Tulare County Association of Governments

Cross Valley Corridor Phase 1 Operating Plan

Task 4 Goals and Objectives Summary

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Contents

1. Summary

This document identifies the key opportunities, service, and capital design principles that will guide the analysis of the initial Cross Valley Corridor bus service, spanning the corridor that will ultimately stretch from Porterville to Huron and serve Visalia, Hanford and Lemoore.

1.1 Background

Since the mid-1990s's, Kings and Tulare Counties have considered reestablishing rail service in the corridor, which last operated almost 100 years ago. The most recent study – the Cross Valley Corridor Study, completed in 2018 – was comprehensive, covering both land use and transportation, as well as demographics and forecast economic and population growth.

The study recommended a Diesel Multiple Unit (DMU) railroad mode, finding the DMU option the best fit to provide an efficient and flexible transit service at moderate costs relative to the other modes. A key consideration was DMU compatibility with the existing rail infrastructure, future stop cadence, and existing and future freight operations.

The anticipated service plan called for 30-minute service in the peak periods and 60-minute service at other times, with trains operating from 6am to 11pm 7 days a week, stretching from Huron to Porterville using the existing San Joaquin Valley Railroad (SJVR) alignment and providing connections to the current Amtrak service in Hanford and the future high speed rail service east of Hanford.

A phasing plan was developed and the Phase 1 Bus Service plan outlined a coordinated bus service coincident with the opening of high-speed rail (HSR), effectively extending the reach of HSR to Huron and Porterville via Hanford and Visalia. After successful bus service implementation, rail service would begin between Lemoore and Visalia, with bus feeders on either end of the corridor, and the final phase would provide rail service from Huron to Porterville.

The Caltrans State Rail Plan reinforced need for the CVC service, as it identifies the Cross Valley Corridor as a vital use within the existing east-west rail corridor between Huron and Porterville, noting *"there is an opportunity to improve connectivity and mobility throughout the communities and cities in Tulare, Kings, and southwest Fresno Counties"* while at the same time feeding the high-speed system.[1] Similar to the CVC Study, the State Rail Plan also suggests bus service as an initial first phase.

1.2 Opportunity

The main catalyst for the current effort is the impending initiation of Central Valley high-speed rail service, starting in 2030 with trains operating between Merced and Bakersfield, with additional stops in Fresno, and Kings-Tulare. From Kings-Tulare, HSR passengers can travel to Bakersfield in 36 minutes, to Fresno in 22 minutes and to Merced in just under an hour. With the CVC service providing a complete transportation package, non-automobile access into the station can be an important benefit for everyone in the region, and lead to more efficient travel, improved mobility, and lower costs.

While the HSR service is the catalyst, there is significant travel throughout the corridor that can "piggyback" on this investment and create even more value for the two counties. By 2030 forecasts estimate that the combined population of Kings and Tulare Counties will exceed 600,000 people. Within the station catchments of the CVC initial corridor (from Exeter to NAS Lemoore), more than 135,000 trips are currently made each day, and this

[1] https://dot.ca.gov/-/media/dot-media/programs/rail-mass-transportation/documents/california-state-rail-plan/20230309-casrp-public-dor-guidance.pdf

could increase almost 10% by 2030. A well-conceived and executed service may be marketable to both this high, overall corridor travel as well as feeding HSR trains, creating returns from the initial investment, both in economic and in social gains.

The CVC study identified an important vision for the corridor:

Promote a safe, affordable, and efficient system that increases transportation options while utilizing existing infrastructure, enhances the environment and livability of the region, and promotes economic development through a well-integrated corridor.

2. Guiding Principles

The following eight principles guide the development of the CVC service plan and capital investment proposals:

- Design and deliver an initial Phase 1 Bus Service that is attractive to passengers, easily understood, legible, connects effectively with the Kings-Tulare High Speed Rail Station, and provides transportation benefits to passengers throughout the corridor. The initial service need not operate across the full 85 mile-long corridor but may be limited to the most operationally and financially feasible segment.
- Deliver a high quality, competitive transit service with 30-minute service frequencies across the entire initial service corridor, operating from 5:00am to 11:00pm. During a start-up period of up to 16 months, service may be focused on 30-minute frequencies between Hanford and Visalia with some additional peak service to allow operations and technologies to be tested and to mature.
- Provide an “express” service with fast speeds using limited stops, low floor buses, consistent branding and wayfinding, appropriate streets and routings, and transit technology; including transit signal priority and intersection design to reduce bus travel time and improve reliability.
- Achieve an average scheduled bus speed of at least 32 miles per hour (mph). Allow for a one-way scheduled running time for the initial CVC bus service of no more than 90 minutes.
- Ensure the CVC bus route largely follows the identified future rail route, and will generally stop at anticipated future rail stations, allowing for a seamless transition to a rail service.
- Procure and operate buses that are comfortable, allow fast, easy boarding (low floor), have space for bicycles, luggage, wheelchairs, strollers, and have adequate seating capacity. Buses will be zero-emission. Fares will be vended and collected away from the vehicle and boarding will be all-door and unencumbered.
- Design and operate the CVC service to be recognized by the public as an important coherent regional service and asset. Collaborate with existing transit operators to ensure the CVC service is an integral part of the overall transit network, design the CVC services to enable connecting passengers from local transit routes, and retain existing transit agencies to operate CVC services. Define services connecting key travel generators not directly along the CVC corridor (Tulare, Corcoran, Porterville) that enhance regional mobility and HSR access.
- Design and operate a service that is effective and efficient, and is a good value for money.

3. Service Criteria

The CVC Phase 1 Bus Service will be designed and delivered with the following service quality criteria:

Safety is the highest priority. Buses will be operated by professional drivers, with operating safety enhanced by appropriate technology and vehicle safety features. Personal safety will be ensured through well-designed and well-lit stops and stations, reasonable policing, and appropriate surveillance.

Reliability is, after safety, the paramount passenger expectation. Reliability will be measured and monitored and will be accomplished through the provision of well-designed and reliable equipment, transportation technology to ensure buses operate on-schedule and reduce delays, and station design that is appropriate for reliable service.

Availability When and how buses operate greatly influences passenger interest and acceptance of the service. Service frequency will be key, and buses will operate every 30 minutes after a reasonable initiation period. Buses will provide service that is usable throughout the day and into the evening, to allow for swing and night shift work at the area's industrial sites and meet the needs of high-speed rail passengers using trains in early and late hours. Stations and stops will be limited to ensure high transit speeds, will be enhanced with high quality design, and will provide for scheduled transit, both microtransit transfers and micromobility infrastructure (such as e-bike-shares and scooter rentals).

Vehicles will be high quality, with low floor, fast boarding, adequate capacity and zero emissions.

Fares will be logical and understandable throughout the service area, allow for combined fares and easy transfers, and fare collection will be technology driven and allow for fast boarding with no delay from fare collection.

4. Design Criteria

The CVC Bus Service requires infrastructure components to support in-service operations and that enables use of zero-emission vehicles. The following is a limited set of criteria to provide design guidance:

Vehicles: Low floor, with adequate space and capacity bicycles, luggage, wheelchairs, and strollers. As these requirements are met, vehicles must have capacity for maximum loads that are not less than twice the average anticipated passenger load.

Vehicles will be zero emission and will comply with California's Innovative Clean Transit (ICT) regulation which requires agencies to gradually transition to a 100-percent zero-emission bus fleet .

Roadways: The streets and highways along the CVC route will align bus stops to operate in sync with traffic signals and other traffic operations systems to meet the desired in-service service speed and reduce bus delay. Traffic Signal Priority (TSP) will be established along the corridor where appropriate to reduce delay, in collaboration with Caltrans and cities and counties. Other techniques, including queue jumps at signals and stop/station designs that reduce bus delay will be employed.

Bus Stops: Bus Stops will feature paved passenger waiting areas not less than 50 feet in length and not less than 10 feet in width and a curb of at least 6 inches (unless sidewalk dimensions do not allow this width) within the main corridor, allowing for less intensive designs at the extremities of the route. The default is a shelter that provides climate – especially Sun – protection for not less than 10 waiting

passengers. A formal design exception will be developed for locations where adequate shelters cannot be physically or safely provided.

Total bus stops will be limited to not more than 12 between Lemoore and Exeter. Where appropriate, CVC stops will be provided in existing transit centers.

Bus stops will have passenger information, both static and dynamic real-time information, be lighted, and be designed for safety and security.

Bus stops will be located – where feasible – at the location of the future rail service and designs will be developed to reuse as many facilities and investments as practical.

Terminals: Bus end-of-line terminals will be off street, have the capacity for and provision for electrical power (should battery-electric buses be the chosen technology) and have duplicate equipment and pads to ensure operational redundancy. Terminals must have provision for operator restrooms and other rest facilities.

Bus Maintenance Facilities: Bus maintenance and storage may be provided at facilities used by the existing regional operators but must include provisions for electrical charging or hydrogen fueling. The charging or refueling time will not exceed more than five hours.

5. Performance Metrics

The CVC Bus Service will create and monitor efficiency and effectiveness standards. For planning purposes, these will be set as follows:

Efficiency (2023 $)

- Cost per vehicle hour will not exceed $150
- Cost per seat mile will not exceed 10 cents.
- Total annual system operating cost will not exceed $5 million

Effectiveness

By the fourth year of operation, and not less than two years after initiation of HSR service:

- Passengers per hour will be at least 20 passenger per vehicle hour.
- Revenue per seat mile not less than 3 cents per seat mile.
- Occupancy will be not less than 25% in peak periods and 15% in off-peak periods.
- Total average daily passengers will be a minimum of 1,500 passengers.

Fares

Fares will be established at rates to enable these cost recovery metrics.

Example Bus Stop Design