

Civil CAD Designer

VORTEX ENGINEERING, INC. is specifically seeking CAD Designers that are proficient in AutoDesk AutoCAD and Civil3D programs, and well prepared to work in a team environment.

In general, this position is responsible for preparing drawings and improvement plans used in civil engineering projects based on the design provided by a civil designer or civil engineer, with minimal assistance. Plans will be produced in planographic and profile views. In some cases, an advanced Civil CAD Designer may be asked to provide a design with little direction from engineering staff. Such plans include grading and drainage plans, street, sewer, storm drain and water plans and erosion control plans. The Civil CAD Designer must know how to perform the fundamentals of the work without the use of advanced technologies, in order to see that the technologies are functioning correctly.

Essential Job Function

- Produce improvement plans, exhibits and drawings using AutoCAD and Civil 3D, working under the direction of a Licensed Civil Engineer.
- Generate 3D Renderings and planning-level design documents utilizing AutoCAD.
- Produce maps, diagrams, and profiles, using cross-sections and surveys, to represent elevations, topographical contours, subsurface formations and structures.
- Create maps, diagrams and profiles using Civil 3D design surfaces.
- Draft plan and profile views of improvement plans, such as street, storm drain, sewer, water and other underground improvements, using dynamic labels and other methods.
- Draft plan view of detailed, and rough grading plans for various clientele, such as commercial and industrial developers.
- Create and manipulate construction details and cross sections.
- Understand the order of work and method of presentation, based on different drafting requirements for each agency.
- Finish and duplicate drawings and documentation packages, according to required mediums and specifications for reproduction using blueprinting, photography, or other duplicating methods.
- Ability to address redlined comments from public agency or internal review.
- Review rough sketches, drawings, specifications, and other engineering data received from civil engineers to ensure that they conform to design concepts.
- Generate earthwork models and utilize Civil 3D tools to perform quantity calculations and prepare “heat maps” depicting areas of deep cut and/or fill.
- • Ability to prepare conceptual designs utilizing a combination of Google Earth, AutoCAD and/or Civil 3D as appropriate.
- Knowledge of design techniques, tools, and principles involved in production of precision technical plans, drawings, and exhibits.

- Ability to use advanced mathematics to solve problems.
- Effective verbal and written communication.

Education and Experience:

- Minimum of 3 years of experience using ACAD Civil 3D.
- Exposure to and working knowledge of Infracore software.
- Background knowledge in the land development industry.
- Competent in Microsoft Office suite of programs.

Additional desired skills for this position:

- Advanced Grading, Drainage and Utility design.
- Previous employment experience in Civil Engineering, Survey or Hydrology fields.
- Associate or Bachelor's Degree in Engineering preferred, but not required.
- E.I.T. Certification preferred, but not required.
- Solid communication and interpersonal skills.
- The ability to maintain a Professional attitude whether working independently or as part of a team.

VORTEX ENGINEERING, INC. prides itself on providing the opportunities our employees most desire, and career paths which are crafted to the individual. We offer a competitive compensation and benefits package, including medical and dental insurance, a retirement plan, yearly bonus program, Continuing Education Compensation program, and the opportunity for a diverse career path in other areas of Engineering, Architecture, and Survey.