



Austin Transportation Department

Robert Spillar, P.E., Director
3701 Lake Austin Blvd., Austin, TX 78703

MEMORANDUM

TO: Mayor and Austin City Council

FROM: Austin Transportation Department

SUBJECT: CAMPO Transportation Policy Board (TPB) Meeting Briefing: **Oct. 16, 2017, 6:00 p.m.**

WHERE: Joe C. Thompson Conference Center, 2405 Robert Dedman Drive, Room 3.102

ATD staff is providing information and/or recommendations on the following agenda items:

- **Action Item 7** – Discussion and Approval for CAMPO Executive Director to Begin Negotiation of Regional Arterial Plan and MoKan/Northeast Subregional Study Contract.
- **Action Item 8** – Discussion and Adoption of Draft 2045 Regional Active Transportation Plan
- **Action Item 9** – Discussion and Approval of Amendments to the FY 2017-2020 Transportation Improvement Program (TIP) and 2040 Regional Transportation Plan (RTP)
- **Action Item 10** – Discussion and Approval of Project Selection Criteria
- **Information Item 11** – Upcoming Call for Projects and the FY 2019-2022 Transportation Improvement Program (TIP) Development Timeline
- **Information Item 14** - Roles and Responsibilities of the Technical Advisory Committee

❖ ***Action Item 7, Discussion and Approval for CAMPO Executive Director to Begin Negotiation of Regional Arterial Plan and MoKan/Northeast Subregional Study Contract***

CAMPO staff is seeking approval to negotiate and execute a planning services contract for the development of the Platinum Planning - Regional Arterial Plan and MoKan/Northeast Subregional Study, not to exceed \$2,090,000.

The Regional Arterial Study seeks to understand the existing role and function of the region's major arterial corridors and to define their future role(s) and function(s) by mode. The plan will include a facilities inventory, a review of the most current applicable regional policies and data, 2045 illustrative and priority networks, guidance and recommendations on facility design and policy, performance measures, and an implementation plan with project and policy priorities for the next 25 years.

The purpose of the MoKan/Northeast Subregional Study is to develop a plan on the viability of the Missouri-Kansas-Texas right-of-way (entire length of the MoKan ROW) as a transportation corridor, as well as evaluate potential improvements to US 79 (east of SH 130 to the east Taylor Bypass Interchange), FM 685, and FM 3349.

Item was not presented to the Technical Advisory Committee (TAC).

Recommendation – ATD staff recommends approval, with the assumption that we are able to work with CAMPO staff to ensure Imagine Austin's Activity Corridors, 2016 Mobility Bond Corridors, and the strategies coming out of the Austin Strategic Mobility Plan are all incorporated into this plan accurately.

❖ ***Action Item 8, Discussion and Adoption of Draft 2045 Regional Active Transportation Plan***

CAMPO staff and Active Transportation Advisory Committee (ATAC) has been developing the Regional Active Transportation Plan (RATP) throughout this year. ATD staff has served on the ATAC and has been involved in the development process throughout. The 2045 RATP seeks to provide a shared vision for the development of a functional, useful, and safe network of pedestrian and bicycle facilities for the CAMPO region. The development of the RATP included a well-developed public outreach effort which is documented in the appendix of the plan.

Item was presented to the Technical Advisory Committee (TAC) on September 25th and TAC recommends approval.

Recommendation – ATD staff recommends approval of the Draft RATP pending the significance of the changes that occurred subsequent to the draft presented to the TAC. CAMPO's regional vision for active transportation does not conflict with local member jurisdiction goals. The RATP will help guide regional active transportation pathways. The RATP is currently a guiding document and is a valuable resource for local jurisdictions that do not have planning staff to complete similar planning tasks. Local jurisdictions will remain responsible for carrying out detailed planning, design, and construction of infrastructure. There is interest from CAMPO staff and ATAC members to include priority incentives for project inclusion in RATP during future programming of funding. The City of Austin's Bicycle Advisory Committee (BAC) expressed concerns about the development of the plan and the need for more public engagement, however, ATD staff believe the RATP is ready to be considered by the TPB for adoption.

❖ ***Action Item 9, Discussion and Approval of Amendments to the FY 2017-2020 Transportation Improvement Program (TIP) and 2040 Regional Transportation Plan (RTP)***

CAMPO staff is requesting the TPB approve thirty (30) amendments to the FY 2017-2020 TIP and 2040 RTP. CAMPO processes amendments twice a year (Fall and Spring). The amendment process includes public comment opportunities. This amendment cycle does not allocate any CAMPO funding for projects and only provides an opportunity for project sponsors to make changes to existing projects, add projects, or remove projects currently listed.

Item was presented to the Technical Advisory Committee (TAC) on September 25th and TAC recommends approval.

Recommendation – ATD staff recommends approval. The City of Austin does not have any pending amendments. ATD staff will continue to coordinate with CAMPO on potential amendments, when needed.

❖ ***Action Item 10, Discussion and Approval of Project Selection Criteria***

CAMPO staff is requesting the TPB approve the project selection criteria that will be used in the Winter 2017/2018 Call for Projects. In an effort to ensure an effective and equitable distribution of funding, CAMPO developed a new project selection process based on research of best practices of other MPOs, federal and state regulations and requirements, the direction of the TPB Executive Committee and feedback from the Technical Advisory Committee. The selection criteria vary by project type and will focus on three areas: performance measures, cost/benefit (value), and project readiness.

Item was discussed at the Technical Advisory Committee (TAC) meeting on September 25th and CAMPO staff committed to various changes and clarification to the criteria.

Recommendation – ATD staff recommends postponing action on this item until the Technical Advisory Committee has the opportunity to vote on the updated criteria, including additional amendments proposed by the City of Austin, Capital Metro, Travis County, and CAPCOG. The current project selection criteria is incomplete and includes errors. Should the item not be postponed, staff recommends the amendments found in Appendix A of this memorandum. Furthermore, staff collaborated with Capital Metro, Travis County, and CAPCOG on the review of the Project Selection Criteria and support the amendments and proposals they've identified.

❖ ***Information Item 11, Upcoming Call for Projects and the FY 2019-2022 Transportation Improvement Program (TIP) Development Timeline***

CAMPO is preparing for a Winter 2017/2018 Call for Projects. CAMPO will administer both programs simultaneously to streamline the selection and allocation processes. The call for projects will allocate funding for the next four years.

CAMPO will host workshops for potential project sponsors to provide training on the updated project selection criteria, application process, federal program requirements, project readiness, and local government project procedures.

Workshop Dates:

Monday, October 23, 2017

Texas A&M Transportation Institute, Suite 445, Green Room, 505 E. Huntland Dr., Austin, TX 78752

Wednesday, October 25, 2017

San Marcos Activity Center, 501 E. Hopkins St., San Marcos, TX 78666

Friday, November 3, 2017

Cedar Park Recreation Center, 1435 Main St., Cedar Park, TX 78613

Concurrent with the call for projects, CAMPO will be developing the FY 2019-2022 Transportation Improvement Program (TIP). The FY 2019-2022 TIP will incorporate federally mandated performance measures and will include those projects awarded funding through the CAMPO project call. Final adoption of the FY 2019-2022 TIP is anticipated in May 2018.

This call for projects will be inclusive of the STP-MM funds Call for Projects that has been previously discussed. With the inclusion of the FY 2019-2022 TIP, CAMPO estimates \$400 million of various funding types to be available.

Item was discussed at the Technical Advisory Committee (TAC) meeting on September 25th.

Recommendation – This item is for informational purposes only, no action required. ATD and PWD staff have been working together to develop potential project candidates to be included in this call for projects. The finalized list of projects will be presented to City Council for approval before submitting applications to CAMPO. Note that staff intends to schedule a meeting with the Council in the near term to discuss the City's strategy with regard to this item.

❖ ***Information Item 14, Roles and Responsibilities of the Technical Advisory Committee***

CAMPO chair has requested a discussion regarding the role and responsibility of the Technical Advisory Committee (TAC).

Item was discussed at the Technical Advisory Committee (TAC) meeting on September 25th.

Recommendation – This item is for informational purposes only, no action required. ATD staff has discussed this with other TAC members, including Capital Metro and Travis County, and recommends that every action item should be shared with the TAC for comment and review and should allow the TAC to provide a recommendation to the TPB.

The final agenda and background materials are posted on the CAMPO website and can be accessed at campotexas.org/meeting-agendas.

If your office has additional questions or would like an individual briefing prior to the meeting, please contact Annick Beaudet at (512) 974-7959.

cc: Elaine Hart, Interim City Manager
Robert Goode, P.E., Assistant City Manager
Brie Franco, Government Relations Officer
Annick Beaudet, AICP, Division Manager, Austin Transportation Department
Marissa Monroy, Public Information & Marketing Manager, Austin Transportation Department
Council Executive Assistants

TDM Evaluation Examples

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U.S. Federal Government Metrics: TDM

- % of non-SOV travel (23 CFR §490.707(b))
- % change in tailpipe CO2 emissions on the NHS compared to calendar year 2017 level (23 CFR §490.507(b)) (EPA published a NPRM to rescind the GHG performance measure (<https://www.gpo.gov/fdsys/pkg/FR-2017-10-05/pdf/2017-21442.pdf>))
- Annual Hours of Peak Hour Excessive Delay Per Capita (23 CFR §490.707(a))
- % of person-miles traveled on the interstate that are reliable (23 CFR §490.507(a)(1))
- % of person-miles traveled on the non-interstate NHS that are reliable (23 CFR §490.507(a)(2))
- “Total Emissions Reduction” (23 CFR §490.807)

Federal Ministry of Economic Cooperation and Development (Germany): TDM Training Document

Produced for the Federal Ministry of Economic Cooperation and Development for Germany, the TDM Training Document showcases TDM measures outside of those related to transportation. Aspects such as economic measures, smart growth and land use, and ‘other’ programs can be included when evaluating TDM as showcased below. Access to the full report is located [here](#).

Table 7: Types of TDM measures

| TDM Measure | Implemented by | Key Stakeholders |
|--|---|--|
| Improve Mobility Options (walking and cycling facilities; rideshare and public transport services) | City, State, National governments, transit service and shared bicycle service operators | Children and older adults, individuals with disabilities, low income individuals |
| Economic Measures (financial incentives to use efficient modes) | City, State, National governments, private companies (as employers), toll road and parking facility operators | Large employers, freight haulers, low income individuals, |
| Smart Growth and Land Use Policies (development policy to create more accessible and multi-modal communities) | City, State, National governments, developers, households (when they select a home) and businesses (when they select a building location) | Real estate developers, large employers, home buyers |

Table 8: Examples of TDM measures

| Improve Transport Options | Economic Measures | Smart Growth and Land Use Policies | Other Programs |
|---|-------------------------------|------------------------------------|--|
| Public transit improvements | Congestion pricing | Smart growth | School and campus transport management |
| Walking and cycling improvements | Distance-based fees | Transit-oriented development | Freight transport management |
| Mobility management marketing programs | Commuter financial incentives | Location-efficient development | Tourist transport management |
| Rideshare/commute trip reduction programs | Parking pricing | Parking management | |
| HOV priority lanes | Parking regulations | Car-free planning | |
| Flextime/telecommuting | Fuel tax increases | Traffic calming | |
| Carsharing services | Transit encouragement | Transport planning reforms | |
| Taxi service improvements | | | |
| Guaranteed ride home program | | | |
| Shared bicycle services | | | |

State of Wisconsin Congestion Mitigation (TDM) Procedure

Congestion Mitigation (traffic) and Air Quality projects throughout the State of Wisconsin are scored on the following criteria. Information is courtesy of Michael Friedlander, Senior Program and Planning Analyst (Bureau of Air Management) for the Wisconsin Department of Natural Resources.

Procedure for Selection of Congestion Mitigation and Air Quality Improvement Program Projects

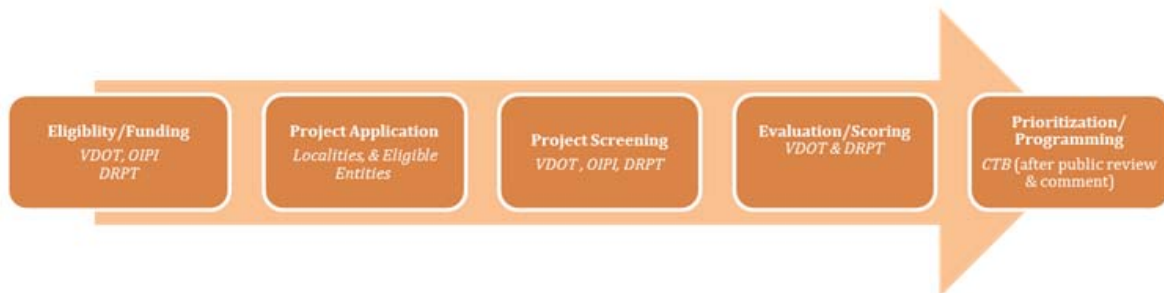
1. Wisconsin Department of Transportation (WisDOT), Wisconsin Department of Natural Resources (WDNR), and Southeastern Wisconsin Regional Planning Commission (Commission) staffs would each complete a fair and impartial independent evaluation of candidate CMAQ projects. The independent evaluations are combined and discussed at interagency staff meetings to provide joint prioritization of projects.
2. The five Chairmen of the Advisory Committees for Transportation System Planning and Programming for the Kenosha, Milwaukee, Racine, Round Lake, and West Bend Urbanized Areas would meet with the WisDOT, WDNR, and Commission staffs to review the project priority list and formulate their recommendations.
3. The Committee Chair recommendations would be transmitted to the WisDOT Secretary for consideration and approval. If the WisDOT Secretary does not approve the Committee Chair recommendations, a meeting of the Chairmen, WisDOT staff, WDNR staff, and Commission staff will be held to negotiate a project prioritization which would be forwarded to the five Advisory Committees for consideration and approval.
4. The WisDOT Secretary and Committee Chair recommendations would be considered at a joint meeting of the three Advisory Committees. The Committees would approve the preliminary project selection recommendations, or develop a revised project selection list.
5. The Committee recommendations are transmitted to WisDOT for consideration and approval. If the WisDOT Secretary does not approve the Committee recommendations, the WisDOT Secretary will advise the Committee Chairmen, and a meeting of the Chairmen, WisDOT staff, and Commission staff will be held to establish a final project selection which is then forwarded to the five Advisory Committees for approval.

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Commonwealth (State) of Virginia Smart Scale (TDM) Metrics

The Commonwealth of Virginia implements the 'Virginia Smart Scale' for all transportation projects with TDM projects rising to the top of the matrix. Information is courtesy of Ashley Robbins, Director of Research at Mobility Lab. Access to the Virginia Smart Scale website can be found [here](#).

Smart Scale Process: Virginia's SMART SCALE Process includes five overarching steps, as identified in the figure below. The preliminary step requires project sponsors to determine their eligibility prior to beginning the SMART SCALE applications process. The final step in the prioritization process includes programming of selected projects.



** The responsible agency for each process step is identified in italics in the figure above.*

Project Evaluation and Scoring: Addressing TDM evaluation, once a project has been determined to meet an identified need, the project is evaluated and scored. A scoring evaluation team takes the project and begins collecting additional data required for evaluating each of the five factors required by (§33.1-23.5:5) Chapter 726 of 2014 Virginia Acts of Assembly, and a sixth factor in areas greater than 200,000 in population. After the data has been collected for each project sufficient to evaluate each factor, factor scores are calculated and weighted according to the area type where the project is located. After factor scores have been weighted and summed, the Final Score is determined by dividing the total factor score by the SMART SCALE cost. Projects are then ranked and provided to the CTB for funding consideration.

| Factor Areas | Measure ID | Measures |
|-----------------------|------------|--|
| Safety | S.1 | Number of Fatal and Injury Crashes (50%) |
| | S.2 | Rate of Fatal and Injury Crashes (50%) |
| Congestion Mitigation | C.1 | Person Throughput (50%) |
| | C.2 | Person Hours of Delay (50%) |
| Accessibility | A.1 | Access to Jobs (60%) |
| | A.2 | Access to Jobs for Disadvantaged Persons (20%) |
| | A.3 | Access to Multimodal Choices (20%) |
| Environmental Quality | E.1 | Air Quality and Environmental Effect (50%) |
| | E.2 | Impact to Natural and Cultural Resources (50%) |
| Economic Development | ED.1 | Project Support for Economic Development (60%) |
| | ED.2 | Intermodal Access and Efficiency (20%) |
| | ED.3 | Travel Time Reliability (20%) |
| * Land Use | L.1 | Transportation-Efficient Land Use (100%) |

** For areas over 200,000 in population*

Minneapolis/St. Paul Metropolitan Council TDM Scoring Metrics

The Metropolitan Council, covering Minneapolis and St. Paul, are in the process of currently updating their TDM Scoring Criteria Measures. Showcased below, this is the most recent draft overview for the TDM evaluation measures. Access to the full Criteria and Measures document can be found [here](#) which goes into detail on the procedure to how each measure is scored. Information was provided by Melissa Madison, Executive Director of 494 Commuter Services which covers the Twin Cities metro region.

Scoring:

| Criteria and Measures | Points | % of Total Points |
|---|--------------|-------------------|
| 1. Role in the Regional Transportation System and Economy | 100 | 9% |
| Measure A - Connection to Jobs and Educational Institutions | 50 | |
| Measure B – Average number of weekday transit trips connected to the project | 50 | |
| 2. Usage | 350 | 32% |
| Measure A - New Annual Riders | 350 | |
| 3. Equity and Housing Performance | 200 | 18% |
| Measure A - Connection to disadvantaged populations and projects benefits | 130 | |
| Measure B - Housing Performance Score | 70 | |
| 4. Emissions Reduction | 200 | 18% |
| Measure A - Total emissions reduced | 200 | |
| 5. Multimodal Elements and Existing Connections | 100 | 9% |
| Measure A - Bicycle and pedestrian elements of the project and connections | 100 | |
| 6. Risk Assessment | 50 | 5% |
| Measure A - Risk Assessment Form | 50 | |
| Sub-Total | 1,000 | 100% |
| 7. Cost Effectiveness | 100 | 9% |
| Measure A – Cost effectiveness (total annual project cost /total points awarded/ <u>total annual project cost</u>) | 100 | |
| Total | 1,100 | |

Key changes found within the document include:

- Transit Expansion and Modernization
 - Definitions of the two applications are clarified to simplify applicants' decisions regarding which category to apply toward.
 - (Transit Expansion only) Enabling ridership projections to be deducted up to 100%. Applicants would be able to share their projections with staff for "reasonableness" checks prior to the submittal deadline.
 - (Transit Modernization only) Shifting the emission reduction measure to be more qualitative, which reflects the application's role as serving existing, as opposed to new, riders.
 - (Transit Modernization only) Reducing the criterion "Service and Customer Improvements" from three measures to one, with more focus on user-based improvements, as opposed to operating and maintenance costs.
- TDM
 - Shifting of some criteria point values.
 - Change the "Usage" criterion from a simple count of users to incorporate a focus on populations being reached.

San Francisco Metro Transportation Commission (OneBayArea): Evaluation Method

The San Francisco Metro Transportation Commission introduced their “OneBayArea” Plan to address climate initiative programs. With TDM being an important aspect of emission reduction, their evaluation methodology to their projects are as follows: Information is courtesy of Sabrina Bradbury, Public Information Officer, SACOG. Access to the full document is located [here](#).

Transportation Impacts

Most of the Climate Initiatives Program activities reduce emissions in one of two ways:

- Reduce vehicle miles of travel (VMT)
- Deploy cleaner vehicles

Several projects did not fit neatly in these two categories; individual approaches were developed for each of these projects.¹

Emissions Impacts

Projects were evaluated in terms of their impact on emissions of greenhouse gases (GHGs) and criteria pollutants, including nitrogen oxides (NOx), reactive organic gases (ROG), and fine particulate matter (PM2.5).

With few exceptions, California Air Resources Board (ARB) Emission Factors 2011 (EMFAC2011) for model year 2014 vehicles was the source for emission factors for on-road vehicles (EMFAC2014 was released in December 2014, after the evaluation period). A consistent set of factors were developed to cover all nine Bay Area counties, including factors for light duty vehicles, light and heavy duty trucks, and several types of buses. Factors for both running emissions and starting emissions were incorporated, as applicable.

Costs

Project costs recorded include:

- The MTC grant funding (less any funds unspent at the end of 2014)
- Matching funds from other government agencies
- Matching funds from private partners
- In-kind contribution from partners

Costs to users, such as a reduction in automobile ownership costs, are not included in the project costs. Any potential user cost savings considered were evaluated under co-benefits (below).

Project lifetimes were used to annualize costs according to the following assumptions:

- For projects that provide an on-going service, like support for a ride matching program or a new shuttle service, emissions benefits last only as long as the program is in place. Thus, one year of funding buys one year of emission reduction.
- For projects that include an infrastructure or equipment investment that will last longer than one year, such as Bay Area Bike Share and electric vehicle projects, costs are annualized according to the assumed lifetime of the facility.

Co-Benefits

In addition to GHG emission reduction metrics, a variety of co-benefits were assessed for each project either quantitatively or qualitatively.

For VMT reduction projects, the following were assessed:

- Increase in physical activity – quantified in terms of additional walking and/or biking miles when possible
- Reduction in household transportation costs – quantified in terms of dollars saved per person or per program participant, as applicable
- Increase in public awareness of strategies to reduce emissions – public familiarity with, perception of, and interest in the programs, assessed qualitatively

For clean vehicle projects, the following were assessed:

- Increase in public awareness of strategies to reduce emissions – public familiarity with, perception of, and interest in the programs, assessed qualitatively
- User cost savings – quantified in terms of dollars per year

Smart Growth America: TDM Performance Measures (State of Michigan)

In participation with the state of Michigan, Smart Growth American partnered to provide technical advisory services to six communities participating in the Michigan livable communities' initiative. TDM Performance Measure Matrix's for the study are as follows with access to the entire study located [here](#).

| TDM Strategy | Construction Measure | Ongoing Measure | Data Source Data Collection Responsibility | Frequency (Construction) | Frequency (Ongoing) | Baseline | Targets 1. During construction 2. 3 years post-construction | Notes (including reference communities) |
|--|--|--|--|--------------------------|---------------------|--|--|--|
| Establish transit pass program and distribute free/reduced cost passes | # of free/ reduced cost pass users on routes during construction | Ridership on routes after construction | Transit service providers (SMART, DDOT, PeopleMover) | Monthly | Annually | The average number of transit riders on routes serving or paralleling the corridor | Construction: 10% increase in combined ridership of all routes. Ongoing: 5% increase in combined ridership. | n/a |
| Biking | # of bike counts on parallel routes during construction | n/a ¹ | MDOT construction project management ² | Monthly | n/a | No baseline presently available. Bicycle counts should be conducted prior to establishment of construction zone. | TBD – must be determined based on baseline volumes. | n/a |
| Business Support | Change (+) in # of employees participating in Commuter Challenge | Change in # of employees participating in Commuter Challenge | SEMOG | Annually | Annually | 700 people participated in Commuter Challenge in 2012 | 10% increase per year | Participants in the Bike Commute Challenge in Portland, Oregon, increased by 9% over a three year period. ¹ |
| HOV Lanes | # of cars in HOV lanes during construction | n/a | MDOT (sensors) | Monthly | n/a | n/a | To be determined if HOV lanes are implemented during and/or post-construction | n/a |
| Increase usage and availability of Park & | Change (+) in utilization of park & ride spaces within | Change in utilization of park & ride | MDOT: Statewide Carpool Parking Lot website: http://mdotcf.state.mi.us/p | Monthly | Annually | Utilization: MDOT: 46%* | Construction: 4% - 5% increase in utilization | Estimated based on King County park-and-ride utilization reports which show a 2% increase in |

| TDM Strategy | Construction Measure | Ongoing Measure | Data Source Data Collection Responsibility | Frequency (Construction) | Frequency (Ongoing) | Baseline | Targets 1. During construction 2. 3 years post-construction | Notes (including reference communities) |
|---|--|---|---|--|--------------------------|--|---|--|
| Ride; Park & Pool | affected construction area* | spaces | ublic/carpool/park/maps/metro.pdf SMART: SMART staff | | | SMART: 53%* | Ongoing: 3% - 4% annual increase in utilization | utilization per year over the last 4 years.* Assumed a slightly improved growth in utilization for areas within the affected construction area. |
| Vanpool | Change (+) in # of vanpool riders within the affected construction area* | Change in # of vanpool riders within the same geography | vRide tracks origin/ destination of vanpool users and new fleets per month. Vanpools report to NTD and data can be gleaned from NTD web site. vRide can track vanpool usage in a specific geographic area during construction. | Monthly | Annually | Existing vanpool ridership along the construction corridor (baseline depends on construction project and will need to be determined on an as-needed basis) | Construction: 12% increase in # of vanpool riders Ongoing: 10% annual increase in # of vanpool riders | Assumed slightly higher ridership in construction zones due to targeted marketing. Target based on vRide existing change in ridership over the last four years. |
| Congestion Management | Travel time index along construction project corridor | Travel time index along construction project corridor | SEMOG Travel Time Index | Monthly Monthly | Annually Annually | I-94: TTI 2.191, Congestion High I-75: TTI 2.045, Congestion High I-96: TTI 1.535, Congestion Moderate Woodward: TTI 1.840, Congestion Moderate | Construction: Moderate congestion (Freeway: 1.3 – 1.8; Arterials: 1.5 – 2.0) Ongoing: No/low congestion (Freeway: Less than 1.3; Arterials: < 1.5) | SEMOG tracks travel time index (TTI) on an annual basis. http://www.semog.org/uploadedFiles/Programs_and_Projects/Transportation/Congestion/CngDefThreshold.pdf |
| Commuting alternatives (non-SOV travel) | Employee mode choice | Employee mode choice | Employee travel survey (administered by major employers) | Before construction 6-8 months into construction | Annually | | Region and employers to set³ | |

Atlanta Regional Commission: TDM Program Evaluation

Evaluation of the Atlanta Regional Commission regional TDM program will cover all of these organizations and activities, with the overarching aim of assessing the efficacy and efficiency of the program in achieving its goals. The central goal of the regional TDM program is to increase the use of travel modes other than single-occupant vehicles (SOV) by establishing, maintaining, and enhancing partnerships with employers, property managers, local governments and commuters in designated areas. Effective implementation will result in spreading peak period congestion, decreasing the share of SOV trips, reducing vehicle miles traveled (VMT), and reducing emissions throughout the region. Access to the full evaluation can be located [here](#) with their TDM Program Evaluation metrics presented below.

Regional TDM Program Evaluation

Table 3 summarizes recommended goals, metrics and example data sources for the regional evaluation, however these will be finalized with a third party evaluation team.

Table 3: Regional Evaluation

| Regional Evaluation (Third Party) | | | |
|-----------------------------------|---|--|--|
| Goal | Measure overall impact of work place behavior change programs (GCO and TMAs) | | |
| | <i>Category</i> | <i>Indicator</i> | <i>Example Data Sources</i> |
| Outcome Metrics | Impacts | Mode shift, VMT, vehicle trips reduced, GHG emissions | State of Commute Survey |
| Process Metrics | Participation | Number of employees participating in programs, incentives and campaigns, number of database registrants, GRH registrants | RidePro, Salesforce, GRH database |
| Methodology | Calculation of overall program impacts using survey data, trends analysis of participation indicators | | |
| Goal | Evaluate effectiveness of work place behavior change programs (GCO and TMAs) | | |
| | <i>Category</i> | <i>Indicator</i> | <i>Example Data Sources</i> |
| Metrics | Cost-benefit overall | Cost per trip and cost per VMT reduced overall | Salesforce, State of Commute Survey |
| | Cost-benefit by program | Cost per trip and cost per VMT reduced by incentive programs, campaigns and other key programs | Salesforce, State of Commute Survey |
| | Effectiveness of programs | Trips, VMT, GHG emissions for incentive programs, campaigns and other key programs | Salesforce, State of Commute Survey |
| | | Participation levels for each regional incentive | RidePro, Salesforce |
| Methodology | Analysis and comparison of outcomes for different incentives and changes in incentive offerings | | |
| Goal | Measure awareness of regional program | | |
| | <i>Category</i> | <i>Indicator</i> | <i>Example Data Sources</i> |
| Metrics | Awareness | Awareness of brand, incentives, partnership program | Employer/Property Manager Partner Survey |
| Methodology | Gauge awareness through State of Commute Survey and a survey of participating employers and property managers | | |

The regional TDM programming evaluation should be conducted by an external consultant (third party). Regional program participation data, the annual State of the Commute Survey conducted every two to three years, and an employer survey will be the main data sources for the regional evaluation. Results from the regional evaluation will be used to understand the overall impacts of TDM efforts occurring in the region, as well as the cost effectiveness of the regional incentive programs.

Hillsborough County (Oregon) MPO: Questions

After taking into account information related to Intelligent Transportation Systems and Congestion Management Systems, estimated project costs and funding by fiscal year is taken into account. Specific questions within the Hillsborough County MPO Congestion Mitigation and Air Quality criteria application form are listed below. Information is courtesy of Philip Winters, Transportation Demand Management Program Director, Center for Urban Transportation Research.

1A) Projects that remove vehicles from the road.

OR

1B) Projects that reduce travel delay (include multi-modal benefits).

2. Outreach Projects that change the public's driving behavior.

3A) Projects with quantitative emission reduction benefit for the ozone precursor nitrogen oxide.

OR

3B) Projects with qualitative emission reduction benefit for the ozone precursor nitrogen oxide.

4. Projects with the most efficient dollar per ton cost/benefit (utilizing an analysis that takes into account the life cycle of the project)

5. Projects with air quality benefits to be realized within 3 years.

**Development of Standard Performance Measures for Transportation Demand Management Programs: by
Ryan E. Thompson and Sonya N. Suter, 2012.**

1. The study summarizes findings from an analysis of performance measures used by 10 TDM programs in the U.S., including the statewide TMA program in New Jersey. In summary, takeaways are as listed:
 - a. TDM is defined by industry as any strategy that expands travel choices to reduce or shift demand or travel time and supports the efficient use of the transportation system. The scope of this study was on the measurement of traditional ride-sharing performance.
 - b. FHWA defines performance measures as “the use of evidence to determine progress toward specific defined organizational objectives”.
 - c. Challenges: programs rarely allocate significant funding for TDM evaluation. Of nine programs surveyed, they allocated on average 2% of their budget to measurement and evaluation.
 - d. Types of Performance Measures:
 - i. Inputs: # of activities or efforts initiated by the program (ex: # of outreach events, tweets sent)
 - ii. Outputs and direct effects: customer or client program participation, often in response to the program’s input activities (ex: # signed up to carpool, ERH program)
 - iii. Outcomes: quantification of the results of the input activities and outputs. (ex: VMT reduced, usually extrapolated from output data)
 - iv. Cost-effectiveness: measures cost per input, per output, or per outcome of any portion of TDM program
 - e. Types of performance measures and their relationship to one another can be seen as a progression; effective TDM evaluation processes focus on outcomes and link inputs and outputs to outcomes to show the value of program activities to meet key goals.
 - f. Common and Best Practices, relevant to our region:
 - i. Inputs. To measure outreach and marketing – track # of meetings with employers/# events attended/# new orgs recruited to participate/amount of literature distributed/ads placed/track # FB or Google ad words/placement rates/conversation rates
 - ii. Outputs. To measure alternative mode use-track % of employees taking alt mode to work/frequency or duration of alt mode to work/% pop that tried alt commute mode
 - iii. Outcomes. To measure travel impact – track VMT reduced/SOV reduced/% of all trips by car or van pool
 - g. Recommendations:
 - i. Clearly establish calculation method consistent across time
 - ii. Identify data needs on the basis of measures, not on which data already exists or have been collected. ID which pieces of data are required to calculate each measure, who is responsible, and how the data are stored. Establish a culture of data stewardship and quality control
 - iii. Link TDM measurements to regional goals
 - h. Evaluate, assess, and improve. Performance measurement is only useful if the results lead to improvements.

CAMPO Project Selection Criteria, ATD staff recommended amendments

Amendment #1 – Reduce Cost/Benefit analysis to 25% of the project scoring and increase the Planning Factors evaluation to 75% of the project scoring for Roadway, ITS/Operations, Transit, and Active Transportation.

Reason: Weighting the Cost/Benefit analysis at 50% over-weights the importance of a vehicle delay metric (since the cost-benefit analysis, for most categories, focuses only on vehicle delay), and it puts a lot of trust in tools that may not be able to properly analyze projects. Also, there is concern about 1) the (potentially infeasible) amount of work required to evaluate each project individually, and 2) the reliability of data that is available, especially on projects that may have a large positive impact on travel in the region but don't have a clearly modeled impact to vehicle delay.

Amendment #2 – Require a project to have completed a public involvement process and 75% of preliminary engineering and design documentation, where applicable, before receiving construction funds.

Reason: This requirement will prevent a large amount of construction funds from being programed to projects that haven't progressed or developed far enough for construction funding consideration. This would free up more funding for projects in the region. This requirement would not prevent projects from being able to request funding for construction only projects assuming project readiness for construction.

Amendment #3 – Amend the Planning Factor related to funding to read as, "The project's local cost share is overmatched by 30% or greater" in every project type.

Reason: The current criteria is supposed to be self-scoring but it is set up as a sliding scale. The applicant would not know how to objectively score this criteria without setting a target, as proposed. This change would also increase the funds available for programming projects by funding those projects that contribute more local dollars to the project. This does not preclude project sponsors from applying for TDC's to receive 100% funding.

Amendment #4 – Amend the "Other Projects" to include specific, objective planning factors that can be quantified.

Reason: Transportation Demand Management (TDM) programs are eligible under federal statute and have a proven record of having significant positive impacts on transportation conditions. These TDM programs are very complex and more unique to any other investment and are highlighted in the CAMPO 2040 Plan, therefore they need specific consideration that are suitable and appropriate. The Commonwealth of Virginia, Minneapolis/St. Paul Metropolitan Council and others have developed strong TDM scoring metrics that CAMPO can use to elevate this investment type properly. (See TDM Evaluation Examples attachment).

Amendment #5 – Amend the Planning criteria under the Planning Factors for Roadway, ITS/Operations, Transit, and Active Transportation to read as “The project has undergone a comprehensive planning process or is identified as a priority in a local or regional transportation plan.”

Amend the supporting documentation under each category to reflect the change, such as;

Roadway Projects Planning – Projects should be identified in locally or regionally adopted plans, including city or county thoroughfare plans, city comprehensive plans, or CAMPO documents including the long range Regional Transportation Plan (RTP), or undergone a comprehensive planning process . Provide the name of the plan(s) in which the project is included, its date of adoption or approval, and include any additional identifying information which may be needed to locate the corridor.

Reason: This change will allow for projects that have undergone planning processes such as the Corridor Mobility Development Reports (2016 Bond Corridor Construction Program) but are not in the City’s Transportation Plan (AMATP) nor the CAMPO 2040 Plan.