

CH2M HILL's Design & Construction Organization: setting the stage

Behind the scenes of most CH2M HILL projects is the Design & Construction Organization, which employs over 1,200 employees in offices across the firm.

Like set designers who bring Broadway shows to life, the DCO staff turns engineering visions into reality by partnering with the business groups during the project-delivery process, from procurement to completion.

The business group works with external clients to define their needs and scope of work. Then, they turn to the DCO for detailed design work.

Added dimensions in automation

With advances in design automation, DCO has been able to enhance the way CH2M HILL wins and delivers work. Design automation now includes three-dimensional modeling and a database of design information—sometimes referred to as 4-D or 3-D + data.

The use of design automation tools has impacted and enhanced all four phases of the design process by offering:

- vastly improved communication and understanding between client, operators and community
- early input to lower risk of costly changes
- visualization tools to facilitate alternative analysis
- early discovery of interferences to reduce errors and omissions
- use of 3-D renderings for easier client review and regulatory approval
- a rich database of design information that is transferable to the rest of the project life cycle
- risk management to reduce overall project cost

These tools are now setting CH2M HILL apart in the procurement and delivery of several design projects.

The 1,200 employees in the Design & Construction Organization

Technicians
Trained in computer aided design

Designers
Engineers or expert technicians

Engineers
Complete initial project and play a through role

Recent projects support

WBG Projects

- Troutdale Wastewater Treatment Plant Construction
- Denver Water Reuse
- Central Coast Water Authority — Casey Water Reclamation Facility
- Leesburg Biosolids Upgrade, 1st Solids Drying Facility in Virginia

TBG Projects

- Jackson, Mississippi, Corrosion Control Hangar
- JAXPORT Blount Island Crane Beam
- Virginia Department of Transportation, VA State Highway 288
- Reno I-580 Extension

For many CH2M HILL projects, DCO works behind the scenes to provide design and construction management. The DCO provides props, such as 3-D designs; direction, such as construction management.

