CAREER OPPORTUNITY – CIVIL ENGINEERING

Crenshaw County, Alabama

Assistant County Engineer

Salary: Negotiable based upon experience.

Minimum Requirements: A Bachelor in Civil Engineering and a Certified Engineer Intern in the State of Alabama in good standing.

Duties: Assist County Engineer in all duties of County Engineering as prescribed by law to include performing technical, administrative, and professional engineering work in the location, design, construction, and maintenance of highways and bridges; serving as a liaison between county employees and public; managing projects from beginning to end; and performing other duties necessary to the operation of the County as directed by the County Engineer.

Work Schedule: 40 hours weekly, Overtime as needed.

Send Resume To: Michelle Royals, P.E.

Crenshaw County Engineer

P.O. Box 628

Luverne, AL 36049

Phone No. (334) 335-2874 Fax No. (334) 335-4529

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CRENSHAW COUNTY

JOB DESCRIPTION

Title: Assistant County Engineer (EIT)

Dept: Highway

Job Analysis conducted: January, 1990

Note: Statements included in this description are intended to reflect in general the duties and responsibilities of the job and are not to be interpreted as being all inclusive

Relationships

Reports to: County Engineer

Subordinate staff: None

Other internal contacts: None

External contacts: General Contractors; General Public

Job Summary

This is skilled and beginning level professional field work in the location, design, construction, maintenance and inspection of county roads, bridges, and drainage structures. This employee is usually, after a period of on-the-job training, designated as project engineer in charge of laying out the work and enforcing adherence to plans and specifications during construction on engineering projects; but this employee may be assigned to other phases of civil engineering work of a comparable level of difficulty. Work usually involves supervision of several technical assistants in any phase of the work. Assignments are usually received in the form of plans and specifications with supplementary instructions.

Job Domains

A. Design and Drafting

- Drafts detailed construction drawings, topographical profiles, and related maps and specification sheets used in the planning and construction of highways, bridges, drainage and other civil engineering projects.
- 2. Plots maps and charts showing profiles and cross-sections, indicating relation of topographical contours and elevations to buildings, retaining walls, tunnels, overhead powerlines, and other structures.
- 3. Drafts detailed drawings of structures to be built.
- 4. Computes volume of tonnage of excavations and fills and prepares graphs and hauling diagrams used in earthmoving operations.

B. Survey

- 1. Accompanies survey crew in field to locate grading markers or to collect data required for revision of construction drawings.
- 2. Leads the work of a survey party engaged in determining the precise location and measurements of points, elevations, lines, areas, and contours for construction, mapmaking, or other purposes.
- 3. Researches previous survey evidence, maps, deeds, physical evidence, and other records to obtain data needed for surveys.
- 4. Develops new data from photogrammetric records.
- 5. Keeps accurate notes, records, and sketches of data obtained and of work performed.
- 6. Assists in planning survey work relative to highway and road systems and in work involved in the various special studies required by Federal Aid Highway Acts.
- 7. Performs other surveying duties not requiring licensure.

C. Inspection

- 1. Coordinates materials and project inspections with state and federal personnel.
- 2. Inspects roads and bridges for adherence to plans and specifications during construction.
- 3. Takes field notes and completes appropriate records and reports.

D. Supervision

- 1. Supervises survey party in the simpler location, topographic, and other instrument surveys in connection with highway work; directs work of subordinate members of survey team.
- 2. Plans and supervises all engineering field parties engaged in obtaining road and bridge inventory data.

Knowledge, Skills, and Abilities

- 1. Considerable knowledge of mathematics, including trigonometry and its application to field surveying and engineering computations.
- 2. Considerable knowledge of the engineering principles and practices applied in the location, design, and construction of roads and moderately complex structures.
- 3. Considerable knowledge of the procedures and practices applied in inspecting and testing material used in roads and other structures.
- 4. Working knowledge of the procedures and practices applied in road and bridge survey work.
- 5. Skill in the use of engineering field and office instruments.
- 6. Skill in operating precise surveying and other engineering instruments including electronic equipment.
- 7. Verbal skills to deal with state and federal officials and to direct surveying crew.
- 8. Math skills to compute differential equations and to calculate material quantities for projects.
- 9. Writing skills to keep records, compose correspondence and to take field notes.
- 10. Reading skills to read and interpret engineering plans and specifications.
- 11. Ability to read and interpret the assigned types of civil engineering plans, maps, and specifications.
- 12. Ability to plan and supervise the work of technical assistants.
- 13. Ability to establish and maintain effective working relationships with associates, supervisors, and subordinates.
- 14. Ability to understand and follow complex written instructions.

Physical Characteristics

- 1. Sufficient physical stamina to work long hours occasionally under adverse weather conditions.
- 2. See well enough to use surveying instruments, to read technical manuals, maps, and field notes and to drive.
- 3. Speak well enough to direct technical assistants.
- 4. Mobility to walk over uneven terrain.
- 5. Use of hands and fingers to write, use tools, and effect repairs.

Other Characteristics

- 1. Graduation from a four-year college or university with a specialization in civil engineering.
- 2. Possession of an Engineer-in-Training certificate.
- 3. Experience in land surveying and/or supplemented with course work.
- 4. Possession of a valid Alabama driver's license.