APPENDIX F

DVRPC TIP Project Benefit Criteria

DELAWARE VALLEY
dvrpc
REGIONAL
PLANNING COMMISSION

DVRPC TIP PROJECT BENEFIT CRITERIA

On February 27, 2014, the DVRPC Board adopted an update to the TIP Project Benefit Criteria that DVRPC uses to evaluate new TIP project candidates. A universal criterion was established that can be used to evaluate a variety of modes (roadway, transit, bike, pedestrian, freight) and project types, and can be used in the New Jersey and Pennsylvania counties in the DVRPC region. Using the evaluation criteria is one means to most effectively balance programming the region's needs and resources. Other factors that are considered for new TIP project candidates include local and regional priorities, asset management system rankings, public input, political support, geographic distribution, fund eligibility, project readiness, leveraging investments, and ensuring that various project types are considered in the TIP project selection process, such as all types of non-major roadway, transit, bike/pedestrian, preservation, operational improvement, and freight projects.

More specific project criteria will continue to be used to evaluate specific, large-scale major regional Long-Range Plan projects, or those using special fund categories. Specific funding sources that have their own criteria developed for very specific analysis include Transportation Alternatives Program (TAP), Highway Safety Improvement Program (HSIP), and Congestion Mitigation and Air Quality (CMAQ). In these instances, the more specific project evaluation criteria will be used in conjunction with or in place of the TIP benefit criteria. During the development of the FY2018 TIP for New Jersey, only new TIP candidate projects were assessed by DVRPC's universal benefit criteria.

The criteria were developed with New Jersey and Pennsylvania members of a working subcommittee of the DVRPC Regional Technical Committee (RTC) and were designed to align directly with the multimodal goals of the Long-Range Plan, as well as reflect the increasingly multimodal nature of projects in the TIP. The criteria generally consider one of two key questions:

- Is this project located where we want to make investments? Or,
- How beneficial or effective is this project?

The TIP Benefit Criteria were developed to represent the following characteristics:

- align with the Long-Range Plan and other regional objectives;
- be relevant to different types of TIP projects;
- indicate differences between projects;
- avoid measuring the same goal(s) multiple times;
- cover the entire 9-county region;
- be more quantitative than qualitative;
- use readily available data with a strong likelihood of continued availability; and
- be simple and understandable

The following briefly summarizes the criteria for project evaluation.

- **Facility/Asset Condition:** brings a facility or asset into a state-of-good repair, extends the useful life of a facility, or removes a functionally obsolete bridge rating;

- **Safety:** impacts safety-critical element for transit, high-crash road location, or incorporates an FHWA proven safety countermeasure;

- **Reduce Congestion**: location in CMP (Congestion Management Process) congested corridors, or appropriate everywhere CMP strategy; AADT per lane, and daily transit riders per daily seats;

- **Invest in Centers**: location in Planning Center or Freight Center, or high, medium-high, or medium transit score areas, or connection between two or more key centers;

- **Facility / Asset Use**: levels of daily vehicle miles traveled (VMT), trucks, and transit ridership;

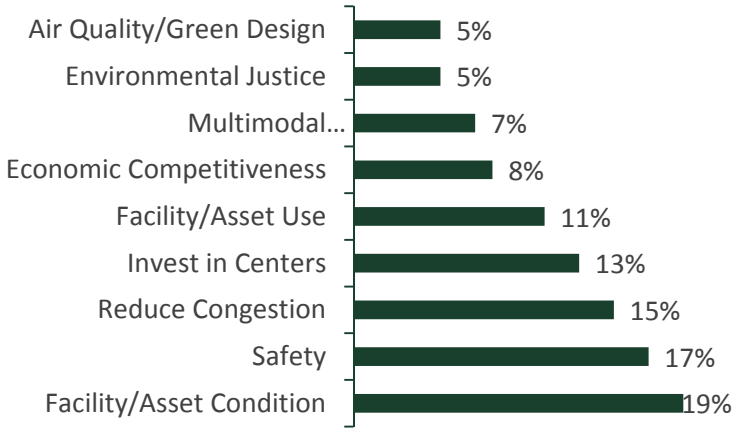
- **Economic Competitiveness**: provides reduced operating/maintenance costs, or is part of an economic development or TOD project;

- **Multimodal Bike/Pedestrian**: accounts for bicyclists and pedestrians using the facility; new trails, sidewalks, or bike lanes, and connections to other multimodal facilities;

- **Environmental Justice**: benefits census tracts with high Indicators of Potential Disadvantage (IPD – previously known as Degrees of Disadvantage, or "DOD") communities;

- **Air Quality/Green Design**: stresses air quality benefits and incorporates environmentally friendly principals.

After defining the criteria, a decision-making tool was used to weigh the criteria. The higher the weight, the higher a priority the project candidate is for the DVRPC region.



Each criterion could receive up to a maximum of 1 point. Each project can receive a total score that is the sum of the weight times the rating for each criteria. The tool can compare the projects estimated total state and federal cost to the total score, as a benefit-cost ratio. Other sources of funding that may increase a project's benefit-cost ratio, such as additional local funding beyond match requirements; non-traditional funding grants; and developer or private contributions, will not count toward a project's cost for the benefit-cost ratio. The tool provides a ranking of projects with the highest benefit-cost ratios, but the RTC makes the recommendation, and ultimately the DVRPC Board makes the final decision to determine TIP project selections.

TIP EVALUATION CRITERIA AND MEASURES

The following sections detail each of the proposed criteria.

1. FACILITY / ASSET CONDITION

This criterion relates to the Long Range Plan goal of rebuilding and maintaining the region's transportation infrastructure. The region has a substantial backlog of road, bridge, and transit infrastructure repair needs. These "fix-it-first" projects need to be the regional priority until a state-of-good repair is achieved. Data will come from road, bridge, and transit asset management systems.

Transit Project Rating

☐ 1 point if the improvement brings the asset into a state of good repair, or
☐ 0.5 points if project extends the useful life of a facility/asset not in poor condition.

Roadway and Bridge Project Rating

☐ 1 point if the project will bring a Bridge deck/super/sub/culvert rating of 3 or less, a posted or weight-restricted bridge, an interstate road segment with an IRI of ≥ 180, an NHS facility with an IRI ≥ 200, a roadway with more than 2,000 vehicles per day with an IRI ≥ 230, or a roadway with less than 2,000 vehicles per day and an IRI of ≥ 260 into a state-of-good repair;

☐ 0.8 points if the project will bring a facility or asset with a "Poor/Worst on four or five point scale" asset management system rating into a state-of-good repair;

☐ 0.5 points if the project will extend the useful life of a facility that is not in poor condition, or resolves a fracture critical issue on a bridge;

☐ 0.25 points if project eliminates a functional obsolete issue on a bridge.

2. SAFETY

This criterion relates to the Long Range Plan goal of creating a safer transportation system. Projects that improve DOT identified high-crash locations and have a safety component will score 0.5 points per high-crash location. In addition, projects that incorporate one or more FHWA proven safety countermeasure can score 0.5 points per countermeasure, (defined at: safety.fhwa.dot.gov/provencountermeasures).

Transit projects that are deemed safety critical will receive one point.

Transit Safety Rating

1 point if project is a safety critical transit project.

Roadway Safety Rating

Up to a maximum of 1 point:
☐ 0.5 points per safety improvement in 1 or more DOT identified high crash location (up to 1 point),

☐ Pennsylvania Roadway Departure Improvement Program (RDIP) – the project must implement the specific identified safety improvement: enhanced signs and markings for curves (CSM), enhanced signs and markings for curves + high friction surfaces (CMS-HFS), centerline rumble strips (CLRS), edge line rumble strips or shoulder rumble strips (ELRS/SRS), wider shoulders / edge line rumble strips (WS-ELRS), center and edge line pavement markings (C&EL PM), alignment delineation / lighting (ADL), high friction surfaces (HFS), guiderail relocations / safety enhancements (GR), tree removal / safety enhancements (TR), utility pole removal / safety enhancements (UP), enforcement and education – alcohol related (EEA), enforcement and education – speeding related (EES), enforcement and education – restraint related (EER), infrastructure improvements – speeding related (II), or install cable median barrier (CMB);

☐ Pennsylvania Intersection Safety Improvement Program (ISIP) – the project must implement the specific identified safety improvement: STOP, SIGNAL, LEFT TURN, PED, or SPEED;

☐ 0.5 points per incorporated FHWA proven safety countermeasure (up to 1 point);
- ☐ Roundabouts;
- ☐ access management;
- ☐ signal back-plates with retro-reflective borders;
- ☐ longitudinal rumble strips and stripes on two-lane roads;
- ☐ enhanced delineation and friction for horizontal curves;
- ☐ safety edge;
- ☐ medians and pedestrian crossing islands in urban and suburban areas;
- ☐ pedestrian hybrid beacons; or
- ☐ road diets.

3. REDUCE CONGESTION

Reducing congestion is a goal in the Long Range Plan. This has a significant impact on the region's economy, as competitiveness within a global economy means the region needs to be able to efficiently move people and goods. This criterion considers location in CMP corridors and the facility's existing level of congestion or overcrowding.

Is the project located in a CMP Priority or Congested Subcorridor?

The CMP has conducted considerable analysis of the regional transportation network and the impact of congestion. Developed with the counties, DOTs, transit operators, and other regional stakeholders, the CMP has identified a subset of Priority Sub-corridors for transportation investment with specific strategies for mitigating congestion. This criterion also considers Congested Sub-corridors and Emerging Corridors as additional rating factors. In areas where Priority, Congested Sub-corridors, or Emerging Corridors overlap, only the higher value will be counted.

<u>CMP Rating</u>

Maximum of A or B:

A. 0.5 points if project implements an appropriate everywhere strategy in the CMP.
   CMP appropriate everywhere strategies include:
   - ☐ safety improvements and programs;
   - ☐ signage;

- ☐ context sensitive design;
- ☐ improvements for walking and bicycling;
- ☐ basic upgrade of traffic signals;
- ☐ signal prioritization for emergency vehicles;

☐ making transfers easier for passengers;
☐ intersection improvements of a limited scale;
☐ bottleneck removal of a limited scale;
☐ environmental justice outreach for decision-making;
☐ access management;
☐ marketing/outreach for transit and TDM services;
☐ revisions to existing land use or transportation regulations;
☐ growth management;
☐ smart growth; or
☐ complete streets.

B. (Project length in priority corridor x 100 percent + project length in congested corridor x 70 percent + project length in emerging corridor x 30 percent) divided by total project length.

What is the average AADT divided by the average number of lanes or transit ridership divided by the number of seats?

This criterion looks at facility or route specific congestion or overcrowding. AADT and average lanes data will come from the Roadway Management System (RMS). Transit seats will be computed by seats per vehicle multiplied by average number of vehicles (for rail routes) multiplied by daily service frequency. This data will come from annual route statistics reports, or the transit agency itself.

Congestion / Overcrowding Rating

☐ For limited-access facilities: 1 point if Daily AADT/Lane is greater than 25,000; else AADT/Lane divided by 25,000.
☐ For arterials, collectors, and local roads: 1 point if Daily AADT/Lane is greater than 12,500; else AADT/Lane divided by 12,500.
☐ For Transit Facilities: 1 point if Daily Passengers/Daily Seats (# of vehicles * seats per vehicle * Total Daily Service frequency) is greater than 1; else Daily Passengers/Daily Seats.

4. INVEST IN CENTERS

This criterion reflects the Long Range Plan's core principle to create livable communities within more than 120 regional development centers and 44 freight centers. Identifying focus areas for future development creates a better linkage between land use and transportation.

Projects will be rated on how well they serve centers by their location within centers, or high, medium-high, or medium transit score areas. A hybrid GIS layer has been created with a ¼ mile around all Long Range Plan centers (from the metro center to rural and neighborhood centers), and all non-center areas of the region are high, medium-high, or medium transit score locations, or none of the above. All project limits within the Centers and Center buffer areas, or within high transit score areas will receive one point. All project areas within medium-high transit score areas will receive 0.75 points. All project limits within medium transit

score areas will receive 0.5 points. The sum of the project within these three limits (multiplied by the rating), will then be divided by the total project length to get a centers/transit score rating.

Projects can also be rated for being a critical link between two or more centers. Projects that either maintain or improve service on a facility that links centers will get 0.25 points added to their centers/transit score rating (up to a maximum of one point).

Centers Rating

(100% x Project length within ¼ mile or inside Plan and Freight Centers + 100% x project length in high transit score areas + 75% x project length in medium-high transit score areas + 50% x project length in medium transit score areas)/total project length.

Bonus: +0.25 points (up to 1 point maximum) if the project improves or maintains a critical facility that links two or more regional Plan or freight centers.

5. FACILITY/ASSET USE

This criterion looks at how much use the facility or asset receives in a multimodal manner, to determine the scale of the project's impact on the transportation system. Use will be determined by the total number of vehicle miles traveled (VMT), average number of daily trucks, or affected daily transit riders. The greater the facility's use, the more important it is in terms of risk to negative regional impacts, and the broader the benefits are that can be delivered by implementing the project. Only existing users are counted, and the evaluation criteria do not attempt to estimate future users as a result of the project.

Vehicle Miles Traveled

Vehicle miles traveled will be determined by using the average AADT for all segments multiplied by facility length. Data will come from the Roadway Management System (RMS). Projects that are located at specific intersection(s) and bridge(s) will assume a project length of 1 mile, essentially using AADT as the proxy for usage. Intersections and bridges that are improved as part of a larger corridor project will be embedded into the overall project length (and will not use the one mile assumption). New segments will use their length multiplied by the average AADT for the facilities they connect to (beginning and endpoints only). Data will come from the Roadway Management System (RMS).

Daily VMT Rating

1 point if the average AADT of all road segments multiplied by the total length of the segments within the project limits is more than 500,000; else, total daily VMT divided by 500,000.

Daily Trucks

Daily trucks will be determined by multiplying the percent daily trucks by the average AADT for all segments. Data will come from the Roadway Management System (RMS). For freight rail projects, DVRPC will work with the private rail company to estimate daily truck equivalents.

Daily Trucks Rating

1 point if the average road segment has more than 7,500 trucks or truck equivalents per day; else trucks or truck equivalents per day divided by 7,500.

Daily Affected Transit Riders

Daily affected transit riders will account for the average daily ridership using the route in question, or routes the asset depends on. For example the Jenkintown Substation powers the Lansdale-Doylestown, Warminster, and West Trenton lines. A project to improve the Jenkintown substation affects the riders of all three lines.

Daily Affected Transit Riders Rating

Ridership values will come from annual route ridership reports published by the transit agencies, or direct transit agency data. 1 point if the number of daily transit riders affected is 50,000 or above; else daily affected ridership divided by 50,000.

6. ECONOMIC COMPETIVENESS

This criterion rewards projects that build the regional economy by investing in transportation improvements related to economic development or transit-oriented development (TOD); reducing agency operating or maintenance costs; or reducing transportation system user costs. Projects rated for economic development or TOD must indicate the specific development it is supporting.

Economic Competiveness Rating

Sum of each checkbox, up to a maximum of 1 point:

- ☐ Does the project reduce agency maintenance or operating costs?
  (0 points if cost increases; 0.25 points if no change; 0.5 points if cost decreases)
- ☐ Does the project reduce public/private transportation system user vehicle maintenance or operating costs? (0 points if cost increases; 0.25 points if no change; 0.5 points if cost decreases)
- ☐ Does project support a known economic development project or a transit-oriented development (TOD)? (0.5 points if it supports)

7. MULTIMODAL BIKE/PEDESTRIAN

This criterion relates to the Long Range Plan goal of fostering a multimodal transportation system. It will rate new facilities based on length and connections to existing multimodal facilities; or existing use of facilities. In some cases a road may add a bike lane, where there is already significant bicycle use. This project will be able to score based on both the new bike lane and the existing use.

The rating for existing facilities will be based on daily bicyclists and pedestrian use. This data will come from DVRPC counts, and can be supplemented with county counts if no DVRPC counts are available. New bike and pedestrian facilities will be rated based on project length and connections to other existing bike and pedestrian facilities, transit stations, or bus routes. Projects that make a critical last mile transit connection or link facilities over a difficult connection, such as a bridge, will receive a 0.5 point bonus.

Sum of each checkbox, up to a maximum of 1 point:

- ☐ 1 point if the number of daily bicyclists and pedestrians is 1,000 or above; else daily bicyclists and pedestrians divided by 1,000.
- ☐ Up to 0.5 points for a new trail, sidepath, bike lane, or sidewalk; total length in miles divided by 10.
  - ☐ 0.1 points for each bus route, each train station, or each existing bike/ped facility the proposed new bike/ped facility connects to.
  - ☐ +0.5 points for new sidewalks and bike facilities to fill a difficult gap, such as on a bridge, or new 'first/last mile' bike/ped connection to a public transit station or key destination.

8. ENVIRONMENTAL JUSTICE

Does the project serve Environmental Justice communities and the additional population groups with additional transportation needs, as defined by the DVRPC Indicators of Potential Disadvantage (IPD) methodology? This indicator also helps to ensure that these communities do not suffer from worse overall infrastructure condition than other communities.

Environmental Justice Rating

(100% x project length in 7-8 IPD communities + 70% x project length in 5-6 IPD communities + 30% x project length in 3-4 IPD communities) divided by total project length.

9. AIR QUALITY/GREEN DESIGN

This criterion relates to the Long Range Plan goal of limiting transportation impacts on the natural environment. Projects will rate if they provide air quality benefits, incorporate green design principles, use green or recycled materials, or reduce environmental impact. Examples of projects for each category are shown below, but this list is not intended to be limited to these examples only. Other green design principles not listed here can also be considered with TIP subcommittee group consensus.

Air Quality Rating

0.5 points for air quality improvements:

- ☐ Air quality: low emissions vehicles (hybrid, hydrogen, LPN, genset/clean diesel); trees, sound walls or other buffers that reduce exposure to transportation noise and emissions; separating freight and diesel traffic from local roads, schools, parks, or residential areas; reduce vehicle hours of driving, vehicle miles traveled, greenhouse gas emissions, or vehicle idling.

Green Design Rating

0.5 points for incorporating any one of the checkboxes below:

- ☐ Green design: bioswales/rain gardens, tree trenches, vegetated medians (more than just grass)/vegetated curb bump-outs, naturalized stormwater basins.
- ☐ Green or recycled materials: use warm-mix asphalt, long-life pavement materials, pervious pavement, or smog absorbing concrete; use of recycled materials (fly ash, glass, plastic, etc.), or project supports or enhances recycling efforts.

- ☐ Reduced environmental impact: alternative energy generation (solar, wind, regenerative braking); climate adaptability/resiliency components; enhance habitat connectivity or wildlife crossings.

FUTURE REVISIONS

It is intended that these evaluation criteria are part of a living document. The criteria will need to be revisited and updated as appropriate, particularly when new data or analysis techniques become available. A known future impact would better align with performance measures, such as those from MAP-21.

MAP-21 Performance Measures

Moving Ahead for Progress in the 21st Century (MAP-21) was the federal transportation legislation prior to the current Fixing America's Surface Transportation Act ("FAST Act"). The FAST Act continues MAP-21's overall performance management approach, with very minor exceptions found at www.fhwa.dot.gov/fastact/factsheets/performancemgmtfs.cfm. Among its reforms is to establish 13 performance measures related to the nation's Interstate and National Highway System road networks, and a set of criteria related to the transit system, which can include some of the following listed:

Interstate and National Highway System

- ☐ **Infrastructure condition** - To maintain the highway infrastructure asset system in a state of good repair.
  - ■ Pavement Condition (Interstate/NHS)
  - ■ Bridge Condition (NHS)
- ☐ **System reliability** - To improve the efficiency of the surface transportation system.
- ☐ **Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
  - ■ Injuries / VMT;
  - ■ Fatalities / VMT;
  - ■ # of Serious Injuries;
  - ■ # of Fatalities
  - ■ Measures used to address safety on all public roads
- ☐ **Congestion reduction** - To achieve a significant reduction in congestion on the National Highway System.
- ☐ **Environmental sustainability**- To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- ☐ **Freight movement and economic vitality** - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- ☐ **Reduced project delivery delays** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

Transit System

- ☐ **Safety**
- ☐ **Condition**

OTHER ISSUES

On the roadway side, the TIP project benefit criteria have a measure related to nearly all the goals; only the system reliability and reduced project delivery delay measures could be considered missing. Project delivery will be determined in the Linking, Planning, & NEPA (LPN) process in Pennsylvania and the Concept Development Screening in New Jersey. Project selection discussion can also consider project readiness. System reliability is partially addressed through the CMP process, where the most critical congested corridors have been identified. Investments in these areas should help to improve system reliability. Once national indicators are defined, the TIP evaluation criteria may need to be revised to better reflect the federal measures

RISK

While the TIP project evaluation does not include a specific measure for the risk involved with a project, it is effectively captured through three of the criteria:

- ☐ Safety
- ☐ Use
- ☐ Facility/Asset Condition

HEALTH IN ALL POLICIES

The Long Range Plan calls for a 'health in all policies' framework, which encourages the integration of health in policy assessment, decision-making, and public investments. While the TIP project evaluation criteria do not employ a specific health measure, they can help to anticipate better health outcomes. Key transportation related health outcomes were identified by the American Public Health Association in *The Hidden Health Costs of Transportation* report. These outcomes include physical activity and body weight, air pollution, traffic safety, household expenses and equity. There is a TIP project evaluation criteria related to improving each of these outcomes.

Transportation Health Outcome	TIP Project Evaluation Criteria
Physical Activity and Weight	Multimodal Bike/Pedestrian – does the project add new bike or pedestrian facilities?
Air Pollution	Air Quality/Green Design – does the project help to lower emissions?
Traffic Safety	Safety – does the project improve a high-crash road location, or incorporate an FHWA proven safety countermeasure.
Household Expenditures on Transportation	Economic Competitiveness – does the project reduce user vehicle operating or maintenance cost.
Equity	Environmental Justice – does the project benefit high Indicators of Potential Disadvantage (IPD) communities.

SOURCE: DVRPC 2017. MODIFIED FROM 2010

DETAILED TIP EVALUATION CRITERIA

MAIN CRITERIA	SUB-CRITERIA	DATA SOURCE	RATING SCALE (EACH MAIN/SUB CRITERIA CAN SCORE UP TO 1 POINT)
Invest in Centers	-	Long Range Plan Centers, Freight Centers, Transit Score Index	+ (100% x Project length within ¼ mile or inside Plan or Freight Centers + 100% x project length in high transit score areas + 75% x project length in medium-high transit score areas + 50% x project length in medium transit score areas) /total project length. + 0.25 points if project improves or maintains a *critical* facility that links two or more regional Plan or freight centers.
Reduce Congestion	CMP	CMP Appropriate Everywhere Strategies, CMP Priority Corridors	Maximum of A or B below: A. 0.5 points if project implements an appropriate everywhere strategy in the CMP ☐ safety improvements and programs; ☐ signage; ☐ context sensitive design; ☐ improvements for walking and bicycling; ☐ basic upgrade of traffic signals; ☐ signal prioritization for emergency vehicles; ☐ making transfers easier for passengers; ☐ intersection improvements of a limited scale; ☐ bottleneck removal of a limited scale; ☐ environmental justice outreach for decision-making; ☐ access management; ☐ marketing/outreach for transit and TDM services; ☐ revisions to existing land use or transportation regulations; ☐ growth management; ☐ smart growth; or ☐ complete streets. B. (project length in priority corridor x 100 percent + project length in congested corridor x 70 percent + project length in emerging corridor x 30 percent)/total project length.
	Congestion / Overcrowding	Roadway Management System (RMS)	A. Limited-access facilities: 1 point if Daily AADT/Lane is greater than 25,000; else AADT/Lane divided by 25,000. B. Arterials, collectors, and local roads: 1 point if Daily AADT/Lane is greater than 12,500; else AADT/Lane divided by 12,500. C. Transit facilities: 1 point if daily passengers/daily seats (# of vehicles * seats per vehicle * total daily service frequency) >1; else daily passengers/daily seats.
Environmental Justice	-	Indicators of Potential Disadvantage (IPD)	(100% x project length in 7-8 IPD communities + 70% x project length in 5-6 IPD communities + 30% x project length in 3-4 IPD communities)/total project length.
Facility / Asset Use	Daily VMT	Roadway Management System (RMS),	1 point if the average AADT of all road segments multiplied by the total length of the segments within the project limits is more than 500,000; else total daily VMT divided by 500,000. For computation of VMT, projects that only involve bridges or intersections assume that each of these facilities is 1 mile in length. In this case the value will be the average AADT multiplied by the number of bridges or intersections. Projects where bridge or intersection improvements are a part of a larger scope will rely on the limits of the larger project.
	Daily Trucks	Roadway Management System (RMS),	1 point if the average road segment has more than 7,500 trucks or truck equivalents per day; else trucks or truck equivalents per day divided by 7,500.
	Daily Transit Riders	Transit Agencies,	1 point if the number of daily transit riders affected is 50,000 or above; else daily affected ridership divided by 50,000.
Multimodal – Bike and Pedestrian	New facilities	DVRPC multi-use trail network, bus routes, train/trolley/subway stations; DVRPC Bike/Ped counts	Up to a maximum of 1 point: ☐ Up to 0.5 points for any new trail, sidepath, bike lane, or sidewalk: total length in miles divided by 10; ☐ 0.1 points for each bus route, each train station, or each existing bike/ped facility that a proposed new bike/ped facility connects to; ☐ 0.5 points if new sidewalks and bike facilities fill a difficult gap, such as on a bridge, or new 'first/last mile' bike/ped connection to a public transit station or key destination; and ☐ 1 point if number of daily bicyclists and pedestrians is 1,000 or above; else daily bicyclists and pedestrians divided by 1,000.

DETAILED TIP EVALUATION CRITERIA (CONTINUED)

MAIN CRITERIA	SUB-CRITERIA	DATA SOURCE	RATING SCALE (EACH MAIN/SUB CRITERIA CAN SCORE UP TO 1 POINT)
Air Quality / Green Design	-	Project sponsor / project scope	☐ 0.5 points for air quality benefits such as: low emissions vehicles (hybrid, hydrogen, LPN, genset/clean diesel); trees, sound walls or other buffers that reduce exposure to transportation noise and emissions; separating freight and diesel traffic from local roads, schools, parks, or residential areas; reduce vehicle hours of driving, vehicle miles traveled, greenhouse gas emissions, or vehicle idling; and/or 0.5 points for any one of the green design checkboxes below: ☐ Green design such as bioswales/rain gardens, tree trenches, vegetated medians (more than just grass)/vegetated curb bump-outs, naturalized stormwater basins; ☐ Green or recycled materials such as: use warm-mix asphalt, long-life pavement materials, pervious pavement, or smog absorbing concrete; use of recycled materials (fly ash, glass, plastic, etc.), or project supports or enhances recycling efforts; ☐ Reduced environmental impact, such as: alternative energy generation (solar, wind, regenerative braking); climate adaptability/resiliency components; enhance habitat connectivity or wildlife crossings.
Economic Competitiveness	-	Project sponsor, RTC, DVRPC	Up to a maximum of 1 point: ☐ Project saves or reduces agency operating/maintenance costs: 0 points if project increases costs; 0.25 points if no change; 0.5 points if cost decreases; ☐ Project saves user or public/private vehicle operating costs: 0 points if project increases costs; 0.25 points if no change; 0.5 points if cost decreases); ☐ 0.5 points if project supports a known economic development (ED) project or a transit-oriented development (TOD).
Safety	-	Transit agency, DOT, project sponsor/scope	Transit Projects Only: safety critical transit project =1 point Roadway/Bike/Ped. Projects: 0.5 points per safety improvement/critical safety location (up to 1 point) ☐ The project is in 1 or more DOT identified high crash location: ☐ Pennsylvania Roadway Departure Improvement Program (RDIP) – the project must implement the specific identified safety improvement: enhanced signs and markings for curves (CSM), enhanced signs and markings for curves + high friction surfaces (CMS-HFS), centerline rumble strips (CLRS), edge line rumble strips or shoulder rumble strips (ELRS/SRS), wider shoulders / edge line rumble strips (WS-ELRS), center and edge line pavement markings (C&EL PM), alignment delineation / lighting (ADL), high friction surfaces (HFS), guiderail relocations / safety enhancements (GR), tree removal / safety enhancements (TR), utility pole removal / safety enhancements (UP), enforcement and education – alcohol related (EEA), enforcement and education – speeding related (EES), enforcement and education – restraint related (EER), infrastructure improvements – speeding related (II), or install cable median barrier (CMB); ☐ Pennsylvania Intersection Safety Improvement Program (ISIP) – the project must implement the specific identified safety improvement: STOP, SIGNAL, LEFT TURN, PED, or SPEED; ☐ The project incorporates one or more FHWA proven safety countermeasures (see http://safety.fhwa.dot.gov/provencountermeasures/): ☐ roundabouts; ☐ access management; ☐ signal backplates with retroreflective borders; ☐ longitudinal rumble strips and stripes on two-lane roads; ☐ enhanced delineation and friction for horizontal curves; ☐ safety edge; ☐ medians and pedestrian crossing islands in urban and suburban areas; ☐ pedestrian hybrid beacons; and ☐ road diets.

DETAILED TIP EVALUATION CRITERIA (CONTINUED)

MAIN CRITERIA	SUB-CRITERIA	DATA SOURCE	RATING SCALE (EACH MAIN/SUB CRITERIA CAN SCORE UP TO 1 POINT)
Facility / Asset Condition	-	Asset Management System Rating	Transit Projects (up to 1 point): ☐ 1 point if the improvement brings the asset from a poor condition into a state of good repair; ☐ 0.5 points if project extends the useful life of a facility / asset not in poor condition. Roadway and Bridge Projects (up to 1 point): ☐ 1 point if the project will bring a bridge deck/super/sub/culvert rating of 3 or less, a posted or weight-restricted bridge, an interstate road segment with an IRI of ≥ 180, an NHS facility with an IRI ≥ 200, a roadway with more than 2,000 vehicles per day with an IRI ≥ 230, or a roadway with less than 2,000 vehicles per day and an IRI of ≥ 260 into a state-of-good repair; ☐ 0.8 points if the project will bring a facility or asset with a "poor/worst on four or five point scale" asset management system rating into a state-of-good repair; ☐ 0.5 points if project extends the useful life of a facility not in poor condition, or resolves a fracture critical issue on a bridge; ☐ 0.25 points if project removes a functional obsolescence issue on a bridge.