical Engineering program at UNR included heat transfer, fluid mechanics, thermodynamics, mechanical design. Zane's curriculum has also included courses in control systems and dynamics. Zane is certified in SolidWorks, and his modeling experience continues with software including AutoCAD, Revit, HAP, and Bluebeam Revu.

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## PROJECTS:

### RENO-TAHOE AIRPORT AUTHORITY - THE HQ

Zane had the opportunity to design a large part of the mechanical systems for the new Police and Airport Authority Headquarters for the Reno-Tahoe International Airport (RNO) in Reno, NV. This four-story building is meant to accommodate airport expansions for the next 20 years while improving the safety and efficiency of the airport campus. Features that required special attention included dedicated K9 facilities, a fitness center, locker rooms, evidence storage, and a dining area.

### DAYTON GOVERNMENT COMPLEX

Zane was a member of the design team for Dayton Government Complex. This project is a large complex that is broken into 4 departments: Human Services, District Attorney, Sheriff Department, and Justice Court. Specialized spaces included a public courtroom, holding cells, and evidence storage. Zane completed various mechanical and plumbing calculations and worked with other sub-consultants to ensure proper equipment provisions and design integration with other disciplines.

### RENOWN CENTER FOR ADVANCED MEDICINE NEUROLOGY - 4<sup>TH</sup> FLOOR REMODEL

Zane performed various design tasks for a healthcare renovation project at a specialized satellite facility for the regional hospital. Zane's primary responsibilities for this project included modeling as-built mechanical and plumbing conditions for the floor, routing domestic water, waste and vent piping, as well as integrating the new design with existing conditions. This project was modeled in Autodesk's AutoCAD software.