



Scope of Work SH 340 Redlands RAB Project #: SHE 340A-018 (20145)
Consultant Assistant Project Manager, Inspector & Tester

General Scope of Work:

The scope of work is for one full time Assistant PM (APM), one full time Inspector and one full time Materials Tester for the referenced project. The project APM and Inspectors will be responsible for day to day inspection and documentation activities as assigned by the PM. The Materials Tester will be responsible for materials sampling, testing and documentation as directed by the Project Manager. All consultant staff must also be available for night work as required by the Contractor's schedule.

Description and Overview

Construction Management Services requested are to be provided on CDOT Project SHE 340A-018. The work limits are on SH 340 from MP 8.5 to 10.5 and includes roundabout intersection improvements (RAB), resurfacing, curb and gutter, drainage items, lighting, signing, ADA and pedestrian facilities. Duration: October 2017 through November 2018.

CDOT will provide a Project Manager.

The Consultant Tester will be responsible for signing the CDOT form #250 for items tested by the Consultant Tester. The testing needs shall be in response to the Contractor's phasing work plan and as directed by the Project Manager.

Consultant personnel shall be on the project when the Contractor is working or as directed by the Resident Engineer. The project APM shall be made immediately available to assist the staff with construction planning and coordination efforts.

Contract Administrator: Rob Beck, Resident Engineer
Office: 970.683.6351 Mobile: 970.846.2421
rob.beck@state.co.us



Authorization to Proceed

Work shall not commence until written Notice to Proceed is received by the Consultant, and shall be completed in the time specified.

Routine Billing and Reporting

The Consultant shall provide the following on a regular basis:

- Monthly billing formats, suitable to the CDOT Resident Engineer, for all contract activities performed by Consultant and all Sub-Consultant employees.
- Provide Monthly billing that include the contract status.
- Periodic reports and billings required by CDOT Procedural Directive 400.2.
- Weekly timecards for Consultant personnel. The CDOT PE prior to billing, must sign all Consultant and sub-consultant employee time cards.
- Provide Supporting documentation for all direct costs.

Status of Contract

The Consultant shall monitor the fiscal status of the contract, and advise the CDOT Resident Engineer of any potential for supplementing their contract or negotiating an additional task order. Failure to monitor contract status and provide timely notification may result in discontinuation of the Consultant's services on the project until a supplement agreement can be effected.

Project Standards

All inspection and documentation shall be in accordance with the relevant versions of the Colorado Department of Transportation's Construction Manual, Field Materials Manual, CDOT Laboratory Manual of Test Procedures, Colorado Department of Transportation Inspector's Checklist, Standard Specifications for Road and Bridge Construction, Supplemental Specifications, Standard and Project Special provisions, applicable M&S Standards, and the plans, permits and other documents governing the construction of the project.

All Consultant personnel shall comply with CDOT's Safety, Sexual Harassment, Discrimination and Workplace Violence Policies and Procedures.

Proposed work procedures shall be coordinated with and authorized by the CDOT Resident Engineer prior to the start of the work.

Labor, Materials, Vehicles and Equipment

The Consultant shall furnish all personnel, materials, equipment and transportation required to perform the work. Consultant personnel shall have appropriate vehicles (equipped with flashing amber beacon), cellular phones, computer and miscellaneous equipment and supplies (printers, calculators, manuals, office supplies, safety equipment, etc.) required to perform the work. Personal protective equipment shall be in accordance with CDOT PD 80.1. The Consultant's staff shall include personnel experienced at effectively monitoring and managing progress schedules and construction delays. A Field Office and Field Laboratory shall be provided by construction Contract pay items.



Personnel qualifications, staffing level, and number and types of vehicles shall be subject to approval of the CDOT Resident Engineer. The Consultant shall assign the same personnel for the duration of the Construction Contract unless otherwise approved by the CDOT Resident engineer.

The Consultant staff must be thoroughly familiar with CDOT specifications, annuals, forms and documentation requirements. Personnel provided by the Consultant who do not meet all 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 Resident Engineer.

Engineer's Certification

The CDOT Resident Engineer shall be the final authority regarding the acceptance of work performed by the Consultant. The CDOT Resident Engineer shall be the final authority regarding acceptance of work not conforming to the plans and specifications. The Consultant Engineer shall certify in writing that all inspection conforms to the plans, specifications, and purpose of design. The Consultant Engineer shall be available to review work, resolve problems and make decisions in a timely manner as requested by CDOT.

Diaries and Documentation

Each of the Consultant's field staff shall maintain a daily diary for each day the Consultant performs work on the project. They shall use CDOT's Form 103 and/or other forms approved by the CDOT Resident Engineer. The contents of the diary shall be brief and accurate statements 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 become a part of the permanent project record.

The Consultant shall provide all correspondence and applicable CDOT forms to the CDOT Resident Engineer or his/her authorized representative for review and signature.

Final documentation shall be submitted to the CDOT Resident Engineer within 10 working days after project acceptance. COC's and CTR's shall be included as part of the final documentation for any inspected work. Failure to submit final documentation as required may result in withholding Consultant payment for work subsequent to project acceptance until this material is received.



Assitant Project Manager

The APM will fulfill the requirements as described in the Inspection Services portion of this SOW as well as assist the PM in fulfilling the PM duties. The APM must be proficient with SiteManager, ProjectWise and other software as required.

In addition to the tasks outlined in the Inspection Services section of this SOW, the APM responsibilities will include Public Information Manager (PIM) related tasks including but not limited to the following:

1. PIM assistance on behalf of CDOT including development and review of media communications, traffic advisories, press releases and other related public information documents
2. Development and review of project fliers that communicate project schedule, work items, etc.
3. Direct contact with local businesses, residents and interest groups

The intent of this PIM work is to provide support to CDOT Region 3 staff due to the high profile nature of the work.

Inspection Services

Inspection work shall conform to the CDOT Construction Manual, the Inspector Checklist and SiteManager requirements. Inspectors shall possess the required certifications as required by the Construction Inspector Qualification Program in accordance with the Chief Engineer's Policy Memo 25. SiteManager documentation procedures shall apply. Inspectors shall have relevant construction inspection experience on at least two recent CDOT projects.

Inspection responsibilities may include but are not limited to the following:

1. Preparing and transmitting updates of construction activities to the CDOT's Public Information Officer.
2. Periodic reports and billings required by CDOT Procedural Directive 400.2.
3. Perform daily quality control inspections of construction activities to document activities performed and assessment of conformance with the contract documents.
4. Prepare inspectors progress reports and complete appropriate CDOT paperwork and forms.
5. Monitoring and documenting contractor payroll compliance.
6. Participation in weekly progress meetings with contractor, subs, utilities and other interested parties.
7. Securing project documentation from the contractor including any COCs and CTRs as required by the contract documents.
8. Anticipating project problems and directing solutions to the CDOT PE.
9. 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 PE and keep relevant documentation for project records.



10. Maintaining accurate notes reflecting actual construction details to be used in preparation of as-constructed plans.
11. Communicating with adjacent landowners as required toward resolving issues that may arise due to construction.
12. Review and approve the Contractor's Method of Handling Traffic.
13. Monitoring compliance with and taking appropriate action to preserve safety on the project for all workers and traveling public in accordance with Method of Handling Traffic (MHT) and the Manual of Uniform Traffic Control Devices (MUTCD).
14. Initial, follow up, and final inspections of work in progress including interim and final measurements and coordination with Consultant tester to ensure materials testing requirements are met.
15. Promptly notifying contractors and CDOT PE of non-compliance with the contract plans and specifications.
16. Performance of special tests, investigations, or monitoring which are required to fulfill the intent of the CDOT inspection program.
17. Preparation of inspection documentation including measurement and quantities for development of progress payments for the contractor in accordance with prescribed procedures.
18. Preparation of routine correspondence to the contractor, CDOT Staff, local agencies, etc.
19. Providing liaison and communication to contractor field crews.
20. Assist the CDOT PE with preparation of final pay estimate and "As Constructed" plans.
21. Assist in preparing punch lists of uncompleted work, non-conformance reports, and deficiency notices.
22. Assist in preparing responses to contractors' and suppliers' requests for information, submittals, change notices, claims, and correspondence.

Material Testing Services

The Materials Tester shall be certified to perform the project sampling and testing in accordance with CDOT requirements. These requirements typically include the following certifications: CAPA levels A&B, ACI and WAQTC, and nuclear gauge operation. The Tester shall be certified as defined by the requirements set forth in the current Colorado Procedure CP-10. Minimum requirements for certification are dependent on the item to be sampled and tested. The tester responsible for sampling and testing on this project shall have all required certifications based on this project's specific materials testing schedule. The tester shall be thoroughly familiar with CDOT forms and documentation requirements.

The Consultant tester shall be experienced and competent in all aspects of highway construction testing within the scope of this project. The Consultant shall sample, test, inspect and document all materials incorporated into the project. This includes: materials delivered to the project that are listed in the Summary of Approximate Quantities in accordance with the schedule 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 Consultant's Engineer and Field Tester(s) shall review project quantities on a regular 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 Resident Engineer or Program Engineer.



Testing of materials that are specifically designed 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.

Test results, sample submittals, and inspection documentation transmitted to CDOT's Region or Central Laboratory shall be recorded on appropriate CDOT forms. The Consultant may use CDOT worksheets or worksheets approved by the CDOT Resident Engineer. CDOT forms and worksheets are available through the Residency Head Tester or Region Materials Engineering/Physical Technician at no cost to the Consultant.

The Consultant shall coordinate the schedule for Independent Assurance Tests (IAT) for the project in accordance with CDOT Form 379 with the Region Materials Engineering/Physical Science Technician. The Consultant shall notify the CDOT Resident Engineer, CDOT Tester and Region Materials Engineering/Physical Science Technician with project quantities are expected to over-run the quantities represented on CDOT Forms 250 or 379.

All proposed work procedures shall be coordinated with the CDOT Resident Engineer prior to the start of work. Other services may be requested in writing by the CDOT Resident Engineer. Test results and inspection observations shall be documented by the Consultant and approved by the CDOT PE in accordance with the references cited above in the Project Standards.

The Tester shall:

- Have a minimum of one year experience in each specialty field (soils, aggregates, asphalt paving, concrete, etc.) that requires testing.
- Be certified by the American Concrete Institute (ACI) if testing concrete.
- Be certified Level A/B by the Colorado Asphalt Technician Certification Program (LabCAT) if testing HMA.
- Be certified through the WAQTC Qualification Program if testing soils and aggregates.

Copies of certifications shall be provided to the CDOT Resident Engineer prior to the start of work on the project. References of testing experience shall be available for all Consultant staff provided, and may be requested at any time during the contract.

