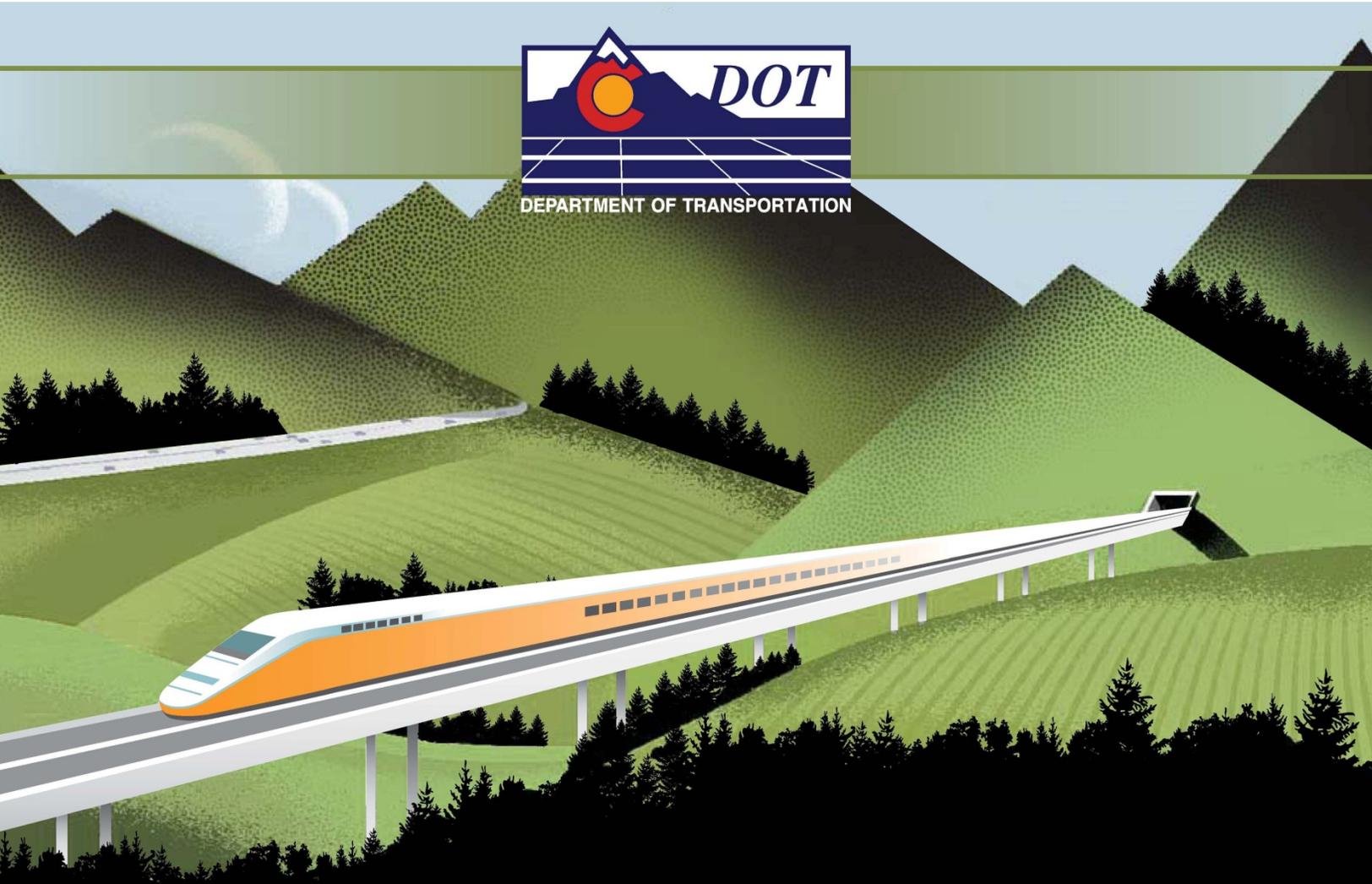


DRAFT



ADVANCED GUIDEWAY SYSTEM (AGS) FEASIBILITY STUDY

APPENDIX C SOTI EVALUATION GUIDELINES

STATE OF COLORADO
COLORADO DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSIT AND RAIL
SOTI EVALUATION GUIDELINES
FOR THE ADVANCED GUIDEWAY SYSTEM PROJECT

The Colorado Department of Transportation, Division of Transit and Rail (hereinafter referred to as the “DTR” or the “Department”) is seeking Statements of Technical Information (SOTI) from Technical Providers to be used to develop groups of candidate technologies and corresponding alignment alternatives. DTR released a Request for Statements of Technology Information, dated September 7, 2012 (together with any Addenda thereto, the “RFSOTI”), with a response to be received by October 10, 2012. This document provides general guidelines for processing and evaluating the SOTIs received by DTR in order to advance the assessment of technology options to develop an Advanced Guideway System (AGS) in the I-70 Corridor from Denver International Airport to the Eagle County Regional Airport.

The current assessment effort for the AGS is focused on reaching a feasibility determination as required by the I-70 Mountain Corridor Record of Decision. The goal of this information gathering is not to select a preferred technology for implementation, but to use a group of technologies that meet the system performance and operational criteria and the Technology Readiness Level defined for the project in the RFSOTI. This evaluation is not, in any way, intended to exclude individual technologies or vendors from further consideration at a later stage of project development. Those technologies deemed qualified will be invited to provide a presentation at the Technical Forum to be held on December 13-14, 2012.

This document is only for the internal use of CDOT, DTR and the Consultant Review Team. Nothing in this document creates an obligation from CDOT to the Technology Providers or to any other party, nor limits the rights of CDOT under the RFSOTI. CDOT may deviate from, or revise, this document at its discretion without notice to any party. However, CDOT will not act in a manner that undermines the integrity of the competitive proposal process.

1.0 Consultant Review Team

1.1.1 The Consultant Review Team shall consist of individuals requested to provide professional services assistance to the DTR for the AGS program.

1.1.2 The Consultant Review Team members are:

1.1.2.1 **Jose Luis Arevalo** (AZTEC) - Tunnels

1.1.2.2 **Chad Anson** (CA Group) - Footprint, CSS, ROW

1.1.2.3 **Eric Jungen** (Exponential) - Power Generation, Transmission, Energy Efficiency

- 1.1.2.4 **Thomas Underwood** (Jacobs) - Interface, Noise, Scalability and Growth, Sustainability, Termini, Owner/Operator, Environmental (or assign to other members of the Jacobs team)
- 1.1.2.5 **Beth Vogelsang** (Ordonez & Vogelsang) – Station Characteristics
- 1.1.2.6 **Rafael Moran** (TYPESA) - Vehicles, Passenger Comfort, Baggage Capacity, Cost
- 1.1.2.7 **Pamela Bailey-Campbell** (Jacobs) – Qualification Criteria Screening: Travel Time, Grade, Weather & Wind, Safety, Freight, Technology, Readiness
- 1.1.2.8 **Mike Riggs** (AZTEC) - Qualification Criteria Screening: Travel Time, Grade, Weather & Wind, Safety, Freight, Technology Readiness
- 1.1.2.9 **Chris Primus** (Jacobs) - Reliability, Headway
- 1.1.2.10 **Frank Sherkow** (AZTEC) - Additional Technology information
- 1.1.2.11 Additional staff may be added to the Consultant Review Team, and, if so, will be officially designated.

1.1.3 The role of the Consultant Review Team is to make recommendations to DTR as to which technologies meet each of the system performance criteria, operational criteria, meet the Technology Readiness Level requirements and which technologies will be invited to participate in the Technology Forum.

2.0 Receipt, Storage, and Confidentiality of Proposals

2.1 Receipt

2.1.1 Responses are due by 4:00 p.m. EST on October 10, 2012, and are to be delivered to:

Division of Transit and Rail
 Colorado Department of Transportation
 4201 E. Arkansas Avenue
 Denver, Colorado 80222
 Attn: David Krutsinger, CDOT DTR
 Email: david.krutsinger@dot.state.co.us
 Phone: 303.757.9008

2.1.2 David Krutsinger is the DTR point of contact and as such serves as the Document In-Take Person, unless otherwise delegated.

2.2 Confidentiality Agreement

2.2.1 The purpose of this RFSOTI is to determine the feasibility of the AGS and the information obtained by the RFSOTI will be utilized for that purpose. The culmination of this step in the development of the AGS will be an AGS

Feasibility Study which will be used by CDOT to determine how to proceed in the future.

- 2.2.2 Information obtained by the RFSOTI cannot be considered confidential. In submitting their SOTI, Technology Providers provide CDOT permission to use and disclose any or all information obtained through this RFSOTI.

2.3 Document Control

- 2.3.1 David Krutsinger will designate the individual or individuals (Document Controller) who will be responsible for the control, storage, and distribution of the Proposals.
- 2.3.2 Upon receipt of the Proposal Packages, the Document Controller will enter the following information into a log: (1) the name of the proposer or proposer entity; (2) the date/time received; and (3) the number of copies received.
- 2.3.3 The original copy of each Proposal shall be the “file copy” and shall not be distributed.
- 2.3.4 Copying, including electronic copying, of the SOTI or any part thereof may only be made as authorized by David Krutsinger. A list shall be kept as to who receives such copies and such individuals shall have first signed the confidentiality acknowledgement and agreement form and give it to David Krutsinger.
- 2.3.5 The Document Controller will keep a log as to who has received the SOTI, or any part thereof.

3.0 STATEMENT OF TECHNOLOGY INFORMATION REVIEW

3.1 Timely Submission

Only those submittals that are received by the submittal deadline will be reviewed.

3.2 Required Forms

- 3.2.1 Each SOTI is to include the items listed in **Table 1** as required by the RFSOTI.
- 3.2.2 David Krutsinger, or his designee, using the **Table 1 Preliminary Responsiveness Checklist**, will review each SOTI. The **Table 1 Preliminary Responsiveness Checklist** will be attached to the file copy of the corresponding SOTI. SOTIs will proceed to the next screening if received by 4:00PM on 10/10/12. If sufficient copies are not received or the electronic copy is not received; DTR may contact the Technology Providers and the review may proceed.

**Table 1
Preliminary Responsiveness Checklist**

| RFP Reference | Item | YES/NO |
|----------------------|--|---------------|
| Page i | SOTI received by 4:00PM on 10/10/12 | |
| 8.3 | 13 copies (one original and 12 copies) | |
| 8.3 | One electronic copy of the SOTI in .pdf format | |

3.3 Evaluation Schedule and Process

The evaluation process is intended to proceed according to the schedule described in **Table 2 Evaluation Schedule**. The SOTIs will be reviewed by the Consultant Review Team as described in this section.

**Table 2
Evaluation Schedule**

| Event | Date |
|--|-------------------|
| SOTI Due | 10/10/2012 |
| Preliminary Responsiveness Review Complete and SOTIs provided to Mike Riggs and Pamela Bailey-Campbell | 10/11/12 |
| Qualification Criteria Screening Complete; List of Technology Providers provided to DTR | 10/18/12 |
| SOTIs that passed Qualification Criteria Screening sent to Consultant Review Team | 10/18/12 |
| Requests for Clarifications Received from Consultant Review Team | 10/24/12 Noon MDT |
| Requests for Clarifications Sent to Technology Providers | 10/24/12 COB |
| Clarifications Due from Technology Providers | 10/29/12 |
| Preliminary Technical Reviews Complete (information provided to Mike Riggs) | 11/2/12 noon MDT |
| Secondary Screening Team completes screening and prepares Recommendation | 11/4/12 COB |

| Event | Date |
|---|------------------|
| Recommendation to DTR | 11/5/12 |
| Discuss Recommendation with DTR | 11/6/12 |
| Recommendation to PLT and Technical Committee | 11/7/12 |
| Meeting with CDOT, PLT and Technical Committee to discuss Recommendations | 11/14/12 |
| Release List of Feasibility-Level Technologies | 11/16/12 |
| Technology Forum | 12/13 – 12/14/12 |

3.3.1 Qualification Criteria Screening. The first review will be a screening of six qualification criteria (“Qualification Criteria Screening”) conducted by Mike Riggs and Pamela Bailey-Campbell assisted by other Consultant Review Team members as needed.. The Qualification Criteria Screening will be based on Technology Providers’ responses to the six criteria listed below. These criteria were selected as they reflect the requirements of the Record of Decision for the I-70 Mountain Corridor PEIS and criteria established by CDOT with endorsement by the PLT. To proceed to the next step of evaluation by the Consultant Review Team, a technology must meet all six of these criteria. Each criteria will be given a grade of either “Pass” or “Fail”. If all six criteria do not Pass then the SOTI will not proceed to the next stage. A list of Technology Providers passing to the next level of review will be provided to DTR along with the basis for Technology Providers that were not passed to the next level of evaluation.

3.3.1.1 Qualification Criteria 1: Travel Time (Section 3.1) – Responses as to how the technology will meet the minimum speed requirements and provide a minimum capacity of 4,900 passengers per hour in the peak direction by 2035 will be evaluated to determine if the technology is qualified for further analysis.

3.3.1.2 Qualification Criteria 2: Grade (Section 3.5) – Responses as to how the technology can cost-effectively traverse the grades within the I-70 Mountain Corridor will be evaluated to determine if the technology is qualified for further analysis.

3.3.1.3 Qualification Criteria 3: Safety (Section 3.6) –

Responses to how Technology Providers will meet applicable safety standards and test data or system expectations concerning safety will be evaluated to determine if the technology is qualified for further analysis. Responses to how the technology addresses requirements to provide grade-separated and wildlife crossings, an access controlled guideway, emergency egress from the vehicles and guideway including guideway on structure and guideway in tunnels, and system security will be evaluated to determine if the technology is qualified for further analysis.

3.3.1.4 Qualification Criteria 4: Weather/Wind (Section 3.7) – Responses as to how technologies can operate in severe weather events and extreme alpine windstorms while still maintaining safety and reliability will be evaluated to determine if the technology is qualified for further analysis.

3.3.1.5 Qualification Criteria 5: Light Freight (Section 3.11) – Responses from Technology Providers as to how they will be able to accommodate light freight will be evaluated to determine if the technology is qualified for further analysis.

3.3.1.6 Qualification Criteria 6: Technology Readiness (Section 3.25) - Responses as to how the technology will meet the Technology Readiness Level (TRL) requirements (3.25) will be reviewed. Because being at TRL 9 by 2017 is a prime requirement of the candidate technologies, this is a qualification criterion. The Consultant Review Team will assess the Technology Provider's verified plan to attain Technology Readiness Level 9 by 2017 and will determine, based on the current TRL and the demonstrated ability to reach TRL 9 by 2017, if the technology is qualified to be included for further analysis.

3.3.2 Once Qualification Criteria Screening has been completed, the Consultant Review Team will review and evaluate those SOTIs which Passed for all other criteria. These will be evaluated by the Adjectival Scoring Table 2 below. Each assigned technical evaluator will score their particular area including comments as to how the rating was reached and then return the information to Mike Riggs. A scoring matrix will be prepared and an apparent ranking will be established.

3.3.3 Clarifications. During the review of the SOTI criteria, the Consultant Review Team will determine if additional information is needed in order to complete their evaluation. No later than noon MDT on 10/24/12, the Consultant Review Team members will submit to Mike Riggs and Pamela

Bailey-Campbell any such clarifications in writing. These requests will be organized by Technology Provider and must clearly state the desired information and the section of the RFSOTI that is being clarified. The clarifications must be consistent with the original RFSOTI. These clarifications will be compiled and sent to the Technology Providers. The Technology Providers will be requested to respond by 10/29/12 and those responses will be forwarded to the requesting Consultant Review Team member.

3.3.4 A team of Mike Riggs, Rafael Moran and Chad Anson (“Secondary Screening Team”) will then assess the matrix and divide the SOTIs into Technology Groups. The Secondary Screening Team will then rank and recommend the most promising technologies for further analysis in three technology groups as described below (“Technology Group”). At this time, those groups are:

3.3.4.1 Technology Group 1 – Technology that could be operated wholly within the I-70 right-of-way (except to deviate to stations),

3.3.4.2 Technology Group 2 – Technologies that could not operate within the I-70 right-of-way due to grade or curvature issues, and

3.3.4.3 Technology Group 3 – A hybrid of the first two groups, these technologies could operate within the I-70 right-of-way for a significant portion of the route, but that would have to deviate from the right-of-way in places due to grade or curvature.

3.3.5 Recommendation. The Secondary Screening Team will prepare a Recommendation memo to DTR describing the technologies in each Technology Group that are recommended to take forward and invite to the Technology Forum (as outlined in Section 5.0 of the RFSOTI). They will also provide a recommendation on the Technology Providers to provide presentations at the Technology Forum and which will have the opportunity to have information booths.

3.3.5.1 The Secondary Screening Team will meet with DTR and provide any further information requested by DTR as to how the Recommendation was reached. Any necessary clarifications will be made to the Recommendation and it will then be provided to the PLT and the Technical Committee.

3.3.5.2 A meeting will then be held with CDOT, the PLT and the Technical Committee to discuss the Recommendation. Upon the conclusion of that meeting the Recommendation will be finalized.

3.3.6 Based on the final Recommendation, Technology Providers will receive notification of their status related to the Recommendation along with invitations and instructions for the Technology Forum as appropriate.

**Table 3
Adjectival Scoring Matrix**

| Adjective | Description | Maximum Points |
|-----------------------|---|-----------------------|
| Excellent (E) | Proposer demonstrated (1) an approach that significantly exceeds stated criteria in a way that is beneficial to Department; (2) a consistent level of quality; and (3) an extremely strong ability of successful Project performance. There are essentially no weaknesses. Proposer exceeds the requirements or stated criteria | 5 |
| Very Good (VG) | Proposer demonstrated (1) an approach that exceeds many stated criteria; and (2) generally better than acceptable quality. Weaknesses, if any, are minor, and could slightly affect successful Project performance adversely. | 4 |
| Good (G) | Proposer demonstrated (1) an approach that meets stated criteria; (2) an acceptable level of quality; and (3) a reasonable probability of success. Weaknesses exist but can be overcome with reasonable measures in a manner that meets the requirements of the RFP. Proposer meets the requirement or stated criteria. | 3 |
| Fair (F) | Proposer demonstrated (1) an approach that is deficient in many stated criteria; and (2) a considerable marginality in terms of the required content and/or amount of information provided for evaluation. Modification would be required for the Proposal to be acceptable. Such weaknesses would adversely affect successful Project performance. | 2 |
| Poor (P) | Proposer demonstrated (1) an approach that significantly fails to meet the stated criteria; and (2) a lack of essential, required information, and/or conflicting or unproductive information. Weaknesses and/or deficiencies are so major and/or extensive that there is little likelihood of success. | 1 |
| No Score | Proposer fails to address the requirements or stated criteria in any material fashion or entirely fails to meet the requirements and stated criteria. | 0 |