



**COLORADO**

**Department of Transportation**

Region 1

## **Owner's Representative – Professional Services**

### **Scope of Work**

#### **US-6 and Wadsworth Interchange Reconstruction**

#### **Construction Management, Inspection & Materials Testing Services**

**Date: September 04, 2025**

**CDOT Region 1 West Program**

**Project Number: NHPP 0062-037**

**Project Codes:**

**24948 – Design**

**26942 – Construction**

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#### **The Contract Administrator for this Contract will be:**

Cody Daigneault, PE  
CDOT R1 Resident Engineer  
425 A Corporate Circle  
Golden, CO 80401  
Phone: (720) 628-6919

#### **Active day-to-day administration will be delegated to:**

Owen Kyte, PE  
CDOT R1 Assistant Project Engineer  
425 A Corporate Circle  
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### **Introduction**

CDOT Region 1 requests construction management services and materials testing services for the reconstruction of the US-6 and Wadsworth interchange. This project is located on US-6 between MP 280 and MP 282 and on Wadsworth (SH-121) from MP 12 to MP 13. The project will replace multiple structures including the bridge on US-6 over Wadsworth, and the concrete box culverts under US-6 at McIntyre Gulch and Lakewood Gulch. The existing cloverleaf interchange will be removed and replaced with a tight diamond with a single loop in the NW quadrant. Noise walls will be constructed on the NW, NE, SW & SE corners of the intersection. Additional work will include sidewalk, frontage road reconstruction, pedestrian underpass, new traffic signals on Wadsworth, storm sewer drainage, permanent water quality ponds, PCCP & HMA pavement.

### **Project Location**

US-6 from MP 280 to MP 282 & Wadsworth (SH-121) from MP 12 to MP 13.

The location stated above denotes the limits of construction. Temporary signing will extend beyond these limits.

### **Project Timeline**

The anticipated project milestones are listed below:

Estimated Advertisement Date:	February 2026
Estimated Notice of Award:	March 2026
Estimated Notice to Proceed:	May 2026
Estimated Construction Completion:	June 2029

### **Project Goals**

The goal of the Project is to construct the Project Scope Elements in their entirety to minimize impacts to stakeholders and the traveling public. In addition, CDOT is committed to delivering projects which uphold the Department's values of Safety, Public Service, Integrity, Customer Service, Excellence & Accountability, and Respect. An exceptional proposal will demonstrate how the goals of this project will be pursued by the proposer in accordance with these values.

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

- Improve the safety, mobility, operations and maintenance characteristics throughout the project. This includes replacing aging infrastructure, reconfiguring non-standard interchanges and providing new pedestrian access.

#### **B. Minimize Construction and Public Traveler Impacts**

- Minimize impacts to the traveling public, residents and business owners during construction. Prioritize proactive risk management by identifying potential hazards, assessing their likelihood and impact, and implementing effective mitigation strategies.

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

- Balance schedule and budget to maximize the scope and positive impact of the Project.





### Project Scope Elements

#### **US-6 Scope:**

- Replace Structure F-16-O with F-16-YW Over Wadsworth,
- Replace the concrete box culvert under US-6 at McIntyre Gulch,
- Replace the concrete box culvert under US-6 at Lakewood Gulch,
- Construct new noise walls in each quadrant of the intersection,
- Modify roadway geometry to construct the frontage roads at each quadrant of the intersection,
- Construct a new tight loop in NW quadrant as well as new on/off ramps to and from Wadsworth,
- Construct storm sewer infrastructure and other utility improvements along US-6 & frontage roads,
- Construct permanent water quality pond to intercept roadway drainage,
- Modify highway geometry to account for profile increase at the bridge and pave with PCCP & SMA
- Construct aesthetic landscaping walls and City of Lakewood gateway monument,
- Install various trees and plantings throughout the project limits

#### **Wadsworth Scope:**

- Construct new on/off ramps to and from US-6,
- Construct new intersections with new traffic signal equipment for the on/off ramps, the NW frontage road and, 5<sup>th</sup> ave.
- Construct new pedestrian access with sidewalk along Wadsworth to connect the North and South sides of US-6,
- New pedestrian underpass to aid with safe pedestrian connectivity,
- Construct business driveway accesses,
- Construct storm sewer infrastructure and other utility improvements along Wadsworth,
- Modify the highway geometry to accommodate the new interchange and pave with PCCP

### Stakeholders

Agency/Stakeholder	Role & Involvement
CDOT	<ul style="list-style-type: none"> <li>• Lead Agency</li> </ul>
City of Lakewood	<ul style="list-style-type: none"> <li>• Level of Involvement – High</li> <li>• Will have input on travel impacts/delays/detours</li> </ul>
Federal Highway Administration (“FHWA”)	<ul style="list-style-type: none"> <li>• Level of Involvement – Med/Low</li> <li>• Administer of grant funding</li> </ul>
Jefferson County	<ul style="list-style-type: none"> <li>• Level of Involvement - Low</li> <li>• County of Project Location</li> </ul>
Army Corps of Engineers (“ACOE”)	<ul style="list-style-type: none"> <li>• Level of Involvement- Low</li> <li>• 404 Permit decisions</li> </ul>
Private Property Owners and/or Residents	<ul style="list-style-type: none"> <li>• Level of Involvement - Medium</li> <li>• Will want to know travel impacts/delays/detours</li> <li>• Permanent and Temporary Easements</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>





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## **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 US-6 and Wadsworth Interchange Reconstruction project located in Jefferson County on US-6 between MP 280 and MP 282 and on Wadsworth (SH-121) from MP 12 to MP 13.

CDOT is seeking supplemental construction administration support staff from the Consultant to augment the CDOT staff as required for the US-6 and Wadsworth Interchange Reconstruction project. CDOT staffing on this project will vary as conditions change through the duration of construction work. It is expected that 7 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 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 ATSER by the CDOT Materials Lab. Multiple 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. The project is being delivered through the typical CDOT Design-Bid-Build method.

Construction Traffic Control will be a major part of this project and will require an experienced 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 multiple structures, including temporary shoring, will require an experienced individual or team who is expected to review and comment on safety critical work elements and submittals and attend project meetings.

## **General Work Description**

The construction administration of the project will require Consultant personnel to have CDOT roadway and bridge construction experience. Specific experiences should include bridge replacement, reinforced concrete, pavements and bases, retaining walls, CBC's, caissons, piling, temporary shoring, environmental constraints, erosion control, embankment, HMA, PCCP, permanent traffic devices, and temporary traffic control management (including permanent and temporary signals).

The Consultant Project Engineer, CDOT Resident Engineer and Residency 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 the approved schedule. The Consultant materials testing evaluation form shall be completed by the CDOT Resident Engineer and head tester and distributed as described in CP-16. The Consultant Project Engineer shall forward a copy of the completed Pre-Testing Meeting Agenda for Consultant Materials Testing to the Region Materials Engineer.

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 Resident Engineer through assignment of personnel to construction administration and inspection responsibilities. The Consultant will be expected to provide support





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for the following activities:

- **Pre-Construction:** Assist with project showings, pre-bid meetings and Q&A's while the project is under advertisement. Complete submittal review, baseline schedule review and other duties as necessary to get the project up and running per CDOT requirements.
- **Meetings:** The Consultant personnel shall be present at and assist with the facilitation of all project meetings as required including weekly progress meetings with the Contractor, Subcontractors, utilities, and other interested parties. The Consultant staff shall be required to attend and assist with facilitation of the Project Preconstruction Meeting, Project First Meeting, and other meetings prior to commencement of the project as directed by the CDOT Resident Engineer.
- **Documentation:** Maintain project submittal register, track project correspondence, track installed quantities, check daily diaries, prepare inspectors progress reports, and complete appropriate CDOT paperwork and forms. The Consultant shall provide all correspondence, and other construction administration documentation required per the CDOT Construction Manual, and applicable CDOT forms to the CDOT Resident Engineer for review and signature. Submittal of standard documentation reports shall be submitted and filed electronically on a weekly basis.
- **Project Schedules:** Review of Contractor schedules in accordance with 108.03 of the Standard Specifications.
- **Quality / Conformance with Plans and Specifications:** Monitor and inspect the Contractor's construction activities with respect to the contract documents and relevant schedule submittals governing the performance of the work. Resolve construction problems and/or recommend action for their resolution, as they relate to changed field conditions or conflicts in the contract documents. Perform specialty tests, investigations, or monitoring to fulfill the intent of the CDOT inspection program. Notify Contractor, Consultant Project Engineer and Resident Engineer of non-compliance with the contract documents.
- **Submittals and Shop Drawings:** Submittals, design drawings, shop drawings, working drawings, materials, and test procedures received from the Contractor will be reviewed and/or forwarded to appropriate CDOT and/or Design Consultant personnel for review. Approved drawings will be returned to the Contractor, as well as a copy retained for use during the remainder of the project.
- **Methods of Handling Traffic (MHT) / Safety:** Review and Approve the Contractor's Method(s) of Handling Traffic (MHT) submittals. During construction, monitor the Contractor's MHT for implementation of traffic signing, barriers, and other traffic control measures in accordance with the approved plan. Monitor 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).
- **Safety Critical Work:** 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. A Consultant Professional Engineer will provide a written report of each work item to the Consultant Project Engineer, 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.





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- **Quantity Tracking:** Perform daily inspections of construction activities to document activities performed and assessment of conformance with the contract documents. Quantities of work elements constructed will be measured in accordance with the CDOT Construction Manual and recorded on an electronic Form 266 to support the preparation and processing of progress pay estimates to the Contractor. Quantities will be documented in an interim quantity spreadsheet for tracking quantities constructed as compared to the original design quantities on the project. Quantities of work will be agreed upon with the Contractor and then reflected in monthly progress pay estimates prepared by the Consultant's staff. Assist CDOT in resolving disputes in quantities with the Contractor prior to the preparation of the pay estimate.
- **Pay Estimates:** Determine quantities with appropriate supporting documentation. Checks and prepares pay estimates in PMWeb.
- **Daily Diaries:** Consultant's personnel shall maintain a daily diary for each day they perform work on the project. They shall use CDOT's Form 103a - Project Diary, unless otherwise approved by the Consultant Project Engineer or 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.
- **Submittals:** Review, provide comments, and acknowledge completeness of required submittals. Provide recommendations for Approval and/or Acceptance of submittals. Forward to specialties as necessary for review/approval. Manage the receipt, filing, storage, cataloging and review of all project Contractor Submittals
- **Change Orders:** 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. per the CDOT Construction Manual.
- **Civil Rights Compliance:** Review certified payroll documentation in LCP Tracker provided by the Contractor and conduct interviews of Contractor employees to determine if the Contractor is in conformance with CDOT EEO/Labor Compliance policies. Review 205's and sublet compliance in B2GNow.
- **Stormwater Management:** Inspect erosion control, review SWMP notebook, and participate in Erosion Control Compliance Reviews.
- **Check Surveying:** Provide quality control surveying and quantity verification as needed. If the Construction Contract includes a Construction Surveying pay item, then the Contractor is responsible for performing all surveying required to properly layout and constructs the work covered.
- **Completion, Inspection, and Punch List:** Participate in the final inspection with the Contractor, Consultant Project Engineer, CDOT Resident Engineer and CDOT Maintenance representative(s) upon substantial completion. Following the final inspection, prepare a punch list of remaining and/or outstanding work to be performed by the Contractor prior to partial or final project acceptance.
- **As-Constructed Drawings:** Maintaining accurate notes reflecting actual construction details to be used in preparation of as-constructed plans. Complete as-constructed drawings of work completed by the Contractor including final pay quantities.
- **Communication:** Provide communication to Contractor fieldcrews, adjacent property/business owners, local







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agencies, stakeholders, CDOT staff, public information manager, etc.

- Miscellaneous project related duties as requested by the CDOT Resident Engineer or other CDOT units.
- Project documentation may be stored in a shared drive such as Google Drive or other CDOT approved applications. At the end of the project, all required final documentation shall be transferred to CDOT's ProjectWise on premise or the ProjectWise Cloud system by the Consultant.
- Preparation of Final Pay Estimate: Assist in determining final pay quantities with appropriate supporting documentation and quality control.
- Preparation of Materials Final: Prepare the final materials documentation for closing the project.

### **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 5B** of the RFP.

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

- The Consultant Project Engineer (CPE) shall support CDOT's project staff throughout the duration of the Project. The CPE shall be a Professional Engineer registered in the State of Colorado unless otherwise approved by the CDOT Resident Engineer.
- This Engineer shall be experienced and competent in all areas of CDOT road and bridge construction management, inspection and materials testing. The exceptional candidate will have extensive experience with the construction of reinforced concrete structures (Bridges, CBC's, Retaining walls). They will have a strong background with reviewing safety critical plans, temporary shoring plans, and implementing complicated temporary control configurations.
- The Consultant Project Engineer shall have more than 10 years of experience managing and administering CDOT road and bridge construction projects.
- The Engineer shall assist CDOT with job showings under advertisement and completion of the Contractor Q&A form (1389).
- 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. Provide a written report of each work item with comments and a recommendation to approve, reject/revise/resubmit, or accept with comments. The Consultant Professional Engineer may be the Consultant Project Engineer.
- 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.
- The CPE shall be the final authority regarding acceptance of work that conforms or is in non-compliance to the plans and specifications. The CDOT Resident Engineer, or CDOT Assistant Project Engineer as







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delegated by the CDOT Resident Engineer, 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 the 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.
- The CPE shall be designated as the Engineer in Responsible Charge of the Work as delegated by the CDOT Resident Engineer. The CDOT Resident Engineer shall maintain the ability to revoke or change the delegation of The Engineer in Responsible Charge at any time. All work performed by consultant staff will be under the responsible charge of the CPE.

### **Consultant Assistant Project Engineer:**

- The Consultant Assistant Project Engineer (CAPE) shall support CDOT's project staff throughout the duration of the Project.
- 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 CAPE will meet regularly with the CPE to determine staffing needs and will assign inspectors and testers as needed. They will 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 CAPE shall be experienced and competent in all areas of CDOT road and bridge construction management, inspection and materials testing. The exceptional candidate will have extensive experience with the construction of reinforced concrete structures (Bridges, CBC's, Retaining walls). They will have a strong background with reviewing safety critical plans, temporary shoring plans, and implementing complicated temporary control configurations.
- The Consultant Assistant Project Engineer shall have more than 8 years of experience managing and administering CDOT road and bridge construction projects.
- The CAPE will be expected to participate in on-site inspection activities to ensure inspectors/testers are appropriately documenting and covering all job-site activities.
- The CAPE shall assist CDOT with job showings under advertisement and completion of the Contractor Q&A form (1389).
- 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. 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 CPE and the CDOT Resident Engineer. 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 baseline schedule, and method statement submittals and submit written comments to the Consultant 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. 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.
- Shall be experienced in CPM schedule review for CDOT road and bridge construction projects. The schedule reviewer shall be familiar with Microsoft Project and Primavera and other scheduling software's as needed to review contractor submitted project schedules. The schedules shall be thoroughly reviewed in accordance with the project and CDOT specifications to provide recommendations to the Consultant Project Engineer and CDOT Resident Engineer.

### **Supporting Staff Descriptions**

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.

- **Civil Rights Specialist – One (1) – (Approximate workload; 10% – 15%)** – 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 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, 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.
- **Senior Level Inspectors – One (1) – (Approximate workload; 100%)** – Generally more than eight (8) years of experience and experienced in construction management. The Sr. Inspectors must be experienced and competent in CDOT road and bridge construction with an emphasis on structures, reinforced concrete, excavation and embankment, temporary traffic control, and pavements.
- **Junior Level Inspectors – Two (2) – (Approximate workload; 100%)** – Generally three (3) to eight (8) years of experience and experienced in construction management. The Jr. Inspectors should be experienced and competent in CDOT road and bridge construction
- **Materials Lead – One (1) – (Approximate workload; 100%)** – Generally more than five (5) years of experience with CDOT materials testing and documentation. The Materials Lead shall manage the sampling, testing, and documentation of specified materials incorporated into the project. This includes materials





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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. 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 ATSER and will be required to complete all CDOT required documentation for submittal of the Final Materials Documentation books.

- **Materials Testing Technicians – One (1) – (Approximate workload; 100%)** – The Materials Testing Technicians (MTT or Testers) shall have materials testing 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 Lead, the Consultant Project Engineer, and the CDOT Assistant Project Engineer(s) 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 Assistant Project Engineer(s). The MTTs shall be thoroughly familiar with CDOT forms and documentation requirements.

These Consultant positions may be adjusted as necessary to part-time, or eliminated as directed by the CDOT Resident Engineer as the project needs dictate. An additional MTT should be available to support the testing needs during times of heavy workload. Additional staff may be required during periods of heavy workload and other support as necessary. Work will be required during day and nighttime hours as well as weekends, holidays and/or on a split shift basis. CDOT will provide at least Two Assistant Project Engineers and three Inspectors to supplement the Consultant team.

It is expected that the Consultant Project Engineer, Consultant Assistant Project Engineer will begin work on the project approximately 30 days prior to Advertisement of the project. It is expected that the Consultant Project Engineer, Consultant Assistant Project Engineer and Materials Lead will remain on the project for approximately 30 days beyond project acceptance to assist CDOT in the completion of the final project documentation and punch list work. The Consultant should be diligently working to complete the final documentation throughout the duration of the project to limit the documentation work post construction. Please refer to the project timeline to plan for these requirements.

## **Personnel Qualifications**

### **Key Personnel:**

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 CDOT Resident Engineer 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 CDOT Resident Engineer 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 CDOT Resident Engineer 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.





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If the CDOT Resident Engineer 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 CDOT Resident Engineer 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 CDOT Resident Engineer 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.

### **Supporting Staff Qualifications:**

The Consultant staff shall have sufficient education, training, and experience to meet the minimum qualifications, and be experienced and competent in all aspects of highway construction within the scope of this project. The Personnel 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. Back-up Consultant resources should be available in case of loss of staff, sickness, or vacations or as necessary to meet the project's needs.

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.

A copy of work experience, references and/or proof of Licensing shall be provided before work begins to the CDOT Resident Engineer. Personnel provided by the Consultant who do not meet 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.

The following chart, with the appropriately checked certifications, shall be maintained by consultant employees engaged in this type of work performed for the State.





## Certifications

Class/Certification	Consultant Project, and Assistant Engineer	Consultant Inspectors	Consultant Materials Testers
Basic Highway Math	Y*	Y	Y
Basic Highway Surveying	Y*	Y	Y
Basic Highway Plan Reading	Y*	Y	Y
Transportation Erosion Control Supervisor (TECS)	Y	Y	N
Traffic Control Supervisor**	Y	Y	N
Bridge Inspection	Y	Y	N
<b>Specialty Certifications</b>	To be determined by the Resident Engineer and Consultant		
CAPA Asphalt Inspection	Y	Y	Y
LabCAT Level A & B	N	Level A	Y
WAQTC	N	Y	Y
ACI Field Testing Tech I	N	N	Y
ACI Concrete Strength	N	N	Y
CDOT Materials Technician Certification Program	N	N	Y
Certified Nuclear Gauge Operator Certification	N	N	Y

\*Not required if the Consultant is a licensed Professional Engineer

\*\*CDOT Traffic Control Supervisor, Technician and Flagger certifications are required by CDOT Procedural Directive 1512.1 (Effective September 2022)

## Initial Project Meeting

The Consultant team, CDOT Assistant Project Engineer(s), and CDOT Resident Engineer shall meet, coordinate and schedule the required work. The consultant shall complete all work in accordance with their approved schedule.

## 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 Consultant Project Engineer prior to the start of work.

References to "the specifications" shall include all applicable CDOT Standard Specifications for Road and Bridge Construction including Supplemental Specifications, Project Standard Revisions and Project Special Provisions, and project plans and specifications.

All activities performed shall be as directed and authorized by the CDOT Resident Engineer, or as delegated to the CDOT Assistant Project Engineer(s) as approved by the CDOT Resident Engineer.

### **Routine Billing & Reporting**

The Consultant shall provide the following on a routine basis:

- 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.







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- 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.
- 6. 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.

### **Authorization to Proceed**

Work shall not commence until the consultant receives the written Notice to Proceed for the contract or any individual Task Order if Task Order Directed Agreement. Work shall be completed within the allotted contract time. Time charged shall be exclusive of time lost for:

- Reviews and approvals
- Responses/direction from CDOT

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

### **Status of Contract**

The Consultant shall monitor the fiscal status of the Task Order and the status of the work throughout the duration of the contract. The Consultant will advise the CDOT Resident Engineer of any potential for supplementing their Task Order or negotiation an additional Task Order. The Consultant shall notify CDOT in a timely manner of any changes that need to be made. Failure to monitor contract status and provide timely notification may result in non-payment and possible discontinuation of the Consultant's services.

### **Documentation**

Each of the consultant personnel shall maintain a daily diary for each day the tester performs work on the project.







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They may use CDOT's Form 103, Project Diary, or a form as approved by the CDOT Resident Engineer. The contents of the diary shall be an 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 Consultant Project Engineer and/or CDOT Resident Engineer 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 Consultant Project Engineer and Materials Lead shall 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 CDOT Resident Engineer. CDOT Forms and worksheets are available through the Residency Head Tester at no cost to the consultant.

The Consultant shall furnish the CDOT Resident Engineer with copies of all worksheets on a daily basis. The Consultant shall also keep the CDOT Form 626 up to date at all times and provide copies of this form to the Consultant Project Engineer, CDOT Resident Engineer and the Contractor within 12 hours for any material found to be out of compliance with the specifications.

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

### **Submittal of Final Documentation**

Final pay documentation shall be submitted to the CDOT Resident Engineer within 30 working days after completion of the construction project work. The Consultant Project Engineer, CDOT Assistant Engineer(s), and Consultant Materials Lead shall finalize the project. This includes assisting the CDOT Resident Engineer and Finals Engineer in obtaining and correcting documentation and completing as-constructed plans during the final checking process. All documentation shall be completed electronically and placed on CDOT's ProjectWise Cloud server. This shall be completed within 60-days of project acceptance.

A completed CDOT Form 250 shall be submitted to the Consultant Project Engineer and CDOT Resident Engineer no more than 30 calendar days after the Consultant has been notified of final quantities. Failure to submit final documentation as required will result in withholding of Consultant payments.

### **Project Authority**

The Consultant Project Engineer will be responsible for approving and setting work hours for both project construction inspection and materials testing. The CDOT Resident Engineer shall have the final authority for project staffing.

The Consultant Project Engineer and/or CDOT Resident Engineer shall be the final authority regarding acceptance of work not conforming to the plans and specifications. The Consultant Project Engineer, and/or CDOT Assistant Project Engineer(s), and CDOT Resident Engineer shall be responsible for signature approval of all construction Contract Modification Orders (CDOT FORM 90) and all construction contract payments.

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

Personnel qualifications, staffing level, and number and types of vehicles shall be as approved by the CDOT





Resident Engineer. Employees required to operate vehicles must possess and maintain a valid driver's license.

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, PPE, 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 10 or later Windows operating systems capable of wired and wireless network connections and loaded with or have access to the following software:

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

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 Resident Engineer on a regular basis.

### **Field Laboratory**

CDOT will provide a field laboratory 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 Asphalt Content Gauge
3. Nuclear Moisture/Density gauge
4. Concrete air meter, slump cone, and other concrete testing equipment
5. Sieves for aggregates and soil gradations
6. Scales
7. Asphalt & A/C sample containers and small tools
8. Proctor equipment for soil curves and 1 point tests
9. Atterberg, Rice Value, and Sand Equivalent equipment
10. Sample drying equipment
11. Miscellaneous equipment for performing the required soils, concrete and asphalt field tests
12. Concrete cylinder molds, which conform to AASHTO requirements, except that PAPER MOLDS SHALL NOT BE USED, AND PLASTIC MOLDS SHALL NOT BE REUSED
13. Cell Phone for each tester
14. 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.
15. 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 Resident Engineer. The CDOT Resident Engineer and the Consultant Project Engineer 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.

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.

### **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 Field Materials Manual; materials that may be added to the project through contract modification; and altered material quantities whether increased or decreased.

Testing of materials that are specifically designated to be pre-inspected or pretested by any other Department of Transportation personnel 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 pretesting responsibilities.

### **Definitions**

1. CDOT Resident Engineer – Refer to section 101.02 of the CDOT Standard Specifications for Road and Bridge Construction, version 2025
2. Consultant – The individual, firm, or corporation under contract to perform construction management services as outlined in this Scope of Work
3. Consultant Project Engineer – Refer to section 101.02 of the CDOT Standard Specifications for Road and Bridge Construction, version 2025
4. Consultant Professional Engineer – The consultant employee in responsible charge of the Consultant services performed as described in this scope of work. The Consultant Professional Engineer must be licensed in the State of Colorado
5. Consultant Assistant Project Engineer – The Consultant employee who assists the CDOT or Consultant Project Engineer in managing the construction and documentation of the project as outlined in this Scope of Work.
6. Consultant Inspector – The Consultant employee who performs construction inspection, documentation, and other project related services as outlined in this Scope of Work.
7. Consultant Materials Testing Technician – The Consultant employee who perform materials testing and





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documentation services as outlined in this Scope of Work

8. Contractor – Refer to section 101.02 of the CDOT Standard Specifications for Road and Bridge Construction, version 2025
9. Engineer in Responsible Charge – The CO State, PE licensed Engineer who is in direct control of, and personally supervises, the construction work to ensure conformance of the contract and engineered design.

