

# CORRIDOR MOBILITY PROGRAM PRIORITIZATION METHODOLOGY

October 4, 2017  
Updated January 24, 2018



IMPROVING SAFETY, MOBILITY AND CONNECTIVITY FOR PEOPLE WHO DRIVE, WALK, BIKE AND USE TRANSIT

## CORRIDOR MOBILITY PROGRAM

Between 2011 and 2016, the City of Austin Transportation Department completed five Corridor Mobility Plans for six roadways. Three more Corridor Mobility Plans are nearing completion.

The plans recommend short-, medium-, and long-term improvements to enhance safety and mobility for all users – whether they bike, walk, drive or take transit. These plans were developed to serve as a basis for project development along the corridors as funding becomes available.

In November 2016, Austin voters approved the 2016 Mobility Bond, authorizing \$482 million for Corridor Improvement Projects.

Based on Ordinance 20160818-023, which established the bond proposition language, funding from the 2016 Mobility Bond is intended for implementation of Corridor Plan recommendations as well as preliminary engineering and design on additional corridors and critical arterials.

The Austin Strategic Mobility Plan (ASMP) expands the vision of Imagine Austin into actionable mobility-related goals and objectives that serve to guide Austin's near- and long-term transportation improvements. The 2016 Bond Corridor Program will also align with ASMP on corridor-level improvements to be implemented and how those improvements support the system-level improvements strategy outlined in the ASMP.

## IDENTIFIABLE METRICS

In addition to establishing the proposition language, Council also approved Resolution 20160818-074, which establishes a Contract With Voters. The Contract With Voters directs the City Manager to “bring forth recommendations supported by identifiable metrics” for “implementation of a Corridor Construction Program.” The Austin City Council must review and approve the Corridor Construction Program before “construction funding is appropriated or construction initiated for these projects.” The Contract With Voters is explicit in describing the priorities that the “identifiable metrics” should measure for the recommendations that are brought forth for the Corridor Construction Program.

The Corridor Mobility Program Project Team worked closely through multiple meetings to identify metrics that would be available, quantifiable, measurable, and adhere to the criteria specified in the Contract With Voters, thereby following the intentions of City Council. The metrics were developed with input from several City departments and stakeholders. These included:

- Austin Transportation Department
- Austin Public Health
- Economic Development Department
- Equity Office
- Financial Services Department
- Neighborhood Housing and Community Development
- Office of Sustainability
- Planning and Zoning Department
- Capital Metro Transportation Authority
- Law Department

Based on the Contract with Voters and the task at hand to prioritize potential corridor improvements, the Project Team identified four Mobility Priorities and six Community Considerations as guiding criteria to rank the recommendations in the Corridor Mobility Plans.

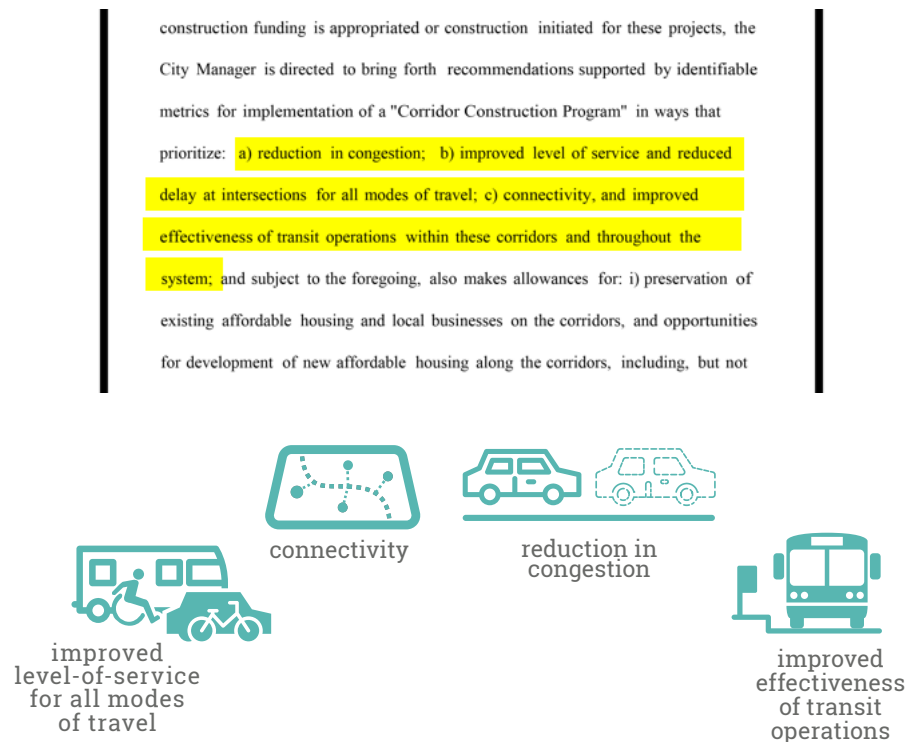
Each Mobility Priority and Community Consideration is comprised of an indicator or set of indicators to determine how well improvements are expected to affect mobility and/or quality of life.

## Mobility Priorities

The Contract With Voters outlines four Mobility Priorities:

- Reduction in congestion;
- Improved level-of-service for all modes of travel;
- Connectivity; and
- Improved effectiveness of transit operations.

Figure 1: Mobility Priorities



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Metrics associated with the four Mobility Priorities, based on improvement-specific data, are used to determine how well that improvement meets the indicator.

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The relative costs of improvements are also estimated to determine the cost efficiency of each recommendation.

This cost-adjusted Mobility calculation is measured for each of the identified improvements.

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The Project Team identified quantifiable data from a variety of sources to use in ranking the mobility effects of each recommendation. Sources include VISSIM traffic modeling, geospatial data, functional classification of facilities, quantitative analysis and existing studies.

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## Community Considerations

The 2016 Mobility Bond provides funding for mobility-focused infrastructure investments but emphasizes and makes allowances for Community Considerations.

While improved connectivity to transit, a Mobility Priority, is considered a positive impact, the availability of enhanced transportation options may lead to increased property values,

which can impact housing prices, residential rental rates, and business lease rates. The importance of considering this, and other trade-offs is reflected in the Contract With Voters through the allowed for and emphasized Community Considerations; for example, preservation of affordable housing and preservation of local businesses.

Because the Corridor Construction Program involves only mobility-related capital improvements as per the bond proposition approved by the voters, the Community Considerations.

Considerations are considered in relation to how mobility infrastructure potentially supports or impacts the consideration. Additional coordination with other City initiatives would be required to further explore how potential opportunities to support the community considerations could be realized.

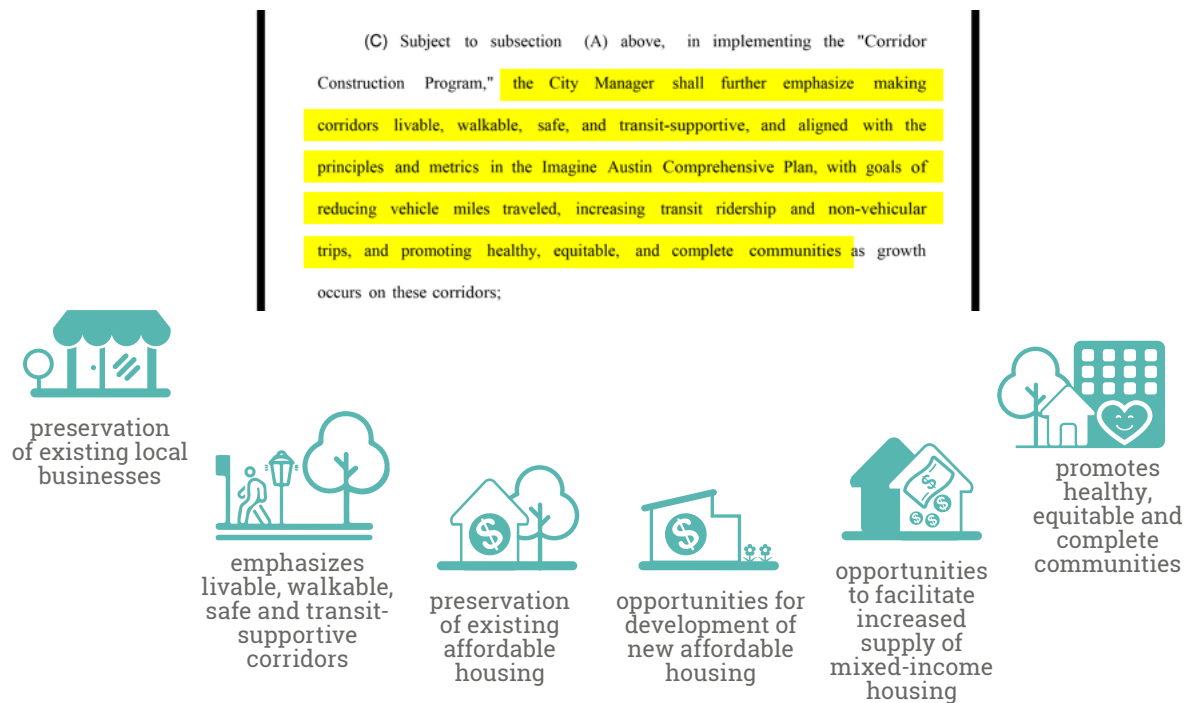
The Project Team created a Community Considerations Index (CCI) based on the findings of existing plans, available data, and other relevant information for each recommended improvement.

The Community Considerations Index measures improvements as low, medium, or high in terms of supporting the Community Considerations in the Contract With Voters.

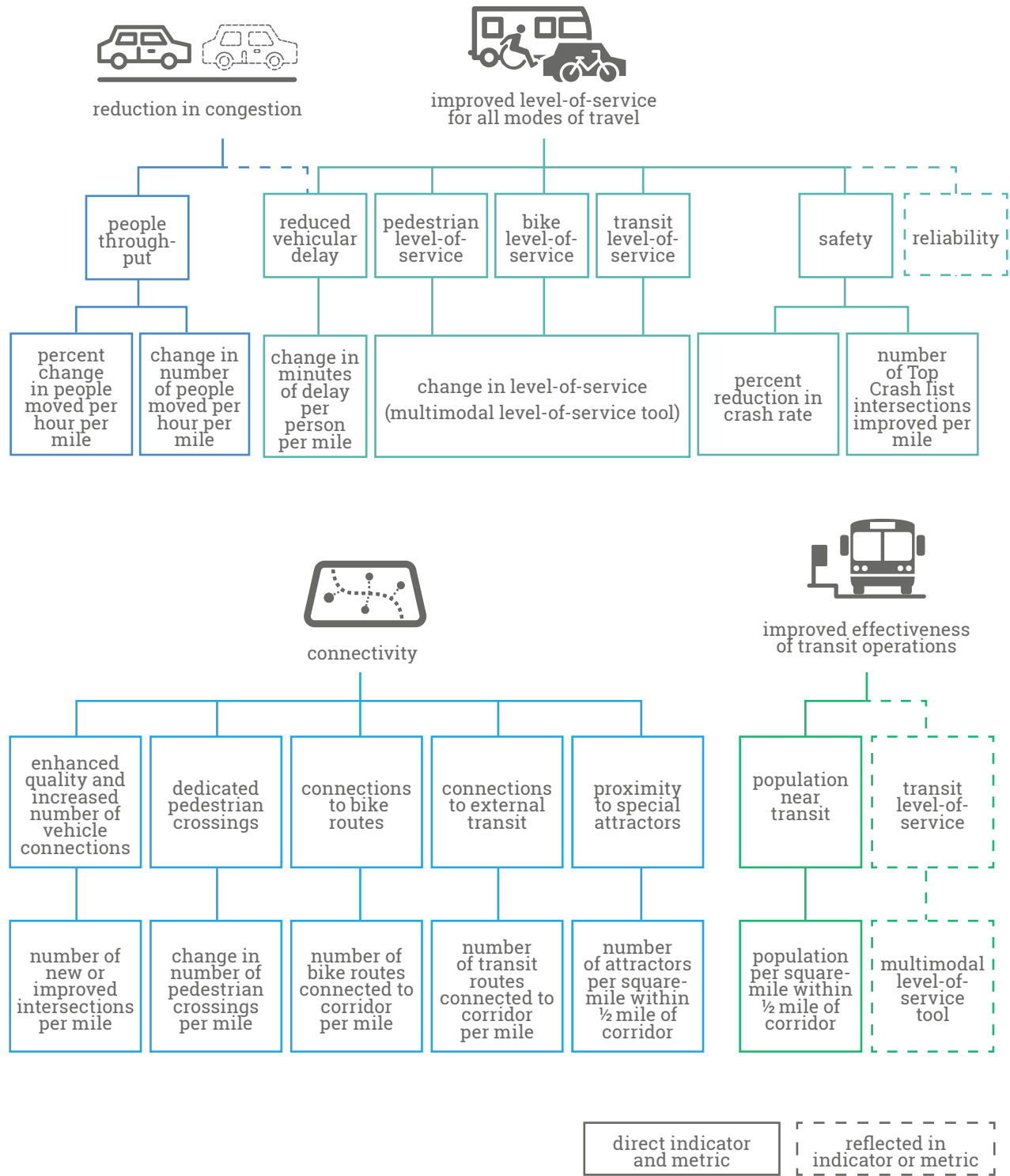
These Community Considerations below are interrelated because some of the indicators are used to evaluate multiple considerations.

- Preservation of existing affordable housing
- Opportunities for development of new affordable housing
- Emphasizes livable, walkable, safe and transit-supportive corridors
- Preservation of existing local businesses
- Opportunities to facilitate increased supply of mixed-income housing
- Promotes healthy, equitable and complete communities

Figure 2: Community Considerations

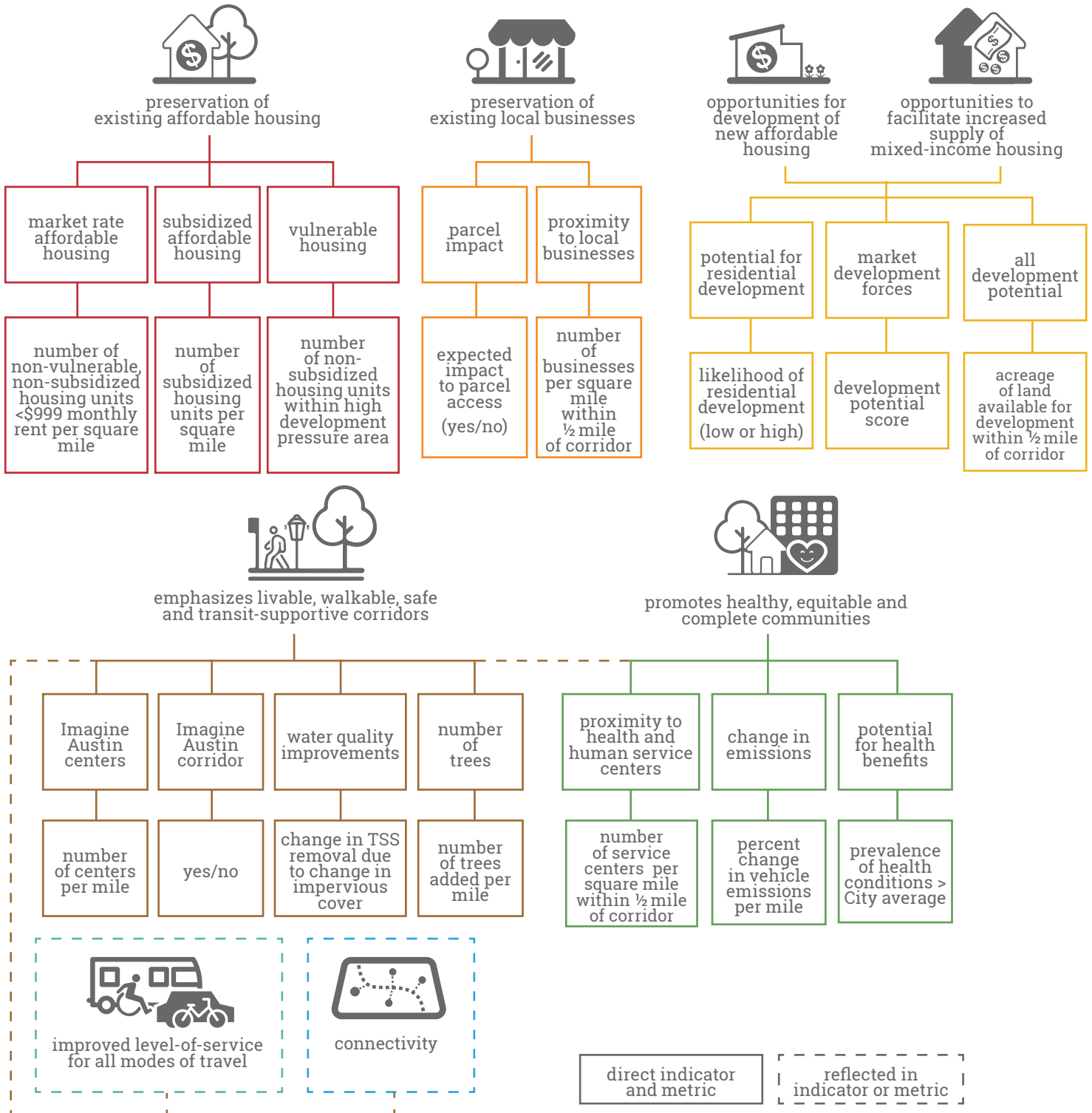


## MOBILITY PRIORITIES





## COMMUNITY CONSIDERATIONS



## CORRIDOR PRIORITIZATION MODEL

The Corridor Prioritization Model enables a comparative analysis of the recommendations in the Corridor Mobility Plans. This analysis started with an in-depth review of existing Corridor Mobility Plans.

To measure the mobility benefits of the mobility infrastructure recommended in the plans, the Project Team performed a technical review of the Corridor Mobility Plan recommendations to ensure they reflect existing conditions, current standards and policies. The Project Team also updated cost estimates to reflect today's market costs for construction, labor, and materials.

The next step in the process is that the Project Team will quantify the data in measurable units and program it into a dynamic model. Essentially an interactive computer application, the Prioritization Model specifically analyzes and ranks how well the recommendations align with the Mobility Priorities and Community Considerations.

To develop the proposed Corridor Construction Program, the recommendations are grouped into investments that are composed of a mix of improvement types. Investments may consist of operational improvements along a corridor while others may consist of Complete Streets improvements.

Figure 3: Corridor Prioritization Methodology Process

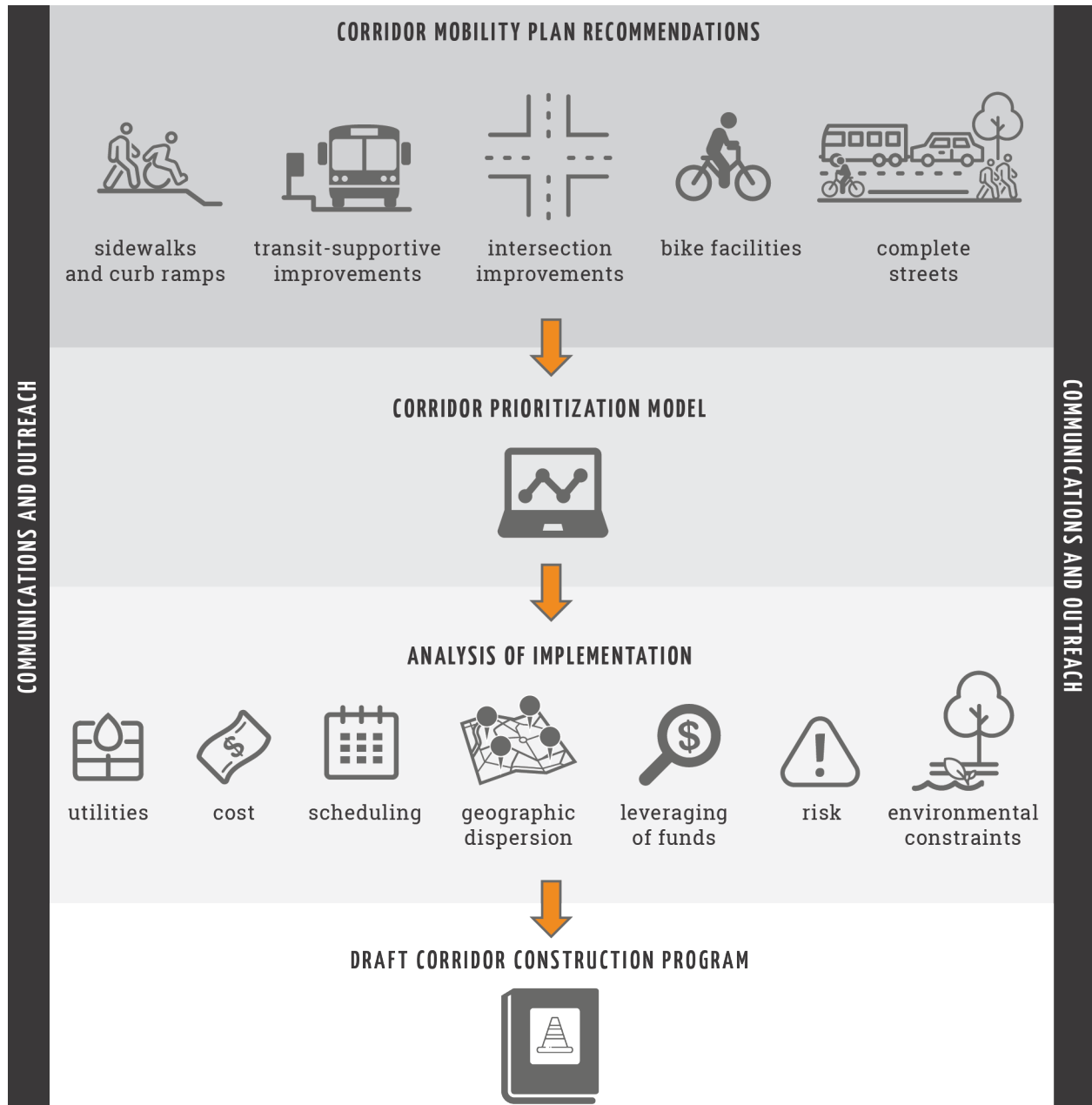


Figure 4: Mobility Benefit Per Bond Dollar



With these logical investment groupings, improvements in the Corridor Mobility Plans can be evaluated and measured to ascertain which investments provide the highest mobility benefit per bond dollar.

The combination of the Mobility Calculation and Community Considerations Index indicates which recommended improvements are most likely to achieve the priorities and considerations identified in the Mobility Bond.

Figure 5: Cumulative Ranking of Mobility Priorities and Community Considerations



Other factors included in the Contract with Voters, such as geographic dispersion of funding and potential to leverage other projects, are then used to determine the list of priority improvements that will be evaluated from an implementation perspective. The modeling process is designed to iteratively rank improvements by the degree to which they yield the most effective mobility benefit per bond dollar.

The results of the prioritization process will be shared with other City planning efforts such as the Austin Strategic Mobility Plan. The results will inform the Austin Strategic Mobility Plan by providing information about expected future conditions, thereby supporting planning efforts and future development of the city's transportation network.

The Austin Strategic Mobility Plan team, following the guidance of the Imagine Austin Comprehensive Plan, has developed performance outcome measures associated with improvements. The Corridor Mobility Program team will make recommendations for outcome metrics related to the Corridor Construction Program. These outcome metrics will be monitored during program implementation and used to track the success of the improvements. The outcome metrics, like the Corridor Prioritization Model results, will assist in the development of the Austin Strategic Mobility Plan as well as future planning efforts in Austin.

The Corridor Prioritization Model will inform the development of a prioritized Corridor Construction Program for City Council consideration. The proposed Corridor Construction Program will also reflect leveraging of other funds, geographic dispersion of funds, delivery methods, scheduling, and other factors such as utility relocations, right-of-way impacts, environmental constraints, and other "realities of implementation."

The result will be the identification of discrete projects and the draft Corridor Construction Program, within the confines of the existing Mobility Bond funding. The model is dynamic, however, and will be used to further consider investments as new funding/leveraging opportunities are available and as costs are further refined.