

# **Request for Proposals (RFP)**

## **Owner's Representative – Professional Services Scope of Work**

**I-70 Floyd Hill to Veterans Memorial Tunnels  
Mile Point (MP) 241 to MP 249**



**PROJECT NUMBERS: NHPP 0703-446/FBR 0703-457**

**PROJECT LOCATION: I-70 near Idaho Springs, CO**

**PROJECT CODE: 21912/22716**

July 14, 2022

Colorado Department of Transportation  
2829 West Howard Place  
Denver, CO 80204



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## INSTRUCTIONS

**This Scope of Work is to serve as a template for Colorado Department of Transportation (CDOT) to develop and negotiate solid contracts with Consultant teams on projects and tasks. The Consultant shall coordinate all activities, tasks, meetings, communications, and deliverables with the CDOT/Project Manager (PM) (or his or her designee) for this Project. All submittals will be through the CDOT/PM or a designee, who will make appropriate distribution. Upon notice to proceed (NTP), the Consultant shall be responsible and will account for all effort contained in the Final Scope of Work.**

**This Draft Scope of Work has been reviewed by the Department and reflects a plan of approach based on the known goals. One factor determining the selection of a Consultant is the ability of that Consultant to analyze the project goals, evaluate the work elements, and formulate a work plan. This process may produce new approaches or modification to the Project work elements. Because of that, all Consultants should be aware that the Final Scope of Work for a project will be produced with input from the selected Consultant. The Final Scope of Work submitted will be generated by CDOT personnel and be on CDOT letterhead.**



## **SECTION 1 – PROJECT SPECIFIC INFORMATION**

### **1.1. PROJECT BACKGROUND**

#### I-70 Mountain Corridor Overview

The I-70 Mountain Corridor is a critical lifeline for Colorado, connecting Colorado's Front Range with the mountain communities, recreational areas, and resorts that are all primary economic drivers for the state. I-70 is critical for the movement of freight from both the east and the west, linking economies from coast-to-coast and providing the only continuous route that brings goods and materials to Colorado's mountain and Western Slope communities.

#### I-70 PEIS and ROD: 2011

The Floyd Hill Project improvements are part of a "specific highway improvement" included in the I-70 Mountain Corridor PEIS Preferred Alternative and approved in the Tier 1 NEPA Record of Decision ("ROD"). All information associated with the I-70 PEIS and ROD is available at:

<https://www.codot.gov/projects/i70mountaincorridor/background-and-resources.html>.

#### Concept Development Process: 2016-2017

From August 2016 to July 2017, CDOT conducted a Concept Development Process, which focused on developing conceptual recommendations to implement the PEIS Preferred Alternative on westbound I-70 from the top of Floyd Hill (MP 248) to the interchange of I-70 with US 40 (called Empire Junction) (MP 232). The Concept Development Process documents are available at:

<https://www.codot.gov/projects/i70mountaincorridor/concept-development-process>.

#### Tier 2 NEPA Process

The Tier 2 NEPA process for the Floyd Hill Project is currently in process. The Environmental Assessment (EA) was signed in July 2021 and released on August 2, 2021, for a 60-day public review period, with a decision document anticipated in 2022. The EA materials are available at:

<https://www.codot.gov/projects/i70floydhill>.

### **1.2. PROJECT LIMITS**

The Project is located on I-70 between MP 249 (east of the Beaver Brook/Floyd Hill interchange) and MP 241 (Idaho Springs/Colorado Boulevard, west of the Veterans Memorial Tunnels). It is located mostly in Clear Creek County, with the eastern end in Jefferson County. The primary roadway construction activities would occur between County Road (CR) 65 (the Beaver Brook/Floyd Hill interchange, Exit 248) and the western portals of the Veterans Memorial Tunnels (milepost 247.6 and milepost 242.3, respectively), with the Project area extended east and west to account for signing, striping, and fencing.

### **1.3. PROJECT GOALS**

The CDOT Project Goals reflect the values that this Project holds and expects. An exceptional proposal will demonstrate how each of the Project Goals will be pursued by the Proposer. The natural environment is an extremely important element that needs to be considered during the Project's design development and construction.

#### **A. Improve Safety, Mobility, Operations and Maintenance**

Improve the safety, mobility, operations, and maintenance characteristics throughout the Project.



This will include replacing aging infrastructure, reconfiguring non-standard interchanges, updating to current design standards, increasing travel time reliability, achieving a minimum 55 miles per hour (“mph”) design speed, reducing emergency response times, and providing redundant access for local residents.

Utilizing state of the practice techniques, maximize the safety of workers, the traveling public, residents, and business owners during construction. Optimize the maintenance operations of the facility throughout the design life. Maintenance operations during construction will meet the established Maintenance Level of Service for the I-70 Mountain Corridor.

#### **B. Foster Stakeholder Commitment and Partnership**

Foster collaboration, communication, and partnerships among stakeholders throughout the I-70 Mountain Corridor. Implement the design guidance and CSS commitments through the Project development process. Leverage partnerships with stakeholders to maximize opportunity for shared use facilities along I-70 and the frontage road. CDOT, the CM, and the Design Team will collaborate with stakeholders in a timely manner to finalize the NEPA process. This collaboration will utilize the CSS process to encourage the incorporation of innovation throughout the Project. Additional information regarding the CSS process can be found within the EA materials at the EA web link provided in **Section 1.1** of this SOW.

#### **C. Enhance Environmental Stewardship**

Avoid and minimize impacts to environmental resources identified in the NEPA process and ensure that these commitments are carried forward into construction. Implement innovative methods for environmental stewardship and community supported enhancements that maximize opportunity for shared-use within and adjacent to the I-70 Mountain Corridor. Incorporate early wildlife mitigation considerations that improve safety for both the traveling public and wildlife.

#### **D. Minimize Construction and Economic Impacts Through Innovation**

Minimize inconvenience and impacts to the traveling public, residents, and business owners during construction. Accommodate and maintain freight and interstate travel. Provide access to recreation and jobs along the I-70 Mountain Corridor. Create a reliable communication system for disseminating information using accurate, meaningful, and timely communication technologies and resources.

#### **E. Optimize Scope, Schedule, and Budget**

Balance schedule and budget to maximize the scope and positive impact of the Project. Utilize innovation and manage risk to recover budget to reinvest in the Project.

### **1.4. PROJECT FUNDING**

The funding for the full Project has not been fully identified at this time which requires CDOT to take a holistic approach to identify proactive measures to deliver as much of the Project Scope Elements with available funding, while maintaining synchronicity with future funding allotments. To achieve this goal, CDOT has continued to refine the scope and has developed strategies to maximize the available funding as soon as possible.

**CDOT anticipates the final funding source determinations and the associated Project budget will be finalized by September 1, 2022.**



CDOT is pursuing full funding for the Project, which could include alternate financing, toll revenues, federal grants, or a combination of all of these. The current identified Project funding sources include but are not limited to: Senate Bill 267, Bridge Enterprise, and Colorado Transportation Investment Office.

The Colorado Transportation Investment Office, an independent business enterprise within CDOT charged with pursuing innovative financing alternatives to deliver important surface transportation infrastructure projects in the state, is currently conducting a funding gap study to determine if alternative or creative funding or financing options, including tolling options, could be leveraged to supplement the CDOT sources.

## **1.5. PROJECT INFORMATION AND DEFINITION**

The goal of the Project is to construct the below Project Scope Elements in their entirety to minimize impacts to stakeholders and the traveling public. All Project Scope Elements are included in this solicitation for services but are not guaranteed if funding is not identified or costs exceed the project budget or available funding resources. The Project Scope Elements may be modified based on available funding, packaging, CM input, Stakeholder input, and final design refinements. If it is determined to be in the interest of the Department, or to meet funding constraints, portions of the completed design may be procured separately. If, through the Tier 2 NEPA Process, a build alternative is not selected, CDOT reserves the right to terminate the contract.

### **Project Scope Elements**

- I-70 Mainline Scope:
  - Roadway geometry improvements to WB & EB I-70 between Exit 241 at Idaho Springs and Exit 248 at Floyd Hill,
  - Continue WB third lane from the Hyland Hills/Floyd Hill Interchange (Exit 247), where it currently drops from three lanes to two lanes, through the Veterans Memorial Tunnels,
  - Addition of EB auxiliary lane from the bottom of Floyd Hill at the US 6 Interchange (Exit 244) to the Hyland Hills/Floyd Hill Interchange (Exit 247),
  - Replace EB/WB I-70 Mainline over US 6 and Clear Creek,
  - Intelligent Transportation System (ITS) improvements throughout the Project limits,
  - Addition of Tolling Infrastructure for the managed lane,
  - Storm sewer infrastructure and other utility improvements along impacted roadway,
  - Connect the Project to the Mountain Express Lanes, and
  - Restriping and static signing throughout the Project limits.
- Intersection and Interchange Improvements:
  - Replace US 6 to WB I-70 on ramp,
  - Replace Bridge Enterprise-eligible bridge - WB I-70 to US 6 off-ramp,
  - Add US 6 to EB I-70 on ramp, and
  - Roundabouts and intersection improvements at the Hidden Valley/Central City Interchange (Exit 243).
- Other
  - Realign approximately 1,200 linear feet of Clear Creek to the south by approximately 50 feet just east of the Veterans Memorial Tunnels,



- Realign County Road 314 between the Veterans Memorial Tunnels and Hidden Valley Interchange,
- Improve and update the Clear Creek Greenway between US 6 and the Veterans Memorial Tunnels to current ADA standards as approved by CDOT,
- Connect frontage road between US 6 Interchange (Exit 244) and the Hidden Valley/Central City Interchange (Exit 243) (replaces EB I-70 off-ramp to US-6),
- Rock Excavation,
- Construct water quality features associated with improvements, and
- Wildlife improvements, including fencing and benches under bridges.

## **1.6. PROJECT ROLES**

Lead and Supporting Agencies: CDOT is the lead agency and Owner of the Project. Oversight is provided by FHWA.

Stakeholders: Primary Project stakeholders and their role or involvement in the Project are listed in the following table:



**Stakeholders**

| <b>Agency/Stakeholder</b>               | <b>Role or Involvement</b>  |
|---|---|
| Federal Highway Administration (“FHWA”) | <ul style="list-style-type: none"> <li>● Project oversight</li> <li>● Member of the Project Leadership Team and Technical Team</li> </ul>   |
| United States Forest Service (“USFS”)   | <ul style="list-style-type: none"> <li>● Member of the Project Leadership Team and Technical Team</li> </ul>  |
| Clear Creek County                      | <ul style="list-style-type: none"> <li>● Project limits primarily within Clear Creek County</li> <li>● Member of the Project Leadership Team and Technical Team</li> </ul>  |
| Jefferson County                        | <ul style="list-style-type: none"> <li>● Small area of Project limits within Jefferson County</li> <li>● Member of the Project Technical Team</li> </ul>  |
| City of Idaho Springs                   | <ul style="list-style-type: none"> <li>● Small area of Project limits within City limits</li> <li>● Member of the Project Leadership Team and Technical Team</li> </ul>   |
| I-70 Coalition                          | <ul style="list-style-type: none"> <li>● Member of the Project Leadership Team and Technical Team</li> </ul>  |
| Colorado Parks and Wildlife (“CPW”)     | <ul style="list-style-type: none"> <li>● Member of the ALIVE ITF</li> <li>● Coordinating partners of the design and construction of wildlife mitigation</li> <li>● Coordinate wildlife habitat consideration and connectivity during preconstruction</li> <li>● Member of the Project’s Technical Team</li> </ul> |
| US Fish and Wildlife Service (“USFWS”)  | <ul style="list-style-type: none"> <li>● Member of the SWEEP ITF</li> <li>● Interest in preservation and enhancement of fish habitat in Clear Creek and other secondary waterways</li> <li>● Regulation of federally listed species in the project limits</li> </ul>  |
| Army Corps of Engineers (“ACOE”)        | <ul style="list-style-type: none"> <li>● 404 Permit decisions</li> </ul>  |
| Colorado Motor Carriers Association     | <ul style="list-style-type: none"> <li>● Input on freight consideration, decisions, and impacts for the Project</li> <li>● Member of the Project Technical Team</li> </ul>  |





**Additional Coordination Contacts**

| Other Stakeholders                       | Role or Involvement  |
|--|--|
| Private Property Owners and/or Residents | <ul style="list-style-type: none"> <li>● Roadway reconstruction input</li> <li>● Will want to know travel impacts/delays/detours</li> </ul>  |
| Traveling public                         | <ul style="list-style-type: none"> <li>● Roadway safety/trip reliability input</li> <li>● Will want to know travel impacts/delay/detours</li> </ul>  |
| Recreational users                       | <ul style="list-style-type: none"> <li>● Fishing/River access input</li> <li>● Recreation Path input</li> <li>● Trail input</li> <li>● Commercial and private rafting industry</li> <li>● Skiing industry</li> </ul>   |
| Emergency Responders/Incident Command    | <ul style="list-style-type: none"> <li>● Emergency response/access input</li> <li>● Will want to know travel impacts/delay/detours</li> <li>● Members of local emergency responders are on the Project's Technical Team</li> <li>● Incident Management and Planning for all potential impacts</li> <li>● CDOT Executive Leadership</li> <li>● CDOT Traffic Operations Center (CDOT TOC)</li> </ul> |

**Anticipated Utility Coordination/Relocations**

| Utility Identification             | Facility type  | Relocation Required? |
|------------------------------------|--|----------------------|
| Cable Television (Comcast)         | Comcast provides cable television service to the corridor communities. There is one buried fiber conduit and several cables throughout the project area  | TBD                  |
| Electric (Xcel Energy)             | Xcel Energy has two main feeder lines and numerous smaller distribution lines in the western part of the study area  | TBD                  |
| Telecommunications (CDOT and Zayo) | CDOT and Zayo have buried fiber optic and copper cable lines throughout the study area, including a continuous fiber optic conduit which runs along I-70 the entire length of the study area and services CDOT's variable message signs along I-70 | Yes                  |
| Gas (Xcel)                         | Low and High Pressure lines are potentially within the project area  | TBD                  |
| Sanitary Sewers (ERWSD)            | Location and potential conflicts to be further investigated  | Not anticipated      |
| Water                              | Location and potential conflicts to be further investigated  | Not anticipated      |
| Storm Sewer (CDOT)                 | CDOT has a storm sewer collection system within the corridor   | Yes                  |



### **1.7. WORK DURATION**

The time period for this work described in this scope is estimated to begin September 1, 2022 and end December 31, 2028. It is estimated that the project can be constructed in five years from commencement. It is CDOT's goal to start construction on this project in 2023 as defined in the goals. The Consultant should expect to have design and construction overlap should the team proceed with concurrent packages.

### **1.8. COLLABORATION**

This project will be delivered via Construction Management/General Contractor (CM/GC) procurement. The Consultant will need to work with CDOT in conjunction with the Construction Manager (CM) and Designer to collaborate on innovation and constructability throughout the duration of the design of the project. Throughout construction, the Consultant will need to work with CDOT in conjunction with the CM and Designer to ensure the work is completed per the completed plans and specifications.

### **1.9. CONSULTANT RESPONSIBILITY AND DUTIES**

All work shall be in accordance with CDOT's latest manuals, directives, and generally accepted practices. All work shall follow the I-70 Mountain Corridor CSS process. The Consultant shall work closely with CDOT's Project Director, CDOT Construction Manager, ICE, Construction Manager, and Designer.

The Consultant shall develop an all-encompassing scope and prepare a written recommendation of activities that coincide with the Project costs, goals, and planned improvements for each Task Order developed to complete the Project.

The Consultant shall provide construction administration support, project engineering services (construction management), inspection, and materials-testing services required for construction of the Project. The Consultant must work in conjunction with the CM/GC and Designer to collaborate on innovation, constructability, schedule, and risk throughout the duration of the project in addition to following the CM/GC process. The Consultant is also required to collaborate with the ongoing EA process, stakeholders, and ITF groups.

The Consultant shall be prepared for the following duties:

- Provide a full time Project Engineer and Project Team capable of providing complete project deliverables on time
- Program management
- Attend project meetings
- Meet all project milestones
- Monitor project CPM schedules for design and construction
- Develop concepts and quantities for cost estimates
- Participate in public outreach meetings
- Provide environmental support to complete the Project.
- Attend site meetings and site visits, documenting critical decisions.
- Review FIR, DOR, FOR, and final project design, specifications, and quantities for constructability and estimate review
- Track project action items and deliverables
- Provide inspection and testing services throughout construction
- Closeout all final documentation as required per CDOT specifications



### **1.10. PERSONNEL QUALIFICATIONS**

- The Consultant PM must be approved by the CDOT Contract Administrator.
- Certain tasks must be done by Licensed Professional Engineers (PE) who are registered with the Colorado State Board of Registration for Professional Engineers and Land Surveyors. National Institute for Certification in Engineering Technology (NICET) or other certifications may be required for project inspectors and testers.
- All tasks assigned to the Consultant must be conducted by a qualified person on the Consultant team. The qualified person is a professional with the necessary education, certifications (including registrations and licenses), skills, experience, qualities, or attributes to complete a particular task.
- This contract requires that the prime firm or any member of its team, be pre-qualified in the following disciplines for the entire length of the contract:
  - BI - Bridge Inspection
  - CE – Civil Engineering
  - MA – Engineering Management (Contract Admin)
  - MC – Engineering Management (Construction)
  - MT - Materials Testing
- Key Personnel in the Statement of Interest section of the Proposal, see **Section 6** of the Owner's Representation RFP, constitutes an agreement by the Proposer to make the Key Personnel available to complete the services of the contract at the level the Project requires. CDOT requires that all Key Personnel be engaged to perform their specialty for all services required by this contract, and the Key Personnel shall be retained for the life of this contract to the extent practicable and to the extent that such services maximize the quality of work hereunder.

If the Consultant or a subconsultant decides to replace any of its Key Personnel, the Consultant shall notify the Project Director in writing of the desired change. No such changes shall be made until at least two qualified replacement candidates are recommended by the Consultant and a replacement is approved in writing by the Project Director or its designated representative. The approval shall not be unreasonably withheld. Failure of the Consultant to comply with the requirements of this provision may be the cause for CDOT's termination of the contract.

The Project Director or its designated representative will respond to the Consultant's written notice regarding replacement of Key Personnel within fifteen working days after receipt of the list of proposed changes. If the Project Director or its designated representative does not respond within that time, the listed changes shall be deemed to be approved.

If, during the term of the contract, the Project Director or its designated representative determines that the performance of approved Key Personnel is not acceptable, a notification shall be sent to the Consultant. The notification shall include a reasonable timeframe to correct such performance. Thereafter the Consultant may be required to reassign or replace such Key Personnel. If the Project Director or its designated representative notifies the Consultant that certain Key Personnel of a subconsultant should be replaced, the Consultant shall use its best efforts to replace such Key Personnel within a reasonable time, but not to exceed fifteen working days from the date of the notice.

### **1.11. COMPUTER SOFTWARE INFORMATION**

The Consultant shall utilize the most recent CDOT adopted software (if applicable). The primary software used by CDOT is as follows:

- SiteManager/LIMS



- ProjectWise (a/k/a ProjectWise Explorer or ProjectWise Cloud)
- Microsoft Word/Excel/PowerPoint
- Scheduling - Microsoft Project or Primavera
- LCP Tracker for Project Payroll tracking
- B2GNow System for DBE/ESB tracking and prompt payment
- Adobe Acrobat/BlueBeam Revu

The data format for submitting computer files shall be compatible with the latest version of the adopted CDOT software as of Notice to Proceed for the contract. The Consultant shall immediately notify the CDOT/PM if the firm is unable to produce the desired format for any reason and cease work until the problem is resolved.

### **1.12. PROJECT COORDINATION AND MEETINGS**

The Consultant will be required to coordinate with the CDOT Construction Manager and specialty units as approved. There is an extensive list of stakeholders for this project for each PLT, TT and ITF as well as local agencies that are interested in the project. This list is included in **Section 1.6 Project Roles** in this SOW.

Meetings and frequencies will be established as design progresses and the construction portion begins. The Consultant shall be prepared to participate as requested by CDOT with the essential personnel requested.

### **1.13. SUPPLEMENTAL WORK**

The consultant shall not perform work out of scope without prior written approval from the PM. Per the contract, subconsultants and vendors may not go over task order or contract budget.

### **1.14. ADDITIONAL PROJECT INFORMATION**

Additional information regarding this project is included downloadable documentation found under the Project Delivery tab at the following link: <https://www.codot.gov/projects/i70floydhill>



## **SECTION 2 – PROJECT MANAGEMENT AND COORDINATION**

### **2.1. CDOT CONTACT**

The Consultant shall utilize the following project administration contacts for the Project:

- A. The Contract Administrator for this project is:  
Kurt Kionka, PE  
Project Director I-70 Floyd Hill to Veterans Memorial Tunnels Project  
425A Corporate Circle  
Golden, CO 80401  
W: 720-390-8701  
[Kurt.Kionka@state.co.us](mailto:Kurt.Kionka@state.co.us)
- B. Active day-to-day administration of the contract will be delegated to the CDOT/PM:  
Jeffery Hampton, PE  
I-70 Floyd Hill to Veterans Memorial Tunnels Project  
425A Corporate Circle  
Golden, CO 80401  
W: 720-497-6957  
[Jeffery.Hampton@state.co.us](mailto:Jeffery.Hampton@state.co.us)

### **2.2. GENERAL SCOPE OF WORK**

Consultant services are requested to provide construction administration support, project engineering services (construction management), inspection, and materials-testing services required for construction of the I-70 Floyd Hill to Veterans Memorial Tunnels project located in Clear Creek County, approximately milepost 241 to 248.

The major Work components of this project are outlined in **Section 1.5 Project Information and Definition** in this SOW.

CDOT is seeking supplemental construction administration support staff from the Consultant to augment the CDOT staff as required for the I-70 Floyd Hill to Veterans Memorial Tunnels Project. CDOT staffing on this project will vary as conditions change through the duration of construction work. It is expected that 25 or more consultant staff may be required full time to meet the project's QA requirements, depending on project needs. It is anticipated that the project will have multiple shift work, 24 hours a day, 7 days a week. Working nights, weekends and holidays will be required. The exact personnel requirements will be based upon the CM/GC construction schedule.

The CDOT and Consultant Team will be responsible for all QA documents, including all final Construction as-built documentation as well as full Materials testing QA as described under LIMS by the CDOT Materials Lab. Several Senior and Junior Inspectors and specialists will be required to meet the QA requirements over the project duration. A massive amount of data generated by the project will be managed and controlled in the office as part of the project.

Construction Traffic Control will be a major part of this project and will require a dedicated team to review and coordinate traffic control with the Contractor. The project team will need to monitor the demanding daily traffic management and help to resolve issues arising from the project. Construction of several structures will require an experienced safety critical specialist to review and comment on safety critical work elements and submittals and attend project meetings.



This Project is being delivered using the Construction Manager/General Contractor (CM/GC) process in packages. The first package is expected to be in construction by Spring 2023 with project completion scheduled for December 2028. The selected contractor is Kraemer North America. It will be expected that the selected Owner's Representative Consultant will also be involved in the design review process including innovation, risk, cost estimating, and specification development meetings.

This Scope of Work (SOW) has been carefully reviewed by the Department and reflects a plan of approach based on the project goals. The Consultant's analysis of the project, its evaluation of the work elements, and its formulation of the work plan, coupled with its understanding of and sensitivity to the key issues may produce new approaches or modifications to the project's work elements. Therefore, the Final Scope of Work for the project may change in some details to incorporate the Consultant's input.

### **2.3. GENERAL WORK DESCRIPTION**

The construction administration of the project will require Consultant personnel to have a combination of CDOT construction experience and roadway and bridge construction experience. Specific experiences should include bridge replacement, reinforced concrete, pavements and bases, retaining walls, caissons, piling, environmental constraints, erosion control, embankment, HMA, ITS Tolling and integration, permanent traffic devices, and temporary traffic control management. The Consultant personnel shall be prepared to work in a mountain environment and adverse weather conditions. Additional experience in the CM/GC project delivery method will be beneficial.

A separate consultant will be providing Design Support for the project during construction, but Consultant Owner's Representative staff will be required to provide details of any encountered project issue to them for evaluation and proposed changes to the design plans.

The Consultant shall provide support to the CDOT Construction Manager through assignment of personnel to construction administration and inspection responsibilities. The Consultant will be expected to provide support for the following activities:

Pre-Construction Activities include but are not limited to:

- Review and provide comments on design plans and specifications
- Attend and participate in the design review meetings
- Assist CDOT with other duties/tasks as requested

Construction Activities include but are not limited to:

- Progress Reports: Prepare weekly progress reports for the CDOT Construction Manager and Consultant Project Engineer documenting project progress in accordance with the Basic Contract. Project Status Report shall include all activities that transpired during the previous week, a forecast of the upcoming week, project budget and schedule updates, outstanding RFI's and CMO's, known and/or possible claim or dispute issues, and any other issues of possible concern
- Preparing and transmitting updates of construction activities to the Project Engineer for CDOT's Public Information Office
- Monitoring contractor payroll compliance requirements as they relate to B2G and LCP Tracker.
- Weekly Progress Meeting agenda and minutes
- Daily Work Diaries by all staff members
- Securing project documentation from the contractor



- Anticipating project problems, then formulating and implementing solutions
- Reviewing drawings and data submitted by the construction contractor and suppliers for conformance with the specifications. Inform and obtain concurrence as needed from the CDOT Project Engineer and keep relative documentation for project records
- Maintaining accurate notes reflecting actual construction details to be used in preparation of as-constructed plans
- Communicating with adjacent landowners as required to resolve issues that arise due to construction
- Monitoring compliance with and taking appropriate action to preserve safety on the project for all workers and traveling public in accordance with Methods of Handling Traffic (MHT)
- Initial, follow up, and final inspections of work in progress including interim and final measurements
- Notifying contractors and CDOT Project Engineer of non-compliance with the contract plans and specifications
- Performance of special tests, investigations, or monitoring which are required to fulfill the intent of the CDOT inspection program
- Ensure compliance with permits such as 404 and NPDES
- Inspection of erosion control, review of SWMP notebook, and participation in Erosion Control Compliance Reviews
- Preparation of inspection documentation for development of progress payments for the contractor in accordance with prescribed procedures
- Submittal of standard documentation reports no later than the following working day
- Aiding in the preparation of correspondence to the contractor, CDOT Staff, local agencies, etc.
- Providing communication to contractor field crews
- Preparation of final “As Constructed” plans upon project completion
- Perform miscellaneous project related duties as requested by the CDOT Project Engineer and CDOT Resident Engineer
- Assist in preparing punch lists of uncompleted work, non-conformance reports, and deficiency notices
- Assist in preparing responses to contractors' and suppliers' requests for information, submittals, change notices, claims, and correspondence
- Evaluate the project schedule
- Assist Project Engineer with coordination of all construction contract activities, assist in the supervision of other project staff and assignment of duties and responsibilities
- Review, give comments, and acknowledge completeness of required submittals
- Maintaining of project files, project diaries and time counts
- Prepare periodic reports and billings required by CDOT Procedural Directive 400.2
- Participate in and ability to facilitate (as necessary) weekly progress meetings with contractor, subcontractors, utilities and other interested parties
- Change Orders/MCR – discussions with: Contractor, Area Engineer, RE, Specialties as necessary. Also write CMO and justification letter, prepare package with attachments, price justification/negotiation, form 90, etc.
- Review/Monitor Schedule (baseline, updates and narrative reviews)
- Weekly meetings (agendas, minutes, preparation, facilitation, etc...)
- Pre-con meetings (agendas, minutes, distribution, preparation, facilitation, etc...)
- Review inspectors work (diaries, 266's, DWR's, calculations, spreadsheets, etc...)
- Participate in Traffic Control Reviews
- Review inspectors work (diaries, 266's, DWR's, calculations, spreadsheets, etc...)



- Erosion control management and oversight, bi-weekly reviews, post-storm event reviews, MAR
- Submittal review and approve and forward to specialties as appropriate for review/approval
- Manage the receipt, filing, storage, cataloging and review of all project Contractor Submittals

Post Construction Activities include but are not limited to:

- As-Constructed Drawings: Complete 11"x 17" as-constructed drawings of work completed by the Contractor, including final pay quantities.
- Preparation of Final Pay Estimate: Assist in determining final pay quantities with appropriate supporting documentation and checks.
- Preparation of Materials Final: Prepare the final materials documentation for closing the project.

### **Management of Consultant Project Construction Inspection**

The consultant, CDOT Construction Manager, and CDOT Project Director shall meet, coordinate and schedule the required work. The consultant shall complete all work in accordance with their approved schedule.

### **Project Standards**

All inspection and documentation shall be in accordance with the Colorado Department of Transportation (CDOT) Field Materials Manual, Construction Manual, CDOT M&S Standards, CDOT Inspector's Checklist and applicable Project and Standard Special Provisions in the construction project contract and the applicable CDOT Standard Specifications for Road and Bridge Construction. The applicable CDOT Field Materials Manual, including Colorado Procedures and Colorado Procedure-Laboratory, shall be the one currently in use when the construction project is advertised. If the required method is not described in the CDOT Field Materials Manual, the required work shall be completed in accordance with the current AASHTO Standard Specifications for Transportation Materials and Methods of Sampling and Testing (as revised and supplemented) or the ASTM Standards and Tentatives. Proposed work procedures shall be coordinated with the CDOT Project Engineer prior to the start of work.

### **Labor, Vehicles, Materials, and Equipment**

Personnel qualifications, staffing level, and number and types of vehicles shall be subject to the approval of the CDOT Construction Manager. The Consultant shall assign personnel for the duration of the Contract unless otherwise approved by the CDOT Construction Manager. Employees required to operate vehicles must possess and maintain a valid driver's license. The Consultant Inspectors permanently assigned to a project shall be competent in road and bridge construction and be thoroughly familiar with CDOT specifications, manuals, forms, and documentation requirements including SiteManager. The level of qualification provided shall be as requested and approved by the CDOT Construction Manager.

A short summary bio of work experience and list of Certifications and/or Licenses of each proposed consultant staff member shall be provided to the CDOT Construction Manager. Personnel provided by the Consultant who do not meet all of the specified requirements, or who fail to perform their work in an acceptable manner, shall be removed from the project when determined and directed by the CDOT Construction Manager.

The Consultant shall furnish all personnel with all equipment and transportation required to perform the work. Consultant personnel shall have appropriate vehicles equipped with programmable LED light bars (Large flashing amber beacon arrays), newer cell phone, computers, and other miscellaneous equipment





(calculator, office and lab supplies, safety equipment, etc.) required for performing the work.

Each consultant staff shall be supplied with a computer running Windows 7 or later Windows operating systems capable of wired and wireless network connections and loaded with the most current version of MS Office software (Microsoft Project & Site Manager or QA/QC program if applicable), and Adobe Pro/DC for editing and mastering PDF files.

The Consultant shall have a phone with a digital camera with GPS cache ability that can be downloaded to a central location and available for staff to review at all times. Written and photo documentation of the project shall be made available to the CDOT Construction Manager on a regular basis.

#### **2.4. KEY PERSONNEL DESCRIPTIONS**

The following Key Personnel Descriptions are identified as critical to the success of the project. Each of these key personnel shall be identified in the Project Team section of the proposal per **Section 6D** of the RFP.

##### **Consultant Project Engineer**

- The Consultant Project Engineer (CPE) shall support CDOT's project staff throughout management of the Project. The CPE shall be a Professional Engineer registered in the State of Colorado unless otherwise approved by the CDOT Construction Manager. The CPE shall be capable of managing day-to-day construction management for all packages delivered through the CM/GC process.
- This Engineer shall be experienced and competent in road and bridge construction management, inspection and materials testing.
- The CPE shall be the final authority regarding acceptance of work not conforming to the plans and specifications. The CDOT Construction Manager, or Project Director in the absence of the Construction Manager, shall be responsible for signature approval of all construction contract modification orders (CDOT FORM 90) and all construction contract payments.
- The CPE is in direct charge of the work and is responsible for administration of the project contract as defined in the CDOT Standard Specifications. This includes approving and setting work hours for both project construction and inspection.
- All work performed by consultant staff will be under the responsible charge of the Consultant Project Engineer.

##### **Consultant Assistant Project Engineers (1-Field, 1-Safety Critical/Field)**

- The Consultant Assistant Project Engineers (CAPE) will be responsible for day-to-day management of the field staff by ensuring all work activities for all work shifts are appropriately staffed. The CAPEs will meet regularly with the Project Work Leads to determine staffing needs and will assign inspectors and testers as needed. They will also work with the Work Leads to track the progress of field items and report to the Consultant Schedule Specialist to accurately reflect schedule progress. Each CAPE will review the Contractor's submittals as assigned by the CPE.
- The CAPEs will be expected to participate in on-site inspection activities to ensure Work Leads and inspectors/testers are appropriately documenting and covering all job-site activities.
- In addition to the tasks listed above, the CAPE – Safety Critical/Field will review the Contractor's safety critical work plans, method statements, procedures, working drawings, shop



drawings, PE engineered plans and drawings, demo plans, erection plans, etc. for compliance with contract requirements. The CAPE will provide a written report of each work item to the CPE, with comments and a recommendation to approve, reject/revise/resubmit, or accept with comments. Participate in pre-construction meetings for all safety critical work items. Participate in on-site inspection activities associated with safety critical work items. Maintain documentation of all safety critical work, analysis, comments, reviews, documentation, meetings, etc.

### **Consultant Schedule Specialist**

- The Consultant Schedule Specialist will be a key member of the management team providing reviews of CPM schedules and providing feedback on the technical aspects of the schedules as well as monitoring critical and near critical activities and communicating any potential issues with the Project team. Regular attendance at Weekly Meetings will also be required to maintain a working knowledge of the progress of the project.
- Review the Contractor's initial and base-line schedule and method statement submittals and submit written comments to the Project Engineer on acceptability. Review the Contractor's accepted as-planned schedule, schedule updates, and method statements for compliance with contract requirements. Perform a schedule delay analysis and determine the amount of Contractor and/or CDOT excusable delays. Prepare schedule reports and exhibits to assist in evaluation of schedule delays and remaining as-planned work. Presentations and attend meetings, as requested on schedule related items. Provide ongoing schedule review and evaluation support through project completion. If needed, assist the project team and assemble the data needed to create an as-built schedule.
- During the design phase, the Consultant Schedule Specialist will review Design Schedules to ensure feasibility and correct logic. They will review the CM Schedules to assist CDOT in determining the accuracy and confirm the logic and durations.

### **Civil Rights Specialist**

- The Civil Rights Specialist will ensure conformance with all Civil Rights/EEO/DBE/Labor Compliance policies and procedures throughout the project. This person will work closely with the Region 1 Civil Rights Office to ensure compliance with all applicable laws and regulations.
- Review all certified payroll documentations as provided by the Contractor for conformance to the specifications and functional uses, conduct random interviews of Contractor employees to determine if the Contractor is in conformance with CDOT's DBE, EEO/Labor Compliance policies, assist FHWA with all requested documentation, manage the OJT requirements of the contract and write reports for progress estimates when approved.
- Perform monitoring of monthly payments by the Contractor to subcontractors. Also monitor confirmations/discrepancies of payments noted by subcontractors and vendors.

### **Project Public Information Specialist**

- The Consultant Project Public Information Specialist (PPIS) will coordinate regularly with the CDOT Region 1 Communications Management Team, CDOT Project Director, Contractor, and Clear Creek County Governments to share construction information accurately and reliably with the Project's many stakeholders. The Consultant Project Public Information Specialist will coordinate with any other projects within the project corridor impacting traffic operations to ensure single point of contact communications throughout the duration of the project.
- The PPIS shall assist the CDOT Project Management Team with the development of an annual strategic communications plan. This includes assistance with audience identification, key



messages, development of yearly goals and measurable objectives, cost effective public relations and advertising tactics, community engagement methods, multicultural outreach opportunities, social media engagement, opportunities for media coverage and partnerships with other businesses or public agencies to disseminate messages. The strategic communications will be coordinated with current and upcoming construction activities, major traffic impacts, construction related impacts to residents, businesses and motorists, all early projects, and the CDOT Contractor PIO's construction communications plan. Responsible for developing communications processes and coordinating communications efforts with the CDOT Contractor public information team. This person will review the Contractor's PIO team for conformance to the PIO specification; coordinate with the Contractor PIO team responsible for implementing public information activities; participate in weekly coordination meetings with Contractor PIO team; collaborate with owner and Contractor senior management teams to anticipate and respond to daily communications opportunities and challenges; attend all relevant project meetings; review and approve Contractor public information materials; and provide comments to Contractor's proposed campaigns.

- The PPIS will provide creative development services aimed to promote key benefits of the project and to generate excitement among the general public.
- The PPIS will assist the CDOT Project Management team in communicating to Spanish-speaking audiences. This person will assist with Spanish media visits and tours.
- Responsible for assisting with the development of outreach strategies that encourage public awareness and involvement. This may include meeting planning and facilitation and agenda development. This person will also be responsible for identifying and attending appropriate events to increase project awareness.
- The PPIS will serve as the day to day key coordinator of all early project PIOs and the Floyd Hill CMGC communications team to ensure streamlined and consistent communications. The PPIS will review and comment on all public information campaigns to be distributed by the early projects.

### **Air Quality Specialist**

- To better protect the health and safety of the citizens of Colorado, this project will help determine the levels of pollutants in the air along I-70 before and during construction. With the data, mitigation efforts can be implemented to reduce pollution levels. The data will also allow the general public to be aware of these levels and to be able to make more informed decisions on their potential exposure. The Air Quality Specialist will oversee the acquisition, installation, and monitoring of two air quality monitors within the corridor and work with the contractor to develop reporting information with the data from the monitors and equipment usage.

## **2.5. PROJECT WORK LEAD DISCIPLINES**

Each identified discipline will have a Project Work Lead responsible for the overall completion of construction management and quality assurance. Work Leads will oversee the work of other inspectors within their assigned discipline and will be responsible for all project quality assurance documentation and its timely submittal to the CAPEs for inclusion into progress estimates. Work Leads will be responsible for all project deliverables such as project diaries, inspection reports, photos, quantity records, and other documentation. The documentation shall be prepared and submitted throughout the duration of construction in accordance with CDOT requirements. Work Lead personnel will be required to prepare weekly progress reports for the CDOT Construction Manager and Consultant Project Engineer documenting project progress in accordance with the Contract. The Work Leads will also meet with the Schedule Specialist to update the current schedule with accurate information and properly forecast



upcoming work.

The following Project Work Lead Descriptions are identified as critical to the success of the Key Personnel. Each of these Project Work Leads shall be identified in the Project Team section of the proposal per **Section 6D** of the RFP.

- Structures/Walls - The Structures Lead will oversee the day to day construction of bridges, structures, and walls on the project. This will include ensuring inspection coverage of all structures operations and assisting the CAPE - Safety Critical/Field in timely reviews of relevant submittals. This person will have to work closely with inspection staff to ensure all critical inspection points are understood and properly evaluated and documented prior to continuation of construction operations.
- Traffic Control - The Traffic Control Lead will be responsible for monitoring the Contractor's day to day traffic operation for compliance to all CDOT and Federal standards. Duties will include review and commenting of MHT's, enforcement of MHT's, tracking and documenting all traffic devices and operations. All required CDOT documentation will be required to be kept current daily and not limited to TCS diaries, form 7's, and daily traffic inspection logs. Video and photo logs may be required. The Traffic Control Lead will review, monitor and manage all aspects of the Smart Work Zone items integrated into the project during construction. This will require coordination with Region 1 Traffic, CDOT ITS, and CDOT Emergency Operations Center personnel.
- Rockfall/Blasting/Geohazards - The Rockfall Lead will oversee all rockfall, blasting and geohazard related work on the Project including, but not limited to, installation of rockfall mesh, rock excavation and removal, and review of safety critical information related to rockfall work. This person shall also be certified for blasting inspection and rope safety as needed.
- Roadway/Drainage/Utilities - The Roadway Lead will monitor and manage all subgrade, paving, drainage, guardrail, utility relocation, and general roadway operations. This person will ensure inspection coverage of these operations and coordinate with other Work Leads to monitor progress and schedule impacts throughout the Project.
- Intelligent Transportation Systems (ITS) / Electrical / Lighting - The ITS Lead will be responsible for inspection of installation and testing of ITS, electrical and lighting systems designed for the project. This person will be expected to provide weekly updates to the CPE and CAPE regarding progress status and issues with coordination. The ITS Lead will also have to be familiar with CDOT ITS, Colorado Transportation Investment Office (CTIO), and energy providers' policies and procedures to ensure on time completion of each system.
- Environmental/Erosion Control/Landscaping - The Environmental Lead shall review, monitor, and manage all environmental requirements of the contract including but not limited to, managing of all erosion control documentation, Hazmat compliance, noise compliance, issuance of 105's for non-compliance, and attendance of all inspections required by the permit. The Environmental Lead will ensure compliance of mitigation of all biological and endangered species issues on the project as well as overall re-establishment and landscaping. This person is expected to be qualified in all aspects of Environmental concerns related to the project with the ability to support the CPE to maintain full environmental compliance on the project. The Environmental Lead will be required to work with the I-70 Mountain Corridor NEPA/Mitigation Specialist to update, review, and monitor the environmental issues tracking documents developed as part of the CSS



process during the design phase of the Project. Approval of this person shall be required by CDOT Environmental.

- Materials - The Materials Lead shall manage the sampling, testing, and documentation of specified materials incorporated into the project. This includes materials delivered to the project that are listed in the Summary of Approximate Quantities or referred to in the Plans and Specifications. Additional quantities may be added by Contract Modification Order, or plan approximate quantities may be increased or decreased. The Materials Lead and Materials Testing Technicians shall review project quantities on a weekly basis to ensure that sufficient tests have been performed for all material placed to date. The Materials Lead shall be competent in LIMS and will be required to complete all CDOT required documentation for submittal of the Final Materials Documentation books.

## **2.6. ADDITIONAL STAFF REQUIREMENTS**

In addition to the staff identified above, the Project will require additional support staff, inspectors, and testers. The staff shall be available to the project and report to the project site as requested by the Consultant Project Engineer. The following descriptions include the anticipated number of staff needed for each description.

- Administrative Support and Document Managers – One (1) - Responsible for all office operations and document control as developed by the Office Engineer. This person will need to have strong organizational and computer skills to assist the OE in document management. Recording meeting minutes and other various office tasks as requested by the OE, Project and Assistant Engineers will be required.
- Senior Level Inspectors – Three (3) – Generally more than eight (8) years of experience and experienced in construction management. Senior Level Inspectors will serve as the senior inspector for each Work Lead. If the Work Lead is unavailable, the Senior Level Inspector should be able to handle the duties without issue.
- Junior Level Inspectors – Five (5) – Generally four (4) to eight (8) years of experience and experienced in construction management. Junior Level Inspectors will be assigned to each lead discipline and would be expected to work independently for short periods of time if needed.
- Intern Level Inspectors – Five (5) – Generally zero (0) to four (4) years of experience. Intern Level Inspectors will be assigned as needed to each lead discipline throughout the project as the schedule and project needs dictate.
- Materials Testing Technicians – Two (2) - The Materials Testing Technicians (MTT or Testers) shall have experience in cast in place concrete, asphalt, earthwork, as well as the requisite certifications. The MTTs shall review project plans, specifications, and the current version of the CDOT Field Materials Manual and the project specific CDOT Form 250 to assist the Materials Manager in completing the project with the number and type of tests that will need to be performed on the project. The MTTs, Materials Manager, the Consultant Project Engineer, and the CDOT Construction Manager shall meet on a regular basis to address any questions or issues involving testing procedures, frequency, or documentation. Additional testing may be required if requested by the Consultant Project Engineer or the CDOT Construction Manager. The MTTs shall be thoroughly familiar with CDOT forms and documentation requirements.

## **2.7. GENERAL WORK DESCRIPTION FOR PROJECT MATERIALS TESTING**

The consultant shall sample, test and inspect those specified materials utilized in construction. Test results and inspection observations shall be documented and approved by the CPE in accordance with the



references cited below under **Project Standards**. Project specific work will be defined by task order, prior to work commencing.

### **Management of Consultant Project Materials Testing**

The Consultant, CPE, CDOT Construction Manager and Head Tester shall follow the requirements of CP-16 to meet, coordinate and schedule the required work. The Consultant shall complete all work in accordance with their approved schedule. The consultant materials testing evaluation form shall be completed by the CPE and Head Tester, and distributed as described in CP-16. The CPE shall forward a copy of the completed Pre-Testing Meeting Agenda for Consultant Materials Testing to the Region Materials Engineer.

### **Project Staffing Authority**

The CPE is in direct charge of the work and is responsible for administration of the project contract as defined in the CDOT Standard Specifications. This includes approving and setting work hours for both project construction and the materials testing.

### **Project Standards**

All sampling, testing, and documentation shall be in accordance with the Colorado Department of Transportation (CDOT) Field Materials Manual, Construction Manual, CDOT M&S Standards and applicable Project and Standard Special Provisions in the construction project contract and the applicable CDOT Standard Specifications for Road and Bridge Construction. The applicable CDOT Field Materials Manual, including Colorado Procedures and Colorado Procedure-Laboratory, shall be the one currently in use when the construction project is advertised. If the required method is not described in the CDOT Field Materials Manual, the required work shall be completed in accordance with the current AASHTO Standard Specifications for Transportation Materials and Methods of Sampling and Testing (as revised and supplemented) or the ASTM Standards and Tentatives. Proposed work procedures shall be coordinated with the CDOT Construction Manager prior to the start of work.

### **Field Laboratory**

CDOT will provide a field laboratory and the required traffic control for the Project. The CPE will advise the Materials Work Lead on the availability of the field laboratory.

The following equipment and supplies shall be furnished by the Consultant in sufficient quantity to ensure performance of all work required in a timely manner. Such equipment and supplies shall remain the property of the Consultant.

1. A.C. content gauge and/or extraction equipment and solvents
2. Nuclear Moisture/Density gauge
3. Concrete air meter, slump cone, and other concrete testing equipment
4. Sieves for aggregates and soil gradations
5. Scales
6. Sample containers and small tools
7. Proctor equipment for soil curves and 1 point tests
8. Atterberg equipment
9. Sample drying equipment



10. Miscellaneous equipment for performing the required soils, concrete and asphalt field tests
11. Concrete cylinder molds, which conform to AASHTO requirements, except that PAPER MOLDS SHALL NOT BE USED, AND PLASTIC MOLDS SHALL NOT BE REUSED
12. Cell Phone for each MTT
13. Computer and printer for each test lab (CDOT or Consultant). This equipment needs to have capability to operate all current CDOT project software as defined in the current migration plan. This includes Site Manager.
14. Ignition Oven for determining asphalt binder content meeting specifications of CPL 5120.

Personnel staffing level and qualifications of testing personnel and laboratories for the project shall be subject to the approval of the CDOT Construction Manager. The CDOT Construction Manager shall receive and review the testing personnel and consultant laboratory qualifications prior to commencement of testing on the project.

Sampling and testing personnel qualifications shall be in conformance with the requirements of the applicable CP-10. Additionally, each MTT must possess a current and valid driver's license.

The Consultant's work shall be under the direction of, and shall be reviewed, stamped and signed by a Professional Engineer registered in the State of Colorado. The only work to be stamped will be the summary sheets; i.e., CDOT Forms 6, 9, 58, 69, 212, 250, and 554. The CPE may request that additional forms be stamped. The Professional Engineer shall be available to review work, resolve problems, and make decisions in a timely manner as requested by the CPE, and must be experienced and competent in road and bridge construction materials testing.

Copies of the MTTs required certifications and a resume, with references, including their materials testing experience shall be provided to the CDOT Construction Manager.

The MTTs shall be thoroughly familiar with CDOT testing procedures, forms and documentation requirements. If oversight is necessary, the Consultant shall provide the supervision and guidance needed for completion of the work. Oversight required by the Consultant will not be paid for by CDOT.

Personnel provided by the Consultant who do not meet all of the specified requirements, or who fail to perform their work in an acceptable manner, shall be removed from the project when determined and directed by the CDOT Construction Manager. Failure to perform the testing and documentation processes may result in termination of the task order as determined by the CDOT Construction Manager.

### **Specific Testing Requirements**

The Consultant shall sample, test, inspect, and document all materials generated and produced on the project. This includes: materials delivered to the project that are listed in the Summary of Approximate Quantities in accordance with the SCHEDULE (Quality Assurance) in the Field Materials Manual; materials that may be added to the project through contract modification; and altered material quantities whether increased or decreased. The Materials Lead, MTTs, and the CPE shall be required to review project quantities on a monthly basis to ensure that sufficient tests have been performed for the material placed to date. The Consultant shall also provide any other services as requested by the CDOT Construction Manager.

Testing of materials that are specifically designated to be pre-inspected or pre-tested by this or any other Department of Transportation shall remain the responsibility of CDOT. The Consultant shall document



and transport samples of any and all materials to the CDOT Central Laboratory that are required to be tested by CDOT regardless of pre-inspection or pre-testing responsibilities. The items and test frequencies of Department tested materials shall be in accordance with the column titled “Central Laboratory” in the SCHEDULE.

### **Documentation**

Each of the MTTs shall maintain a daily diary for each day they perform work on the project. They may use CDOT's Form 103, Project Diary, or a form as approved by the CPE. The contents of the diary shall be a brief and accurate statement of progress and conditions encountered during the prosecution of the work. Editorial comments are not to be incorporated in the diaries or on any written correspondence applicable to the Project. A copy of the daily diary shall be given to the CAPE - Office within three working days of its date. Test results, sample submittals and inspection documentation transmitted to CDOT's Region or Central Laboratory shall be recorded on appropriate CDOT Forms.

The Materials Lead and MTTs will be required to review project quantities on a weekly basis to ensure that sufficient tests have been performed for the material placed to date. The Consultant may use CDOT worksheets or worksheets approved by the CPE. CDOT Forms and worksheets are available through the Head Tester at no cost to the consultant.

The Materials Lead shall furnish the CAPE - Office with copies of all worksheets on a daily basis. The Materials Lead shall also keep the CDOT Form 626 up to date at all times and provide copies of this form to the CPE and the Contractor within 12 hours for any material found to be out of compliance with the specifications.

The Materials Lead shall coordinate the schedule for Independent Assurance Tests for the project in accordance with CDOT Form 379, with the Head Tester, or directly with the Region IAT person.

### **Submittal of Final Documentation**

Final documentation shall be submitted to the CPE within 20 working days after Project Acceptance. A completed CDOT Form 250 shall be submitted to the CPE 10 days after the Materials Lead has been notified of final quantities. Failure to submit final documentation as required may result in withholding any and all Consultant payments.

## **2.8. PROJECT COORDINATION**

In addition to the stakeholders listed in **Section 1.6.**, the Consultant shall partner and coordinate with the groups below. The CDOT Project Management Team (defined below) shall be included in all coordination.

- Executive Oversight Committee
- CDOT Project Management Team
  - CDOT Project Director – Kurt Kionka, PE
  - CDOT Regional Environmental Manager – Vanessa Halladay
  - CDOT Design Project Manager – Tyler Brady, PE
  - CDOT Construction Project Manager – Jeff Hampton, PE



- CDOT Specialty Groups
  - Region 1 Materials
  - Region 1 Traffic
  - Region 1 Hydrology and Hydraulics
  - Region 1 Survey
  - Region 1 Environmental
  - Region 1 Right-of-Way
  - Region 1 Utilities
  - CDOT Staff Bridge
  - CDOT Staff Geotech
  - CDOT Public Information Office
  - CDOT Operations Center
- Design Consultant and Subconsultants
- CM/GC Contractor and any subcontractors
- ICE
- CDOT Engineering Estimates and Market Analysis (EEMA) Group
- CDOT Maintenance Forces
- Headquarters and Regional Civil Rights Manager
- CTIO
- Bridge Enterprise

## **2.9. CSS STAKEHOLDER EFFORT**

The goal of the CSS Stakeholder effort is to continue the collaborative approach to decision-making that has been employed as part of the preliminary design and NEPA process. The CSS process will continue through all life cycles, including design, construction, and operations and maintenance.

This project will follow the I-70 Mountain Corridor CSS Process. The Consultant shall collaborate with CDOT and the stakeholders through this process and manage necessary meetings and materials. The CSS process shall be incorporated into construction to ensure that the decisions made in design are carried forward into construction and agreed to commitments are completed.

This section covers the Project Leadership Team (PLT) meetings, Technical Team (TT) meetings and Issue Task Force (ITF) meetings. Other CSS Stakeholder meetings may be required to complete the CSS process and integrate it into the project. The following are the estimated meetings that designated Key Personnel may be required to attend:

- Project Leadership Team (PLT) Meetings – 12 estimated
- Technical Team (TT) Meetings – 12 estimated
- Issue Task Force (ITF) Meetings
- Stream and Wetland Ecological Enhancement Program (SWEEP) Meetings - 6 estimated



- Emergency Response Meetings - 4 estimated
- A Landscape Level Inventory of Valued Ecosystem Components (ALIVE) Meetings - 4 estimated
- Greenway Meetings - 4 estimated
- Other ITF Meetings determined through the I-70 Mountain Corridor CSS process - 12 estimated



## **SECTION 3 – GENERAL INFORMATION**

### **3.1. NOTICE TO PROCEED**

Work shall not commence until the written Notice-to-Proceed is issued by CDOT. Work may be required, night or day, and/or weekends, and/or holidays, and/or split shifts. CDOT must concur in time lost reports prior to the time lost delays being subtracted from time charges. Subject to CDOT prior approval, the time charged may exclude time lost for:

- Reviews and Approvals
- Response and Direction

### **3.2. PROJECT COORDINATION**

See Section 2 – Project Management and Coordination

### **3.3. ROUTINE REPORTING AND BILLING**

The Consultant shall provide the following on a routine basis:

- Coordination:
  - Coordination of all contract activities by the Consultant's Project Manager
- Periodic Reports and Billings:
  - The periodic reports and billings required by CDOT Procedural Directive 400.2 (Monitoring Consultant Contracts), including monthly drawdown schedules.
  - Consultant Invoicing Guidelines. Please provide the following seven sections and information in each invoice in the following order:
    1. Form 1313
    2. Invoice
      - a) Provide invoice in a similar format to the original PCW
        - Noting each employee, time worked, multiplier, Fee
        - Sum total hours worked and labor, subtotal fixed fees, subtotal sub-consultants, subtotal vendor under prime (sub consultants should note their own vendors on their invoices), provide invoice total, total billed to date and total amount left on TO for Prime, Sub and Vendor for ease of tracking
      - b) Provide columns next to employees ensuring Consultant has reviewed for:
        - Employee on original TO
        - Employee on MPA and date
        - Employee added to TO by letter and date
        - Employee added to MPA Date and documentation
      - c) Provide a header for the invoice noting:
        - SAP OL#, SAP PO#, Invoice Date, Invoice #, Project # and subaccount #, current billing period, TO# and any other pertinent information
  - 3. Progress Report shall be submitted per the contract documents. The progress report shall also summarize all the work performed by the Prime, Sub Consultants and Vendors. Provide header as noted in 2c. Each item below requires a section in the Progress Report.
    - Report on Progress of each work activity or milestone identified in the contract, to show the amount of work accomplished during the current month and the amount of work accomplished overall.



- A report on the time scheduled for each work activity or milestone identified in the contract to show planned time completion and actual times used to do the work.
- A description of the cause for delays beyond the planned completion of time of work activities or milestones contained in the project.
- A report on the cost incurred to date on each work activity or milestone contained in the contract and a comparison to the cost estimates for such activity or milestone. Monthly billings will include a monthly budget forecast sheet showing invoicing from start estimated through completion tracking the project budget. In other words, verify the burn rate of prime, subs, and vendors to ensure they are on track and on task.
- A description of possible remedies to get activities or milestones that are behind schedule, back on schedule, and to get activities or milestones that are exceeding cost estimates, back within planned costs.
- Documentation of meetings that were held during the subject time period.
- A report on the participation of DBE sub-consultants.
- 4. Letter(s) adding employee(s) to task order with all required information (should have been approved by CDOT PM prior to any work done by employee per HQ Contract/Agreement Unit-see Add Employee Process document)
- 5. Labor backup – timesheets
  - The Prime, Sub-consultants and Vendors shall submit detailed hourly back up of effort noting time/date of activities and number of hours or costs. Lodging backup shall be submitted through ODC backup.
- 6. ODC backup – Only Submit documentation pertaining to the project and the invoice
  - Provide a summary of ODC Cover sheet
    - Purpose of trip, Date of Trip, Who went
  - mileage logs, per diem and/or meals documents (listing of days and rates or receipts for actuals), lodging receipts, receipt or documentation of other ODC items including vendor receipts/invoices.
- 7. Sub-consultant billings and Vendors - should have the same documentation as prime, except Form 1313, which is optional.
- General Reports and Submittals:
  - In general, all reports and submittals must be approved by CDOT prior to their content being utilized in follow-up work effort.

## APPENDIX A: DEFINITIONS

Note: For other definitions and terms, refer to Section 101 of the CDOT Standard Specifications for Road and Bridge Construction and the CDOT Design Guide.

**CDOT Project Director** – The CDOT Project Director is responsible to the Deputy Director of Program Delivery for the quality and successful completion of the Floyd Hill Project.

**CDOT Construction Manager** – The CDOT Construction Manager is responsible for the quality and successful completion of the Floyd Hill Project. The CDOT Construction Manager authorizes interim and final payments and all changes to Contracts for all Consultants and Contractors. The CDOT Construction Manager will also be responsible for all CDOT personnel management on the Project.

**Construction Management, Construction Inspection, and Construction Testing (CM, CI, CT)** - The activities associated with the roles assigned for the monitoring, testing, documentation and other administrative project-related services under the responsible charge of the Consultant Project Engineer, and at the direction of the CDOT Construction Manager to ensure conformance with the Project Standards.

**Consultant** - The firm or corporation providing personnel under this agreement to perform construction services as outlined herein.

**Consultant Project Manager** - The Consultant employee in responsible charge of Consultant services performed as described in this Contract. The Consultant Project Manager administers the Consultant contract and must be licensed in the State of Colorado.

**Consultant Project Engineer (CPE)** – The Consultant Project Engineer shall be assigned full time on the project site. The Consultant Project Engineer works directly for the CDOT Construction Manager. The duties of the CPE are limited to those duties in the scope of work and as delegated by CDOT Construction Manager. The CPE shall be licensed in the State of Colorado, unless otherwise approved by the CDOT Construction Manager, and is in responsible charge of construction.

**Consultant Assistant Project Engineer (CAPE)** – The CAPE(s) shall be assigned full time on the project site. The Consultant Assistant Project Engineer works directly for the CPE. The duties of the CAPE are limited to those duties in the scope of work and as delegated by the CDOT Construction Manager. The CAPE shall be licensed in the State of Colorado, unless otherwise approved by the CDOT Construction Manager.

**Consultant Inspector** - The Consultant's employee(s) who perform(s) inspection services under the responsible charge of the CPE and at the direction of the CDOT Construction Manager.

**Consultant Tester** - The Consultant's employee(s) who perform(s) materials testing and inspection services under the responsible charge of the CPE and at the direction of the CDOT Construction Manager.

**Consultant Project Public Information Specialist (PPIS)** – The PPIS shall serve as the lead project communications consultant, managing communications with the purpose of accurately and reliably sharing construction information with the Project's many stakeholders. The PPIS shall supervise the Contractors' PIMs as it pertains to the project public information; attend weekly project meetings to discuss project issues, accomplishments, schedule and activities including as necessary Contractor's Construction meetings; manage Crisis Communications including responses to crisis on the

project; continue PI Outreach including proactive public education regarding particular construction activities impacts, etc; provide creative services development; identify multicultural engagement opportunities; assist with strategic communications planning; review approach with CDOT Communications Region 1 Manager and team; implement outreach tools and issue strategy; coordinate regularly with the CDOT Region 1 Manager and team, CDOT Project Director, CDOT Construction Manager, Contractors and Clear Creek County; and be one of the points of contact for public inquiries about the project.

**Consultant Schedule Specialist** – The Consultant employee in charge of schedule review and documenting review processes for all Contractor submitted schedules per the Standard Specifications. The Consultant Schedule Specialist shall be proficient in Microsoft Project and Primavera software and have experience with CDOT highway construction.

**Contractor** - The individual, firm, or corporation contracting with CDOT to construct a transportation project.

**Region I.A.T. Staff** – Individual assigned by the State to be responsible for administering the Independent Assurance Program and the Independent Assurance Sampling-Testing and Witnessing of Testing Sampling as defined in Appendix D of the Field Materials Manual.

**CDOT Region Materials Engineer** – The CDOT Region Materials Engineer (RME) assists the CDOT Construction Manager and CPE on this project with materials related issues including earthwork, concrete, asphalt and steel. The RME is in responsible charge of the region laboratory units and is required to review the Form 1324 (Consultant Tester Evaluation).

**Head Tester** – The CDOT Employee that is assigned to assist the CPE with oversight of project testing and testing and materials documentation.

**Work** – The engineering and materials testing services that are the subject of this contract.