

**CITY OF BOULDER
TRANSPORTATION ADVISORY BOARD
AGENDA ITEM**

MEETING DATE: May 12, 2014

AGENDA TITLE: Staff briefing and TAB input on the proposed Year 2016-2021 Transportation Improvement Program (TIP) submittal process – Part I of 3

PRESENTER/S: Tracy Winfree, Director of Public Works for Transportation
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EXECUTIVE SUMMARY:

The Transportation Improvement Program (TIP) process is a competitive process managed by the Denver Regional Council of Governments (DRCOG) to select projects for federal transportation funding that help to fulfill and support the goals of 2035 Metro Vision and Regional Transportation plans. Federal transportation funding also provides an ability to complete priority projects in the City of Boulder's Transportation Master Plan and other city master plans and goals by leveraging city transportation dollars and funding from other partners with federal funding.

This item provides the Transportation Advisory Board (TAB) with a summary of the application process, previous selection criteria used in preparing the TIP and a description of the process used by the city to select projects for the last six TIPs and a general timeline. Prior to the 2001-2006 TIP, TAB established a process for preparing the city's submittals with the objectives of:

- consistency with the policy direction of the Transportation Master Plan (TMP);
- funding priority projects for the city; and,
- maximizing the chances for receiving funding through the TIP process.

TAB is asked to consider the existing process for developing the city's TIP submittals and provide guidance as staff begins to develop the city's submittals. At this time, it is estimated that submittals will be due to DRCOG in late August 2014 for the 2016-2021 TIP.

COMMUNITY SUSTAINABILITY ASSESSMENTS AND IMPACTS:

- **Economic:** Federal transportation funding provides an ability to complete priority projects in the City of Boulder’s Transportation Master Plan by leveraging city transportation dollars and funding from other partners with federal funding. These projects fulfill economic sustainability goals by maintaining or preserving the existing transportation infrastructure and/or increasing efficiency, access or connections for a number of travel modes in a location or along a corridor which benefits the local business with improved transportation for its goods, services, customers or employees. As evidenced by the past federal stimulus efforts, construction of transportation infrastructure is considered a good mechanism for pumping funding into local economies through direct construction jobs, supporting positions and purchases of goods and services.
- **Environmental:** The projects will increase the functional efficiency, access or connections for multimodal travel and helps to provide travel options for residents, visitors and employees to utilize instead of the single occupant vehicle. This helps to fulfill the goals and objectives of the Transportation Master Plan and Climate Commitment of reduced single occupant vehicle travel and congestion mitigation, contributing to lower pollution and greenhouse gas emissions.
- **Social:** These projects help to continue or add to the city’s transportation infrastructure and/or multimodal travel which can be accessed by community members, visitors and employees in their daily travel and lives. The proposed TIP projects are selected through a criteria process established by TAB that considers their policy, technical and strategic factors. This process produces priority projects that support the Complete Streets investment program to maximize the benefits of the upcoming regional rail and bus rapid transit improvements and strengthen partnerships with other agencies. The process to select the projects to submit for federal transportation funding is presented to the public to give feedback on preferences and priorities and when the projects are selected another public involvement process will be implemented to solicit feedback on project design.

OTHER IMPACTS:

- **Fiscal:** The minimum 20% local match for all TIP Transportation funded projects would come from project partners or funds already contained in the Transportation Division’s budget. As the process continues to develop preliminary plans and cost estimates to complete the applications, more detail on this topic will be shared.
- **Staff time:** Staff time to develop the applications including preliminary plans and cost estimates is included in the annual work program budget. Staff time to implement these projects will be included in the project budget.

BACKGROUND:

Federal Transportation Funding

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 represented a fundamental shift in national transportation policy and established a policy framework that continues to guide federal transportation spending. ISTEA called for the development of an intermodal transportation system “that is economically efficient,

environmentally sound, and will move people and goods in an energy efficient manner.”

The hallmarks of ISTEA were:

- Increased emphasis on local planning control and flexibility in spending, with more than half of all federal funding being flexible for funding highways, transit or other uses;
- A major shift in emphasis from building new facilities to maintenance, with significant funding reserved for maintenance of existing highway, bridge and transit systems;
- Dedicated funding set aside to support transportation alternatives and to reduce the negative impacts of transportation on society; and
- Requirements for an inclusive and open planning process for the use of funds at the state and metropolitan levels.

The most recent reauthorization occurred in 2012 with the Moving Ahead for Progress in the 21st Century Act (MAP-21). MAP-21 creates a streamlined, performance-based, and multimodal program to address the many challenges facing the U.S. transportation system. These challenges include improving safety, maintaining infrastructure condition, reducing traffic congestion, improving efficiency of the system and freight movement, protecting the environment, and reducing delays in project delivery.

MAP-21 builds on and refines many of the highway, transit, bike, and pedestrian programs and policies established in 1991. Setting the course for transportation investment in highways, MAP-21 –

- *Strengthens America's highways*

MAP-21 expands the National Highway System (NHS) to incorporate principal arterials not previously included. Investment targets the enhanced NHS, with more than half of highway funding going to the new program devoted to preserving and improving the most important highways -- the National Highway Performance Program.

- *Establishes a performance-based program.*

Under MAP-21, performance management will transform Federal highway programs and provide a means to more efficient investment of Federal transportation funds by focusing on national transportation goals, increasing the accountability and transparency of the Federal highway programs, and improving transportation investment decision making through performance-based planning and programming.

- *Creates jobs and supports economic growth*

MAP-21 authorizes \$82 billion in Federal funding for FYs 2013 and 2014 for road, bridge, bicycling, and walking improvements. In addition, MAP-21 enhances innovative financing and encourages private sector investment through a substantial increase in funding for the TIFIA program. It also includes a number of provisions designed to improve freight movement in support of national goals.

- *Supports the Department of Transportation's (DOT) aggressive safety agenda*

MAP-21 continues the successful Highway Safety Improvement Program, doubling funding for infrastructure safety, strengthening the linkage among modal safety programs, and creating a positive agenda to make significant progress in reducing highway fatalities. It also continues to build on other aggressive safety efforts, including the Department's fight against distracted driving and its push to improve transit and motor carrier safety.

- *Streamlines Federal highway transportation programs.*

The complex array of existing programs is simplified, substantially consolidating the program structure into a smaller number of broader core programs. Many smaller programs are eliminated, including most discretionary programs, with the eligibilities generally continuing under core programs.

- *Accelerates project delivery and promotes innovation.*

MAP-21 incorporates a host of changes aimed at ensuring the timely delivery of transportation projects. Changes will improve innovation and efficiency in the development of projects, through the planning and environmental review process, to project delivery.

DRCOG Funding Process

The TIP is essentially the capital improvements program implementing the Regional Transportation Plan (RTP,) the fiscally constrained, long-range transportation plan for the Denver metropolitan region. The TIP process for project selection is conducted every four years by the DRCOG in cooperation with the Colorado Department of Transportation (CDOT) and the Regional Transportation District (RTD) to identify the projects and management actions expected to be completed by CDOT, RTD, local governments and other project sponsors. All projects receiving federal funds must be in the RTP and the TIP, and meet the requirements of the Clean Air Act. In addition to being adopted by the DRCOG Board, the TIP must also be approved by the governor and incorporated into the State Transportation Improvement Program.

All projects selected for the TIP must support the goals and policies included in the *Metro Vision 2035 Regional Transportation Plan*. **Attachment A** includes the 2035 Metro Vision Regional Roadway System, Rapid Transit System and Regional Bicycle Corridor System maps.

The following policies provide overall guidance for the selection of TIP projects:

Metro Vision Transportation Policies:

1. System Preservation. Assure existing and future transportation facilities are maintained and preserved.

2. Transit. Provide increased transit service and facilities to accommodate an increasing share of daily travel, encourage transit-oriented developments and provide mobility options.

3. Roadway. Provide a sustainable roadway system to enable safe and efficient travel by automobiles, trucks, buses and bicycles.

4. Management and Operations. Make the best use of existing and future transportation facilities by implementing measures that actively manage and integrate systems to optimize system performance and safety, provide accurate real-time information and reduce per capita vehicle miles traveled (VMT).

5. Rights-of-Way Preservation. Reserve adequate rights-of-way in newly developing and redeveloping areas for pedestrian, bicycle, transit and roadway facilities.

6. Denver Central Business District. Improve and maintain efficient transportation access by all modes to downtown Denver.

7. Safety. Develop and maintain a safe transportation system for all users.

8. Security. Develop and maintain a transportation system that provides increased security for all users.

9. Bicycle and Pedestrian. Provide robust bicycle and pedestrian accessibility throughout the region.

10. Interconnections. Provide efficient interconnections of the transportation system within modes, among different modes, and between the metropolitan area and the rest of the state and nation.

11. Transportation-Efficient Housing and Business Developments. Design new developments within communities to allow the efficient movement of pedestrians, bicyclists, buses and motor vehicles within, to and through the area.

12. Land Use Integration. Implement transportation system components that support Metro Vision's urban growth boundary/area, urban centers, open space and associated concepts.

13. Transportation for the disadvantaged. Provide a transportation system that considers the needs of and impacts on minority, low-income, elderly and disabled persons.

14. Environmental Quality. Develop and maintain a sustainable transportation system that protects and enhances air quality, energy efficiency, and the

The DRCOG Board has included sustainability principles in the regional plan which includes the following goals:

- A 10% increase in density by 2035 to limit the expansion of the urbanized area through increased region-wide density, infill and redevelopment.
- Reduced regional per capita municipal and industrial water use.
- Reduced fossil fuel consumption.
- Increased share of population and employment growth in urban centers with 50% new housing and 75% new employment within urban centers by 2035.
- Increased amount of protected open space to 880 square miles of state and local parks and open space by 2035.

- Reduce per capita greenhouse gas emissions from the transportation sector 60% by 2035
- Increase the rate of construction of alternative transportation facilities.
- Reduce the percent of trips to work by single-occupant vehicle to 65% by 2035.
- Reduce regional vehicle miles traveled (VMT) by 10% by 2035.

DRCOG is currently involved in the process of updating the regional plans to 2040 and updating and revising the TIP criteria for the upcoming 2016-2021 TIP. While it is unclear how these goals will be included in the TIP criteria, the city is involved in this discussion at DRCOG.

According to its current schedule, DRCOG will solicit project recommendations in early July 2014 for the 2016-2021 TIP, with proposals expected to be due in late August 2014. Although there are four years of project funding (2016, 2017, 2018, 2019), some funds for 2016 are already programmed in the existing TIP. All submitted projects will be evaluated and ranked by the criteria contained in the *Policy on Transportation Improvement Program Preparation*, which is currently being updated. DRCOG expects the revised document to be adopted by the DRCOG Board in June 2014. A limited number of these projects will be funded in the adopted TIP, with the likelihood of a project being funded depending on its score relative to the established criteria and the available funds in a project category. The funding available in the 2016-2021 TIP has not been finalized yet but is likely to decrease. The CMAQ funding category is typically used to fund operational, transit and TDM projects, and the STP-Enhancements category funds bike and pedestrian facilities. In past TIPs, the DRCOG Board established targeted funding amounts for the various project categories but this also has not yet been finalized for this TIP.

While the project evaluation criteria are not adopted by DRCOG, we anticipate that most will remain similar to what was used in the last TIP. The current *Policy on Transportation Improvement Program Preparation* allows for project submittals in the following project types:

- Maintenance- including highway reconstruction, resurfacing, restoration, rehabilitation; bridges; and transit reconstruction, restoration, rehabilitation and replacement
- Safety
- Management- operational highway improvements on identified corridors and travel demand management
- Transit- capacity; transit operations including new RTD service and new bus service recommended by local governments; and transit passenger facilities
- Highways- widenings; new roadways; new interchanges; interchange reconstruction
- Bicycle and pedestrian projects
- Elderly and disabled and non-urbanized transit projects
- Other- historic preservation/archaeological; transportation aesthetics and scenic values; water quality; and studies. However, in the past few TIPs, this category has not been funded.

For each of these project types, specific evaluation criteria are contained in the *Policy on Transportation Improvement Program Preparation*. A copy of the criteria from the

previous TIP for the Roadway Reconstruction Projects category and the Bicycle/Pedestrian Projects category are contained in **Attachment A** as an example of these criteria. The Roadway Reconstruction Projects category has funded such city projects such as Diagonal Highway (28th – Independence Road) Transportation Improvements Project and the Broadway (Pine-Iris) Reconstruction Project. The Bicycle/Pedestrian Projects category have funded projects such as the Pearl Parkway (30th- Foothills Parkway) Transportation Improvements Project, 28th Street (Iris-Yarmouth) Bicycle and Pedestrian Improvements Project, Baseline Road Underpass Project and the Broadway (Euclid-18) Transportation Improvements Project. There are similar tables of criteria for each of the project types listed above.

Based on the last TIP, the City of Boulder is likely able to submit up to eight projects for consideration in the TIP. Carry-over projects (projects funded in the second and third years of the TIP) are considered committed and do not count towards the city’s limit of eight submittals. Based on previous experience, the application process will require significant staff time to manage the conceptual project designs and collect the information required for each project submitted.

City of Boulder Process to Develop TIP Application Submittals

The timeline below represents the process to solicit and evaluate project ideas to submit for TIP funding. This process includes an early open house, three public hearings before TAB and a public hearing before City Council.

Jan.-April 2014	Potential TIP projects solicited from Transportation staff and other city departments and community agencies
May28, 2014	Public open-house meeting to present the potential projects and the submittal process (to be held jointly with the TMP outreach meeting)
June 9, 2014	Potential TIP projects reviewed by TAB
Early July	DRCOG announces TIP project solicitation
July 14, 2014	TAB public hearing and recommendation to the City Council on the project list for submission
August 2014	City Council public hearing and approval of project list for submission
Late August 2014	TIP project submittals due to DRCOG
Sept–Dec 2014	DRCOG project evaluation and primary/secondary project selection
January 2015	DRCOG release of draft TIP
February 2015	DRCOG committee reviews and public hearing
March 2015	DRCOG Board action on 2016 - 2021 TIP.

Please note that this is based on DRCOG’s current schedule for this round of TIP funding and some dates may move if the DRCOG schedule changes.

The timeline above shows that the initial solicitation for project ideas has occurred. **Attachment C** contains a map of the locations of potential TIP projects to be submitted by the City of Boulder for potential federal funding. Feedback received from the upcoming public outreach effort will be included in the June 9 TAB memorandum.

ANALYSIS:

Starting with the 2001-2006 TIP cycle, the city's TIP development process was significantly expanded by actively soliciting project proposals from other departments in the city, from partner agencies and from all Transportation staff. The following criteria have been used by staff and TAB to determine the projects recommended for submittal to DRCOG:

- Projects consistent with the funding priorities of the TMP.
- Projects consistent with the City's TMP goals to establish a balanced multimodal transportation system.
- Projects which hold a high probability of receiving funding under the DRCOG criteria.
- Finally, if a number of quality projects are proposed exceeding our submittal limit, we will cooperate with other agencies/ jurisdictions to submit requests jointly.

Current Three-step Screening Process

The following screening steps have been used in past TIPs:

- **Policy Level**
TAB advises staff on the areas of emphasis for TIP submittals based on the policies of the TMP and its investment priorities. Staff suggests that submittals reflect the priorities and principles from the TMP and Complete Streets focus which emphasizes both access in the community and access to regional multimodal systems, including FasTracks and the new Northwest Area Mobility Study (NAMS) recommendations for arterial Bus Rapid Transit. Projects that can provide local match dollars from outside the Transportation Fund are a priority for the TIP and to meet this objective, we suggest actively seeking partnership opportunities with the University of Colorado, RTD and CDOT.
- **Technical Criteria Level**
Based on the emphasis established at the policy level, staff will develop TIP project proposals and perform an initial evaluation of their chance for success under the DRCOG funding criteria. Staff will develop estimated scores under these criteria for a reasonable subset of the proposed projects if there are more than eight projects suggested. Staff will report to TAB the list of suggested projects and the results of the scoring.
- **Strategic Level**
Once we know any target funding levels established by DRCOG for each project type and have coordinated with our partnership agencies on their project submittals, staff will suggest a list of projects that are likely to be funded in the DRCOG process. This list will be reviewed by TAB prior to staff preparing the final list of TIP submittals for TAB recommendation and Council approval.

STAFF RECOMMENDATION

Staff believes the criteria and screening processes established by TAB remains a reasonable guide for selecting TIP submittals, and recommend that we continue to use them as the basis for proposal selection. We anticipate submitting projects that are identified in the map from **Attachment C**.

The projects proposed for this TIP process represent a sub-set of the overall multimodal transportation system improvements identified in Boulder's TMP. These TIP projects have been identified based on which will most likely compete well within the DRCOG regional process. Staff continues to seek funding opportunities and work collaboratively with our agency partners to advance the other projects included in the TMP that are not currently being recommended for this TIP funding cycle.

ACTION REQUESTED

The TAB is asked to provide their thoughts on any potential modifications to the TIP development process and on those areas that should be an emphasis for this round of project submittals.

NEXT STEPS:

This topic will be on the June and July meeting agendas with a request for a recommendation to City Council in July.

ATTACHMENTS

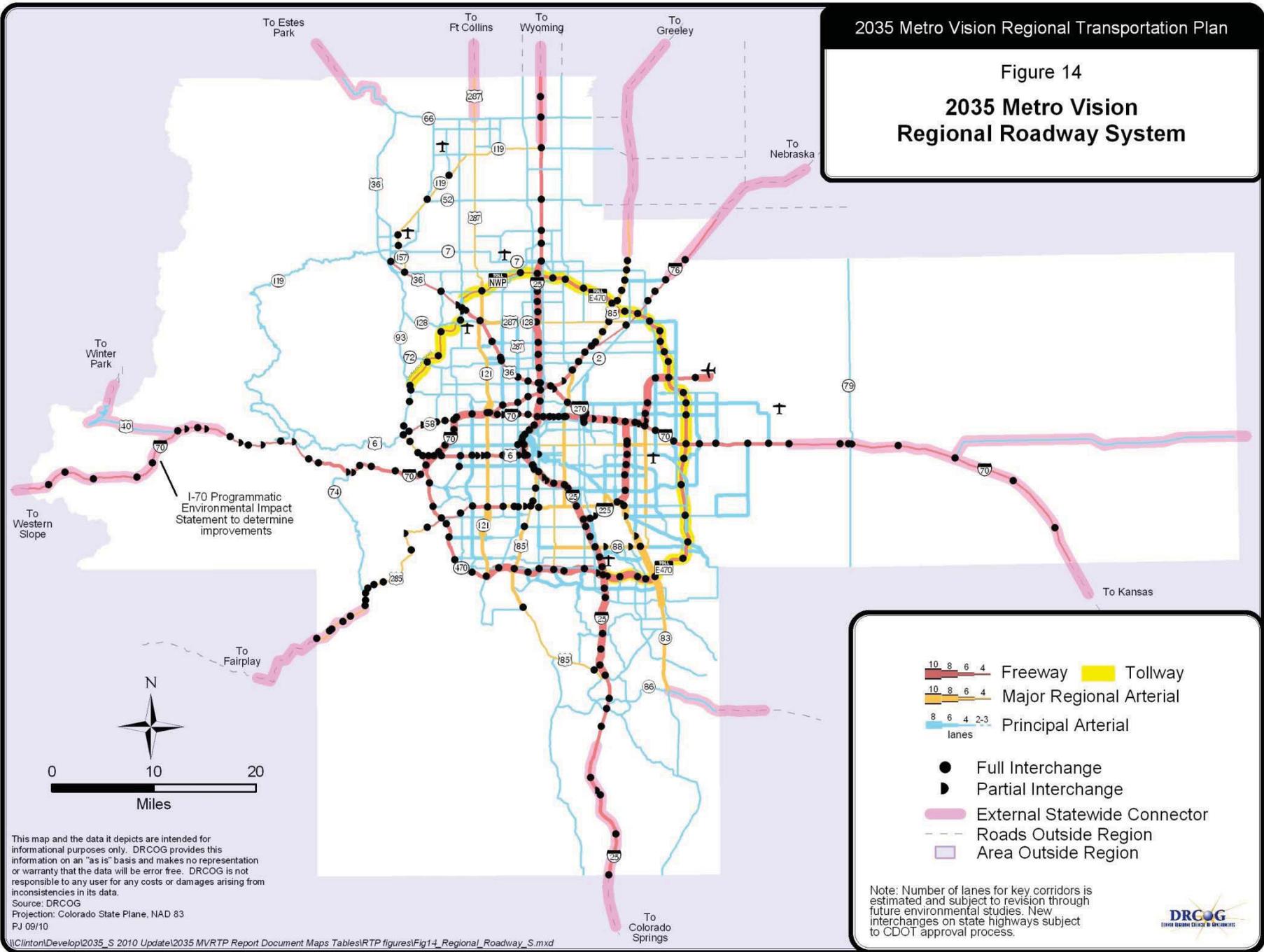
Attachment A - 2035 Metro Vision Regional Roadway System, Rapid Transit System and Regional Bicycle Corridor System maps.

Attachment B - Criteria for Roadway Reconstruction Projects and Bicycle/Pedestrian Projects

Attachment C - Map of Potential TIP projects

2035 Metro Vision Regional Transportation Plan

Figure 14
**2035 Metro Vision
 Regional Roadway System**



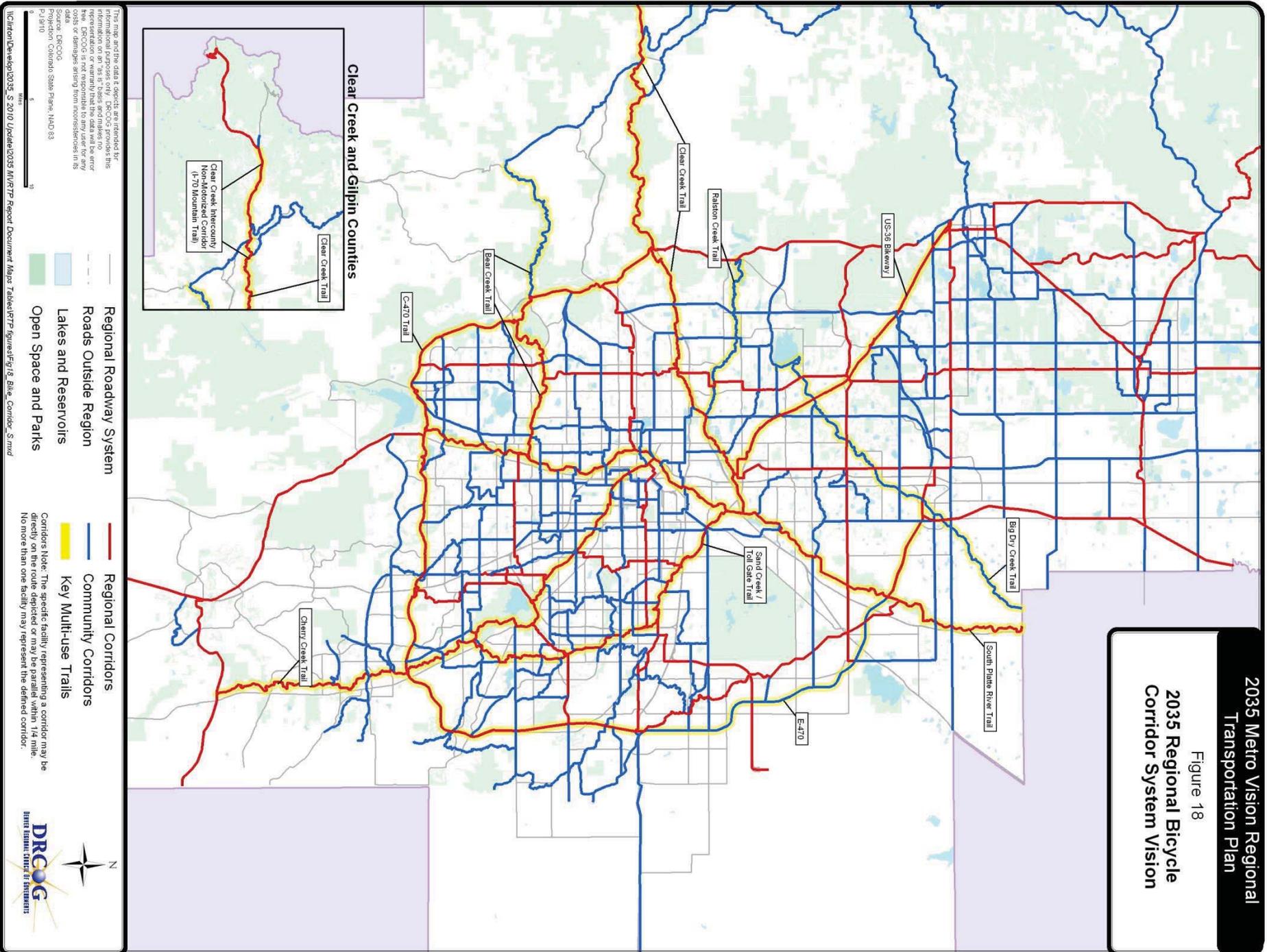
- 10 8 6 4 Freeway
- 10 8 6 4 Major Regional Arterial
- 8 6 4 2-3 Principal Arterial lanes
- Full Interchange
- ▲ Partial Interchange
- External Statewide Connector
- Roads Outside Region
- Area Outside Region

Note: Number of lanes for key corridors is estimated and subject to revision through future environmental studies. New interchanges on state highways subject to CDOT approval process.



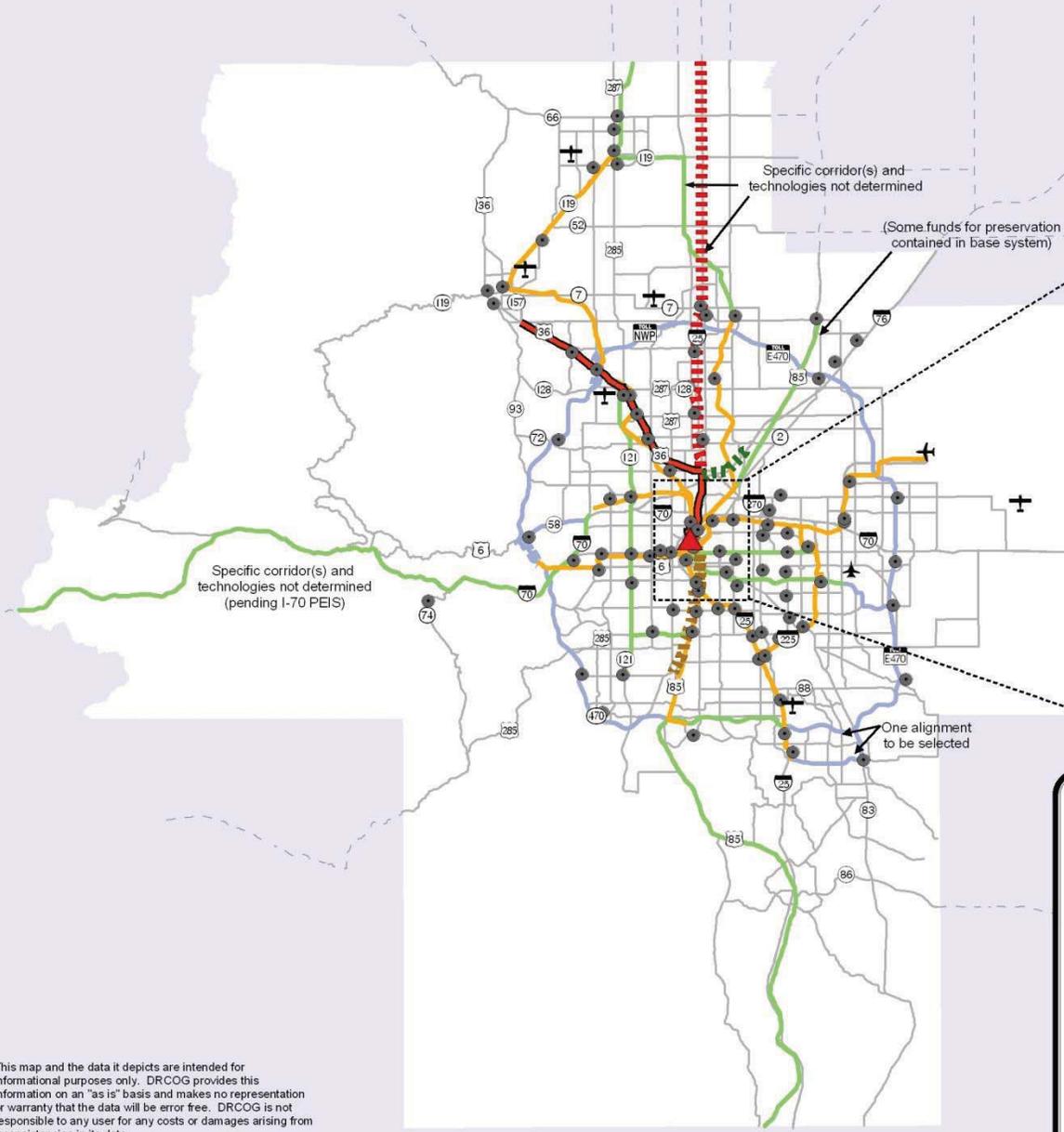
This map and the data it depicts are intended for informational purposes only. DRCOG provides this information on an "as is" basis and makes no representation or warranty that the data will be error free. DRCOG is not responsible to any user for any costs or damages arising from inconsistencies in its data.
 Sources: DRCOG
 Projection: Colorado State Plane, NAD 83
 PJ 09/10

Figure 18
2035 Regional Bicycle
Corridor System Vision



2035 Metro Vision Regional Transportation Plan

Figure 16
**2035 Metro Vision
 Rapid Transit System**



Tier 1 - Base Rapid Transit System			
Tier 2 - Potential Regional and State Intercity Corridors			
Tier 3 - Conceptual Preservation Corridors			
	Area Outside Region		
	Regional Roadway System		
	Roads Outside Region		
	Denver Union Station		
	Urban Center Location		

0 10 20
 Miles

DRCOG
 DENVER REGIONAL CENTER OF GOVERNMENTS

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Source: DRCOG
 Projection: Colorado State Plane, NAD 83
 PJ 8/10

Table 6. Roadway Reconstruction Projects**Eligibility Criteria**

- Projects on any roadway shown on the 2035 Metro Vision Regional Roadway System (as adopted by the DRCOG Board on July 21, 2010) are eligible (exception: any project located on the 16th Street Mall in Denver is eligible)
- Projects must replace the entire existing pavement structure by the placement of the equivalent or increased pavement structure for the entire travel way; other surface treatment (rehabilitation, resurface) projects are ineligible (exception: any project proposed on the 16th Street Mall in Denver may include non-traditional reconstruction activities).
- Within the urban growth boundary, arterial roadway projects must adhere to urban design standards and must demonstrate that sidewalks are present and will be maintained and replaced or will be added as part of the project. Outside the urban growth boundary, roadway projects must adhere to non-urban design standards and incorporate a high degree of access control.
- Any current bicycle or transit infrastructure must as a minimum be retained in kind.

Evaluation Criteria	Points	Scoring Instructions
Pavement condition	0-20	Based on the pavement condition index computed per Appendix H: 20 points will be awarded to projects with a condition index of 10 or lower; 0 points to projects with a condition index of 50 or greater; with straight line interpolation between. <i>Source: Sponsor computations.</i>
Crash reduction (Safety)	0-5	Based on the project's estimated crash reduction and weighted crash rate, up to 5 points will be awarded. Appendix E explains the point allocation. <i>Source: DRCOG or sponsor supplied crash data. Sponsors are encouraged to use qualified traffic personnel for this computation and are asked to indicate that they have done so as part of the application.</i>
Cost-effectiveness	0-10	Based on the project's current (2010) estimated cost per daily person-miles-of-travel (PMT): projects with a cost per PMT of \$50 or less will receive 10 points; projects with a cost per PMT of \$300 or more will receive 0 points; with straight line interpolation between. <i>Source: Sponsor computations.</i>
Usage	0-7	Based on current AWDT/lane (average for overall project length): projects with AWDT/lane of 15,500 or more will receive 7 points; projects with AWDT/lane of 5,000 or less will receive 0 points; with straight line interpolation between. <i>Source: Sponsor data.</i>
Transportation system management	0-5	1 point will be awarded for each of the following features to be added to or newly provided as part of the project, up to 5 points (of a possible 6): <ul style="list-style-type: none"> • Provision of raised, depressed, or barrier medians for the entire length of the project • Access consolidation (driveways, side streets) • Provision of left-turn lanes at signalized intersections • Provision of signal interconnection • Provision of ITS infrastructure • Provision of infrastructure that implements an approved incident management plan
Multimodal connectivity	0-15	Various points for each of the following, up to 15 points (of a possible 35), will be awarded for the following features being included in and newly constructed by the project: <ul style="list-style-type: none"> • 1 point for including minor transit operational features - bus pads • 3 points for including major transit operational features - queue jump lanes • 2 points for including transit amenities (e.g., bus shelters, benches, multimodal information kiosks)

Table 6. Roadway Reconstruction Projects

Evaluation Criteria	Points	Scoring Instructions
		<ul style="list-style-type: none"> • 4 points for building a new multimodal path, bike lanes, widened curb lanes, or paved shoulders to accommodate a bike facility on a regional or locally adopted plan for the entire length of the project • 7 points for grade separating an existing bike/ped trail from the road • 1 point for providing bike amenities (e.g., bike racks, bike lockers) • 2 points for building pedestrian links that connect to adjacent public uses, or to private uses that are existing, or have already been through the entitlement process, but haven't been built • 1 point for providing pedestrian-oriented street lighting for the entire length of the project • 1 point for providing street trees and/or a landscaped buffer between the roadway and sidewalk within the street zone for the entire length of the project • 2 points for detaching sidewalks to a minimum buffer of 6 feet from the roadway • 2 points for widening sidewalks to a minimum width of 8 feet • 2 points for incorporating transit priority at project signals • 1 point for incorporating bicycle activation at project signals • 2 points for providing one or more protected roadway crossings for pedestrians (e.g., center refuge, bump-outs, flashing lights, raised pedestrian crossing on turn lanes, etc.) • 4 points for adding a new travel lane, or redesignating an existing general purpose travel lane, for transit/HOV use (and turns by general purpose traffic) for a continuous distance longer than a queue jump lane but not more than 1,800 feet.
Environmental justice	0-3	<ul style="list-style-type: none"> • 3 points will be awarded if 75% or more of the project length is located within a RTP-defined environmental justice area (Figure 34 of the 2035 Metro Vision RTP). The sponsor must identify the benefits and disadvantages of the project to the environmental justice community during submittal AND provide evidence (e.g., subarea or comprehensive plan) that the project has been taken through a community-level public process that gave credence to the project being a benefit to the environmental justice area in which the project is located. • 0 points will be awarded if less than 75% of the project length is located within a RTP-defined environmental justice area or if the benefits documentation is not provided.
Overmatch	0-9	Based on providing <i>above</i> the minimum 20 percent local funding match: 9 points will be awarded to projects with local match of 47 percent or more; 0 points to projects with the minimum 20 percent local match; with straight line interpolation between.
Project-related Metro Vision implementation and strategic corridor focus	0-18	Up to 18 points will be awarded as described in Appendix F.
Sponsor-related Metro Vision implementation	0-8	Up to 8 points will be awarded for sponsor actions implementing Metro Vision. Appendix G explains the specific criteria.
Total	100	

Table 10. New Bicycle/Pedestrian Projects

Eligibility Requirements (All projects)

1. New construction projects are defined as projects that will result in a new facility where pedestrian and/or bicycle infrastructure does not currently exist. Infrastructure is defined as having asphalt, concrete, or similar hard-pavement type.
2. Pedestrian and bicycle projects must be on facilities contained in an **adopted** local or regional plan.
3. Any new pavement must be designed and constructed to withstand occasional vehicle travel (emergency vehicles).
4. If project consists of multiple, non-contiguous elements, all elements must either be a) on the same facility (primary corridor) OR b) within ¼ mile of the largest element of the project.
5. Projects that consist of both a new construction element and an upgrade and/or reconstruction element must be categorized as either one or the other to score the project. That categorization is determined by the element proposed in the largest contiguous segment of the project, based on linear feet.
6. All projects intended for multiple user types (bicycle and pedestrian) are required to be constructed to a minimum width of 8 feet for the entire length of the project.
7. New construction projects must accomplish connectivity. Examples of connectivity include, but are not limited to:
 - Closing a gap between two existing bicycle facility sections
 - Providing access to transit (stations, park-n-Rides, stops)
 - Providing pedestrian and bicycle connections to schools, parks, shopping, and/or employment
 - Eliminating barriers
 - Linking a bicycle facility to a 2035 Metro Vision RTP roadway that serves bicyclists

Evaluation Criteria	Points	Scoring Instructions
RTP priority corridors	0-5	<p>If project consists of multiple elements not all on the same corridor, scoring in this category will be based on the largest contiguous element. Score 5 points maximum:</p> <ul style="list-style-type: none"> • 5 points will be awarded for bike projects that are on Regional Bicycle Corridors in the Pedestrian and Bicycle Element of the 2035 Metro Vision RTP (Figure 19 of the Pedestrian and Bicycle Element or within ¼ mile of <u>AND</u> fulfilling the function of the facility depicted on Figure 19) • 3 points will be awarded for bike projects on Community Bicycle Corridors in that element (Figure 19 of the noted document or within ¼ mile of <u>AND</u> fulfilling the function of the facility depicted on Figure 19) • 1 point will be awarded for bike projects on facilities on an adopted local plan <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • 5 points will be awarded for pedestrian projects along 2035 Metro Vision RTP major regional arterials and above (as adopted by the DRCOG Board on July 21, 2010) or within 1/8 mile of <u>AND</u> fulfilling the function of the facility depicted on that network • 3 points will be awarded for pedestrian projects along 2035 Metro Vision RTP principal arterials (as adopted by the DRCOG Board on July 21, 2010) or within 1/8 mile of <u>AND</u> fulfilling the function of pedestrian movement for the facility depicted on that network • 1 point will be awarded for pedestrian projects on a corridor on an adopted local plan

Table 10. New Bicycle/Pedestrian Projects

Evaluation Criteria	Points	Scoring Instructions
Safety	0-10	<p>Projects will be evaluated on the anticipated <i>improvement</i> of existing safety problems to be made by building new facilities for non-motorized travel.</p> <p>Three measures of safety improvement will be awarded:</p> <ol style="list-style-type: none"> 1. Relevant crash history Based on the number of <i>documented</i> injury accidents: <ul style="list-style-type: none"> ○ created by the interaction between motorized and non-motorized traffic; ○ in the area to be affected by the proposed new facility; and ○ occurring over the last three-year period for which data is available. <ul style="list-style-type: none"> • 1 point will be awarded for each applicable injury accident, up to a maximum of 5 2. Conflict factor If the existing facilities are roadways that allow interaction between motorized and non-motorized traffic, and if the project will build new facilities for the non-motorized traffic that eliminate or reduce the conflict factor, the project will earn safety points. Based on the speed limit on the existing facilities, up to 4 points will be awarded as follows: <ul style="list-style-type: none"> • 1 point will be awarded if the existing speed limit is 30 MPH or less; • 2 points will be awarded if the existing speed limit is 35 MPH; • 3 points will be awarded if the existing speed limit is 40 MPH; or • 4 points will be awarded if the existing speed limit is 45 MPH or above. 3. Facility lighting <ul style="list-style-type: none"> • 1 point will be awarded to projects that will provide ADA/AASHTO compliant lighting to facilitate non-motorized travel on the planned facilities, if no lighting is currently available.
Connectivity	0-19	<p>Up to 19 points will be awarded for specific project attributes that address existing local or regional connectivity of non-motorized travel. Points will be awarded as follows:</p> <p>Connectivity measures - gap closure (score points for only one of these two)</p> <ul style="list-style-type: none"> • 4 points - completely closing a gap between two existing similar bicycle facility/sidewalk sections (trail to trail, sidewalk to sidewalk, path to path) • 2 points - completely closing a gap between an existing pedestrian/bicycle facility and an RTP roadway (arterial and above) that serves pedestrian/bicyclists <p>Connectivity measures - access (score points for only one of these three)</p> <ul style="list-style-type: none"> • 3 points - provide direct access (project directly touching) to a school • 2 points - provide direct access (project directly touching) to an employment center with greater than 2,000 jobs • 1 point - provide direct access (project directly serving) to such destinations as employment, shopping, dining, or government buildings, or recreational destinations such as parks or recreational facilities

Table 10. New Bicycle/Pedestrian Projects

Evaluation Criteria	Points	Scoring Instructions
		<p>Connectivity measures - barrier elimination (score points for only one of these four)</p> <ul style="list-style-type: none"> • 6 points - entirely eliminate a barrier (railway, highway, waterway) for pedestrians or cyclists by grade separating which provides a continuity of motion (i.e., no bike dismount or use of elevator) • 4 points - entirely eliminate a barrier (railway, highway, waterway) for pedestrians or cyclists by grade separating which DOES NOT provide a continuity of motion (i.e., bike dismount or use of elevator required) • 3 points - entirely eliminate a barrier (railway, highway) for pedestrians or cyclists by providing a controlled crossing where one does not currently exist (demonstrate achievement of signal warrant if signal proposed) • 1 point - construct at least one phase of a multi-phase improvement (as dictated through an approved plan) towards eliminating a barrier (railway, highway, waterway) <p>Connectivity measures - transit (score points for only one of these if applicable)</p> <ul style="list-style-type: none"> • 4 points - provide new <u>direct</u> access to “transit”. “Transit” is rail station, park-n-Ride lot, or transit terminal existing or anticipated to be completed by no later than the end of 2016; or existing bus stops serving 3 or more routes. Direct means physically touching the transit site or stop. • 2 points - provide new <u>indirect</u> access (extends the service of an existing linkage) to “transit” within 1.5 miles for bike projects and within 0.5 miles for pedestrian projects. “Transit” is rail station, park-n-Ride lot, or transit terminal existing or anticipated to be completed by no later than the end of 2016; or existing bus stops serving 3 or more routes. Distance measured from center of project to the specific transit site or stop. <p>Connectivity measures – location (score 2 points maximum)</p> <ul style="list-style-type: none"> • 2 points – project touches more than one local governmental entity (with written confirmation and agreement by the other affected governmental entities besides the applicant) • 1 point – project connects 2 or more defined neighborhoods where an exclusive bicycle and/or pedestrian access does not currently exist, excluding roadways.
Multiple enhancements	0-4	<p>Up to 4 points will be awarded for multiple enhancements (score all that apply):</p> <ul style="list-style-type: none"> • 2 points if project will provide a multi-use bidirectional facility for use by both bicycles and pedestrians to a minimum width of 10 feet for 90% or greater of the length of the project • 1 point if the project provides 20 or more bicycle spaces within ½ mile of the project and fulfills the function of that facility • 1 point if at least 10 of the provided spaces are covered and/or considered long-term parking spaces that are secure
Air quality benefits	0-8	<p>New bike/ped projects may reduce air pollution by reducing VMT. Based on the daily reduction in pounds of total air pollutants expected from this project, as a percentage of the regional total from mobile sources, 8 points will be awarded to projects which would reduce 0.4% of the regional total or more; 0 points to projects which would reduce no pollution; with straight-line interpolation between. <i>Source: Sponsor estimates of VMT</i></p>

Table 10. New Bicycle/Pedestrian Projects

Evaluation Criteria	Points	Scoring Instructions
User base	0-8	<p><i>reduction from estimates of use, trip length, and prior mode.</i></p> <p>Up to 8 points will be awarded based on the estimated user base of a project as follows: projects with a user base of 24,000 or more will receive 8 points; projects with a user base of 0 will receive 0 points; with straight line interpolation between. <i>Source: DRCOG 2010 model data. The project's user base is the estimated number of daily bicycle and/or pedestrian trips that start and/or end within a 1.5 mile radius of the project area for a bicycle project and within a 0.5 mile radius for a pedestrian project. Sponsors will request DRCOG staff to compute the user base directly from the model, specifying the appropriate type of users (bicycle, pedestrian or both). For projects with non-contiguous elements, sponsors will ask DRCOG to compute the user base for each element. The project's overall user base is the weighted average based on the percent of the project length in each element compared to the overall length. The request to DRCOG must be made <u>no later than 2 weeks prior</u> to the call for projects closure.</i></p>
Cost-effectiveness	0-8	<p>Projects with a total cost per person miles travelled (PMT) below \$50 will receive 8 points; projects with a total cost per PMT above \$2,450 will receive 0 points; with straight line interpolation between.</p> <p><i>PMT calculation: [Pedestrian user base * percent using <u>this</u> facility * average pedestrian trip distance] + [Bicycle user base * percent using <u>this</u> facility * average bicycle trip distance].</i></p> <p><i>Source: User base above. Sponsor estimates percent use and provides documentation of assumptions. Sponsor will request DRCOG staff to compute the average trip distance for the daily bicycle and/or pedestrian trips in the catchment areas noted above. Source: DRCOG 2010 model.</i></p>
Environmental justice	0-3	<ul style="list-style-type: none"> • 3 points will be awarded if 75% or more of the project length is located within a RTP-defined environmental justice area (Figure 34 of the 2035 Metro Vision RTP). The sponsor must identify the benefits and disadvantages of the project to the environmental justice community during submittal AND provide evidence (e.g., subarea or comprehensive plan) that the project has been taken through a community-level public process that gave credence to the project being a benefit to the environmental justice area in which the project is located. • 0 points will be awarded if less than 75% or less of the project length is located within a RTP-defined environmental justice area or if the benefits documentation is not provided.
Overmatch	0-9	<p>Based on providing <i>above</i> the minimum 20 percent local funding match: 9 points will be awarded to projects with local match of 47 percent or more; 0 points to projects with the minimum 20 percent local match; with straight line interpolation between.</p>
Project-related Metro Vision implementation and strategic corridor focus	0-18	<p>Up to 18 points will be awarded as described in Appendix F.</p>
Sponsor-related Metro Vision implementation	0-8	<p>Up to 8 points will be awarded for sponsor actions implementing Metro Vision. Appendix G explains the specific criteria.</p>
Total	100	

Potential Transportation Projects for 2014 TIP Submittals

DRAFT

Description: 28th Street pathway (From Fourmile to Broadway)
Estimated Cost:
Project Notes: Build new multi use path along west side of 28th St/SH36 from Fourmile Canyon Creek to Broadway.

Legend

Potential 2014 TIP Projects

-  Underpass Proposed
-  Crossing Replacement / Upgrade
-  Flood Mitigation Underpass Proposed
-  Multi Use Bike Path Proposed
-  Sidewalk Connection Proposed
-  Primary Road Existing Upgrade
-  CAGID Boundary

Description: Fourmile Canyon Creek from 19th through Violet Park
Estimated Cost:
Project Notes: This project would include flood mitigation channel work and bicycle/pedestrian underpasses at Upland and Violet avenues.

Description: Broadway (Iris Ave to US 36) Reconstruction Project
Estimated Cost:
Project Notes:

Description: 1. Boulder Slough Multi-use Path (30th to 3100 Pearl) 2. Boulder Slough Underpass at Pearl Pkwy 3. Boulder Slough Underpass at BNSF
Estimated Cost: 1. \$600,000; 2. \$3,000,000 3. \$4,000,000
Project Notes:

Description: Arapahoe Avenue 30th to Foothills Parkway Reconstruction Project
Estimated Cost:
Project Notes: Reconstruction of the street, multimodal facilities and enhancements.

Description: Downtown Parking Management Project
Estimated Cost:
Project Notes: Improvements would be implemented at the five CAGID garages in downtown Boulder.

Description: Broadway Underpass (between Regent and Baseline) replacement
Estimated Cost:
Project Notes: Replace the Kittredge underpass to address safety and operations concerns.

Description: SH157 Bicycle/Pedestrian Underpass at Colorado Ave.
Estimated Cost: \$4,000,000
Project Notes: Provide a grade separated crossing of SH157 meeting ADA design guidelines and connecting East boulder with the CU East Campus.

Description: 30th and Colorado Underpass
Estimated Cost:
Project Notes: Construct a SW/NE diagonal underpass at intersection to improve access to East Campus.

Description: 30th and Skunk Creek Underpass
Estimated Cost:
Project Notes: Construct a bicycle/pedestrian underpass and perform associated flood mitigation channel work

Description: SH157 Bicycle/Pedestrian Underpass at Sioux Dr
Estimated Cost: \$4,000,000
Project Notes: Provide a grade separated crossing of SH157 meeting ADA design guidelines.

Description: Moorhead and Skunk Creek Underpass
Estimated Cost:
Project Notes: Construct a bicycle/pedestrian underpass and perform associated flood mitigation channel work

Description: Baseline Road sidewalk and entryway/access improvements to Chautauqua. (8th to 10th Streets)
Estimated Cost: \$1,300,000
Project Notes:

Description: Table Mesa Park n Ride Proposed Underpass
Estimated Cost: \$3,700,000
Project Notes: Coordination with RTD; utility relocations; traffic control.

Description: US36 Bikeway Underpass
Estimated Cost:
Project Notes: Connect regional bike facilities and the city's bike network.

Description: Bear Creek under Table Mesa
Estimated Cost: \$4,000,000
Project Notes: Extend the Bear Canyon Creek pathway under Table Mesa Drive including two underpasses

