

CMAQ/RSTP FUNDING PROJECT APPLICATION, SELECTION AND PRIORITIZATION METHODOLOGY

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INTRODUCTION

This document describes the process the Fredericksburg Area Metropolitan Planning Organization (FAMPO) will undertake to identify and select transportation projects for inclusion in FAMPO's Transportation Improvement Program (TIP) and VDOT's Six Year Improvement Program (SYIP). The selection process outlined in this document will be used for all proposed projects using Federal Regional Surface Transportation Program (RSTP) and Congestion Mitigation and Air Quality (CMAQ) program funding. For the purposes of RSTP funding, FAMPO also uses Surface Transportation Block Grant (STBG) as an interchangeable acronym. Once a more substantive update is made to this methodology in FY21 or FY22, STBG will be used as the primary acronym.

FAMPO's CMAQ and RSTP project selection is a cooperative process between the Fredericksburg MPO, VDOT, DRPT and Commonwealth Transportation Board (CTB). CMAQ and RSTP project recommendations are selected and prioritized by the Fredericksburg MPO, and submitted to the CTB for final approval.

The procedure for selecting and prioritizing includes the development of a candidate project list by the FAMPO Technical Advisory Committee (TAC). A numeric scoring procedure is used to score each candidate project, and the results of the scores and project recommendations are reported to the FAMPO Policy Committee for consideration. The results of the project scores, according to established criteria, are the basis of TAC recommendations. The FAMPO Policy Committee considers the recommendations from the TAC and selects the final recommended list of CMAQ and RSTP projects in coordination with the district CTB member for annual submittal to the CTB for approval as part of the SYIP. Amendments to 23 USC funded projects, particularly CMAQ and RSTP funded projects, must be approved by the CTB. This project selection process, as outlined above, is consistent with 23 U.S.C. section 134(j)(3)(5)a and 23 CFR 450.330(b).



OBLIGATION AND EXPENDITURE OF CMAQ AND RSTP FUNDS

On July 1, 2010 the Commonwealth of Virginia’s FY2011 Budget Bill with Transportation Policy Goals became law. This bill contained provisions related to the obligation and expenditure of federal Regional Surface Transportation (RSTP) funds and Congestion Mitigation and Air Quality (CMAQ) funds and their local matching funds (which are provided by the Commonwealth).

The provisions for CMAQ funds state that projects funded by CMAQ funds (whole or part) shall be federally obligated within 24 months of their allocation by the board and expended within 48 months of the obligation (total six years). If the defined timeframes are not met, the CTB may use the funds for any other project eligible under 23 USC 149. For example, CMAQ funds allocated for FY21 must be obligated by July 1, 2023 and expended by July 1, 2026.

The provisions for RSTP funds state that funds from FY11 and thereafter shall be federally obligated within 12 months of their allocation by the board and expended within 36 months of obligation (total four years), or “board shall rescind state match”. Fiscal Year 2010 and any preceding funds shall be federally obligated within 12 months of July 1, 2010 and expended within 36 months their obligation (total four years), or “board shall rescind state match”. For example, RSTP funds allocated for FY23 must be obligated by July 1, 2024 and expended by July 1, 2027. If these funds are not obligated and expended within the defined timeframes the CTB has the power to rescind the Commonwealth provided 20% in matching funds that the Federal funds require.

The following table illustrates the obligation and expenditure deadlines for CMAQ and RSTP funds allocated for FY22.

Funding Source/Year	Obligation Deadline	Expenditure Deadline
RSTP 2022	July 1, 2023	July 1, 2026
CMAQ 2022	July 1, 2024	July 1, 2027



UNUSED FUNDING

Any excess CMAQ or RSTP funds will revert to their respective FAMPO Reserve Balance for competitive re-allocation at the regional level.

PROJECT SELECTION

CMAQ and RSTP funds should be allocated and implemented in a manner consistent with the current Federal guidelines for their use (federal guidelines are available from FAMPO upon request).

Ranking Factors include:

- Safety;
- Congestion Management;
- Cost Effectiveness;
- Project Readiness/ Additional Committed Funding for Project;
- Ability to Get Project to the Next Phase;
- Natural and Built Environment;
- Efficient Future Land Use;
- System Continuity;
- Mobility/Accessibility; and
- A demonstration that the project improves air quality (CMAQ funding only).

APPLICATION PROCESS AND PRELIMINARY SCREENING

Project funding application forms will be in an electronic format (either .doc or .pdf) and will be posted on the FAMPO website, available for download. Once the applications are received, the projects will go through an initial screening process that will check for:

- The proposed project meets all applicable criteria under federal RSTP/CMAQ guidelines regulations of the Moving Ahead for Progress in the 21st Century (MAP-21) and the Fixing America's Surface Transportation (FAST) Act;
- The project must be consistent with FAMPO's current Long Range Transportation Plan;
- The project must be consistent with FAMPO's current Congestion Management Process (CMP), additional consideration given to projects in identified CMP Corridors;
- A detailed project description with supporting technical data;
- Cost estimates for proposed projects that have been vetted through VDOT Fredericksburg District staff;
- Project must be screened for impacts to identified Environmental Justice (EJ) communities (see FAMPO EJ Mapping on website for locations of communities);
- A defined project implementation schedule;
- A demonstration that the project is ready for the proposed phase (PE, ROW or CN); and
- An identified project management team to oversee the project

PROJECT EVALUATION AND PROGRAMMING

After the initial screening process has been completed, projects will be placed into one of six categories (listed below) and scored. Projects in each category will then be compared to one another. FAMPO Staff will evaluate all projects according to the criteria for each project category. Staff will then prepare a list of candidate projects that have been scored and ranked in each category. The projects will be listed in descending order, from highest to lowest score, in each category.

The six project categories are:

1. Roadway Capacity/Paving Projects

- Widening, new facilities, interchanges/intersection improvements
- Roadway paving projects

2. Intelligent Transportation Systems (ITS) and Operational Improvements

- Corridor operational improvements (i.e. signal synchronization/ optimization, and incident management)

3. Intermodal Transportation Projects

4. Transit Projects

- Vehicle replacement/purchases
- Other projects/programs/equipment/signage
- Commuter Parking Lot Expansions
- Transportation Demand Management (TDM)

5. Planning/PE Studies

6. Non-Motorized Projects

- Bicycle projects
- Pedestrian projects

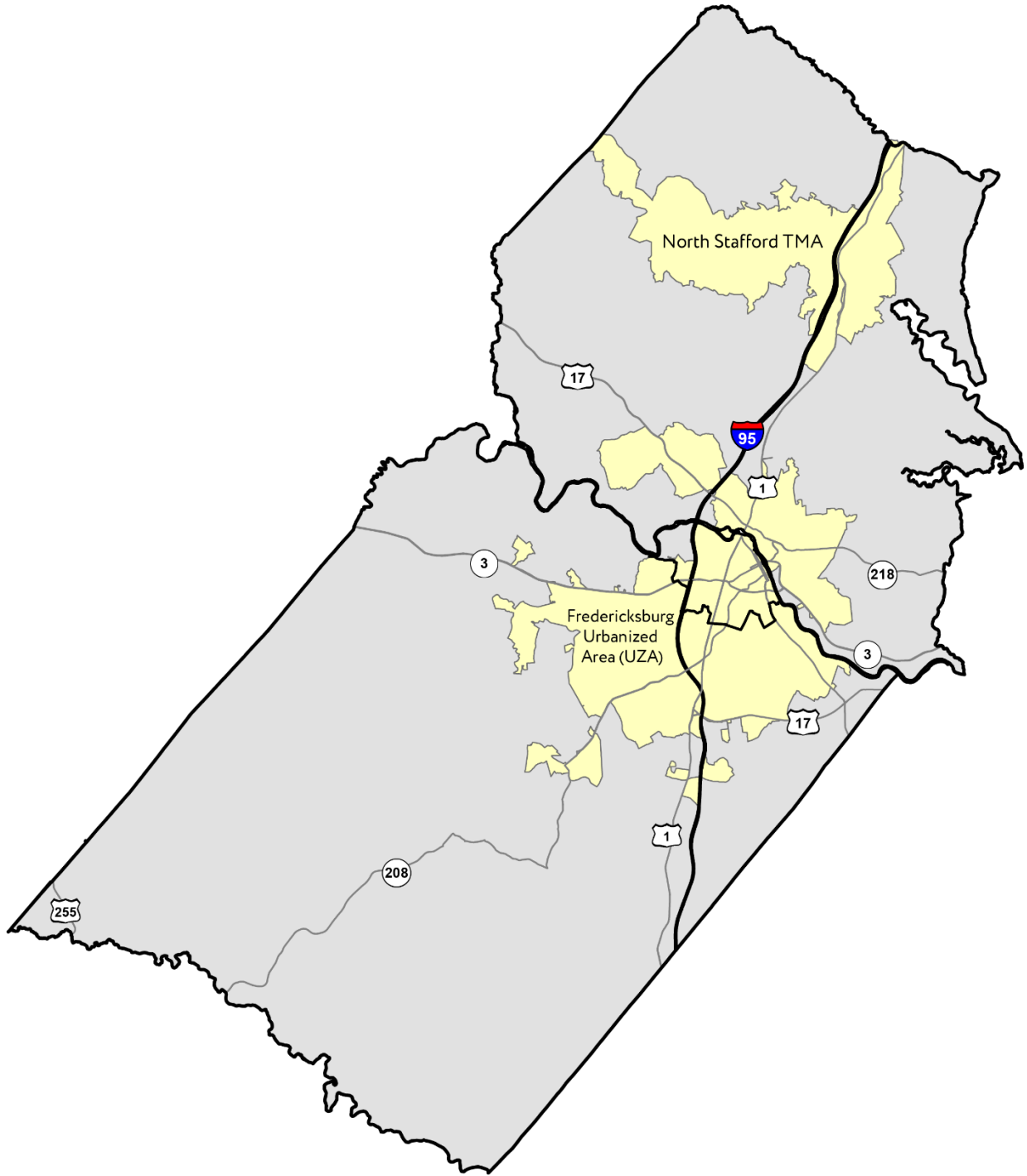
If the list of projects exceeds the amount of total funding available, FAMPO staff (in consultation with VDOT Fredericksburg District staff) will recommend priority projects to receive funding. Per VDOT Policy, funding will be programmed for all six years of the SYIP. The following principles will be used to program all projects:

- Project phases will be fully funded according to current schedules and estimates
- Funds will be allocated consistent with CTB and Regional priorities
- Existing projects will be reviewed prior to adding new projects. Reviews include:
 1. Cover deficits and move/transfer surpluses
 2. Adjust funding for schedule and estimate changes
 3. Review and reallocate funds with development, timeline and inactive issues
 4. Fund next phase of projects before adding new projects
- Address existing inactive projects

The project priority list will be presented to the TAC for review, adjustment, and endorsement. Then the list will be presented for approval by the FAMPO Policy Committee and forwarded to VDOT and the Fredericksburg District CTB representative for consideration in the Six Year Improvement Program (SYIP).

Once the allocations for the SYIP are approved, and the SYIP takes effect, FAMPO staff will develop a comprehensive TIP amendment to include the allocations into the current TIP.

Late in FY20, the FAMPO TAC was tasked by the Policy Committee with forming a subcommittee to develop modifications to the scoring methodology to address a project's benefit to the Transportation Management Area (TMA) in northern Stafford County for projects being considered for STBG funding. The TMA location is illustrated below.



To address a project’s benefit to the TMA, a two-tiered approach was developed in order to objectively and quantitatively support this metric. First, staff assessed each project category and sub-category to determine whether benefit to the TMA could be measurable (feasible). Second, measures, thresholds, and weights were established to determine overall benefit for each project type. The table below briefly describes this approach:

Project Type	Sub-Type	Feasible	Measure	Threshold/Scoring	Notes
Roadway Capacity/Paving	Capacity (Widening) and Intersection Improvements	Y	Streetlight O-D	Total volume; 5 categories	
ITS and Operational		Y and N	Streetlight O-D	Total volume; 5 categories	Only if location specific (i.e. adaptive signal control)
Intermodal Freight		N			
Transit	Vehicle Replacements/New Vehicle Acquisitions	N			
Transit	Transit Operating Assistance	N			
Transit	New Commuter Parking/Commuter Parking Expansion Projects	N			
Transit	Transportation Demand Management (TDM) – GWRideConnect	N			
Planning/PE		Y	Location of study	Distance from TMA; 10 categories	3-mile increments
Non-Motorized		Y	Location of project	Y/N; project within 0.75 mi of TMA	

Specific details can be found within the following sections. Generally, scoring remains the same for each project type but if it is feasible to measure benefit to the TMA, this scoring component carries 10% of a project’s overall score if it is submitted for consideration of STBG funding. All CMAQ applications do not factor in benefit to the TMA.

With the Benefit to the TMA measure, projects in “feasible” categories scored after February 2021 should not be compared to previously scored projects which do not factor in this new measure.

1. Roadway Projects

Roadway Capacity Projects (Road Widening)

The FAMPO highway project prioritization methodology, adopted by the FAMPO Policy Committee, will be employed for ranking all candidate highway projects (i.e. roadway widening or new roadway alignments).

Intersection Improvement Projects

This project type refers to improvements at individual intersections that are not part of a coordinated signal system. The projects may include improvements in the geometric design of the intersection by adding turn lanes, restriping, major reconfigurations, grade separation, etc. The change in emissions for a project is based on the change in delay (in hours per day) at the intersection as a result of the project.

Scoring Factors for Intersection Improvement Projects:

Criteria	Points	Scoring Instructions
Reduction of Congestion	0-20	Greatest positive change to LOS = 15 Lowest positive change to LOS = 0 (2-point sliding scale) Is project located in CMP Corridor? (yes = 5, no = 0)
Air Quality	0-30	Reduces NOx = 15 Reduces VOC = 15
Safety	0-20	20 points to the project with the highest current crash rate/number of crashes (2-point sliding scale)
Project Readiness	0-20	Projects with detailed design and cost estimates that are ready to undertaken = 10 points Projects with additional funding committed = 10 points (2-point sliding scale)
Land Use/ Connectivity	0-10	Will the project provide access to areas of walkable, transit friendly mixed-use development (either existing or proposed)? (yes = 5, no = 0) Will the improvement promote improved inter-connectivity between adjacent developments? (yes = 5, no = 0)

Benefit to the TMA

To measure an STBG project's benefit to the TMA area, staff performs two analyses using the StreetLight. StreetLight is a big data platform that uses location data from devices – such as smart phones – to aggregate trips via multiple modes of transportation. The first analysis measures total volume from the TMA area to or through the project segment polygon over a given period of time. The previous calendar

year will be used in all cases. Volume is defined as an output type for measuring the daily average number of vehicle trips in a particular area over a given period of time.

The second analysis measures total volume starting at any location, traveling through the project segment, and ending in the TMA area. Next, the two volumes are combined and the project is scored according to the following table:

Total StreetLight Volume	Score
<1,000	1/10 points
1,001 to 5,000	2/10 points
5,001 to 10,000	3/10 points
10,001 to 20,000	6/10 points
>20,001	10/10 points

The first five scoring factors make up 90% of a projects overall score. The remaining 10% is based on the project’s direct benefit to the TMA as a result of the StreetLight analysis.

2. Intelligent Transportation Systems and Operational Improvements

Intelligent Transportation Systems (ITS) use technology improve the safety, efficiency and security of the roadway system. ITS does not refer to one specific program or initiative, it can be a combination of technologies working together to improve the system, such as integrated corridor management. Some examples of ITS technologies include: real-time traveler and weather information, adaptive signal control, travel demand management (TDM), variable tolling/congestion pricing, automatic vehicle location (AVL) systems for transit vehicles and emergency transportation operations (ETO) strategies.

A wide array of highway and transit projects are classified as ITS/operational projects, including:

- Traffic signal timing;
- Upgrades to traffic signal systems;
- Advanced traffic management systems;
- Variable message signs;
- Communications improvements;
- Video surveillance infrastructure;
- Automatic vehicle location and passenger counting for transit purposes; and
- Vehicle detection systems.

Criteria	Points
Will the project improve traffic flow during peak congestion periods and special circumstances?	0-20
Is project located in a CMP Corridor?	0-10
Will the project directly reduce the number and severity of roadway incidents?	0-20
Does the project address the mobility or accessibility needs of the region?	0-10
Does the project increase the linkage and communications among various operating agencies to provide better traffic information to users?	0-20
Is the project/project concept part of the Regional ITS Strategic Plan?	0-10
Does project have additional committed funding? (2-point sliding scale based on the percentage of total project cost committed)	0-10

Benefit to the TMA

If an STBG project is location-specific (e.g. adaptive signal control along US 1 in Spotsylvania) and is on a minor arterial or greater in the functional classification system, it is eligible to receive points via the same metric as the Roadway Capacity project category.

If a project is not location-specific (e.g. region-wide upgrades to message signs on I-95), the Benefit to the TMA metric is not utilized for this project category.

3. Intermodal Freight Transportation Projects

Intermodal transportation is aimed at moving freight efficiently between transportation modes, such as train to truck or vice versa. These improvements could range from roadway capacity or operational improvements to truck parking to improvements that provide access to port or intermodal terminals.

Criteria	Points
Will the project establish opportunities for linkages or connections between transportation modes or existing corridors and industrial, employment and population centers?	0-40
Will the project improve the operations to better accommodate intermodal movements?	0-20
Will the project improve rail or vehicular access to freight distribution facilities, ports, major industrial clients, or employment and population centers?	0-20
Project readiness: projects with detailed design and cost estimates that are ready to begin/continue a phase = 10 points Projects with additional committed funding = 10 (2-point sliding scale based on the percentage of total project cost committed)	0-20

Benefit to the TMA

STBG projects in this category provide a benefit to the region as a whole and it is not practicable to measure direct benefit to the TMA area. As such, benefit to the TMA is not considered for intermodal freight projects.

4. Transit Projects

Vehicle Replacements/ New Vehicle Acquisitions

New or replacement transit vehicles include buses, rail or vans. Transit agencies are encouraged to purchase vehicles that are the most cost effective in reducing emissions. Routine preventive maintenance for vehicles is not eligible.

With respect to vehicle replacements, the evaluators should assign a score from 0-100 based on “consideration” of the following factors:

Evaluation Criteria	Points	Scoring Instructions/ Supporting Data
Vehicles to be replaced have reached end of usefulness (defined by FTA)	0-20	List of buses to be replaced with existing/projected mileage and age
Estimated cost per vehicle	0-20	Estimated price per fully equipped vehicle
Number of passenger trips effected	0-20	System ridership for past full year/ additional projected ridership
Pollution reduction and energy efficiency enhancements	0-20	Are new vehicles more energy efficient and promote green technologies?
Other available funding sources	0-20	Other potential funding sources: likelihood of funding, local match requirement, grant cycle.

Evaluators should consider these factors when scoring the application and enter brief comments about each of them on the evaluation sheet.

Benefit to the TMA

STBG projects in this category provide a benefit to the region as a whole and it is not practicable to measure direct benefit to the TMA area in a clear, objective way. As such, benefit to the TMA is not considered for transit projects.

Transit Operating Assistance

Operating assistance to introduce new transit service or expand existing service is eligible for CMAQ funding. It may be a new type of service, service to a new geographic area, or an expansion of existing service providing additional hours of service or reduced headways. For a service expansion, only the operating costs of the new increment of service are eligible. Eligible operating costs include labor, fuel, maintenance, and related expenses. Operating assistance may be CMAQ-funded for a maximum of three years. The intent is to support the demonstration of new services that may prove successful enough to sustain with other funding sources, and to free up CMAQ funds to generate new air quality benefits.

With respect to new or expanded transit services, the evaluators should assign a score from 0-100 based on “consideration” of the following factors:

Evaluation Criteria	Points	Scoring Instructions/Supporting Data
Population within service area and prospective ridership within area (within ¼ mile of transit route)	0-20	Preliminary service routing, population estimate within service area, (based on 2015 FAMPO TAZ data) & estimate of perspective ridership
Estimated service cost	0-20	Cost per hour of service, revenue hours of service, cost of buses utilized in service
Will proposed service operate in an area with significant traffic congestion	0-20	Highway LOS of D or below
Will proposed service operate in a CMP corridor?	0-10	Yes = 10 No = 0
Will the service attract “choice” or single occupant vehicle (SOV) riders and/or transit dependent populations	0-10	Data by census tract: Median household income, Percentage of population below poverty level, Percentage of households with no vehicle and only one vehicle, and Average household size for owner and renter occupied households
Other funding sources	0-10	Other potential funding sources: likelihood of funding, local match requirement, grant cycle.
Will the jurisdiction commit to continuing the service if the route meets defined ridership objectives	0-10	Letter of Commitment from jurisdiction

Evaluators should consider these factors when scoring the application and enter brief comments about each of them on the evaluation sheet.

Benefit to the TMA



STBG projects in this category provide a benefit to the region as a whole and it is not practicable to measure direct benefit to the TMA area in a clear, objective way. As such, benefit to the TMA is not considered for transit projects.

New Commuter Parking/Commuter Parking Expansion Projects

FAMPO's 2045 Constrained Long Range Transportation Plan calls for about 9,000 additional commuter parking spaces in the Region by 2045. This includes both VRE parking expansions as well as commuter parking lots. The following scoring mechanism will be used to prioritize the parking expansion projects. The scoring criteria includes cost-per-space analysis, demand at existing commuter lots, proximity to Interstate 95, and rail and accessibility to existing transit routes/facilities as well as accessibility to primary roadways.

Evaluation Criteria	Points	Scoring Instructions/Supporting Data
Existing parking demand at proposed location	0-25	P&R lot presently at/over capacity will receive 20 points. A relative scale will be used for lots not presently at capacity (for new lots; survey closest existing lot)
Commuter type served at lot	0-20	Carpool/Vanpool = 5 Commuter Bus = 5 Commuter Rail = 5 Local Bus = 5
Proximity to I-95, principal arterial roadways and/or commuter rail stations	0-20	Less than 2 miles = 20 points 2-4 miles = 15 points 4.1-6 miles = 10 points Over 6 miles = 5 points
Is proposed lot located in a CMP corridor?	0-5	Yes = 5 points No = 0 points
Is the lot part of a mixed-use development, or does it promote walkable, transit-friendly land use?	0-10	Yes = 10 points No = 0 points
Is the lot bike/ped accessible?	0-5	Yes = 5 points No = 0 points
Will the lot have bicycle parking?	0-5	Yes = 5 points No = 0 points
Cost per space	0-10	Projects with the lowest cost per space (total project cost of all phases) will receive the highest score. A 2-point sliding scale will be used for all

Benefit to the TMA

STBG projects in this category provide a benefit to the region as a whole and it is not practicable to measure direct benefit to the TMA area in a clear, objective way. As such, benefit to the TMA is not considered for transit projects.



Transportation Demand Management (TDM) – GWRideConnect

GWRideConnect is the regional transportation demand management (TDM) agency that serves the residents of Planning District 16. GWRideConnect promotes and facilitates ridesharing and TDM initiatives to assist persons seeking transportation options to their workplaces and other destinations. The overarching policy of the GWRideConnect Program is to promote, plan and establish transportation alternatives to the use of the single occupant vehicle, thereby improving air quality, reducing congestion and improving the overall quality of life for the citizens of the region.

The activities and programs of a TDM agency are all CMAQ eligible, are regional in scope and provide air quality and congestion mitigation benefits across the entire FAMPO service area. A base amount of \$125,000 of the yearly CMAQ allocation will be set aside for GWRideConnect subject to available funding and required need for that Fiscal year. The funding will be reviewed annually, and funding will be derived from an off the top designation of the region's annual allocation of CMAQ funds. If GWRideConnect requires funds in excess of the base allocation; normal CMAQ procedures will be followed.

Benefit to the TMA

STBG projects in this category provide a benefit to the region as a whole and it is not practicable to measure direct benefit to the TMA area in a clear, objective way. As such, benefit to the TMA is not considered for transit projects.

5. Planning/PE Studies

This category refers to surface transportation planning initiatives including (but not limited to):

- Long/Short-Range Planning;
- Corridor Studies;
- PE Studies;
- NEPA Studies;
- Conceptual Design; and
- Project specific planning (i.e. IJR/IMR, Alternative Analysis).

Note: CMAQ funding is only eligible for planning studies that will lead to a CMAQ eligible project (e.g., feasibility studies, conceptual design studies, etc.)

Criteria	Points	Yes/No
Is the study necessary to further a project, recommendation, policy goal, or to enhance/update the Long-Range Transportation Plan?	0-10	
Is the study necessary to address a safety issue?	0-20	
Is the study concerned with encouraging multimodal transportation?	0-15	
Does the study address the region's mobility or accessibility needs?	0-20	
Do the study's goals and/or show support for economic vitality, quality of life and walkable, transit friendly, mixed use development patterns? (5 points each)?	0-15	
Do the goals and/or objectives foster environmental preservation/protection?	0-10	
Projects with additional committed funding (2-point sliding scale based on the percentage of total study cost already committed)	0-10	

Benefit to the TMA

STBG projects in this category receive points for benefit to the TMA based on the location of the proposed study, described in the table below:

Study Location	Points
Within 3 miles of TMA	10/10 points
Within 6 miles of TMA	9/10 points
Within 9 miles of TMA	8/10 points
Within 12 miles of TMA	7/10 points
Within 15 miles of TMA	6/10 points
Within 18 miles of TMA	5/10 points
Within 21 miles of TMA	4/10 points
Within 24 miles of TMA	3/10 points
Within 27 miles of TMA	2/10 points
Within 30 miles of TMA	1/10 points



Outside 30 miles from TMA	0/10 points
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Like other project categories, benefit to the TMA makes up 10% of a project's overall score.

6. Bicycle/Pedestrian Projects

Eligible bicycle and pedestrian facilities include:

- Construction of bicycle and pedestrian facilities such as shared-use paths, bike lanes, shoulders, sidewalks, and sidewalk modifications;
- Support facilities such as bike racks, signage, signals and trail amenities; and
- Non-construction outreach related to safe bicycle use (all Transportation Alternatives Program projects are eligible to receive RSTP funds).

Number of people the project will benefit (0-20 points)

These projects will be evaluated based on estimated users within a logical distance from the project. A three-mile radius will be used for bicycle projects and a one-mile radius for pedestrian projects. FAMPO 2015 Traffic Analysis Zone (TAZ) geography will be used to determine the base and horizon year (2045) population and employment. The highest user base will receive 20 points and the lowest user base will receive 0 points (based on a 2-point sliding scale).

Projects will address existing needs (0-40 points)

Criteria	Points	Scoring Instructions
Need for Improvements	0-10	Completion of a missing link as part of phased construction or extend/link existing facilities
	0-10	Provides access to transit, commercial/employment centers, recreational facilities from residential areas
	0-10	Eliminates a barrier to major destinations
	0-10	Improves bicycle/pedestrian safety

Transportation Function (0-20 points)

Criteria	Points	Scoring Instructions
Transportation Function	0-10	Serves trips to work/school
	0-10	Serves other trips (personal business, shopping, recreation, etc.)

Additional Committed Funds (0-10 points)

Projects with additional committed funding (e.g., an approved budget, resolution, proffer, impact fee, etc.) will be listed on a 2-point sliding scale (based on the percentage of total project cost already committed) with the project pledging the most additional money receiving 10 points and the least receiving 0 points.

Project Readiness (0-10 points)

Projects with detailed design and cost estimates that are ready to begin or continue a project phase will receive 10 points.



Benefit to the TMA

STBG projects in this sub-category can receive points for providing direct benefits to the TMA based on the location of the proposed improvement. Any improvement partially or wholly within 0.75 mi of the TMA area receives 10 points while improvements outside this area receive no points. This metric makes up 10% of a project's overall score.



Other Projects

The other project category includes those projects that do not fit perfectly into any other project groupings. Analysis methods for these projects are typically project specific and may be qualitative or quantitative depending on the type of project and the availability of input data. These projects will be addressed on a case by case basis by FAMPO staff and the FAMPO TAC.