Adam Mancuso, P.E.

Project Engineer

Enthusiastic engineer with 4 years of experience eager to contribute to team success through hard work, attention to detail and excellent organizational skills. Clear understanding of light-framed wood construction and structural analysis and design. Motivated to learn, grow and excel in the structural engineering industry.

Contact

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Engineering Licenses

Nevada PE #027029
Colorado PE #0056967

Affiliations

American Society of Civil Engineers
American Concrete Institute
Earthquake Engineering Research Institute

Skills

Skill	Level
Structural Wood Design	●●●●○
Structural Steel Design	●●●○○
Concrete Design	●●●○○
Structural Analysis	●●●●○
Proficient in AutoCAD	●●●●●
Problem Solving	●●●●●
Detail Oriented	●●●●●
Collaboration	●●●●●

Work History

Project Engineer
Manhard Consulting Ltd. | Carson City, NV | Apr. 2018 -

- Produced structural analysis and design calculations manually and through design aid software such as Enercalc, RetainPro, and MathCAD.
- Designed structures for construction in various building mediums, including wood-framed residential structures and low-rise commercial buildings.
- Drafted structural plans including structural details using AutoCad software.
- Collaborated with in-house civil engineering team on the design of retaining walls.
- Traveled to building sites to collaborate with construction personnel and to confirm compliance with design parameters and approved building plans.
- Provided technical advice to construction personnel and clients on design, construction, and structural repairs for additions and remodels to existing buildings.
- Inspected and evaluated existing buildings for structural deficiencies and code violations.

Part-Time Instructor
University Of Nevada – Reno | Reno, NV | Jan. 2018 – May 2018

- Course instructor for CEE 482/682 – Design of Timber Structures. Responsibilities included creating lecture notes, design examples, homework assignments, and tests.

Staff Engineer
K2 Engineering & Structural Design | Reno, NV | Oct. 2016 – Apr. 2018

- Produced structural analysis and design calculations manually and through design aid software such as Enercalc, RetainPro, Risa, and Autodesk's Robot Structural Analysis software.
- Designed structures for construction in various building mediums, including wood-framed residential structures and cable structures such as zip lines.
- Drafted structural plans including structural details using AutoCAD software.
- Performed site visits to collaborate with construction personnel and to confirm compliance with design parameters and building plans.
- Inspected and evaluated existing buildings for structural deficiencies and code violations.

Education

Bachelor of Science: Civil & Environmental Engineering
University Of Nevada - Reno | Reno, NV | Aug. 2012 – Dec. 2015

Master of Science: Civil & Environmental Engineering
University Of Nevada - Reno | Reno, NV | Jan. 2016 – May 2017
Emphasis on Structural and Earthquake Engineering

Key Projects

Civic Center Foundation | Fallon, Nevada
- Was responsible for the design of the foundation for a 75,000 SF premanufactured metal building that will house the civic center with an indoor horse arena for Churchill County.
- Worked directly with the owner, geotechnical engineer, and architect to create the most efficient final design. Poor soils and a shallow water table led to the need for close collaboration with the geotechnical engineers to limit settlement and to avoid potential issues of the shallow water table.

Single Family Residence Constructed using Steel Shipping Containers | Reno, Nevada
- Provided full vertical and lateral design and detailing. The project consisted of four shipping containers stacked on top of two containers running perpendicular to the shipping containers above. The owner wanted to make the house as cost effective as possible by using the shipping containers to resist both the vertical and lateral loads. The corrugated steel siding was used to resist the lateral loads while the corner columns resisted the vertical loads. At the interior, new steel columns were added to support the upper level shipping containers at the container feet.
- Worked directly with the owner to create custom connections that would be simple enough for them to do themselves and to match their ideas for how they wanted to construct the openings in the container sidewalls.

The Vue Site Retaining Walls and Booster Pump Station | Reno, Nevada
- Designed roughly 1,400 lineal feet of site retaining walls. The site retaining walls include concrete and masonry cantilever retaining walls and segmental walls with geogrid fabric. Due to site conditions, the retaining walls had a variety of additional complexities ranging from distance to property lines, surcharge loads from roadways and buildings, and water table levels near a drainage pond at the rear of the property.
- The booster pump station is a fully grouted masonry building with a wood-trussed roof system. On the interior there is a hoist beam spanning the interior length to be able to switch out pumps and motors as required by the water authority.
- Responsible for the structural design and detailing of the retaining walls and the pump station structure from the initial design through the construction phase as the contractor made revisions or needed assistance during construction.

Gatlinburg Sky Bridge | Gatlinburg, Tennessee
- Worked as part of the project design team for this 680ft long pedestrian suspension bridge in Gatlinburg Tennessee. Responsibilities on this project included the creating structural analysis models of the cable suspension bridge, the steel and wood bridge deck and the bridge abutment using Autodesk's Robot structural analysis software.
- The steel frames are constructed out of steel plates welded to create tapered structural steel tube sections. The steel frames are supported on a concrete abutment that transfers the forces into the concrete piles.