

MAY 2020

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# MAAS

MOBILITY AS A SERVICE

## Denver South TMA

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Photo source: Denver South TMA

# EXECUTIVE SUMMARY

*Mobility-as-a-Service (MaaS) is the integration of various forms of transport services into a single mobility service accessible on demand*

Transportation and mobility improvements in the employment center to the south of Denver, are managed by the Transportation Management Association, Denver South TMA. This project studied the possibilities of creating a mobility improvement through integrating mobility services within the area and recommend improvements for achieving so.

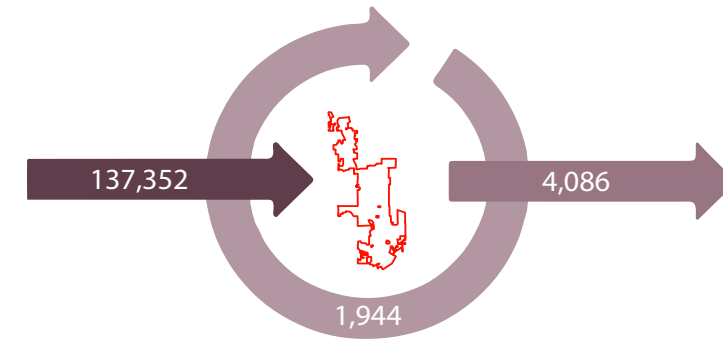
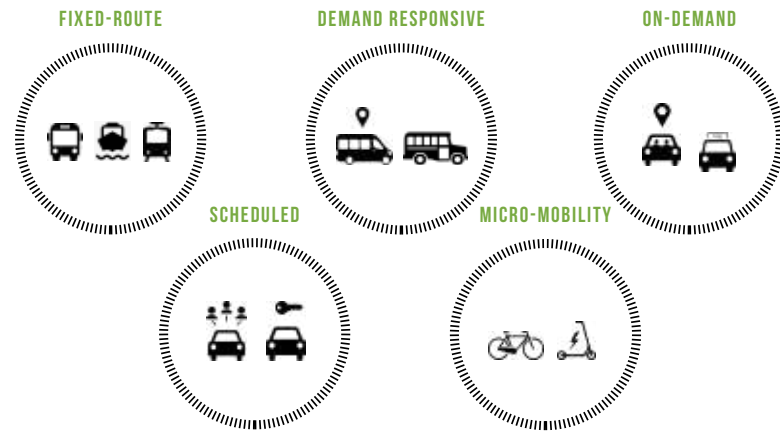
The area overlays multiple cities, counties and metropolitan district jurisdictions, all within a public improvement district, the Southeast Improvement Metropolitan District (SPIMD). An area primarily defined by office and commercial retail, which defines the user base for a potential transportation service integration.

Frequent transportation services in the area are limited. These include the light-rail, with high frequency of less than 15 min, functioning as the backbone of a potential mobility as a Service system. Other modes include Demand-response transit (Flexride and Lone tree Link), On-Demand services to the whole region by ride-hailing providers, Scheduled services provided by a few car rentals, (focused on business travelers), and Micro-mobility with just one provider in one of the areas, called Meridian.

Mobility-as-a-Service (MaaS) is the integration of various forms of transport services into a single mobility service accessible on demand. For achieving it policies, data and infrastructure must be put in place. Different levels of integration determine how far the integration is on the MaaS ladder. There are 4 levels of integration: no integration (0), simple basic information integration as schedules and prices is level 1, integration of payments and booking is level 2, subscriptions is level 3 and policies and incentives is the level 4 integration. The higher the level within providers, the easier it is to integrate them and the better outcomes for society.

From case studies, it was determined that MaaS needs to be practical, convenient and flexible, that transit

usually works as the backbone of the system, that plans can be tailored to specific demands needs, that integration does not need to be only through a smartphone (account based systems and integrating other services is possible as restaurants, parking, etc.) and that placemaking and branding could play a significant role.

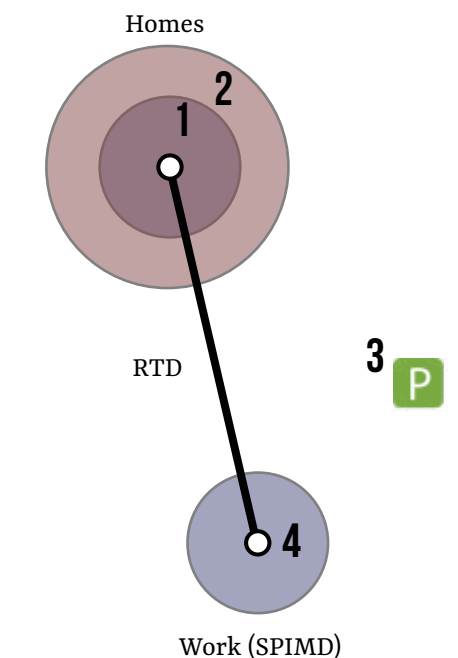


	Potential demand	Monthly cost (competitive price)
1.	5,000	\$873.5
2.	19,000	\$140

From research it was also determined that the most likely users, for a Mobility-as-a-Service project, are people that live in proximity to good services, specially the 1st and last mile users. (1st and last mile users in transportation planning, means people who live or work within a mile of a station). Knowing this information, 4 different analysis were made:

1 - A residential analysis where about 5,000 commuters travel having direct access to the main transit line connecting to the area. (1/2-mile walking distance from E, F, R lines)

2 - A residential analysis of commuters that could connect to the main line through other transportation



services (1 mile from station or high frequency connecting line), resulted in a potential of 19,000 commuters.

3 - A general parking analysis on the cost of this service in the area. For understanding cost for drivers.

4 - And a 1st and last mile study at the workplace (SPIMD area), to understand the current and potential benefits of connections to transit stations in the area.

These analyses were compared to the average cost people pay for commuting, so that the willingness that people are likely to pay could be determined. Potentially for discovering the maximum charges of a MaaS subscription. Cost of car ownership is \$873.5 per month (compared to direct approach analysis - people within 1/4 mile of a transit station). And the average cost of commuting with your personal vehicle is \$140 (indirect approach). Commuting benefits as parking or transit Ecopass, which are subsidized by employers, were not included.

From a commuter survey carried out by the Denver South TMA, only 6.5% of people in the area use transit. Meaning that out of almost 140,000 commuters, only about 9,000 use transit. A Mobility-as-a-Service would ideally increase this percentage significantly.

Recommendations for implementing a Mobility-as-a-Service system in the area include policies, further planning studies, actionable actions, working with mobility providers and creating some place-making to support the system. Some general recommendations are:

- Establishing a multijurisdictional entity for the area.
- Require adoption of standards across all jurisdictions.
- Support incentives as cash-out programs, instead of "free parking", that could for supporting the cost of a MaaS.
- Join efforts with RTD, DRCOG and the Colorado Smart Cities Alliance.
- Seek advice from the Maas Alliance and the Open Mobility Foundation
- Work in bringing Micro-mobility, car-sharing and establishing partnerships with On-demand services to support 1st and last mile.
- Work in developing a white label application, branded for the area. Capitalize on payment integration system already established by RTD.
- Enhance mobility hubs by using placemaking and offering all mobility services aggregated in one place.