

## Project Description

The I-70 East Corridor includes I-70 between I-25 and Pena Boulevard and enhanced transit service between downtown Denver and Denver International Airport (DIA).

## Project Purpose

The purpose of the project is to implement a transportation solution that improves safety, access, and mobility and addresses congestion in the corridor.

## Project Need

- Safety concerns with the design features of the interchanges, roadway, viaduct and railroad
- Deteriorating transportation infrastructure
- Increased population and corresponding transportation demand
- Current and projected hours of congestion
- Access to population, employment, business and regional travel centers
- Insufficient transportation and mobility choices

| Goals                                                                                                         | Objectives                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Evaluation Criteria                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1. Pre-Screening                                                                                                                                                | 2. Comparative Screening                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3. Detailed Screening                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Access</b><br><i>Provide for reasonable access to transportation facilities</i>                            | <ul style="list-style-type: none"> <li>• Objective A1 - Balance the need for access with adverse affects on system performance</li> <li>• Objective A2 - Bring together multiple transportation modes to maximize convenience, flexibility, and connectivity</li> <li>• Objective A3 - Provide access to transportation facilities for a variety of users</li> </ul>                                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>• Does the alternative provide adequate transportation access to and through the corridor? (A3)</li> </ul>               | <ul style="list-style-type: none"> <li>• Provides access to local residences, businesses, and activity centers within the corridor (A3)</li> <li>• Balance local access with system performance (A1)</li> </ul>                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>• Transit travel time between key activity centers (A1,M1)</li> <li>• Highway travel time between key activity centers (A1,M1)</li> <li>• Population and employment within ½ mile of a transit station (A3)</li> <li>• Population and employment within ¼ mile of local bus service (A3)</li> </ul>                                                                                                                                                   |
| <b>Capacity</b><br><i>Provide for realistic capacity expansion and minimize future congestion</i>             | <ul style="list-style-type: none"> <li>• Objective CA1 - Address additional capacity requirements by providing multi-modal choices</li> <li>• Objective CA2 - Provide sufficient transportation system capacity to ensure the efficient movement of people</li> <li>• Objective CA3 - Provide sufficient transportation system capacity to ensure the efficient movement of goods</li> <li>• Objective CA4 - Minimize transportation system delay</li> </ul>                                                                                                                                                                                                                                                                     |                                                                                                                                                                 | <ul style="list-style-type: none"> <li>• Satisfies future system capacity needs (CA1,2,3)</li> </ul>                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>• Peak hour person capacity by mode (CA1,2,3)</li> <li>• Peak hour person hours of delay (CA2,3,4)</li> <li>• Daily hours of congestion (LOS "E" or greater) (CA4)</li> <li>• Number of linked transit trips (CA4)</li> <li>• Vehicle miles traveled (CA1)</li> </ul>                                                                                                                                                                                 |
| <b>Community</b><br><i>Support community plans and avoid, minimize, and mitigate impacts to neighborhoods</i> | <ul style="list-style-type: none"> <li>• Objective CO1 - Maximize consistency with existing local, regional, and state plans</li> <li>• Objective CO2 - Minimize adverse impacts to residential, business, and institutional properties</li> <li>• Objective CO3 - Minimize adverse economic impacts to local businesses</li> <li>• Objective CO4 - Allow for economic development opportunities</li> <li>• Objective CO5 - Minimize adverse impacts to community cohesiveness</li> <li>• Objective CO6 - Address transportation-related community impacts associated with air quality, water quality, hazardous materials, and noise</li> <li>• Objective CO7 - Allow for transit-oriented development opportunities</li> </ul> | <ul style="list-style-type: none"> <li>• Does the alternative provide the ability to implement the general intent of local plans and policies? (CO1)</li> </ul> | <ul style="list-style-type: none"> <li>• Meets the intent of existing local, regional, and state plans (CO1)</li> <li>• Minimizes potential residential displacement/disruption (CO2)</li> <li>• Minimizes potential business displacement/disruption (CO2)</li> <li>• Minimizes potential institutional property displacement/disruption (CO2)</li> <li>• Consistency of adjacent land use with transit oriented development principles (CO7)</li> </ul> | <ul style="list-style-type: none"> <li>• Meets the intent of existing local, regional, and state plans (CO1)</li> <li>• Number of residential properties potentially physically affected (CO2)</li> <li>• Number of institutional properties potentially physically affected (CO2)</li> <li>• Number of business properties potentially physically affected (CO2,3)</li> <li>• Community sentiment on the relationship between the alternative and neighborhood character (CO5,6)</li> </ul> |

\* Note: Objectives are represented by alphabetical and numerical descriptors (e.g. A1) to simplify tracking throughout the screening process. The description in the parenthesis after each screening criteria (e.g. (A1)) shows which objective the criteria represents.

| Goals                                                                                                                       | Objectives                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Evaluation Criteria                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| <b>Environment</b><br><i>Avoid, minimize, and mitigate adverse impacts to the natural, social, and cultural environment</i> | <ul style="list-style-type: none"> <li>Objective E1 - Minimize adverse impacts to historic resources</li> <li>Objective E2 - Ensure consistency with regional air quality model to help achieve Federal and State air quality standards</li> <li>Objective E3 - Minimize disproportionately high and adverse impacts on minority and low income populations</li> <li>Objective E4 - Minimize adverse impacts to wetlands and other waters of the U.S.</li> <li>Objective E5 - Minimize adverse impacts to recreational and open space resources</li> <li>Objective E6 - Minimize public exposure to highway and transit noise and transit vibration impacts</li> <li>Objective E7 - Minimize adverse impacts associated with hazardous materials</li> <li>Objective E8 - Incorporate design standards that minimize visual impacts and enhance aesthetics</li> </ul> | <ul style="list-style-type: none"> <li>Does the alternative avoid clearly unacceptable environmental impacts? (All)</li> </ul>                        | <ul style="list-style-type: none"> <li>Minimizes potential impacts to historic resources (E1)</li> <li>Minimizes potential impacts to natural resources (E2,4,5,7)</li> <li>Minimizes potential impacts to social resources (E3,6,8)</li> </ul>                                                                                                  | <ul style="list-style-type: none"> <li>Number of historic resources potentially affected (E1)</li> <li>Tons of mobile source emissions (E2)</li> <li>Amount of minority and low income population potentially affected (E3)</li> <li>Acres of wetlands and waters of the US potentially affected (E4)</li> <li>Acres of recreational and open space potentially affected (E5)</li> <li>Number of residential, business, and sensitive properties exposed to noise and/or vibration levels that exceed federal standards (E6)</li> <li>Number and nature of known hazardous material sites potentially affected (E7)</li> <li>Potential visual affects of alternatives (E8)</li> </ul> |
| <b>Implementation</b><br><i>Provide a cost-effective transportation solution that can be implemented</i>                    | <ul style="list-style-type: none"> <li>Objective IM1 - Provide a cost effective long-term transportation solution</li> <li>Objective IM2 - Provide flexibility for future expansion and modification</li> <li>Objective IM3 - Provide technologies that are practical and implementable</li> <li>Objective IM4 - Maximize the opportunity that Federal, State, local, and/or private funding will be available to fund improvements</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>Is the alternative a proven technology in a comparable application? (IM3)</li> </ul>                           | <ul style="list-style-type: none"> <li>Minimizes project cost (All)</li> <li>Facilitates ease of construction (IM1,3)</li> <li>Facilitates ease of operation and maintenance (IM1,4)</li> <li>Accommodates the potential for future transportation improvements consistent with local, regional, and state transportation plans (IM2)</li> </ul> | <ul style="list-style-type: none"> <li>Total estimated capital cost (IM1)</li> <li>Estimated annual operation and maintenance cost (IM1)</li> <li>Estimated cost per lane mile (highway) (IM1)</li> <li>Estimated cost per passenger mile (transit) (IM1,3)</li> <li>Estimated cost per rider (transit – includes annualized O&amp;M and capital costs) (IM1,3)</li> <li>Percentage of alternative that could be funded by other feasible sources beyond traditional transportation sources (IM4)</li> </ul>                                                                                                                                                                          |
| <b>Infrastructure</b><br><i>Address deteriorating transportation infrastructure</i>                                         | <ul style="list-style-type: none"> <li>Objective IN1 - Address problems with maintenance and structural deficiencies on the I-70 viaduct and other structures</li> <li>Objective IN2 - Provide a transportation solution that addresses drainage and flooding impacts</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>Does the alternative address the maintenance and structural deficiencies on the I-70 viaduct? (IN1)</li> </ul> | <ul style="list-style-type: none"> <li>Addresses the maintenance and structural deficiencies on the I-70 viaduct (IN1)</li> </ul>                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>Lane miles of deficient structures replaced or improved (IN1)</li> <li>Number of major drainage deficiencies addressed (IN2)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Mobility</b><br><i>Enhance mobility by providing transportation choices</i>                                              | <ul style="list-style-type: none"> <li>Objective M1 - Facilitate connections between residential and business activity centers</li> <li>Objective M2 - Facilitate ease of transfer between modes</li> <li>Objective M3 - Provide convenient, multi-modal transportation options</li> <li>Objective M4 - Enhance system reliability across travel modes</li> <li>Objective M5 - Balance the transportation needs of local, regional, and national users</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>Does the alternative avoid precluding existing or planned transportation system improvements? (All)</li> </ul> | <ul style="list-style-type: none"> <li>Reduces travel delay and congestion (M4,M5)</li> <li>Improves system reliability (M4,M5)</li> <li>Ability to accommodate adverse weather conditions (M4)</li> </ul>                                                                                                                                       | <ul style="list-style-type: none"> <li>Number of modes available at strategic locations (M2,3,5,A2)</li> <li>Average wait time for transfers between modes (M2,4,5,A2)</li> <li>Number of daily hours of LOS E or F (M4,A1)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Safety</b><br><i>Address safety needs and upgrade facilities to current standards</i>                                    | <ul style="list-style-type: none"> <li>Objective SA1 - Optimize safety and minimize accidents across all modes</li> <li>Objective SA2 - Conform with engineering design and safety standards and with standard practices for construction, maintenance, and operations</li> <li>Objective SA3 - Minimize cross modal conflicts and conflict points</li> <li>Objective SA4 - Provide access for emergency response and evacuation situations</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>Does the alternative address existing safety issues? (All)</li> </ul>                                          | <ul style="list-style-type: none"> <li>Conforms with engineering design and safety standards (SA2)</li> <li>Addresses emergency response needs (SA4)</li> </ul>                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>Number of high accident locations addressed (SA1)</li> <li>Number of instances where minimum design standards were used (SA2)</li> <li>Number of conflict points between modes (transit, highway, pedestrian, bicycle) (SA3)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Security</b><br><i>Provide a secure transportation system</i>                                                            | <ul style="list-style-type: none"> <li>Objective SE1 - Minimize potential security threats to the National Interstate System</li> <li>Objective SE2 - Maintain maximum security measures regarding access to DIA</li> <li>Objective SE3 - Develop and maintain a transportation system that supports national homeland security objectives</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>Does the alternative support homeland security objectives? (SE3)</li> </ul>                                    | <ul style="list-style-type: none"> <li>Ability to meet Transportation Security Administration (TSA) standards for transit access to DIA (SE2)</li> </ul>                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>Number and type of critical design features that are potential security risks (SE1)</li> <li>Ability to meet Transportation Security Administration (TSA) standards for transit access to DIA (SE2)</li> <li>Number and extent of alternate routes provided (SE1,3)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                 |

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