# Roadway/Mobility (Non-ITS) Projects

| PLANNING FACTORS | 50% |
|------------------|-----|
| BENEFIT/COST     | 50% |

### Planning Factors - Roadway/Mobility (Non-ITS)

|                           | 1      |   |  |
|---------------------------|--------|---|--|
|                           |        | 20 PTS - NHS/Principal Arterial <u>or</u><br>10 PTS - Designated Evacuation Route   |  |
|                           | 40 PTS | +   |  |
| REGIONAL IMPACT           |        | 10 PTS - Designated Heavy Cargo Route   |  |
|                           |        | 10 PTS - Fixed Route Transit Corridor or used by other transit services outside of fixed route service areas.   |  |
| DESIGN/ CORRIDOR MOBILITY |        | 20 PTS – Includes construction of raised medians, innovative intersections (e.g. roundabout, diverging diamond, single point urban interchange, etc), or other significant safety/access management technique |  |
|                           | 40 PTS | 10 PTS – Project includes a Ped/Bike<br>Accommodation that meets or exceeds AASHTO<br>standards   |  |
|                           |        | 10 PTS – Project includes a significant ITS or other integrated technology component to increase facility efficiency and reliability  |  |
| COMMUNITY                 | 20 PTS | 10 PTS - Project is a recommendation in a Regional or local plan/study  |  |
|                           |        | 10 PTS – Project provides needed connection or capacity identified in adopted Thoroughfare Plan   |  |

## Benefit/Cost Methodology - Roadway/Mobility (Non-ITS)

#### **Congestion Reduction Projects – Travel Time Savings**

|  |    | B/C Methodology        | CMAQ Eligibility        |
|--|----|------------------------|-------------------------|
| Category: Mobility                         | 1. | VHT savings grow from  | HOV Facilities Only     |
| Project Type(s): Roadway - Added           |    | 2025 through 2045, or  | 1. 2025 VHT savings and |
| Capacity                                   |    | until facility reaches | travel speed            |
| <b>Data:</b> 2025 and 2040 Network Effects |    | capacity               | improvements used to    |
| (Vehicle Hours of Travel and Travel        | 2. | 2025-2045 VHT benefits | estimate emissions      |
| Speeds) and Projected Facility Volumes     |    | monetized and          | reductions using        |
| Source: H-GAC 2040 Regional Travel         |    | discounted to 2015.    | MOSERS Chapter 4        |
| Demand Model                               |    |                        |                         |

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| Category: Mobility Project Type(s): Roadway – TSM (Intersection Improvements, Roadway Grade Separations), Roadway – Access Management Data: 2025 and 2040 Projected Facility Volumes and Travel Speeds Source: H-GAC 2040 Regional Travel Demand Model |    | VHT savings calculated using TTI's delay lookup tables VHT savings grow from 2025 through 2045, or until facility reaches capacity 2025-2045 VHT benefits monetized and discounted to 2015.  | 1. | 2025 VHT savings and travel speed improvements used to estimate emissions reductions using MOSERS Chapter 7, as appropriate   |
|--|----|--|----|---|
| Category: Mobility Project Type(s): Roadway – TSM (Auxiliary Lanes) Data: (a) Estimated Capacity Increase (b) 2025 and 2040 Projected Facility Volumes and Travel Speeds Source: (a) Florida DOT, (b) H-GAC 2040 Regional Travel Demand Model          | 3. | Travel time savings grow from 2025 through 2045, or until facility reaches capacity 2025-2045 VHT benefits monetized and discounted to 2015.   | 1. | 2025 travel speed<br>improvement used to<br>estimate emissions<br>reductions using EPA<br>MOVES model<br>emissions factors  |
| Category: Mobility Project Type(s): Roadway – TSM (Railroad Grade Separations) Data: (a) Observed RR Crossing Delay, (b) 2025 and 2040 Projected Facility Volumes and Travel Speeds Source: (a) Sponsor, (b) H-GAC 2040 Regional Travel Demand Model   | 2. | Observed delay (VHT) escalated to 2025 based on observed traffic count and projected 2025 facility volume VHT savings grow from 2025 through 2045, or until facility reaches capacity 2025-2045 VHT benefits monetized and discounted to 2015. |    | Observed delay (VHT) escalated to 2025 based on observed traffic count and projected 2025 facility volume 2025 VHT savings used to estimate emissions reductions using MOSERS 7.5 |
| Category: Mobility Project Type(s): Freight Rail Data: Estimated At-Grade Crossing Delay Reduction Source: Sponsor   | 1. | 2025-2045 20-year VHT benefits monetized and discounted to 2015.   | 1. | VHT savings used to<br>estimate emissions<br>reductions using EPA<br>Mobile 6 emissions<br>factors  |

## **Safety Projects – Accident Cost Savings**

|  |    | B/C Methodology        | CMAQ Eligibility |
|--|----|------------------------|------------------|
| Category: Mobility                       | 1. | Estimate reduction in  | Not Applicable   |
| <b>Project Type(s):</b> Safety           |    | crash rates due to     |                  |
| Data: (a) Crash statistics for           |    | project design         |                  |
| intersection/facility, (b) 2025 and 2040 | 2. | Use model volumes to   |                  |
| Projected Facility Volumes and Travel    |    | forecast 2025-2045     |                  |
| Speeds                                   |    | accident reductions,   |                  |
| Source: (a) Crash Records Information    |    | benefits monetized and |                  |
| System (CRIS) or other comparable, (b)   |    | discounted to 2015.    |                  |
| H-GAC 2040 Regional Travel Demand        |    |                        |                  |
| Model                                    |    |                        |                  |



#### Asset Management/Operations (State or Good Repair Projects – Operating/Life-Cycle Cost Savings

|                         | B/C Methodology           | CMAQ Eligibility |
|-------------------------|---------------------------|------------------|
| Category: Mobility      | 1. 20 year analysis of    | Not Applicable   |
| Project Type(s): Safety | operating and/or          |                  |
| Data: Varies            | maintenance (life-cycle)  |                  |
| Source: Sponsor         | costs                     |                  |
|                         | 2. Benefits monetized and |                  |
|                         | discounted to 2015.       |                  |