



**Title:** Mechanical Designer

**Education:** Bachelor of Science (anticipated December '25) ➤ Mechanical Engineering ➤ University of Nevada, Reno.

**Professional Affiliations:** Society of Women Engineers (SWE)

**Experience & Qualifications:** Before joining AAME, Carly worked as an intern in the Building Sciences field, primarily in Environmental Engineering and Consulting. She gained valuable insight in building design and manufacturing, as well as materials testing and inspection.

As a mechanical designer, Carly supports the design of mechanical systems for commercial buildings with a focus on HVAC. Her responsibilities include duct and pipe sizing, heating and cooling load calculations, and building information modeling (BIM). She regularly uses tools such as Revit, AutoCAD, Carrier HAP, and Microsoft Excel to assist in project development and coordination.

Carly's education in mechanical engineering includes coursework in Thermodynamics, Heat Transfer, Fluid Mechanics, and Mechanical Design. Her senior capstone project focused on optimizing HVAC economizers for improved energy efficiency. She continues to build her technical skills while contributing to the high standards of design at AAME.

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TESTING.

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## PROJECTS:

### UNR PLANETARIUM DOME RENOVATION

This project seeks to replace and enhance the Planetarium's indoor theater experience by replacing an old projector and screen with wraparound LED screens for a modern and high-tech viewing experience. AAME's role is to ensure a comfortable viewing experience by removing the heat produced by the screens. Carly assisted in modeling ductwork to help cool the LED screen server equipment, as well as the patrons in the building. Special care was given to respecting the existing tight conditions and developing creative approaches to connect all required HVAC equipment.

### RNO NEW GEN CONCOURSE RENOVATION

AAME is contributing to the major renovation and expansion of the Reno-Tahoe International Airport's main concourse. The project includes upgrades to both the upper and lower levels of the terminal building, with a focus on improving passenger comfort and operational efficiency. The renovation involves the design and installation of new ductwork, piping systems, and HVAC equipment to support the enhanced layout and increased capacity of the terminal. Carly has assisted with pressure loss calculations, duct and pipe sizing, and overall mechanical system layout coordination.

### FERNLEY COMMUNITY CENTER

The Fernley Community Center is a new-build project designed to serve as a multi-use facility for public events, gatherings, and municipal functions. AAME provided full mechanical design services for the building, including HVAC system layout, equipment selection, and duct and piping design. As construction nears completion, Carly assisted with a final site visit to verify that the installed systems aligned with the design intent. Her responsibilities included documenting field observations, identifying installation irregularities, and contributing to the overall quality assurance process to help ensure the building's mechanical systems perform as expected.