

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: Engineering Contract Specialist

Position Number: 31010; 31007; 31002; 31008; 31003

Location: Headquarters

Department: Transportation

Division and Bureau: Engineering Division/Construction Engineering Services Bureau

Section and Unit: Engineering Construction Contracting

Job Overview:

The **Engineering Contract Specialist** is responsible for compiling, analyzing and developing comprehensive bid packages from a variety of design units to ensure the project's plans and specifications are cost-effective, constructible, compliant and biddable according to department, state, and federal requirements. Performs all activities related to project delivery. This position provides technical review of plan packages. These reviews consist of construction plans, plan quantities, detailed technical specifications and is responsible for establishing the final Engineer's Estimate. The position also provides innovative solutions to issues with bid packages that conform to all requirements and laws; and coordinates bid review, letting and award by responding to queries and providing expert consultation services to explain and resolve wide-ranging issues. The position does not supervise other staff and reports to the Construction Contracting Bureau Chief through the Lead Engineering Contract Specialist.

This Job Description describes the Level I Engineering Contract Specialist (ECS) position and will delineate the added responsibilities and requirements for the Level II and III ECSs as appropriate under the tasks. It is not meant to be all-inclusive. The ECS Advancement Procedure associated with this position (PRO 2-04-012) describes how employees can progress up the career ladder.

Essential Functions (Major Duties or Responsibilities):

Engineering Contract Development and Evaluation - 70%

Compiles, analyzes and develops comprehensive bid packages from a variety of design units (Road, Bridge, Traffic, Environmental, Hydraulics, Consultant Design, etc.) to ensure the project's plans and specifications are cost-effective, constructible, compliant and biddable according to department, state, and federal requirements.

- Conducts quality assurance reviews of all data including plans, specifications, special provisions, estimates and any related issues to ensure consistency with approved design standards (technical integrity), new or existing criteria, and compliance with all applicable rules and regulations. Identifies, researches and resolves problems through coordination with appropriate departments, agencies or consultants and follows up to ensure the appropriate rectification of issues/discrepancies. Acts as a liaison between Consultant Design, Contractors, Preconstruction, Construction and various MDT specialty design sections to facilitate the compilation of environmental, hydraulic, geotechnical and traffic data needed in the preparation of preliminary and final plan documents and contracts.
- Identifies technical design and/or contract deficiencies within documents, plans, specifications, and estimates; develops alternatives and solutions; and coordinates/liaisons with agency engineering, design, and/or legal staff to evaluate options and develop solutions. Consults with external Professional Engineers and Engineering consultants to resolve technical issues and ensure plans conform to all requirements and laws.
 - **II** – Reviews and develops a contract bid package for a small reconstruction or small urban project demonstrating a thorough knowledge of design techniques, design sets, funding issues laws, engineering standards.
 - **III** - Reviews and develops a contract bid package for a large reconstruction or large urban project that demonstrates a complete understanding of all facets of bureau contract development and evaluation standards in compliance with federal, state and local laws.
- Determines the impact of proposed changes relative to project costs, letting schedules, state and federal requirements and other issues.
- Evaluates planned and active project sites, materials, samples, and documentation to assess process effectiveness, proposed changes, and project requirements related to contract evaluation and letting processes. Develops reports and recommendations as requested and incorporates findings into bid evaluations and special provisions. Ensures plan packages agree with the design requirements defined in the Scope of Work Reports and evaluates typical sections, roadway widths, summary frames, details, plan and profile sheets, cross sections and cost estimates to ensure compliance with MDT requirements.
- Develops special provisions (non-standard project specifications) which describe and justify alternatives needed to ensure project compliance and makes certain that special provisions account for consequential impacts of changes in accordance with state and federal requirements and ensures there are no conflicting requirements or special provisions. Identifies and preemptively contends with any issues that would prevent federal funding to ensure all foreseeable problems are resolved prior to FHWA review.

- **II** – Develops special provisions for unique situations within contracts and projects of moderate complexity and demonstrates a working knowledge of requirements for compliance with applicable laws and bureau/department goals and objectives.
- **III** - Develops numerous special provisions for large scale contracts involving divergent technical aspects and design practices requiring a thorough knowledge of requirements for compliance with applicable laws and bureau/department goals and objectives.
- Performs financial clearance analysis to ensure projects are biddable; develops accurate final engineering estimates to establish reasonable rates that reflect the anticipated cost of the project, quality standards, and other specifications for construction and maintenance materials and the cost basis for award or rejection for the project. Participates in the Board of Review.
- Analyzes and verifies financial information and funding strategies to ensure optimal cost effectiveness for the state, the use of appropriate funding allocations and the continued viability of projects throughout construction (i.e. capped funding). Evaluates agreements and funding sources to ensure equitable division of costs while maximizing federal funding by determining cost allocations; identifying federal aid work type codes for multiple projects; discerning appropriate funding splits with counties, cities, and towns for cost sharing in projects such as water and sewer upgrades; and capitalizing on all available federal aid participation.
 - **II** – Develops funding strategies for moderate projects involving more parties and splits with counties, towns etc.
 - **III** - Develops contracts for high dollar projects involving uncommon or multiple funding splits and funding strategies requiring a thorough knowledge of MDT construction practices and the practices of smaller, local government entities.
- Creates electronic bid files for project management, further evaluation, analysis, input, and comment, feedback, bid letting authorization and monitoring construction projects. Analyzes electronic bid files to ensure all updated quantities and bid items included in the final plans and special provisions are accurate, constructible and biddable.
- Coordinates with FHWA to explain and justify proposed changes and other issues. Evaluates FHWA responses to develop and recommend design changes that incorporate department and federal requirements.
- Assists contractors to navigate bidding software by providing technical support and answering technical questions. Involves the appropriate staff and outside consultants regarding any aspect of comprehensive projects to ensure issues/questions are resolved within the tight time constraints of the bid letting process. Level IIs and IIIs provide a higher level of expertise to customers.
- Develops and provides formal addendums, clarifications, etc. and coordinates posting of information using department's dedicated electronic media
 - **II** – Resolves issues by understanding the function of the unit in solving all problems at the lowest level possible for moderate projects involving more parties, highly technical aspects and numerous special provisions requiring addendums and clarifications.
 - **III** - Resolves issues as the leading expert for the unit by applying extensive knowledge of all phases of contract management and development and MDT goals

and objectives of providing contractors with information they need within a day's time to avoid extending deadlines.

Engineering Contract Coordination and Letting - 25%

Provides innovative solutions to issues with bid packages that conform to all requirements and laws; and coordinates bid review, letting, award and project monitoring by responding to queries and providing expert consultation services to explain and resolve issues.

- Coordinates public bid lettings and processing of bid proposals to ensure compliance with department, state, and federal requirements. Verifies all calculations included in bids and proposals, ensures that proposals comply with bidding instructions, determines bid responsiveness if a bid is non-responsive and identifies the reason. Loads bids electronically into a software suite of applications used to aid in the preparation of engineer's estimates, bid files and awarding of contracts.
- Responds to multifaceted technical and procedural inquiries during the advertisement of a contract that may originate from contractors, local/state/federal government officials, members of the public, and others. Researches and provides information on issues related to bid letting procedures, standards, specifications, specific projects and special provisions, and a range of other issues. Reviews Legal Advertisement to ensure accuracy.
- Provides innovative solutions to issues with bid packages that conform to all requirements and laws. Prepares and issues addendums and revised bid files; posts clarifications, answers to questions and related information utilizing the Contractors Question and Answer Forum on MDT's Contracting/Consulting webpage. Resolves all issues at the lowest level possible and forwards technical issues beyond the expertise of the incumbent to the Lead Worker or other appropriate staff or agency to be resolved promptly.
- Conducts onsite inspections of construction projects including interviews with the Project Managers in charge and demonstrates working knowledge of both construction and pre-construction related phases. Accompanies and mentors ECSs to project sites to assist them with advancing their knowledge base.
 - **II** – Conducts at least two onsite inspections of smaller-scale construction projects including interviews with the project managers in charge and demonstrates a working knowledge of both construction and pre-construction phases.
 - **III** - Conducts at least four onsite inspections of larger-scale construction projects including interviews with the project managers in charge, consultation with in-house construction staff and demonstrates a thorough knowledge of both construction and pre-construction related phases.
- Continually improves business process by identifying, recommending and implementing new or improved processes and/or procedures. Develops and recommends new functions, operations, and applications for electronic bidding systems to improve the integrity, efficiency, and cost-effectiveness of bid evaluation and letting processes. Assesses existing system functions, operations, capabilities, and limitations; evaluates all facets of the department's bid evaluation and letting processes, incorporates existing and evolving/changing state and federal requirements, assesses contractor needs; and proposes new applications for electronic bidding systems based on this all encompassing analysis.

- Operates and maintains AASHTOWare Modules; Estimator, Preconstruction, Estimation, and Data Analytics which are the foundation for the Construction and Materials Module for construction. . Tests software upgrades as they are issued and provides performance feedback/insight on software that may be needed to satisfy conflicting or divergent needs of the department.
 - **II** – Demonstrates an intermediate level of knowledge of general office software and advanced knowledge of the specialized Contract Plans Bureau (CPB) software including all AASHTO software and customized software.
 - **III** - Creates a working contract proposal for a large and/or complex construction project demonstrating an understanding of all concepts of contract management and development of proposals using specialized Contract Plans Bureau (CPB) software including all AASHTO software and customized software.
- Provides high-level consultation and technical expertise to department personnel regarding contract administration issues, engineering estimates, bid review and letting processes, and a variety of other issues affecting bid review, letting, and award.
- Assists with overseeing the Disadvantaged Business Enterprise (DBE), a federally funded program administered by MDT, including maintaining and updating the list of contractors and sub-contractors that are eligible and still meet the required criteria.

Other Duties - 5%

This position performs a variety of other duties as assigned by the Engineering Construction Contracting Bureau Chief and/or Engineering Contract Specialist Lead in support of the Department mission and Bureau.

Supervision

The number of employees supervised is: 0

The position number for each supervised employee is: N/A

Physical and Environmental Demands:

- Work is performed in an office setting or in the field on engineering construction projects.
- Travel is required which may include overnight stays.
- Work may occur on short notice, weekends, and holidays.
- Work may occur on active construction sites in close proximity to heavy equipment, hot asphalt, and high-speed traffic.
- The work environment may involve harsh or caustic fumes, dust, extreme temperatures, wind, rain, and snow.
- Work outdoors in all types of weather.

Knowledge, Skills and Abilities (Behaviors):

The position requires thorough knowledge of the concepts and theories of transportation design, standard specifications, and standard drawings; principles and practices of road design including knowledge of horizontal and vertical alignments, drainage, typical sections, cross-sections, approaches, intersections, etc.; federal and state contract and funding requirements; road/bridge construction processes; knowledge of applicable laws, rules and regulations; software modules used to aid in the preparation of engineer's estimates, bid files and awarding of contracts (currently using AASHTO); MDT, and/or local design standards; estimating; technical writing; specialized engineering and design software; and bureau goals and objectives. The position also requires knowledge of construction equipment, materials, and practices; automated electronic bidding system functions and operations; legal contracts; and bid letting procedures and requirements.

The position requires skills in problem-solving of complex issues; managing multiple projects under inflexible deadlines; communicating effectively both verbally and in writing; analyzing highway engineering design plans and specifications; operating specialized software applications; and communicating technical information with widely varied audiences.

The position requires the ability to conduct quality assurance reviews and contract components; provide technical assistance and training; and identify and recommend and implement improvements to business process and electronic bidding processes and applications. Must have the ability to establish and maintain effective working relationships with others; work quickly under pressure; make decisions that affect public health and safety; effectively use computers and software (word processing, spreadsheets, publishing and graphics, power point presentations, etc.); compile, compare and analyze data effectively use available communications technologies.

Level II and III ECSs will demonstrate a working knowledge and progress to a thorough understanding of the particular knowledge, skills and abilities listed above pertaining to designs/plans, compliance, construction CPB software, and contract management and development as described in the ECS Advancement Procedure associated with this position (PRO 2-04-012).

Minimum Qualifications (Education and Experience):

The required knowledge and skills are acquired through education equivalent to a Bachelor's Degree in Civil or Construction Engineering, Business Administration, Management, Accounting, Auditing or closely related field.

This position requires a minimum of 3 years of experience in engineering, construction engineering, or business management.

Alternative qualifications include: Any combination of additional related work experience and education equivalent to the minimum qualifications.

Certifications, licensure, or other credentials include: N/A

Special Requirements:

List any other special required information for this position

- ☐ Fingerprint check
- ☒ Valid driver’s license
- ☐ Background check
- ☐ 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.

Immediate Supervisor	Title	Date

Administrative Review	Title	Date
My signature below indicates that I have read this job description.		

Employee	Title	Date
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Human Resources Review

Job Code Title: Engineering Contract Specialist 2 Job Code Number: D2J012 Level: 2

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:

Signature

Title

Date