COUNCIL REPORT

CITY OF MOUNTAIN VIEW

DATE: April 9, 2019

CATEGORY: New Business

DEPT.: Public Works

TITLE: **Caltrain Business Plan**

RECOMMENDATION

Approve principles to guide the City's input into the Service Vision for the Caltrain Business Plan.

BACKGROUND

Caltrain provides commuter rail service from San Francisco to Gilroy and is governed by the Peninsula Corridor Joint Powers Board (JPB), consisting of representatives from San Francisco, San Mateo, and Santa Clara counties. Caltrain currently operates 92 train services each weekday between San Francisco and San José, including baby bullet (express), local (all stops), and skip stop. In addition, there are three daily peak hours' services that operate along Union Pacific tracks between San José and Gilroy. In Mountain View, there are two Caltrain stations: Mountain View (downtown) and San Antonio.

Ridership on Caltrain has grown from around 25,000 daily boardings in 2003 to 65,000 daily boardings in 2018, which has led to overcrowding on baby bullet services during peak hours. As shown in Attachments 1 and 2, the Mountain View station is the fourth busiest station in the Caltrain system, serving 4,500 average daily boardings, while the San Antonio station serves 900 daily boardings. Currently, Caltrain operates five trains per hour per direction during peak periods (four of which stop in Mountain View). Caltrain is unable to increase capacity to reduce overcrowding due to the constraints of diesel-engine trains, limited passing tracks, and the existing system.

Caltrain is pursuing electrification from San Francisco to San José to modernize the system and allow for longer, quieter, faster trains with more frequent service and more consistent and customer-friendly scheduling. After electrification is complete in 2022, Caltrain is expected to increase service frequencies to six trains per hour per direction during peak periods. Electrification will also provide a foundational investment that

will allow Caltrain to share tracks and coordinate schedules in a future "blended system" with High-Speed Rail (HSR). HSR is expected to operate four trains per hour per direction during peak times. At this time, it is uncertain when HSR service may begin.

With electrification, Caltrain has the opportunity to consider various options for further increasing system capacity to serve current and future ridership demand. Caltrain is, therefore, developing the Caltrain Business Plan to understand and address current and future ridership demand, assess infrastructure needs, and evaluate potential revenue streams to support ongoing operating, maintenance, and infrastructure goals (Attachment 3). The Business Plan covers four areas:

- A future Service Vision, including ridership demand, number of daily trains, frequency of service, and infrastructure needs to support different service levels;

- A detailed Business Case, including operating costs, capital investments (e.g., passing tracks, station improvements, and grade separations), and revenue streams;

- Community Interface, including working with cities on grade separation of the 36 at-grade crossings along the San Francisco-to-San José corridor, station development, connections to other transit services, and equity considerations; and

- Organization strategies, including management structure and best practices.

Caltrain staff will be present at the Council meeting to provide a brief presentation about the Caltrain Business Plan.

ANALYSIS

Caltrain expects to adopt a Service Vision this summer that will inform the other parts of the Business Plan, to be adopted by the end of 2019. As part of this process, Caltrain staff has analyzed a wide range of service alternatives that have been distilled into local, skip stop, express, and high-speed services for three potential growth scenarios: baseline, moderate, and high growth. These scenarios are summarized in Table 1. Also summarized in Table 1 are the gate down times for each scenario, which affect traffic operations at the City's two local street crossings in the absence of grade separations, and the possibility of passing tracks. Each is also discussed further below.

Table 1: Service Vision Growth Scenarios under Consideration

	Existing	2040 Growth Scenario		
		Baseline	Moderate	High
Caltrain Service in Mountain View				
Mountain View Station **Trains that stop per hour per direction during peak periods (Service type)**	4 (express, local, skip stop)	6 (skip stop)	8 (express, local)	12 (express, local)
San Antonio Station **Trains that stop per hour per direction during peak periods (Service type)**	1 (local)	2 (skip stop)	4 (local)	4 (local)
Effects on Circulation and Safety at At-Grade Crossings				
Trains per hour in both directions during peak periods (Caltrain/HSR)	10*/0	12/8	16/8	24/8
Castro Street **Gate down time per hour during peak periods**	13 minutes	*26 minutes*	*31 minutes*	*42 minutes*
Rengstorff Avenue **Gate down time per hour during peak periods**	7 minutes	*13 minutes*	*16 minutes*	*21 minutes*
Maximum Caltrain speed	79 mph	110 mph	110 mph	110 mph
Passing Tracks Required				
In Mountain View	-	None	At one station in Palo Alto OR Mountain View	From Palo Alto to north of Mountain View station

*After electrification in 2022, this will increase to 12 trains per hour in both directions.
Italicized items are estimated by City staff.

Grade Separations

As shown in Table 1, the 2040 growth scenarios will substantially improve train service at both the Mountain View and San Antonio stations. This service improvement supports the City's efforts to encourage use of alternatives to single-occupant vehicle (SOV) trips. On the other hand, increased train frequencies and speeds will negatively affect local circulation and safety at the at-grade crossings of Castro Street and Rengstorff Avenue. Under the 2040 baseline growth scenario, the gate down time would be at least double the current gate down time during peak periods and

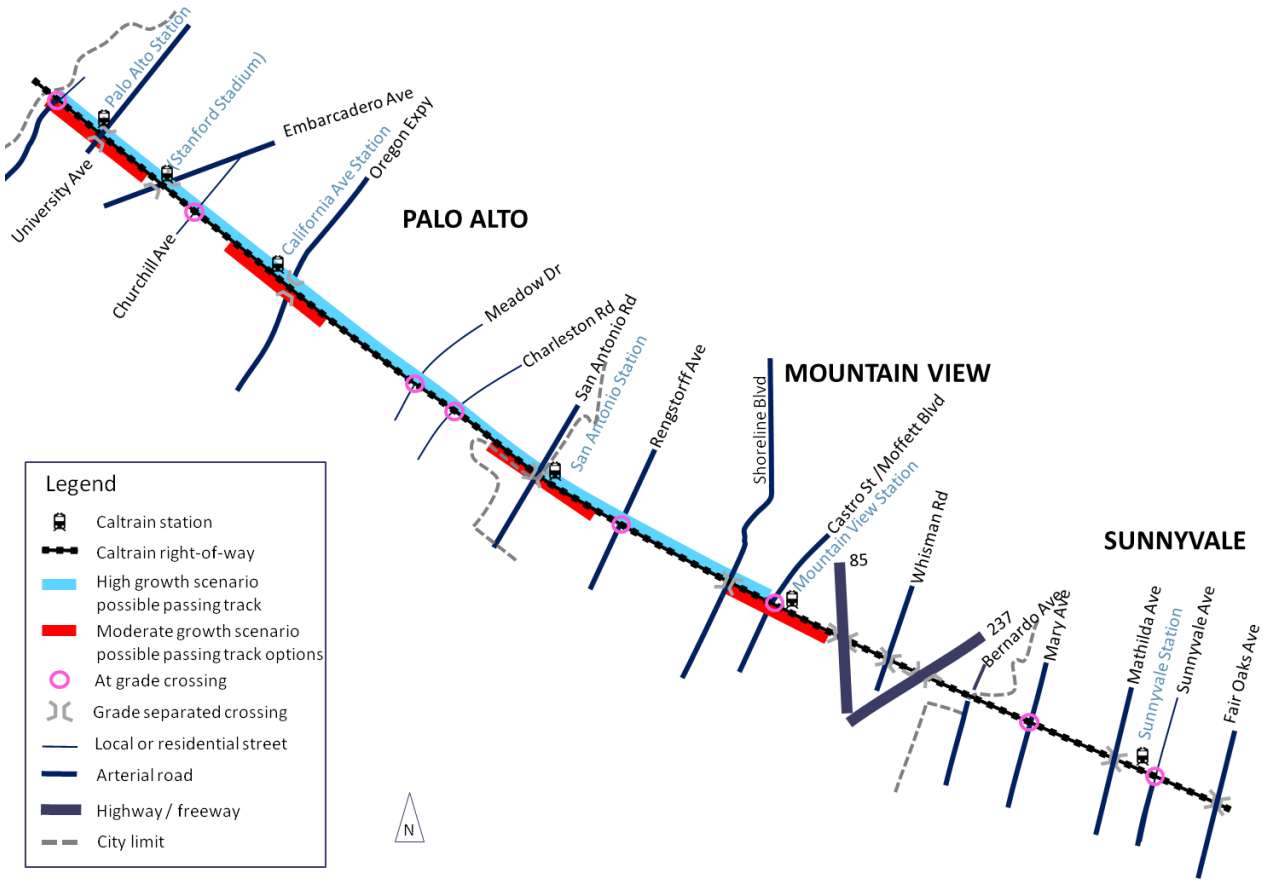
substantially more under the moderate and high-growth scenarios. Off-peak gate down time will also increase under all three growth scenarios.

The City is working on grade separations for Castro Street and Rengstorff Avenue with a goal of constructing both before there are substantial increases in Caltrain service frequencies. The City is preparing the preliminary engineering and environmental clearance for the Transit Center Grade Separation and Access Project, which would close the Castro Street crossing and provide a bicycle/pedestrian undercrossing of Central Expressway and the Caltrain tracks at Castro Street. The City has funded the preliminary engineering and environmental clearance for the Rengstorff Grade Separation and is entering into a Memorandum of Understanding with the JPB for Caltrain to develop this phase of the project. Both locations should be ready for final design by mid-2020. Construction could begin as early as 2022 if the Santa Clara Valley Transportation Authority (VTA) makes Measure B sales tax funding available and Caltrain approves the construction.

Passing Tracks

Passing tracks will be needed under the moderate- and high-growth scenarios. Under the moderate-growth scenario, Caltrain expects that a four-track segment would be needed to allow trains to pass at one of the stations in Palo Alto or Mountain View (as shown in Figure 1). The primary user of this passing track would be HSR. Under the high-growth scenario, Caltrain expects that a longer, four-track segment would be needed to facilitate a train passing another train moving in the same direction between Palo Alto and just north of the Mountain View station at Castro Street. This longer passing track will enable HSR and perhaps some Caltrain express services to pass slower-moving trains.

Figure 1: Service Vision Growth Scenarios under Consideration



Caltrain has used a service operations model to determine the need and approximate locations for passing tracks but has not conducted a feasibility analysis of a four-track segment at one of the stations or along the rail line in Mountain View. While the Rengstorff Grade Separation will be built to accommodate four tracks, expanding to four tracks at the Mountain View Transit Center is not possible without significantly impacting the Transit Center, Central Expressway, VTA's light rail line, and the planned bicycle/pedestrian undercrossing. Expanding to four tracks along other segments of Caltrain in Mountain View and through the San Antonio Station area may have right-of-way, tree, land use, and/or other impacts.

Proposed Principles

The draft Caltrain Service Vision is still under development and will continue to be refined before it is presented to the JPB. The current schedule calls for the JPB to approve a Service Vision during summer 2019. Opportunities to provide informal comments are provided at the monthly meetings of Caltrain's City/County Staff Coordinating Group (CSCG) and Local Policy Maker Group (LPMG). City staff has

been participating in the CSCG meetings. Councilmember McAlister is Mountain View's representative on the LPMG, with Vice Mayor Abe-Koga as the alternate.

Staff recommends submitting a formal comment letter to the JPB this summer about the draft Caltrain Service Vision before it is adopted. To guide the informal review and comments at the CSCG and LPMG meetings and to prepare a formal comment letter at the appropriate time, staff is recommending that the Council approve the following principles related to the Caltrain Service Vision:

Principle 1: The City of Mountain View strongly supports Caltrain service.

The City considers Caltrain to be a vital transportation service for residents, employees, and visitors to the City. Mountain View is working toward transit-oriented land use development in proximity to both stations, and on first- and last-mile options to help people conveniently connect between stations and a variety of origins and destinations across the City. In this way, Caltrain is an essential part of the City's current and future economic development, congestion relief, transportation demand management (TDM), and sustainability strategies.

Principle 2: The City of Mountain View supports Caltrain electrification and associated increases in service.

Increases in Caltrain service from five trains per hour per direction to six trains per hour per direction during peak periods will help the City achieve its goals for sustainability, livability, economic vitality, and reduced reliance on SOV trips.

Principle 3: Caltrain should fully support timely completion of Mountain View's grade separation projects.

While increased Caltrain service contributes to achievement of various City goals, it will also significantly increase gate down time at the Castro Street and Rengstorff Avenue at-grade crossings. This, in turn, will have a detrimental effect on multi-modal circulation, traffic delay at nearby intersections, and pedestrian/bicycle safety within the City. The City will continue to work to ensure that the grade separations in Mountain View are funded and ready to be built as soon as possible. Caltrain may be constructing these grade separations or issuing permits for VTA or the City to perform construction within Caltrain's right-of-way. The City is looking to Caltrain to facilitate and actively support the City with completion of these grade separations before there are significant increases in train frequency.

Principle 4: The City encourages Caltrain to prioritize reconstruction of Mountain View station platforms.

Caltrain will need to construct longer platforms for the new electric trains. The Transit Center Master Plan includes extending and shifting the platforms closer to Castro Street for easier bike/pedestrian access from downtown and the undercrossing. Ideally, the new platforms will be constructed by the time the bike/pedestrian undercrossing is completed. Given the importance of the Mountain View station within the Caltrain system, the City encourages Caltrain to prioritize platform reconstruction at the Mountain View station in a manner that is consistent with the Transit Center Master Plan. This project could potentially serve as a model for the reconstruction of other stations.

Principle 5: Caltrain should conduct a feasibility study of passing track locations before adopting a Service Vision.

The City has serious concerns about a potential passing track at the San Antonio station or along the Caltrain line in Mountain View. Caltrain has provided no information about the passing tracks beyond some general approximate locations. For this reason, the City cannot quantify or otherwise analyze the potential impacts to determine whether passing tracks would be acceptable. The JPB should not approve a Service Vision that would require passing tracks in Mountain View without a feasibility analysis to determine potential impacts to the local community, including the need for additional right-of-way that may impact trees, land uses, and parallel roads.

Principle 6: The City opposes passing tracks at the Mountain View station.

The City of Mountain View strongly opposes development of passing tracks at the Downtown Mountain View station. A four-track segment would be incompatible with the Transit Center Master Plan and downtown improvement concepts. It would also require a significant modification to the existing VTA light rail line and station.

CONCLUSION

In summer 2019, Caltrain/JPB plans to adopt a Service Vision for their 2040 Business Plan. This Service Vision will guide increases in Caltrain frequency beyond that planned for electrification in 2022. Caltrain has developed three growth scenarios for their Service Vision: baseline, moderate growth, and high growth.

In general, growth in Caltrain service will support City goals related to sustainability, livability, and congestion relief. However, if grade separation at Castro Street and

Rengstorff Avenue is delayed, increased service frequency beyond that planned for Caltrain electrification will negatively affect multi-modal circulation and safety within the City. The moderate- and high-growth scenarios may also have other impacts related to the construction of passing tracks; however, staff has not received sufficient information to understand the location or implications of potential passing tracks within Mountain View.

In order to guide City input into the Service Vision for the 2040 Caltrain Business Plan during summer 2019, staff recommends that Council adopt the above six principles.

FISCAL IMPACT – The recommended action would have no fiscal impact.

ALTERNATIVES

- Modify the principles to guide City input for the Service Vision of the Caltrain Business Plan.

- Do not adopt principles to guide City input for the Service Vision of the Caltrain Business Plan.

- Provide other direction.

PUBLIC NOTICING

The City Council's agenda is advertised on Channel 26, and the agenda and this report appear on the City's Internet website at www.mountainview.gov. The Council report was also shared with Caltrain, VTA, and the County of Santa Clara.

Prepared by:

Ria Hutabarat Lo
Transportation Manager

Dawn S. Cameron
Assistant Public Works Director

Approved by:

Michael A. Fuller
Public Works Director

Audrey Seymour Ramberg
Assistant City Manager/
Chief Operating Officer

RHL-DSC/5/CAM
947-04-09-19CR-1
190205

Attachments:
1. Caltrain Business Plan Corridor Factsheet
2. Caltrain Business Plan Mountain View Factsheet
3. Caltrain Business Plan Project Factsheet