

# Metropolitan Transportation Commission

## Programming and Allocations Committee

September 4, 2019

Agenda Item 5a

### Caltrain Business Plan

**Subject:** An update of the Caltrain Business Plan presented by Caltrain.

**Background:** With the construction of the Peninsula Corridor Electrification Project underway, Caltrain has the opportunity to articulate a long-term business strategy for the future of its system. In 2018, Caltrain initiated the Business Plan to develop a 2040 vision and the path towards achieving it. The Business Plan includes long-range demand modeling, and service and infrastructure planning, as well as organizational analysis and an assessment of Caltrain's interface with the communities it traverses. This planning project is a joint effort with agency partners and communities along the corridor and includes outreach in multiple venues.

In May 2019, Caltrain staff provided the Programming and Allocations Committee an overview of the upcoming Business Plan process and scope. Since then, Caltrain staff has developed a recommended "Long Range Service Vision" for consideration and potential adoption by the Caltrain Board in Fall 2019. This month, Caltrain staff will provide an update to the Programming and Allocations Committee. Additional information is in the attached slides and more can be found at: <https://www.caltrain2040.org/>. Of particular interest for the Commission are the following considerations related to the Caltrain Business Plan:

**Issues:** **Investment** –The Business Plan identifies an investment range between \$22 and \$30 billion. To put this funding range in perspective, the entire Regional Measure 3 Capital Expenditure Plan totals \$4.5 billion. This level of investment would likely require federal, state, regional and local funding partnerships. As a strategic funding partner, MTC would play a key role in balancing the investment needs in the Caltrain Corridor with investments throughout the region. This balancing act would likely include working with Caltrain in developing funding prioritization within the corridor as well as potential phasing strategies.

**Land Use** – Caltrain 2019 ridership is above 60,000 boardings per weekday. Under the three scenarios in the Business Plan, 2040 ridership would increase to between 150,000 and 207,000 boardings per weekday. These estimates are driven by expected population and job growth in San Francisco, San Mateo and Santa Clara counties. Building on the work of the Horizon Initiative and the upcoming Plan Bay Area 2050, this corridor represents a prime opportunity for ABAG and MTC to work closely with Caltrain and local jurisdictions to develop land use strategies for supporting this type of growth and investment.

**Governance** – The Business Plan includes an organizational assessment of Caltrain, including a spectrum of organizational considerations, options, and recommendations. Strategic choices related to governance and organizational structure are required to successfully deliver capital projects, connect with partner transit agencies, and increase service. As the corridor evolves, with potential major capital bookend projects at the Salesforce Transit Center in San Francisco and Diridon Station in San Jose, this is an opportunity to evaluate and achieve the optimal governance and organizational structure for the corridor.

The Caltrain Business Plan is one of several rail studies occurring in the region presently, including some conducted by MTC or with MTC as a partner. Many of these projects are included in Regional Measure 3 and in local expenditure plans, and are also being evaluated for potential inclusion in Plan Bay Area 2050 and in other funding measures under consideration. Additionally, many of the same agencies are involved in multiple efforts or are stakeholders in each other's studies. Tying together these governance, capital project funding plans, and delivery options will be a key and significant effort throughout the region. Staff will return in the coming months to provide a more comprehensive regional picture of these major rail efforts and recommend how the Commission may play a leadership role in certain focused areas.

**Recommendation:** Information Item.

**Attachments:** Caltrain Business Plan presentation.



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Therese W. McMillan

# Choosing a Long Range Vision

Caltrain Business Plan

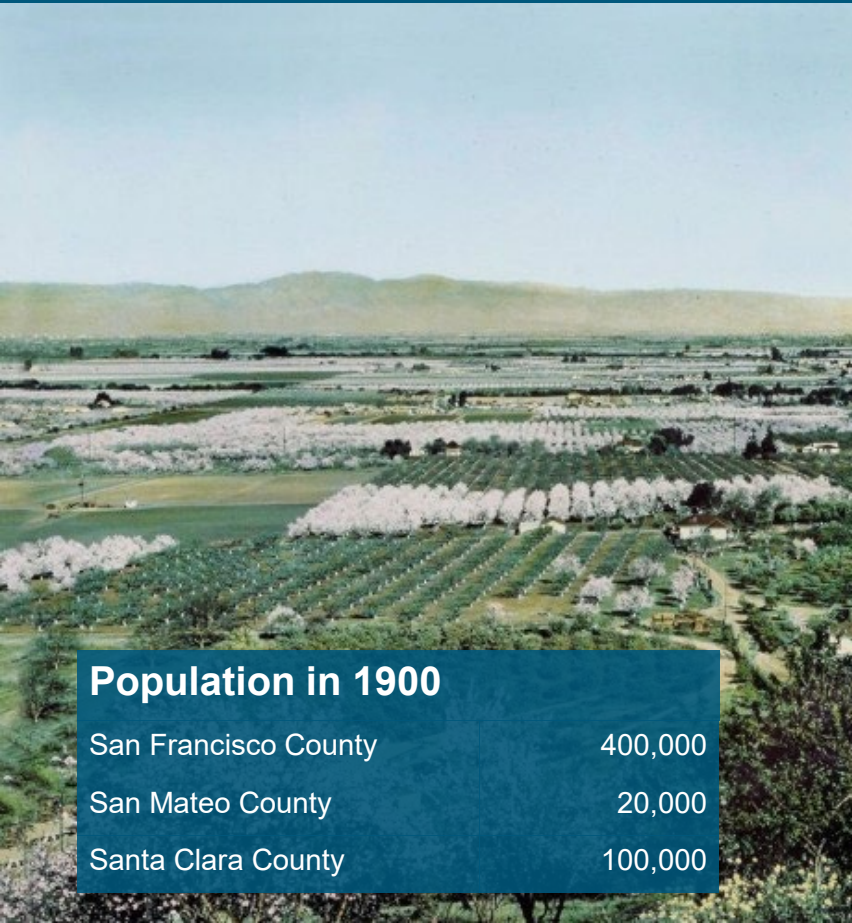
Summer 2019



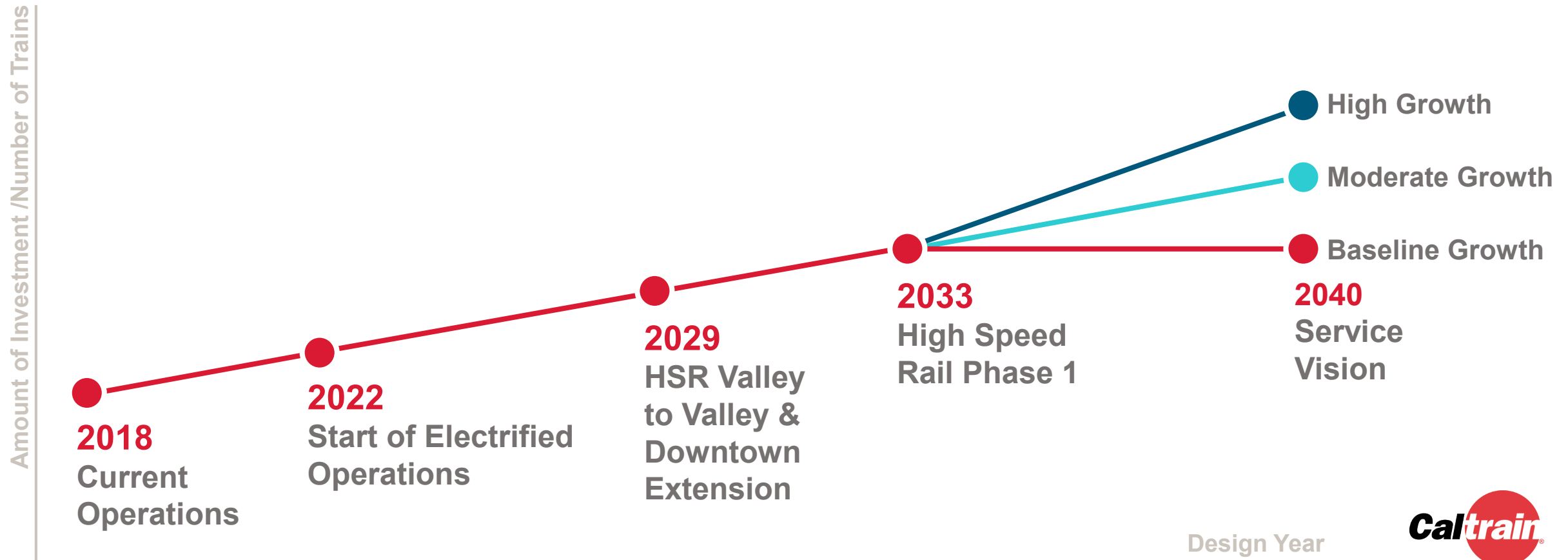


# Caltrain is part of a dynamic corridor

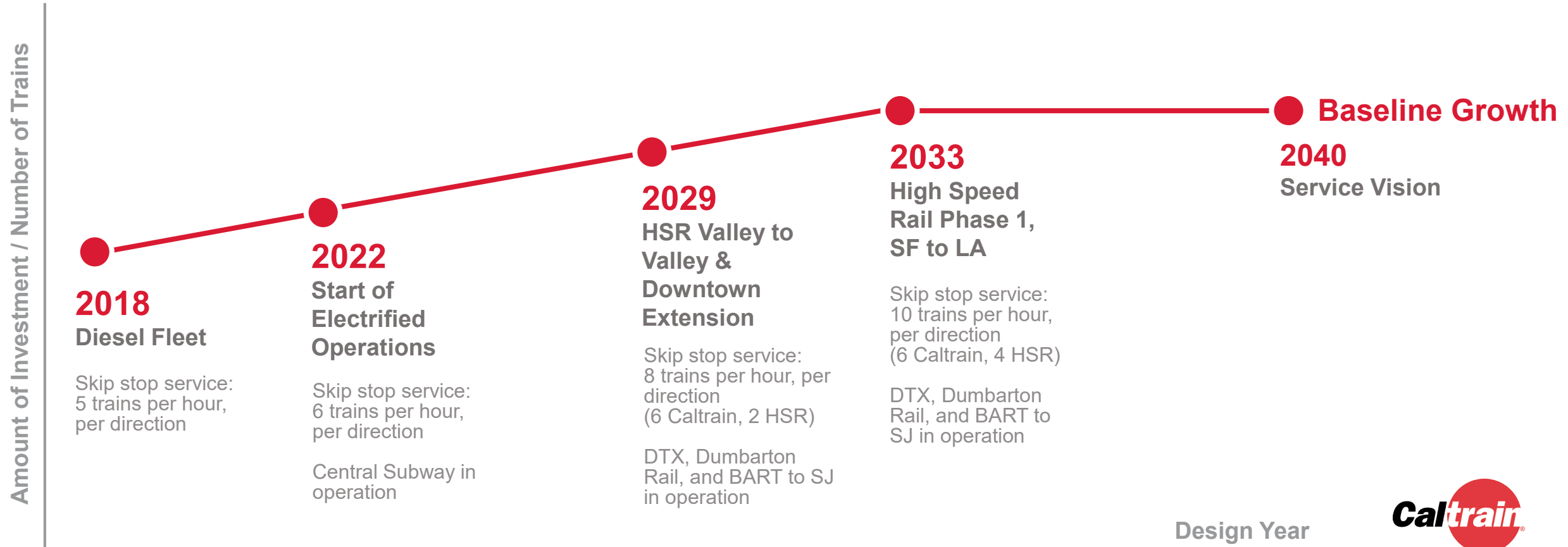
By 2040 the corridor expected to add 1.2 million people and jobs within 2 miles of Caltrain (+40%)



# 2040 Service Scenarios: Different Ways to Grow

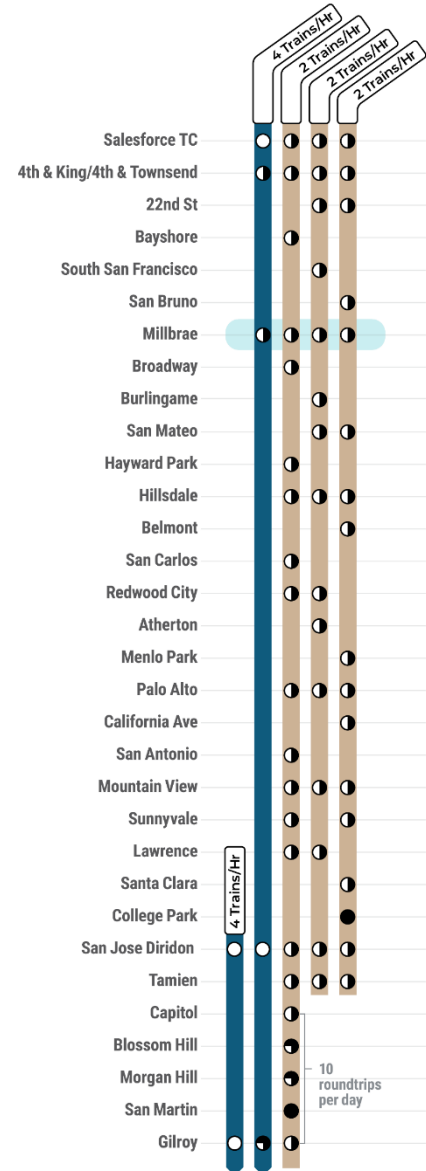


# Getting to a Baseline





# 2040 Baseline Growth Scenario



## Trains per Hour, per Direction

Peak: 6 Caltrain + 4 HSR  
Off-Peak: 3 Caltrain + 3 HSR

## Stopping Pattern

Skip stop

## Travel Time, STC-Diridon

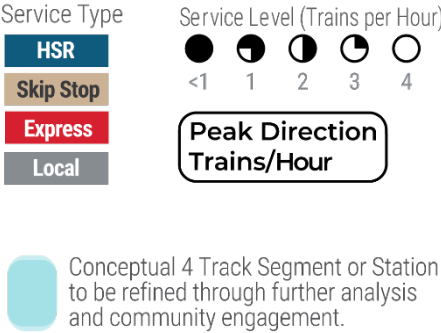
69-73 Min

## New Passing Tracks

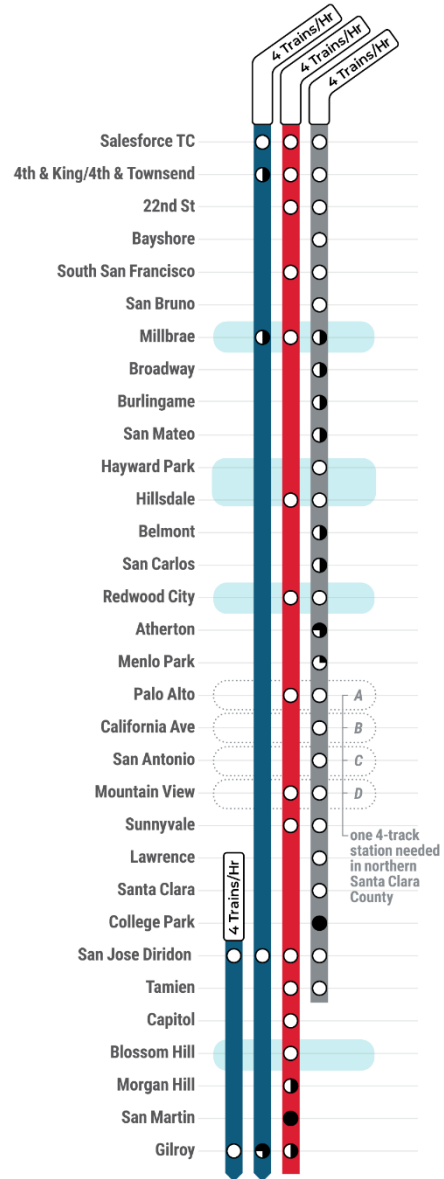
Millbrae

## Service Plan Description

- Bunched service results in irregular Caltrain headways; each pattern arrives over span of 10 minutes, then a 20-minute gap between trains
- Three half-hourly skip stop patterns each with similar travel times
- South of Tamien, peak-direction skip stop service with 10 round trips per day



# Moderate Growth Scenario



## Trains per Hour, per Direction

Peak: 8 Caltrain + 4 HSR  
Off-Peak: 6 Caltrain + 3 HSR

## Stopping Pattern

Local / Express with timed transfer at Redwood City

## Travel Time, STC-Diridon

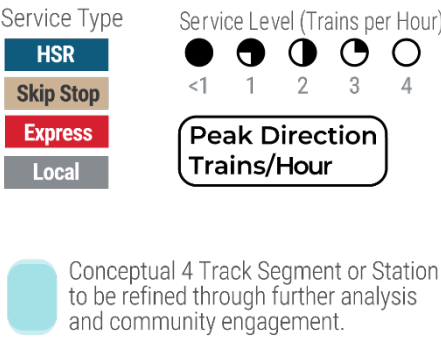
61 Min (Express)  
85 Min (Local)

## New Passing Tracks

Millbrae, Hayward Park-Hillsdale, Redwood City, Northern Santa Clara County, Blossom Hill

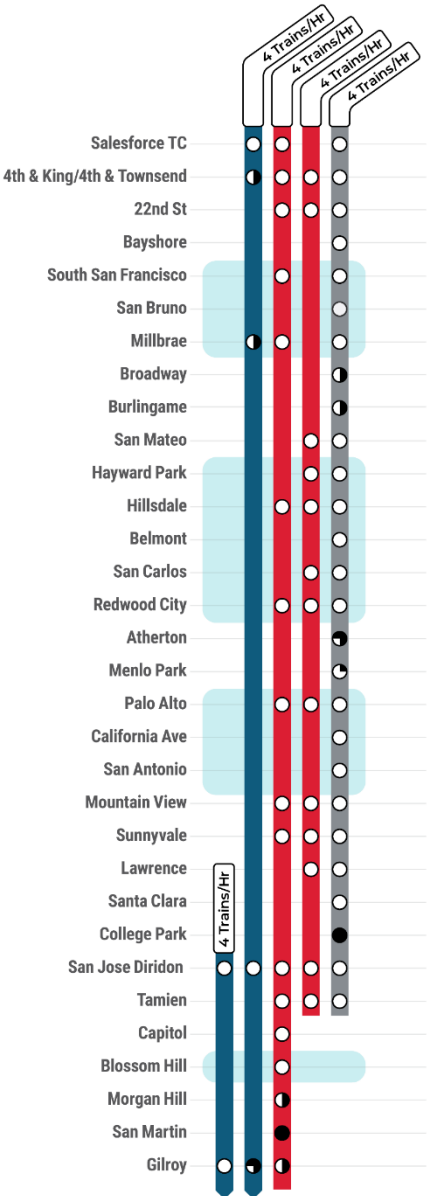
## Service Plan Description

- Local and Express trains each operating at 15-minute frequencies with timed cross-platform transfer at Redwood City
- Skip stop pattern for some mid-Peninsula stations; some origin-destination pairs not served at all
- Trains serve Capitol and Blossom Hill every 15 minutes and Morgan Hill and Gilroy every 30 minutes





# 2040 High Growth Scenario



## Trains per Hour, per Direction

Peak: 12 Caltrain + 4 HSR  
Off-Peak: 6 Caltrain + 3 HSR

## Stopping Pattern

Local / Express A / Express B with timed transfer at Redwood City

## Travel Time, STC-Diridon

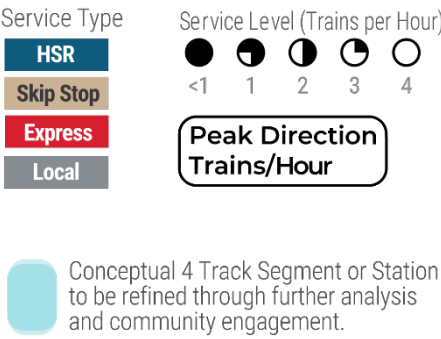
61 Min (Express A)  
82 Min (Local)

## New Passing Tracks

South San Francisco-Millbrae, Hayward Park-Redwood City, northern Santa Clara County, Blossom Hill

## Service Plan Description

- Local and Express A trains each operating at 15-minute frequencies with timed cross-platform transfer at Redwood City
- Express B trains operate every 15 minutes between 4th & King and Tamien
- Local trains make nearly all stops
- Trains serve Capitol and Blossom Hill every 15 minutes and Morgan Hill and Gilroy every 30 mins



# Components of the Business Case Analysis

We have adapted a traditional Business Case Analysis to the specific, and complicated circumstances of the Caltrain corridor.

Collectively, this analysis helps provide guidance as to whether we should remain on the “baseline” course or if there is value in choosing a Long Range Service Vision for Caltrain that aims higher.

The following slides present and weigh analyses in each of the following areas.



**Service  
Comparison**

**Financial  
Analysis**

**Caltrain  
Economic  
Analysis**

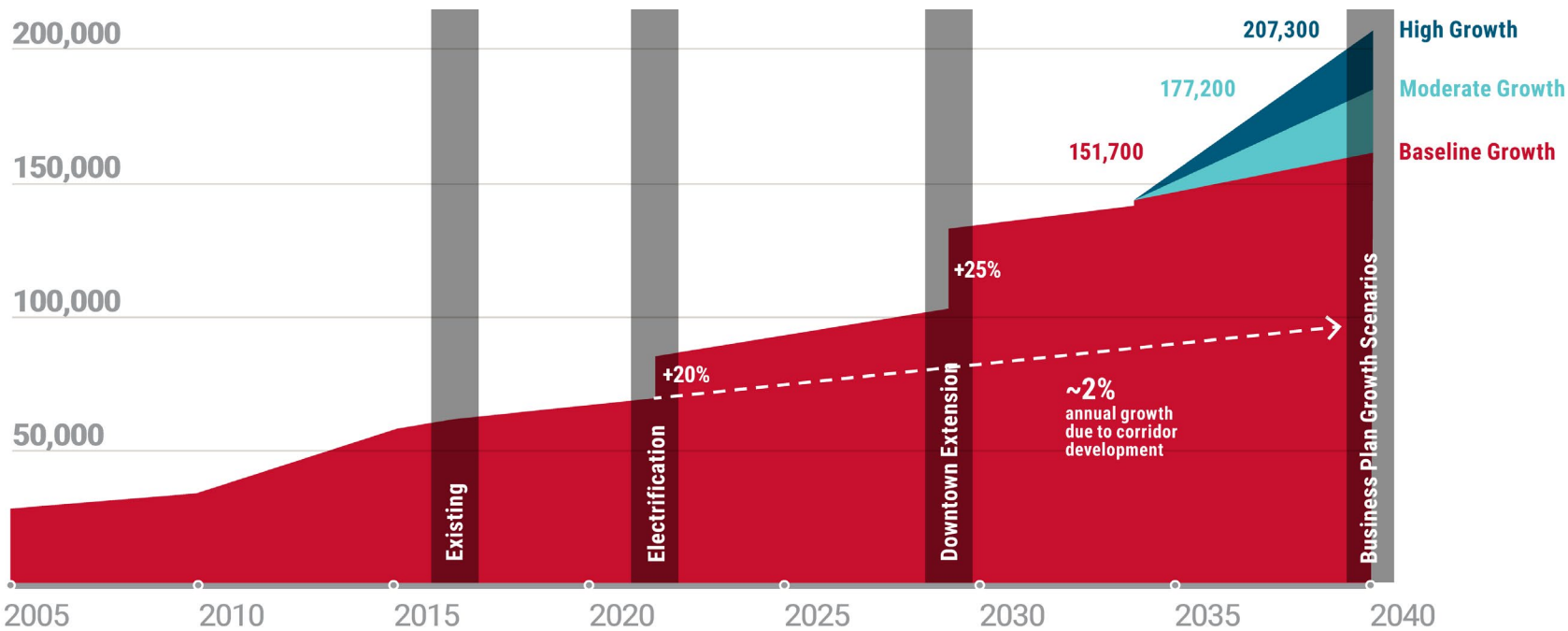
**Regional  
Analysis**


**Flexibility and  
Uncertainty**

# Ridership

On its current **Baseline** path, Caltrain would experience a *demand* of 161,000 daily riders by 2040.

The **Moderate** and **High Growth** scenarios would increase *demand* to 185,000 and 207,000 riders, respectively, leading to ridership and VMT saving increases.



Metric		Baseline Growth	Moderate Growth	High Growth
 Ridership	Daily Ridership*	151,700 Riders	177,200 Riders	207,300 Riders
	Comfortable Peak Hour Train Loads?*	No	Crowding on some trains	Yes

\*Crowd Constrained Ridership (135%)  
\*Based on population and job growth from PBA 2040 (adjusted) and 2015 Census Data

# The Baseline Costs \$22.1 Billion

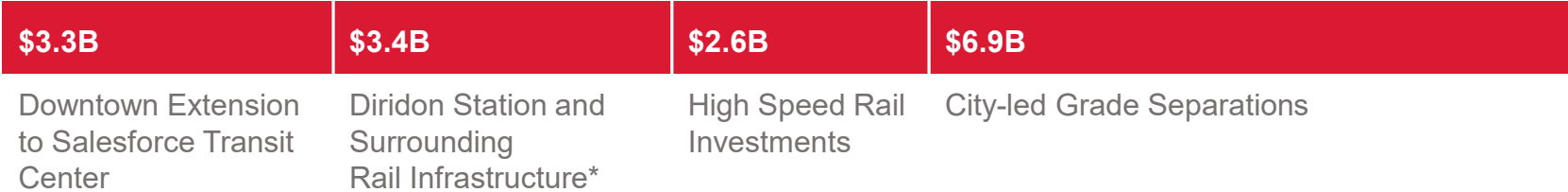
**\$2.3B**

Caltrain Work Underway



**\$16.2B**

Investments Planned and Proposed by Caltrain Partners



**\$3.6B**

New Caltrain Investments to Support Baseline Growth Scenario

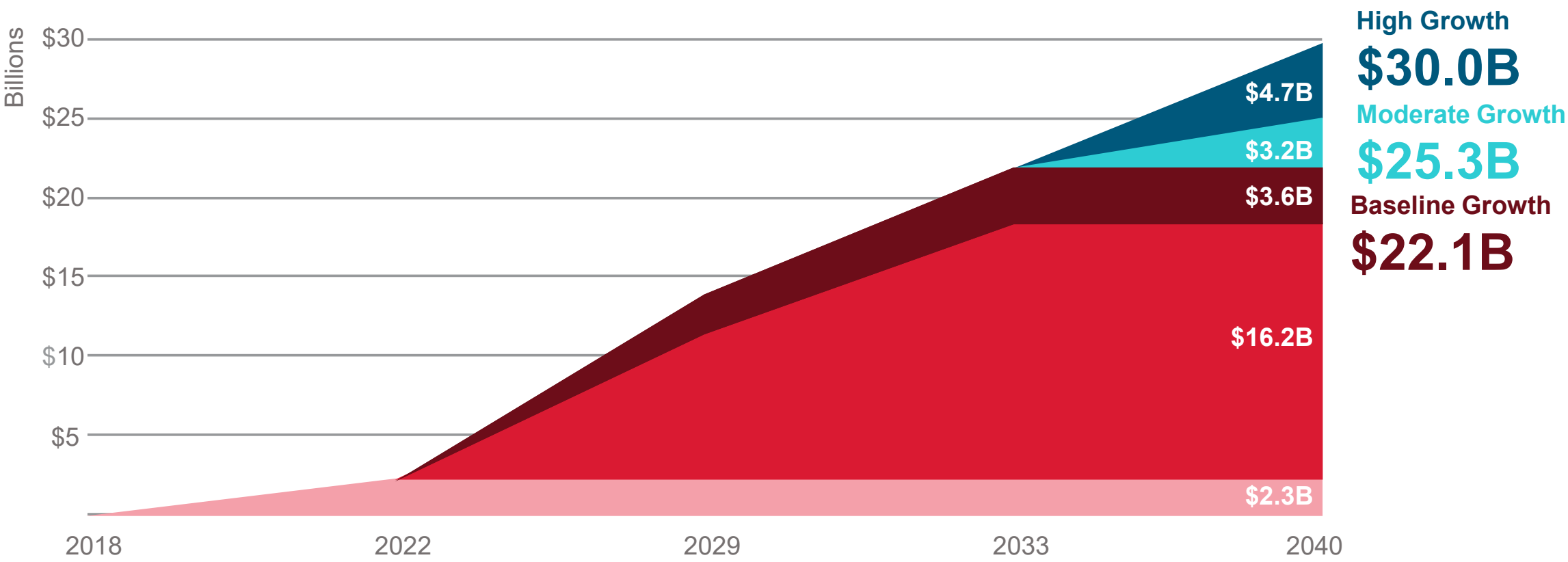


*\* Placeholder cost pending detailed cost estimate to be developed through Diridon Integrated Station Concept Plan*

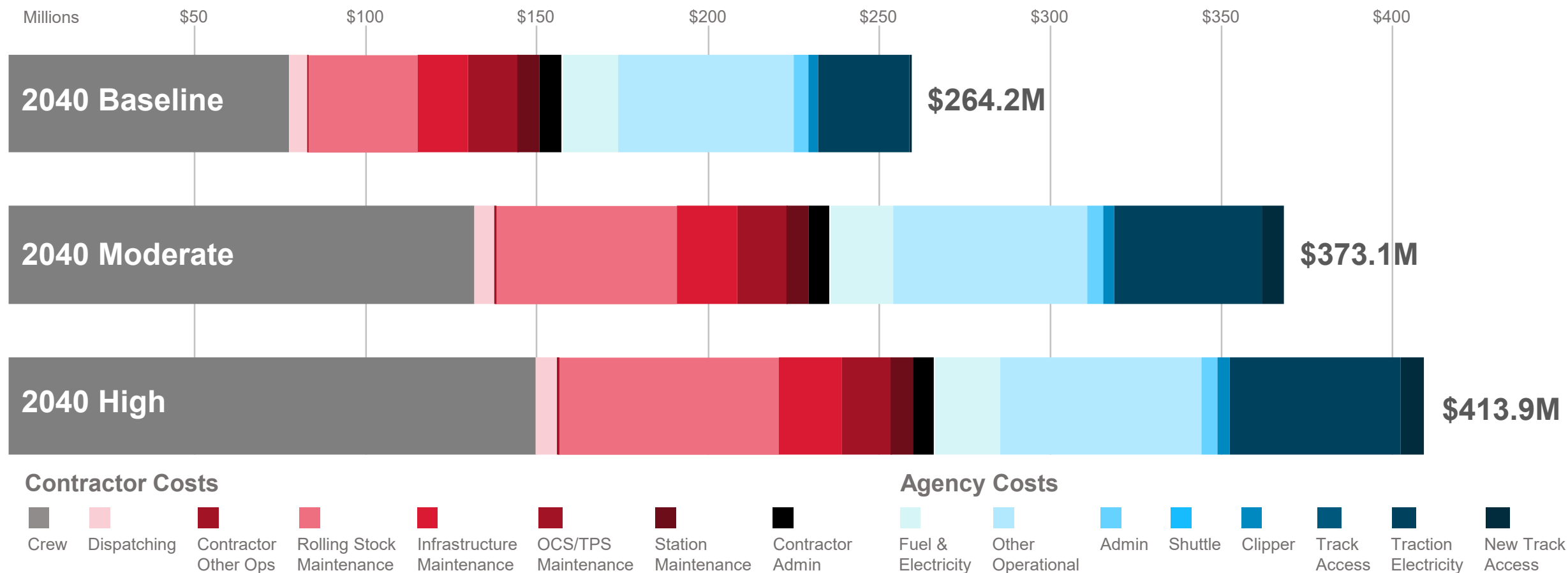


# Investing for Growth (Capital)

Total Corridor Investment Over Time by Growth Scenario



# Year 2040 Operating Costs



# Caltrain User Benefits over Baseline

Total Benefits 2018 to 2070, Average Annual Benefits 2040 to 2070

Benefit	Unit	Moderate Growth		High Growth	
		Total*	Per Year Average	Total*	Per Year Average
Existing Transit User Travel Time Savings	hours	12.9M	0.43M	20.9M	0.70M
New Transit User Travel Time Savings	hours	27.7M	0.92M	40.4M	1.35M
Avoided Auto Trips (VMT Savings from New Transit Users)	vehicle miles	9,000M	300M	16,100M	540M
Roadway Network Safety Improvements	reduced fatal/injury accidents	7,300	240	13,000	430
Public Health Benefits (from Active Transportation Mode Access)	lives saved	70	2	150	5
	reduced absent days at work	30,000	1,000	67,000	2,200

\*Values rounded for presentation purposes

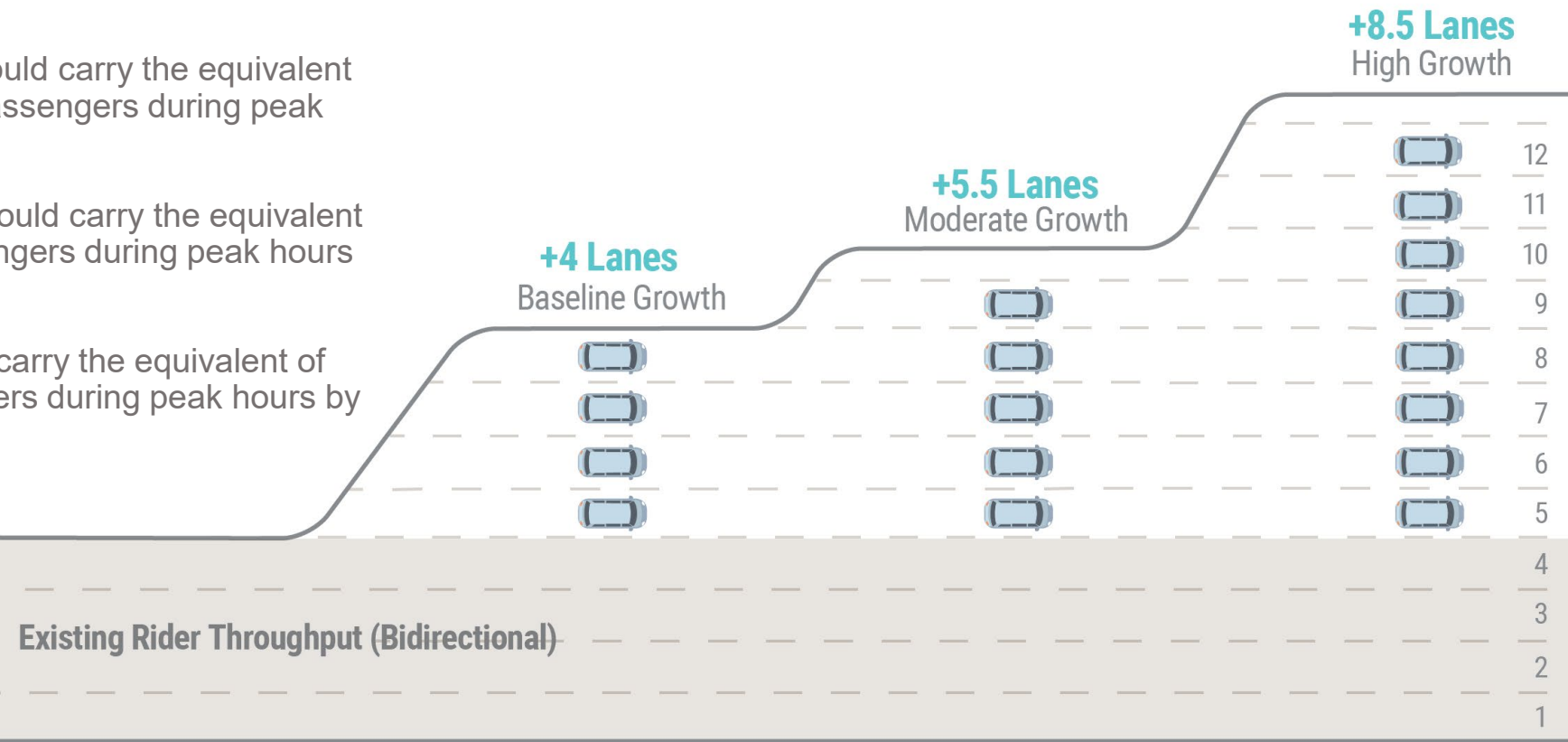
# Freeway Throughput

Today, Caltrain carries 4 freeway lanes worth of people during peak hours. By 2040, the proposed growth scenarios will carry an additional 4 to 8.5 freeway lanes worth of passengers.

The **Baseline Growth** scenario would carry the equivalent of 4 new freeway lanes worth of passengers during peak hours by 2040.

The **Moderate Growth** scenario would carry the equivalent of 5.5 new freeway lanes of passengers during peak hours by 2040.

The **High Growth** scenario would carry the equivalent of 8.5 new freeway lanes of passengers during peak hours by 2040.



\*Assumes vehicle occupancy of 1.1 persons/vehicle and lane capacity of 1,500 vehicles/hour.



# Regional Rail Integration

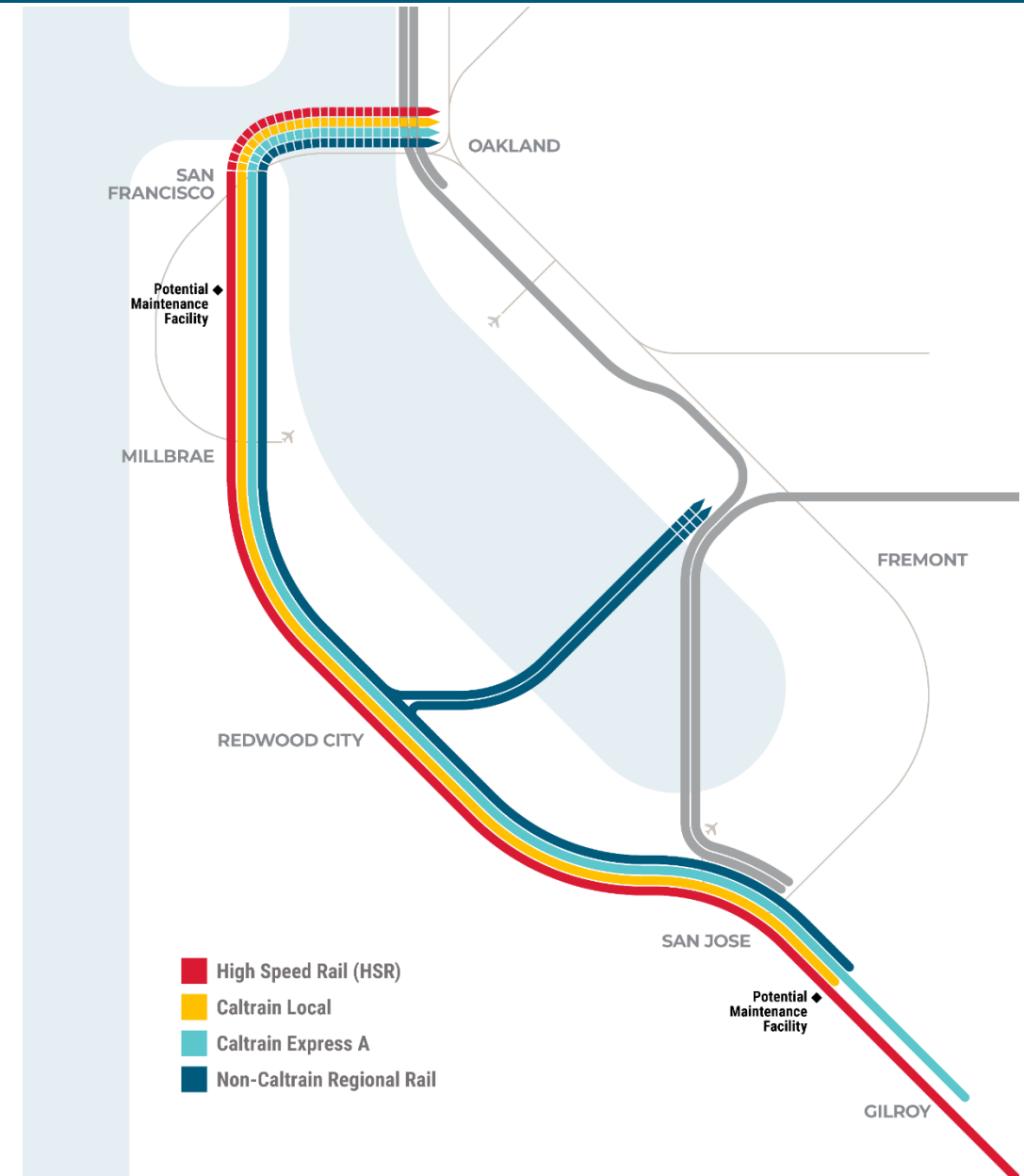
**All service scenarios are compatible with regional rail needs.**

**High Growth** anticipates large-scale corridor sharing, or “interlining” through investments in 4-track segments.

**Baseline & Moderate Growth** preserve the ability to scale up to large-scale corridor sharing but hold off on proactive investments until regional needs are better defined.

Examples of active studies and plans ongoing in the region that could advance the potential need for significant interlining onto Caltrain’s corridor include:

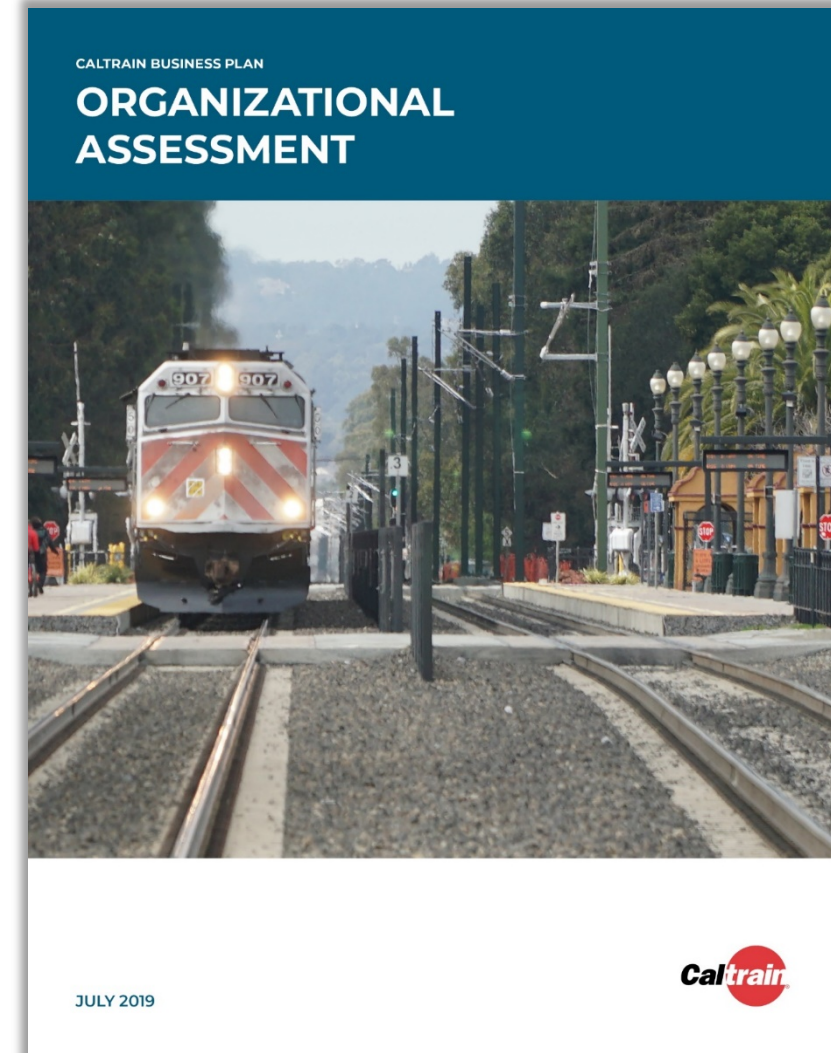
- A standard gauge transbay crossing connecting San Francisco and the East Bay
- The reactivation of the Dumbarton rail bridge
- The development of expanded, “visionary” levels of service by ACE or Capitol Corridor into San Jose



# Organizational Assessment Report

The Organizational Assessment was developed by Howard Permut of Permut Consulting LLC and former President of Metro-North.

Key areas of Howard's work have been supported by the Stanford Global Projects Center and a team of outside experts



Read the full report at [www.caltrain2040.org](http://www.caltrain2040.org)

# What is the Current Caltrain Organization?



## Governance

- Caltrain is a Joint Powers Authority, formed through a Joint Powers Agreement (JPA) between three member agencies
- The system is governed by the Peninsula Corridor Joint Powers Board (JPB), a 9-member board appointed under the terms of the JPA



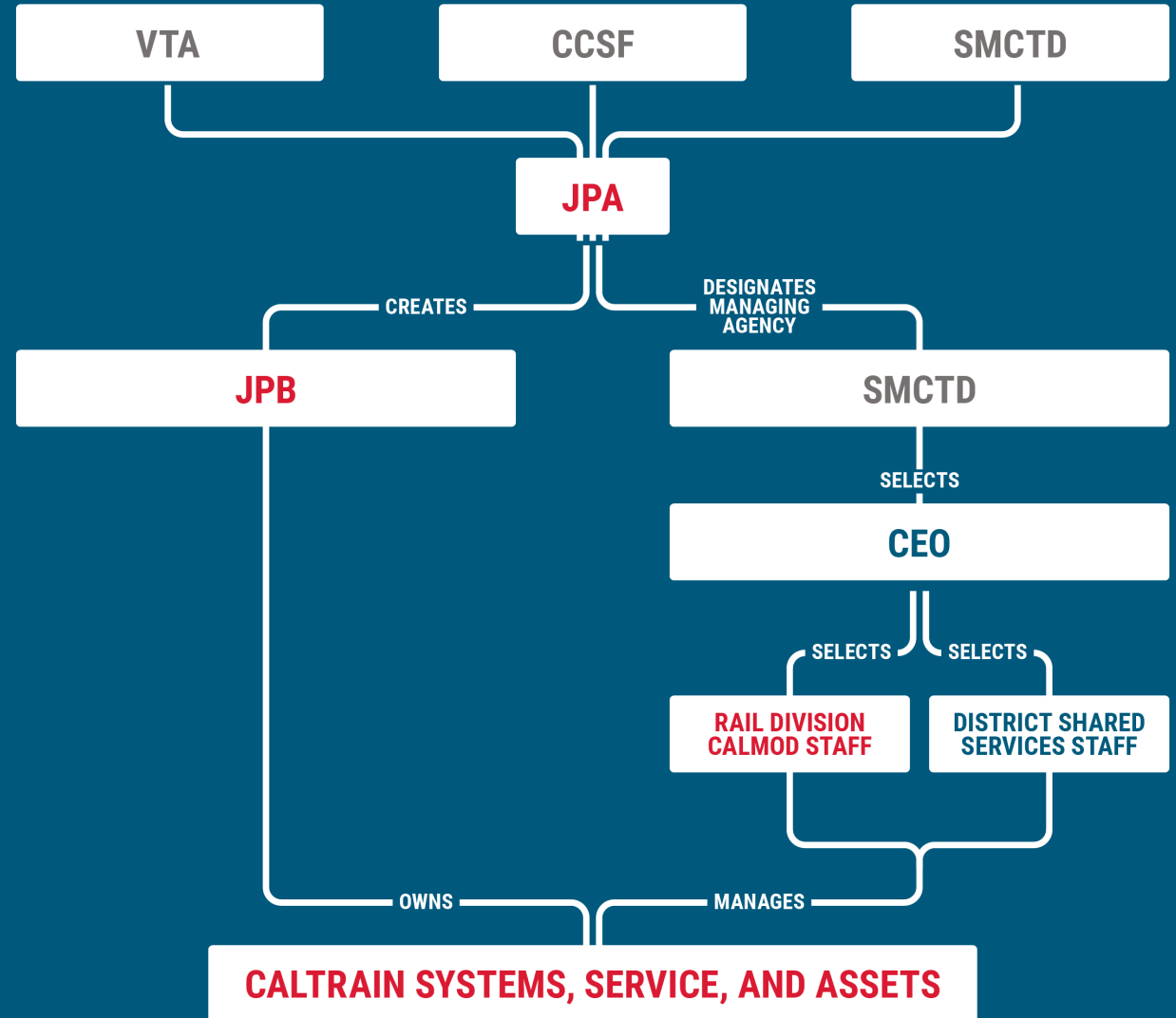
## Internal Organization

- The JPA designates the San Mateo County Transit District (SMCTD) as Caltrain's "managing agency"
- SMCTD employees manage and administer the Caltrain system, either as part of a Caltrain-dedicated department or through a shared services arrangement with other SMCTD business lines



## Service Delivery

- The JPB contracts with a private company, Transit America Services Inc (TASI) for the direct operation of the Caltrain service and maintenance of the railroad's assets. The operating contract is managed by SMCTD



# Governance

## Parallel Governance Considerations and Structures

There are a number of “governance-level” issues that Caltrain must consider regardless of its ultimate core governance model.

In some instances these may be addressed through parallel or separate governance structures or agreements

## Megaproject Delivery

- Major organizational issue
- May be addressed through separate Construction Authority or grade separation district

## Integration with other Railroads

- Coordination with HSR around use of shared infrastructure
- Potential to look at interlining of other operators and/or geographic expansion of Caltrain services

## Increased Role of Private Sector

- Commercialization or privatization of all or parts of railroad’s business





# Caltrain Long Range Service Vision: Staff Recommendation

Website where full draft staff recommendation can be reviewed:

<https://www.caltrain2040.org/long-range-service-vision/>

## Summary and Basis for Recommendation

Caltrain staff have developed a draft recommendation for the Long Range Service Vision. This recommended Vision is:

**Caltrain adopt and pursue a Vision compatible with the “moderate growth” scenario while also taking a series of steps to plan for and not preclude the potential realization of the “high growth” scenario**

The extensive analysis conducted during the Business Plan process has shown that there is a strong demand for expanded Caltrain service. Additionally, the business case analysis conducted as part of the plan has shown that there is a clear case, based on economic and regional benefits, for pursuing a Vision that goes beyond the baseline levels of service previously contemplated.

While the high growth option generates the greatest ridership and expanded regional benefits, it also comes at a higher cost and carries significantly higher levels of uncertainty and potential for community impacts. Therefore, based on the assembled evidence, staff has developed a recommendation that would direct Caltrain to pursue a service vision consistent with the “moderate growth” scenario while retaining the ability to expand to a level consistent with the “high growth” scenario at such time as demand warrants or the region has made the policy and funding commitments to pursue a larger, integrated rail system.

# Caltrain Long Range Service Vision: Staff Recommendation

Website where full draft staff recommendation can be reviewed:

<https://www.caltrain2040.org/long-range-service-vision/>

## The features of the Service Vision include:

### Fast and frequent all day (every day) service

- Total peak hour frequencies of 8 Caltrain trains per direction
- Faster, all day baby bullet service with express service every 15 minutes
- Significantly increased off-peak and weekend service levels
- User friendly, show up and go service with easy to understand schedules

### Increased Capacity

- Provides the capacity to triple today's ridership, serving nearly 180,000 people a day
- Adding more than 5 freeway lanes worth of regional capacity

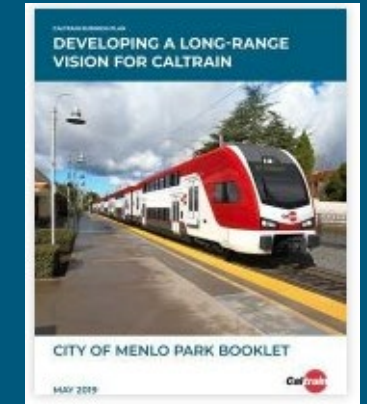
### Regional Connectivity

- End to end service - connecting Gilroy to downtown San Francisco (all day, both ways)
- Comprehensive local service providing coverage to every community
- Regular service making transfers and connections easier and more predictable



# Where Are We in the Process

Info about outreach: [www.caltrain2040.org](http://www.caltrain2040.org)



**July 2018 – July 2019**

Development and  
Evaluation of Growth  
Scenarios

**August 2019**

Staff  
Recommendation  
for Long Range  
Service Vision

**October 2019**

Refinement and  
Proposed Adoption of  
Long Range Service  
Vision

**Early 2020**

Completion of  
Business Plan



**FOR MORE INFORMATION**

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