

**Rubric and Evaluation Process
Technical Memorandum**

January 15, 2021

Revised May 10, 2021



Table of Contents

Section 1 Introduction.....	1
Section 2 Recommended Weighting Scenarios	2
Section 3 Recommended Criteria & Rubric Within Decision Model.....	3
3.1 Safety	3
3.2 Mode Choice	4
3.3 Land Use Alignment	7
3.4 Travel Performance	8
3.5 Equity	10
3.6 Regional Scalability	10

List of Tables

Table 1: Beyond 77 Recommended Weighting Scenarios.....	2
Table 2: Mode Choice Weight	4

Section 1 Introduction

This technical memorandum summarizes the rubric and evaluation process utilized for the Beyond 77 project to evaluate all of the strategies and solutions identified for the corridor study area. A values-based evaluation framework and scoring rubric was designed to allow for equal comparison across different types of recommendations. In addition to the six critical factors making up the primary decision structure, sub-factor components were developed to provide additional detail for the evaluation of all strategies and solutions.

Section 2 Recommended Weighting Scenarios

In the table below, these weight-scenarios apply to the 6 second tier evaluation criteria found in the 6 'bubbles' defined in the Beyond 77 Criteria Decision Structure file. The project team, in consultation with CRTPO staff, have developed four different scenarios for consideration to be applied in an overall evaluation framework.

Table 1: Beyond 77 Recommended Weighting Scenarios

Critical Factor	Scenario 1 – Alignment with Safety & Travel Performance	Scenario 2 – Alignment with Multimodal & Land Use Coordination	Scenario 3 – Alignment with 2050 MTP	Scenario 4 – Alignment with Beyond 77 Public Engagement Feedback (Phases 1 & 2)
1. Safety	30%	10%	16.7%	18%
2. Mode Choice	10%	25%	20%	15%
3. Land Use Alignment	10%	25%	12%	23%
4. Travel Performance	40%	10%	33.3%	17%
5. Equity	5%	15%	9%	16%
6. Regional Scalability	5%	15%	9%	11%

Section 3 Recommended Criteria & Rubric Within Decision Model

The Decision Model framework is created by developing evaluation criteria that align with the 6 main topics that define the scenario categories in the table above and allow individual solutions and strategies to be scored. These criteria are based off comprehensive research and review of the corridor area, goals & policies of regional and local planning entities, as well as public feedback. Because the efforts of Beyond 77 involve recommending a ‘toolkit’ to the region for improving mobility along the Interstate 77 Corridor and beyond, this evaluation framework and associated rubric is designed to allow comparisons between items not necessarily analogous to each other. Examples would be to enact a new policy, incorporate new technological functions within an existing or future transportation system, or implement a program to support action and reach certain goals of the region that indirectly improve a user’s mobility over time. Therefore, below is a comprehensive set of values-based evaluation criteria that rely on professional planning judgment to determine a strategy’s overall impact to the corridor (*it is noted there are a couple data-driven criteria that do measure certain levels of service through already existing tools*).

These items will be inputs through Criterium Decision Plus Software Tool

3.1 Safety

- a. Crashes – The recommended strategy and/or solution is likely to provide some level of benefit that will directly or indirectly help to reduce incidents/conflict/crashes between or amongst modes of mobility.
HIGH = The recommended strategy and/or solution is likely to provide a direct or indirect exceptional-level safety benefit either locally or throughout the area.
MEDIUM = The recommended strategy and/or solution is likely to provide a direct or indirect acceptable-level safety benefit either locally or throughout the area.
LOW = The recommended strategy and/or solution is likely to provide little to no direct or indirect safety benefits either locally or throughout the area.
- b. Mode Interaction – Capital – The recommended strategy and/or solution is likely to provide some form of new or existing direct or indirect level of capital-supportive investment for modal connection points that enhance/improve physical safety for the user(s).
HIGH = The recommended strategy and/or solution is likely to provide one or more capital-supportive investments that directly or indirectly provides exceptional-level modal connection points that enhance/improve physical safety for the user(s) through infrastructure enhancements.
MEDIUM = The recommended strategy and/or solution is likely to provide one or more capital-supportive investments that directly or indirectly provides exceptional-level modal connection points that enhance/improve physical safety for the user(s) through infrastructure enhancements.
LOW = The recommended strategy and/or solution is likely to provide one or more capital-supportive investments that directly or indirectly provides little to no modal connection

points that enhance/improve physical safety for the user(s) through infrastructure enhancements.

- c. ADA Accessibility – The recommended strategy and/or solution is likely to provide ADA Accommodations that directly or indirectly enhance/improve ADA user’s health & safety.
 - HIGH = The recommended strategy and/or solution is likely to provide one or more new ADA Accommodations that directly or indirectly enhance/improve, at an exceptional level, an ADA user’s health & safety.
 - MEDIUM = The recommended strategy and/or solution improves existing ADA Accommodations that directly or indirectly enhance/improve, at an acceptable level, an ADA user’s health & safety.
 - LOW = The recommended strategy and/or solution provides little to no additional or enhanced ADA Accommodations that directly or indirectly enhance/improve ADA user’s health & safety.

3.2 Mode Choice

a. Mode Options

To aid in helping the region achieve a multimodal approach, the following sub-weighting scenario is initially recommended to be applied to the 8 Mode Choice criteria documented for this evaluation framework:

Table 2: Mode Choice Weight

Mode Choice	Bike	Car	Bus	HCTC/Mass Transit	Ped	Rideshare	Microtransit	Other
Weight	13.57%	5%	13.57%	13.57%	13.57%	13.57%	13.57%	13.57%

- i. Bike – The recommended strategy and/or solution provides some direct or indirect level of quality bicycle access and/or usage throughout the area
 - HIGH = The recommended strategy and/or solution is likely to provide for a perceived direct or indirect exceptional-level quality bicycle access and usage throughout the area.
 - MEDIUM = The recommended strategy and/or solution is likely to provide a direct or indirect acceptable-level quality bicycle access and usage throughout the area.
 - LOW = The recommended strategy and/or solution does not provide for any direct or indirect additional quality bicycle access and usage throughout the area.
- ii. Car/SOV - The recommended strategy and/or solution provides some direct or indirect level of quality car/SOV access and/or usage throughout the area that detracts from implementing a more balanced, multimodal system
 - HIGH = The recommended strategy and/or solution is likely to provide a direct or indirect exceptional-level quality car/SOV access and usage throughout the area that detracts from implementing a more balanced, multimodal system.
 - MEDIUM = The recommended strategy and/or solution is likely to provide a direct or indirect acceptable-level quality car/SOV access and usage throughout the area that detracts from implementing a more balanced, multimodal system.
 - LOW = The recommended strategy and/or solution does NOT provide for any

direct or indirect additional quality car/SOV access and usage throughout the area and does NOT detract from implementing a more balanced, multimodal system.

- iii. Bus - The recommended strategy and/or solution provides some level of direct or indirect quality bus access and/or usage throughout the area
 - HIGH = The recommended strategy and/or solution is likely to provide a direct or indirect exceptional-level quality bus access and usage throughout the area.
 - MEDIUM = The recommended strategy and/or solution is likely to provide a direct or indirect acceptable-level quality bus access and usage throughout the area.
 - LOW = The recommended strategy and/or solution does not provide for any direct or indirect additional quality bus access and usage throughout the area.

- iv. High Capacity Transit Corridor/Mass Transit (i.e. Commuter/Light Rail, Bus Rapid Transit, Street Car, or other mass transit mode) - The recommended strategy and/or solution provides some level of direct or indirect quality High Capacity Transit Corridor/Mass Transit access and/or usage throughout the area
 - HIGH = The recommended strategy and/or solution is likely to provide a direct or indirect exceptional-level quality High Capacity Transit Corridor/Mass Transit access and usage throughout the area.
 - MEDIUM = The recommended strategy and/or solution is likely to provide a direct or indirect acceptable-level quality High Capacity Transit Corridor/Mass Transit access and usage throughout the area.
 - LOW = The recommended strategy and/or solution does not provide for any additional direct or indirect quality High Capacity Transit Corridor/Mass Transit access and usage throughout the area.

- v. Ped - The recommended strategy and/or solution provides some level of direct or indirect quality pedestrian access and/or usage throughout the area
 - HIGH = The recommended strategy and/or solution is likely to provide a direct or indirect exceptional-level quality pedestrian access and usage throughout the area.
 - MEDIUM = The recommended strategy and/or solution is likely to provide a direct or indirect acceptable-level quality pedestrian access and usage throughout the area.
 - LOW = The recommended strategy and/or solution does not provide for any additional direct or indirect quality pedestrian access and usage throughout the area.

- vi. Rideshare - The recommended strategy and/or solution provides some level of direct or indirect quality rideshare access and/or usage throughout the area
 - HIGH = The recommended strategy and/or solution is likely to provide a direct or indirect exceptional-level quality rideshare access and usage throughout the area.
 - MEDIUM = The recommended strategy and/or solution is likely to provide a direct or indirect acceptable-level quality rideshare access and usage throughout the area.
 - LOW = The recommended strategy and/or solution does not provide for any additional direct or indirect quality rideshare access and usage throughout the area.

- vii. Microtransit (i.e. scooters, bikeshare, mini-shuttles) - The recommended strategy and/or solution provides some level of direct or indirect quality microtransit access and/or usage throughout the area
 - HIGH = The recommended strategy and/or solution is likely to provide a direct or indirect exceptional-level quality microtransit access and usage throughout the area.
 - MEDIUM = The recommended strategy and/or solution is likely to provide a direct or indirect acceptable-level quality microtransit access and usage throughout the area.
 - LOW = The recommended strategy and/or solution does not provide for any additional direct or indirect quality microtransit access and usage throughout the area.

- viii. Other - The recommended strategy and/or solution provides some level of other direct or indirect quality mobility access and/or usage throughout the area (*Other may relate to any mode not highlighted in items above, such as concept of flying cars, drones or other conceptualized modes predicted to be disruptors to the current transportation system*).
 - HIGH = The recommended strategy and/or solution is likely to provide a direct or indirect exceptional-level quality of other mobility access and usage throughout the area.
 - MEDIUM = The recommended strategy and/or solution is likely to provide a direct or indirect acceptable-level quality of other mobility access and usage throughout the area.
 - LOW = The recommended strategy and/or solution does not provide for any additional direct or indirect quality of other mobility access and usage throughout the area.

- b. Mode Interaction – Operations
 - i. Number of Modes Connected/Impacted - The recommended strategy and/or solution physically impacts one or provides a direct or indirect connection between two or more modes throughout the area.
 - 1 – 10+ [FOR EACH STRATEGY AND/OR SOLUTION INDICATE FIXED VALUE THAT CORRELATES TO NUMBER OF KNOWN OF ASSUMED MODES THE RECOMMENDED STRATEGY AND/OR SOLUTION PROVIDES]

 - ii. Quality of Connection(s) - The recommended strategy and/or solution provides some level of direct or indirect quality connection between its associated known/assumed modes.
 - HIGH = The recommended strategy and/or solution is likely to provide an exceptional-level direct or indirect quality impact and/or connection between its associated known/assumed modes.
 - MEDIUM = The recommended strategy and/or solution is likely to provide an acceptable-level direct or indirect quality impact and/or connection between its associated known/assumed modes.
 - LOW = The recommended strategy and/or solution does not provide for any additional direct or indirect quality impact and/or connection between its associated known/assumed modes.

3.3 Land Use Alignment

- a. Policy/Smart Growth Appropriateness – The recommended strategy and/or solution is likely to have some form of alignment with one or more of the regional smart growth principles (listed below) that benefits the mobility-land use relationship.

-Balanced, Multimodal Transportation System, providing increase in transportation choices
-Recognition that Institutions, Governments, Business and Individuals Require Cooperation to Support Smart Growth
-Planning Process and Regulations to Promote Diversity and Equality
-Regional view of community, economy and ecological sustainability

HIGH = The recommended strategy and/or solution is likely to provide an exceptional-level of alignment with one or more of the regional smart growth principles that benefits the mobility-land use relationship.

MEDIUM = The recommended strategy and/or solution is likely to provide an acceptable-level of alignment with one or more of the regional smart growth principles that benefits the mobility-land use relationship.

LOW = The recommended strategy and/or solution is likely to provide little to no alignment with one or more of the regional smart growth principles and would not benefit the mobility-land use relationship.

- b. Economic Benefit – The recommended strategy and/or solution is likely to have some form of alignment between the recommended strategy and/or solution and regional economic development principles (listed below) that benefits the mobility-land use-economy relationship.

-Promotes and supports new, existing and prospective businesses to foster opportunity throughout the community
-Promotes inclusive collaboration to unite, strengthen and grow the region to thrive together
-Advocate for a healthy environment made of diverse talent and equitable access to tangible opportunities
-Establishes trust in relationships through clarity and transparency of overall economic development objectives.

HIGH = The recommended strategy and/or solution is likely to provide an exceptional-level of alignment between the recommended strategy and/or solution and regional economic development goals that benefits the mobility-land use-economy relationship.

MEDIUM = The recommended strategy and/or solution is likely to provide an acceptable-level of alignment between the recommended strategy and/or solution and regional economic development goals that benefits the mobility-land use-economy relationship.

LOW = The recommended strategy and/or solution is likely to provide little to no level of alignment between the recommended strategy and/or solution and regional economic development goals that does not benefit the mobility-land use-economy relationship.

3.4 Travel Performance

- a. General Level of Service (LOS)/Travel Time Index (TTI) – The recommended strategy and/or solution indicates or is likely to provide, some level of travel time improvement as measured by the travel time index relative to impacted facilities between this scenario and the 2045 CRTPO MTP no-build scenario.

HIGH = The recommended strategy and/or solution indicates an estimated travel time improvement greater than 50% as measured by the travel time index relative to impacted facilities between this scenario and the 2045 CRTPO MTP no-build scenario. *(For items that are not model-able, the recommended strategy and/or solution is likely to provide an exceptional level of direct or indirect impact on assumed reduction in travel time index relative to modes and/or facilities it impacts)*

MEDIUM = The recommended strategy and/or solution indicates an estimated travel time improvement between 25% and 50% as measured by the travel time index relative to impacted facilities between this scenario and the 2045 CRTPO MTP no-build scenario. *(For items that are not model-able, the recommended strategy and/or solution is likely to provide an acceptable level of direct or indirect impact on assumed reduction in travel time index relative to modes and/or facilities it impacts)*

LOW = The recommended strategy and/or solution indicates an estimated travel time improvement less than 25% as measured by the travel time index relative to impacted facilities between this scenario and the 2045 CRTPO MTP no-build scenario. *(For items that are not model-able, the recommended strategy and/or solution indicates little to no level of direct or indirect impact on assumed reduction in travel time index relative to modes and/or facilities it impacts)*

- b. Pedestrian LOS – The recommended strategy and/or solution is likely to provide some level of improvement for pedestrian travel time/access/use locally or regionally.

HIGH = The recommended strategy and/or solution is likely to provide an exceptional level of direct or indirect improvement for pedestrian travel time/access/use locally or regionally.

MEDIUM = The recommended strategy and/or solution is likely to provide an acceptable level of direct or indirect improvement for pedestrian travel time/access/use locally or regionally.

LOW = The recommended strategy and/or solution is likely to provide little to no level of direct or indirect improvement for pedestrian travel time/access/use locally or regionally.

- c. Bike LOS - The recommended strategy and/or solution is likely to provide some level of improvement for bicycle travel time/access/use locally or regionally.

HIGH = The recommended strategy and/or solution indicates is likely to provide an exceptional level of direct or indirect improvement for bicycle travel time/access/use locally or regionally.

MEDIUM = The recommended strategy and/or solution is likely to provide an acceptable level of direct or indirect improvement for bicycle travel time/access/use locally or regionally.

LOW = The recommended strategy and/or solution is likely to provide little to no level of direct or indirect improvement for bicycle travel time/access/use locally or regionally.

- d. Vehicle Hours Delay – The recommended strategy and/or solution indicates or, is likely to provide, some level of vehicle hour delay reduction as measured along the impacted facilities between this scenario and the 2045 CRTPO MTP no-build scenario.
- HIGH = The recommended strategy and/or solution indicates an estimated vehicle hour delay reduction greater than 50% as measured along the impacted facilities between this scenario and the 2045 CRTPO MTP no-build scenario. *(For items that are not model-able, the recommended strategy and/or solution is likely to provide an exceptional level of direct or indirect impact on assumed reduction in vehicle hours delay relative to modes and/or facilities it impacts)*
- MEDIUM = The recommended strategy and/or solution indicates an estimated vehicle hour delay reduction between 25% and 50% as measured along the impacted facilities between this scenario and the 2045 CRTPO MTP no-build scenario. *(For items that are not model-able, the recommended strategy and/or solution is likely to provide an acceptable level of direct or indirect impact on assumed reduction in vehicle hours delay relative to modes and/or facilities it impacts)*
- LOW = The recommended strategy and/or solution indicates an estimated vehicle hour delay reduction less than 25% as measured along the impacted facilities between this scenario and the 2045 CRTPO MTP no-build scenario. *(For items that are not model-able, the recommended strategy and/or solution is likely to provide little to no level of direct or indirect impact on assumed reduction in vehicle hours delay relative to modes and/or facilities it impacts)*
- e. Transit LOS - The recommended strategy and/or solution is likely to provide a certain level of improvement for transit travel time/access/use locally or regionally.
- HIGH = The recommended strategy and/or solution is likely to provide an exceptional level of direct or indirect improvement for transit travel time/access/use locally or regionally.
- MEDIUM = The recommended strategy and/or solution is likely to provide an acceptable level of direct or indirect improvement for transit travel time/access/use locally or regionally.
- LOW = The recommended strategy and/or solution is likely to provide little to no level of direct or indirect improvement for transit travel time/access/use locally or regionally.
- f. Freight
- i. Freight LOS/TTI - The recommended strategy and/or solution indicates, or is likely to provide, some level of freight-truck travel time improvement as measured by the travel time index relative to impacted facilities between this scenario and the 2045 CRTPO MTP no-build scenario.
- HIGH = The recommended strategy and/or solution indicates an estimated freight-truck travel time improvement greater than 50% as measured by the travel time index relative to impacted facilities between this scenario and the 2045 CRTPO MTP no-build scenario. *(For items that are not model-able, the recommended strategy and/or solution is likely to provide an exceptional level of direct or indirect impact on assumed reduction in freight travel time index relative to modes and/or facilities it impacts)*
- MEDIUM = The recommended strategy and/or solution indicates an estimated freight-truck travel time improvement between 25% and 50% as measured by the travel time index relative to impacted facilities between this scenario and the 2045 CRTPO MTP no-build scenario. *(For items that are not model-able, the recommended strategy and/or solution is likely to provide an acceptable level of direct or indirect impact on assumed reduction in freight travel time index relative to modes and/or facilities it impacts)*

LOW = The recommended strategy and/or solution indicates an estimated freight-truck travel time improvement less than 25% as measured by the travel time index relative to impacted facilities between this scenario and the 2045 CRTPO MTP no-build scenario. *(For items that are not model-able, the recommended strategy and/or solution is likely to provide little to no level of direct or indirect impact on assumed reduction in freight travel time index relative to modes and/or facilities it impacts)*

- ii. Truck Facilities – The recommended strategy and/or solution plans and/or provides for improvements to existing or new freight-truck facilities
YES or NO

3.5 Equity

- a. Socioeconomic - The recommended strategy and/or solution is likely to provide a certain level of improvement that connects citizens to opportunities (i.e. education, health, public services, etc...).

 - HIGH = The recommended strategy and/or solution is likely to provide an exceptional level of improvement that directly or indirectly connects citizens to opportunities (i.e. education, health, public services, etc...).
 - MEDIUM = The recommended strategy and/or solution is likely to provide an acceptable level of improvement that directly or indirectly connects citizens to opportunities (i.e. education, health, public services, etc...).
 - LOW = The recommended strategy and/or solution is likely to provide little to no level of improvement that directly or indirectly connects citizens to opportunities (i.e. education, health, public services, etc...).

- b. Affordability - The recommended strategy and/or solution is likely to directly or indirectly change to the average cost of mobility per household.
 - Improves = The recommended strategy and/or solution is likely to directly or indirectly reduce the average cost of mobility per household.
 - Maintains = The recommended strategy and/or solution is likely to directly or indirectly maintain the average cost of mobility per household.
 - Worsens = The recommended strategy and/or solution is likely to directly or indirectly increase the average cost of mobility per household.

3.6 Regional Scalability

The recommended strategy and/or solution impacts a certain magnitude of geography, and therefore corresponding group or citizens/residents living within that geography

- 1 – The recommended strategy and/or solution impacts one jurisdiction.
- 2 – the recommended strategy and/or solution impacts two jurisdictions (does not necessarily need to be neighboring jurisdictions).
- 3+ – The recommended strategy and/or solution impacts three or more jurisdictions (does not necessarily need to be neighboring jurisdictions).