DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
MATERIALS ENGINEERING AND TESTING SERVICES AND GEOTECHNICAL SERVICES
POSITION DUTY STATEMENT

CLASSIFICATION TITLE	**DISTRICT/DIVISION/OFFICE**	
Senior Transportation Engineer (Supervisor)	DES/METS-GS/Office of Geotechnical Support/ Foundation Testing Branch	
WORKING TITLE	**POSITION NUMBER**	**EFFECTIVE DATE**
Senior TE (Supervisor)	559-316-3161-xxx	July 31, 2015

As a valued member of the Caltrans team, you make it possible for the Department to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability. Caltrans is a performance driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.

GENERAL STATEMENT

Under the direction of a Supervising Transportation Engineer, the Senior Transportation Engineer (Supervisor) will plan, organize, and direct foundation testing for transportation projects. The primary responsibility of this position will be to provide coordination of services with Structures Construction, District units, and four geotechnical design offices. This will include serving as liaison to clients and developing and tracking foundation testing schedules. The incumbent will be responsible for ensuring that testing is conducted on schedule and that the results are provided to the clients in accordance with necessary deadlines.

TYPICAL DUTIES

Percentage	Job Description
35% (E)	Plan, schedule and direct the activities of staff in the design, development, deployment and interpretation of foundation testing. Such tests include, but are not limited to, vertical and lateral static pile load tests, nondestructive evaluation of cast-in-drilled hole piles and pile dynamic analysis. In this capacity, the senior is responsible for ensuring appropriate field testing to meet individual project objectives.
25% (E)	Provide liaison and technical support in regard to foundation testing to other units within the Department including District and Division of Engineering Services, other state agencies, technical organizations, other DOT and FHWA.
15% (E)	Exercise supervisory duties such as review and improve timesheets, prepare individual development plan, evaluate staff performance, conduct disciplinary procedures and conduct safety meetings. Assure adequate training is provided to all staff.

15% (E) Attend and hold regular staff meetings, prepare status reports and monitor status of foundation testing projects.

10% (M) Write, review and improve policies and procedures related to the testing of foundations.

SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS

This is a supervisory position. The incumbent will direct the activities of transportation engineers, Transportation Engineering Technicians, and a Materials and Research engineering associate. The incumbent may be required to direct the activities of additional staff, depending upon the foundation testing needs of the Department.

KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS

- Knowledge of basic principles of physics, chemistry and mathematics as applied to civil engineering, stress analysis, mechanics, strength of materials, properties and uses of engineering construction materials, methods and equipment of engineering construction and engineering economics.
- Knowledge of applications of foundation testing, foundation testing procedures, test equipment, field instrumentation procedures, testing systems integration, data acquisition, data reduction methods.
- A thorough knowledge of foundation design and construction methods, specification and quality control practices.
- Possession of Registration as a Professional Engineer in California and a Bachelor of Science Degree in civil engineering. A Master of Science Degree in geotechnical Engineering is desirable.
- Extensive experience in performing and knowledge of principals of deep foundation and roadway geotechnical investigations, assessment, design and construction practices.
- The ability to work independently, making sound decisions based on possibly limited available information. The ability to develop accurate estimates of the scope, time required, and cost of foundation testing projects.
- Knowledge of structure foundations, soil mechanics principles, soils behavior under various stress systems, soil sampling, lab testing and in-situ testing procedures.
- The ability to communicate effectively, both orally and in writing.
- The ability to interact effectively with individuals and groups from the Department, governmental agencies and private consulting firms.
- A working knowledge of general research procedures with the ability to help plan problem solving procedures during conduct of foundation investigations and emergency repairs of highways and structures.
- The ability to quickly develop effective solutions to complex geotechnical problems.
- The ability to travel to and work at construction sites throughout California is required.
- Must be capable of interpreting and understanding the significance of test results.

- Travel throughout the State is a requirement of this position.
- Must be willing to work around gamma-gamma test equipment utilizing sealed-source radioactivity isotopes.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCE OF ERROR

Incumbent will be primarily responsible for decision and judgments on the performance of foundation systems. Errors in judgment and/or decisions or excessive delays in rendering decisions would affect public and employee safety, cause project delays with associated costs or result in tort liability for the Department.

PUBLIC AND INTERNAL CONTACTS

The incumbent is in frequent contact with Structure Construction, headquarters and District personnel and will have contact with other state, federal and local agencies. May be required to make public presentations.

The position requires frequent and regular contact with Structure Construction and other functional area personnel concerning foundation engineering matters related to in-house projects as well as projects developed by engineering consultants. The incumbent will also be in contact with Headquarters representatives of FHWA and technical organizations such as ASCE.

Must be able to communicate both orally and written, with vendors, contractors, manufacturers, local agencies and various State personnel. Must be able to clearly communicate and direct operations in oral and written forms and utilizing signaling under active field construction sites.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Employees may be required to sit for long periods of time using a keyboard and video display terminal. The may be required to b travel to and work in active field construction sites, walk across uneven terrain, climb into and out of excavations and direct field operations. They may also be required to move test equipment and test materials that may request lifting up to 30 lbs. Mental requirements include ability to concentrate in order to review and create documents and meet strict deadlines at times. Develops new insights into situations and applies innovative solutions to make organizational improvements. Comprehends, interprets and analyses large volumes of technical and administrative data. Emotional requirements include the ability to develop and maintain cooperative working relationship. Considering and responding appropriately to the needs, feelings and capabilities of different people in different situations; is tactful and treats others with respect.

WORK ENVIRONMENT

While at the base of operation, employee will work in a climate-controlled office under artificial lighting. Employees may also be required to travel and work outdoors and may be exposed to dirt, noise, uneven surfaces and/or extreme heat or cold.

I have read, understand, and can perform the duties listed above. If you believe you may require accommodation, please discuss this with the hiring supervisor.

_____ _____

Employee Name (please print) Employee Signature Date

I have discussed the duties with and provided a copy of this duty statement to the employee named above.

_____ _____

Supervisor Name (please print) Supervisor signature Date