Net Zero Emerging Leaders Internship

EJ Del Rosario | Opsis Architecture | Energy Trust of Oregon

OPSIS NZELI Intern 2024

EJ Del Rosario

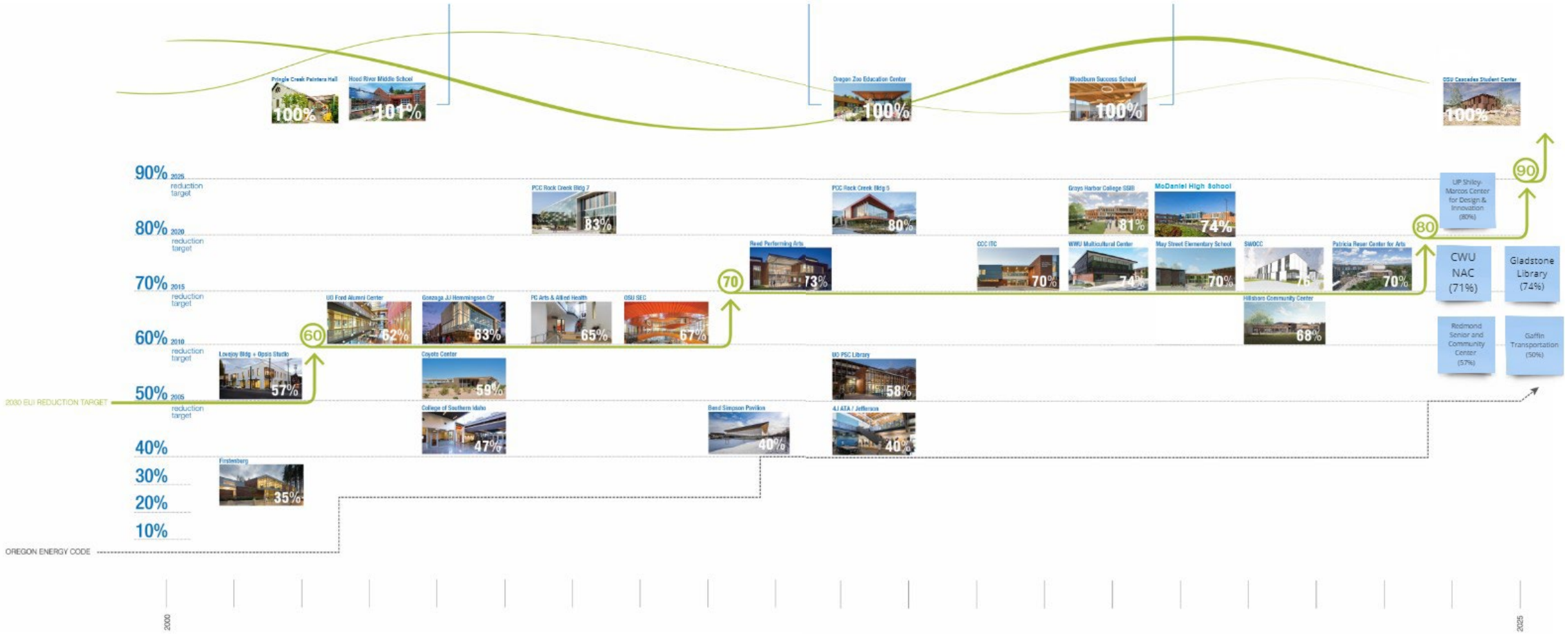
Background

- Current Third-Year M. Architecture Student at the the University of Oregon Portland Campus
- B.S. in Environmental Science at the University of Oregon
- First NZELI Intern for Opsis Architecture

Internship Duties

- Energy Model with Cove.Tool
- Develop Action Plan
- Document Typical Wall Assemblies
- Support AIA 2030 Reporting

How is Opsis Doing?

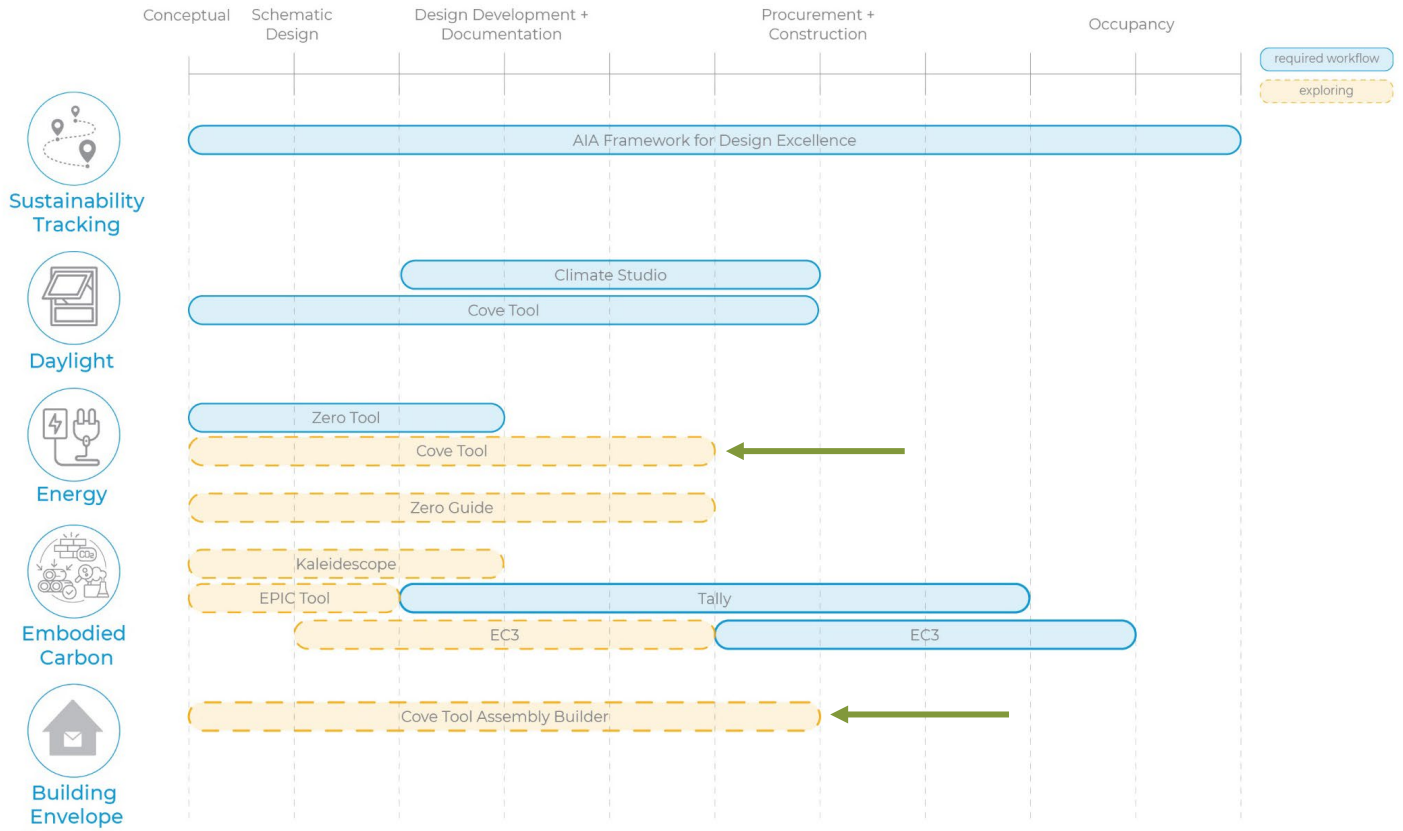


The Tools

Energy, Daylight, Embodied Carbon Analysis

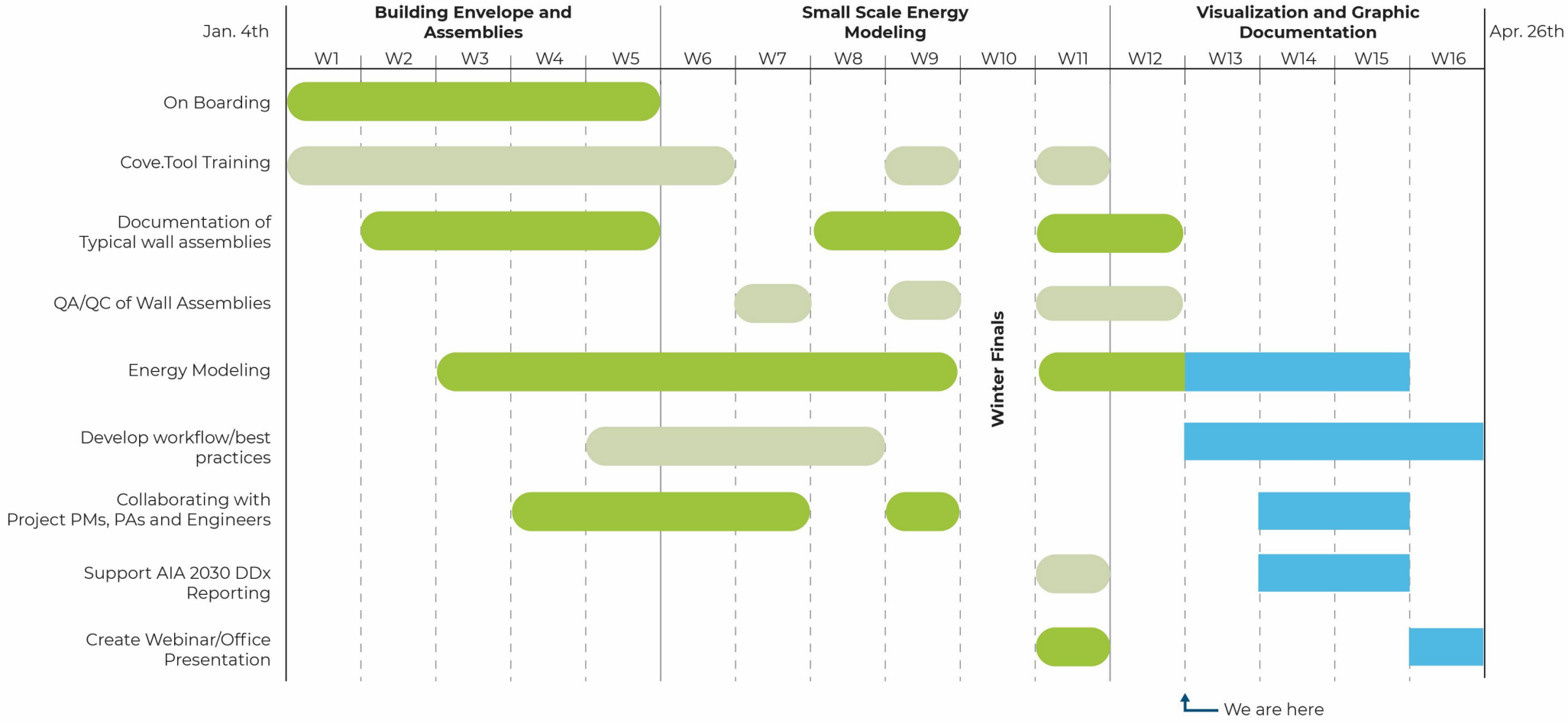
Through early modeling we are better able to identify gaps, improvement opportunities, and connect performance directly to design.

The analysis should start at the earliest stages of design to provide each project team relevant, iterative feedback while a design is still evolving, in order to optimize: orientation and form, embodied carbon reduction, energy performance, shading and daylighting, and building envelope.



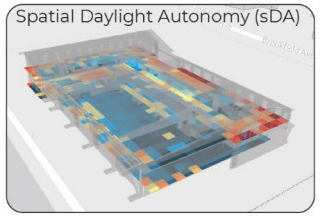
A variety of tools can be utilized to inform design decisions at different phases of a project. Some are part of our current workflow and others are currently being explored.

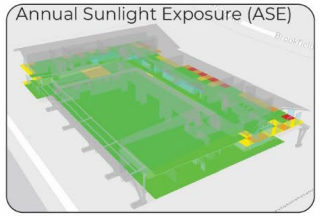
Internship Structure

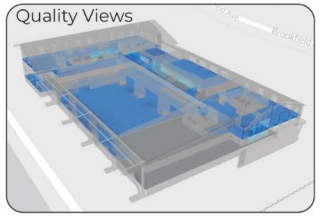


Cove.Tool Modeling and Analyzations

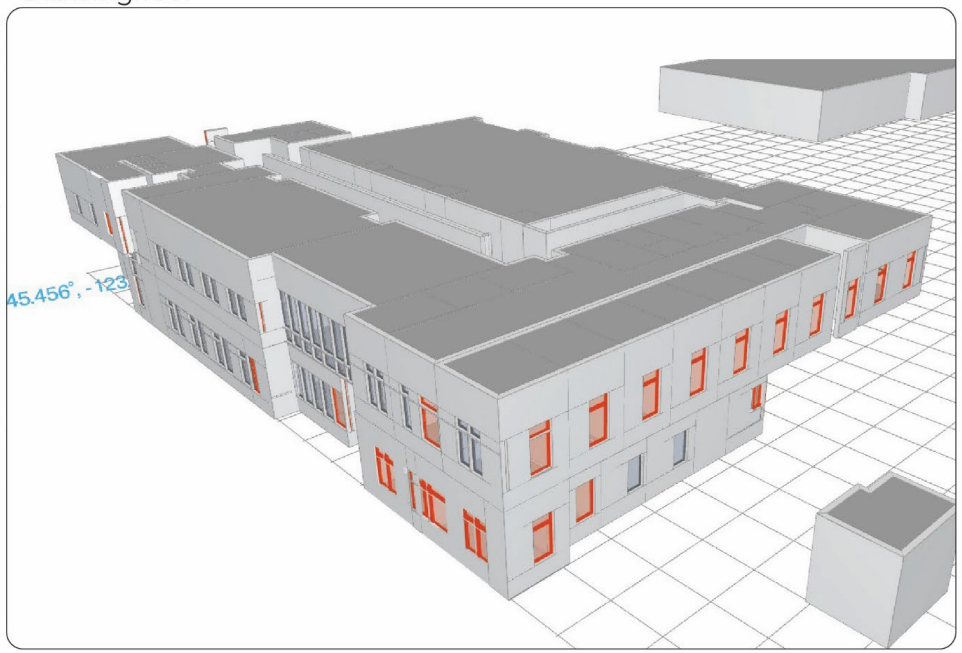
Tillamook Bay Community College (TBCC)







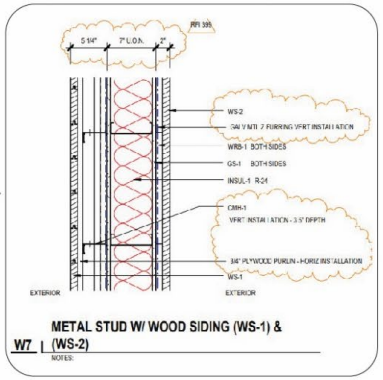
Drawing.Tool



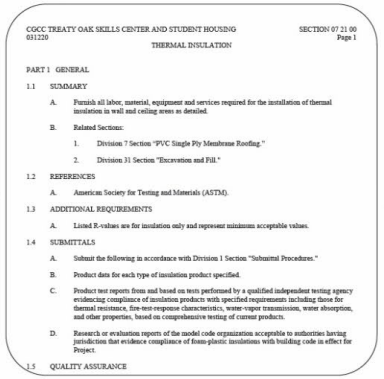
Wall Assembly Library and Integration

Selecting a Project

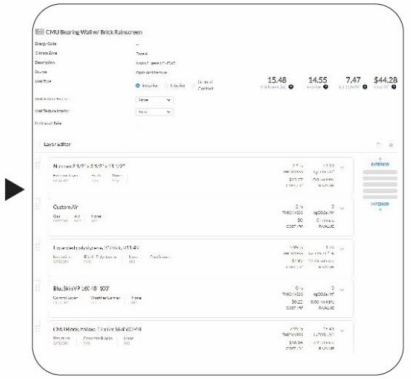
Tyt. Wall Assembly

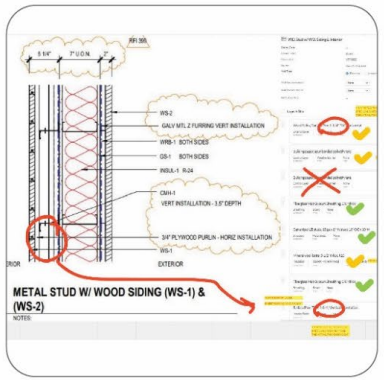


Specs & CDs

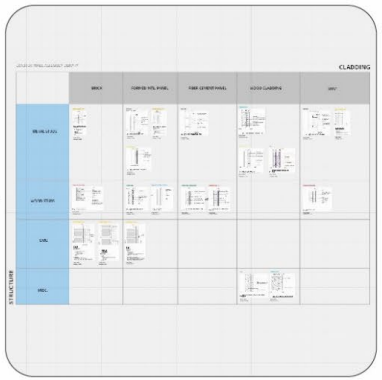


Cove.Tool

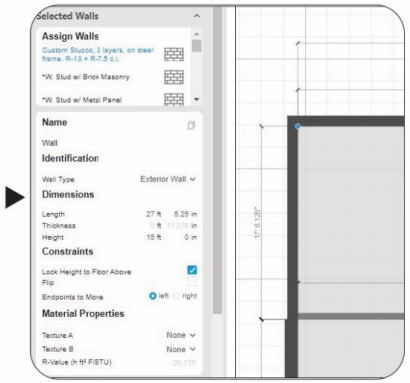




QA & QC



Library



Cove.Tool

Optimization

Next Steps

- Develop Cove.Tool Office Procedure
- Support AIA DDx 2030 Reporting for Next Year
- Introduce “big picture” data points for PMs
- Analyze and Integrate another project of similar scale but in an earlier phase
- Present work to the office

OSU Cascades Student Success Center. Opsis Architecture

Highlights

- Working with the Team
- Learning energy goals, metrics, and entities of sustainability
- The range and breath of exposure

Lessons Learned

- Troubleshooting Challenges
- Time Management
- Professional Growth

Hood River Middle School Music & Science Building Renovation. Opsis Architecture. Photo Credit: Michael Mathers

Thank you

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Oregon Zoo Education Center. Opsis Architecture. Photo Credit: Shane Kucera