

STAFF REPORT

SUBJECT: Comprehensive Operations Analysis – Preferred Alternative

FROM: Christy Wegener, Director of Planning & Communications

DATE: February 22, 2016

Action

Review and recommend the Board open the public comment period and set the public hearing date for the Wheels Forward Comprehensive Operations Analysis (COA) preferred alternative.

Background

The Wheels Forward Planning Team has developed a final preferred service alternative. The draft preferred alternative was presented to the Projects and Services Committee on January 25, 2016 and the Board on February 1, 2016. The feedback received at those meetings has been incorporated into the final preferred alternative, which is detailed in this staff report. Two maps of the preferred alternative are included in Attachment 1, one map of the route network and one map of the route network frequencies, and the route by route details are included in Attachment 2.

Discussion

Wheels Forward will provide a multi-phase blueprint for improvements to Wheels through 2040, with the highest priority being a more user friendly transit system that achieves greater efficiencies and an increasing number of riders. Convenient and cost-effective transit service requires an appropriate balance of coverage, frequency, and service span. Prior to developing any recommendations, existing ridership, on-time performance, travel patterns, and demographic data were analyzed. Public meetings, stakeholder meetings, an on-line survey, and a non-user household telephone survey all indicated that later service, more frequent service, and better connections to BART are some of the improvements desired most by riders and non-riders.

Initially, three scenarios were developed to illustrate how Wheels fixed-route services could operate in the future. Each of the initial scenarios that were developed were designed to address existing mobility challenges, find new markets, and address operational issues. Four common themes are introduced that guided the development of the scenarios:

- **Improve Ridership and Farebox Recovery Ratio of the Rapid** – The Metropolitan Transportation Commission (MTC) has a mandated 20% farebox recovery ratio (the percentage of costs covered by fares). The Rapid currently only has a farebox

recovery ratio of 14-15%. Reducing duplication of service with other routes, changing the alignment to focus on more productive areas, and adding new ridership destinations are all strategies recommended in the scenarios.

- **Improve Access to BART** – The market research and household telephone survey clearly indicated that BART was a primary destination for Tri-Valley residents. Parking at the BART stations is at capacity, and residents are looking for other options. Improving access was a primary goal of the scenarios.
- **Reduce Duplication of Service** – An examination of the existing system map shows significant overlaps of service. One route in a given corridor is easier for potential riders to understand and reduces the chances that multiple routes are chasing the same market. The scenarios reduce duplication of service between the Rapid, local routes, and County Connection service.
- **Simplify the Service** – The existing service consists of many routes that are one-way loops and include deviations. In addition, several routes have one alignment on weekdays and another on weekends, which is confusing to potential customers. The scenarios focus on reducing one-way loops, making service more direct, and operating consistently seven days a week.

Public Comments

The preferred alternative was developed based on input in response to the initial three service scenarios. A total of 425 comments about the three service scenarios were received during the open comment period; these include 289 responses to the online (and printed) survey, as well as 96 comments received via email. A memorandum summarizing the comments received during the open comment period October 26 - December 4 is provided in Attachment 3. As a reminder, the first three scenarios that were developed for public comment are provided in Attachment 4.

The most frequent comment received was from Stoneridge Creek retirement facility, where the residents strongly favored Route 14 in scenario #3. Additional comments were received from 70X riders, from Vocational Flight Resources (VFR) on Airway Blvd, and from existing Route 2 passengers who were not in favor of losing bus service in any scenario.

The preferred alternative does not match exactly with any of the initial scenarios, but instead is a hybrid with elements of each, along with new elements. The overall goal of the preferred alternative is to improve ridership and utilization of the service. The outreach and market assessment indicate that there is more demand for service than there are existing resources. These recommendations are intended to offer options for improving service within the existing budget. Accordingly, not all comments can be addressed in the preferred alternative.

Service Design Guidelines

In November 2015, the Board approved a series of service design guidelines intended to provide a framework for future route planning decisions. The following design guidelines were used in developing the preferred alternative:

- **Headways/Frequency:** There is a clear role for a frequent BART feeder network within the Wheels Bus system. An effort should be made to maximize frequency on

major arterials that act as extensions to the BART system (Dublin Blvd., Santa Rita Road, Stanley Blvd.)

- Direct Alignments: Routes should be designed to operate as directly as possible to maximize average speed for the bus and minimize travel time for passengers while maintaining access to service.
- Route Alignment: Routes should ideally operate along the same alignment in both directions to make it easy for riders to know how to return to their trip origin location.
- Spacing Between Routes. To maximize use of operating resources and avoid duplication of services, routes should in most cases be spaced to duplication of service in the same corridor.
- Route Deviations: Routes should not deviate from the most direct alignment unless there is a compelling reason.
- Transfers. If routes are to be made relatively direct and frequent, it may not always be necessary to provide “one-seat” rides between riders’ origins and destinations. Connections should be designed to be as seamless as possible, with relatively frequent service and timed connections at key hubs (BART, Transit Center)
- Route Consistency: Routes should follow the same pattern when in operation. Route variants that only operate during parts of the day or on weekends should be avoided if possible to improve ease of understanding.
- Stop Spacing: The distance between stops is a key element in balancing transit access and service efficiency. Where possible, stops should be located one quarter to one third of a mile apart.

Major Highlights of Preferred Alternative

The preferred alternative includes a realignment of resources in order to provide 15-minute “Rapid” service on Route 10, and extend the hours of the existing Rapid line (Route 30). The recommendation to operate a second Wheels bus line with 15-minute BART feeder service increases the likelihood that ridership will improve, especially along Santa Rita corridor in Pleasanton. Currently, Wheels’ 15-minute BART feeder service is available to 11,976 households and 27,220 jobs within a ¼ mile of the route; in the preferred alternative, these numbers increase to 18,263 households and 32,758 jobs within a ¼ mile of a 15-minute BART feeder route. Additional major highlights include:

- Route 2 – Service is eliminated due to low ridership. Options for replacement include a demonstration project named *Wheels-On-Demand*, and additional school bus service. Information about *Wheels-On-Demand* is included in Attachment 5.
- Route 3 – Route is eliminated in Dublin and realigned in Pleasanton to provide a direct connection between the East Dublin/Pleasanton BART Station and the Stoneridge Mall. Approximately 15 passengers per day currently utilize Route 3 in Dublin. Options for replacement in Dublin include the *Wheels-On-Demand* demonstration project (Attachment 5). Additionally, current Route 3 riders will have service provided by County Connection Routes 35 and 36. Route 35 operates along Dougherty Road every 30 minutes in peak periods and every 60 minutes during off-peak times M-F. Route 36 operates along Village Parkway every 60 minutes M-F. The realigned Route 3 with service to the Stoneridge Mall is expected to carry at least 100 passengers per day at just the Stoneridge Mall stops.

- Route 8 – Route is realigned to a bi-directional line between the East Dublin/Pleasanton BART Station and south Pleasanton. Route will no longer operate on Santa Rita Road (service will be provided by Route 10).
- Route 10 – Service is increased to every 15-minutes during the day on Weekdays. Route truncated at the Livermore Transit Center and the East Dublin/Pleasanton BART Station.
- Route 11 – Route is realigned to connect to the Vasco Road ACE Station. Realigned route will provide for opportunities to pick up Wheels bus passengers at the Livermore Transit Center and ACE rail passengers at the VASCO Road station for transportation to the industrial area of Livermore.
- Route 12 – Route is eliminated (see Rapid, below)
- Route 14 – Route is realigned to provide service from central Livermore to the San Francisco Premium Outlets, Stoneridge Creek retirement facility, and Stoneridge Drive to the East Dublin/Pleasanton BART Station.
- Route 15 – Service is increased to every 30-minutes all day on Weekdays
- Route 20x – Service is eliminated and replaced with a pilot vanpool program for Lawrence Livermore Lab employees. Details forthcoming.
- Rapid (Route 30) – Route is realigned to serve Las Positas College and Dublin Blvd, replacing the local 12 service; route terminates at the West Dublin Pleasanton BART Station and no longer directly serves Stoneridge Mall. Route is proposed to run 7-days per week.
- Route 70X – Service is maintained with the exception of Route 70XV (two trips per day). The alternatives to Route 70X are BART, which would take 63 minutes with two transfers, or County Connections, which would take 59 minutes with one transfer.
- New Route 580X – Service would be provided from the Livermore Transit Center to the Dublin/Pleasanton BART Station via the I-580 Express Lanes during peak times on Weekdays.

Wheels-On-Demand Demonstration Project

At both the January Projects and Services Committee and the February Board meeting there was significant discussion about the development of a pilot *Wheels-On-Demand* project. The Board directed staff to come back with information on the former Direct Access Responsive Transit (DART) service that Wheels previously operated from 1997-2005. Additionally, the Board wanted to explore operating a Flex service versus Wheels-On-Demand. The following section describes the different service alternatives to serve the areas in Dublin where fixed route bus service is eliminated.

DART Service: LAVTA's DART service began operating in 1997, coinciding with the opening of the Dublin/Pleasanton extension of BART. DART service operated during the off peak times (midday and evening time periods) on weekdays, and operated all-day on Saturdays in place of the smaller, less productive routes in the Dublin and Pleasanton areas. There was one timepoint for the service, which was at the Dublin/Pleasanton BART Station, and customers could request a drop-off in front of their final destination. Customers could access DART by making a telephone reservation or by walk-up at the BART Station. There were three vehicles used on the service and each vehicle was assigned to one of three areas

(East Pleasanton, West Pleasanton, and Dublin). The service operated for approximately 7 hours on weekdays and 9.5 hours on Saturdays. The productivity on the DART was 2.8 passengers per hour in FY2002. In 2005, DART service was phased out and fixed-route service was implemented in its place (Routes 1, 3 and 8).

FLEX Service: FLEX service would be similar to the DART service but is designed to be more responsive to demand. Instead of having a timed departure at BART, riders would request their pick-up utilizing a mobile application. Service would not be provided in a curb-to-curb fashion; instead, bus stop locations would be established within the neighborhoods as pick-up/drop-off locations. There would be two vehicles assigned to this service in order to reduce passenger wait times. This service would be operated in-house, and accordingly, would have the same hourly cost as regular fixed-route bus service.

Wheels-On-Demand: Staff envisions this demonstration project to include a partnership with private Transportation Network Companies (TNC) and utilize real-time, dynamic ridesharing in two project areas in Dublin. In late 2015, LAVTA Staff developed a white paper that details the project description, which is included as Attachment 5.

Below is a chart comparing the costs of the *Wheels-On-Demand* project operated as a partnership with TNC's versus operating it in-house, similar to DART.

	DART	FLEX	TNC
Est. Capital Costs			
Vehicle:	\$80,000/6 years (1 vehicle)	\$160,000/6 years (2 vehicles)	\$0
Technology:	\$0	Minimum \$50,000	\$0
Annual O&M Costs	~\$150,000	~\$300,000	~\$61,000
Daily O&M Costs	\$590 (6 hours)	\$1,176 (12 hours)	\$480-\$1200
Est. Daily Ridership	33	90 (7.5 pax per hour)	120
Cost/Ride	\$17.82	\$14.70	\$4-\$10 to LAVTA
Reduced ADA Costs?	Yes	Yes	No

Action Requested

The Projects and Services Committee recommends that the Board open the public comment period from March 7 – April 8, 2016; and set the public hearing date for April 4, 2016 for the COA Preferred Alternative.

Attachments:

1. Preferred Alternative Map

2. Preferred Alternative Service Details
3. Comments Received on Service Scenarios
4. Wheels Forward Three Service Scenario Maps
5. Wheels-On-Demand White Paper