TECHNICAL SERVICES ANALYST

This classification is responsible for maintaining and updating the County's pavement management system along with other related engineering tasks.

Assignments involve coordinating field functions necessary to obtain unit objectives and subobjectives for determining pavement rehabilitation and repair needs. Work requires some project supervision and cooperation with contractors and other departments.

Work is reviewed in progress and through satisfactory completion of assigned projects by a superintendent through reports, discussions, observations and results obtained.

KEY OR TYPICAL TASKS AND RESPONSIBILITIES

- Assists in prioritizing repair and rehabilitation needs based on remaining life analyses.
- Researches existing pavement management programs, deflection analysis methods and design procedures; recommends implementation of programs, methods and procedures appropriate for the County..
- Acts as County designee during field activities and on specific maintenance surface treatment projects.
- Conducts pavement evaluations using dynamic deflection equipment (including JILs and associated computer equipment), pavement distress surveys, visual surveys, and roadway structural coring techniques.
- Uses pavement evaluation information to analyze existing pavement conditions and develop structural alternatives to improve roadways.
- Applies standard road construction, engineering principles and innovative approaches where necessary, to the technical design of pavement structural thickness for pavement overlays on existing roads.
- Performs driveway inspections and ensures that traffic hazards do not exist in accordance with appropriate legal guidelines.
- Researches and maintains pavement historical and material usage data files. Provides other engineering services (survey, quality control, etc.) for in-house projects.
- Maintains a working model of the County's comprehensive transportation plan, incorporating County zoning, bus routes, mining and logging operations, and projected growth rates.

- Develops Asphalt, Slurry Seal, Rubber Chip Seal and Base Stabilization contracts and project lists. Updates annual contracts for bid purposes (this includes determining roads for improvement, using latest specification requirements, etc.)
- Inspects Road Operations Asphalt, Slurry Seal, Rubber Chip Seal and Base Stabilization project to ensure the County receives a quality product specified in the respective contract. Activities include inspection of contracted work to ensure compliance with specifications, assist in performance testing (compaction tests, sample acquisition, etc.), approval of payments to contractors, etc
- Performs related duties as assigned.

QUALIFICATIONS

- Three years experience performing road maintenance work such as that performed by the Highway Maintenance Worker I, Specialist and Heavy Equipment Operator classes, including two years of pavement management experience.
- Experience interpreting drainage plans and projects is highly desirable.

Knowledge of.... JILs operation, using a personal computer and required software; geotechnical engineering theory and practices as they relate to roadway materials' reaction to applied loads; roadway design, construction techniques, and surveying techniques; the principles and practices of effective field project supervision; departmental policies and procedures, work standards, and codes applicable to the position's requirements.

Ability to....utilize principles of PMS systems, life cycle costs, and mechanical empirical design procedures to prioritize pavement management needs; perform and analyze deflection tests, and computer and evaluate result of those tests; apply and interpret complex pavement design formulas integrating variables such as traffic, roadbed soils, materials of construction, and environmental conditions; establish and maintain effective relationships with contractors, the public, coworkers and engineering personnel and maintenance supervisors for various agencies; express ideas effectively both verbally and in writing.

Revised: 07/05