

# STATE OF MONTANA

## JOB DESCRIPTION

*Montana state government is an equal opportunity employer. The State shall, upon request, provide reasonable accommodations to otherwise qualified individuals with disabilities.*

**Job Title: Alternative Project Engineer**

**Position Number: 50051, 32092, 40022**

**Location: Helena**

**Department: MDT**

**Division and Bureau: Engineering/ Engineering Construction Contracting (ECC) Bureau**

**Section and Unit: Alternative Contracting Section**

**Job Overview:** This position serves as an Alternative Project Engineer for the Engineering Construction Contracting Bureau. The position performs engineering and contractor management duties to provide direct oversight on complex, multi-discipline alternative delivery projects. Performs engineering duties to develop and complete up to 20 concurrent transportation related projects with up to 20 separate consulting firms simultaneously. Responsible for developing, directing and monitoring statewide diverse and complex projects. As well as developing, negotiating, executing, and administering Construction Management (CM), Independent Cost Estimator (ICE) Design Build (DB), Job Order Contracts (JOC), Progressive Design-Build (PDB), and Construction Manager/General Contractor (CM/GC) contracts statewide. This position also supervises consultant work and while performing a variety of other duties as assigned. Additionally, this position requires contract management of the Alternative Contracting General Engineering Consultant (AC-GEC).

### **Essential Functions (Major Duties or Responsibilities):**

#### **Project Development - 40%**

- Conduct assessments to facilitate understanding of all required project requirements. Develop the proposed scope of work for projects, based on the input received, knowledge of design criteria and site constraints, results of environmental evaluations, and purpose and need. Acquire the necessary approval for the scope of work and any proposed changes. Forecast risk associated with project scope, schedule, budget and implement measures to mitigate risk.
- Coordinate stakeholder, public relations and information dissemination activities to ensure the proper flow of accurate information and to increase involvement and cooperation. Participate in public meetings by answering questions related to project location, environmental impacts, completion targets, design details, and other issues. Communicate complex engineering ideas and concepts to staff and the public with varying levels of

knowledge and education. Facilitate resolutions to issues and manage necessary changes to the project in order to keep project viable.

- Obtain necessary approvals from local, state, federal agencies and other stakeholders regarding planned and proposed construction projects. Prepare and review agreements between the department and counties/cities (and other agencies e.g., Forest Service, FWP, DNRC, etc.) for projects. Interpret and reconcile conflicts between various regulations, guidelines, and demands of other agencies (AASHTO, FHWA, FWP, EPA, etc.).
- Direct, plan, and oversee project development to ensure that the scope, schedule, budget and quality of work is completed to meet the purpose and need of projects in accordance with all appropriate engineering, environmental, and regulatory requirements. Analyze and weigh all information and recommendations and make a decision that results in the best outcome for the project, the Department, and all stakeholders.
- Deliver plans, specifications and estimates (PS&E) for the construction of highway projects.
- Performs the project development duties of the Alternative Contracting Engineer.

### **Contract Development and Administration – 40%**

- Research and analyze engineering standards and procurement requirements to identify how they relate to project needs and activities. Apply engineering service and alternative contracting procurement processes in the selection of consultants, design build contractors, and general contractors. Develop and implement project design contracts to ensure that qualified consultants are selected meeting state and federal standards.
- Develop independent design cost and time estimates for projects to use in negotiating consultant contracts.
- Negotiate scope of work, schedule and budget with consultants to provide engineering and technical services in the development of highway projects. Determine project quality plan with consultant to ensure consultant delivers a quality product and takes into account risk. Negotiate terms within general project parameters and achieve consensus between consultants and the MDT on revised terms.
- Prepare consultant agreements, amendments and change orders to ensure accurate and legal documentation of project requirements.
- Monitor work performed to ensure compliance with the contract as well as federal and state regulations and policies.
- Performs the contract development duties of the Alternative Contracting Engineer.

### **Consultant/Contractor Supervision - 15%**

- Delegate specific preconstruction design and planning activities to consultants to ensure that MDT's mission, vision, goals, and financial plans are met in a timely manner and that consultant work complies with standards and agreements. Establish and adjust (as necessary) project priorities, negotiate and establish deadlines, and conduct advanced engineering review of work products to determine the overall adequacy of the approach and

concept behind the design and the technical adequacy of the information. Make timely and technical decisions to meet project deadlines and budget.

- Directly supervise consultants hired to perform design and research work for the MDT. This involves reviewing work, ensuring consultants have the information and other resources necessary to complete assigned projects, negotiating and resolving problems and contract disputes, approving consultant invoices, initiating corrective action to bring consultants into compliance with agreements, and assessing and documenting consultant performance information for use in evaluating projects and for future consultant selection.
- Direct and oversee the preparation of reports, studies, summaries, research proposals, special reports, plans, specifications and estimates related to construction projects to ensure sound judgment and engineering practices are incorporated. Develop research methodologies and criteria for consultants to follow when working with the MDT, and review all reports and studies prepared by consultants to identify and correct errors and ensure the data is clear and meaningful.
- Analyze, process and approve invoices submitted by Consultants, Design Build firms, and General Contractors. Interpret and analyze invoices to determine if hours and expenses billed are appropriate and accurate in comparison to the work product produced and are in compliance with federal and state regulations. Ensure inappropriate and/or fraudulent charges are not included.
- Establish and monitor criteria and milestones for evaluating project completion and consultant performance. Work with consultants and MDT staff to identify and resolve consultant performance deficiencies. Evaluate and document consultant performance for use in future selection activities. Implement and monitor corrective action and develop effective recommendations for termination of contracts for noncompliance. Develop performance plans to improve performance of consultants.
- Performs the project reviews and professional assistance duties of the Alternative Contracting Engineer.

#### **Other Duties – 5%**

- Performs a variety of other engineering and project management activities as assigned. Performs the similar duties of the Alternative Contracting Engineer.

#### **Supervision**

This position directly manages consultants, contractors, and independent cost estimators. The position collaborates with all functional areas and construction staff. Further, the position manages and oversees all aspects of design development, risk mitigation, cost development, advertisement and award for alternative delivery projects. This position supervises up to 20 consultants, design build contractors, and general contractors hired to perform design, research and contract work for MDT. This involves delegating and reviewing work, negotiating and resolving problems, approving consultant and contractor invoices, and initiating corrective action to bring consultants, contractors and independent cost estimators into compliance with agreements. Employee regularly prepares

performance evaluations of consultants hired by the department. These performance evaluations, along with informal, regular interactions, are used to coach and teach consultant personnel to improve performance. These evaluations affect the consultants' ability to get additional work from the department.

Employees earn 50% of their time spent in these positions towards direct supervisor experience at MDT.

### **Physical and Environmental Demands:**

- Carrying light items (papers, books, small parts, i.e., less than 15 lbs.)
- Remaining seated for extended periods of time, with occasional walking, standing, and bending.
- Travel within the state to project locations.
- Operating a personal computer
- Stress from the responsibility of making decisions that affects public health and safety.

### **Knowledge, Skills and Abilities (Behaviors):**

- Extensive knowledge of the theory, principles, methods and techniques of civil engineering for the design and construction of transportation projects.
- Considerable knowledge of negotiation principles and techniques and laws relating to preparation of engineering contracts.
- Knowledge of state and federal contracting procedures; technical and legal documentation standards; principles of negotiation and conflict management.
- Ability to develop and manage diverse projects.
- Ability in applying analysis and professional judgment to draw conclusions and make recommendations.
- Ability in program planning and management, developing and organizing procedures.
- Ability in assessing construction plans and projects; short and long-term project planning; performance assessment and monitoring.
- Ability to develop comprehensive solutions to complex engineering construction problems; utilize effective techniques and procedures to achieve goals and objectives; identify root causes of problems and develop alternative solutions.
- Ability and skill to communicate effectively orally and in writing.
- Ability and skill to work effectively in a high stress and multi-task environment.
- Skill in facilitating diverse interest groups to make project decisions.
- Skill in making engineering presentations.
- Skills in demonstrating leadership by recognizing and initiating activities to accomplish objectives, motivate associates and peers, and create a positive work climate.

### **Minimum Qualifications (Education and Experience):**

- The required knowledge and skills are typically acquired through a combination of education and experience equivalent to Bachelor's Degree in Civil Engineering or a related field.

- Five (5) years of progressively responsible experience including project planning, design, or construction.
- One (1) year of supervision or team lead experience.

Certifications, licensure, or other credentials include:

- Licensure as a Professional Engineer in Montana is required, or Licensure as a Professional Engineer in another state and the ability to obtain a Montana license within 6 months of being hired.
- Designated Design Build Professional (DBIA) certification is preferred.

Alternative qualifications include:

- Any combination of additional related work experience and education equivalent to the minimum qualifications. This does not preclude the required licensure as a Profession Engineer in Montana.

**Special Requirements:**

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|--|---|
| <input type="checkbox"/> Fingerprint check | <input type="checkbox"/> Valid driver’s license |
| <input type="checkbox"/> Background check  | <input type="checkbox"/> Other; Describe        |
| Union Code                                 | Safety Responsibilities                         |

The specific statements shown in each section of this description are not intended to be all inclusive. They represent typical elements and criteria considered necessary to perform the job successfully.

**Signatures** My signature below indicates the statements in the job description are accurate and complete.

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<b>Immediate Supervisor</b>	<b>Title</b>	<b>Date</b>
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<b>Administrative Review</b>	<b>Title</b>	<b>Date</b>
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My signature below indicates that I have read this job description.

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<b>Employee</b>	<b>Title</b>	<b>Date</b>
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**Human Resources Review**

**Job Code Title: Engineering Supervisor**

**Job Code Number: D2502M**

My signature below indicates that Human Resources has reviewed this job description for completeness and has made the following determinations:

FLSA Exempt

FLSA Non-Exempt

Telework Available

Telework Not Available

Classification Complete

Organizational Chart attached

**Human Resources:**

Tiffany Thornton    HR Generalist

4-9-2024

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**Signature**

**Title**

**Date**