Caltrain Business Plan

WPLP

February 26, 2020

Agenda for Today

Process Overview

Making it Happen: Delivering Improved Caltrain Service Before 2040

- Understanding Demand
- Priorities for CalMod – Better Service in the 2020s
- Taking the Next Big Step
- Investing in Improvement – Costs and Funding

Work in Progress & Next Steps

Process Overview

What is the Caltrain Business Plan?

What Addresses the future potential of the railroad over the next 20-30 years. It will assess the benefits, impacts, and costs of different service visions, building the case for investment and a plan for implementation.

Why Allows the community and stakeholders to engage in developing a more certain, achievable, financially feasible future for the railroad based on local, regional, and statewide needs.

What Will the Business Plan Cover?

Technical Tracks

Service

- Number of trains
- Frequency of service
- Number of people riding the trains
- Infrastructure needs to support different service levels

Business Case

- Value from investments (past, present, and future)
- Infrastructure and operating costs
- Potential sources of revenue

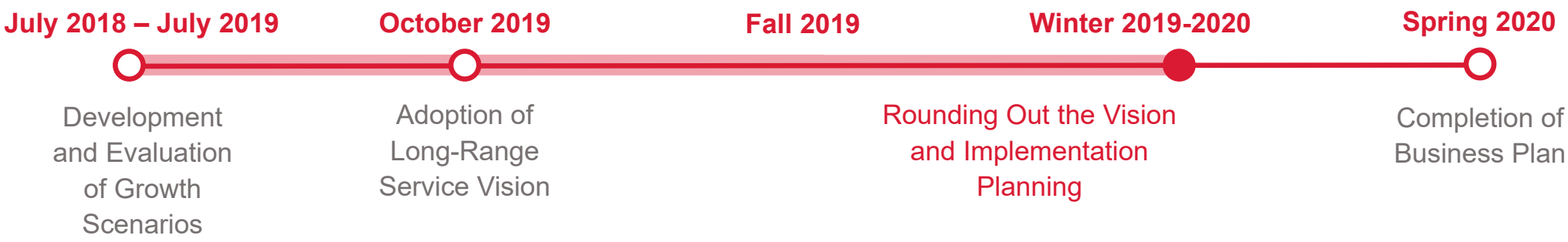
Community Interface

- Benefits and impacts to surrounding communities
- Corridor management strategies and consensus building
- Equity considerations

Organization

- Organizational structure of Caltrain including governance and delivery approaches
- Funding mechanisms to support future service

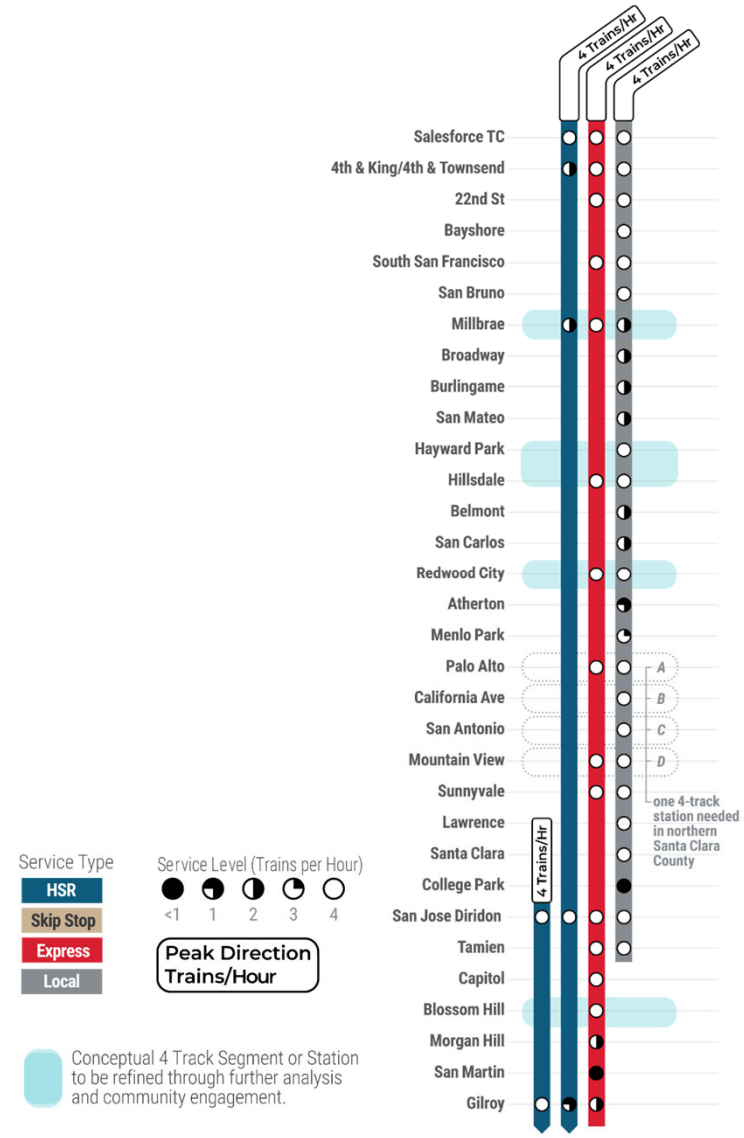
Timeline


July 2018 – July 2019
October 2019
Fall 2019
Winter 2019-2020
Spring 2020
Development and Evaluation of Growth Scenarios
Adoption of Long-Range Service Vision
Rounding Out the Vision and Implementation Planning
Completion of Business Plan

Caltrain's 2040 Service Vision

Illustrative Service Details

Trains per Hour, per Direction	Peak: 8 Caltrain + 4 HSR Off-Peak: Up to 6 Caltrain + 3 HSR
Stopping Pattern	Local / Express with timed transfer in Mid Peninsula
Travel Time, STC-Diridon	61 Min (Express) 85 Min (Local)
New Passing Tracks	Millbrae, Hayward Park-Hillsdale, Redwood City area, 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 • All trains serve Salesforce Transit Center • Trains serve Capitol and Blossom Hill every 15 minutes and Morgan Hill and Gilroy every 30 minutes • Skip stop pattern for some mid-Peninsula stations



Caltrain's 2040 Service Vision - Investments

CAPITAL COSTS

$23 BILLION
TOTAL CAPITAL COSTS*

Capital costs include all projects from SF to Gilroy, knitting together a connected corridor with greatly improved service.

$9.4B
GRADE SEPARATIONS

$7.8B
TERMINAL IMPROVEMENTS

$3.3B
RAIL INFRASTRUCTURE AND SYSTEMS

$1.4B
STATION IMPROVEMENTS

$1.1B
FLEET UPGRADES

OPERATING COSTS

$370 MILLION
2040 ANNUAL OPERATING COSTS*

Caltrain is one of the leanest, most efficient transit services in the country. Today's annual operating and maintenance costs are $135 million, and 73% is covered by fares. The vision would benefit from a similarly high farebox recovery ratio.

$266M
OPERATING COSTS COVERED BY FAREBOX (72%)

$104M
ANNUAL OPERATING INVESTMENT NEEDED (28%)

Remaining Technical Analysis

Making it Happen

With a 2040 Service Vision adopted, what will the next 10 years look like for Caltrain? What are the key actions and steps we need to focus on next?

Additional technical and policy analysis is underway to focus on what Caltrain can achieve over the next decade and they key near term steps and work that will be needed to make it happen.

Building towards the Vision with service concepts for initial electrification and options for growth and investment through 2020s

Accompanying financial projections and funding plan

Identification of a program of key planning, policy and organizational next steps

Remaining Technical Analysis

Rounding Out the Vision

With a 2040 Service Vision adopted, how can Caltrain “Round Out” its vision for the future?

Additional technical and policy analysis are underway with a focus on areas that that were highlighted as important through stakeholder outreach and help complete the picture of the railroad Caltrain hopes to become.

Analysis of connections to other systems & station access options

Equity analysis & focus on making Caltrain accessible to all

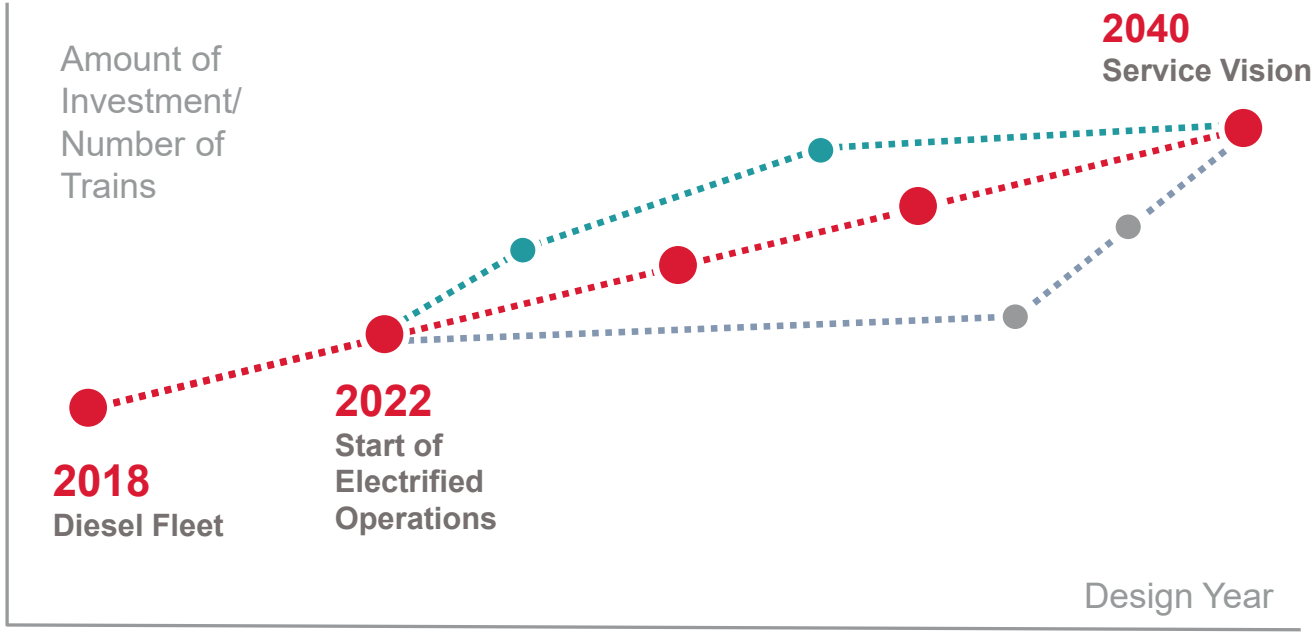
Review of funding options and revenue generation opportunities to support the Vision

Making it Happen: Delivering Improved Caltrain Service Before 2040

Getting to the 2040 Service Vision

CalMod will provide tremendous near-term service benefits to the corridor. However, regional growth projections suggest that there is medium-term demand for even more service.

Working backwards from the 2040 Service Vision, Caltrain can explore how to deliver key service benefits to the corridor sooner.



Key Questions for the Next Decade

1. What is the potential market demand for Caltrain service over the next 10 years?

2. Which benefits of the 2040 Service Vision could Caltrain deliver before 2030?
   - How can we use the initial electrified system (CalMod) to deliver near-term service benefits and best meet market demand?
   - How could we improve service further through subsequent incremental investments?

3. What will it cost to provide the service the corridor needs over the next decade? What sources of revenue and funding should we plan for?

The Next Decade of Caltrain

Understanding Demand

Priorities for CalMod

The Next Big Step

Costs and Funding

Understanding Demand

Daily ridership demand for Caltrain service will likely exceed 90,000 passengers per weekday within the next decade. This growth is driven by several factors:

Latent Demand

Improving Caltrain service and increasing capacity will make Caltrain more appealing for a wider range of trips

Population and Employment Growth

Station areas will add over 100,000 new residents and employees within ½ mile of Caltrain stations, a ~30% increase over existing

Improved Connectivity

New connections like the Central Subway will extend Caltrain's reach

Existing Ridership by Station

5
Highest Ridership
>4,000
Daily Riders

- 4th & King
- Redwood City
- Palo Alto
- Mountain View
- San Jose Diridon

4
Moderate Ridership
2,000 – 4,000
Daily Riders

- Millbrae
- San Mateo
- Hillsdale
- Sunnyvale

20
Lower Ridership
<2,000
Daily Riders

- 22nd Street
- Bayshore
- South San Francisco
- San Bruno
- Broadway
- Burlingame
- Hayward Park
- Belmont
- San Carlos
- Atherton
- Menlo Park
- California Ave
- San Antonio
- Lawrence
- Santa Clara
- Tamien
- Capitol
- Blossom Hill
- Morgan Hill
- San Martin
- Gilroy

Potential 2020s Demand by Station

8

Highest Ridership Potential

>4,000 Daily Riders

- 4th & King
- 22nd Street
- Millbrae
- Redwood City
- Palo Alto
- Mountain View
- Sunnyvale
- San Jose Diridon

9

Moderate Ridership Potential

2,000 – 4,000 Daily Riders

- Bayshore
- South San Francisco
- San Mateo
- Hillsdale
- Menlo Park
- California Ave
- San Antonio
- Lawrence
- Santa Clara

13

Lower Ridership Potential

<2,000 Daily Riders

- San Bruno
- Broadway
- Burlingame
- Hayward Park
- Belmont
- San Carlos
- Atherton
- Tamien
- Capitol
- Blossom Hill
- Morgan Hill
- San Martin
- Gilroy

Potential 2020s Demand by Station

Stations experiencing significant changes

8
Highest Ridership Potential
>4,000
Daily Riders

- 4th & King
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- Gilroy

Priorities for CalMod

Understanding Demand

Priorities for CalMod

The Next Big Step

Costs and Funding

Priorities for CalMod

The ongoing electrification of the Caltrain service between San Francisco and San Jose provides a transformative, near-term opportunity to improve service.

With this investment, Caltrain can begin delivering many, but not all, of the service improvements described 2040 Service Vision while also attempting to keep pace with growing market demand.

Staff has developed two illustrative service options that are responsive to the opportunities and priorities identified to the right.

Opportunities and Recommended Priorities

Increasing service at stations

Standardizing schedules and enhancing connectivity

Expanding off-peak service

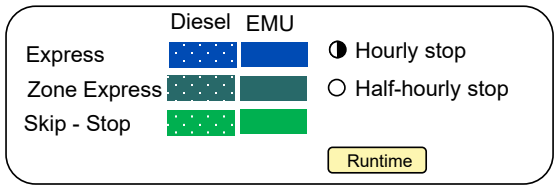
Balancing capacity

Two Illustrative Service Plans

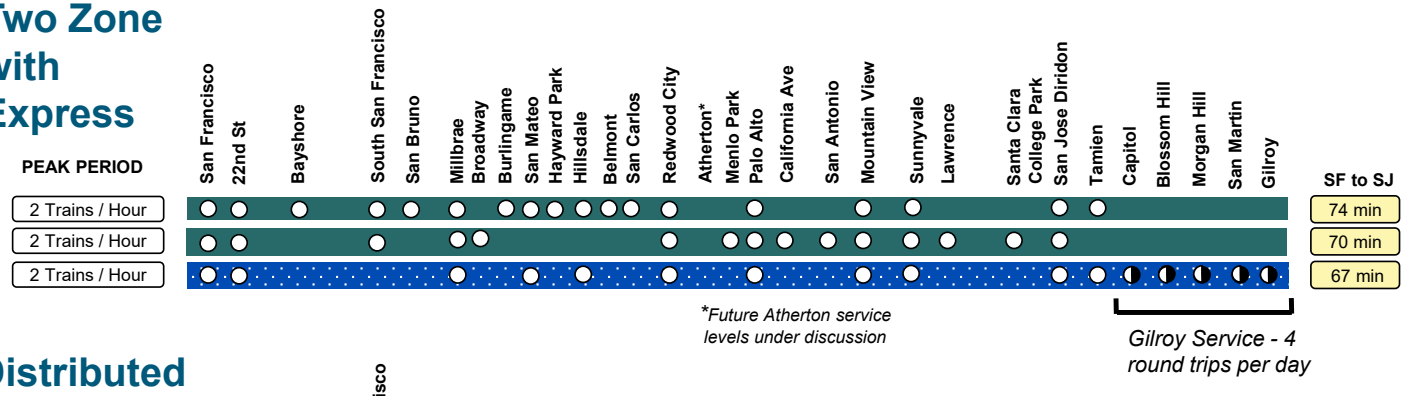
Caltrain has prepared two sets of illustrative service plans to carry forward for further analysis.

Two Zone with Express – two zone patterns (north and south of Redwood City) with a regional express pattern offering different travel times and wait times

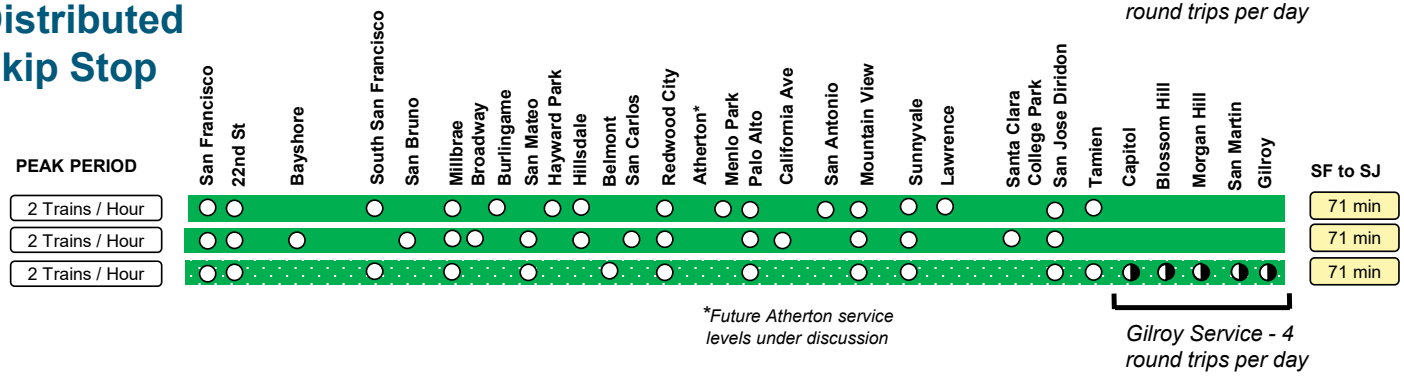
Distributed Skip Stop – three skip stop patterns offering similar travel times and regular wait times at major stations



Two Zone with Express



Distributed Skip Stop

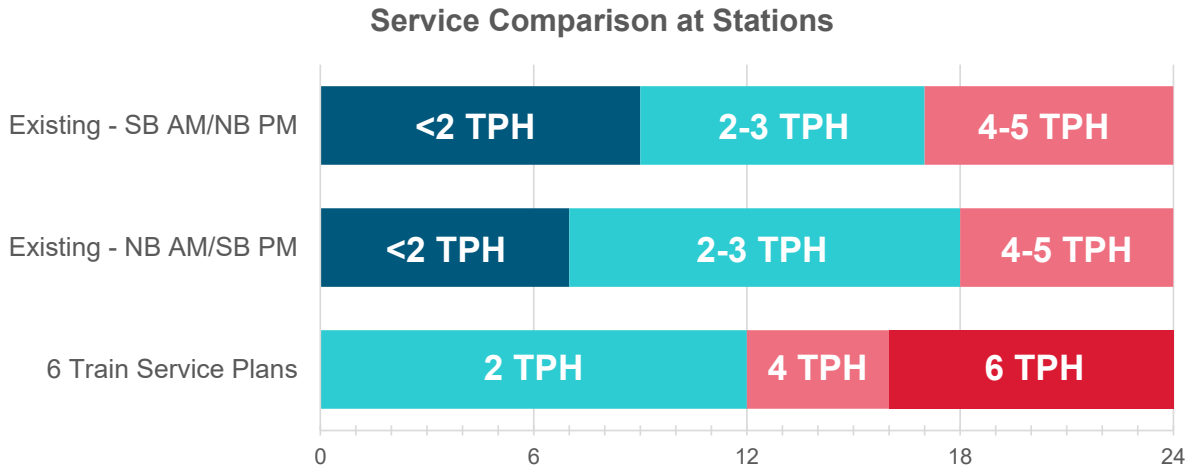


Service Frequency Improvements

Because of the growth in demand throughout the corridor, staff recommends prioritizing increased service levels at stations throughout the system (while maintaining competitive travel times).

While specific stopping patterns shown are illustrative, all service concepts considered *double* the number of stations that receive at least four trains per hour, per direction.

All service concepts provide *at least* two trains per hour, per direction to all mainline, regularly served stations.

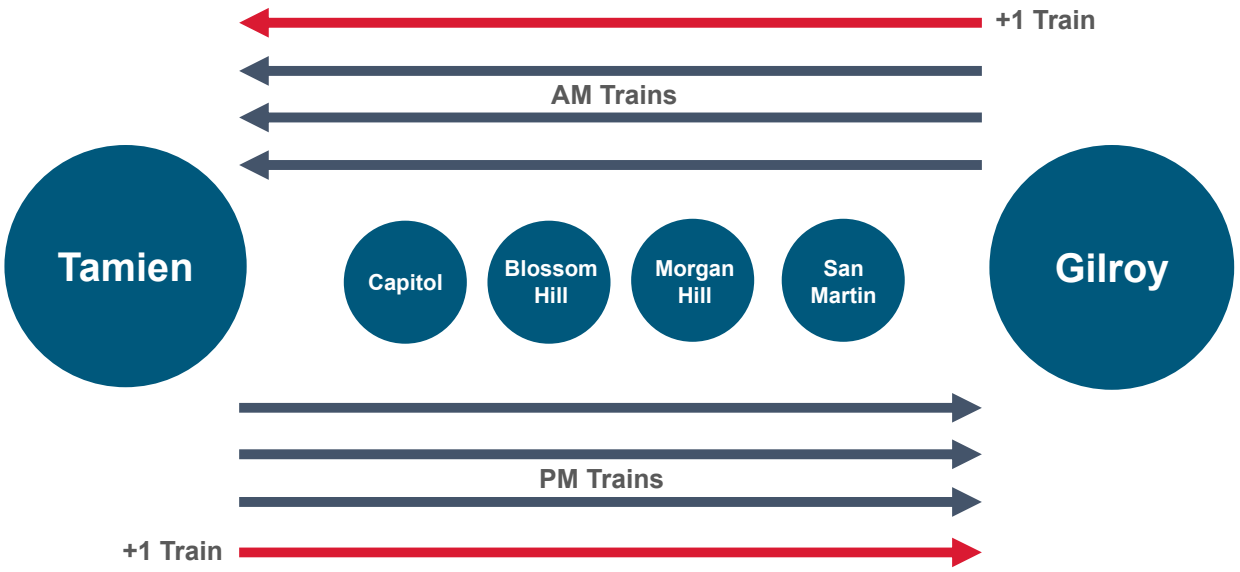


South of Tamien Service Improvements

Caltrain would increase service south of Tamien from three to four trains per day with CalMod.

Under the current agreement with Union Pacific, Caltrain can add up to two additional roundtrips to Gilroy to reach five trips per day. Caltrain has committed to adding one additional roundtrip in FY2021. There are some constraints as to when these trips can be added without affecting mainline service.

In the future, two of these roundtrips could be extended south to Salinas subject to further planning and agreement by both the Caltrain Board and Union Pacific.



Standardizing the Schedule and Enhancing Connectivity

Standardized Schedule

Staff recommends creating a more user-friendly, intuitive service by standardizing the Caltrain service to a repeating, clockface pattern including symmetrical services in both NB and SB directions.

Enhancing Connectivity

Increased frequency and standardized schedules allow for improved connections with the rest of the region's rail and transit network. This creates the opportunity to specifically "design" service around key high volume transfers (eg BART connection at Millbrae) and creates new opportunities for better bus and shuttle integration throughout the system.

Example- Each Line 2x per Hour

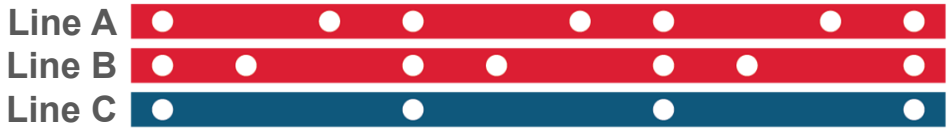


Photo credit SPUR

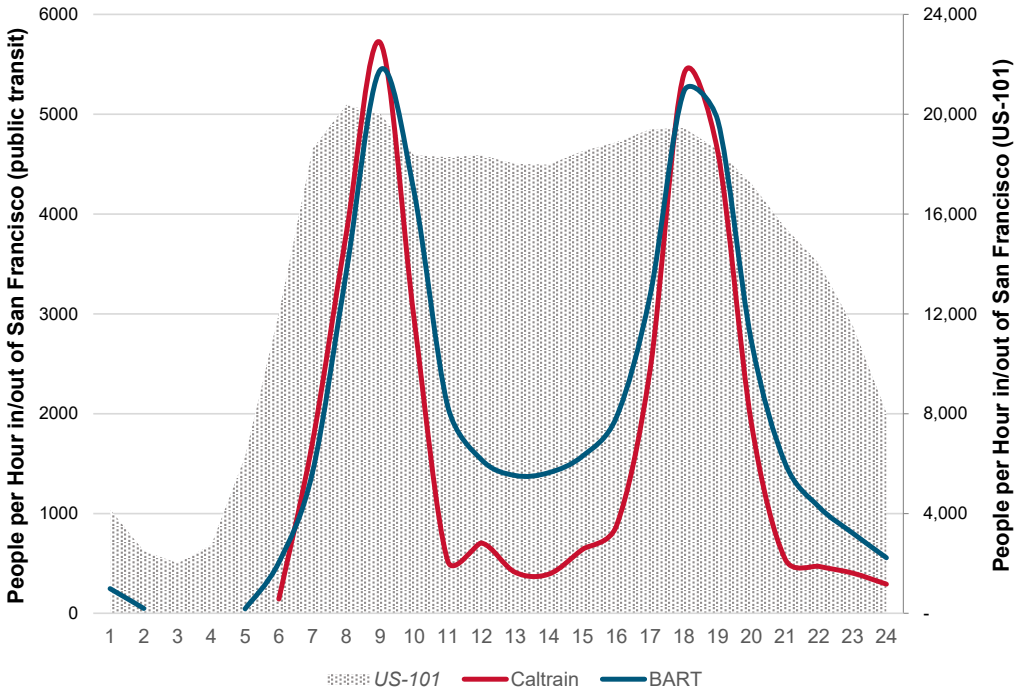
Improving Off-Peak and Weekend Service

With electrification, Caltrain has the opportunity to stretch the peaks and increase off-peak and weekend service levels to better meet corridor demand.

However, operational and financial constraints may affect Caltrain's ability to fully serve off-peak demand.

Goals

- Increase Caltrain's market share during off-peak and weekend periods
- Offer competitive travel times between major stations
- Maintain flexibility to accommodate construction and maintenance windows

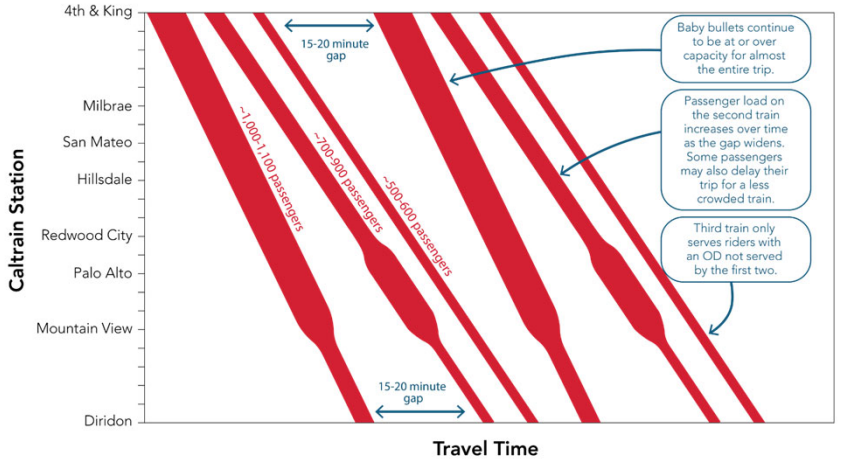


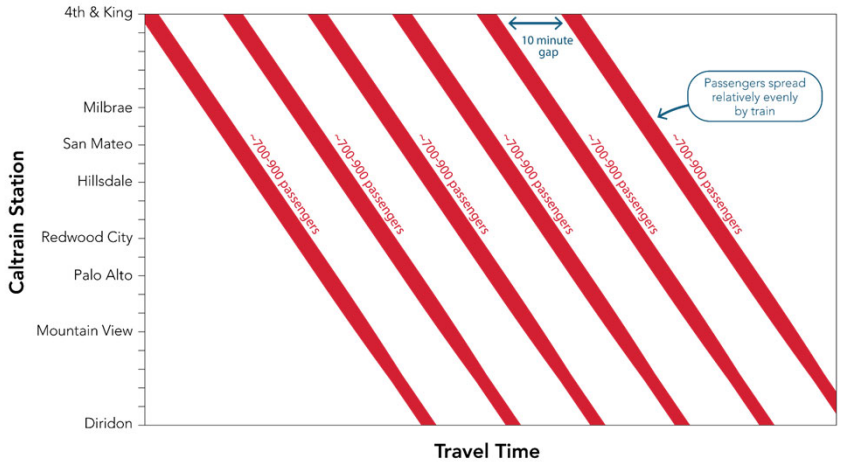
Balancing Capacity

An Ongoing Challenge

- Strong corridor demand means that peak-hour capacity is likely to be an ongoing challenge for Caltrain- even as service improvements and expansion are implemented
- Caltrain can design its service to better balance demand across all of its trains- but doing so could require eliminating popular peak-hour express service and instead making all trains run at roughly the same speed
- The two service options developed by Caltrain present both sides
- Looking forward, Caltrain's best option to prepare for increased demand will be to take the next incremental step beyond CalMod

How Service Patterns Affect Crowding





The Next Big Step

Understanding Demand

Priorities for CalMod

The Next Big Step

Costs and Funding

Taking the Next Step:

Adding Capacity and Increasing Service to Grow Ridership

Toward the end of the 2020s, Caltrain is expected to reach capacity during peak hours.

Caltrain will not be able to accommodate additional ridership growth in the 2030s without adding capacity. This poses a challenge for accommodating ongoing land use growth as well as demand that will be induced by DTX, Dumbarton rail, and other potential changes on the corridor.

While smaller, interim improvements may ease capacity, the most significant improvement to service and capacity involves expanding service to eight trains per hour, per direction.

Getting to 8 Trains Per Hour

The following parallel and programmatic investments will be an ongoing focus for Caltrain throughout the 2020's- they are needed to support the overall success of the system and the full implementation of the 2040 Service Vision.

Grade Separations

Planning and construction of grade separations and grade crossing improvements

Station Improvements

Programmatic improvements to Caltrain stations and investments in station access and connectivity

Major Investments

Work on major terminal projects (including Diridon and DTX), major station investments, and partner projects including HSR

Getting to 8 Trains Per Hour

The following key investments would specifically be needed to implement an interim 8-tph service. These investments are consistent with the overall program assumed in the 2040 Service Vision.

Expanded EMU Fleet

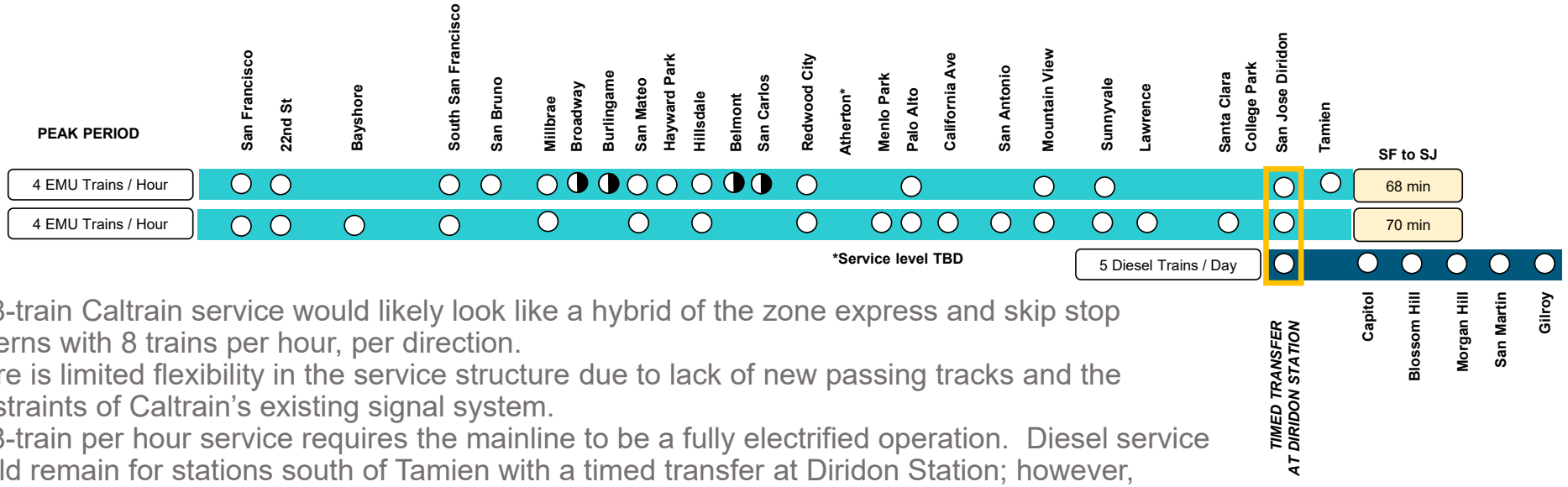
More Train Storage

Holdout Rule Elimination

Level Boarding

Minor Track Work

8 Train Illustrative Service Plan

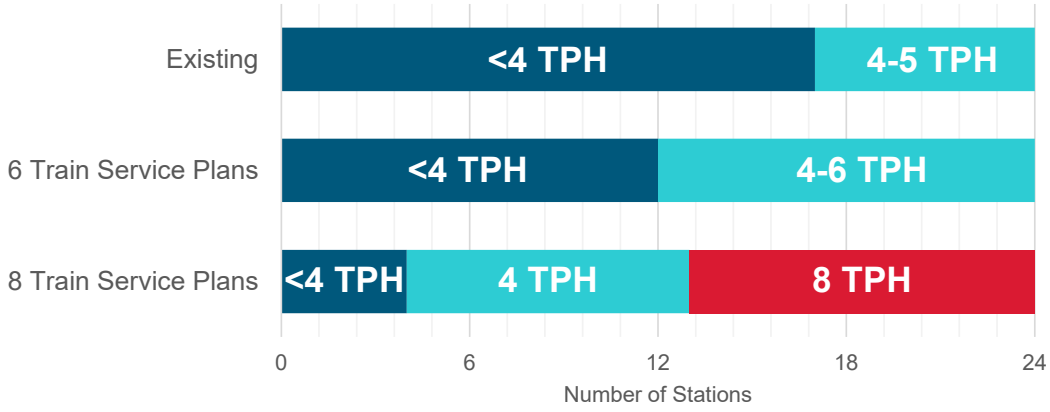


- An 8-train Caltrain service would likely look like a hybrid of the zone express and skip stop patterns with 8 trains per hour, per direction.
- There is limited flexibility in the service structure due to lack of new passing tracks and the constraints of Caltrain's existing signal system.
- An 8-train per hour service requires the mainline to be a fully electrified operation. Diesel service would remain for stations south of Tamien with a timed transfer at Diridon Station; however, service would increase to a minimum of 5 trains per day and the schedule could be fully customized to local travel needs.

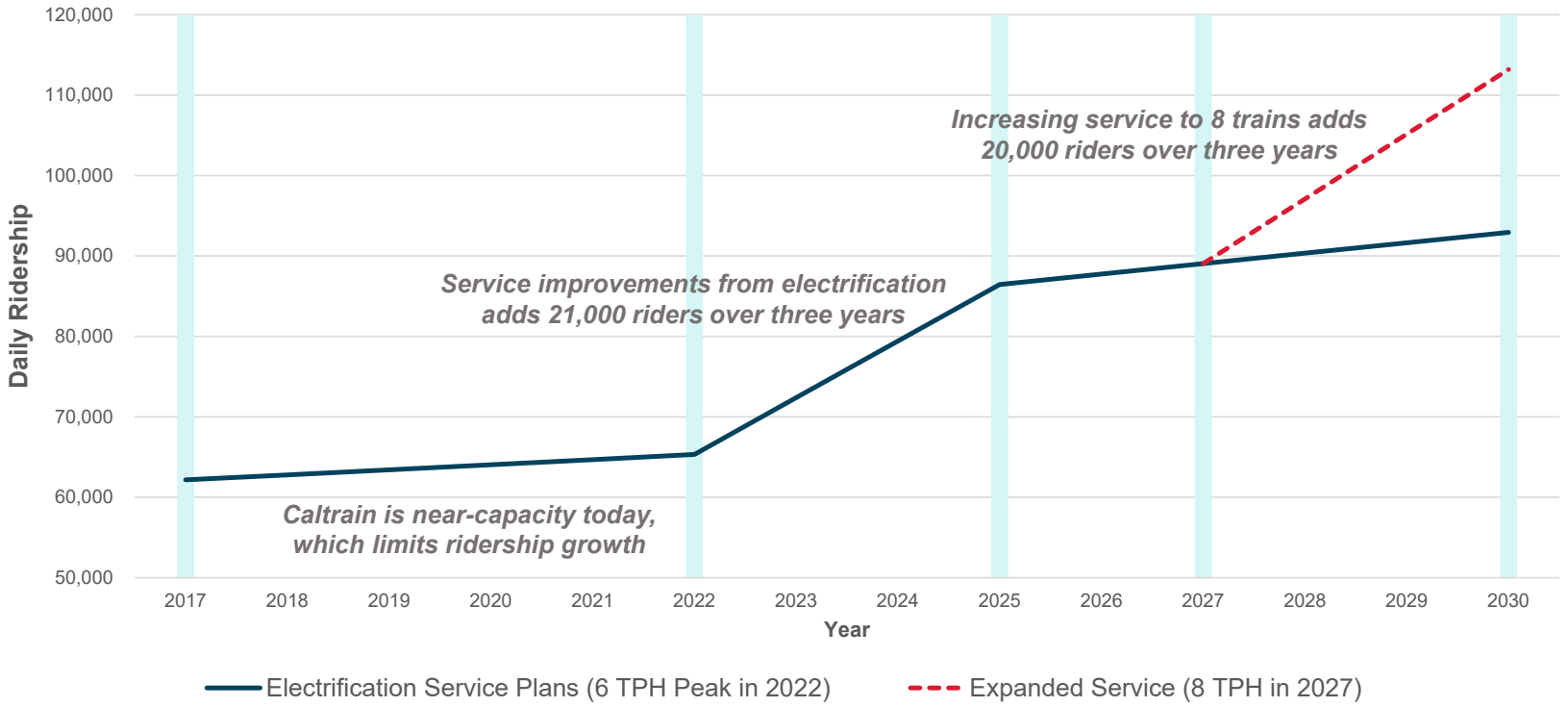
Increasing Service at Stations

Increasing service from six to eight trains per hour, per direction enables more frequent service to more stations.

With an interim 8 tph service, 20 of 24 mainline stations would receive at least four trains per hour, per direction, and nearly half of stations would receive eight trains per hour, per direction.



Change in Weekday Ridership Over Time



Investing In Improvement - Costs & Funding

Understanding Demand

Priorities for CalMod

The Next Big Step

Costs and Funding

Caltrain Today

Operating Costs & Revenues

Caltrain had a total budgeted Operating Expense of $156 million in FY2020. Of this total, $91 million (58%) were direct TASI O&M costs, $38 million (24%) were for other (non-TASI) operating expenses, $24 million (16%) were for Administrative Expenses, and $3 million (2%) was for Long-term Debt.

On the revenue side, Caltrain budgeted for a total of $156 million during FY2020, of which $114 million (73%) was Self-Generated Revenue, $11 million (7%) was in Other Revenues and Funding, and $30 million (19%) was Local Member Contributions. The remaining $1 million was budgeted to be paid out of the revenue stabilization fund.

Budgeted Operating Expenses and Revenue FY 2020

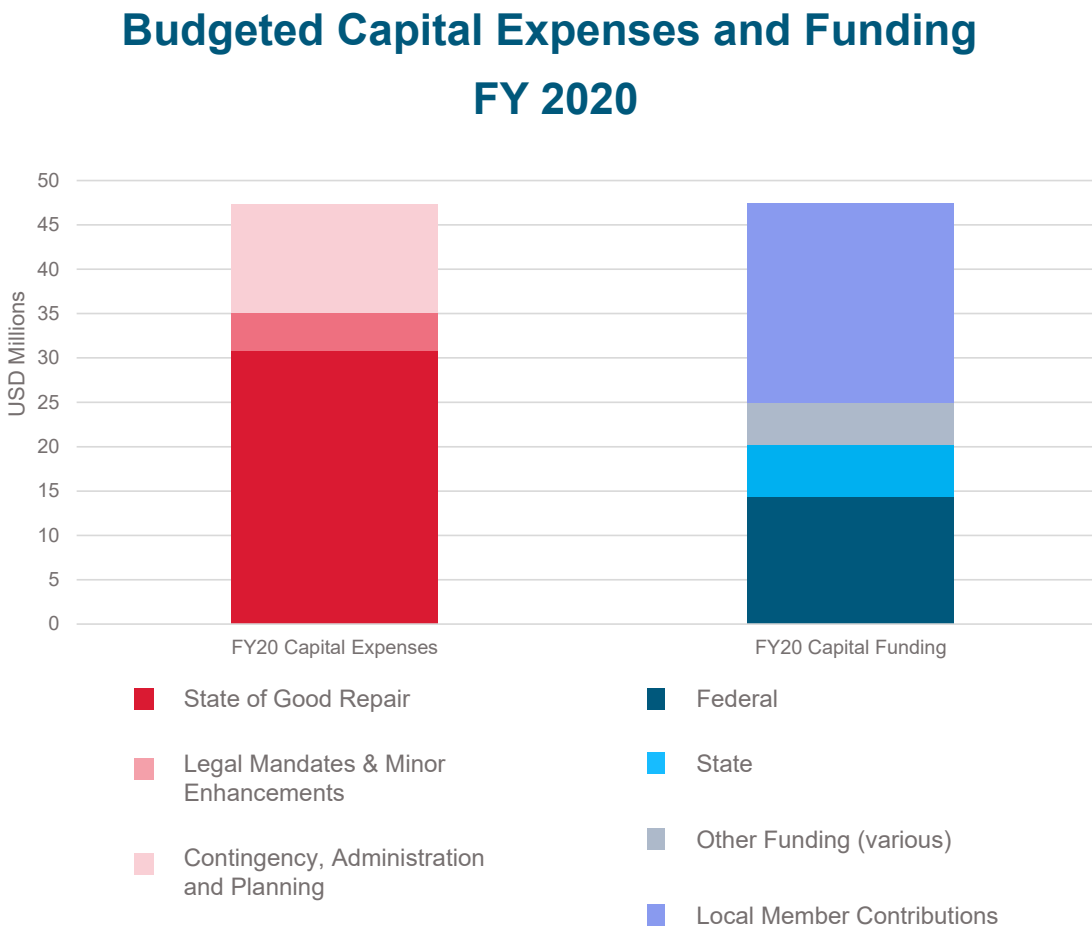
All costs shown in YOE $

Caltrain Today

Annual Capital Costs & Funding

During FY2020, Caltrain budgeted $47 million for capital expenses related to State of Good Repair, minor system enhancements and legal requirements, and contingency, administration and planning. These expenditures reflect the categories of capital investment that Caltrain must consider and plan for on a recurring annual basis.

These capital expenses were funded through a combination of Federal and State formula funds, a collection of smaller individual sources, and annual JPB member agency capital contributions.



Caltrain Today

Major Capital Projects

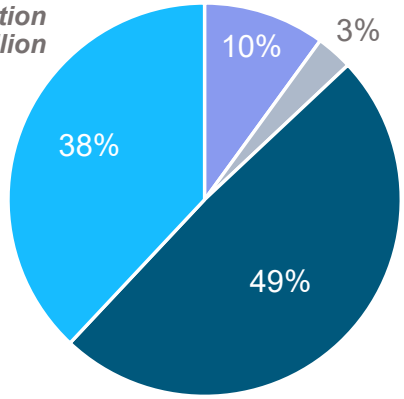
Major capital projects often span multiple budget years and rely on individualized funding plans. These are developed independently on a project-by-project basis.

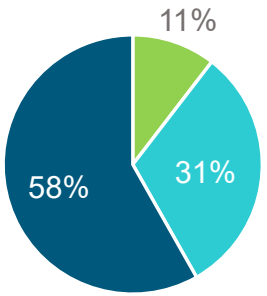
Member agencies may contribute additional funds to support large projects - either directly or through county specific grant sources. These local funds are often used to match qualifying regional, state and federal sources.

Member agencies typically contribute equally to large system wide projects (like electrification). The development of funding plans for more localized projects - like grade separations or the improvement of a specific station - are typically undertaken directly by the specific county where the project resides.

Example Funding Plans For Recent Projects

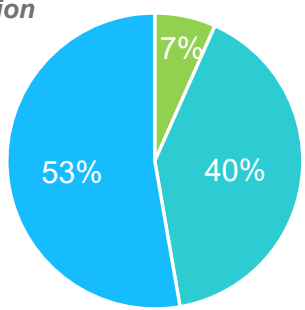
Peninsula Corridor Electrification Project - $1.98 Billion





South San Francisco Station Improvement Project - $67 Million

25th Avenue Grade Separation - $165 Million



- Federal Sources (competitive & formula)
- State Sources (including HSR)
- Regional Sources
- Member Agency & County Sources (Shared Equally)
- Individual Member Agency Source (San Mateo County TA in these examples)
- Local Jurisdiction (City of San Mateo and City of SSF in these examples)

Investing in Service

Over the next decade Caltrain has the opportunity to make substantial improvements to service.

Service enhancements require investment - both to sustain operations and to implement and maintain the capital infrastructure needed to grow the system.

The following slides provide a financial analysis that considers the costs and potential funding needs associated with two options for growth.

Baseline CalMod

This option includes provision of the “baseline” level of electrified service envisioned in PCEP grant applications and funding documents

Includes six peak hour trains throughout the decade with modest improvements to off-peak service levels (approx. 116 trains per day)

Enhanced Growth

This option considers enhanced service levels that maximize the use of available infrastructure and more fully serve expected demand

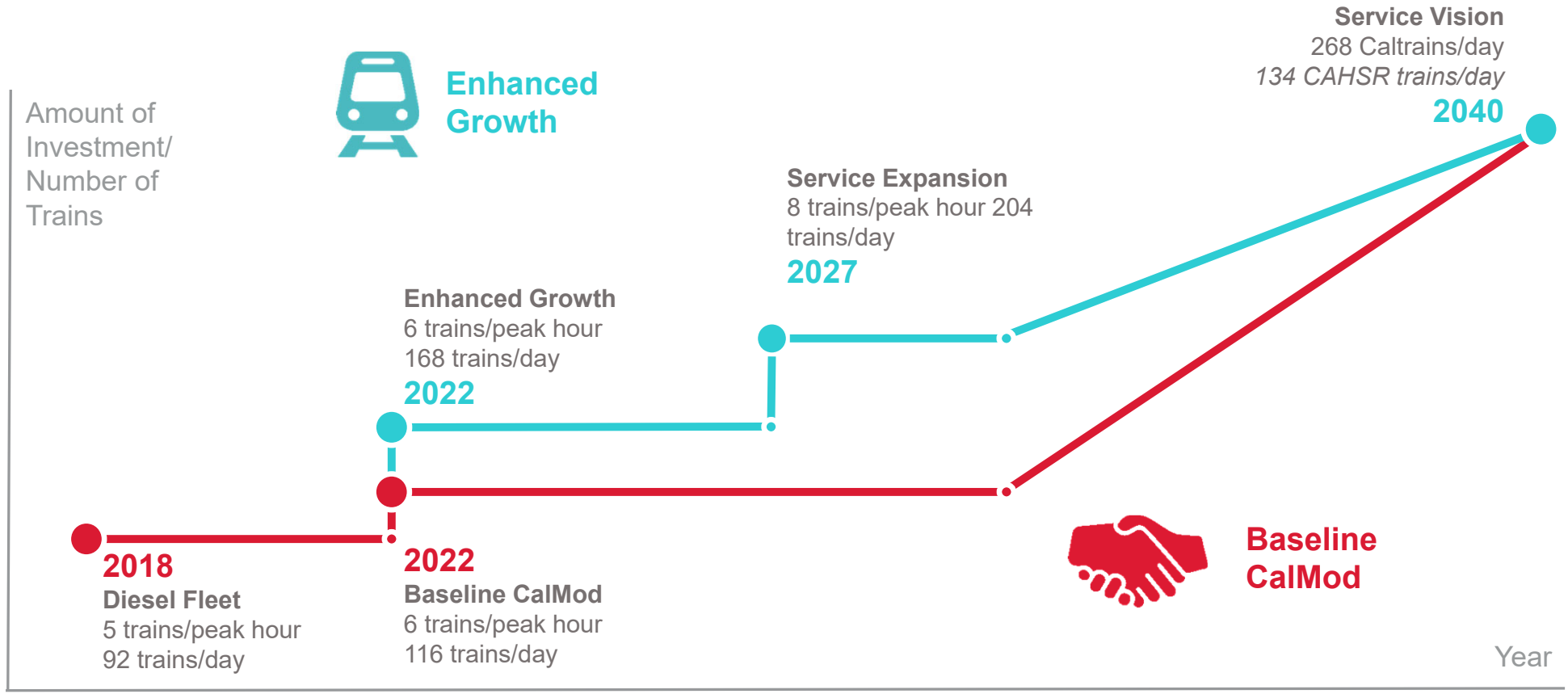
Includes six peak hour trains growing to eight by the end of the decade

Peak periods are expanded, and off-peak service is significantly enhanced (approx. 168 trains per day growing to 204)

Scenario Details

Scenario	Service Description	Capital Investments	Major Operating Cost Drivers
Baseline CalMod	• 6 tphpd during peak hours (4 hours per day) • Modest off-peak service increases • Approx 116 trains per day throughout the decade. • Increase to 4 round trips per day to Gilroy.	• PCEP completed in early 2020s (already funded) • Ongoing investment in State of Good Repair.	• TASI costs related to increased service hours • Maintenance of new systems and expanded fleet • Electricity for Traction • Reduced fuel consumptions • Reduced diesel fleet maintenance
Enhanced Growth	• 6 tphpd during peak hours (7-8 hours per day) increasing to 8 tphpd by late 2020s. • Expanded peak periods and off-peak service • 168 trains per day increasing to 204 trains by the end of the decade. • Increase to at least 5 round trips per day to Gilroy	• PCEP completed in early 2020s. • Ongoing investment in State of Good Repair. • Direct investments required to support 8 tphd service	Same as above, plus: • Additional TASI costs related to further expanded service • Additional electricity for traction • Additional maintenance related to expanded fleet

Two “Scenarios” for Growth

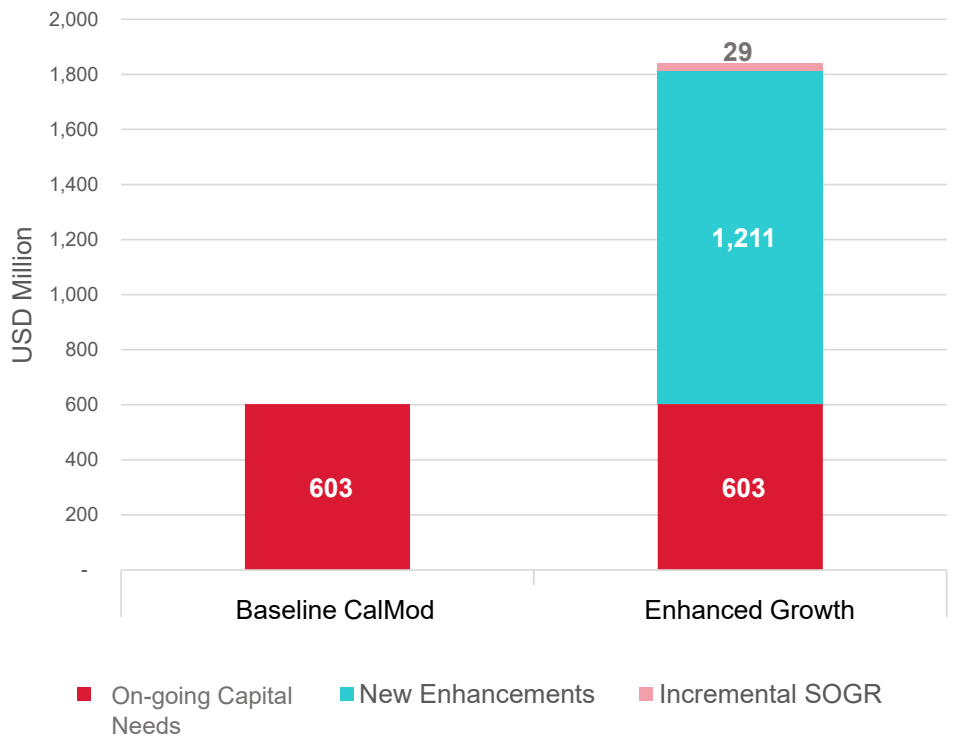


10-Year Total Capital Expenses by Scenario

Caltrain projects a cumulative $600 million in ongoing general capital needs (including SOGR as well as minor enhancements, planning and administration) to deliver the Baseline CalMod service.

Delivering the Enhanced Growth level of service will require approximately $1.2 billion of additional capital investments, of which $570 million are to acquire additional fleet to achieve the intended service frequency. The total 10-year capital expenses for this scenario are around $1.8 billion.

Total 10-year Capital Expenses by Scenario



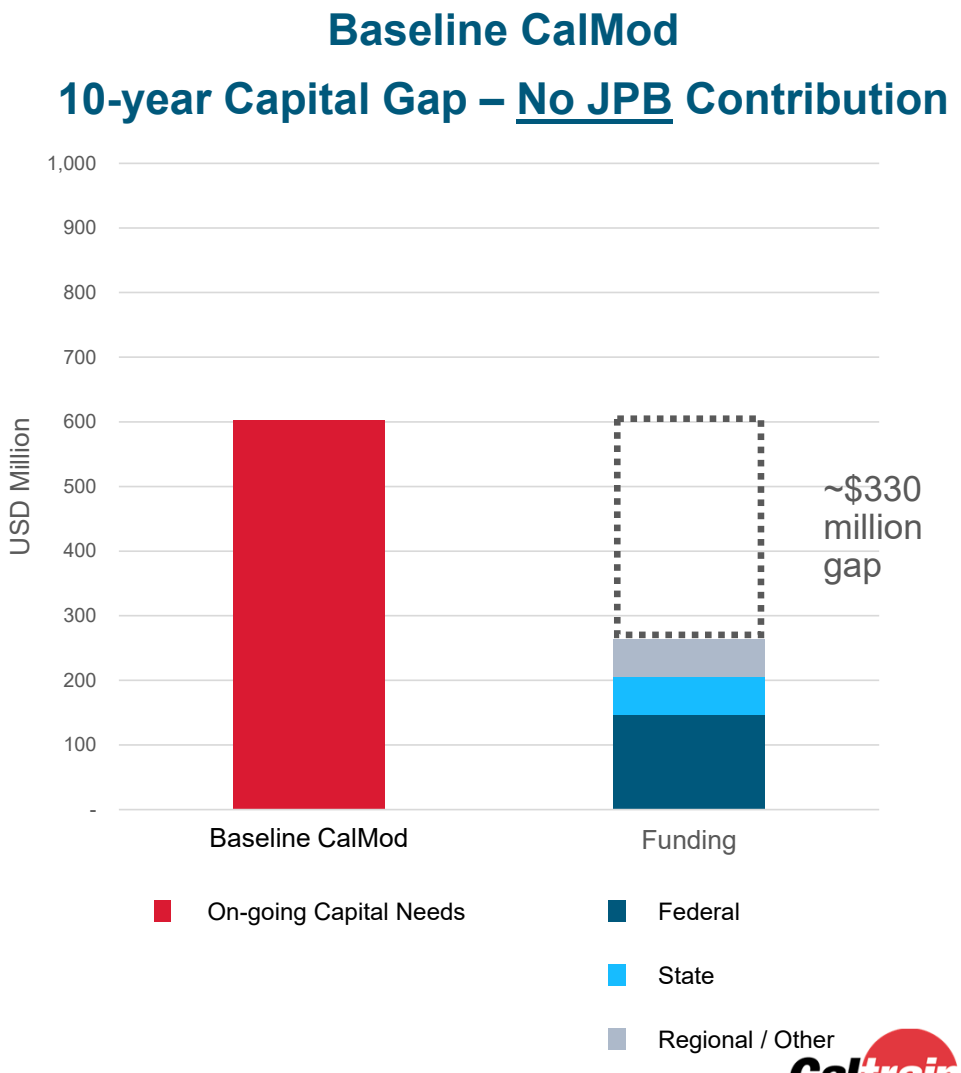
All costs shown in US$ 2018

10-Year Capital Funding Gap

Baseline CalMod

While the Peninsula Corridor Electrification Project is fully funded, the ongoing general capital needs of the system require funding of $600 million total over the next 10 years (approx. $60 million a year in 2018 dollars).

This projected need will not be fully covered with existing and anticipated Regional, State and Federal funding sources.



All costs shown in US$ 2018

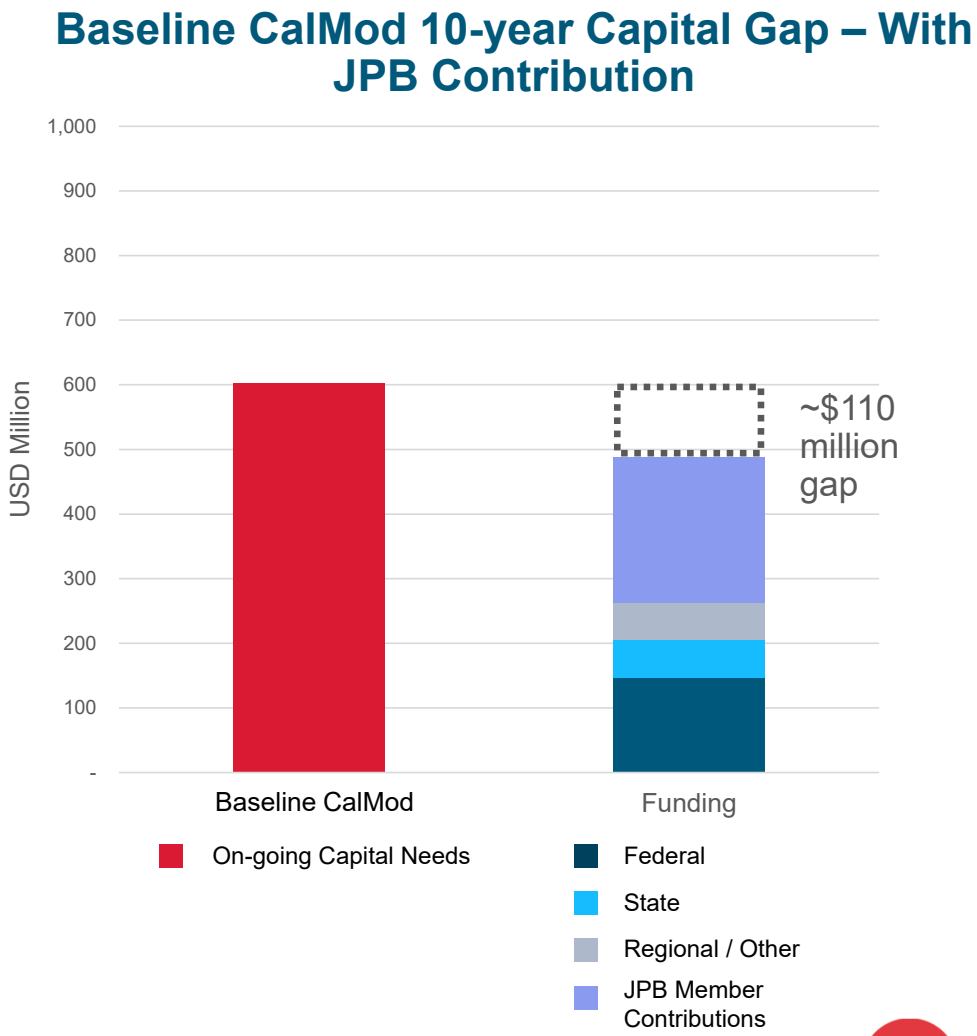
10-Year Capital Funding Gap

Baseline CalMod

While the Peninsula Corridor Electrification Project is fully funded the ongoing capital needs of the system require funding of $600 million total over the next 10 years (approx. $60 million a year in 2018 dollars).

This projected need will not be fully covered with existing and anticipated State and Federal funding sources.

If member agency capital contributions were to continue at their current rate (approximately $22.5 million per year, divided evenly among counties) the gap would shrink to $110 million.



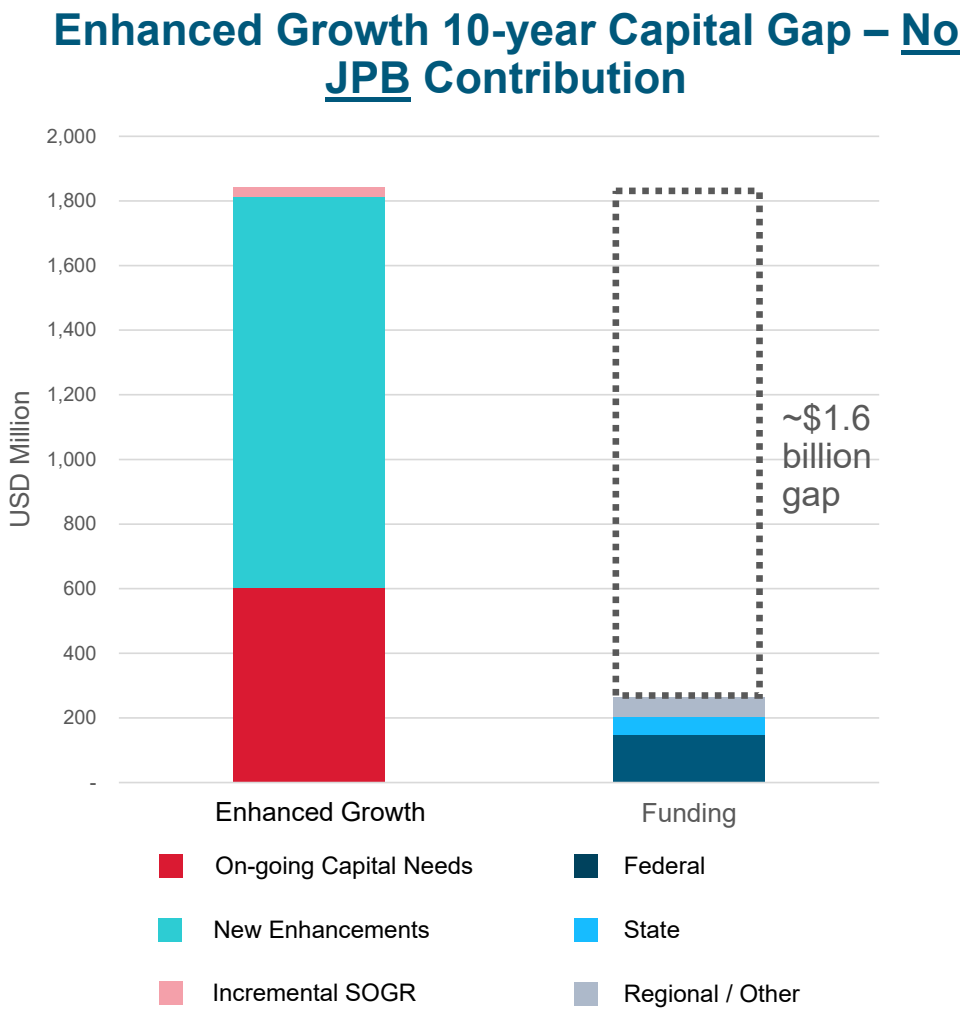
All costs shown in US$ 2018

10-Year Capital Funding Gap

Enhanced Growth

Achieving the levels of service envisioned in the "Enhanced Growth" option will require investment in both the basic, ongoing capital needs of the system as well as new improvements to enable an 8 train per hour service. This scenario requires a total capital investment of $1.8 billion, an additional $1.2 billion over the Baseline CalMod scenario.

There will be a need of approximately $1.6 billion of new funding above anticipated state, regional and federal formula sources to cover this capital need over the next decade.



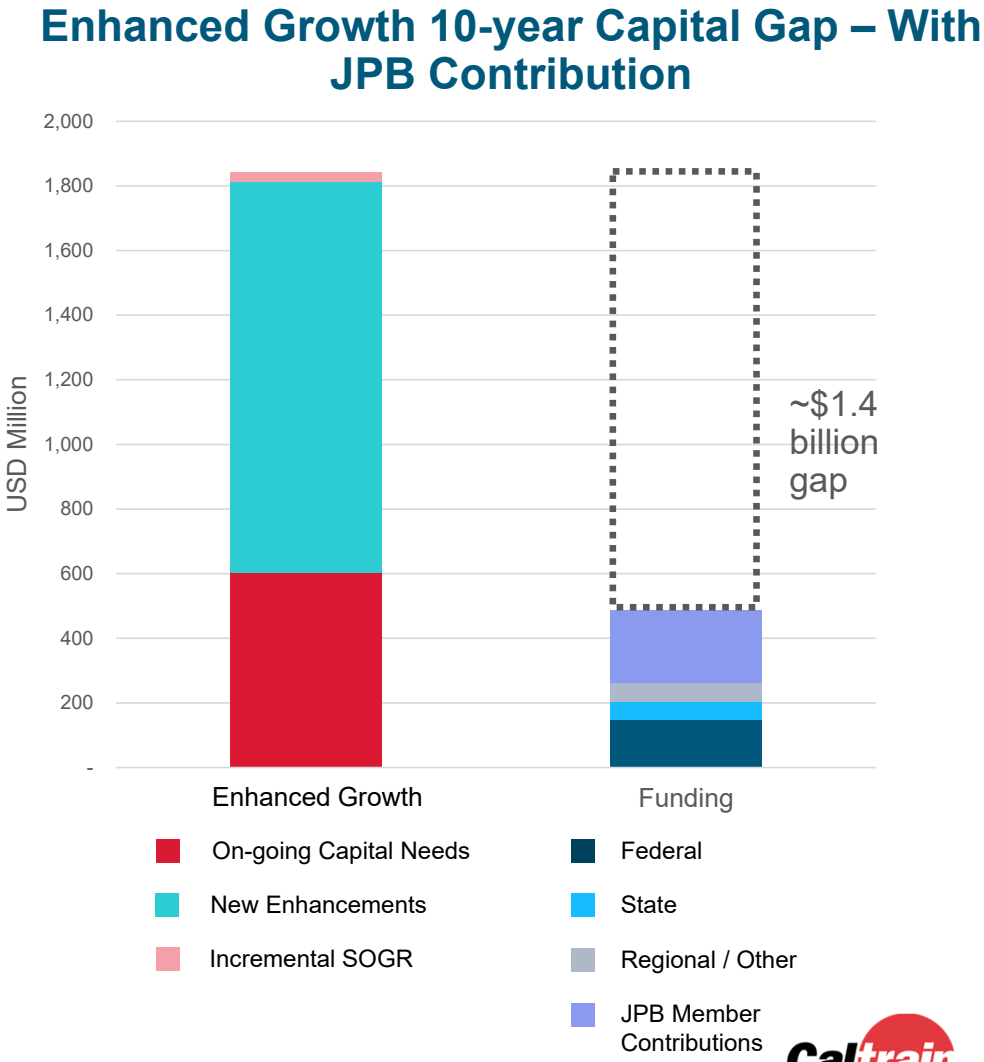
All costs shown in US$ 2018

10-Year Capital Funding Gap

Enhanced Growth

Achieving the levels of service envisioned in the "Enhanced Growth" option will require investment in both the basic, ongoing capital needs of the system as well as new improvements to enable an 8 train per hour service. This scenario requires a total capital investment of $1.8 billion, an additional $1.2 billion over the Baseline CalMod scenario.

If member agency capital contributions were to continue at their current rate (approximately $22.5 million per year, divided evenly among counties) the gap would shrink to $1.4 billion.



All costs shown in US$ 2018

10-Year O&M Expenses: Methodology & Assumptions

Staff has developed projections of anticipated operating expenses and revenues over the next decade for both the Baseline CalMod and Enhanced Growth Scenarios.

Projections are developed through a unit-based integrated business model and then further refined for typical escalation rates by cost category.

Assumptions and Caveats

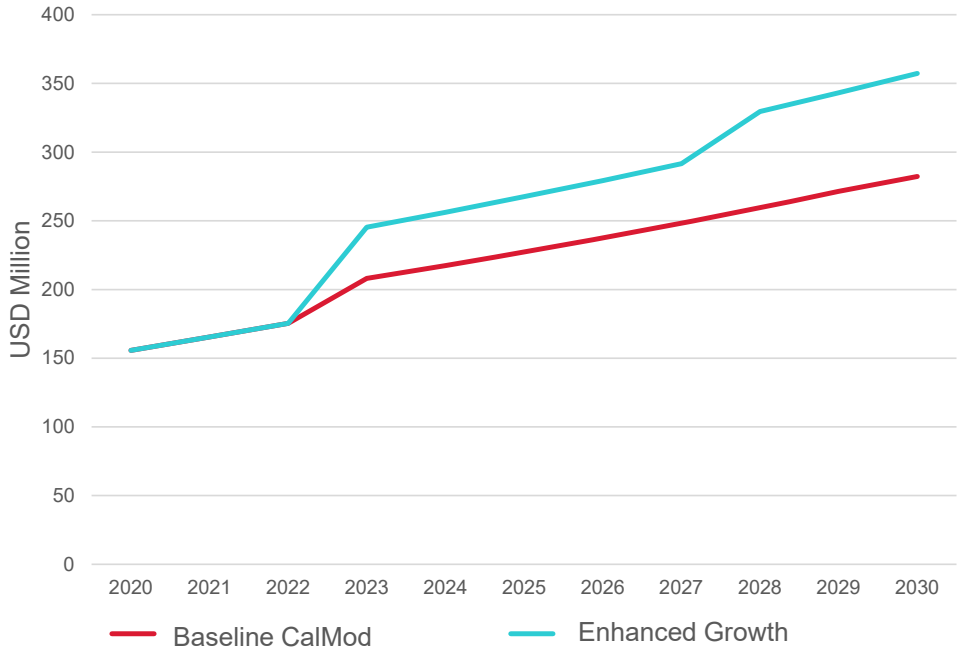
- **10 Year O&M projections are shown in year of expenditure dollars**
- **The projections represent Caltrain's best available information on likely costs and revenues, but several areas of significant uncertainty remain:**
  - TASI costs and operational parameters play a significant role in determining overall operating costs and may be influenced by ongoing contract negotiations
  - Costs of maintaining new systems and equipment (overhead catenary system, EMUs) have been estimated but are not yet fully known
  - Timing and speed of ridership growth in response to new service has been estimated but is not yet fully known
  - Many cost categories are inherently volatile and may vary (e.g. fuel, insurance)

O&M Expenses 2020-2030

Both scenarios assume the commencement of electrified service in 2022 (FY2023).

The Baseline CalMod path assumes the operation of 116 trains per day starting in FY2023 and through the end of the 10-year period.

The Enhanced Growth path will have 168 trains per day from FY2023 through FY2027, then increasing to 204 in FY2028 through the end of the 10-year period.



All costs shown in YOE $

O&M Expenses and Revenues 2020-2030

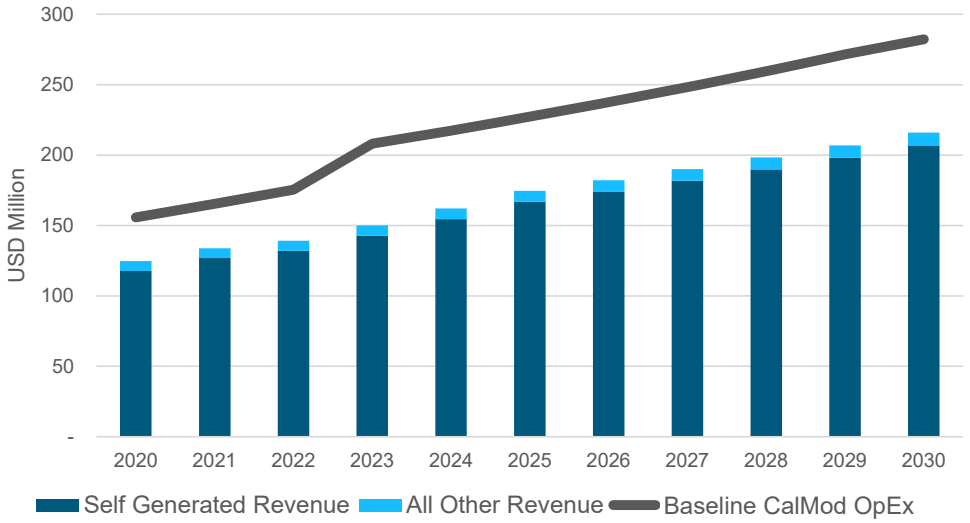
Baseline CalMod

Self Generated Revenues include fares, parking and projections of existing rental and advertising income.

All other revenue includes other minor funding and revenue sources that Caltrain receives on a predictable and recurring basis.

From FY2023 through 2030, the average annual gap is **$59 million** if Member Contributions are excluded.

Baseline CalMod
O&M Revenues Versus Expenses
No JPB Contribution



All costs shown in YOE $

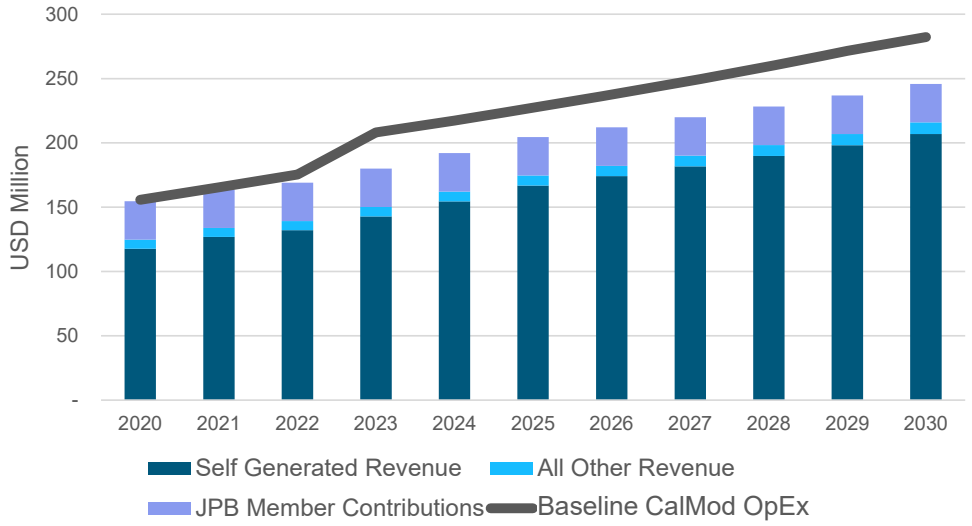
O&M Expenses and Revenues 2020 - 2030

Baseline CalMod

Caltrain's member agencies contributed a combined $29.9 million to the system's annual operating budget in FY20.

If these contributions were to continue at the same level, the average annual gap between FY2023 and 2030 would fall to approximately **$29 million.**

Baseline CalMod
O&M Revenues Versus Expenses
With JPB Contribution



All costs shown in YOE $

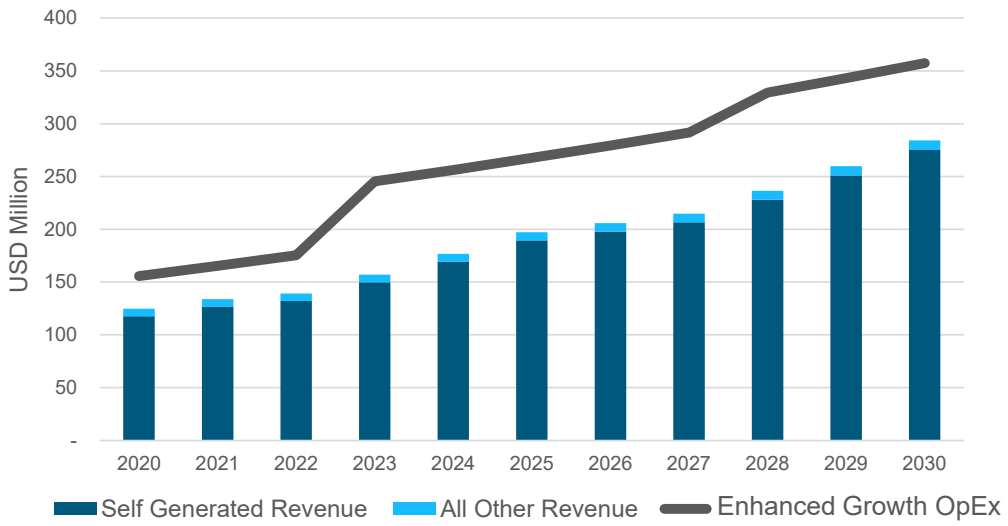
O&M Expenses and Revenues 2020-2030

Enhanced Growth

Self-generated revenues grow in the enhanced growth scenario but are not sufficient to offset increased operating costs.

The average annual gap between FY2023 and 2030 is **$80 million** if no Member Contributions are considered.

Enhanced Growth
O&M Revenues Versus Expenses
No JPB Contribution



All costs shown in YOE $

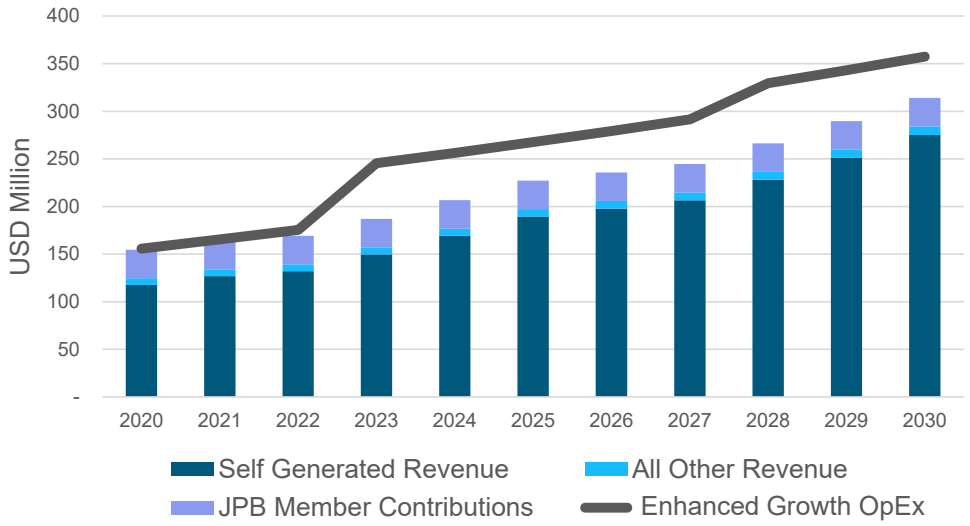
O&M Expenses and Revenues 2020-2030

Enhanced Growth

Caltrain's member agencies contributed a combined $29.9 million to the system's annual operating budget in FY20.

If these contributions were to continue at the same level, the average annual gap between FY2023 and 2030 would fall to approximately **$50 million.**

Enhanced Growth
O&M Revenues Versus Expenses
With JPB Contribution



All costs shown in YOE $

Options to Fill the Funding Gap

The following categories define four overarching "strategies" that Caltrain and the region could use to fund both Caltrain's near- and medium-term improvements as well as the long range Service Vision.

Cost Sharing

Establish a fair distribution of costs between Caltrain and other users of the corridor.

Self-Generated Revenue

Revenues from farebox, parking, advertising, and other self-generated sources.

Value Capture

Mechanisms to capture and remit new economic value generated by the railroad.

Public Investment

Direct public investment into the railroad including member contributions as well as new federal, state, regional, and local funding streams.

Options to Fill the Funding Gap

Examples of specific funding strategies within each category are shown below.

Cost Sharing

- Capital cost allocation for projects with multiple beneficiaries
- Track access fees

Self-Generated Revenue

- Farebox
- Parking
- Advertising
- Naming rights
- Low Carbon Fuel Credits
- Utilities and digital Services

Value Capture

- Special assessment and taxes
- Tax increment financing
- Joint development
- Other developer Contributions

Public Investment

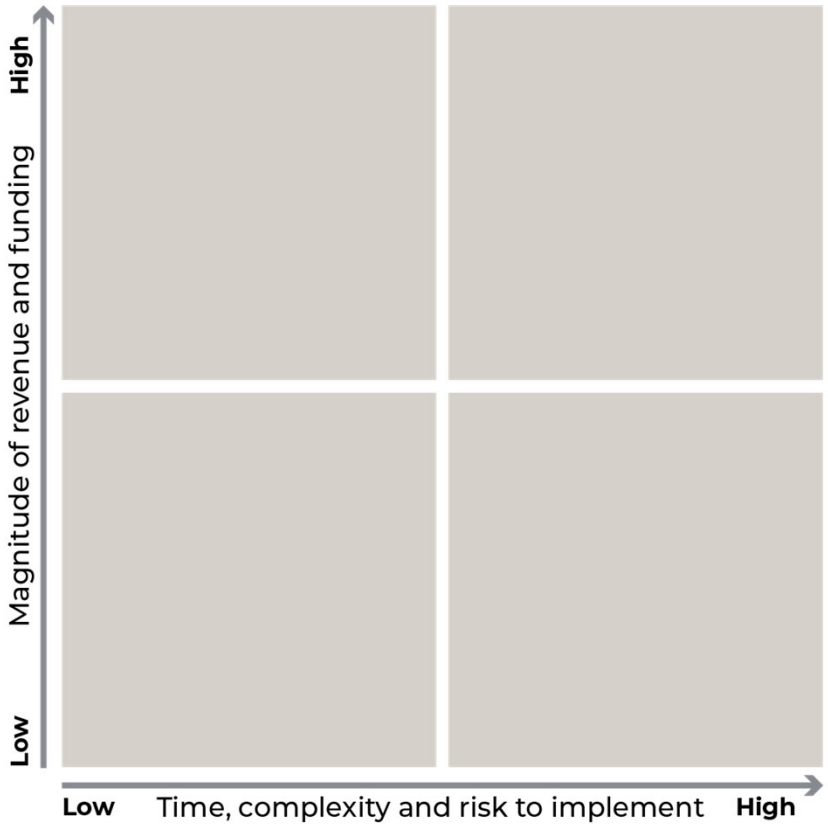
- Member contributions
- Existing county funding sources
- Regional measures
- Local sales taxes
- Public grants

Filling the Gap

The various funding mechanisms shown vary widely – and many may not be ready for near-term implementation or may not have the potential to generate large-scale revenues.

In contemplating options to fill Caltrain's anticipated funding gap over the next 10 years, potential sources have been analyzed by two factors:

- Magnitude of potential dollar amount (Y axis)
- Time, complexity and risk associated with securing this funding (X axis)

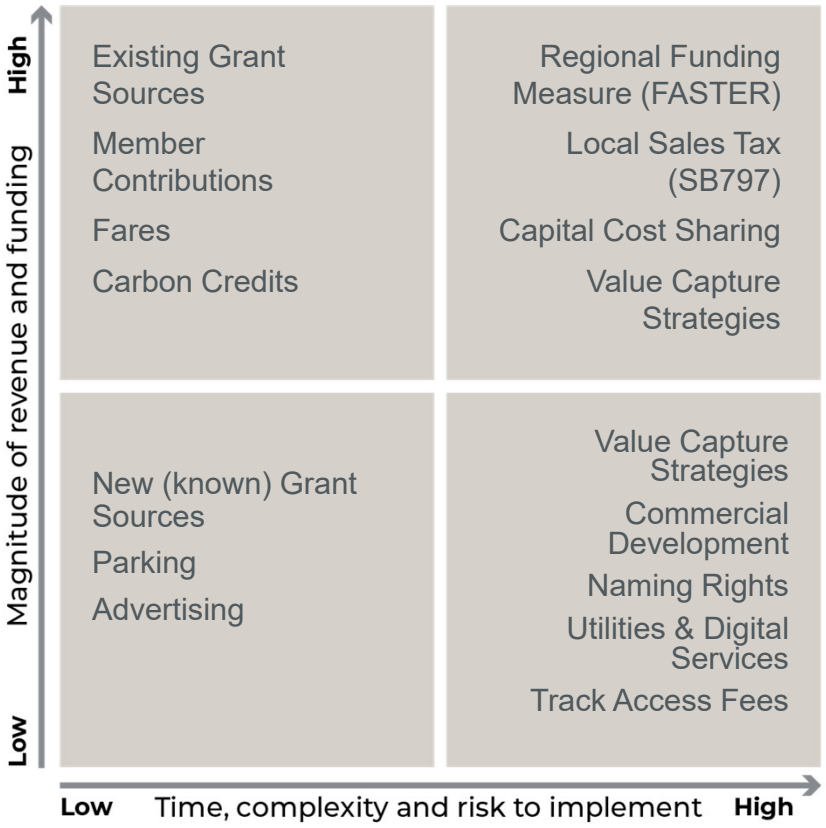


Filling the Gap

The upper quadrants are significant revenue sources, with increasing implementation complexity, time and/or risk to the right.

The lower quadrants are less significant revenue opportunities, with increasing implementation complexity, time and/or risk to the right.

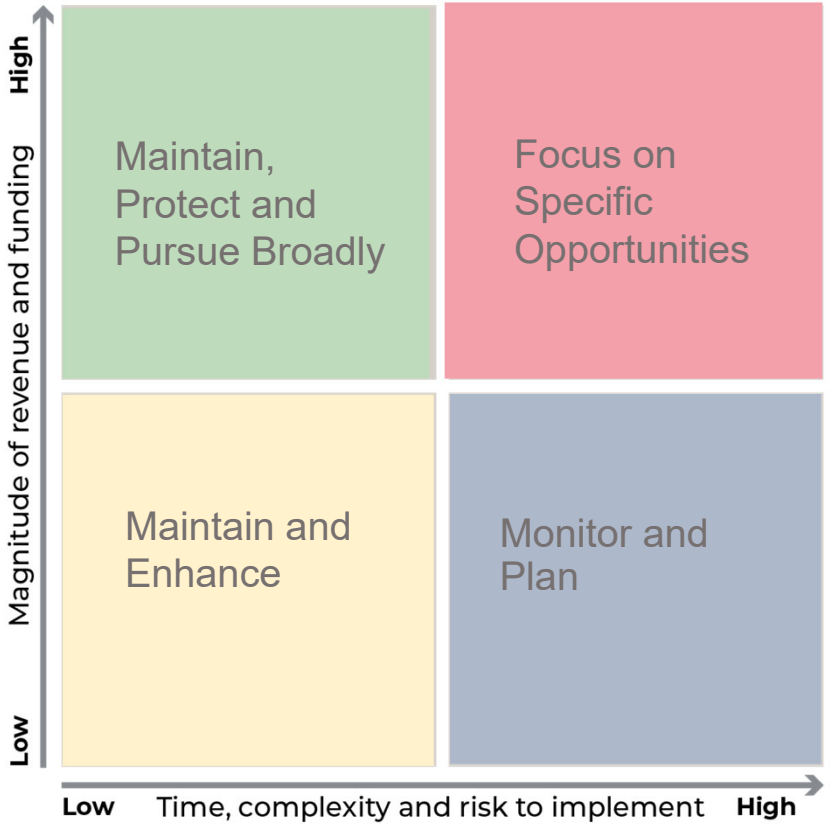
Examples of potential funding sources and revenues have been conceptually mapped to the four quadrants.



Developing a near- and mid-Term Strategy

Many different funding opportunities and strategies will need to be realized to achieve the 2040 Service Vision.

In the near- and medium term, however, the conceptual mapping of sources is helpful in developing plan of action as to where Caltrain should focus its immediate efforts and what sources can reasonably be assumed as part of a 10-year funding plan (where funding will need to be secured within a few years).



Near Term Options to Fill Funding Gap

Based on this analysis, the following strategies are recommended for consideration and inclusion as part of Caltrain's 10-year funding plan.

Cost Sharing

- Capital cost allocation
- Track access fees

Self-Generated Revenue

- Farebox
- Parking
- Advertising
- Naming rights
- Carbon credits
- Utilities and digital services

Value Capture

- Special assessment and taxes
- Tax increment financing
- Joint development
- Other developer Contributions

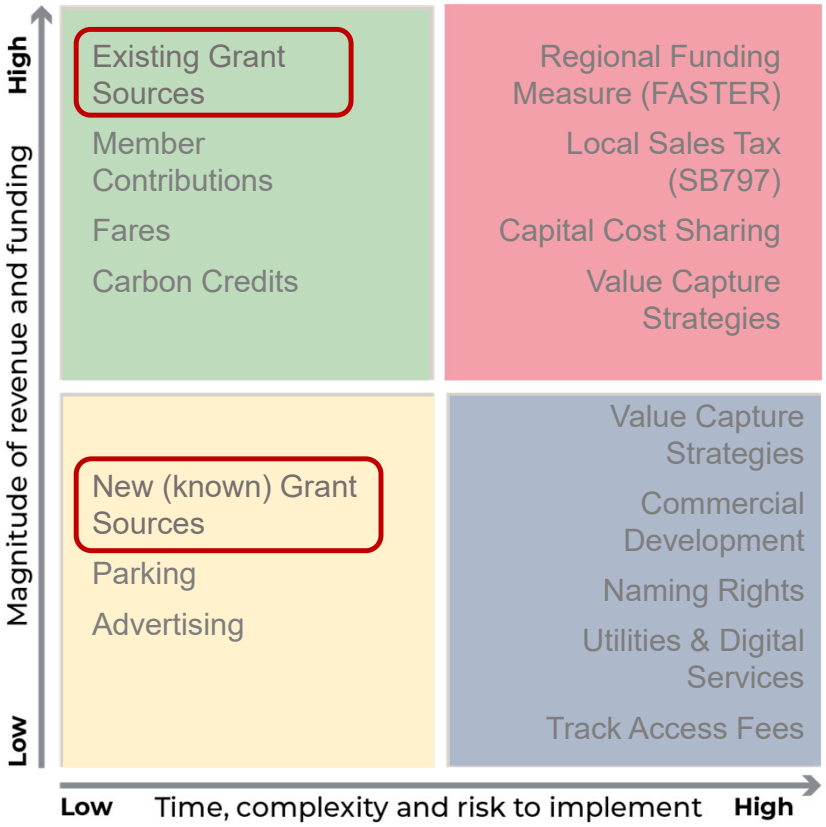
Public Investment

- Member contributions
- Regional measures
- Local sales taxes
- Public grants

Filling the Capital Gap -

To achieve the level of service contemplated in the “Enhanced Growth” path, up to $1.6 billion in capex is needed from new funding sources over the next 10 years.

Existing grant sources are one potential source of funding for these enhancements



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Existing grant sources are one potential source of funding for these enhancements.

Known and Existing Sources	Considerations
Federal Programs (FTA and FRA) State Programs (Transit and Intercity Rail Capital Program, Solutions for Congested Corridors) Regional Programs (Carl Moyer) Local Measures (Measures K, A, W, B)	Size of source and amount available Individual grant eligibility and criteria Competing with other, worthy projects

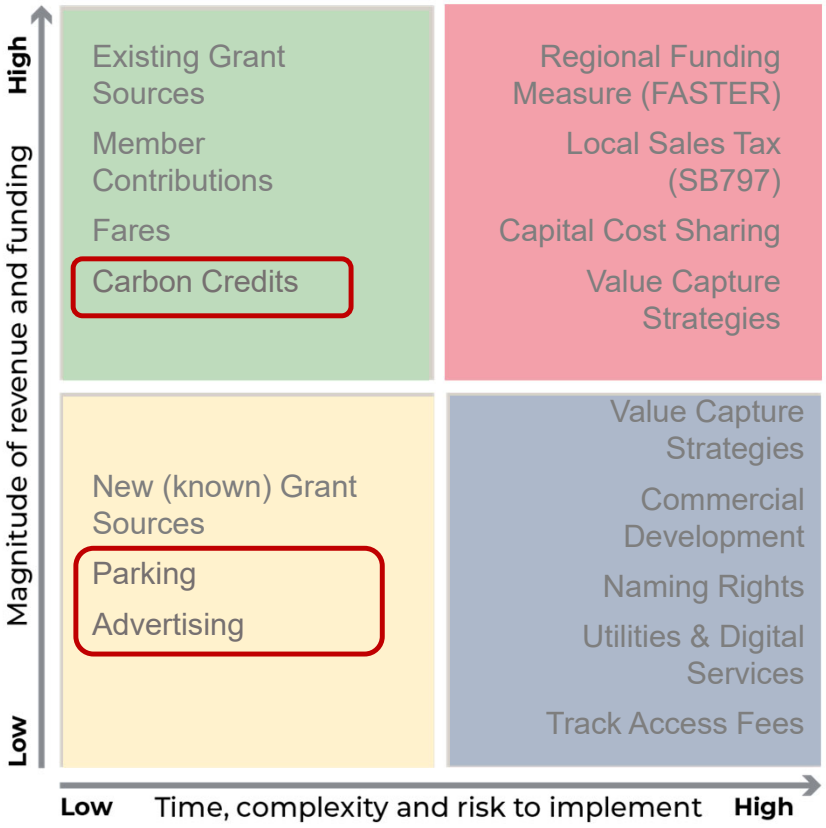
For planning purposes Caltrain has conservatively assumed a 10-year total of $200 million could be captured from existing grant sources. The remaining CapEx gap for the “Enhanced Growth” scenario would be:

- $1.4 billion (without Member Contributions)
- $1.2 billion (with annual capital budget Member Contributions held constant at FY2020 levels)

Filling the O&M Gap -

To achieve the level of service contemplated in the “Enhanced Growth” path, an average of as much as $80M a year in funding will be needed to support rail operations after 2023.

Over the next 10 years, Caltrain has several potential opportunities to increase operating revenues.



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Over the next 10 years, Caltrain has several potential opportunities to increase operating revenues.

Potential Near- and Mid-term Opportunities to increase annual operating revenue:

• Advertising	$1-$2 million/year
• Parking	$3-6 million/year
• Carbon Credits	$10-$30 million/year

For planning purposes Caltrain has assumed that an average of $22 million a year can be generated by these sources. The remaining OpEx gap for the “Enhanced Growth” scenario would be:

- $58 million gap a year (without Member Contributions)
- $28 million gap a year (with Member Contributions held constant at FY2020 levels)

New Public Investment Required

Even after pursuing readily available sources of funding and revenue, Caltrain will need ongoing and new public investment to achieve the "enhanced growth" scenario and deliver its full potential over the next 10 years and beyond.

Projected Expense – Enhanced Growth	Funding Gap (No JPB Member Contributions Included)	Funding Gap (JPB Member Contributions Maintained at FY20 Levels)
Ongoing OpEX	$58 million annually (average)	$28 million annually (average)
Ongoing Annual Capital Needs	$40 million annually (average)	$20 million annually (average)
New Capital Investment	$1 billion	$1 billion

New Public Investment Required

If Caltrain were to only deliver the "Baseline CalMod" level of service the gap would be lower but a substantial unmet annual need for funding would still exist (even after pursuing readily available sources of funding and revenue)

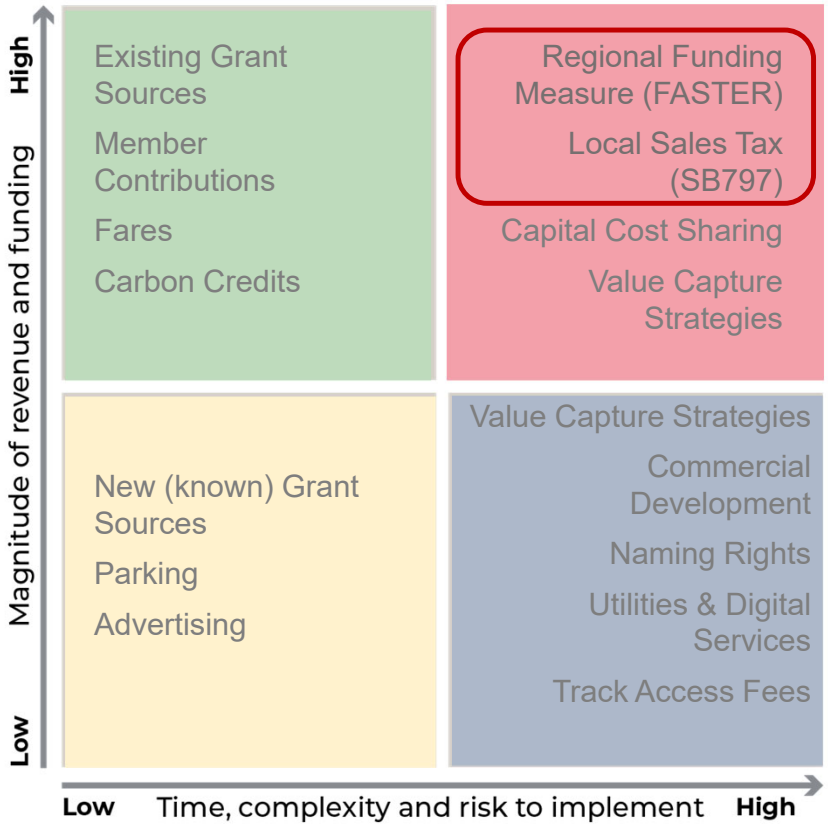
Projected Expense – Baseline CalMod	Funding Gap (No JPB Member Contributions Included)	Funding Gap (JPB Member Contributions Maintained at FY20 Levels)
Ongoing OpEX	$27 million annually (average)	$7 million annually (average)
Ongoing Annual Capital Needs	$40 million annually (average)	$20 million annually (average)
New Capital Investment	N/A	N/A

New Public Investment Required

Caltrain needs new public funding.

Realizing the full benefits of electrification and continue to grow the system to meet market demand will require investment from a source such as FASTER or SB 797.

Without this funding, Caltrain will not be able to provide the level of service the corridor needs and will face significant added demands on JPB member funding.



Work in Progress

Station Access Work Plan

The Business Plan presents an opportunity to evaluate Caltrain's current role in station access and how this role may need to change over time to support the service vision.

The Business Plan will provide a high-level assessment of potential paths forward at a system-level, but will not address investment needs at individual stations.

What role does Caltrain play in station access?

- Review existing programs and investments

What is Caltrain's station access vision?

- Consider several paths forward:
  a. A hands-off approach
  b. A proactive investment in parking
  c. A proactive investment in multimodal access

How do we get there?

- Identify most pressing access needs and priorities

Equity Assessment Work Plan

The equity assessment is intended to help us understand how the Service Vision could improve equitable access to Caltrain and develop a series of policy interventions that would improve equitable access further.

Opportunities & Challenges

- Review of existing plans
- Stakeholder interviews
- Market assessment

Analysis of the Service Vision

- Qualitative & quantitative evaluation of the Service Vision

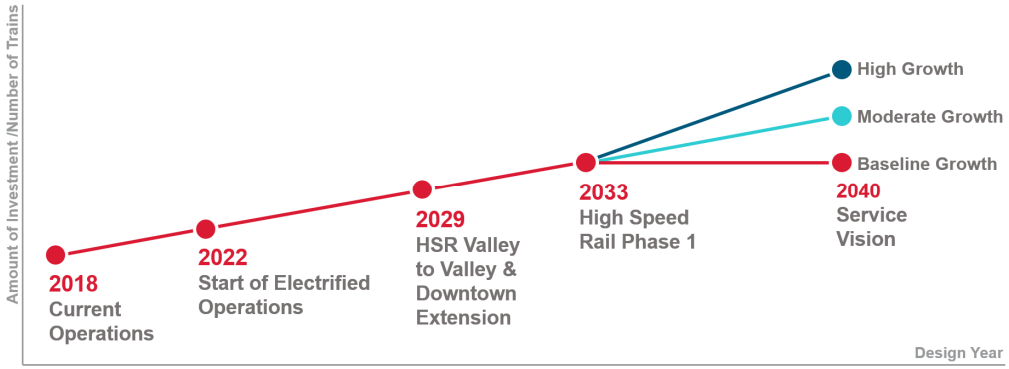
Recommend ations

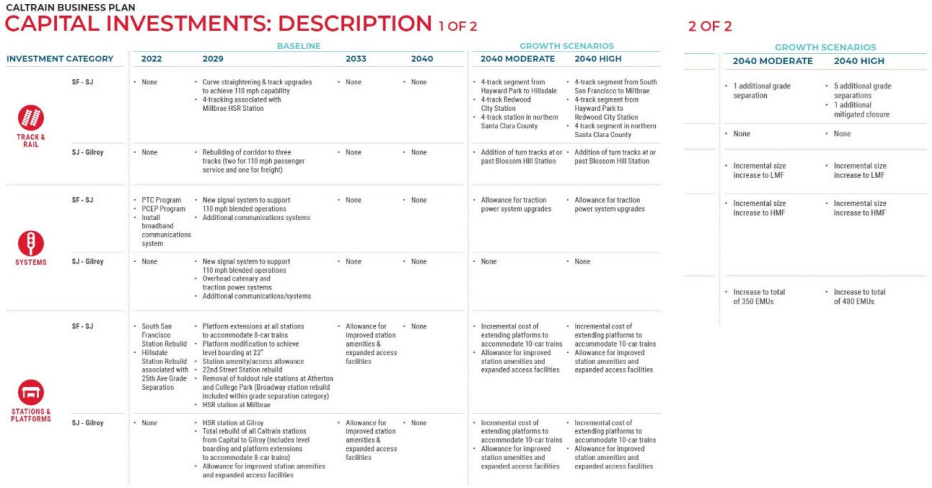
- Context-specific recommendations as outcomes from the analysis of the Service Vision and opportunities and challenges.

Funding Strategy

Service Vision includes $25.3 Billion in corridor investments by Caltrain, cities and partner agencies and operating costs of $370 M/year by 2040

The funding strategy will expand on the work included in this presentation to discuss additional, longer-term sources of funding and strategies that can be brought to bear over time to achieve the 2040 Service Vision.





CALTRAIN BUSINESS PLAN

CAPITAL INVESTMENTS: DESCRIPTION 1 OF 2

INVESTMENT CATEGORY		BASELINE 2022	BASELINE 2029	BASELINE 2033	BASELINE 2040	GROWTH SCENARIOS 2040 MODERATE	GROWTH SCENARIOS 2040 HIGH
TRACK & RAIL	SF - SJ	• None	• Curve straightening & track upgrades to achieve 110 mph capability • 4-tracking associated with Millbrae HSR Station	• None	• None	• 4-track segment from Hayward Park to Hillsdale • 4-track Redwood City Station • 4-track station in northern Santa Clara County	• 4-track segment from South San Francisco to Millbrae • 4-track segment from Hayward Park to Redwood City Station • 4-track segment in northern Santa Clara County
	SJ - Gilroy	• None	• Rebuilding of corridor to three tracks (two for 110 mph passenger service and one for freight)	• None	• None	• Addition of turn tracks at or past Blossom Hill Station	• Addition of turn tracks at or past Blossom Hill Station
SYSTEMS	SF - SJ	• PTC Program • PCEP Program • Install broadband communications system	• New signal system to support 110 mph blended operations • Additional communications systems	• None	• None	• Allowance for traction power system upgrades	• Allowance for traction power system upgrades
	SJ - Gilroy	• None	• New signal system to support 110 mph blended operations • Overhead catenary and traction power systems • Additional communications/systems	• None	• None	• None	• None
STATIONS & PLATFORMS	SF - SJ	• South San Francisco Station Rebuild • Hillsdale Station Rebuild associated with 25th Ave Grade Separation	• Platform extensions at all stations to accommodate 8-car trains • Platform modification to achieve level boarding at 22" • Station amenity/access allowance • 22nd Street Station rebuild • Removal of holdout rule stations at Atherton and College Park (Broadway station rebuild included within grade separation category) • HSR station at Millbrae	• Allowance for improved station amenities & expanded access facilities	• None	• Incremental cost of extending platforms to accommodate 10-car trains • Allowance for improved station amenities and expanded access facilities	• Incremental cost of extending platforms to accommodate 10-car trains • Allowance for improved station amenities and expanded access facilities
	SJ - Gilroy	• None	• HSR station at Gilroy • Total rebuild of all Caltrain stations from Capital to Gilroy (includes level boarding and platform extensions to accommodate 8-car trains) • Allowance for improved station amenities and expanded access facilities	• Allowance for improved station amenities & expanded access facilities	• None	• Incremental cost of extending platforms to accommodate 10-car trains • Allowance for improved station amenities and expanded access facilities	• Incremental cost of extending platforms to accommodate 10-car trains • Allowance for improved station amenities and expanded access facilities

2 OF 2

GROWTH SCENARIOS 2040 MODERATE	GROWTH SCENARIOS 2040 HIGH
• 1 additional grade separation	• 5 additional grade separations • 1 additional mitigated closure
• None	• None
• Incremental size increase to LMF	• Incremental size increase to LMF
• Incremental size increase to HMF	• Incremental size increase to HMF
• Increase to total of 350 EMUs	• Increase to total of 480 EMUs

FOR MORE INFORMATION

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