

Draft-Final Request for Proposals (RFP)

**Construction Manager (CM) Services
for the Preconstruction Phase of the Project**

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



COLORADO
Department of Transportation

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

PROJECT LOCATION: I-70 near Idaho Springs, CO

PROJECT CODE: 21912/22716

October 19, 2021

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



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SECTION 1 – SCOPE OF WORK AND PROJECT INFORMATION

1.1. CM SERVICES SCOPE OF WORK

CDOT is soliciting Construction Manager services for the Floyd Hill to Veterans Memorial Tunnels Project (the “Project”). The Project is anticipated to include improvements from Mile Point (MP) 241 (Idaho Springs/Colorado Boulevard interchange) to MP 249 (Beaver Brook/Floyd Hill interchange). The Successful Proposer (also referred to as “Construction Manager (CM)”), will provide CM services for the pre-construction phase and will have the opportunity to negotiate a CM/GC Construction Project Contract as a General Contractor (GC) with CDOT to fulfill the Project’s construction phase. The CM/GC Construction Project Contract award to the CM is not guaranteed but is contingent on a successful Construction Agreed Price (CAP) negotiation with CDOT.

The Project Scope Elements are described in **Section 1.3.B** of this RFP. The Project Scope Elements may be modified based on available funding, packaging, CM input, Stakeholder input, and final design refinements. The funding for the full Project has not been fully identified at the time of this RFP. This 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 and commit 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.

The scope of work reflects an approach based on the Project Goals and known risks. A primary benefit of CM/GC is the ability to contractually allocate risks to the party best able to manage the risk. Risk assessment will be a continual process throughout the pre-construction and construction stage with risk sharing between public and private parties that holds both accountable for performance and expenditure of public resources. The Successful Proposer will be able to analyze the Project Goals, evaluate work elements, identify/mitigate risks, articulate a clear plan for delivering the Project on time and on budget, and maximizing accountability for public resources throughout the process, and formulate a proposal for these elements. The Successful Proposer will also consider new approaches or modifying the Project work elements, the Project sequencing, and/or the Project packaging.

The CM will partner with an integrated design team (“Design Team”) which will consist of CDOT, the Design Consultant, and the Independent Cost Estimator (“ICE”). The CM, at a minimum, will provide input on schedule, phasing, constructability, quality assurance of the design, and project cost estimating throughout the preconstruction phase of the Project as well as general support services to ensure complete and efficient scoping of the different Project Elements. The CM will also offer innovative ideas and risk mitigation measures throughout the design phase to proactively assist the Design Team. Additionally, the CM shall provide opportunities and methods to protect the safety of the traveling public and reduce the construction duration to minimize impacts to traveling public and reduce costs.

The CM’s tasks during the preconstruction phase include, but are not limited to:

A. Design Review:

- Thorough review of all plans, specifications, reports, diagrams, shop drawings, as-built plans, site conditions, specifications, and all other necessary Project documentation to provide design validation from a construction expertise perspective.



- Conduct and analyze preliminary field work (coring, sampling, test holes, etc.) to assist with the design phase.
- Independently calculate quantities for verification purposes of construction packages, independent from the Design Consultant, while coordinating with the ICE's quantities.
- Provide constructability input on all facets of the Project including, but not limited to:
 - Bridge Construction Methods and Elements,
 - Structural Foundations and Walls,
 - Geotechnical,
 - Geohazards,
 - Resiliency,
 - Environmental Commitments including, but not limited to, reduction of air pollution throughout the lifecycle of the project,
 - I-70 Mountain Corridor Context Sensitive Solutions (CSS) Commitments,
 - Clear Creek Realignment,
 - Roadway and Safety Improvements,
 - Intelligent Transportation Systems,
 - Maintaining Traffic Operations/Existing Capacity of I-70,
 - Minimizing impact of Construction to the traveling public,
 - Material Availability,
 - Staging,
 - Stormwater Management Plan,
 - Roadway Drainage,
 - Shoring and Phasing Techniques, and
 - Existing Subsurface Utilities.
- Provide written reviews or reports and details/redlines of the Project plans and specification packages at Project milestones. Comments should be related to constructability, traffic phasing, clarifications, design errors or omissions, effect on schedule, effect on cost, risk identification, or suggestions/recommendations on various efficiencies.
- Coordinate with the Design Team to make determinations whether multiple independent and severable CAP packages are:
 - Efficient,
 - Add value to the Project,
 - Provide an overall benefit to the Project,
 - Have the potential to accelerate the start of construction, and



- Bring the overall Project measurably under the Construction Budget.
- Coordinate with the Design Team to make determinations whether early procurement packages for materials (long lead-time procurement “LLTP”) are:
 - Viable and cost effective,
 - Have the potential to reduce the construction schedule, and
 - Provide an overall benefit to the Project.
- Procurement of these materials may be done by the CM through a separate early work CM/GC Construction Project Contract with CDOT ahead of construction but not prior to completion of the National Environmental Policy Act (“NEPA”) process resulting in a signed decision document.
- Actively participate in discussions to study design options as it pertains to constructability, pricing, innovation, value, risk mitigation, and quality.
- Provide additional milestone reviews depending on package complexity.
- Provide timely feedback from design reviews to assist in decision making.

B. Cost Estimating:

Ongoing Tasks

- The CM shall provide rough order of magnitude (“ROM”) cost estimating along with schedule impacts as design concepts/alternatives are being developed and evaluated throughout the preconstruction phase to help inform decisions. This may include:
 - Evaluating means and methods of various construction techniques that may influence design solutions with considerations of cost and schedule impacts.
 - Evaluating industry standard operating and maintenance costs to determine life-cycle costs.
 - Proposing design alternatives that blend or alter the Preferred Alternative identified within the Environmental Assessment (EA) to reduce cost. See **Section 1.3.A** and **Section 1.3.E** of this RFP for additional information related to the EA. All design alternatives must adhere to the I-70 Mountain Corridor design criteria and will be approved by CDOT and the Project stakeholders. Cost savings on any of the initial scope will be reinvested into other Project Scope Elements.

CM Tasks at Milestones

- Providing initial ROM construction estimate and associated schedule for the full Project within one month of CDOT’s issuance of the pre-construction CM phase’s Notice to Proceed (NTP).
- Negotiating with CDOT the expectations and the format of the Cost Model for construction packages through a series of Cost Model meetings. See **Section 1.21** of this RFP for additional information regarding the Cost Model.
- Providing construction cost estimates at milestones that shall include the following activities:
 - Item identification that is compatible with CDOT’s cost estimating, standards, and



specifications.

- Submission of Opinion of Probable Construction Costs (“OPCCs”) at 30%, 60% and 90% milestones for each construction package. Analysis should include availability of labor, equipment, and materials. Additional OPCCs may be required at the request of CDOT if: package complexity indicates an added benefit, analysis of proposed alternatives is necessary, analysis of means and methods is necessary, or work is added to the Project.
- Additional OPCCs may be required before determining the CAP proposal if CDOT agrees on their necessity. To facilitate comparisons with ICE estimates, both Contractor and subcontractor cost estimates will be included in an open book review.
- The CM shall submit a CAP proposal when both the CM and CDOT agree the design has progressed to the appropriate level, typically at 90%.
 - Quantity and schedule reconciliation will be required between the CM, Design Consultant, the ICE, and CDOT. This may include verification of assumptions, and means of methods between CDOT, the Design Consultant and the ICE.
 - CDOT will request the CM submit a CAP proposal on early construction packages or for the procurement of long-lead items.
 - During CAP proposal reviews, the CM shall provide CDOT all production rates, material assumptions, indirect costs, and any other information as requested by CDOT to aid in reaching an agreement on a CAP proposal.
 - If a CAP proposal is successfully negotiated and accepted, the CM shall submit those CAP proposals as an Electronic Bid Submittal (“EBS”).

C. Project Schedule:

- CDOT’s goal is to have construction for the full Project completed as soon as possible. It is anticipated that construction can be completed within five years of commencement.
- Impacts to the traveling public must be minimized and is a high priority consideration in the determination of daily working time schedules allowed. The CM and GC must both work and communicate with Project stakeholders and citizens before and during construction. Seasonal, weekly, and daily traffic patterns must be considered when planning and scheduling work.
- Notable Project schedule constraints to be considered:
 - Environmental Requirements
 - All work must conform to the EA and associated decision document that is expected to be completed in 2022.
 - Any early packages shall have the appropriate environmental clearances, approvals, and permits before CAP approval, and CAP package construction.
 - Required on-going environmental work during the design process will also be considered. Those tasks are listed in **Section 1.3.E** of this RFP.
 - Lane Closure Policy - See **Section 1.3.F** of this RFP for additional information.
 - Utility Relocation - See **Section 1.3.G** of this RFP for additional information.



- Resources (including DBE) availability due to other major regional projects.
- See **Section 1.9** of this RFP for additional information regarding the Project Schedule.

D. Risk:

Risk is defined as an uncertain event or condition that, if it occurs, has a negative or positive effect on a project's goals and objectives. The CM/GC delivery method provides a forum to communicate and discuss risk in the design phase and to collaboratively address and reduce risk with the Owner, the CM and the Design Consultant. A primary benefit of CM/GC is the ability to contractually allocate risks to the party best able to manage the risk. Risk assessment will be a continual process throughout the pre-construction and construction stage with risk sharing between public and private parties that holds both accountable for performance and expenditure of public resources.

Risk management will be a topic at both the 2-day Kickoff meeting and an initial Risk Management and Assessment Workshop which shall be scheduled by the CM early in the pre-construction phase. Regular risk meetings, facilitated by the CM, will be held to monitor progress. Risk responsibilities include:

- Facilitate quantitative and qualitative risk management discussions to identify risks, quantify probabilities, quantify impacts, develop mitigation strategies, and assign risk responsibility.
- Set risk meeting frequencies and prepare and update the Project Risk Matrix throughout the Project lifecycle.
- Collaborate with the Project Team to develop a Risk Management Plan, perform risk assessments, and prepare and update the Risk Matrix.

E. Innovation:

- The innovation process will be a topic of the Kick-Off Workshop, see **Section 1.1E** of this RFP, as the innovation process is intended to be an interactive and cooperative process to generate value for the Project. Following the Kick-Off Workshop, a combined Project Innovation and Value Engineering Workshop will be scheduled for early in the preconstruction phase.
- The innovation process during pre-construction will be an ongoing integrated process as the design progresses. The CM shall provide ongoing analysis specifically focused on seeking opportunity for innovation during all phases of the Project's development and construction. The CM will document this analysis through regularly submitted written reports and recommendations.
- Major cost elements of the Project will be discussed at the regular progress meeting and the topic will include potential cost savings. CDOT expects cost savings greater than the fee paid for preconstruction services, which will result in better value over traditional project delivery methods.

F. Meetings:



- The Kick-Off Workshop will emphasize the importance of partnering within the CM/GC delivery method by focusing on team building and partnering over a 2-day period. This workshop is mandatory for all key team members including key subcontractors. This workshop will be facilitated by CDOT and will cover at a minimum the following items:
 - Introduction to the Project, CM/GC, partnering, Project stakeholder engagement, roles and responsibilities identification. Subcontractors performing major and high-risk work items should be in attendance.
 - The Team will review Project status, vision, goals, objectives, funding, preliminary pre-construction schedule, what success would look like, current design, etc.
 - Initial discussion of innovations, phasing, and risk mitigations being proposed by the CM, Design Consultant, and ICE.
 - Cost Model review and coordination with the ICE during OPCCs.
 - Cost Model components.
 - Project Schedule meetings in accordance with the schedule as defined in **Section 1.9** of this RFP.
 - Agreement on progress meeting frequencies and initiate working groups for various elements of the Project. Progress meetings may include project management meetings, design meetings, discipline/specialty meetings, stakeholder meetings, and public meetings.
 - Strategy, timing, and approach for the Project Innovation and Value Engineering Workshop.
- The Project Innovation and Value Engineering Workshop will be co-facilitated by CDOT, the CM, ICE, and the Design Consultant. Attendance and duration will be determined at the Kick-Off Meeting. It is also anticipated that Project stakeholders' input will also be incorporated into this workshop. The approach, agenda, format, and duration for the workshop will be developed in collaboration with CDOT, the CM, ICE, and the Design Consultant. The CM shall provide input into how to achieve the desired results for the Project. This workshop could require several sessions, over an extended period. The purpose of this workshop is to evaluate the Preferred Alternative, consider any CM innovations or design refinements for the Project, incorporate value engineering principles to the Project, incorporate stakeholder input and get support for endorsement of any potential changes to the Preferred Alternative.
- The CM shall, unless otherwise directed, meet with CDOT at the CDOT Region 1 West Program Office at 425 Corporate Circle, Golden, CO 80401. Meetings are to be attended in person unless extenuating circumstances prohibit in person meetings. If prohibited, the meeting may be attended virtually.
- The following meetings shall be anticipated by the CM, but are not limited:
 - Kick-Off Workshop
 - Design Discipline Task Force Meetings (as agreed upon by Design Team and CM)
 - Project Innovation and Value Engineering Workshop



- Field Inspection Review (FIR) for each construction scope package – 30%
- Design Office Review (DOR) for each construction scope package – 60%
- Final Office Review (FOR) for each construction scope package – 90%
- Cost Model Review Meetings
- Quantity Reconciliation Meetings
- Risk Management Meetings
- Innovation Meetings
- OPCC Review Meetings
- CAP Review Meetings
- CAP Negotiations and Assumption Resolution Meetings (if applicable)
- Other Project Meetings:
 - Weekly Project updates with CDOT Project Management Team
 - Bi-Weekly Public Information Planning Meetings
 - Project Leadership Team (PLT) Meetings – 12 estimated
 - Technical Team (TT) Meetings – 12 estimated
 - Issue Task Force (ITF) Meetings
 - Stream and Wetland Ecological Enhancement Program (SWEET) 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
 - Preconstruction Public Meetings – 4 estimated
- The CM shall be prepared to conduct Project Vision Meetings to analyze how Project progress is aligning and tracking with Project Goals. Items of focus include priorities, commitments, approach, scope, schedule, and cost reasonableness. The Project Vision Meetings are anticipated to be scheduled quarterly at a minimum to achieve the Project Goals.

G. Deliverables:

- The CM shall develop and produce the following reports and deliverables:
 - Geotechnical Exploration Plan
 - Subcontractor Selection Plan



- Quality Management Plan for Design and Construction
- Material Sourcing Plan
- Worker and Public Safety Plan
- Risk Management Plan
- Comments, input, and support that will be incorporated into the Value Engineering Report (the CM will not be creating the actual document)
- Innovation Tracking and Performance Report
- Procurement Review Report for each LLTP CAP (CM/GC Construction Project Contract) if required
- Submit monthly invoices and project reports to support payment of preconstruction CM services

H. Other Tasks:

- If CAP proposals are accepted by CDOT; the GC shall ensure all environmental, safety, and permit commitments that are specified in the plans, specifications, and contract documents are implemented during construction in accordance with applicable laws and regulations.
- The Design Consultant will develop the Stormwater Management Plan during pre-construction with input from the CM. CDOT will review the plan throughout the development process and apply for the permit. If a CAP proposal is successfully negotiated and agreed upon, the GC will be added to the permit after the award.
- The CM shall commit to integrating Disadvantaged Business Enterprises (“DBEs”) in the Project as required by the goals determined by the CDOT Region 1 Civil Rights Office. See **Section 1.19** of this RFP for additional DBE Program Requirements.
- Coordinating with CDOT’s Public Information Officer during pre-construction to ensure a smooth transition of communication into construction. Coordination will include involvement of the CM’s proposed Public Information Manager to help develop the Public Information Plan prior to construction, to aid in public/stakeholder outreach and public meetings during pre-construction.
- Assisting in the preparation and attendance of public meetings and/or open houses.

1.2. 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.

The following Project Goals were developed for this RFP based upon the foundation of the Project Leadership Team Draft Project Goals listed in **Appendix F** of this RFP and were slightly modified to be measurable. The Project Leadership Team Draft Project Goals, which were completed by the Project Leadership Team (CDOT, FHWA, local governments, stakeholders) as part of the CSS process.

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 1.3.A** of this RFP.

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 travelling 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.

1.3. PROJECT DESCRIPTION/SCOPE OF WORK

A. 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.

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 (Mile Point 247.6 and Mile Point 242.3, respectively), with the Project area extended east and west to account for signing, striping, and fencing.



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>.

B. 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 Hylands 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.



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~~Final Draft~~ Request for Proposals –
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- 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.

C. Project Features and Specialty Work

Major work items may include but are not limited to roadway reconstruction and paving, roadway widening, earthwork, roadway viaduct construction, retaining wall construction, wildlife fencing, rock excavation and rock fall mitigation, major and minor drainage features, ITS infrastructure, signing/striping, and revegetation.

D. Major Project Risks

Below is a general description of the Major Project Risks:

- Construction Phasing and Maintenance of Traffic: High volume interstate through mountainous terrain with minimal or no detour route. Phasing for work will be required to minimize impacts to the traveling public and should continue to provide emergency access throughout the Project and to local adjacent communities. See **Section 1.3F** of this RFP for more information regarding Maintenance of Traffic.
- Safety: High speed differentials between fast- and slow-moving vehicles present a safety hazard in a construction zone to the workers and to the traveling public.
- Schedule: With a large scope and the likelihood of multiple construction packages, there is a greater risk that there could be greater impacts to the traveling public if construction durations are not well thought out.
- Environmental: Highly sensitive environmental location with constraints and mitigations identified in the EA decision document.
- Water Quality: Project is within close proximity to Clear Creek, a major water source for local and regional communities.



- Recreation: Phasing for the work needs to be done to limit the impacts to recreational facilities.
- CSS Process: Many stakeholders need to remain involved with the Project throughout design and into construction. A major component of the Project will be meeting the commitments of the EA/decision document and continuing to engage and involve major stakeholders as the design progresses.
- High Profile Project: Large project in a very high-profile area. This Project will require well thought out communications plans and must be delivered at the highest quality and safety levels.
- Weather: Temperature sensitive items have limited work windows each season due to weather. Construction will occur in mountainous terrain that can receive snow/adverse weather any time during the year. The construction of temperature sensitive items is expected to be extended by means and methods appropriate for snow/adverse conditions.
- Economics: I-70 is the only contiguous east-west interstate in Colorado and serves as a major freight corridor and recreational corridor serving local and regional communities. Construction impacts and delays could have a large impact on the local economy.
- Geology: Multiple dormant landslides, and one significant active landslide exist in the project area.

E. Project Design and Development Status

Below is a general description of work progressed to date and anticipated ongoing work, milestones, and potential early packages:

- Design: Preliminary activities have been conducted to advance critical Project elements and define potential environmental and Right-of-Way (“ROW”) impacts. Design in most areas will remain flexible to accommodate input from the CM in the pre-construction phase. Preliminary design has been advanced to an estimated 20% depending on the level of design needed to identify potential environmental and ROW impacts.
- Roadway/Alignment: A conceptual roadway design for the corridor has been developed to an estimated 20% level which generally represents feasible geometric and resiliency improvements acceptable to CDOT.
- Hydrology/Hydraulics: A conceptual hydrology study of the area and hydraulic analysis has been performed to determine the potential environmental and ROW impacts. A preliminary Hydrology and Hydraulics Report has been completed.
- Structural: An evaluation of the existing and proposed future bridge structures has been performed and a Preliminary Structure Selection Report has been developed for the proposed structures.
- Geotechnical: A preliminary geotechnical investigation has been performed with an accompanying Preliminary Geotechnical Report.
- Environmental: CDOT has prepared an EA for the Floyd Hill Project and will be working on the decision document. This process is a Tier 2 NEPA analysis based upon the Tier 1 I-70 Mountain Corridor PEIS ROD that was completed in 2011. The EA has advanced the



alternatives that meet the defined purpose and need for the Project. Each alternative has been evaluated using criteria described in the EA, and a Preferred Alternative and corresponding mitigation has been identified. The 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 Tier 2 NEPA analysis has been a collaborative process, heavily using CDOT's 6-step CSS process to engage stakeholders and receive local buy-in on the purpose and need of the Project, the Core Values, alternative development, and alternative evaluation criteria. Stakeholders were engaged through PLT, TT, and ITF meetings. Additional information regarding the CSS process can be found within the EA materials at the EA web link provided in **Section 1.3.A** of this RFP.
- On-going environmental work:
 - Finalizing the NEPA Process with a decision document.
 - Coordinating with the ALIVE ITF to refine the design/locations of the wildlife mitigation.
 - Coordinating with the SWEEP ITF to refine water quality and aquatic mitigation.
 - Coordinating with the TT to refine and finalize the design of the Clear Creek Greenway.
- Permitting and Certifications:
 - It is anticipated that CDOT will obtain a Section 404 Permit.
 - It is anticipated that the GC will need to obtain Construction Access Permits, a Stormwater Construction Permit, a Dewatering Permit, as well as any other permits required for construction of the Project.
 - It is anticipated that CDOT will obtain the 1041 permits from both Clear Creek County and Idaho Springs.
- ROW: The Project has performed a preliminary ROW analysis based on the Preferred Alternative and has determined that most of the Project is within existing ROW or other adjacent Local Jurisdictional Lands. The ROW acquisition process will start as soon as NEPA is completed. It is anticipated that initial Project packages could proceed within existing ROW with appropriate environmental clearances prior to ROW acquisition being completed for the entire Project.

F. Existing Operations and Traffic Restrictions

Traffic operations on the corridor is a priority for CDOT. Unless permitted by the CDOT Region 1 Lane Closure Strategy, the existing number of lanes shall be maintained. The existing number of lanes is generally described as two general purpose lanes in the westbound I-70 direction and two general purpose lanes and one express lane in the eastbound I-70 direction.

The latest CDOT Region 1 Lane Closure Strategy outlines lane closure restrictions for I-70 through the Project area for each month of the year and is available at:

https://www.codot.gov/safety/traffic-safety/assets/work-zones/lane-closure-strategies/R1_Lane_Closure_Report.pdf.

The CM may propose changes to the Lane Closure Strategy, should the changes be needed for



constructability or provide a benefit to the Project/traveling public. The process to request a change to the current restrictions is outlined in the CDOT Region 1 Lane Closure Strategy and shall also include a traffic analysis and a public information plan, to support the request. The CM may seek approval for variances to the Lane Closure Strategy, however approval is at the sole discretion of CDOT.

General Construction Constraints and Limitations:

- All work and staging must be maintained within the existing or proposed CDOT ROW.
- Environmental clearances (NEPA) for identified elements within a package must be received and approved before a CAP proposal is negotiated and before CDOT issues an NTP.
- During a conformity lapse, an Early Acquisition project carried out in accordance with 23 CFR 710.501 may continue if, prior to the conformity lapse, the National Environmental Policy Act (NEPA) (42 U.S.C. 4321, et seq.) process was completed and the project has not changed significantly in design scope, FHWA authorized the early acquisition, and the project met transportation conformity requirements (40 CFR parts 51 and 93).
- Changes to the Project concept and scope may require a modification of the transportation plan, DRCOG and transportation improvement program. CDOT must comply with the metropolitan and statewide transportation planning requirements in 23 CFR part 450 and the transportation conformity requirements (40 CFR parts 51 and 93) in air quality nonattainment and maintenance areas and provide appropriate approval notification to the GC for such changes.

G. Project Coordination Efforts

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

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



Additional Coordination Contacts

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

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

H. Adjacent Project Coordination and Communication

During the preconstruction phase, the CM shall consider adjacent projects when analyzing construction phasing and construction traffic control. Known projects within or adjacent to the described project limits are listed below. If other adjacent projects are identified, the CM must also closely coordinate with those projects.

- CR 314 Reconstruction Project located on CR 314 from the Veterans Memorial Tunnels to the east to the East Idaho Springs Exit 241. This project is scheduled summer 2021 through fall 2022.
- I-70 Resurfacing Project from MP 246.5 to MP 252.2 in the summer of 2022.
- Genesee Wildlife Crossing – Construct a wildlife underpass crossing near MM 254.5 to reduce animal vehicle collisions, improve wildlife connectivity and improve safety. Construction plans for this project will be advertised via Design Bid Build, with construction anticipated in 2022.
- Empire Wildlife Crossing – Construct a wildlife overpass crossing on US 40 near I-70 MM 232 Exit Ramps to US 40 to reduce animal vehicle collisions, improve wildlife connectivity and improve safety. Construction plans for this project will be advertised via Design Bid Build, with construction anticipated in 2022.
- Roundabouts and micro-transit infrastructure improvements - Construct two new intersection roundabouts to improve community access and operations at the top of Floyd Hill. Transit improvements will include upgrades to park and ride locations providing the infrastructure



required to implement transit throughout the Floyd Hill Project and I-70 Mountain Corridor. It is intended to include a micro-transit plaza and parking area at the CR 65 and US 40 intersection. Construction plans for this project will be advertised via Design Bid Build, with construction anticipated in 2022.

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 High Performance Transportation Enterprise.

The High Performance Transportation Enterprise, 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 DURATION

It is estimated that the Project can be constructed in five years from commencement. It is CDOT’s goal to start construction on the Project in 2023 as defined in the Project Goals. The CM shall look at opportunities to measurably reduce this construction duration to minimize impacts to the traveling public and to reduce costs.

1.6. PROJECT ADMINISTRATION

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

A. Contract Officer

Roberta Lopez
I-70 Floyd Hill to Veterans Memorial Tunnels Project
2829 W Howard Place
Denver, CO 80204
W: 303-757-9296
Primary means of communication: roberta.s.lopez@state.co.us

B. CDOT Project Director

Jeff Hampton, PE (Interim)
I-70 Floyd Hill to Veterans Memorial Tunnels Project
425 Corporate Circle
Golden, CO 80401
W: 720-497-6957
Jeffery.hampton@state.co.us

1.7. PROJECT COORDINATION

The CM shall utilize the following project coordination items for the Project:

A. Routine Working Contact

The routine working contact will be between the Project Management Team (“PMT”), which will be comprised of the CDOT Program Engineer, CDOT Project Director, the CDOT Design PM, CDOT Construction Manager, CDOT Environmental Program Manager, the Design Consultant Project Manager (“DC PM”), the Independent Cost Estimator (“ICE”) Project Manager, and the Construction Manager Project Manager (“CM PM”).

B. Project Management Team Correspondence/Communication Requirements

The PMT members are expected to communicate relevant contacts, coordination efforts, conversations, and emails where important Project Information is discussed.

C. Coordination

In addition to the stakeholders listed in **Section 1.3.G**, the CM 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 – Jeff Hampton, PE (Interim) Program Engineer – Mike Keleman, PE~~



- CDOT Regional Environmental Manager – Vanessa Halladay
- CDOT Project Director – TBD
- 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
- Project Construction Manager (Owner's representative in construction) and any subcontractors
- ICE
- CDOT Engineering Estimates and Market Analysis (EEMA) Group
- CDOT Maintenance Forces
- Headquarters and Regional Civil Rights Manager
- HPTE
- Bridge Enterprise

D. Project Co-Location

Plans to co-locate with the Design Team and CM for the preconstruction phase of this Project and throughout construction will be determined after selection. The location and timeframe for co-location is to be determined but is anticipated to be in the Denver Metro or within the Project vicinity. Co-location is at the discretion of CDOT.



1.8. CONSTRUCTION BUDGET

The Construction Budget is defined as the portion of the Project budget estimated for CM/GC Construction Project Contracts. The estimated required Construction Budget for this Project is \$525 million. This amount does not include non-construction Project costs (which are in addition to this amount) and are still being evaluated by CDOT with the goal of optimizing efficiency. The funding for the full Project has not been fully identified at the time of this RFP. CDOT is pursuing closing the funding gap on this Project, however there is no guarantee that future funding will be identified, see **Section 1.4** of this RFP for more information.

It is estimated that each CM/GC Construction Project Contract for construction services shall include:

- Agreed upon CAP amount;
- The Management Price Percentage (MPP) applied to each construction item, see **Section 2.8** of this RFP for additional information;
- GC indirect costs allowed as indicated in **Appendix C** of this RFP;
- Force accounts, and risk pools that are associated with the construction of all elements of the Work described in the CM/GC Construction Project Contract;
- Performance and Payment Bonds; and
- Insurance Certificate(s) for Policy Requirements identified in CDOT's Standard Specifications.
- Note: Additional Exhibits, Attachments, Terms and Conditions that are a part of CDOT's standard Construction Contract Document for a Work Package will be provided at the time of issuance of a Notice of Award for a Work Package.

1.9. PROJECT SCHEDULE

Upon CM contract award, the CM shall establish a Preconstruction Schedule according to the Project Scope Elements listed in **Section 1.3B** of this RFP in coordination with the Design Team. The CM shall incorporate the preconstruction roles and responsibilities as defined in **Appendix A** of this RFP. The Preconstruction Schedule will be used to establish the initial schedule for the Project and shall include/consider a proposed construction schedule as well.

After the scope, schedule, and budget is established for each package, an analysis shall be performed as to the status of the Project when compared to the Preconstruction Schedule. The CM shall provide continuous schedule validation for construction schedules and the overall schedule for the duration of the CM preconstruction phase.

The CM shall use either of the scheduling software programs listed in **Section 1.14** of this RFP and the CM shall maintain the schedule in the same format throughout the duration of the Project. The CM shall submit monthly schedule updates to the CDOT Project Director, or after any significant change to the Project, or as otherwise directed by CDOT.

It is estimated that the CM will incorporate or perform the following items while developing the Preconstruction Schedule and maintaining it for the duration of the CM preconstruction phase:

- Incorporate all pre-construction activities for both the Design Team and the CM.
- Develop a preliminary construction schedule and construction packaging strategy within CDOT's Construction Budget. Collaborate with the Design Team to determine if early construction



packages are viable, cost effective and provide an overall benefit to the Project.

- Assist in determining the scope for any potential early construction packages, while considering the CSS process.
- Prepare construction schedules and phasing alternatives at each pre-construction milestone to support development of OPCCs, validate deadlines, and help develop Project delivery strategies.
- Develop a resource-loaded, critical path method, construction schedule at 30%, 60% and 90% OPCC milestones, as well as for all CAP proposals.
- Ensure each CAP package will be severable; will have specific beginning and end points; and will have independent overhead, mobilization, traffic control, and Project costs. Each CAP package will include provisions for liquidated damages, incentive/disincentive, and roadway user costs as determined by CDOT in its sole discretion. The CM and CDOT are responsible for ensuring the severability of each package.
- Compare and validate construction schedules and all assumptions with the ICE.

1.10. PRELIMINARY DOCUMENTS AND DRAWINGS

The Project is currently in the NEPA phase; therefore, design work, preliminary drawings, and reports are limited and conceptual in nature. The environmental documents as well as other design related materials that CDOT has made public can be found on the project website at:

<https://www.codot.gov/business/designsupport/adp-db-cmgc/opportunities/cm-gc-solicitations-active/i-70-floyd-hill-to-veterans-memorial-tunnels>

The CM shall note the design related files are subject to the Electronic CAD Resources disclaimer found at the above link to download the design file materials.

1.11. SPECIFICATIONS

The most current version of CDOT's Standard Specifications for Road and Bridge Construction at the time of each successful CAP proposal negotiation shall control construction of that CAP package. The 2021 CDOT Standard Specification book is the most current version. The Project team will develop the project special provisions and standard special provisions that will take precedence over the Standard Specifications and plans during development of each scope package.

1.12. OWNERSHIP OF THE DOCUMENTS

All tracings, bids, plans, manuscripts, specifications, data, maps, etc., prepared by or obtained by the CM because of working on this contract shall be delivered to and become the property of CDOT. All proposals shall become the property of CDOT, even if the CM is not selected. All proposals will be confidential until award and are subject to the provisions of the Colorado Open Records Act (C.R.S. 24-72-201, *et seq.*) and any other laws and regulations applicable to the disclosure of documents submitted under this RFP.

1.13. REQUIRED PERCENTAGE OF WORK SELF-PERFORMED BY CM

The Proposer shall self-perform no less than 30% of the total work for CM services in the preconstruction phase by its own staff, not through subcontractors. For any awarded construction, the GC must self-perform work valued at not less than 30% of the total construction work by its own staff, not through



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Department of Transportation

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subcontractors.



1.14. PROJECT COMPUTER SOFTWARE REQUIREMENTS

The Contractor shall utilize the most recent CDOT adopted software. Latest version is defined as the version in use by CDOT at the release of this RFP. Upgrades to the version of any software on this list that occur for the duration of the Project, will be evaluated for efficacy on a case-by-case basis. The primary software used by CDOT is as follows:

A. Estimating

Microsoft Excel (latest version) or other software that is compatible with providing pricing in the CDOT Schedule of Bid Items standard format using the most current CDOT Item Code Book.

B. Scheduling

Microsoft Project (latest version) or Primavera (latest version)

C. Specifications

Microsoft Word (latest version)

D. CADD

Bentley OpenRoads Designer (latest version) & Bentley ProjectWise Cloud (latest version)

1.15. REQUIRED AVAILABILITY OF KEY PERSONNEL

Key Personnel in the Project Management Team section of the Proposal, see **Section 3.1** of this 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 CM or a subcontractor decides to replace any of its Key Personnel, the CM 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 CM 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 CM 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 CM'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 CM. The notification shall include a reasonable timeframe to correct such performance. Thereafter the CM may be required to reassign or replace such Key Personnel. If the Project Director or its designated representative notifies the CM that certain Key Personnel of a subcontractor should be replaced, the CM 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.



1.16. ORGANIZATIONAL CONFLICTS AND INELIGIBLE FIRMS

The Proposer shall include a full disclosure of all potential organizational conflicts of interest in its Proposal. An organizational Conflict of Interest exists when a person or business entity has an unfair competitive advantage because of other activities or relationships with other persons. No Person or business entity prior to Proposal submission, that was engaged by the State of Colorado in the preparation of this Request for Proposal, that had access to procurement sensitive information related to this Request for Proposal including but not limited to Requirement, Statements of Work, or Evaluation Criteria will be eligible to directly submit or participate in the submittal of a proposal for this initiative.

By submitting its Proposal, each Proposer agrees that, if an organizational conflict of interest is thereafter discovered, the Proposer will make an immediate and full written disclosure to CDOT that includes a description of the action that the Proposer has taken or proposes to take to avoid or mitigate such conflicts. If an organizational conflict of interest is determined to exist without satisfactory mitigation, CDOT may, at its discretion, cancel the award or terminate the contract.

If the Proposer was aware of an organizational conflict of interest prior to the award of the contract and did not disclose the conflict to CDOT, CDOT may terminate the contract for Default. No firm that is ineligible for State contracts may be part of any Proposer Team. Each Proposer is responsible for determining the eligibility of its team members.

1.17. APPLICABLE FEDERAL REGULATIONS, STATE REGULATIONS AND INDUSTRY STANDARDS

The Proposer shall conform to all applicable State and Federal laws and regulations and recognized industry, safety, environmental, and design standards.

1.18. NONDISCRIMINATION

The CM shall comply with all applicable legal requirements that enumerate unlawful employment practices including discrimination because of race, religion, color, gender, age, disability, or national origin, and that define actions required for affirmative action and minority/disadvantaged business programs. The CM shall not discriminate against any employee or applicant for employment because of race, color, national origin, religion, gender, age, or physical handicap.

The CM shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, religion, color, gender, age, disability, or national origin. Such action shall include the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The CM agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

1.19. DBE PROGRAM REQUIREMENTS

The contract goal for DBE participation during the preconstruction services is five percent (5%).

A DBE contract goal will be required for all GC Construction Project Contracts and will be set at the 60% design level based on its scope and size. The CM will be able to provide input as this deadline approaches. CDOT Civil Rights staff shall also be involved so they understand the goal in relation to the scope.



Sufficient good faith efforts to meet the DBE contract goal shall be a condition of award for each CM/GC Construction Project Contract. Sufficient good faith efforts to meet the On-the-Job Training Goals (“OJT”) shall also be a condition of award for each CM/GC Construction Project Contract. DBE documentation and subcontractor selection must be provided before a CM/GC Construction Project Contract is awarded.

The Proposer shall conform to all applicable State and Federal regulations regarding Civil Rights compliance.

1.20. MAXIMUM COMPENSATION FOR CM PRECONSTRUCTION SERVICES

As stated in **Section 1.8** of this RFP, the Construction Budget is defined as the portion of the Project budget estimated for CM/GC Construction Project Contracts. The estimated required Construction Budget for this Project is \$525 million. This amount does not include non-construction Project costs (which are in addition to this amount) and are still being evaluated by CDOT with the goal of optimizing efficiency. The funding for the full Project has not been fully identified at the time of this RFP. CDOT is pursuing closing the funding gap on this Project, however there is no guarantee that future funding will be identified, see **Section 1.4** of this RFP for more information.

The successful Proposer will be paid a total sum amount, not to exceed \$3.2 million for CM preconstruction services. Please see Form B-1 in Appendix B of this RFP.

If CDOT fails to identify future funding to close the funding gap, the CM and Design Team will continue to complete the preconstruction phase of the Project for all Project Scope Elements. The remnant construction packages will be procured as a separate phase(s) of the Project when funding becomes available. The fee for CM preconstruction services will not be increased if the funding gap is closed as it was sized to provide services for the entire design, both funded and unfunded phases.

The CM shall submit monthly invoices to the CDOT Project Director for CDOT payment as work progresses based on the estimated percentage of CM preconstruction services completed with agreement of the CDOT Project Director.

1.21. EXPLANATION OF CAP

A reviewed, negotiated, and agreed upon CAP proposal is the amount that may be incorporated into the standard CM/GC Construction Project Contract for construction services.

The CAP is the sum of the direct Cost of Construction and the Management Price Percentage for a specific construction package. CDOT and the CM will refine the Cost Model, consisting of bid items, quantities, risks, and assumptions for the construction package, through a series of Cost Model meetings.

The CM will propose a CAP for GC services; CDOT and the CM will negotiate the direct Cost of Construction for that package with the goal of agreeing on a final CM/GC CAP. CDOT makes no guarantees that it will accept or agree to a CM/GC CAP proposal submitted by any party. If CDOT successfully negotiates, agrees, and accepts a GC CAP proposal, payment for the construction of the Project will be based on the negotiated and accepted CM/GC CAP which includes, but is not limited to, a Schedule of Bid items as per the Standard Specifications for Road and Bridge Construction.

CDOT anticipates requesting CAP proposals when both the CM and CDOT agree the design has progressed to the appropriate level, typically at 90%, for each individual construction package. If CDOT and the CM have negotiated, agreed on, and accepted a CM/GC CAP, the CM shall submit the GC CAP proposal it negotiated, agreed on, and accepted via the Electronic Bid Submittals (“EBS”) system. The



CM may develop multiple GC CAP proposal packages, and CDOT may negotiate and accept those GC CAP proposals during the design and construction phases of this Project. CDOT reserves the right not to award any part(s) or all the CM/GC Construction Services, and bid/award some or all of the CM/GC construction work separately. The CM shall deliver to CDOT a proposed GC CAP and GC CAP supporting documents at any appropriate milestones identified at the Project Scoping Workshop for an appropriate LLTP or construction phase.

Except for change orders due to unforeseen conditions or agreed upon overrun items and agreed upon risk pool items approved by CDOT, a CM/GC Construction Project Contract CAP price will not be increased. The GC assumes all risk with performance of the bid items, including management of its subcontractors, suppliers, and any associated cost impacts over and above a CM/GC Construction Project Contract CAP price not listed as overrun items in the construction specifications or agreed to as risk pool items in the executed Risk Register.

A CM/GC CAP proposal can be offered and negotiated three times. After the third attempt at a CM/GC CAP negotiation, CDOT reserves the right to prepare the plans, specifications, and estimate package for public, low-bid, advertisement. The CM services contractor is not allowed to bid on this public advertisement.

CDOT will review and determine whether to accept the risk and shared risk contingency pools with the CM during the preconstruction phase that, if accepted, the risk and shared risk contingency pools could potentially be incorporated into a negotiated GC CAP proposal. The purpose of the contingency risk-sharing pool is to develop a budget for items foreseen at the time of negotiating a GC CAP proposal but were not detailed enough for itemized pricing. All items fitting this category will be identified separately in a CAP proposal by CDOT and the CM and will be monitored for progress and cost by CDOT.

In developing this shared risk contingency pool, CDOT may agree to share cost savings in construction (not attributed to any reduction in the scope of work or reduction in operating performance for the corridor) that may occur after a GC CAP proposal has been negotiated with the Contractor and as agreed to in the executed Project Risk Register.

1.22. PUBLIC INFORMATION

The section of I-70 through the Project area serves as the only contiguous east-west interstate in Colorado and serves as a critical link between the state's Front Range and Mountainous and Western Slope communities. I-70 is part of the National Highway Freight Corridor and is a critical piece of infrastructure that impacts economic vitality throughout the state of Colorado and the rest of the nation. The corridor sees a high volume of traffic, a high percentage of commercial vehicles (7%), and sees peak summer daily averages surpassing 50,000 vehicles per day. I-70 through the project area is one of the state's highest transportation priorities, affecting millions of Colorado residents, tourists, and the movement of freight.

The CM Public Information Manager ("PIM") will be expected to execute and support CDOT's communication needs for this Project with a variety of audiences in the corridor including residents, business owners, the traveling public, tourists, recreation patrons, the freight industry, and others during the CM phase.

During the CM phase, CDOT will be the primary point of contact responsible for Public Information. If a CAP proposal is successfully negotiated, CDOT will still be the primary point of contact, however, the GC will be required to provide timely updates and responses for Public Information requests for the duration of construction. This cost shall be included in the individual construction packages. This work



consists of providing regular and continuous communications services throughout the duration of the Project including community and stakeholder outreach as well as media support.



SECTION 2 – CM PROPOSAL REQUIREMENTS AND INSTRUCTIONS

2.1. PROPOSAL GENERAL INFORMATION

This RFP is a two-phase procurement process that includes a Proposal (Phase 1), followed by a short listing of Proposers by the Selection Panel (Phase 2) an interview for shortlisted Proposers. CDOT intends to identify three shortlisted Proposers but reserves the right to identify as few as two and as many as four. The shortlisted Proposers will continue Phase 2 of the procurement, the interview.

Proposal packages in response to the RFP shall be submitted in one package for pre-construction CM services. The apparent successful Proposer will be determined by a sum of the Proposers Technical Score and their Interview Score to achieve a Total Score, The Proposers' Total Score will be tabulated and the Proposer with the highest Total Score will be considered the apparent successful Proposer in accordance with the evaluation criteria set forth in **Section 3** of this RFP.

All Proposers to this RFP accept the conditions of this RFP, including, but not limited to, the following:

- A. Multiple proposals from a single Proposer will be considered non-responsive and will not be evaluated or scored.
- B. Reimbursement will not be made by CDOT for any costs related to the preparation of the Proposal, required documentation, interviews, presentations, discussions, the selection process, the contract negotiation process, and/or any related activities. These costs are the sole responsibility of the Proposer.
- C. The Proposer shall include a full disclosure of all potential organizational conflicts of interest as outlined in **Section 1.16** of this RFP.
- D. Any proposal received by CDOT after the time specified in **Section 2.3** of this RFP shall be deemed non-responsive and shall not be evaluated or scored.
- E. This RFP, including all material submitted by Proposers, at any stage, including but not limited to the Procurement phase, selection, and any resulting contracts, are subject to the provisions of the Colorado Open Records Act (C.R.S. 24-72-201, *et seq.*) and any other laws and regulations applicable to the disclosure of documents submitted under this RFP.

Material subject to open records laws includes, but is not limited to, all records, documents, drawings, plans, specifications, and other materials relating to the Project, the solicitation, and the conduct of CDOT business. CDOT will also follow and adhere to CDOT Policy Directive 508.2 for this RFP and resulting contracts.

The Proposer shall specifically identify and mark any proprietary information, trade secrets, or confidential commercial and financial information that a Proposer believes should be exempted from disclosure.

During the Procurement phase, CDOT will accept materials clearly and prominently labeled "PROPRIETARY", "TRADE SECRET", or "CONFIDENTIAL" by the Proposer.

Blanket, all-inclusive identifications by designation of whole pages or sections as containing proprietary information, trade secrets, confidential commercial or financial information shall not be permitted and shall be deemed invalid except that blanket identifications can be made in the Strategic Project Approach, Approach to Risk, Schedule, and Pricing; and the Management Price Percentage breakdown (Appendix C) as defined in **Section 2.8** of this RFP.



CDOT will follow CDOT Policy Directive 508.2 in determining disclosure of documents requested. CDOT will advise the Proposer of any request pursuant to the Colorado Open Records Act and any other applicable laws for the disclosure of any materials. Under no circumstances, however, will CDOT be responsible or liable to the Proposer or any other party for the disclosure of any such labeled materials, whether the disclosure is deemed required by law, by an order of the court, or occurs through inadvertence, mistake, or negligence on the part of CDOT or its officers, employees, contractors, or consultants.

CDOT will not advise the Proposer as to the nature or content of documents entitled to protection from disclosure under the Colorado Open Records Act or other applicable laws, as to the interpretation of the Colorado Open Records Act, or as to the definition of trade secret. The Proposer shall be solely responsible for:

- All determinations made by it under applicable laws; and
- Clearly and prominently marking each and every page or sheet of materials with “PROPRIETARY”, “TRADE SECRET”, or “CONFIDENTIAL” as the proposer determines to be appropriate.

Each Proposer is advised to contact its own legal counsel concerning the Colorado Open Records Act, other applicable laws, and their application to the Proposer’s own circumstances.

In the event of litigation concerning the disclosure of any materials submitted by the Proposer, CDOT’s sole involvement will be as a stakeholder retaining the material until ordered by a Court, and the Proposer shall be responsible for otherwise prosecuting or defending any action concerning the materials at its sole expense and risk.

All submittals will become the property of CDOT, will not be returned, and will be disposed of according to Department policies. The concepts and ideas in the information contained in the Proposal, including any proprietary, trade secret, or confidential information (exclusive of any patented concepts or trademarks) submitted by all Proposers, shall also become the property of CDOT.

- F. CDOT reserves the right to reject any or all Proposals. Proposals that do not meet the Minimum Proposal Requirements listed in **Section 2.2** of this RFP will be deemed non-responsive and will not be evaluated or scored.
- G. Proposers may elect to participate in a debriefing within 5 working days after the Award of the Contract. The debriefing shall be conducted within 10 working days after the Award of the Contract.
- H. The successful Proposer will be contracted for CM preconstruction services for this Project. CDOT may terminate the CM services contract at the completion of the preconstruction phase for convenience.
- I. If CDOT and the successful Proposer fail to reach a negotiated and accepted CM/GC CAP proposal and CDOT chooses to publicly advertise a new solicitation of the GC portion of this Project for bids, the successful Proposer will not be permitted to submit a bid.



2.2. MINIMUM PROPOSAL REQUIREMENTS

All Proposals will be required to meet minimum proposal requirements to be considered for this Project. To be considered as qualified, Proposers shall have, as a minimum:

- A. Attended the Mandatory Pre-Proposal Meeting as defined in **Section 2.4** of this RFP.
- B. Demonstrated a bonding capability up to \$525M for an individual project in addition to its current and anticipated bond commitment workload. Provided a letter from a surety company indicating that the Proposer is capable of obtaining Payment and Performance Bonds covering Project No. NHPP 0703-446/FBR 0703-457, I-70 Floyd Hill to Veterans Memorial Tunnels Project for at least \$525M. The surety submitting the letter must be a surety company or companies licensed by the State of Colorado and listed in the current United States Department of the Treasury Circular 570 as acceptable sureties for the bond amount on Federal Bonds. Letters indicating “unlimited” bonding/security capability are not acceptable. Performance and Payment Bonds will be required at the time the Construction Agreed Price is negotiated, agreed to, and accepted by both parties. The final value of the Bonds will equal the final construction contract amount.
- C. Provided CDOT with evidence of insurability that meets the requirements of Subsection 107.15 of the Standard Specifications for Road and Bridge Construction. The Proposer is not required to provide Professional Liability insurance certificates.

CDOT may, at its election, implement an Owner Controlled Insurance Program (“OCIP”) for the construction of this Project. Lines of insurance coverage may include any or all of the following: Workers Compensation, Commercial General and Excess/Umbrella Liability, Contractors Pollution Liability, and/or Builders Risk. CDOT reserves the right to determine who participates in the OCIP. The CM can assume that CDOT will make this determination at the 60% OPCC for each CAP package.

- D. Provided CDOT with evidence of having been pre-qualified with the CDOT Contracts and Market Analysis Branch at the greater than \$20,000,000 level and satisfy all requirements of pre-qualification per 2 CCR 601-10, Rules Governing Construction Bidding for CDOT Public Projects, within 14 calendar days of the Proposal submittal deadline as shown in **Section 2.3** of this RFP.

Federal and State regulations require certification by prospective participants (including contractors, subcontractors, and principals) as to current history regarding debarment, eligibility, indictments, convictions, or civil judgments.

- E. Meet all the Proposal Submittal requirements of **Section 2.8 (Management Price Percentage) and Section 2.9 (Proposal Submittal)** of this RFP.
- F. Provided CDOT with a signed Anti-Collusion Affidavit, CDOT form #606 with the initial proposal materials.



2.3. KEY EVENTS SCHEDULE AND RFP DATES

Proposers are required to meet the dates set for the Proposal submission, and the interviews. Proposers are also required to meet the information submittal dates outlined in the summary below. Failure to meet these dates will result in the Proposal being considered non-responsive. All times listed in the table below are Mountain Standard Time (MST). CDOT is fully committed to delivering the Project and meeting the milestones shown in the table below. CDOT does reserve the right to modify the timeframes if it is determined by CDOT to be in the best interest of the State, and the Project.

Key Event	Date	Time
Advertisement of Draft RFP for CM Services	10/1/2021	N/A
Mandatory Pre-Proposal Meeting – Public (held via virtual meeting)	10/6/2021	10:00 a.m. - Noon
Optional One-on-One Briefings – Confidential (60-minutes)	10/12/2021 - 10/14/2021	as requested
Draft RFP Proposer Questions/Comments Due	10/15/2021	2:00 p.m.
Advertisement of Final RFP for CM Services	10/2219/2021	N/A
Proposal Submission	11/05/2021	2:00 p.m.
Notification to Shortlisted Proposers	12/17/2021	N/A
Interviews	01/13/2022	N/A
Chief Engineer Selection Approval	01/20/2022	N/A
CM Notification	01/20/2022	N/A
Award of Contract	01/20/2022	N/A
Anticipated Contract Execution/NTP	03/17/2022	N/A

2.4. MANDATORY PRE-PROPOSAL MEETING

Any potential Proposers interested in submitting a Proposal shall register and attend the Mandatory Pre-Proposal Meeting. Registration for the Mandatory Pre-Proposal Meeting is available at the following link: https://cdot.zoom.us/meeting/register/tJAudO2gpzIrG9XYQriwygiHs6cAR_xL1ZSt

The Mandatory Pre-Proposal Meeting will be held virtually at the time and date set forth in **Section 2.3** of this RFP. This meeting will introduce all Proposers to the CM/GC project delivery method, give an overall introduction to the Project, and enable CDOT to answer questions about the Project and process. The CDOT Project Management Team for the Project will be attending, and the meeting will be scheduled for two hours.

Any Proposal received from a party that did not attend the Mandatory Pre-Proposal Meeting will be determined by CDOT to be non-responsive. The corresponding non-responsive proposal will not be evaluated or scored and will not continue in the procurement process.



2.5. QUESTIONS AND CHANGES TO THE RFP

CDOT reserves the right to make changes to the RFP. Changes to the RFP generally consist of clarifications, scope changes, or time and/or date changes. All changes to the RFP prior to the receipt of proposals shall be made by an addendum to the RFP and shall be available publicly to all Proposers on the CDOT procurement webpage. Following receipt of proposals, changes to the RFP (If any) will be conveyed in writing directly to those Proposers determined to be responsive.

Proposers may submit questions, request clarification, or request a change to the Draft RFP by submitting a written request to the Contract Officer at the address set forth in **Section 1.6** of this RFP.

The request shall specify the provision and section of the Draft RFP in question, and, if a change is requested, contain an explanation for the requested change. CDOT will not respond to questions or change requests received after time specified in the above table within **Section 2.3** of this RFP.

CDOT will evaluate any questions and/or requests submitted to determine merit but reserves the right to determine whether to respond or accept the requested change at its sole discretion. All questions, requests for clarification, or RFP Addendums, and CDOT's response will be posted at the following link:

<https://www.codot.gov/business/designsupport/adp-db-cmgc/opportunities/cm-gc-solicitations-active/i-70-floyd-hill-to-veterans-memorial-tunnels>

Proposers shall not rely on oral or written instruction changes or clarifications regarding this RFP, unless issued in writing by the CDOT Contract Officer as an addendum to this RFP.

Proposers must acknowledge all issued addenda in their submittal and proposal.

2.6. CONTRACTOR PROTEST RULES

Protests will be handled per 2-CCR 601-10 Rules Governing Construction Bidding for CDOT Public Projects, as follows:

Any actual or prospective contractor who is aggrieved in connection with a solicitation or award of a contract may protest to the Chief Engineer. The protest shall be submitted within seven working days after the aggrieved person knows or should have known of facts giving rise to the protest. A protest shall not stay the procurement.

The Chief Engineer or designee shall have the authority to settle and resolve a protest of a Contractor, actual or prospective, concerning the solicitation or award of a contract. A written decision regarding the protest shall be rendered within seven working days after the protest is filed.

The decision shall be based on and limited to a review of only those issues raised by the aggrieved Contractor, and will set forth each factor considered, in reaching the decision.

The decision will constitute the final agency action of the Colorado Department of Transportation regarding the protest.

Entitlement to costs: When a protest is sustained by the Chief Engineer or designee, or upon administrative or judicial review, and the Contractor should have been awarded the contract under the solicitation but was not, the protestor will be entitled to recover Proposal preparation costs. No other costs or fees will be permitted or awarded including, but not limited, to attorney's fees.



2.7. AWARD OF CONTRACT

CDOT intends to evaluate, select, and award one CM contract to the top ranked Proposer based on the result of the Responsiveness Review and the Total Score of the Proposal (The Total Score is a summation of their Technical Score and their Interview Score) with Chief Engineer Concurrence of the Selection Panel’s recommendation. The apparent successful Proposer receiving Chief Engineer concurrence will be awarded a contract for CM Preconstruction Services.

The Selection Panel shall complete an evaluation of submitted Proposals and score them. Those scores will then be averaged and points will be awarded. CDOT intends to shortlist three Proposers but reserves the right to Shortlist the top two to the top four proposers if it is in the interest of the Project. Those Proposers that have made the Shortlist will then participate in a second evaluation consisting of a scored Interview based on criteria in **Section 3.2** of this RFP.

Selection evaluation criteria and scoring of the proposals is detailed in **Appendix B** of this RFP. Contract Award and contract execution will be contingent on availability of proposed Key Personnel and subcontractors, committed to by the CM in the proposal.

The successful Proposer has a potential, but no guarantee, to enter into a CM/GC Construction Project Contract with CDOT for GC construction services for this Project. Only if CDOT and the successful Proposer successfully negotiate, agree to and accept a CAP proposal, will all parties execute a CDOT drafted CM/GC Construction Project Contract. The CM/GC Construction Project Contract (if any) will be separate from the CM contract.

All negotiations shall be open book. CDOT and their Independent Cost Estimating Consultant shall have access to all GC CAP proposal documents, quotations, takeoffs, and other construction cost estimates, including those for subcontractors, during negotiations.

Issuance of the CM/GC Construction Project Contract will be subject to the GC Proposer posting 100% performance and payment bonds and being compliant with CDOT procurement policies. The GC Contractor will competitively procure and award qualified subcontractors in accordance with their proposed subcontracting plan, as described in **Section 2** and **Section 3** of this RFP.

2.8. MANAGEMENT PRICE PERCENTAGE

The Management Price Percentage is a percentage which will be applied to all Construction Phase CAP Proposals. The Management Price Percentage shall include all applicable line items in **Appendix C** of this RFP, including profit and indirect costs as defined in **Appendix C** of this RFP.

CDOT has established the Management Price Percentage for the Project at 10.5%. Proposer acceptance of the Management Price Percentage will be submitted with the Proposal using **Form B-2** in **Appendix B** of this RFP and the information in **Appendix C** of this RFP, collectively called Management Price Percentage Certification (MPPC).

The MPPC shall consist maximum of 3-total pages: (1) completed Form B-~~23~~ and (2) 2-page maximum limit of detailed information showing the breakout of the Management Price Percentage, in **Appendix C** of this RFP. The 3-total pages maximum shall be submitted with the Proposal in accordance with deadlines in **Section 2.3** of this RFP. Other indirect and non-reimbursable costs outlined in **Appendix C** of this RFP must be considered when certifying agreement to the MPPC.

The MPPC will be evaluated for responsiveness. If the MPPC is determined by CDOT to be non-responsive, the corresponding Proposal will also be determined by CDOT to be non-responsive. The corresponding non-responsive Proposal will not be evaluated or scored and will not continue in the



COLORADO
Department of Transportation

~~Final Draft~~ Request for Proposals –
10/019/2021
Project No. NHPP 0703-446/FBR 0703-457
I-70 Floyd Hill to Veterans Memorial Tunnels

procurement process.



2.9. PROPOSAL SUBMITTAL – STEP 1

Proposers must comply with the following items. CDOT retains the right to waive any minor irregularity or requirement, so long as CDOT determines that it is in its, and the Project’s best interest, as determined by CDOT, in its sole discretion. **(Please note that the primary focus of this evaluation will be the firm(s)’s capabilities).**

- A. Timely deliver **one (1)** electronic copy PDF file of the Proposal to the Contract Officer listed in Section 1.6 of this RFP. roberta.s.lopez@state.co.us.
- The maximum file size, if only sent to one person, is 22-25MB. -Emails containing Proposal that Carbon Copy (“cc”) other individuals further limit the attachment size. For example, the email attachment is limited to only 5MB if sent to 5 recipients.
 - Proposers may send a practice .pdf file to the Contract Officer listed in Section 1.6 of this RFP roberta.s.lopez@state.co.us as a test, at least three working days ahead of the RFP deadline. This file will be deleted by CDOT.
 - Alternatively, Proposers may break up their proposal into several PDF files and send them to CDOT in multiple separate emails. If the proposal is broken up into several PDF files, the same file size limitations described above applies to each email.
 - CDOT will only evaluate the files that are received by the date and time deadline set forth in **Section 2.3** of this RFP.
- B. Proposal Format:
- Submittals shall be formatted with section headers/tabs in the exact form and alphanumeric sequence of **Section 3** of this RFP.
 - All submittals shall use a minimum font size of 11 Times New Roman and a minimum font size of 10 Times New Roman on charts, graphs, and figures.
 - Web Links or QR codes -to external documents, information, videos, etc. are not allowed.
 - Introductory Letter
 - 2-page limit (8-1/2” x 11” electronic paper size). Proposers shall acknowledge all issued addenda within this letter.
 - Proposal Section
 - ~~136~~-page limit (8-1/2” x 11” electronic paper size).
 - 5-page limit (11” x 17” electronic paper size) shall be reserved exclusively for charts, graphics, and plan sheets.
 - The total page limit for the Proposal Section is ~~an 1821~~ -pages, as described above (16 pages, plus 5 pages, equals 21 total pages) limit.
 - Background information for Key Personnel or other Team members does not need to be duplicated in the Proposal Section. Proposers can refer to the Appendix Section for this information.
 - Appendix Section



- The Appendix Section shall only include:
- Potential conflicts of interest: No page limit (8-1/2” x 11” electronic paper size).
 - Signed Anti-Collusion Affidavit, CDOT form #606: No page limit (8-1/2” x 11” electronic paper size).
 - Evidence of Prequalification per **Section 2.2.D** of this RFP.
 - Surety Letters: No page limit (8-1/2” x 11” electronic paper size).
 - Evidence of insurability: No page limit (8-1/2” x 11” electronic paper size).
 - Resumes and references for team members ~~should be limited up to the Tier I and Tier II Key Personnel~~: 20-page limit (8-1/2” x 11” electronic paper size). At a minimum, it is expected that resumes and references are included for all Key Personnel. The Proposer may include resumes and references for non-Key Personnel team members, but shall adhere to the 20-page maximum page limit.
 - MPPC (Form B-2 and Appendix C): Maximum of 3-total page limit (8-1/2” x 11” electronic paper size).
 - Maximum Compensation for Construction Manager Preconstruction Services (Form B-1): 1-page limit.
- Supplemental Section
 - 5-page limit (8-1/2” x 11” or 11” x 17” electronic paper size).
 - The Supplemental Section shall be reserved for supplemental materials for risk assessments, Cost Model examples, processes, the organizational chart, and additional photos, exhibits, or schedules.
 - Commendation Section
 - 5-page limit (8-1/2” x 11” electronic paper size).
 - The Commendation Section shall be reserved for awards or letters of recommendations.
- C. CDOT shall evaluate Proposals in accordance with criteria as indicated in **Section 3.1** of this RFP and subsequently score the evaluated Proposals in accordance with criteria in **Appendix B** of this RFP.
- D. Responses to all items shall be complete; Proposers are encouraged to cross-reference to other sections of their proposal where applicable.
- E. All references shall be current and relevant.
- F. Tabs, covers, and tables of content pages do not count toward the page count. All proposals must be submitted in .pdf format and transmitted electronically to CDOT.

2.10. INTERVIEWS - STEP 2

A. Short List

From the Proposals received, the Selection Panel intends to Shortlist the top three Proposers but reserves the right to shortlist two or four Proposers if it is in CDOT’s and the Project’s interest to



do so. The Proposals will be evaluated and scored using the scoring indicated in **Section 3** and **Appendix B** of this RFP.

B. Interview

Mandatory interviews will be conducted for the shortlisted teams only. Interview times will be arranged by CDOT per **Section 2.3** of this RFP and are subject to change; all shortlisted firms will be notified in advance. Interviews will be evaluated and scored using the scoring indicated in **Section 3 and Appendix B** of this RFP.



SECTION 3 – PROPOSAL CONTENT AND EVALUATION CRITERIA

3.1. EVALUATION CRITERIA FOR PROPOSALS (75 Points Possible)

A. CM Project Management Team (15 Points Possible)

Composition and Commitment of the CM Project Management Team

- Provide a description of the composition of the team's Project Key Personnel. If the Proposer team is a Joint Venture or association, indicate specific responsibilities of party to the Joint Venture.
- Provide, identify, and discuss the qualifications of the Key Personnel. Include the following for each member of the team:
 - Provide job descriptions, responsibilities, and authority for each team member;
 - Provide a list of the concurrent projects, responsibilities, and commitments during the duration of the Project;
 - Current home office location;
 - Qualifications and past construction experience relevant to this Project, in addition to length of time performing those job duties;
 - Unique knowledge of team members related to the Project;
 - Length of time with the firm for each Key Personnel and length of time for overall experience pertinent to the scope;
 - Experience on similar projects as a team; and
 - Provide resumes and two current references for the Key Personnel in an appendix to the Proposal. References will be considered current if the party's name, current position/title, and position/title held at the time for which the recommendation is being sought are provided; telephone numbers must be current as of the proposal due date.

Tier Breakdown

- TIER I: One team member should comprise the role as the Key Personnel for the Project, and should have the following Tier I skills, experience, and knowledge:
 - Project Manager (PM)
 - This team member shall serve as the overall PM for the CM services and, if awarded the CM/GC Construction Project Contract, GC construction services. The PM shall be the main point of communication for the Project team;
 - This team member shall remain in this role for the duration of the Project and is not permitted to fulfill any Tier II or Tier III responsibilities;
 - This team member shall have 15 years of industry experience and shall have demonstrated experience and expertise on a similar role in the delivery of projects similar in scope, value, nature, and complexity to the Project; and
 - Anticipated time commitment: 100% throughout the duration of the Project.



- TIER II: The following staff members shall comprise Key Personnel for the Project, and should have the following Tier II skills, experience, and knowledge:
 - Construction Manager
 - This team member shall be responsible for providing construction and constructability expertise, construction phasing, and seeking innovative solutions during preconstruction services;
 - This team member shall have a minimum of 15 years of experience in construction and management of construction on highway projects similar in scope, value, nature, and complexity of the Project; and
 - Anticipated time commitment: 50-75% during preconstruction, 100% during construction (if applicable).
 - Scheduling Expert/Project Controls
 - This team member shall be responsible for managing the Project schedule and, Project risk, ~~and Project quality~~;
 - This team member shall have a minimum of 7 years of industry experience specific to this expertise and be able to confidently use the scheduling software of choice as shown in **Section 1.14** of this RFP; and
 - Anticipated time commitment: Depending on the number, size, and complexity of construction packages, may be committed 30-50% during preconstruction, 50-75% during construction (if applicable).
 - Quality Manager
 - This team member shall be responsible for managing Project quality;
 - This team member shall have a minimum of 7 years of industry experience specific to this expertise; and
 - Anticipated time commitment: Depending on the number, size, and complexity of construction packages, may be committed 30-50% during preconstruction, 75-100% during construction (if applicable).
 - —
 - Cost Estimator
 - This team member shall be responsible for providing ROM cost estimates and OPCCs during preconstruction services;
 - This team member shall have a minimum of 7 years of industry experience specific to this expertise; and
 - Anticipated time commitment: Depending on the number, size, and complexity of construction packages, may be committed 30-60% during preconstruction, and 10% during construction (if applicable).
 - Structures Expert
 - This team member shall be responsible for providing input, constructability expertise,



and providing innovative solutions for the structural features of the Project including bridge, viaduct, and wall construction;

- This team member shall have a minimum of 15 years of industry experience specific to this expertise; and
- Anticipated time commitment: Depending on the number, size, and complexity of construction packages, may be committed 30-50% during preconstruction and construction (if applicable).



- Geotechnical/Geohazard Expert
 - This team member is responsible for providing input and constructability expertise for the geotechnical or geohazard features of the Project including bridge/wall foundations, excavation stability, landslides, rock excavation and rock fall mitigation;
 - This team member shall have a minimum of 15 years of industry experience specific to this expertise; and
 - Anticipated time commitment: Depending on the number, size, and complexity of construction packages, this person may be committed 30-50% during preconstruction and construction (if applicable).
- Environmental Specialist
 - This team member shall be responsible for providing input on environmental issues such as the incorporation and construction of erosion control measures into the SWMP, wildlife improvements, and permanent water quality;
 - This team member shall have a minimum of 7 years of environmental experience, including design and construction experience; and
 - Anticipated time commitment: Depending on the number, size, and complexity of construction packages, may be committed 20-40% during preconstruction, and 50-75% during construction (if applicable).
- Public Information Officer/Stakeholder Engagement
 - This team member shall be an experienced manager in public information, public relations, and strategy in communication with stakeholders;
 - This team member shall have demonstrated experience and expertise on a similar role in the delivery of projects similar in scope, value, nature, and complexity to the Project; and
 - Anticipated time commitment: Depending on the number, size, and complexity of construction packages, may be committed 20-40% during preconstruction, and 100% during construction (if applicable).
- TIER III: Technical Experts will make-up Tier III of the organization structure. Technical Experts are expected to attend relevant Project meetings. Tier III staff should provide the following skillsets, knowledge, and experience:
 - Safety,
 - Materials,
 - Utilities,
 - Roadway,
 - Drainage,
 - Landscaping/Aesthetics, and
 - Civil Rights (Equal Employment Opportunity).



- Multiple Tier III skill sets may be fulfilled by one individual if adequate justification is made in the proposal to define who is fulfilling what role and their qualification. Proposers shall identify a lead person for each skillset.
- ~~The Proposer may identify and include explain the need for any~~ additional Key Personnel within the Proposal that are necessary for to the success of the Project. The Proposer shall include an explanation for the additional Key Personnel. The Key Personnel requirement within Section 1.15 of this RFP will apply to any additional Key Personnel identified by the Proposer.
- All Key Personnel are expected to attend relevant Project meetings.
- Key Personnel are expected to have a reasonable level of decision-making authority on behalf of the CM.

Organizational Chart and Succession Planning

- Provide a ~~separate~~ graphic showing the CM's organizational ~~structure~~ chart, complete with working titles for the team for the preconstruction phase. Provide an explanation of any variation to the anticipated Key Personnel time commitments stated above.
- ~~Provide a separate graphic showing organizational structure chart, complete with working titles for the Project Management Team.~~
- Provide a narrative describing succession planning for team stability and planning for any member of the project team that may leave ~~during design or construction.~~
- See **Section 1.15** of this RFP for additional information related to Key Personnel.

Safety Record and Performance

- Provide a narrative of the Proposer's largest foreseen safety risks for the Project and describe the safety programs, processes, and initiatives that the Proposer currently has in place to help manage/mitigate/or eliminate the safety risks.
- Provide the following information for each entity involved, covering the last 4 years (201~~87~~-202~~10~~0).
 - Experience Modification Rates (EMR)
 - OSHA Reportable Incident Statistics

B. Contractor Capability (25 Points)¹

Prior Project Experience/Performance/References

- Provide a summary of the Proposer's previous project experience relevant to the general scope and construction value of work for this Project.
- Provide three or more relevant projects/programs that demonstrate the Proposer's ability to be successful on this Project. For each listed project or experience, include owner and

¹ Pursuant to Section 24-93-110, (1), C.R.S. The Department of Transportation shall not exclude a participating entity from a short list, prepared and announced by the Department as required by Section 24-93-105 (2), of responding participating entities that have been determined to be most qualified to receive a request for proposals for an IPD contract for a public project based solely on the participating entity's lack of experience in delivering a public project in the State by the IPD method to be used for the public Project.



architect/engineer references and contract information as CDOT may at its discretion, contact references on the listed projects. Provide at a minimum:

- The project/contract name,
- Project delivery method,
- Description of services provided,
- Overall construction cost of the project, as applicable, including the initial contract/construction value and value at final acceptance. Please provide reasoning for any differential,
- Description of project schedule performance, including initial schedule, and reasons for schedule change,
- Key personnel assigned or in-house staff and their level of involvement,
- Senior Leadership assigned and their commitment in time and overall success of the project, as well as the success of the Owner's Program,
- Major subcontractors and primary subcontracts used in the performance of the contract ~~and Senior Leadership's commitment to involvement during pre-construction and to the success of the Owner's Program,~~
- Project Reference(s). All references submitted shall be current for relevant projects. References will be considered current if the party's name, current position/title, and position/title held at the time for which the recommendation is being sought are provided; telephone numbers must be current as of proposal due date, and
- Coordination with stakeholders, if any.

C. Strategic Project Approach (20 Points Possible)

Provide your Strategic Project Approach for the Project including the following:

Preconstruction Services

- Describe your team's plan and approach to participate in the design development and to inform the decision-making process. Please include in the discussion the following:
 - Team's approach to maximizing CDOT's Project Goals;
 - Team's approach to creating an efficient scoping package, containing only essential scope necessary to meet the Project Goals that is also independent and severable from other packages;
 - Additional unique resources and capabilities that your company commits to utilizing in preconstruction and how these unique resources and capabilities will be beneficial in achieving the Project Goals;
 - Your approach to providing quality assurance of the design and design deliverables. Provide specifics regarding quantity, uncertainty, and completeness to mitigate and minimize the risk of error and omission prior to CAP;
 - How technology will be leveraged for quality control, document control, plan review, quantity validation, etc.;



- Your approach to optimize the schedule and budget to maximize the positive impact of any package(s);
- Your approach on meeting the project duration, outlined in **Section 1.5** of this RFP, and schedule commitments and milestones of this RFP and **Section 1.9** of this RFP;
- The CM will provide continuous constructability reviews during preconstruction services for the Project. Describe your team’s approach to provide specific constructability reviews of environmental and CSS commitments;
- How your firm will involve major and specialty subcontractors during preconstruction to get their input into the design;
- Your plan and approach to ensure, track, and document that all environmental and CSS commitments are included within CAP Package(s);
- Your plan and approach to leverage the principles identified in the I-70 Mountain Corridor CSS Process; to develop and incorporate innovation, design refinement, and value engineering into the Project; and
- Your approach to encouraging and incorporating resiliency through design.

Construction Services

- Describe the team’s plan and approach to constructing the Project including executing multiple packages, early mobilization opportunities and safety critical work with multiple priorities necessary to successfully meet the milestones described above.
- Describe how the team will work with the owner to mitigate and minimize impacts to the cost and schedule if unforeseen conditions are discovered.
- Describe the team’s plan, approach, and resources that the team will commit to the Project to encourage the successful transition to and management of the construction phase. Please include in the narrative the following:
 - Major Project work elements the Proposer is capable of and intends to self-perform;
 - Firm’s approach for a subcontractor management plan that documents how your firm will manage the subcontractors to ensure that they fully understand and are committed to the Project Goals and the expectations necessary for success;
 - Description of how your firm will identify elements of work targeted for subcontracting opportunities and how the work elements will provide for equal opportunity;
 - Description of how your firm will administer a robust campaign to encourage the participation of small and disadvantaged businesses for this Project. Include a description of how your firm will conduct outreach for this item;
 - Description of how your firm will ensure that subcontractors are capable and will provide a work product on schedule, with high quality workmanship, and contribute to the Project’s culture of safety;
 - Description of the mechanisms your firm will use to validate subcontractor bids and reduce risk, and account for market fluctuation in the CAP proposal for a multi-year project; and



- Description of how your firm will work with subcontractors and the owner to mitigate and minimize impacts to the cost and schedule if unforeseen conditions are discovered.
- Describe additional unique resources and capabilities that the team will bring to construction and how these unique resources and capabilities will be beneficial in achieving the Project Goals.
- Describe the team’s technology capabilities and how it will be utilized during construction and what tools will be used to facilitate that technology.
- Describe the team’s plan and approach for CDOT I-70 Mountain Corridor incident response. Include how the team will remain agile to coordinate, adapt, complement, and contribute to the Incident Command’s direction.
- Describe the team’s plan and approach to ensure, track, and document that all environmental and CSS commitments are implemented in construction.
- Describe the team’s plan and approach to environmental management to be used to meet or exceed the environmental commitments made in the EA for the Project. Please include an emphasis on air quality and emission reduction, including greenhouse gases, NOx, fine particulate matter, and other co-pollutants, for construction activities and materials.
- Describe the team’s plan, approach, and resource commitments to involve the CSS stakeholders during construction.

Project Innovations

- In conjunction with the team’s Project Approach, provide any practical and implementable innovative ideas that could increase the likelihood for project success and discuss those ideas as follows:
 - Describe the innovation and how it will be implemented;
 - Discuss how your innovative ideas help balance the Project Goals; and
 - Describe the impact of the innovation(s) on time, cost, quality, and safety.
- All innovative ideas presented by the Proposer will be considered proprietary in accordance with **Section 2.1.E** of this RFP.

D. Approach to Risk, Schedule, and Pricing (15 Points Possible)

As each OPCC or CAP proposal is developed, risk, schedule, and major assumptions need to be evaluated and discussed. How and when the GC communicates these items to CDOT is critical for a successful CM/GC project. Notwithstanding the overall scope and Construction Budget of the Project, please provide a discussion of the team’s approach to the following items:

Risk Approach

CM/GC provides opportunities to mitigate, share, and partner in early identification, quantification, and assignment of risks. CM/GC encourages the parties to quantify, assign and coordinate these risk elements as a partnered team.

- Describe your team’s plan and approach for managing risk for the Project;
- Describe your team’s plan and approach to risk management in relation to the Project’s



design in order to mitigate risk and then assign if necessary;

- Describe your team’s plan and approach to mitigate and minimize the risk of error and omission for construction;
- Describe your team’s approach to shared and owner risk pools;
- Provide a risk assessment and quantitative risk register that:
 - Identify three to five risks specific to this Project listed within **Section 1.3.D** of this RFP that you determine are most significant;
 - Identify three to five risks that were not included in the risks listed in **Section 1.3.D** of this RFP. Be sure to include:
 - Assess and analyze,
 - Mitigate and plan,
 - Allocate/assignment, and
 - Monitor and control.

Schedule Approach

Time is of the essence for this Project. In providing your response to the below Schedule Approach bullets, demonstrate how your proposed construction plan will minimize the impact to the traveling public.

- Give a narrative, with examples, of how your team will provide input to the Design Team to realize an efficient schedule of the work, or to otherwise positively impact the Project.
 - What ideas does your team have for construction phasing and how will those ideas improve the overall schedule?
- What are the preliminary critical path items your team will consider in the development of the schedule(s)?
 - How will your team manage the elements or features of those critical path items to ensure successful execution of the Project?
 - How will your team ensure that the schedule is realistic and efficient?
- What innovations will your team implement to mitigate schedule impacts while constructing the Project in accordance with the existing operations and traffic restrictions as identified in **Section 1.3.F** of this RFP?
- What other factors or risks does your team see that may impact the schedule?

Cost Model Approach

- Demonstrate how your team’s Cost Model will be developed, the basis of assumptions, and how it communicates information necessary for decision making.
- Provide a narrative of your approach specifically addressing the following key topics:
 - Assumptions, risk, opportunities, innovation, market conditions, limited or significant market competition, subcontracting opportunities, means and methods, and potential challenges in the current design or feature that could impact schedule and cost;



- Innovative cost savings, opportunities, and value to the Project;
- Use of CDOT bid items cost data (CDOT Bid Item Book located at:
<http://www.coloradodot.info/business/eema>) for cost evaluation and comparison;
- Provide a description of your approach to developing and reconciling quantities;
- Approach to the development of estimate factors such as escalation factors, fuel pricing, material sources, labor rates, craft labor agreements, availability of skilled craftsman;
- Approach to equipment availability and rental rates;
- Approach to developing production rates; and
- Approach to estimating indirect/overhead costs.



3.2 EVALUATION CRITERIA FOR INTERVIEWS (25 Points Possible)

An interview will be a mandatory part of the selection process for those Proposers on the Short List. The structure of the interview will be as follows:

A. Short Presentation (10 Points)

Summarize the Proposal and describe the Proposer's innovative ideas and unique resources (20 Minutes). The Proposer needs to communicate to the Selection Panel why the Selection Panel should determine the Proposer as the apparent successful Proposer. What strategies and abilities does the Proposer bring to this Project to distinguish them from the other shortlisted Proposers? Limit the presentation to the most critical points of the Proposal and focus on what your team can bring to the table and why.

B. Team Challenge (5 Points)

The Proposer will be given a written challenge to review and propose a course of action to address the elements in the problem. The Proposer will be given 15 minutes to prepare a response or solution and 10 minutes to present the formal response or solution to the Selection Panel. The Selection Panel will observe, evaluate and score both the observations of the Proposer during the 15 minute preparation and 10 minute presentation. This challenge evaluation and scoring will be determined by the following criteria:

- Team's understanding of the Team Challenge;
- Team's recognition of key points and ideas;
- Team's collaboration;
- Team's communication skills;
- Team's understanding of CM/GC Delivery Method, I-70 Mountain Corridor CSS process, and environmental commitments; and
- Team's understanding of Project Goals

C. Question and Answer Session with the Selection Panel (10 Points)

The questions asked by the Selection Panel in this session will be the same for each Proposer. The Proposer will be allocated 25 total minutes for this session. The Evaluation Facilitator will read each question and allow the Proposer to respond to the question for evaluation and scoring by the Selection Panel. The interview typically includes multiple questions, all questions and follow up questions must be responded to in the allotted 25-minute time limit. The Proposer shall monitor the 25 total minutes. If time remains after all questions are asked and answered, and the Proposer does not have any questions, the Selection Panel may ask follow-up questions regarding the Proposers proposal, short presentation, team challenge or questions and answers.



The interview presentation and question/answer scoring will be based on the following criteria:

- Project Understanding,
- Project Approach,
- Project Innovation,
- Communication Skills, and
- Understanding of CM/GC Delivery Method.



APPENDIX A: PRECONSTRUCTION ROLES AND RESPONSIBILITIES MATRIX

The table below includes activities of communication, consensus building, project team reviews, conceptual design, data gathering, documentation, and formal public notice and should be planned by the appropriate responsible party and coordinated with all team members.

The time of their implementation will overlap, and parallel paths of activity should be planned to finish in the development phase in accordance with the shortest possible schedule. The type and number of meetings, documents, etc., will depend on the category and characteristics of the project work.

The CM shall work with the Design Team to finalize Appendix A for approval by the Project Director.



PRECONSTRUCTION ROLES AND RESPONSIBILITIES MATRIX

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONTRACTOR	REQUIRED OF DESIGN CONSULTANT	REQUIRED OF CDOT/ OTHERS
PHASE: PRECONSTRUCTION			
<u>INITIAL PROJECT SCOPING MEETING (WORKSHOP)</u>			
A. CM/GC AND PARTNERING INTRO SESSION	2	2	1
B. PROJECT SITE VISIT AND INSPECTION	1	2	2
C. PROJECT STATUS, GOALS, ELEMENTS, OBJECTIVES, DESIGN SCHEDULE REVIEW	C	C	C
D. IDENTIFY PROJECT RISKS AND DEVELOP INITIAL RISK MANAGEMENT PLAN AND RISK REGISTER	1	2	2
E. REVIEW APPLICABLE ENVIRONMENTAL DOCUMENTS (ROD, FONSI, ETC.)	1	1	2
F. INDEPENDENT DESIGN AND AS-BUILT REVIEW	1		
G. DEVELOP PROJECT SCHEDULE AND TASKS	1	2	1
H. SCHEDULE BI-WEEKLY PROGRESS, FIR, FOR, AND MILESTONES MEETINGS		2	1
I. IDENTIFY DESIGN CRITERIA		1	2
J. DISCUSSION OF POSSIBLE EARLY DELIVERY AND LONG LEAD TIME ITEMS	1		2
K. ANALYSIS OF PROJECT PHASING AND MULTIPLE PS&E PACKAGES	1	2	2
L. DEVELOP DOCUMENT REVIEW AND NAMING CONVENTION STANDARDS	2	1	2
PROGRESS MEETINGS			
A. CDOT/PM, C/PM, CMGC/PM	C	C	C
B. PROJECT MEETING MINUTES		1	2
<p>The managers and team members will meet periodically as required (typically at two-week intervals). These progress meetings will be used to coordinate and track the work effort and resolve problems. The meetings will review the following:</p> <ul style="list-style-type: none"> ● Activities required to be complete since last meeting (Action Items) ● Problems and challenges encountered/anticipated and potential solutions ● Project Schedule Updates (Design and Construction) ● Action Items ● Coordination and communication required with: <ul style="list-style-type: none"> ▪ Team Members ▪ CDOT Specialty Units ▪ Other <p>The CDOT/PM will provide meeting minutes that include details discussed, notes, and all action items relating to the meeting within one week of the meeting.</p>			

LEGEND: C = COLLABORATIVE RESPONSIBILITY, 1 = PRIMARY RESPONSIBILITY, 2 = SECONDARY RESPONSIBILITY



PRECONSTRUCTION ROLES AND RESPONSIBILITIES MATRIX - CONTINUED

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONTRACTOR	REQUIRED OF DESIGN CONSULTANT	REQUIRED OF CDOT/ OTHERS
PHASE: PRECONSTRUCTION			
<u>1. PROJECT DEVELOPMENT PROCESS</u>			
Project Management	2	2	1
The CDOT/PM will coordinate all the work tasks being accomplished by all parties to ensure Project work completion stages are on schedule. The C/PM and CMGC/PM shall coordinate all the work tasks being accomplished by their respective teams to make sure Project work completion stages are on schedule			
Communication and Consensus Building	2	2	1
The CDOT/PM is responsible for the consensus building and facilitating the communication between all members of the Project team. This does not dismiss the responsibility of all team members to communicate with the CDOT/PM and the CDOT Project Management Team when required.			
Weekly Update Newsletter	NA	NA	NA
The CDOT/PM will publish a weekly update newsletter to document the weekly or bi-weekly progress of the schedule, estimate, team meetings, action items, and pertinent information for the FHWA, CDOT management, and Project team members.			
Maintain Updated Contact List	2	1	2
Establish and maintain a computerized list of all appropriate interested parties for the communication process. The list will be used for notices regarding public meetings, mailings, newsletters, or other communication as appropriate.			
<u>2. MEETINGS</u>			
<ul style="list-style-type: none"> ● Graphics support and presentations 	C	C	C
Each Project team member is responsible for the graphics, documents, reports, plans, specifications, and written reviews from each specific scope of work item. Presentation of these documents and their reviews will be available on the shared Project server after the meeting has been adjourned.			
<ul style="list-style-type: none"> ● Provide Local Office 			1
The CDOT/PM will obtain and maintain an office within the Project area to conduct small group meetings and provide displays/information to the public. This office may have work spaces for Project team members, meeting rooms with graphics support and capacity for the entire team to attend. Additional offices or meeting spaces may be considered at the Project Workshop.			
<ul style="list-style-type: none"> ● PM Updates on Progress 	C	C	C
The CDOT/PM, CMGC/PM, and the C/PM will all update the team members at the scheduled meetings as to their progress on deliverables, challenges, and the feedback/comments they need.			
<ul style="list-style-type: none"> ● Project Discussion 	C	C	C
The team members need to come prepared to discuss any and all reservations, ideas, and challenges to the Project. Open and honest dialogue is the key to the success of Project delivery.			

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PRECONSTRUCTION ROLES AND RESPONSIBILITIES MATRIX - CONTINUED

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONTRACTOR	REQUIRED OF DESIGN CONSULTANT	REQUIRED OF CDOT/ OTHERS
PHASE: PRECONSTRUCTION			
<u>2. PRELIMINARY DESIGN</u>			
Preliminary Roadway, Geometric, Structural, Environmental, SWMP, etc. Design		1	1
CDOT/PM will coordinate all design activities with required CDOT specialty units, the Contractor, the Design Consultant, and other outside entities. Design Consultant is responsible for the civil and structural design, plans, specifications, and estimate packages at each formal review.			
<ul style="list-style-type: none"> Environmental - gathering data and analysis 		2	1
<ul style="list-style-type: none"> Environmental - mitigation development 	2	2	1
<ul style="list-style-type: none"> Environmental clearances 			1
<ul style="list-style-type: none"> ROW, specialty, and local clearances 		2	1
<ul style="list-style-type: none"> Hazardous material investigation 		1	2
<ul style="list-style-type: none"> CDOT processes (forms, clearances) 			1
<ul style="list-style-type: none"> Utility coordination 	2	2	1
<ul style="list-style-type: none"> Conduct field survey of Project area. 		1	
<ul style="list-style-type: none"> Field and Project research 	C	C	C
<ul style="list-style-type: none"> Construction requirements 	2	1	1
<ul style="list-style-type: none"> Innovation development, proposal, and tracking 	1	2	2
<ul style="list-style-type: none"> Check and field verify all applicable as-built plans 	C	C	C
<ul style="list-style-type: none"> Provide construction plans, specifications, and estimates 		1	2
Plot/develop all required information on the plans in accordance with all applicable CDOT policies and procedures and all industry standards for civil, electrical, ITS, and structural design.			
<ul style="list-style-type: none"> Develop construction cost model for Engineer Estimator and ICE 	1		2
<ul style="list-style-type: none"> Develop and calculate quantities 	2	1	2
<ul style="list-style-type: none"> Risk Register development 	1	2	2
<ul style="list-style-type: none"> Initiate and Track DBE/ESB and Subcontractor Plan 	1		
<ul style="list-style-type: none"> Constructability reviews and reports 	1	2	2

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PRECONSTRUCTION ROLES AND RESPONSIBILITIES MATRIX - CONTINUED

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONTRACTOR	REQUIRED OF DESIGN CONSULTANT	REQUIRED OF CDOT/ OTHERS
PHASE: PRECONSTRUCTION			
<ul style="list-style-type: none"> • Construction Phasing Plan 	1	2	2
<ul style="list-style-type: none"> • Value Engineering input and participation 	1	2	2
<ul style="list-style-type: none"> • Cost savings reviews 	1	2	2
<ul style="list-style-type: none"> • Preliminary construction schedule 	1		2
<ul style="list-style-type: none"> • Long lead time CAP submissions and proposals 	1		2
<ul style="list-style-type: none"> • Long lead time negotiations 	1		2
<ul style="list-style-type: none"> • Long lead time item procurement 	1		2
<ul style="list-style-type: none"> • Opinion of probable construction cost Estimate #1 	1		
30% milestone FIR (Field Inspection Review) Preparation			
Coordinate, complete, and compile the plans with inputs from other branches: materials, hydraulics, environmental, traffic, right of way, maintenance, safety, and Staff Bridge, if applicable.		1	2
The 30% milestone plans and specifications shall comply with CDOT requirements and shall include: title sheet, typical sections, general notes, plan/profile sheets, and preliminary		1	2
The plans shall be submitted to the CDOT/PM and the CMGC/PM for preliminary review at least one week prior to the FIR (30% milestone)		1	
The plans will be reproduced electronically by CDOT.		2	1
Prepare the Engineer's Estimate for work described in the 30% milestone plans based on estimate quantities.			1
Prepare the 30% preconstruction milestone		1	2
CDOT Form 1048 – Project Scoping Procedures Completion		2	1
Field Inspection Review Meeting			
Review 30% milestone PS&E package and provide written reviews, comments, and redlines.	1		1
Attend the FIR.	C	C	C
Provide post-FIR revisions and memo.		1	
Provide list of all deviations from the standard design criteria and written justification for each.		1	2
Update DBE/ESB and Subcontractor Plan.	1		2
Update Risk Register and Cost Model.	1		2

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PRECONSTRUCTION ROLES AND RESPONSIBILITIES MATRIX - CONTINUED

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONTRACTOR	REQUIRED OF DESIGN CONSULTANT	REQUIRED OF CDOT/ OTHERS
PHASE: PRECONSTRUCTION			
Final Roadway, Geometric, Structural, Environmental, SWMP, etc. Design		1	
CDOT/PM will coordinate all design activities with required CDOT specialty units, the Contractor, the Design Consultant, and other outside entities. Design Consultant is responsible for the civil and structural design, plans, specifications, and estimate packages at each formal review.			
<ul style="list-style-type: none"> • Environmental - gathering data, analysis, and mitigation development 		2	1
<ul style="list-style-type: none"> • Final environmental clearances 			1
<ul style="list-style-type: none"> • Final environmental permits 	2	2	1
<ul style="list-style-type: none"> • ROW, specialty, and local clearances 		2	1
<ul style="list-style-type: none"> • FIPI justification for sole sourcing 		2	1
<ul style="list-style-type: none"> • Final utility coordination 		2	1
<ul style="list-style-type: none"> • Develop and calculate final quantities 	2	1	2
<ul style="list-style-type: none"> • CDOT processes (forms, clearances) 		2	1
<ul style="list-style-type: none"> • Update Risk Register, formal risk assessment meeting 	1		2
<ul style="list-style-type: none"> • Constructability reviews and reports 	1	2	
<ul style="list-style-type: none"> • Construction Phasing Plan 	1	2	2
<ul style="list-style-type: none"> • Value Engineering input and participation 	1	2	2
<ul style="list-style-type: none"> • Final construction requirements 		1	2
<ul style="list-style-type: none"> • Innovation development, proposal, and tracking 	1	2	2
<ul style="list-style-type: none"> • Cost Savings reviews 	1	2	
<ul style="list-style-type: none"> • 90% preconstruction milestone/Final Office Review (FOR) Construction Schedule 	1		2
<ul style="list-style-type: none"> • Long lead time CAP submissions and proposals 	1		2
<ul style="list-style-type: none"> • Long lead time negotiations 	1		2
<ul style="list-style-type: none"> • Long lead time item procurement 	1		2
<ul style="list-style-type: none"> • Opinion of Probable Construction Cost Estimate #2 	1		2
<ul style="list-style-type: none"> • Provide 90% preconstruction milestone construction plans, specifications, and estimates 		1	2
<ul style="list-style-type: none"> • Develop and calculate final quantities 	2	1	2

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PRECONSTRUCTION ROLES AND RESPONSIBILITIES MATRIX - CONTINUED

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONTRACTOR	REQUIRED OF DESIGN CONSULTANT	REQUIRED OF CDOT/ OTHERS
PHASE: PRECONSTRUCTION			
90% Milestone/FOR (Final Office Review) Preparation			
Coordinate, complete, and compile the 90% milestone plans with inputs from other branches: materials, hydraulics, environmental, traffic, right of way, maintenance, safety, and Staff Bridge if applicable.		1	2
The 90% milestone plans and specifications shall comply with CDOT requirements and shall include: title sheet, typical sections, general notes, plan/profile sheets, and preliminary layouts.		1	2
The plans shall be submitted to the CDOT/PM and the CMGC/PM for preliminary review at least one week prior to the 90% milestone.		1	
The 90% milestone plans will be reproduced electronically by CDOT			1
Prepare the Engineer's Estimate for work described in the FOR plans based on estimate quantities.			1
Prepare the 90% preconstruction milestone	C	C	C
90% milestone/FOR (Final Office Review) Meeting			
Review 90% milestone PS&E package and provide written reviews, comments, and redlines.	1		1
Attend the 90% milestone meeting.	C	C	C
Post-90% milestone revisions and memo		1	
Provide list of all deviations from the standard design criteria and written justification for each.		1	2
Provide a 90% milestone Construction Plan.	1	2	2
Obtain final environmental and access permits.		2	1
Finalize construction Cost Model for Engineer Estimator and ICE.	1	2	2
Update DBE/ESB and Subcontractor Plan.	1		2
Update Risk Register.	1		2

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PRECONSTRUCTION ROLES AND RESPONSIBILITIES MATRIX - CONTINUED

CONSTRUCTION MANAGEMENT SERVICES	REQUIRED OF CONTRACTOR	REQUIRED OF DESIGN CONSULTANT	REQUIRED OF CDOT/ OTHERS
PHASE: PRECONSTRUCTION			
CAP Proposal and Negotiations			
Notify CDOT/PM at a point where CAP proposals can be sufficiently prepared.	1		2
Supply cost model and assumptions to ICE and Engineer Estimate.	1		2
Supply EBS and Construction Contract Checklist to CM/GC Contractor.			1
Prepare and submit construction CAP proposals.	1		2
Procure independent cost estimate.			1
Submit an electronic EBS to the CDOT/PM for each phase.	1		
Review the construction CAP proposals and compare to Engineer's Estimate and ICE.			1
Negotiate final CAPs for each phase.	C		C
CM/GC and CDOT have three attempts to negotiate assumptions and prepare CAP estimates. After the third opening, CDOT reserves the right to prepare the bid package for advertisement.			

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APPENDIX B: EVALUATION NOTES AND FORMS

Proposal Evaluation and Interview Evaluation Scoring Notes:

1. CDOT has developed an Evaluation Manual to promote objectivity and transparency. Selection Panel Members are required to read, attend training, and follow all scoring guidelines.
2. All Selection Panel Members have signed Non-Disclosure Agreements and Conflict of Interest Disclaimers as part of this procurement and cannot directly be contacted by or contact anyone outside of the Evaluation Facilitator about this project until the CM Services contract has been executed.
3. Points have been assigned prior to evaluation and are to be consistent on all evaluation forms. Comments by Selection Panel members are required on all scoring forms so that all Proposers may receive constructive feedback on their proposals and performance.
4. Selection Panel scoring values will be only numbers in whole, half, or quarter-number increments (i.e. 2.25, 3.50, 4.00.). Scoring of the Proposal and Interview will be based on the Evaluation Assessment Guidelines as set forth in the table below.
5. Strengths and Weaknesses for the Evaluation Assessment Guidelines as set forth in the table below are defined as follows:
 - A. *Strengths* – That part of the Proposal that ultimately represents a benefit to the Project and is expected to increase the Proposer’s ability to meet or exceed the Project Goals. A Minor Strength has a **slight positive influence** on the Proposer’s ability to meet or exceed the Project Goals while a Significant Strength has a **considerable positive** influence on the Proposer’s ability to meet or exceed the Project Goals.
 - B. *Weaknesses* – That part of a Proposal which detracts from the Proposer’s ability to meet the Project Goals or may result in inefficient or ineffective performance. A Minor Weakness has a slight negative influence on the Proposer’s ability to meet the Project Goals while a Significant Weakness has a considerable negative influence on the Proposer’s ability to meet the Project Goals.



Evaluation Assessment Guidelines

Selection Panel members will individually evaluate and score their assigned proposal category in accordance with the evaluation criteria set forth in this RFP and assign a numerical score according to the scoring methodology listed below.

Score	Description
5	<p>The Proposer demonstrates several Significant Strengths and/or several Minor Strengths, has no Significant Weaknesses or no Minor Weaknesses regarding the following bullets:</p> <ul style="list-style-type: none"> • The Proposer’s understanding of and approach to meeting the Project Goals. • The Proposer’s understanding of and approach to meeting the stated requirements and objectives of this scoring category. • The Proposer communicates a commitment to quality for all phases of the Project. • The Proposer's qualifications. <p>The response supports an extremely strong expectation of successful Project performance if ultimately selected as the CM.</p>
4	<p>The Proposer demonstrates several Minor Strengths and/or few Significant Strengths, has few Minor Weaknesses and no Significant Weaknesses regarding the following bullets:</p> <ul style="list-style-type: none"> • The Proposer’s understanding of and approach to meeting the Project Goals. • The Proposer’s understanding of and approach to meeting the stated requirements and objectives of this scoring category. • The Proposer communicates a commitment to quality for all phases of the Project. • The Proposer's qualifications. <p>The possibility exists that if selected, the Proposer may offset the Weakness of the response with their strengths. However, their minor weakness could slightly affect the success of the Project.</p>
3	<p>The Proposer demonstrates several Minor Strengths and no Significant Strengths, has several Minor Weaknesses and few Significant Weaknesses regarding the following bullets:</p> <ul style="list-style-type: none"> • The Proposer’s understanding of and approach to meeting the Project Goals. • The Proposer’s understanding of and approach to meeting the stated requirements and objectives of this scoring category. • The Proposer communicates a commitment to quality for all phases of the Project. • The Proposer's qualifications. <p>The possibility exists that if selected, the Proposer’s Weaknesses could have an adverse effect on the success of the Project.</p>
2	<p>The Proposer demonstrates few Minor Strengths and no Significant Strengths, has several Minor Weaknesses and/or several Significant Weaknesses that demonstrate deficiency regarding the following bullets:</p> <ul style="list-style-type: none"> • The Proposer’s understanding of and approach to meeting the Project Goals. • The Proposer’s understanding of and approach to meeting the stated requirements and objectives of this scoring category. • The Proposer communicates a commitment to quality for all phases of the Project. • The Proposer's qualifications. <p>It is probable that if selected, the Proposer’s Weaknesses will have an adverse effect on the success of the Project.</p>
1	<p>The Proposer demonstrates no Minor Strengths and no Significant Strengths, has several Minor Weaknesses and/or several Significant Weaknesses regarding the following bullets:</p> <ul style="list-style-type: none"> • The Proposer’s understanding of and approach to meeting the Project Goals. • The Proposer’s understanding of and approach to meeting the stated requirements and objectives of this scoring category. • The Proposer communicates a commitment to quality for all phases of the Project. • The Proposer's qualifications. <p>The response supports a strong expectation that if selected, the Proposer’s Weakness will negatively impact the pursuit of the Project Goals.</p>



COLORADO DEPARTMENT OF TRANSPORTATION
FORM B-1: MAXIMUM COMPENSATION FOR CONSTRUCTION MANAGER
PRECONSTRUCTION SERVICES CERTIFICATION

Name of Proposer: _____

Name of Project: I-70 Floyd Hill to Veterans Memorial Tunnels, Mile Point (MP) 241 to MP 249

Date: _____

The undersigned certifies its acceptance or rejection of the CDOT determined Maximum Compensation for Construction Manager Preconstruction Services of \$3.2 million (RFP Section 1.20), established for the above project by selecting either “Accept” or “Reject,” initialing next to the proposer’s section, and signing this certification:

_____ Accept the Maximum Compensation for Construction Manager Preconstruction Services - _____ Initials

OR

_____ Reject the Maximum Compensation for Construction Manager Preconstruction Services - _____ Initials

By: _____ Print Name: _____
(Signature)

Title: _____ Date: _____

Signed and initialed certification of the project’s determined Maximum Compensation for Construction Manager Preconstruction Services must be clearly established and included with the response to this pProject’s Request for Proposal.

Certifying “Reject” of the Maximum Compensation for Construction Manager Preconstruction Services will cause the corresponding Proposal to be considered non-responsive to the solicitation and the corresponding Proposal will not be scored or further considered in this pProject’s procurement.

Failure to certify acceptance or rejection of the Maximum Compensation for Construction Manager Preconstruction Services may cause the corresponding proposal to be considered non-responsive to the solicitation.



**COLORADO DEPARTMENT OF TRANSPORTATION
FORM B-2: MANAGEMENT PRICE PERCENTAGE CERTIFICATION
CONSTRUCTION MANAGER/GENERAL CONTRACTOR SERVICES**

Name of Proposer: _____

Name of Project: I-70 Floyd Hill to Veterans Memorial Tunnels, Mile Point (MP) 241 to MP 249

Date: _____

The undersigned certifies its acceptance or rejection of the CDOT determined Management Price Percentage (MPP) of 10.5 percent, established for the above project by selecting either “Accept” or “Reject,” initialing next to the proposer’s section, and signing this certification:

_____ Accept the MPP - _____ Initials

OR

_____ Reject the MPP - _____ Initials

By: _____ Print Name: _____
(Signature)

Title: _____ Date: _____

Signed and initialed certification of the project’s determined MPP must be clearly established and included with the response to this project’s Request for Proposal.

Certifying “Reject” of the MPP will cause the corresponding Proposal to be considered non-responsive to the solicitation and the corresponding Proposal will not be scored or further considered in this project’s procurement.

In addition to submitting this certification, Proposers are also required to submit the information in Appendix C (two-page maximum for Appendix C).

Failure to certify acceptance or rejection of the MPP may cause the corresponding proposal to be considered non-responsive to the solicitation.



APPENDIX C: CONSTRUCTION GENERAL CONDITIONS

	Costs NOT TO BE included in CM/GC Management Price Percentage	Costs TO BE included in CM/GC Management Price Percentage
Item	Costs for the categories below will be negotiated and included in the direct “Cost of the Work”	Other indirect and non-reimbursable costs to be included in the CM/GC price percentage are listed below
E.1	Mobilization	Project Principal – all costs
E.2	Project Manager	Project Manager relocation, housing, and subsistence costs.
E.3	Construction Manager/Superintendent	Construction Manager/Superintendent relocation, housing, and subsistence costs.
E.4	All other on-site, construction management staff as approved by the Agency	Additional CM/GC staff relocation, housing, and subsistence cost.
E.5	On-site administrative staff, including clerical and secretarial staff	Home, branch and regional office administrative support staff and all related costs
E.6	All project direct costs related to Safety	Home, branch and regional office safety support staff and all related costs
E.7	All project direct costs related to Quality Control	Home, branch and regional office quality control support staff and all related costs
E.8	Project office costs for cleaning, set-up/demo, maintenance, security, utilities, rent/lease, equipment, and furniture	Profit
E.9	Materials and equipment handling, including shipping/transport to site and storage costs	
E.10	Costs to co-locate with Agency staff	
E.11	Job site temporary toilet facilities and maintenance	
E.12	Partnering workshops	
E.13	Construction rental equipment	
E.14	Actual cost of permits	
E.15	All project direct costs related to implementation of Agency-approved sustainable practices	
E.16	All project direct costs related to implementation of Agency-approved DBE/ESB program	
E.17	Construction equipment and vehicles at Proposer’s internal cost rate, including costs of maintenance and fuel	
E.18	All costs related to cell phones, radios, fax machines, pagers, computers and software.	
E.19	All costs of capital and interest; licenses and taxes required by law.	
E.20	Miscellaneous project office costs, including but not limited to, drinking water, printing, reproduction, postage, delivery, and supplies	



APPENDIX D: FINAL PROJECT DELIVERY SELECTION MATRIX²

Workshop Summary	
Project Name:	I-70 Floyd Hill to Veterans Memorial Tunnels
Workshop Dates:	8/8/18 and 8/14/18 with Revision Dates 4/2/2020 and 7/23/20
Workshop Location:	425A Corporate Circle, Golden CO
Facilitator:	David Wells, Colorado Department of Transportation
Delivery Method Selected:	CMGC
Workshop Participants	
Name	Email
Paul Jesaitis, CDOT R1 Transp. Director	paul.jesaitis@state.co.us
Richard Zamora, CDOT R1 Deputy Program Delivery	richard.zamora@state.co.us
Steve Harelson, CDOT R1 West Program Engineer	stephen.harelson@state.co.us
Kevin Brown, CDOT R1 Resident Engineer	kevin.brown@state.co.us
Matthew Pacheco, CDOT	matthew.pacheco@state.co.us
Kelly Galardi, FHWA Area Engineer	kelly.galardi@dot.gov
Vanessa Henderson, CDOT I-70 Mtn Enviro Manager	vanessa.henderson@state.co.us
Mike Keleman, CDOT R1 Resident Engineer	mike.keleman@state.co.us
Neil Ogden, CDOT R1 Resident Engineer	neil.ogden@state.co.us
Lauren Boyle, CDOT R1 Project Manager	lauren.boyle@state.co.us
Daniel R. Miera, PLT Representative	manager@cityofcentral.co
Anthony Meneghetti, HPTE	anthony.meneghetti@state.co.us
Cindy Neely, PLT Representative	ccneely@yahoo.com
JoAnn Sorensen , PLT Representative	jsorensen@co.clear-creek.co.us

^{2 2} Pursuant to Section 24-93-110, (2)(b)(II), C.R.S. During the procurement process, include the justification for selecting the IPD method in any Request for Qualifications and in the Request for Proposals.



Project Attributes
<p>Project Name: I-70 Floyd Hill to Veterans Memorial Tunnels</p>
<p>Location: Interstate 70 between Exits 241 and 248. The Project is located in the I-70 Corridor east of Idaho Springs.</p>
<p>Estimated Budget: \$600M - \$700M</p>
<p>Estimated Project Delivery Period: NEPA/20% Design (Winter 2017 – Summer/Fall 2021); Final Design (Winter 2021 – Winter 2022); Construction (Spring 2023 – Fall 2026)</p>
<p>Required Delivery Date (if applicable): TBD – dependent on funding</p>
<p>Source(s) of Project Funding: 100M SB 267/ Approx. 250M HPTE and BE / 250-350M Funding Gap TBD</p>
<p>Project Corridor: Interstate 70 West</p>
<p>Major Features of Work – pavement, bridge, sound barriers, etc.:</p> <ul style="list-style-type: none"> ● Provides a westbound third lane from the top of Floyd Hill through the Veterans Memorial Tunnel (VMT) ● Safety and geometric improvements to eastbound and westbound I-70 to improve design speed to 55 mph ● Different alignments for both westbound and eastbound I-70 between approximately the Veterans Memorial Tunnels and Exit 244 (U.S. Highway 6 [US 6]). ● Potential changes to interchanges to provide optimal access to and from I-70. ● Potential changes to intersection design/control type at key locations (ramp junctions, intersections along U.S. Highway 40 [US 40], and some intersection locations). ● Addition of a frontage road and greenway between Exit 243 (Hidden Valley) and Exit 244 (US 6). ● Potential wildlife crossings throughout project.
<p>Major Schedule Milestones:</p> <ul style="list-style-type: none"> ● 20% Design Completion – Summer/Fall 2021 ● Additional Funding Identification – Summer 2021 ● NEPA Completion – Summer 2021 ● Final Design – 2022 ● Construction Commencement – Spring 2023
<p>Major Project Stakeholders:</p> <ul style="list-style-type: none"> ● City of Black Hawk ● City of Central City ● City of Idaho Springs ● Clear Creek Bikeway User Group ● Clear Creek County ● Clear Creek Greenway Authority ● Clear Creek Watershed Foundation ● Colorado Department of Public Health and Environment – Water Quality Control Division ● Colorado Department of Transportation



- Colorado Motor Carriers Association
- Colorado Parks and Wildlife
- Colorado Trout Unlimited
- Denver Regional Council of Governments
- Federal Highway Administration
- Floyd Hill Community
- Gilpin County
- I-70 Coalition
- Jefferson County
- Law Enforcement/Emergency Services
- State Historic Preservation Office
- Summit County
- Town of Empire
- US Army Corps of Engineers
- US Environmental Protection Agency
- US Fish and Wildlife Service
- US Forest Service

Major General Obstacles:

- Securing full project funding

Major Obstacles with Right of Way, Utilities, and/or Environmental Approvals:

- None anticipated

Major Obstacles during Construction Phase:

- Maintenance of Traffic during construction
- Specialized work (tunnels, viaduct bridges, rock cuts)

Safety Issues:

- Design Considerations: Substandard interchanges, Substandard curves (<55 mph)
- Construction: Known landslides in area

Sustainable Design and Construction Requirements:

- TBD



Project-Specific Goals

Goal #1: IMPROVED I-70 SAFETY, MOBILITY AND OPERATIONS

Improve the safety, mobility, and operational characteristics of the I-70 corridor by replacing aging infrastructure, minimizing substandard design and atypical interchanges, achieving a 55 mile per hour (mph) design speed where feasible, and maximizing travel time reliability throughout the corridor. Improve emergency response times and provide redundant access for local residents. Maximize safety of workers, traveling public, residents, and business owners during construction.

Goal #2: STAKEHOLDER COMMITMENT, PARTNERSHIP, AND ENVIRONMENTAL STEWARDSHIP

Facilitate and foster collaboration, communication, and partnerships among all stakeholders throughout the five life cycle phases of the CDOT project process according to the I-70 Mountain Corridor Context Sensitive Solutions (CSS) process as outlined in Appendix A of the Final Programmatic Environmental Impact Statement (PEIS). Maintain the design guidance developed through CSS in all phases. Maximize opportunities for shared-uses within and adjacent to the I-70 Corridor by implementing innovative methods for environmental stewardship and community supported enhancements including wildlife mitigation, frontage road access to amenities, and the Clear Creek Greenway from Veterans Memorial Tunnels to US 6. Adhere to all environmental compliance requirements, including those documented in the I-70 Mountain Corridor PEIS/Record of Decision commitments and stakeholder agreements while minimizing environmental impacts including aesthetics.

Goal #3: MINIMIZE CONSTRUCTION IMPACTS

Minimize inconvenience to the traveling public, residents, and business owners during construction. Accommodate and maintain freight and interstate travel providing motorists access to recreation and jobs along the corridor. Provide accurate, meaningful, and timely communication to minimize construction impacts and create a reliable communication system for disseminating information.

Goal #4: FISCAL RESPONSIBILITY, RESOURCES, and PROJECT SCOPE

Optimize the project scope with the available financial resources. Clearly define project risks to achieve cost certainty as soon as possible to fully understand project costs and define the project scope. Provide packaging and phasing flexibility with currently available financial resources while still committing to build the entire project.

Goal #5: SCHEDULE

Implement the final design and commence construction so that the project can be open to traffic as soon as possible to address the deteriorating bridge and economic impacts to the State from congestion on I-70. Achieve a 2022 construction commencement to capitalize on project momentum and work to date as well as to minimize substantial inflation costs of a project of this magnitude.



General Constraints
<p>Source of Funding:</p> <ul style="list-style-type: none"> ● 100M SB 267 with potential future year funding ● Bridge Enterprise ● HPTE ● TBD ● Grants
<p>Schedule constraints:</p> <ul style="list-style-type: none"> ● NEPA Completion April 2021 ● Construction commencement 2022
<p>Federal, state, and local laws:</p> <ul style="list-style-type: none"> ● 1041 ● 404 Permit
<p>Third party agreements with railroads, ROW, etc.:</p> <ul style="list-style-type: none"> ● ROW Acquisition
Project Delivery Specific Constraints
<p>Project delivery constraint #1: Design parameters and major concept changes must be endorsed through CSS Process</p>
<p>Project delivery constraint #2: Design changes late in project development need to go through a NEPA Reevaluation process</p>
<p>Project delivery constraint #3: Replacement of structurally deficient bridge located on westbound I-70 at the bottom of Floyd Hill</p>
<p>Project delivery constraint #4: Schedule / Construction Seasons</p>
<p>Additional Project delivery constraints: Unknown source of construction funding leading to unknown project phasing and schedule requirements.</p>



Identified Project Risks

PROJECT MANAGEMENT

- Construction funding has not been fully identified.
- Additional scope requests throughout life of project
- Scope responsibilities between CDOT and Stakeholders need to be fully defined
- Coordination with other active projects on I-70 Corridor
- Access impacts to residents, recreation and businesses along corridor
- Accuracy of current cost estimate due to market price variations and scope changes
- CDOT cannot comply with all stakeholder requests within project limits due to wide variety of shared-use requests within small area
- Experience of staff with specific delivery methods
- Schedule commitments tied to funding
- Project delivery uncertainty – political influence on project delivery methodology
- CSS considerations during development
- CSS considerations during administration

FINAL DESIGN

- Traffic Modeling cannot appropriately account for latent demand/upcoming technology
- Fluidity of design impacts ROW needs as design progresses
- Approval of NEPA delayed
- 1041 Permitting with Clear Creek County and Idaho Springs
- Design Optimization related cost savings from contractor modifications/efficiencies
- Changes in regulations codes and standards during project development
- Aesthetic requirements create additional costs
- Expertise in tunnel or viaduct design
- Geotechnical conditions unknown during design
- Re-Evaluation process due to major design changes
- Updates to Interchange Approval Request (IAR) delays schedule

CONSTRUCTION

- Unexpected Rock Conditions not identified in geotechnical baseline
- Utility relocations have seasonal restrictions.
- Maintaining large construction vehicles access during construction (e.g. tunnel excavation or viaduct construction)
- Maintenance of Traffic during construction
- Limited Contractor, Subcontractor and DBE firms available
- Discover unknown site conditions during construction (ex: contaminated water, mine shafts, hazardous materials, etc.)
- CSS and stakeholder implementation during construction
- Muck and rock disposal



PROJECT DELIVERY METHOD OPPORTUNITY/OBSTACLE SUMMARY			
	DBB	CMGC	DB
Primary Selection Factors			
1. Project Complexity & Innovation	-	++	+
2. Project Delivery Schedule	-	++	+
3. Project Cost Considerations	+	+	++
4. Level of Design	+	+	+
5. Risk Assessment	-	++	-
Secondary Selection Factors			
6. Staff Experience/Availability (Agency)	NA	Pass	NA
7. Level of Oversight and Control	NA	Pass	NA
8. Competition and Contractor Experience	NA	Pass	NA

Rating Key	
++	Most appropriate delivery method
+	Appropriate delivery method
-	Least appropriate delivery method
X	Fatal Flaw (discontinue evaluation of this method)
NA	Factor not applicable or not relevant to the selection



Project Delivery Selection Summary Conclusions and Comments

PDSM Update: 4/2/2020

The Floyd Hill Project team and subject matter experts conducted a Preliminary Project Delivery Selection Matrix (PDSM) in August of 2018. It was revisited and updated in April of 2020 based on current project status and context. The recommendation of Construction Manager/General Contractor (CMGC) did not change but the following is an updated summary of the PDSM Recommendation.

Project Summary and Conclusions:

The CMGC delivery method is recommended as the most appropriate delivery method for the I-70 Floyd Hill to Veterans Memorial Tunnels Project (Project). CMGC mitigates risk throughout the development and implementation phases of the project better than the Design Build (DB) or Design Bid Build (DBB) methods. It also provides the advantages for schedule and scope flexibility essential for a complex project like this with funding challenges.

In terms of risk, CDOT can negotiate, assign and coordinate risk elements with the contractor, designer and owner by assigning risk to the party best suited at managing the risk during design and construction. CMGC provides CDOT the most opportunity to secure a qualified Contractor and Designer with the needed expertise for the Project and provides early and continuous collaboration between the Owner, Designer, General Contractor, and stakeholders throughout all Project phases. This is especially important on the I-70 Mountain Corridor with its robust Context Sensitive Solutions (CSS) process that ensures considerations to residents, recreation and businesses in a compact and environmentally sensitive location. In addition, the General Contractor's early and continuous input into design may identify additional or previously unknown risks, while providing further consideration of opportunities for innovation, feasible mitigation strategies and collaborative scope development to inform the National Environmental Policy Act (NEPA) process. It also provides the quantification of these risks that can be allocated into risk pools during construction to appropriately share risk on a complex project of this magnitude.

CMGC also provides advantages in schedule and scope flexibility that can match the funding uncertainties within the Fixed Limit of Construction Costs. It provides for construction of an initial phase with currently identified resources as well as opportunities to accelerate or slow construction commencement for future phases based on funding availability and/or financing scenarios currently being considered.

Reflecting on the other delivery methods, when examining the five primary factors, DB and CMGC were both seen to be appropriate delivery methods as both would be able to deliver a project of this magnitude given the current budget and schedule unknowns. DBB was least appropriate due to the complexity and grand scale of the Project and scope and the linear schedule would be difficult to meet the demands of current milestones. The evaluation demonstrated that CMGC stood out clearly as the most appropriate method due to the ability to manage risk, accommodate stakeholder involvement and maintain the required schedule through phasing flexibility for the Project. Below is a discussion of the primary factors.

Project Complexity & Innovation:

CMGC was deemed the most appropriate method since it provides the advantage of CDOT being able to allow a higher level of input in more phases of the Project. More complicated aspects of the Project definition can be investigated at a pace that will accommodate meaningful stakeholder involvement and concurrence. With complex Project features such as the viaduct structures, impacts to the travelling public, rock excavation, and environmental commitments, CMGC provides early contractor input to more accurately price alternatives and refine and optimize the design. CMGC also allows contractor input into the NEPA process should re-evaluation be necessary. While DB was considered to be able to provide maximum opportunity to benefit from innovative approaches of multiple proposer teams, there are significant challenges with implementation of these potential innovations with the restrictive and prescriptive nature of the CSS process that is required on the I-70 Mountain Corridor. These challenges may actually limit the innovation on DB or have significant schedule delays during the DB procurement and design process. CMGC also provides the opportunity for innovation through collaboration between the owner, designer, and contractor earliest in the project development process. DBB was the least appropriate method since this method does not provide opportunity for contractor input into design or for innovative approaches.



Project Delivery Schedule:

DB and CMGC were rated equally related to schedule for the Project overall but CMGC provides the opportunity to get a contractor on board the quickest, start construction the soonest, and provides the flexibility for a reduced scope phase if full construction funding does not materialize. It also provides schedule flexibility if funding becomes available immediately or further along in project development within the fixed limit of construction cost. CMGC allows for multiple separate and severable construction packages to accelerate schedule and to allow for incremental funding through construction. If CMGC procurement is initiated in summer 2021, the Project could commence in 2023 with potential early packages in late 2022. The DB procurement process is much longer and labor intensive and would eliminate opportunity to begin construction in early 2023. The CSS process would be on the critical path, and the coordination and design effort necessary to obtain approvals from the stakeholders, would lessen the project intensity, which would offset the schedule benefit of concurrent design and construction paths. DBB was again the least appropriate method of delivery due to the long duration required to get to 100% final design with associated plans and specs for CDOT Low-Bid selection.

Project Cost Considerations:

DB rated higher related to the cost component but recent research and CDOT experiences have indicated that all methods overall are similar in costs. The competitive nature of DB would provide cost competitiveness and may lead to a reduced initial cost. With submittal of Alternative Technical Concepts (ATCs), Alternative Configuration Concepts (ACCs) and Additional Requested Elements (AREs), the Project could realize more scope elements for the same overall cost but again, there may be limited benefit or cost saving realized due to the prescriptive nature of the CSS process. CMGC provides opportunity to get actual market pricing from contractors on Project elements with different funding sources, allowing these aspects to be defined earlier in the process. The actual market pricing allows CDOT to weigh options more accurately. CDOT experience on CMGC projects may result in negotiated Construction Agreed Prices (CAPs) being slightly higher than anticipated which is why DB is rated higher in this category.

Level of Design:

CMGC also provided a clear advantage in level of design. The project could proceed with CMGC at 20% level of design and still allow for the CSS process and the NEPA process to be completed. For the CSS Process, DB would require advancement of portions of the design beyond 20% to address commitments. This would lengthen the overall project schedule as more design would have to be finalized before early construction packages could be released. DBB was again the least appropriate method of delivery due to the long duration required to get to 100% final design as 20% design could not be used for CDOT Low-Bid selection.

Risk Assessment of Delivery Methods:

Examining risk, DB places the risk of errors and omissions entirely on the Design Build Team which would be the contractor and designer. While this is desirable as an owner, the risk to the project schedule is much higher with CSS approvals and coordination with third parties that are a requirement for the project. CMGC uses a modified Spearin Doctrine model which ensures all parties; the owner, the designer, and the contractor, share the risk. In this model, the owner does not bear the full burden of Spearin. CMGC displays opportunity over the other delivery methods to mitigate, share, and partner in early identification, quantification, and assignment of risks. In CMGC, the parties can quantify, assign and coordinate these risk elements as a partnered team. CMGC would provide the opportunity for contractor input in the NEPA phase to help minimize rework, provide real-time cost estimates, determine optimum location for early geotechnical investigation, and collaborate to uphold commitments of the CSS process. Comparing CMGC to DBB, the overall risk profile is lowered, exposure due to changes of errors and omissions is much less, and total project cost certainty is achieved much sooner.

Secondary Selection Factors:

Based on the secondary factors, CMGC received a PASS for all factors, including: Staff Availability, and Competition and Contractor Experience. CMGC provides ample competition for both Final Design Consultant and General Contractor, as recent CMGC solicitations were well received within the GC industry. For the CSS process, additional Oversight and Control is necessary and CMGC provides that opportunity as discussed.



Project Delivery Selection Matrix Primary Factors

1) Project Complexity and Innovation

Project complexity and innovation is the potential applicability of new designs or processes to resolve complex technical issues.

DESIGN-BID-BUILD - Allows Agency to fully resolve complex design issues and qualitatively evaluate designs before procurement of the general contractor. Innovation is provided by Agency/Consultant expertise and through traditional agency directed processes such as VE studies and contractor bid alternatives.		
Opportunities	Obstacles	Rating
Agency maintains full control to ensure follow through for CSS commitments.	Level of geotechnical complexity risk would be difficult to accurately bid.	-
Limits NEPA changes during final design and construction.	Specialty Design/Resources scarce.	
	All error, omission and change conditions are CDOT's responsibility. Big risk with the complexity of the project	
	Variability of conditions and unknown risk could lead to higher bids than anticipated which leads to no Contract award.	
	Limited contractor input on design to optimize or innovate.	
	No concurrent constructability review and partnership with CM	
	Does not require integration of the design and construction team. (design is compartmentalized)	
	No contractor quality review of construction plans	
	To incorporate contractor input would require a value engineering change proposal, which could jeopardize schedule and loss in value.	
	Ability for contractors to fully understand the project's complexity is limited due to the short procurement time.	
CMGC - Allows independent selection of designer and contractor based on qualifications and other factors to jointly address complex innovative designs through three party collaboration of Agency, designer and Contractor. Allows for a qualitative (non-price oriented) design but requires agreement on CAP.		
Opportunities	Obstacles	Rating
Technical expertise to help define the scope provide innovation, and realize efficiency in the design phase.	Selection of CM commits to a particular specialty and not an overall contractual schedule/budget/scope.	++
Designer has direct contract relationship with owner.	Schedule milestones are fluid.	
Shared ownership of errors/omissions for the project. (risk pools, agreed upon overrun items)	Project may not be best-fit for construction innovation or limits opportunity due to the Proposed Action being bought into through CSS process.	
Opportunity for potential early mobilizations with the CM.	Innovation from only one contractor	
Early feedback from the contractor helpful to optimize preliminary investigations.	Administering contracts for multiple packages can be burdensome.	



Leads to more integrated partnering with Stakeholders. Important in I-70 Corridor due to the CSS process.	Contractor and Designer potentially not unified team for how to handle innovation or complexity.	
Designer and Contractor separate entity to help manage scope, through checks and balances to handle complex issues on the project.	Potential for project packaging to lose efficiency.	
Allows greater management of complex funding, design, construction relationship between the roadway, accesses, structures, and tunneling	Obtaining clearances for multiple packages requires dedicated resources.	
Contractor selected based on qualifications		
Develop innovation with CSS partners for a higher potential for buy-in on ideas.		
Input during NEPA process reflects means and methods to accomplish mitigation during construction		
Continual constructability review to guide innovation for maintenance of traffic.		
DESIGN-BUILD - Incorporates design-builder input into design process through best value selection and contractor proposed Alternate Technical Concepts (ATCs) – which are a cost oriented approach to providing complex and innovative designs. Requires that desired solutions to complex projects be well defined through contract requirements.		
Opportunities	Obstacles	Rating
Competitive proposal process to add value and innovation from 3-4 Contractors.	Requires dedicated staff required for design reviews and task force meetings due to the nature of the complexity of the project. CDOT is experiencing a shortage of specialty resources.	+
Proposal commitments are included in contract and contractually binding.	Difficult to ensure proposer has clear direction from owner that does encourages innovation due to the complexity and constraints. .	
ATC process allows owner to approve more efficient investment of the taxpayer dollar.	Heavily reliant on writing tight requirements for the complexity of project. Project scope as defined in CSS process may limit innovations considered due to how requirements are written.	
Owner defined AREs add additional scope, maximizing the budget.	Maintaining environmental clearance and being flexible for innovation.	
Propriety solutions. Success through competition.	Constrained RFP through writing requirements for CSS process losing innovation.	
Contractor and Designer are unified team to work through complexity and innovative solutions, to minimize impacts to the project.	Innovation opportunities are high risk to the CSS process.	
	Project intensity would put a lot of pressure on the CSS to make decisions.	
	Limited contractor competition available to participate due to size and complexity of the scope.	



2) Delivery Schedule

Delivery schedule is the overall project schedule from scoping through design, construction and opening to the public. Assess time considerations for starting the project or receiving dedicated funding and assess project completion importance.

DESIGN-BID-BUILD - Requires time to perform sequential design and procurement, but if design time is available has the shortest procurement time after the design is complete.		
Opportunities	Obstacles	Rating
Less Chance for NEPA Reevaluations	Accelerating the schedule is costly, and requires additional resources.	-
Predictable. Potentially causing less design rework.	Change conditions would be significant time delay. CDOT would own that delay.	
	Low bid selection would be difficult to develop a construction schedule that CDOT could own risk.	
	Construction phase would not be concurrent with design.	
	Couldn't advance design of critical path items early to start early action of long construction items. All design would be complete and then bid on at the same time.	
	No potential to parallel design and construction schedules for efficiency	
CMGC - Quickly gets contractor under contract and under construction to meet funding obligations before completing design. Parallel process of development of contract requirements, design, procurements, and construction can accelerate project schedule. However, schedule can be slowed down by coordinating design-related issues between the CM and designer and by the process of reaching a reasonable CAP.		
Opportunities	Obstacles	Rating
CM input early in design could reduce NEPA and ROW acquisition rework that could extend the project schedule.	CAP would not be agreed. Additional procurement process and schedule delays.	++
Phased construction packages start construction earlier.	Linear process – limits opportunities to accelerate construction completion.	
Procurement is a 3 to 6-month process for both Contractor and Designer, which accelerates the overall project schedule.	Multiple packages can be challenging to identify and monitor the critical path of the entire project.	
Qualifications based selection to ensure that the most highly qualified contractor is selected	Schedule certainty is not certain until the last package has been negotiated.	
Contractor involvement in the design provides more predictable, reliable Maintenance of Traffic schedule. That can be monitored and improved upon during construction due to contractor being involved in design.	Coordinating and obtaining clearances of multiple packages can be a challenge	
Developing schedule is collaborative between Owner, Designer and Contractor. Resulting in a more reliable schedule, based on actual contractor production rates, rather than a forecast of historical data.	Cost and schedule impacts can influence the negotiation of the CAP	



DESIGN-BUILD - Ability to get project under construction before completing design. Parallel process of design and construction can accelerate project delivery schedule; however, procurement time can be lengthy due to the time necessary to develop an adequate RFP, evaluate proposals and provide for a fair, transparent selection process.		
Opportunities	Obstacles	Rating
Parallel design and construction.	Longer procurement process	+
Milestones contractually binding	Schedule not collaborative between Owner and DB team.	
Multiple NTPs to be able to move forward with construction.	Owners role for critical path. Ensuring clearances, acquisitions, and review process can add to the owner's role and overall risk.	
Impacts due to construction could be potentially shorter. More efficient design and construction coordination can lead to a shorter schedule.	Pressure on the CSS process and PLT to make decisions to comply with the Contractor's proposed schedule.	
Major deviations from the basic configuration may contribute to a shortened more efficient construction duration.	Ideas presented during Draft RFP could cause NEPA rework extending the schedule.	
	Potential for reevaluations from proposal commitments, ACC's being different then base configuration triggering NEPA and the CSS process.	
	Major design changes proposed during procurement may delay construction commencement.	



3) Level of Design

Level of design is the percentage of design completion at the time of the project delivery procurement.

DESIGN-BID-BUILD - 100% design by Agency or contracted design team, with Agency having complete control over the design.		
Opportunities	Obstacles	Rating
Solutions are low risk and “tried and true”	Own the errors and omissions. CDOT assumes all risk.	+
CDOT has 100% control of the design	No opportunities to improve the design from Contractor input.	
The current level of design would cater to success for all three delivery methods	Owner error and omission warranty would make the owner liable to schedule and budget impacts due to proposed changes in the contract.	
Full development of the design allows the project team to ensure the integrity of the CSS process.	Contractor less likely to deviate from the plans due to the higher risk.	
	Contractor input will require value engineering, resulting in a loss of value and potential schedule impact.	
CMGC - Can utilize a lower level of design prior to procurement of the CMGC and then joint collaboration of Agency, designer, and CMGC in the further development of the design. Iterative nature of design process risks extending the project schedule.		
Opportunities	Obstacles	Rating
Planning level of design is adequate to start the CM process.	Contractor could have a preferred specialty which influences scope development.	+
Inform the NEPA process through CM. Help with mitigations during NEPA process causing limited NEPA rework.	Current level of design could be susceptible to scope creep.	
Optimize design through contractor review due to current level of design.		
Current level of design provides opportunity for innovation		
Owner has relationship with designer.		
Designer is involved longer with the project.		
Collaborative relationship.		
DESIGN-BUILD - Design advanced by Agency to the level necessary to precisely define contract requirements and properly allocate risk (typically 30% or less).		
Opportunities	Obstacles	Rating
Scope to the RFP is set, providing less opportunity for scope creep.	NEPA re-evaluation likely due to Contractor proposed design.	+
	Teams come together quickly. Less familiar with the scope of the project.	
	“Decision making mode” for design limits collaborative nature to work through CSS type solutions due to nature of design build. (Project intensity).	
	Project risks can be difficult to define at 30%, certain areas could need to be developed earlier.	
	Requires a well-developed, negotiated CSS approval process that has been approved by the CSS Stakeholders.	



4) Project Cost Considerations

Project cost is the financial process related to meeting budget restrictions, early and precise cost estimation, and control of project costs.

DESIGN-BID-BUILD - Competitive bidding provides a low cost construction for a fully defined scope of work. Costs accuracy limited until design is completed. More likelihood of cost change orders due to contractor having no design responsibility.		
Opportunities	Obstacles	Rating
Lowest bidder is awarded project.	Total Project Cost historically much more than the low bid amount.	+
Market determines initial construction cost.	Only single step value engineering requires profit sharing which lessens value.	
Design Cost does not include CM Management fee.	Cost certainty not achieved prior to construction completion.	
CMGC - Agency/designer/contractor collaboration to reduce risk pricing can provide a low cost project however non-competitive negotiated CAP introduces price risk. Good flexibility to design to a budget.		
Opportunities	Obstacles	Rating
Shared risk quantified early on to clarify how Contractor is carrying complex risk elements into their cost proposal. (Risk Pools)	Owner managing scope can be challenging to determine most economical project.	+
Early contractor constructability review to lower cost	Not necessarily the most economic design.	
Collaborative effort reduces argumentative design/GC conflicts.	Risk pools can be abused.	
Earlier cost certainty due to tracking throughout design. Less change orders.	Non-innovative elements are priced non competitively. Unit Prices can be higher than market cost.	
Contractor input and investigation into pricing of alternatives, more accurate than historical cost estimating.	Owner negotiating skill set not as well-established/robust as contracting community.	
	Cost and schedule impacts can weaken the owners leverage in the negotiation of the CAP	
DESIGN-BUILD - Designer-builder collaboration and ATCs can provide a cost-efficient response to project goals. Costs are determined with design-build proposal, early in design process. Allows a variable scope bid to match a fixed budget. Poor risk allocation can result in high contingencies.		
Opportunities	Obstacles	Rating
AREs and ATCs – Add value within the project budget.	Lump sum contracting can be difficult to account for various funding sources.	++
Market risk handled by Contractor.	No bid items. Contract administration can be intensive.	
Earliest cost certainty compared to other methods as the cost is known upfront.	Pricing the geotechnical risks (landslide, mine shaft) in a lump sum cost causes less availability for additional scope.	
Economical design due to competitive procurement process	Technical expertise of tunnel design and construction scope can be difficult to price for design build.	
ACC's provide opportunity for Owner to add value for the project budget.		



5) Risk Assessment of Delivery Methods

Risk is an uncertain event or condition that, if it occurs, has an effect on a project’s objectives. Risk allocation is the assignment of unknown events or conditions to the party that can best manage them. An initial assessment of project risks is important to ensure the selection of the delivery method that can properly address them. An approach that focuses on a fair allocation of risk will be most successful.

DESIGN-BID-BUILD - Risk allocation for design-bid-build best is understood by the industry, but requires that most design-related risks and third party risks be resolved prior to procurement to avoid costly contractor contingency pricing, change orders, and potential claims.		
Opportunities	Obstacles	Rating
Clearances and permits all obtained prior to construction substantially limits NEPA reevaluation work.	Any unknowns realized during Construction would be CDOT cost. Agency assumes all risk.	-
Most experience from CDOT and Contracting community delivering and administering this delivery method.	Due to the short procurement, selected Contractor may not have the time to become familiar with the plans and specs to accurately low bid the project.	
Collaboration allows for the integrity of the CSS process to be upheld through the design process. The owner, designer, and stakeholders assist in developing scope minimizing the risk of losing local community support.	The most qualified contractor for the job may not be selected due to low bid.	
	Limited Contractor input in Design limits innovation for Maintenance of Traffic and other construction best practices from the design being completed.	
	Additional scope requests later in project would be difficult to negotiate for competitive price.	
	Lack of Contractor input for geotechnical investigation needs could result in additional investigations later and substantial design changes. Unknown risks may be reflected in the bid item costs resulting in higher project cost.	
	Ensuring CSS and Environmental mitigation requirements are defined well enough in the plans that they will adequately fulfilled can be challenging during construction.	
CMGC - Provides opportunity for Agency, designer, and contractor to collectively identify and minimize project risks, and allocate risk to appropriate party. Has potential to minimize contractor contingency pricing of risk, but can lose the element of competition in pricing.		
Opportunities	Obstacles	Rating
Throughout the project development and implementation, CDOT can negotiate, assign and coordinate risk elements with contractor, designer and owner and assign it to the party that can best handle it. This stabilizes Contractor pricing risk better than low bid or lump sum.	CAP failure, requiring DBB style procurement, could result in awarding to a lesser qualified contractor and not receiving the best value. The low bid contractor may not have intimate knowledge of the risks therefore the cost may not accurately priced leading to potential change order and claims.	++
Early CM input to identify and optimize geotechnical exploration needs. This will minimize owner risk of	Risk of early procurement of a Contractor and final designer may result in design and construction	



unknowns in construction as the location is specific to the collaborated design the contractor will bid.	solutions associated with their specialty limiting overall innovation.	
Price negotiated to encourage collaboration with owner and stakeholders to best realize the optimum solution. This is especially important on the I-70 corridor with the impacts to residents, recreation and businesses in a compact location.	CAP failure could result in multiple contractors working contiguously within the corridor.	
Phased implementation of project minimizes the risk of a set budget. Project packaging provides opportunity to fund the primary objectives of the scope without precluding additional requested scope items, which can be negotiated or deferred if funding limitations or opportunities are realized.		
Early and continuous collaboration allows for the integrity of the CSS process to be upheld. The owner, designer, contractor and stakeholders assist in developing scope minimizing the risk of losing local community support.		
Selection of the most qualified Contractor and most qualified designer encourages owner confidence in the final design and construction of a complex scope.	Qualification based selection is dependent on aspirational responses from designer and contractor and could be difficult to enforce during the progression of the project.	
Early and continuous contractor and design team input through collaborative development better inform the NEPA process. Minimizes risk of infeasible mitigations, and schedule risk due to different alternatives proposed requiring NEPA reevaluations.		
DESIGN-BUILD - Provides opportunity to properly allocate risks to the party best able to manage them, but requires risks allocated to design-builder to be well defined to minimize contractor contingency pricing of risks.		
Opportunities	Obstacles	Rating
CDOT assigns the risks which are priced in the awarded contract creating confidence in the initial cost.	Early geotechnical exploration chosen by Procurement team might not be in line with selected contractor's ideas for alignments. Result in additional exploration and unknowns being discovered later in process creating schedule risk.	
Increased opportunity of innovations maximizes opportunity to discover equal or better solutions to the Proposed Action.	Contractor assumes certain risks that may not be likely due to lack of intimate knowledge of project.	
	Capturing intent in requirements without being prescriptive to allow for innovation while upholding the commitments to the stakeholders may be difficult.	-
	Greater schedule risk due to additional stakeholder coordination required through CSS.	
	A DB team could propose an alignment that differs from the Base Configuration and associated ROW acquisition could impact the project schedule.	
	Innovative ideas require engagement in CSS process creating a potential schedule and cost risk.	



Project Delivery Selection Matrix Secondary Factors

6) Staff Experience and Availability

Agency staff experience and availability as it relates to the project delivery methods in question.

DESIGN-BID-BUILD - Technical and management resources necessary to perform the design and plan development. Resource needs can be more spread out.		
Opportunities	Obstacles	Rating
		n/a
CMGC - Strong, committed Agency project management resources are important for success of the CMGC process. Resource needs are similar to DBB except Agency must coordinate CM's input with the project designer and be prepared for CAP negotiations.		
Opportunities	Obstacles	Rating
West Program has administered a successful CMGC Contract in the corridor	CAP Packages require additional blue back from Contracts.	Pass
Project staff have experience with CMGC on multiple projects.		
CDOT is one of States in US with most experience with CMGC and most fully developed programs.		
DESIGN-BUILD - Technical and management resources and expertise necessary to develop the RFQ and RFP and administrate the procurement. Concurrent need for both design and construction resources to oversee the implementation.		
Opportunities	Obstacles	Rating
		n/a



7) Level of Oversight and Control

Level of oversight involves the amount of agency staff required to monitor the design or construction, and amount of agency control over the delivery process

DESIGN-BID-BUILD - Full control over a linear design and construction process.		
Opportunities	Obstacles	Rating
		n/a
CMGC - Most control by Agency over both the design, and construction, and control over a collaborative agency/designer/contractor project team		
Opportunities	Obstacles	Rating
Owner control in delivering project within tight timeline with input from CMGC	Securing Contracts for CMGC and ICE.	Pass
Tailor design to goals of corridor and stakeholders (phasing, constructability, means & methods, materials.)		
Opportunity to have multiple construction packages to mitigate delays in high risk areas.		
Minimize risk of environmental reevaluation.		
DESIGN-BUILD - Less control over the design (design desires must be written into the RFP contract requirements). Generally less control over the construction process (design-builder often has QA responsibilities).		
Opportunities	Obstacles	Rating
		n/a



8) Competition and Contractor Experience

Competition and availability refers to the level of competition, experience and availability in the market place and its capacity for the project.

DESIGN-BID-BUILD - High level of competition, but GC selection is based solely on low price. High level of marketplace experience.		
Opportunities	Obstacles	Rating
		n/a
CMGC - Allows for the selection of the single most qualified contractor, but CAP can limit price competition. Low level of marketplace experience.		
Opportunities	Obstacles	Rating
Qualifications based selection allows for selection of high quality contractor and designer. Project of this magnitude is anticipated to attract regional and national interest.	Not a competitive bid. Loss of benefit of competitive sealed bid.	Pass
DESIGN-BUILD - Allows for a balance of price and non-price factors in the selection process. Medium level of marketplace experience.		
Opportunities	Obstacles	Rating
		n/a



APPENDIX E: SAMPLE CONSTRUCTION MANAGER CONTRACT

https://www.codot.gov/business/designsupport/adp-db-cmgc/opportunities/cm-gc-solicitations-active/i-70-floyd-hill-to-veterans-memorial-tunnels/2021-10-1_request-for-proposals



APPENDIX F: PROJECT LEADERSHIP TEAM DRAFT PROJECT GOALS

A. Improved I-70 Safety, Mobility and Operations

Improve the safety, mobility, and operational characteristics of the I-70 corridor by replacing aging infrastructure, minimizing substandard design and atypical interchanges, achieving a 55 miles per hour (“mph”) design speed where feasible, and maximizing travel time reliability throughout the corridor. Improve emergency response times and provide redundant access for local residents. Maximize safety of workers, traveling public, residents, and business owners during construction.

B. Stakeholder Commitment, Partnership, and Environmental Stewardship

Facilitate and foster collaboration, communication, and partnerships among all stakeholders throughout the five life cycle phases of the I-70 Mountain Corridor Context Sensitive Solutions (“CSS”) process as outlined in Appendix A of the Final Programmatic Environmental Impact Statement (“PEIS”). Maintain the design guidance developed through CSS in all phases. Implement innovative methods for environmental stewardship and community supported enhancements that maximize opportunities for shared-use within and adjacent to the I-70 Corridor. Community supported enhancements include but are not limited to: wildlife mitigation and frontage road access to amenities such as the Clear Creek Greenway from Veterans Memorial Tunnels to US 6. Adherence to all environmental compliance requirements, including those documented in the I-70 Mountain Corridor PEIS/Record of Decision (“ROD”) commitments and stakeholder agreements while minimizing impacts to both the environment and the aesthetics of the corridor.

C. Minimize Construction Impacts

Minimize inconvenience to the traveling public, residents, and business owners during construction. Accommodate and maintain freight and interstate travel providing motorists access to recreation and jobs along the corridor. Provide accurate, meaningful, and timely communication to minimize construction impacts and create a reliable communication system for disseminating information.

D. Fiscal Responsibility, Resources, and Project Scope

Optimize the Project scope with the available financial resources, i.e. getting the largest scope from the given budget. Clearly define Project risks to achieve cost certainty as soon as possible to fully understand Project costs and define the Project scope. Provide packaging and phasing flexibility with currently available financial resources while still maintaining CDOT’s commitment to build the entire Project.

E. Schedule

Implement the final design and commence construction so that the Project can be open to traffic as soon as possible to address the deteriorating bridge and economic impacts to the State from congestion on I-70. Achieve a 2022 calendar year construction commencement to minimize inflation costs of the Project.