Caltrain Business Strategy: Scenario Planning

JPB WPLP COMMITTEE
JAN 27, 2021
Ongoing Recovery Planning Efforts

During most of 2020, Caltrain pivoted its Business Plan effort to focus on COVID-19 recovery planning. This work has been spread across multiple streams as shown on the right.

In 2021, with the passage of Measure RR and vaccination campaigns underway, staff is shifting the emphasis of recovery planning efforts toward preparing a Business Strategy for a post-pandemic reality. This work starts with scenario planning.
Focus for today

The presentation today focuses on establishing context for Caltrain’s post-pandemic Business Strategy. It describes major recent shifts that have occurred in Caltrain’s business environment and outlines the process that staff used to generate different scenarios or “stories” about possible futures the railroad may encounter. These scenarios are intended to provoke a series of strategic questions and conversations about Caltrain’s Business Strategy going forward.

Staff plans to return to the Board in spring with Business Strategy that addresses these questions and can guide the railroad through the coming years.
Focus for today

The presentation today focuses on establishing context for Caltrain’s post-pandemic Business Strategy. It describes major recent shifts that have occurred in Caltrain’s business environment and outlines the process that staff used to generate different scenarios or “stories” about possible futures the railroad may encounter. These scenarios are intended to provoke a series of strategic questions and conversations about Caltrain’s Business Strategy going forward.

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Three Key Ideas

- The events of the last year have massively impacted Caltrain’s business and have also provoked larger, long term shifts in the railroad’s surrounding business environment.

- The future looks increasingly volatile, uncertain, complex and ambiguous. Previous trends and assumptions are not necessarily a reliable guide to what may happen next. Caltrain has used scenario planning as a tool to consider multiple possible futures.

- Caltrain needs a Business Strategy to navigate the challenges and opportunities of the coming years. The strategy will focus on how Caltrain can drive customer and public value during a time of significant uncertainty.
Background
What is Caltrain’s Business?

There are two major areas of Caltrain’s business. While closely interrelated, they are fundamentally distinct.

**Rail Service**
(San Francisco – Gilroy)

- Passenger rail operations
- Maintenance of rolling stock and systems
- Fare policy and collection
- Near and long term service planning
- First- and last-mile services

**Corridor Management**
(San Francisco – San Jose)

- Hosting of Caltrain service
- Hosting of freight and other current and future tenant rail services (ACE, CCJPA, CHSRA)
- Infrastructure and corridor maintenance
- Capacity planning and participation in joint projects
- Capital project delivery
- Land asset management
How does Caltrain’s Business Deliver Value?

Caltrain (and transit generally) delivers value in two broad and interrelated ways.

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Where were we?

Rail Operations

In 2017, at the start of the Caltrain Business Plan process, Caltrain’s commuter rail operation had enjoyed more than a decade of consistent ridership growth buoyed by the success of the “baby bullet” express service and a booming corridor economy.

Lacking a dedicated source of funding, the railroad relied heavily (and successfully) on passenger fares – recovering more than 70% of its operating costs through ticket sales and other self-generated revenue sources.

As ridership grew, public subsidy of the service declined in both real and percentage terms.
Where were we?

Corridor Management

Leading into the start of the Caltrain Business Plan, the railroad’s corridor management efforts were overwhelmingly focused on two related initiatives.

First, longer term corridor management efforts focused on planning for the introduction of California High Speed Rail service to the corridor (the Blended System) and on related, major expansion projects like the Downtown Extension and Diridon Station.

The other major corridor management focus was the planning, funding and delivery of the Peninsula Corridor Electrification Project – an investment in corridor capacity that would allow Caltrain to significantly expand service and that could be used by CHSRA services in the future.

2008
CHSRA specifies its alignment

2011-2013
“Blended System” introduced
CHSRA Business Plan confirms Blended System
Senate Bills 1029 and 557 provide Prop 1A funds and codify 2-track blended system

2013-2017
Peninsula Corridor Electrification Program environmentally cleared
Receipt of Federal Full Funding Grant Agreement
Full Notice to Proceed issued
Where were we?

A Long Range Service Vision

The major focus of Caltrain’s Business Plan process was the development of a Long Range Service Vision for the railroad. The Board adopted the Long Range Service Vision in the fall of 2019.

The Vision was selected through a business case process and was developed to harmonize and expand upon the multiple, overlapping long range plans in the Caltrain corridor by re-focusing them around a goal of expanded and improved rail service. The 2040 Service Vision provides Caltrain with a framework that comprehensively guides the railroad’s corridor management activities and long range service planning.
Where were we?

Planning for the next 10 years

With a Long Range Service Vision adopted, Caltrain was preparing to complete the Business Plan process and was focused on developing an “implementation plan” that would guide railroad operations and expansion activities over the coming decade. In February of 2020, staff presented to the board on a number of key areas including;

- Work related to equity and station access
- Development of interim service concepts for the next decade including both electrified service as well as an “enhanced growth” approach to deliver expanded, 8 train per hour service in the corridor as soon as feasible
- Refining ridership estimates, financial projections, and funding needs for the next decade
A Year of Change

In March of 2020 the pandemic hit the Bay Area and daily life changed dramatically.

Over the course of the last year, the impacts brought about by COVID-19 have intertwined with and, in some cases, amplified and accelerated other significant events and trends around the region, country and world.

The future “Business Environment” Caltrain must plan for now seems very different, and less stable, than the one in which we existed pre-COVID.

Examples of Major shifts in the Business Environment

- Massive changes to daily life and mobility patterns resulting from the COVID-19 Pandemic and associated health orders
- Severe economic impacts, job losses and worsening economic inequality
- Widespread recognition and protest of racial injustice
- Accelerated adoption of remote working, delivery services and contactless payment
- Changes to residential and commercial real estate markets
- Intensifying impacts of climate change including severe wildfires and air quality deterioration in Northern California
- A significant federal election amidst intensifying political polarization and violence
A Year of Change for Caltrain

When the pandemic hit, Caltrain’s focus immediately turned away from long range planning and toward survival and recovery as the impacts of the pandemic precipitated an abrupt loss of ridership and an existential financial crisis for the railroad.

The events of the past year have resulted in significant direct changes to the railroad’s business – at a time when a great deal of change was already underway.

The future Caltrain must plan for now is not necessarily the same one we were contemplating a year ago.

Direct Business Impacts

- Abrupt loss of 95% ridership and corresponding declines in revenue resulting from the pandemic and associated public health orders
- Ongoing disruption and changes to operations, project work and business practices

Significant Responses and Events

- Adoption of health and safety practices
- Federal relief funding and formation of the Blue Ribbon Task Force
- Adoption of Equity, Connectivity, Recovery & Growth Framework
- Significant restructuring of Caltrain service
- Passage of Measure RR

Other, Parallel Change

- Electrification of the railroad
- Advancement of governance process
- Changes in senior staff and leadership
Multiple Phases of Crisis & Response

**Initial Triage**
March 2020 – May 2020

- Initial crisis and immediate triage response by Caltrain

**Surviving the Pandemic**
May 2020 – 2021 (?)

- Extended period where Pandemic is ongoing and Caltrain ridership and operations remain deeply impacted and in a state of dynamic flux. Railroad's financial position is precarious

**Preparing for the Next Reality**
2021 and Beyond

- Long-term resolution of pandemic through vaccine or other permanent public health approaches. Caltrain adjusts to new Business Environment
Why did Caltrain Undertake Scenario Planning?

The events of the last year have massively changed Caltrain’s business and have also provoked larger, long term shifts in the railroad’s surrounding business environment. The “next reality” Caltrain faces looks increasingly volatile, uncertain, complex and ambiguous. Previous trends and assumptions are not necessarily a reliable guide to what may happen next.
Stages of Caltrain's Scenario Planning Process

Lay the Groundwork
- **Interview** key leaders
- **Assess** external trends
- **Design** workshops
- **Study** Bay Area infections model

Develop Scenarios
- **Choose** the most important external forces
- **Identify** 4 diverging scenarios and develop stories for each
- **Map** these scenarios over time

Determine Strategic Implications
- **Study** implications for Caltrain in each scenario
- **Identify** actions to take over different time frames
- **Define** early indicators for each scenario
### Who was involved?

**Caltrain Staff**
- Caltrain Executive leadership
- Representatives from Systemwide Planning & Policy, Financial Planning, Grants & Funding, Operations, and Marketing departments

**External Experts**
- Katherine Carmen *Behavioral Economist*
- Egon Terplan *Advisor to Governor Newsom*
- Kiran Jain *Policy and Civic Technology/Innovation Expert*
- David Bragdon *Transit Center Executive Director*
- Ibbi Almufti *Arup Risk and Resilience Leader*

**Stakeholders**
- Project Partner Committee (PPC) – staff from partner agencies - participated in a workshop provide feedback on scenarios

**Consultant Team**
- Nicole Boyer *NOW Partners*
- Ratna Amin *Deutsche Bahn & Engineering*
- Huma Husain *Fehr & Peers*
- Lee Reis *Fehr & Peers*
- Karina Schneider *Fehr & Peers*
- Katie Miller *Fehr & Peers*
Developing Scenarios
Caltrain’s Focal Question: What’s the impact of the pandemic on Caltrain’s future business?

Surviving the Pandemic (next 6 months to 3 years)
What will the regional market and funding environment look like during the transition period?

New Reality (3-10 years)
What are the lasting impacts in the region as a place to work, live and visit?
Scenario Development Process

What driving forces will shape the answer to Caltrain’s focal question?

How big are the uncertainties associated with each force?

What are the biggest uncertainties shaping our future?

Transit and Caltrain prioritized, new funding sources

Factors:

- Public support
- Transit and Caltrain prioritized
- Public support

Ranges of Uncertainty

- Significant changes
- Incremental changes

- Lasting changes to travel patterns
Public Support for Transit

Key Considerations on this Axis:

- What nature and level of direct public financial support is available to Caltrain? (eg member funds, Measure RR, other direct funding streams)
- What Federal and state funding opportunities are available to Caltrain specifically and transit generally? (eg relief funds, new stimulus, ongoing and new programs)
- What nature of political support is there for Caltrain in the region and state?
- Is transit politically prioritized and a focus generally at the regional, state, and national levels?
Lasting Changes to Travel Patterns

Key Considerations on this Axis:

- Progress of the pandemic including timing and efficacy of a vaccination campaign
- Evolution of remote work (WFH) and education both during and post-pandemic
- Changes in regional economic outlook and growth patterns
- Near- and longer term impacts to housing and job distribution and growth within the region
- Speed of ongoing technological innovation in the remote work and transportation industries
- Ongoing evolution of traffic and congestion patterns
- Accelerating impacts of climate change to daily life
Developing Stories About the Future
Four Caltrain Scenarios

- **Butterfly**: Transit and Caltrain prioritized, new funding sources
- **Back on Track**:Incremental changes
- **Downward Spiral**:Significant changes
- **Shark Tank**:Lasting changes to travel patterns

Transit and Caltrain less prioritized, limited funding sources
Why Back on Track Happens

- An effective vaccination campaign gets people back to offices and schools gradually throughout 2021.
- Thanks to strong Federal and State incentives the regional economy recovers within 3 years.
- The corridor office travel market is smaller than before, but remains. Other travel markets grow in relative importance.
- Major, sustained Federal investments in transit fund both capital expansion and transit operations.
- Institutional reforms occur incrementally as Caltrain and the region focus on an ambitious capital program and expanded service.

This is a world in which after a near-death experience, public transit becomes more integral to the Bay Area. The megaregional economy emerges strongly from the pandemic, and a new stream of Federal transit funding enables receiving agencies to prioritize advancement of capital programs, deliver robust service and prioritize equity. Leadership shown during the pandemic increases trust in the capabilities of existing government institutions.
Why Shark Tank Happens

- An effective vaccination campaign gets people back to offices and schools gradually throughout 2021.
- A recession results in a smaller commuter market and many people continue working from home. Nonetheless, a core market of regional and intercity travel remains.
- Financial scarcity drives continued polarization at multiple levels of government. Federal aid and stimulus are initially significant but are quickly spent and over time fall well short of overall need.
- While a handful of major projects advance, longer term ambitions to expand transit begin to fade across the region and individual agencies grow increasingly focused on their own markets and protective of their bottom lines.
- Caltrain is marginalized politically and must seek new and additional partners and consider new business lines and ways of monetizing assets. The private sector gets increasingly involved with keeping public transportation going.

This is a world in which it's survival of the fittest. Despite initial rounds of relief funding and the passage of Measure RR, further funding for transit largely stagnates for the remainder of the 2020's as public priorities shift and the country grapples with intense polarization at the federal level. Measure RR guarantees Caltrain’s survival but with other funding sources in decline the railroad turns to a mixed bag of innovations and private partnerships to grow its business; Caltrain has an increasingly singular focus on its own survival rather than long term expansion.
Why Downward Spiral Happens

- A halting and stilted vaccination campaign results in daily life remaining disrupted well into 2022.
- The US economy is depressed for several years. The nation remains highly polarized and all layers of government are focused on dealing with escalating social, environmental and economic crises.
- Remote work proves popular and office densities begin a permanent decline. Over time, living or working near rail stations loses its appeal. People keep their work and activities close and rely on personal transportation: walking, cars, bikes and scooters.
- There’s little private interest in public transportation. Instead, informal transit – privately-organized – becomes common. Automated car rides and delivery become common later in the decade. Public policy focus orients toward increasing road capacity and managing automobility – e.g. HOT lanes, congestion pricing.
- Public transit is – and is viewed as - a lifeline social service for those with no alternative. Large infrastructure projects are slowly abandoned and inflationary pressures steadily erode the operating funding that remains for transit.
Why Butterfly Happens

- A halting and stilted vaccination campaign results in daily life remaining disrupted well into 2022.
- The temporal structure of daily life is permanently changed - remote and hybrid work remains popular, corridor employers and schools adopt varied and asynchronous schedules.
- While land use developments in the pipeline are built, new office starts to taper off and settlement patterns steadily shift across the region and state.
- Congress passes one-time and permanent funding packages supporting public transit, renewing the social safety net, and addressing climate change and adaptation.
- A new regionalism emerges to tackle climate adaptation and to address pressing social challenges. A new cohort of leadership moves to the public sector creating new coalitions and institutional arrangements.
- Transportation demand becomes heterogenous – people need to move seamlessly from transit to scooters to AVs – the private sector expands its involvement in mobility.

This is a world in which Caltrain and transit throughout the region have a few very painful years of hard decisions and dramatic organizational changes followed by transformation and renewal. The business case for transit is redefined and widened to include broad social and environmental benefits and new investment follows. Some major projects in the region advance while others are reimagined and modified. New leaders and public sector collaborations emerge centered on equity, sustainability, and resilience. Continued prosperity in Silicon Valley means Caltrain stays necessary and relevant to people throughout the corridor.
How might we start to know which of these scenarios are unfolding?

Signposts and early warning indicators

- Senate and Presidency flip party
- Composition of ridership changes
- Increased regional cohesion and cooperation
- Aggressive Federal and State climate policy
- Policies to reduce auto reliance are enacted or strengthened

- Pandemic is endemic
- Private sector actively encourages work from home and hybrid work
- Congestion levels are moderate
- Regional population declines
- Climate change becomes a discussion of adaptation

- Senate and Presidency flip party
- Significant and sustained federal and state investments in transit
- Ridership increases steadily
- Widespread return to the office
- Congestion returns and increases

- Corridor economy regains strength
- Federal relief funding and stimulus are modest and quickly spent
- Regional coordination efforts falter
- Climate change is not aggressively addressed
- Expressions of interest from private sector
- Breakthroughs and private funding for first/last mile connections and automation
Strategic Implications
Caltrain’s Focal Question: What’s the impact of the pandemic on Caltrain’s future business?

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What will the regional market and funding environment look like during the transition period?

New Reality (3-10 years)
What are the lasting impacts in the region as a place to work, live and visit?
What are "givens" in the business environment which Caltrain must prepare for?

Transaction Space

• Transit must continue to address public health as well as equity and anti-racism in service, fares and participation.
• Some transit agencies and local governments will undergo significant, transformative crises – albeit insulated by relief funding.
• Leadership and organizational changes will occur.
• Sustained favoring of personal mobility.

Next 18 months

• Vaccines and treatments for COVID-19 will continue rolling out over months or years.
• Some degree of hybrid ways of working (office and home) are here to stay, home deliveries are here to stay, and some auto congestion is also here to stay.
• The economic fallout from COVID and SIP will continue to manifest for months with closures and lower incomes.

2030 onward

• There will be more focus on multi-purpose projects which address multiple public goals.
• There will be significant advances in automated transportation as well as other mobility-interfacing technologies.
• The way government delivers services will change to address participation, equity, resiliency and operational efficiency, with more creativity.

Business Environment

• Repurposing and adaptation of land uses will deepen as the nature of work, retail and school in the region change.
• The region’s demographics will shift as companies adapt their business strategy and lower wage and hybrid workers move to lower-cost regions.
• Sustainability and reducing carbon emissions will become more essential. Climate change events, sea level rise resiliency and recovery will become increasingly important.
Each Scenario Suggests A Different Point of View for Caltrain

**Butterfly**

Embrace a *broad public mission* and *diverse markets* as part of a regional network. Look outward to new funding and *new opportunities for partnership*.

**Back on Track**

Stay the course and *focus on the build out of the Service Vision*: focus on delivering expanded electrified service and on the next generation of Caltrain and regional projects.

**Downward Spiral**

Focus on *preserving the ability to fight another day*. Caltrain’s need for radical change will be driven by the depth of the spiral and the partnerships it is able to forge and maintain.

**Shark Tank**

Focus on driving revenue through customer value. Explore *new business lines, new business models, and new partners*. Limited public funding may mean a *reduced focus on expansion*.

**Transit and Caltrain less prioritized, limited funding sources**

**public support**

**significant changes**

**lasting changes to travel patterns**

**incremental changes**
Diversification of revenue/funding sources and markets with equity-focus as a key strategy

Significantly evaluating, reshaping, rethinking fares and service to meet evolving opportunities and needs (during and beyond the pandemic)

Asset monetization and entrepreneurial approaches are essential, or at least helpful, in all scenarios as is a focus on efficiency and careful management of financial capacity

New partnerships with both public and private actors are necessary or helpful in all scenarios

The need to address governance and organizational change is present in all scenarios

"no-regrets" and "must dos"
Staff is working to develop a more detailed and structured Business Strategy that responds to our scenarios and that can prepare Caltrain for the coming years.

Caltrain’s Business

Example Activities:
- Passenger rail operations
- Maintenance of rolling stock and systems
- Fare policy and collection
- Near and long term service planning
- First- and last-mile services

How Caltrain Delivers Value

Customer Value: The direct benefits that accrue to individuals who use the system

Public Value: The mobility, equity, economic, social and environmental benefits that accrue to a broader public or advance larger public goals and values when the system is used

Self-generated Revenues: Fares and other-self generated revenues earned directly

Public Subsidy: Public funding of operations and capital investments

Rail Service
(San Francisco – Gilroy)

Corridor Management
(San Francisco – San Jose)

VALUE for MONEY
### Key Questions

The Business Strategy will focus on how Caltrain can drive value for customers and the public during a period of ongoing uncertainty and change.

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<td>• How do we define and deliver value to the public as a whole?</td>
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<td>• What can we afford and how do we sustain ourselves financially?</td>
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<td>• How can organize and partner in a manner that allows us to be a nimble, effective and publicly responsive?</td>
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