



Date: May 28, 2015
 Current Meeting: June 10, 2015
 Board Meeting: August 6, 2015

BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority
 Citizens Advisory Committee

THROUGH: General Manager, Nuria I. Fernandez

FROM: Director of Planning and Program Development, John Ristow

SUBJECT: Subscription/Demand Response Bus Pilot Project

FOR INFORMATION ONLY

BACKGROUND:

Silicon Valley has a growing demand for market-focused transit services given the changing needs of travelers, advances in technology and evolving land use patterns. VTA's market studies and passenger surveys demonstrate that the traditional fixed-route service meets the needs of only certain market segments. In addition, VTA's service area remains dominated by a many-to-many trip-making pattern that is challenging to serve with traditional fixed-route transit service. At the same time, technologies in mobile communications and dynamic routing and scheduling have advanced, with the potential to efficiently assist VTA in delivering new types of transit service. New, more dynamic, service models offer promise in better addressing our first/last mile connections needs that can enhance ridership on core transit lines, and the varied existing and evolving travel needs within Santa Clara County.

DISCUSSION:

A number of non-traditional transportation solutions have recently emerged in different parts of the region. These include point-to-point ride-sharing services such as Uber and Lyft, private corporate commuter shuttles such as the Google and Apple buses, and privately-operated/public fixed-route buses such as Leap and Chariot. The popularity of these new types of services offers potential for mass transit operators like VTA to tap into new markets.

In response, VTA is undertaking a pilot program to develop, test, and implement new market-oriented transit service models in Santa Clara County. The pilot program is a new bus service concept that integrates technology and an enhanced customer service experience with new service delivery models. The objective of the pilot effort is to increase transit ridership by identifying new service models that may allow VTA to tap into new or minimally served markets such as centralized high-tech employment campuses, first/last mile rail connections, and housing

clusters near major transit stations/stops. The pilot effort is an integral component of VTA's overall Transit Ridership Improvement Program (TRIP), which aims to improve transit ridership across all service modes through various strategies that include improving first/last mile connections, attracting new choice markets, and increasing the productivity of existing routes.

Pilot Program:

The pilot program is intended to develop, implement and test new specialized transit service models that would achieve the highest ridership potential. The scope of the pilot effort includes five primary tasks:

1) Planning

The pilot program begins with a planning study focused on identifying the most promising markets to test and outlining the service parameters needed to inform a successful pilot implementation. The resulting study will conclude with recommendations for one or more pilot projects focused on one or more geographic applications. Geographic applications include improving first/last mile connection to high demand transit stations, faster and more direct service to employment campuses, and/or providing more cost-effective bus service in low performing service areas.

Key features of this new specialized service may include a blend of fixed and flexible routing strategies, on demand features, and other improvements that offer an enhanced customer experience and improved operating efficiency. Key features may include:

- Varying pickup or drop-off locations.
- Subscription, reservation, and pre-payment options.
- Multiple communication platforms, including smart phone apps, web or phone call.
- Real-time vehicle tracking and information.
- Optimized routing and vehicle assignment.

2) Technology Evaluation

VTA's Technology Division is leading the procurement and evaluation of a software solution to support the new transit service models. In February 2015, VTA issued a Request for Proposals (RFP) to invite qualified firms to submit proposals to design, build, and host a software solution for this pilot effort. The VTA Pilot Project team will provide input on the development and customization of the software solution based on service parameters identified in the planning study. Key considerations include the software's technological capabilities, readiness, applicability to the geographic context, availability on multiple platforms (smart phone, desktop computer, and telephone), and contracting relationship. Other features of the software solution may also include, but not limited to: automated dispatch and routing; multimodal options-based routing; automated scheduling; real-time vehicle tracking; seat reservation; and online payment. Software testing is expected to begin in September 2015.

3) Implementation Plan

The implementation plan will assess policy, planning, and operational/implementation issues. To help guide implementation decisions for the pilot program, the implementation plan will also develop service parameters drawn from the planning study. These parameters include:

- Service area - corridors and zones that offer high market potential, for example, corridors and zones with high concentrations of trip origins and destinations.
- Service hours - commute hours, midday hours, evening hours, weekdays vs. weekends, 24-hour/7 days, or other times/days.
- Service levels - number of assigned vehicles and drivers, acceptable wait times, and service frequency.
- Fare and payment - appropriate fare level for the market, convenience in payment and collection, integration with commuter benefit and other fare incentive programs.
- Financial sustainability - cost and revenue, partnerships with employers, and grant potential.
- Delivery model - vehicle fleet availability, staffing and training requirements, ADA accessibility.
- Equity and Title VI considerations.

4) Marketing/Outreach and Partnership Building

Effective branding and marketing of this new pilot program is crucial to its success. To help deliver a successful pilot program, VTA will brand and market the new transit service, conduct outreach to the community and potential users to raise awareness and generate excitement, and build partnerships with corporate entities to promote the program. In addition, VTA staff will pursue opportunities to engage employment campuses located in the pilot service area(s) to consider corporate memberships and/or partnerships. Employers that do not have the resources to operate their own private commuter shuttles, have markets they can't serve with their shuttle programs, or have a general interest in reducing their single-occupancy trips to work may be early adopters of the new VTA service.

5) Evaluation of the Pilot Program

Many of the ridership strategies will be tested through the VTA service pilot program, with an initial period of 6-12 months. Evaluation of the pilot(s) will use performance measures such as effectiveness in increasing ridership, accessing new markets or improving existing markets, and cost effectiveness measured by fare revenue and cost per hour/mile. The outcomes of the pilot program may lead to full implementation of subscription-based/demand response bus services.

Pilot Program Key Considerations

Prior to implementation, a number of policy and operational issues must be considered, including:

Available vehicle fleet: VTA has limited vehicles that could be used for these new services. Additionally, smaller, specialized transit vehicles may be more appropriate to use compared to VTA's fleet of available 40' or longer foot buses. VTA will need to determine the best option for acquiring or redeploying the necessary vehicles to operate the pilot. Options include redeployment of existing vehicles, leasing or purchasing new vehicles, partnering with private operators, or sharing paratransit vehicles. All of these potential options have varying lead times which can affect the overall implementation schedule.

Operations: Along with acquiring additional vehicles, the new VTA service models may require enhanced operations resources. VTA will evaluate the resource needs of the pilot service model to determine the level of additional operations needed.

Fare policy: The pilot program will likely include a premium transit service. The exact delivery model and parameters will be determined through the planning studies; however, some of the premium features may include point-to-point service, fewer stops, reservation/subscription option, tailored pick up/drop off locations, and/or flexible routing. VTA will evaluate and develop an appropriate fare structure that is consistent with a premium offering and the new services being considered. The service will be properly priced to reach a high level of ridership, meet performance targets, and provide a financially sustainable model while considering equity.

Financial sustainability: VTA will need to develop a cost revenue model and fare revenue goal to determine cost effectiveness of operating the pilot program. How well the pilot(s) meets these goals during the pilot period will determine the long-term viability of the new pilot bus services.

Equity and Title VI Analyses: As part of the study, VTA will conduct a Title VI analysis and review of equity issues. Equity will not only be considered in terms of potential customers' ability to pay but also by accessibility needs, and the provision of new service across income levels and geographic areas.

Next Steps

The planning study is scheduled for completion in August 2015. However, since VTA does not have an established framework for implementing a more flexible transit service model, the pilot program may require time to work through some of the policy and operational issues identified before being fully implemented. Determining when to implement the pilot(s) is a key decision point as VTA is gearing up for the upcoming Superbowl 50 in February 2016, which will undoubtedly demand a significant amount of VTA staff and resources to carry out successfully. Staff will continue to refine the schedule, and will provide periodic updates to committees as this program evolves. The initial projected schedule is:

- May 2015 - Select firm to provide software solution
- August 2015 - Planning study completed

- Fall 2015 - Develop implementation plan
- Spring 2016 - Deploy pilot program

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