

DTX Demand Forecasting

Overview of Approach and Scenarios



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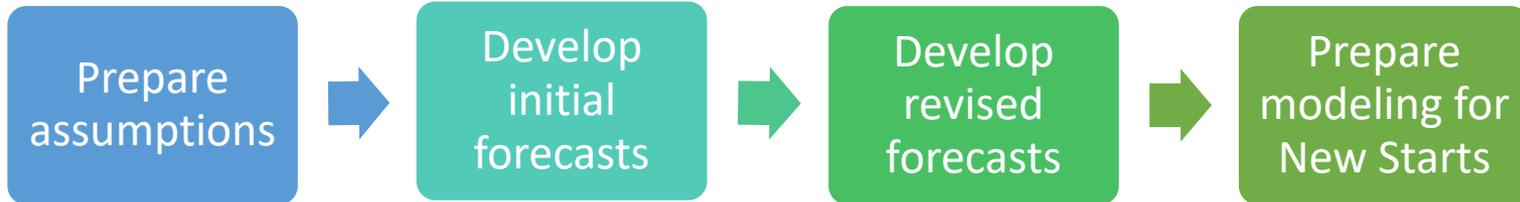
San Francisco Peninsula Rail Program

Executive Steering Committee

15 January 2021

Demand Forecast and Ridership Study

DTX Comprehensive Work Plan – Task 3.3: *Prepare preliminary demand forecasts to support the Phasing Study, design, and identification of the initial operating phase. (Lead: SFCTA)*





- Forecasting effort organized by a set of scenarios, reflecting varied assumptions for:
 - **Analysis year** – the year to be modeled, including projected changes in regional land use
 - **Infrastructure** – DTX program; other transportation improvements
 - **Service levels** – frequency and type of service, by operator

Summary of Scenarios for Analysis



Analysis Year	Scenarios	Description
2019	Existing Conditions	Caltrain to 4 th /King (5 trains per peak hour)
2025	Intermediate Year	Caltrain to 4 th /King Caltrain Electrification in-service Central Subway in-service
2035 and/or 2040	No Project	Variant #1: Caltrain & HSR to 4 th /King Variant #2: Caltrain to 4 th /King; HSR Delayed
	With Project	Multiple variants, reflecting different levels of Caltrain and HSR service
	Sensitivity Tests	Sensitivity #1: HSR Delayed Sensitivity #2+: Phasing Concepts, per Phasing Study work
2050	No Project	Caltrain & HSR to 4 th /King
	With Project	Future Caltrain & HSR service levels, per Business Plans
	Sensitivity Tests	Sensitivity #1: DTX + New Transbay Rail Crossing Sensitivity #2: Land Use and/or Demand Sensitivity Sensitivity #3+: Other Long-Range Sensitivities TBC

Business Plans Context: Caltrain & HSR



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Planned future service levels are a starting point for developing assumptions for “No Project” and “With Project” scenarios.

Caltrain: CalMod and 2040 Service Vision
Trains per Peak Hour

Station	2025	2040 (without DTX)	2040 (with DTX)
4 th /King	6	8	--
4 th /Townsend	--	--	8
Salesforce Transit Center	--	--	8

Sources:

- Caltrain Modernization (CalMod) Program website
- Peninsula Corridor Electrification Project (PCEP) Final Environmental Impact Report (FEIR), January 2015
- Caltrain Business Plan – Caltrain 2040

CHSRA: 2020 Business Plan (Draft, 2021)
Trains per Peak Hour

Station	Valley to Valley (2031)	Phase 1 (2033)
4 th /King	2	--
4 th /Townsend	--	2
Salesforce Transit Center	--	4

Sources:

- California High-Speed Rail 2020 Business Plan, Ridership and Revenue Forecasting Technical Supporting Document
- California High-Speed Rail Authority 2020 Business Plan, Service Planning Methodology Technical Supporting Document

Scenario Definition Template



Analysis Year	Scenario		DTX	4 th & King/Townsend (trains per peak hour)		Salesforce Transit Center (trains per peak hour)		Notes
				Caltrain	HSR	Caltrain	HSR	
2019	Base Year / Existing Conditions		--	5	--	--	--	
2025	Intermediate Base Year		--	6	--	--	--	Central Subway Caltrain Electrification
2035 / 2040	No Project	Service Variant #1	--	#	#	--	--	
		Service Variant #2 (Delayed HSR)	--	#	--	--	--	
	With Project	Service Variant #1	✓	#	#	#	#	
		Service Variant #2	✓	#	#	#	#	
		Service Variant #3	✓	#	#	#	#	
	Sensitivity Analysis	1 – Delayed HSR	✓	#	--	#	--	
2 – Other Phasing Concept(s)		✓	#	#	#	#		
2050	No Project		--	#	#	--	--	
	With Project		✓	#	#	#	#	
	Sensitivity Analysis	1 – DTX + NTRC/Link21	✓	#	#	#	#	New Transbay Rail Crossing
		2 – Other Long-Term Sensitivity(ies)	✓	#	#	#	#	

Next Steps



- Finalization of assumptions for initial/working scenarios, in consultation with IPMT and the two operators
- Coordination with MTC planning and regional modeling staff
- Engagement with FTA technical staff
- Model calibration
- First round of model application, with early results planned for March 2021

Thank you.



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