HOUT
CONSTRUCTION SERVICES
consulting | engineering | transportation

Dena Hout, EIT
Deputy Project Manager and AutoCAD Manager

Education

- MS, Civil and Environmental Engineering, Colorado School of Mines
- BS, Civil Engineering, Colorado School of Mines

Registration

- State of California, Engineer-in-Training, #16-257-98

Dena brings experience in drainage engineering, technical reviews, and CADD design, making her well-suited to serve as a reviewer for drainage and technical elements, as well as perform CADD work, for a slope stabilization project. Her expertise includes drainage modeling, hydrology analysis, storm drain system design, and hydraulic calculations using industry-standard tools like HEC-RAS, AutoCAD, Microstation, InRoads SS2, and OpenRoads Designer.

Dena's ability to collaborate effectively across disciplines, coupled with her meticulous attention to detail, ensures adherence to project criteria and standards, fostering high-quality design deliverables. Her recent work on RPV's landslide mitigation projects—developing animated HEAT maps to track land movement and stabilization measures—demonstrates her ability to apply technical tools for complex projects.

Dena's diverse portfolio includes major projects like Washington Department of Transportation's I-405 Design-Build, where she managed inlet and pipe placement, and the Cleveland Innerbelt reconstruction, where she contributed to drainage and detention pond design. Her proven track record of delivering precise drainage solutions, performing peer reviews, and coordinating technical deliverables positions her as an invaluable asset to ensure project success in both design and review capacities.

Project Experience

City of Rancho Palos Verdes, Emergency Deep Dewatering Well (DDW) Project, Rancho Palos Verdes, California. Project Engineer for this a high-priority landslide stabilization effort focused on reducing groundwater pressure in the Portuguese Bend Landslide Complex, one of North America's most active and persistent landslides. Managed under an emergency declaration and fast-tracked timeline, the project has involved installing 11 deep wells, advanced monitoring instruments, and groundwater extraction systems that have significantly reduced both water pressure and land movement in critical areas. Dena served as the technical reviewer and AutoCAD designer for the project, supporting the engineering team by reviewing design documents for accuracy and constructability, and producing detailed, precise AutoCAD drawings that guided field implementation of well locations, instrumentation layouts, and site logistics.

Los Angeles County Metropolitan Transportation Authority (LA Metro), Multimodal Highway Program On-Call Project & Program Delivery Support Services, Los Angeles County, California. Project Manager performing data research of existing utilities, participating in shareholder meetings, preparing utility matrices, preparing utility plans, and performing field verification and additional technical studies for four intersections: Valley Boulevard and New Avenue, San Gabriel Boulevard and Valley Boulevard, Valley Boulevard and Del Mar Avenue, and Mission Drive.

City of Rancho Palos Verdes, Landslide and On-Call PM/CM Services, Rancho Palos Verdes, California. Technical Reviewer and AutoCAD designer.

and the connecting system and service ramps. Dena utilized OpenRoads Designer and was responsible for inlet design and placement, as well as pipe design and placement. She also helped develop the detention pond design and plan sets.

Washington Department of Transportation (WSDOT), I-405 Design Build Project, Washington. Civil Associate responsible for the drainage design for the roadway widening of I-405. Dena utilized Microstation and InRoads. She was responsible for the inlet design and placement, as well as pipe design and placement. Dena was pivotal in the compilation of the final design package and made sure that all components were assembled properly to submit. Having participated in the initial bid package, she was part of this project from start to finish.

Arkansas Department of Transportation (ArDOT), Highway 79 Widening, Arkansas. Civil Associate responsible for drainage design in Microstation and InRoads and HEC-RAS. Dena was responsible for analyzing the hydrology in the area and performing hydraulic calculations to layout and size storm drain systems. The project's purpose is to widen approximately 2.38 miles of Highway 79 southwest of Pine Bluff to a five-lane section with curb and gutter.

Colorado Department of Transportation (CDOT), I-25 East Parallel Arterial Design, Colorado. Civil Associate responsible for drainage design focusing on HEC-RAS modeling. Dena created the model and helped finalize the design. She also worked on part of the inlet design and pipe design for the corridor. Microstation and InRoads were used to complete this project. Her team provided design and engineering services for the development of a new arterial roadway consisting of Weld County Road (WCR) 9½ and Larimer County Road (LCR) 3. The corridor is a 14-mile improvement from WCR 32 to U.S. 34.

ArDOT, Highway 1B, Section 11B Engineering Services, Arkansas. Civil Associate responsible for drainage design focusing on HEC-RAS modeling. Dena created the model and helped finalize the design to replace an existing bridge with a culvert.

Urban Drainage and Flood Control District (UDFCD) LOMC Support 2018 (MHFD), Denver, Colorado. Civil Associate who reviewed LOMR and CLOMR documents for the water department. Dena utilized HEC-RAS software to do the reviews. She maintained strict time management to get the documents out in the 90-day return period.