



Nature of Work: The Civil Designer creates plans for municipal construction projects using computer-aided design (CAD) software. Their work includes:

- Drawing and scaling: Using maps and topographical surveys to draft, produce, scale, and fine-tune drawings and maps for construction projects
- Presenting designs to engineers and other construction managers
- Considering the environmental, social, and economic impacts of projects
- Supporting design and production on civil engineering projects

Essential Duties

- Applies basic engineering principles, standards and methods to help design staff create City of Ann Arbor Capital Improvement engineering plans.
- Performs work that involves researching record engineering plans, occasional site investigations which require driving to job sites, analyzing field topographic surveys, and drafting of engineer plans.
- Applies standard engineering practices and techniques in specific design situations under direction of supervisor.
- Prepares and checks preliminary and final engineering plans for a variety of City Capital Improvement projects.
- Aids in design and preparation of preliminary and final engineering plans for City of Ann Arbor roadways, drainage structures, utilities, roadway lighting, traffic control devices, intelligent transportation systems (ITS), and miscellaneous roadway facilities.
- Aids in design and preparation of preliminary and final creates Maintenance of Traffic plans City Capital Improvement projects.
- Aids in preparation of engineering plans, contract specifications, and all other related documents for bidding of Capital Improvement projects.
- Reviews engineering plans and reports prepared by other junior staff for errors and omissions.
- Prepares construction contract quantities and aids in the creation of engineering cost estimates.
- Prepares legal documents and easement descriptions, occasionally.
- Aids supervisor in coordination of the work of draftspersons, technicians, interns, and other units who assist in specific assignments.
- Interacts with staff, consultants, contractors, and other customers.
- Educates junior engineers and draftspersons in the efficient use of AutoCAD software.
- Educates junior engineers and draftspersons in the accepted practices followed in preparing plans (drafting), estimates, specifications, and contracts for engineering work.
- Aids in development and maintenance of City AutoCAD drafting standards and AutoCAD/Autodesk Civil 3d standard drawing templates.
- Participates in preparation of (or creates) materials for public engagement

meetings.

Required Qualifications:

- Associate's degree in a related field or an engineering program that teaches the basics of drafting software and CAD programs for the creation of blueprints and project plans
- 10 years of experience with drafting software and Autodesk CAD programs
- 10 years of experience in civil design
- Strong attention to detail and communication skills
- Knowledge of municipal laws and regulations
- Must have a valid driver's license

Preferred Qualifications:

- Bachelor's degree in a related field or an engineering program that teaches the basics of drafting software and CAD programs for the creation of blueprints and project plans
- Proficiency with Autodesk CAD programs (Civil 3D) and Bluebeam
- Strong ability to perform and direct complex CAD drafting
- Knowledge of City of Ann Arbor design principles and processes
- Excellent problem-solving skills with a creative approach to design challenges
- Strong communication skills to articulate ideas clearly to team members and stakeholders.

Physical Requirements:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential duties of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties.

Positions in this class typically require: stooping, kneeling, reaching, standing, walking, driving, pushing, pulling, lifting, grasping, talking, hearing, seeing and repetitive motions.

Duties entail the ability to work at a computer keyboard and on the telephone for extended periods of time. Operating standard office equipment requiring continuous or repetitive hand/arm movements.

Move and lift objects up to 20 lbs. such as mail, files and supplies.

*Job description created by Chris Carson 10/2024; HR Review – CW, BM 11/2024; Legal Review – MR 12/2024