

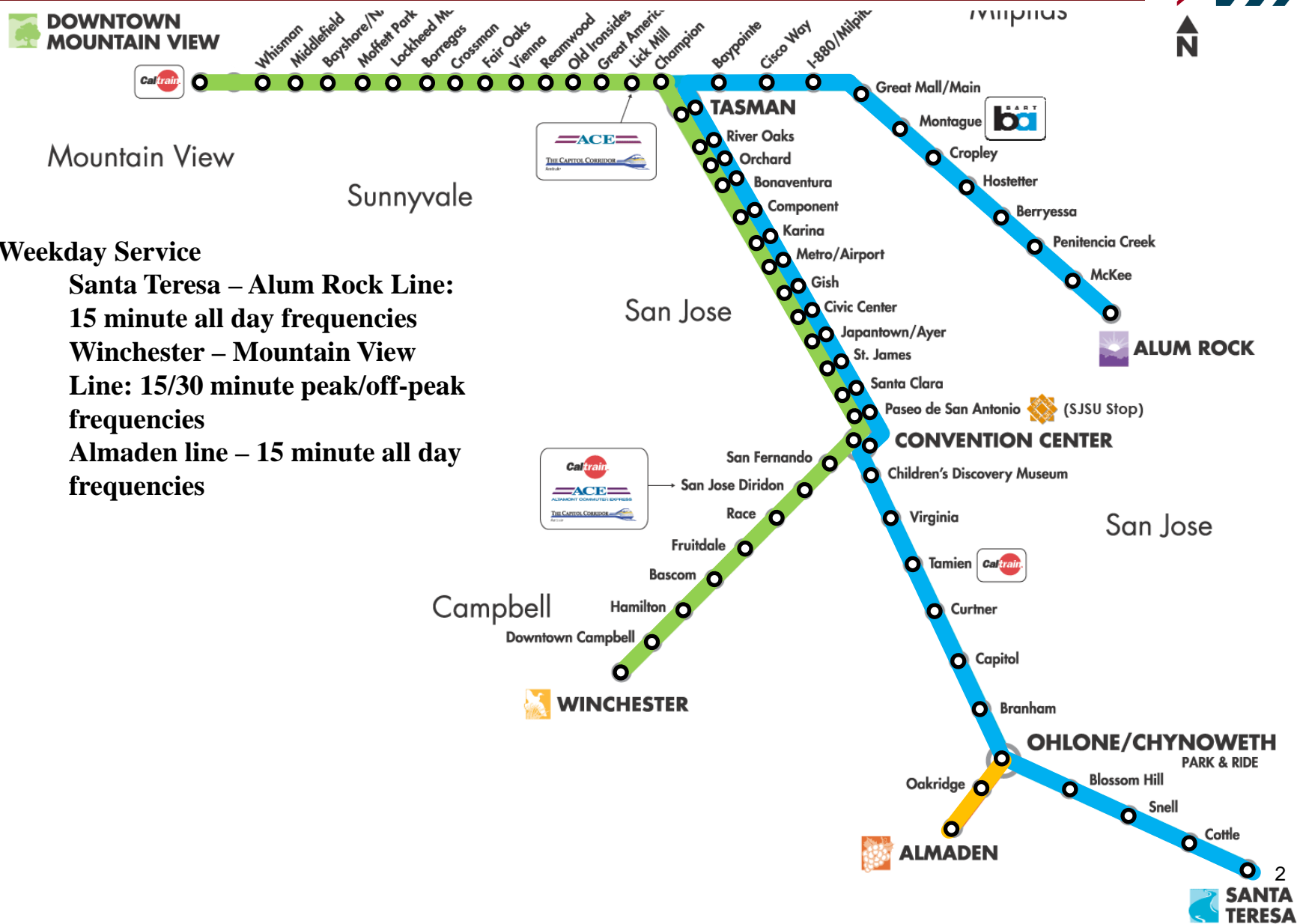
CAC Item #13
TAC Item #15
PAC Item #13

Next Network Light Rail Service Plan

March 2016
Board of Directors Meeting



Existing System



Weekday Service

Santa Teresa – Alum Rock Line:

15 minute all day frequencies

Winchester – Mountain View

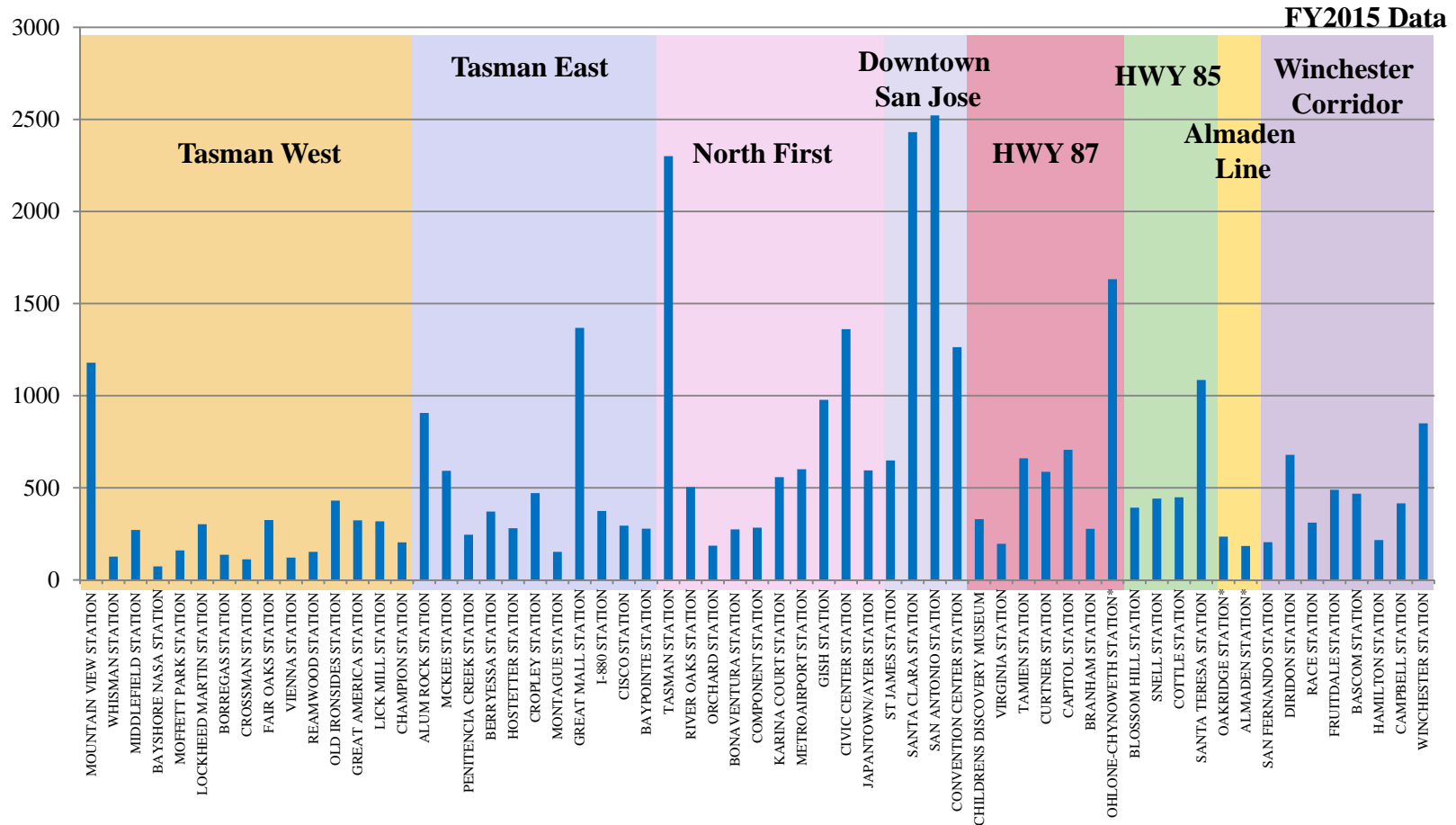
Line: 15/30 minute peak/off-peak frequencies

Almaden line – 15 minute all day frequencies

Ridership by Station

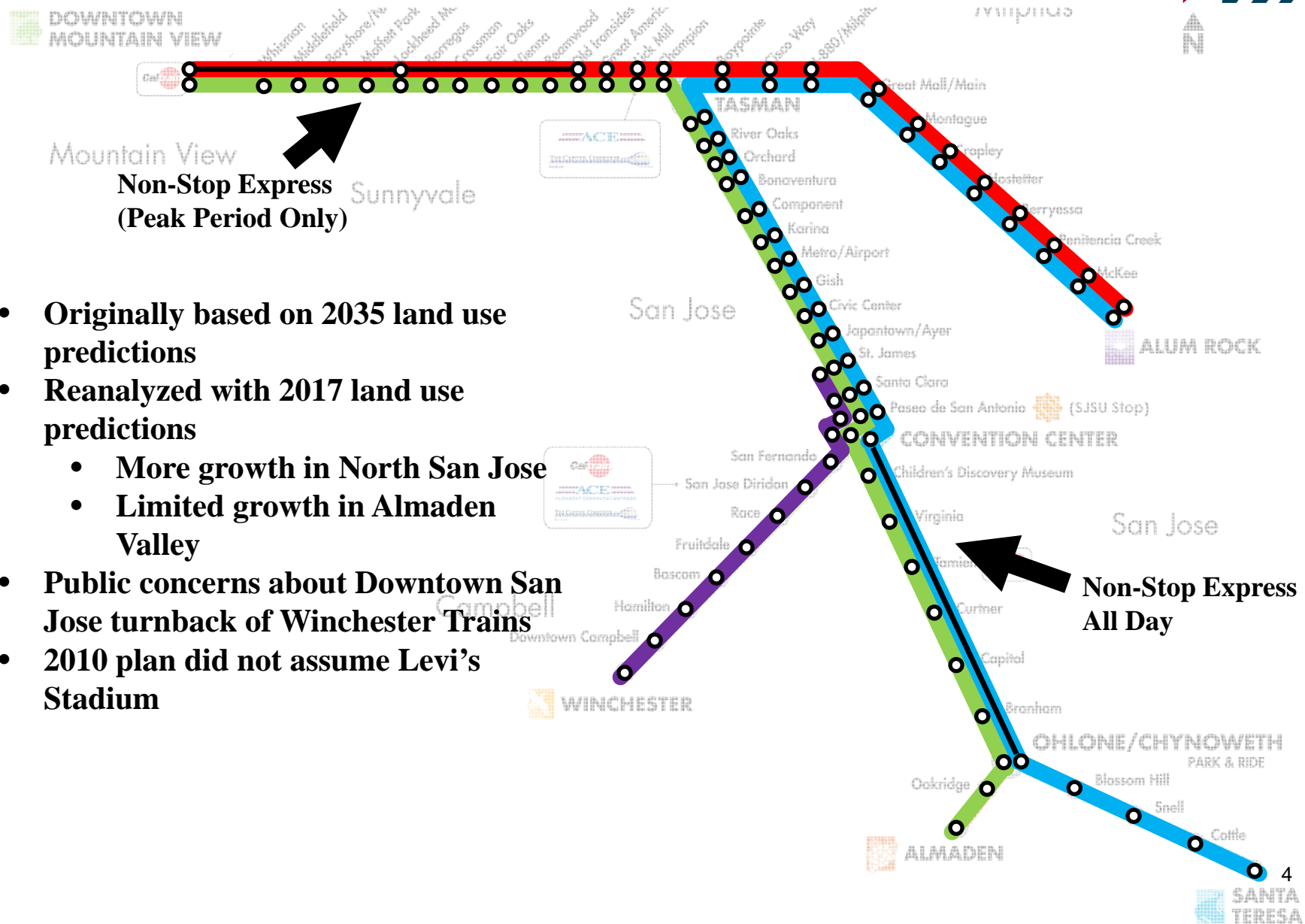


Daily Ridership



- Average Weekday ridership in 2015 was approximately 35,000 boardings daily
- 61 stations
- Top 10 stations have approximately 45% of total Light Rail Ridership
- Average Ridership per station: 570 boardings per day

2010 Operating Plan Recommendation

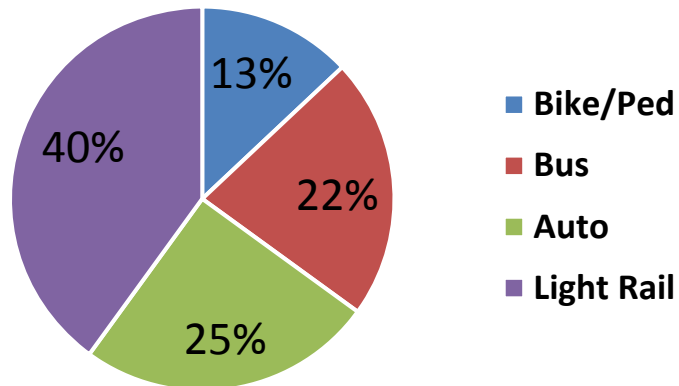


- Originally based on 2035 land use predictions
- Reanalyzed with 2017 land use predictions
 - More growth in North San Jose
 - Limited growth in Almaden Valley
- Public concerns about Downtown San Jose turnback of Winchester Trains
- 2010 plan did not assume Levi's Stadium

Milpitas BART Station



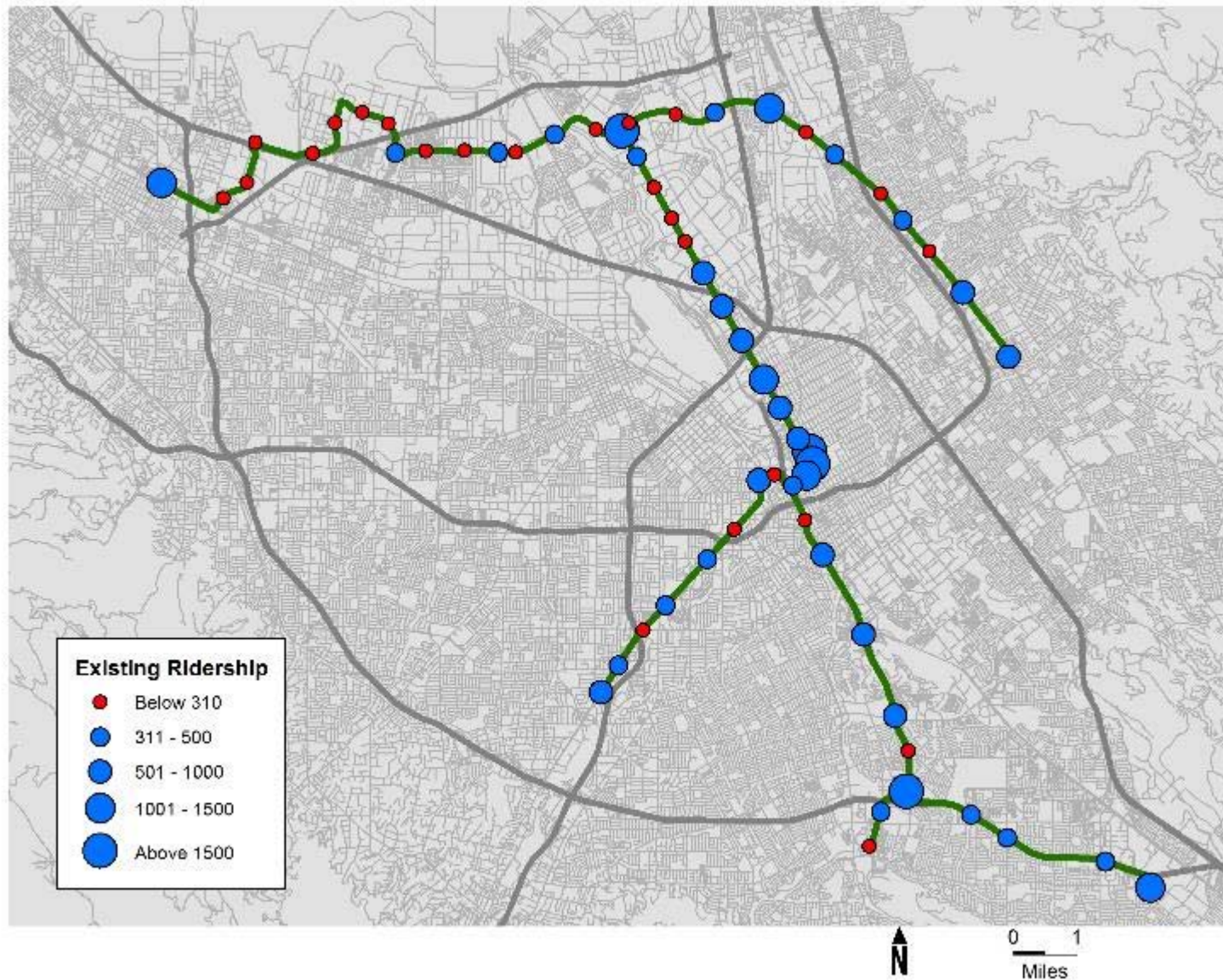
Milpitas BART Mode of Access



Existing Ridership



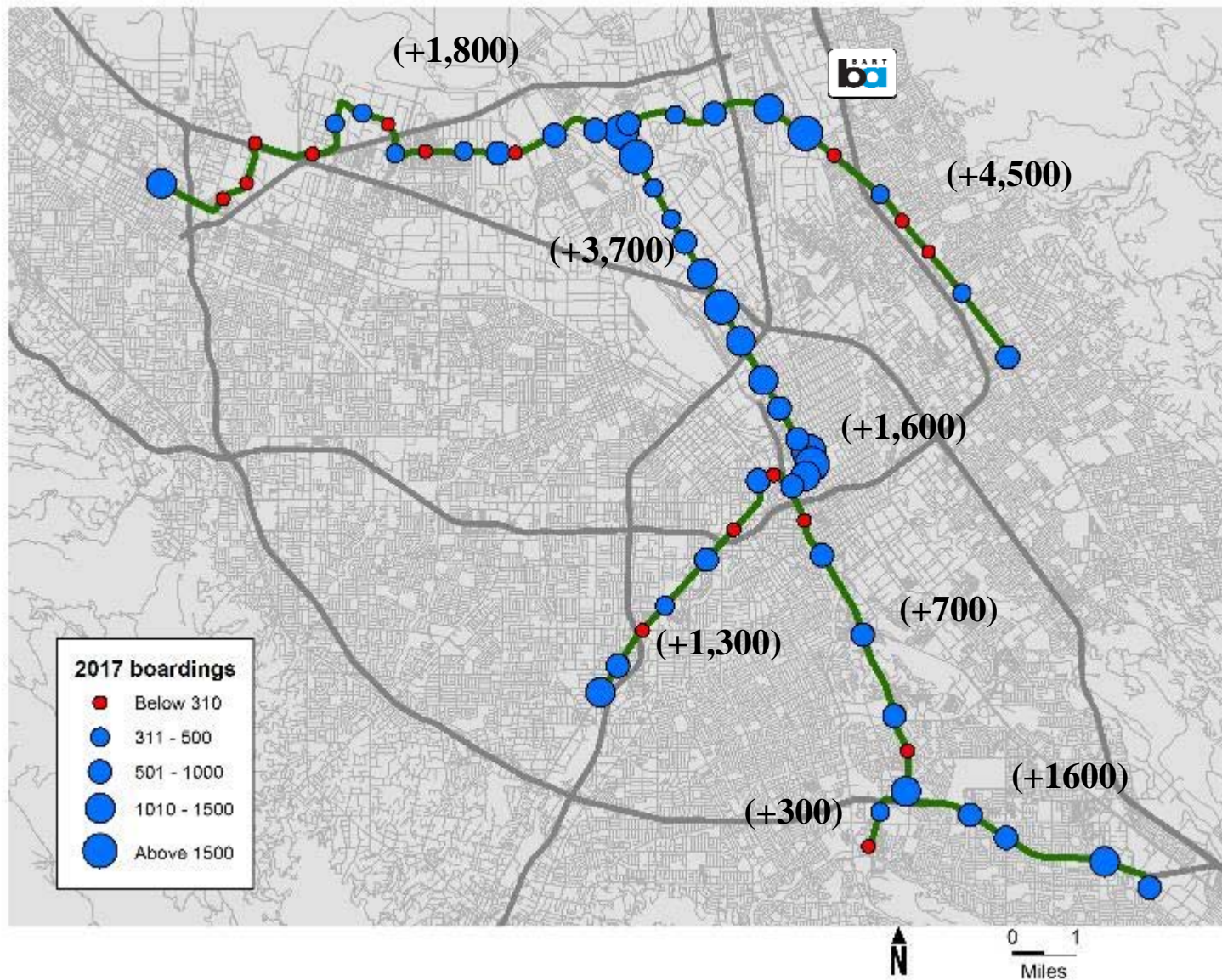
35,000 Daily Boardings



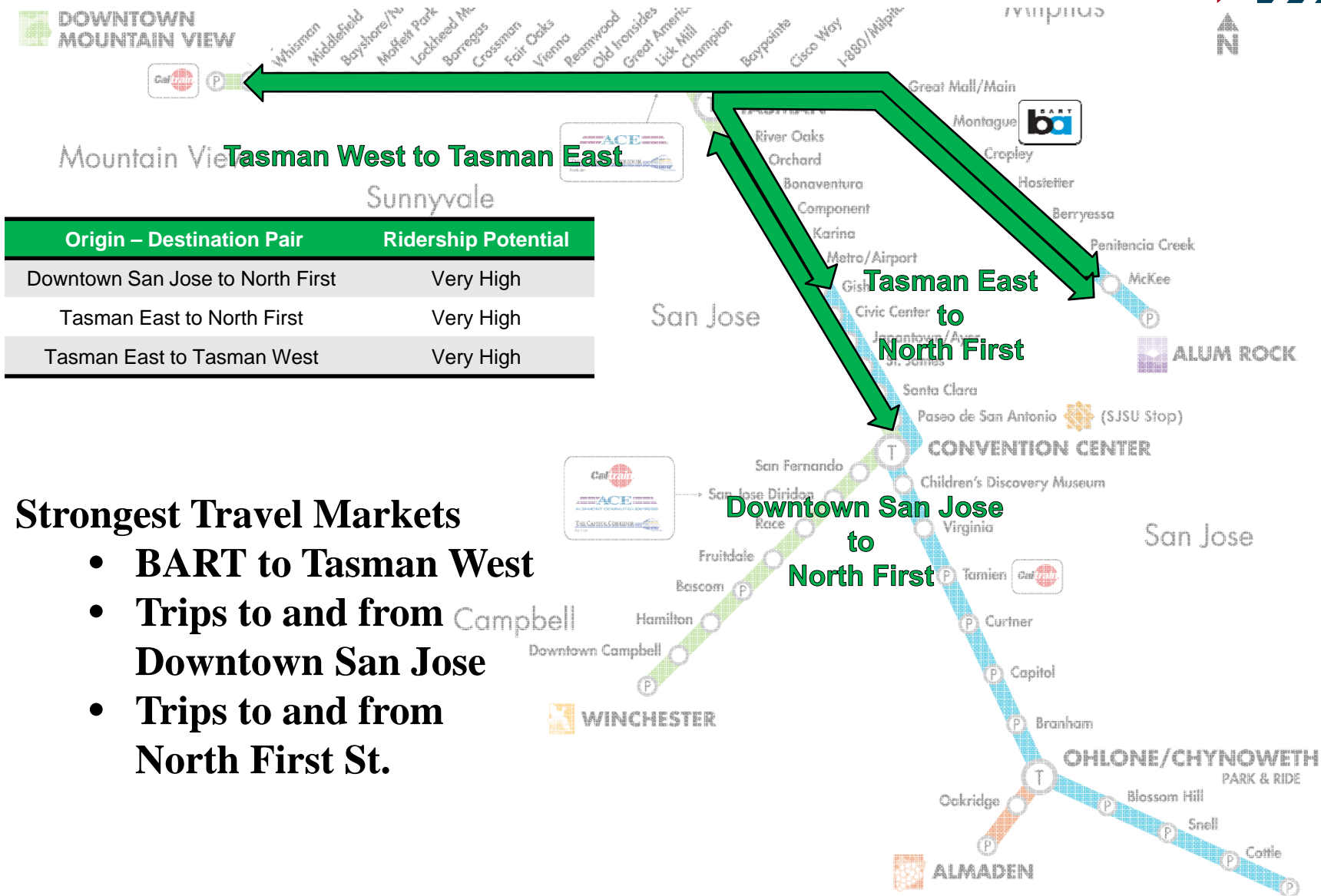
Future Ridership



15,000 Additional Boardings



Future HIGH Ridership Potential

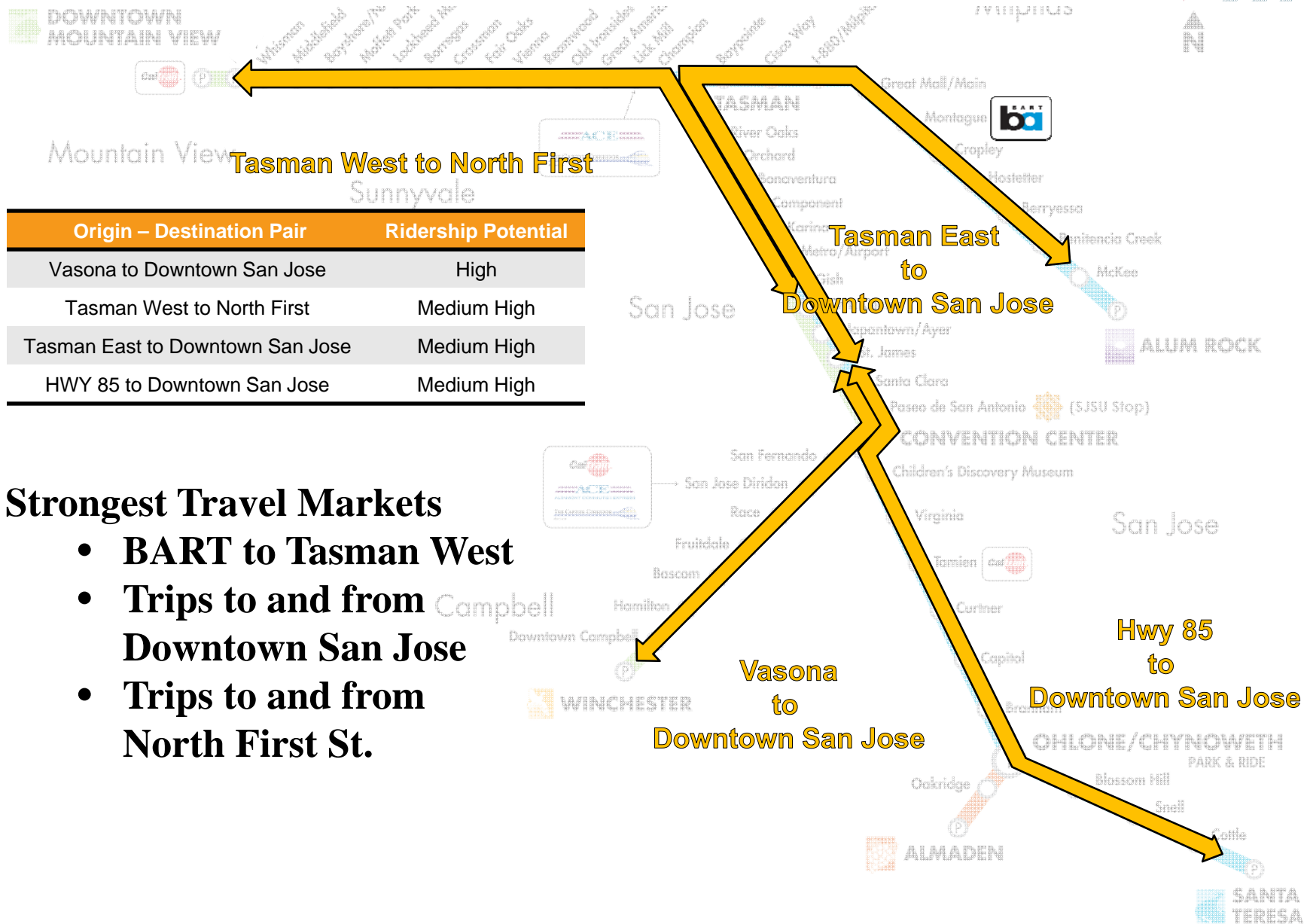


Origin – Destination Pair	Ridership Potential
Downtown San Jose to North First	Very High
Tasman East to North First	Very High
Tasman East to Tasman West	Very High

Strongest Travel Markets

- **BART to Tasman West**
- **Trips to and from Downtown San Jose**
- **Trips to and from North First St.**

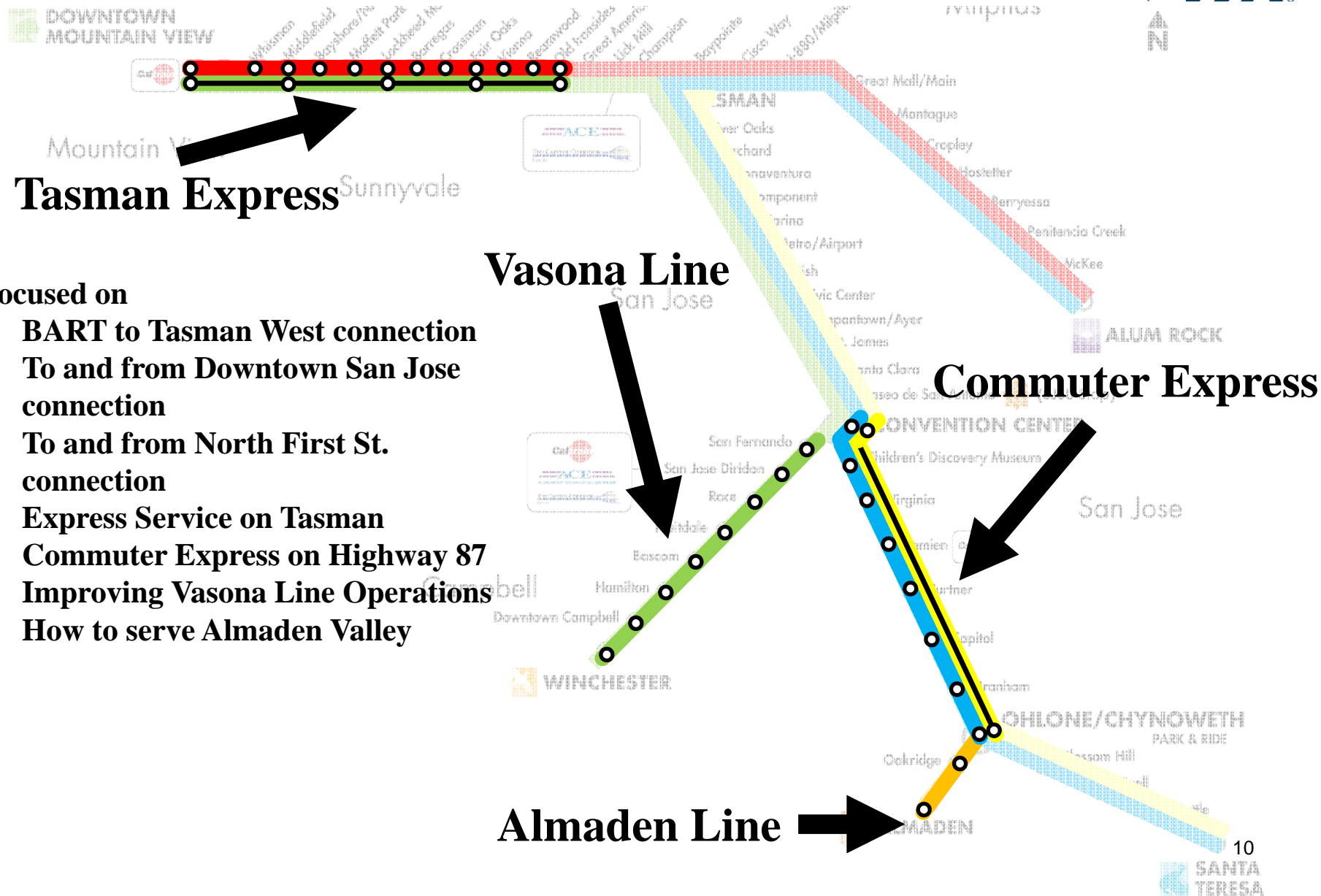
Future MEDIUM Ridership Potential



Strongest Travel Markets

- **BART to Tasman West**
- **Trips to and from Downtown San Jose**
- **Trips to and from North First St.**

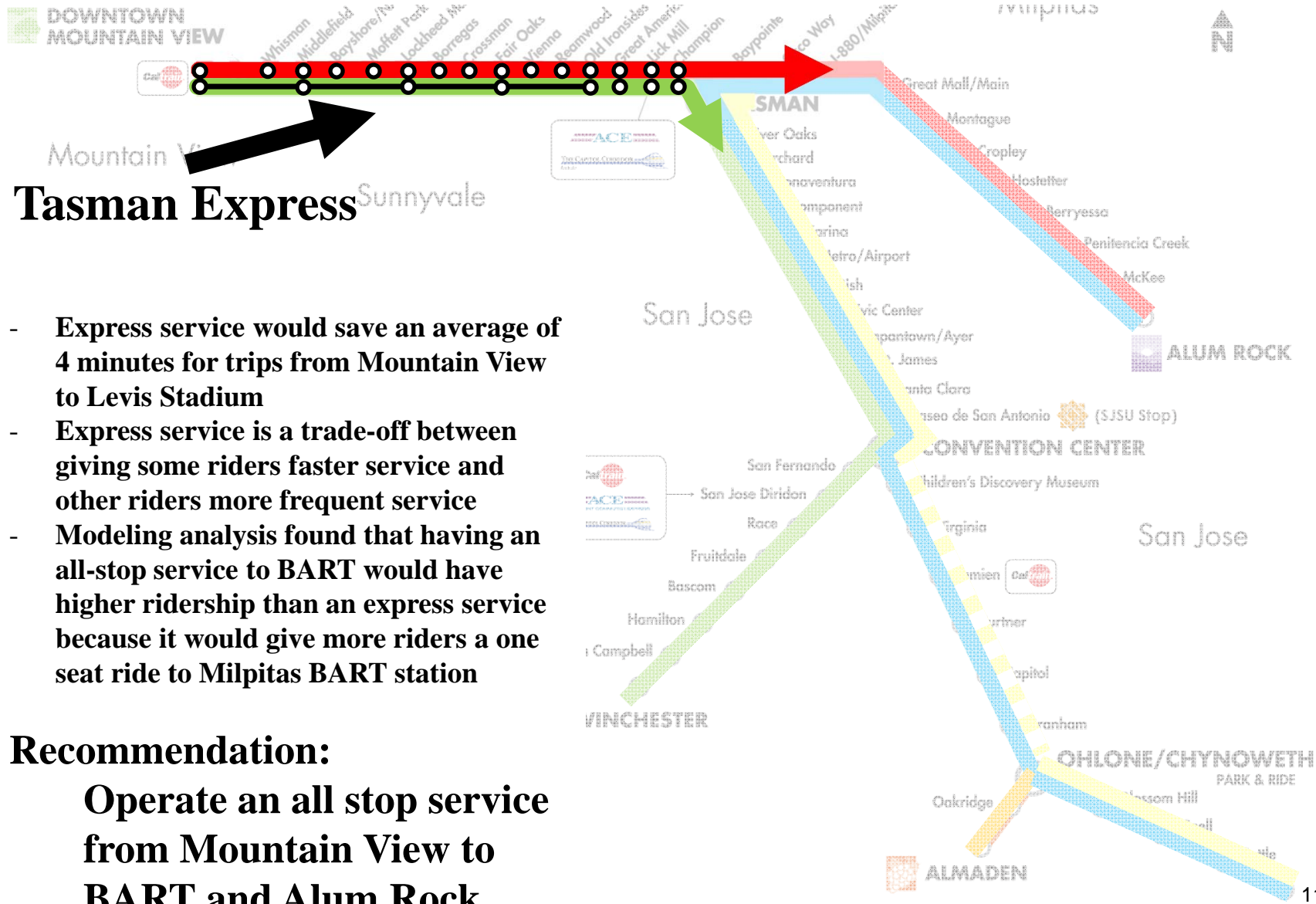
New Modeling Analysis



Focused on

- **BART to Tasman West connection**
- **To and from Downtown San Jose connection**
- **To and from North First St. connection**
- **Express Service on Tasman**
- **Commuter Express on Highway 87**
- **Improving Vasona Line Operations**
- **How to serve Almaden Valley**

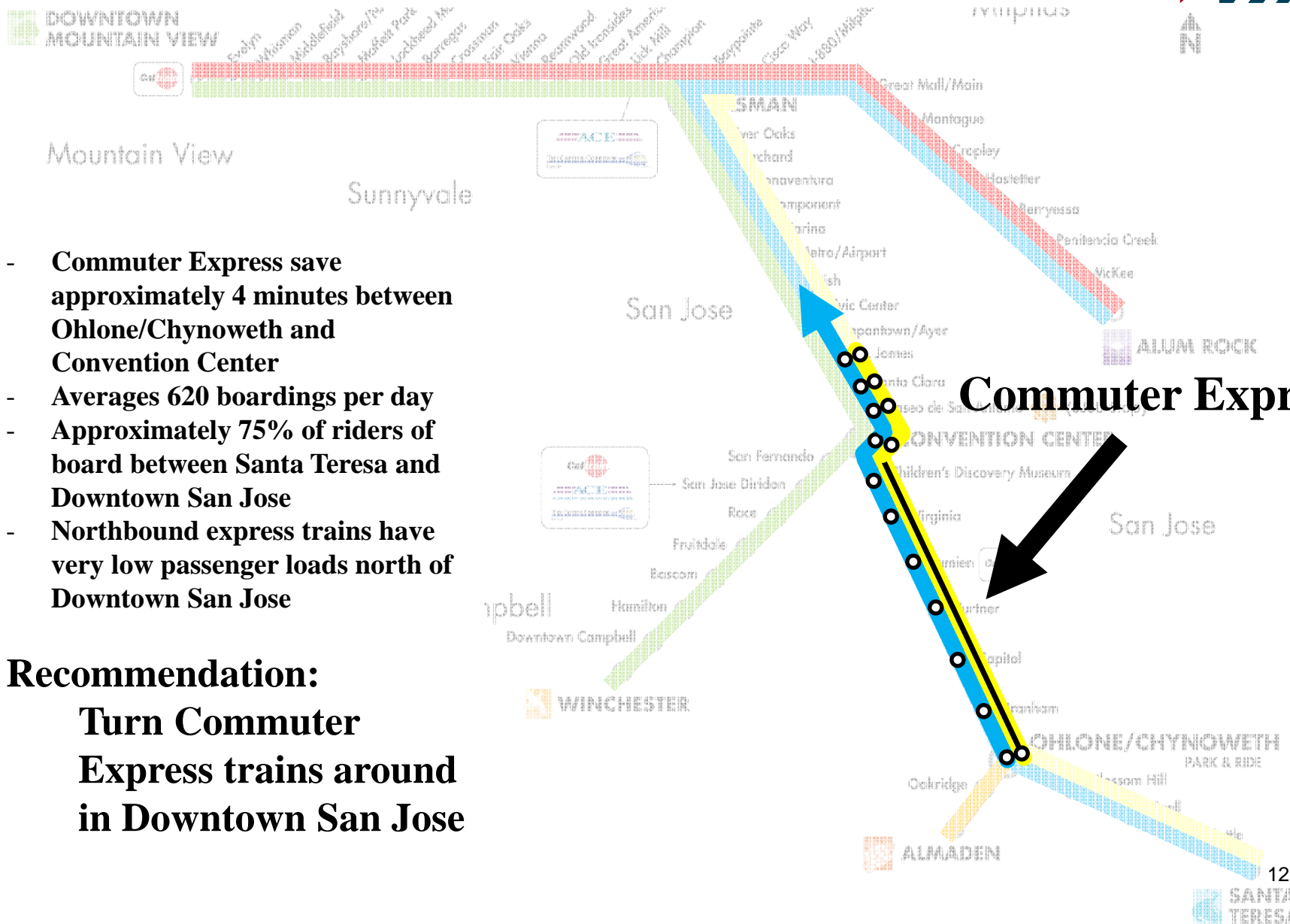
Tasman Express



- Express service would save an average of 4 minutes for trips from Mountain View to Levis Stadium
- Express service is a trade-off between giving some riders faster service and other riders more frequent service
- Modeling analysis found that having an all-stop service to BART would have higher ridership than an express service because it would give more riders a one seat ride to Milpitas BART station

Recommendation:
Operate an all stop service from Mountain View to BART and Alum Rock

Commuter Express

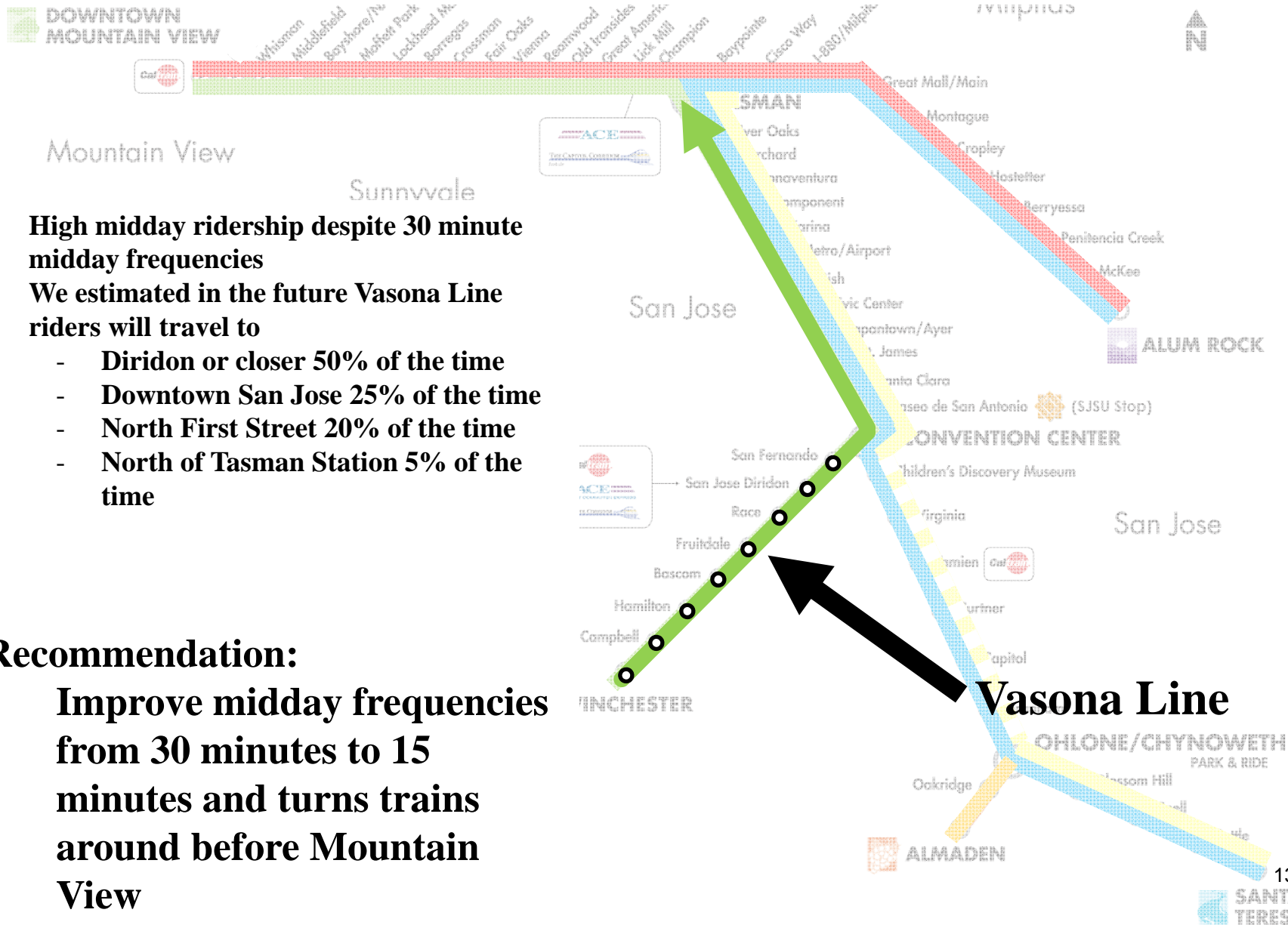


- **Commuter Express save approximately 4 minutes between Ohlone/Chynoweth and Convention Center**
- **Averages 620 boardings per day**
- **Approximately 75% of riders of board between Santa Teresa and Downtown San Jose**
- **Northbound express trains have very low passenger loads north of Downtown San Jose**

Recommendation:
Turn Commuter Express trains around in Downtown San Jose



Vasona Line



- High midday ridership despite 30 minute midday frequencies
- We estimated in the future Vasona Line riders will travel to
 - Diridon or closer 50% of the time
 - Downtown San Jose 25% of the time
 - North First Street 20% of the time
 - North of Tasman Station 5% of the time

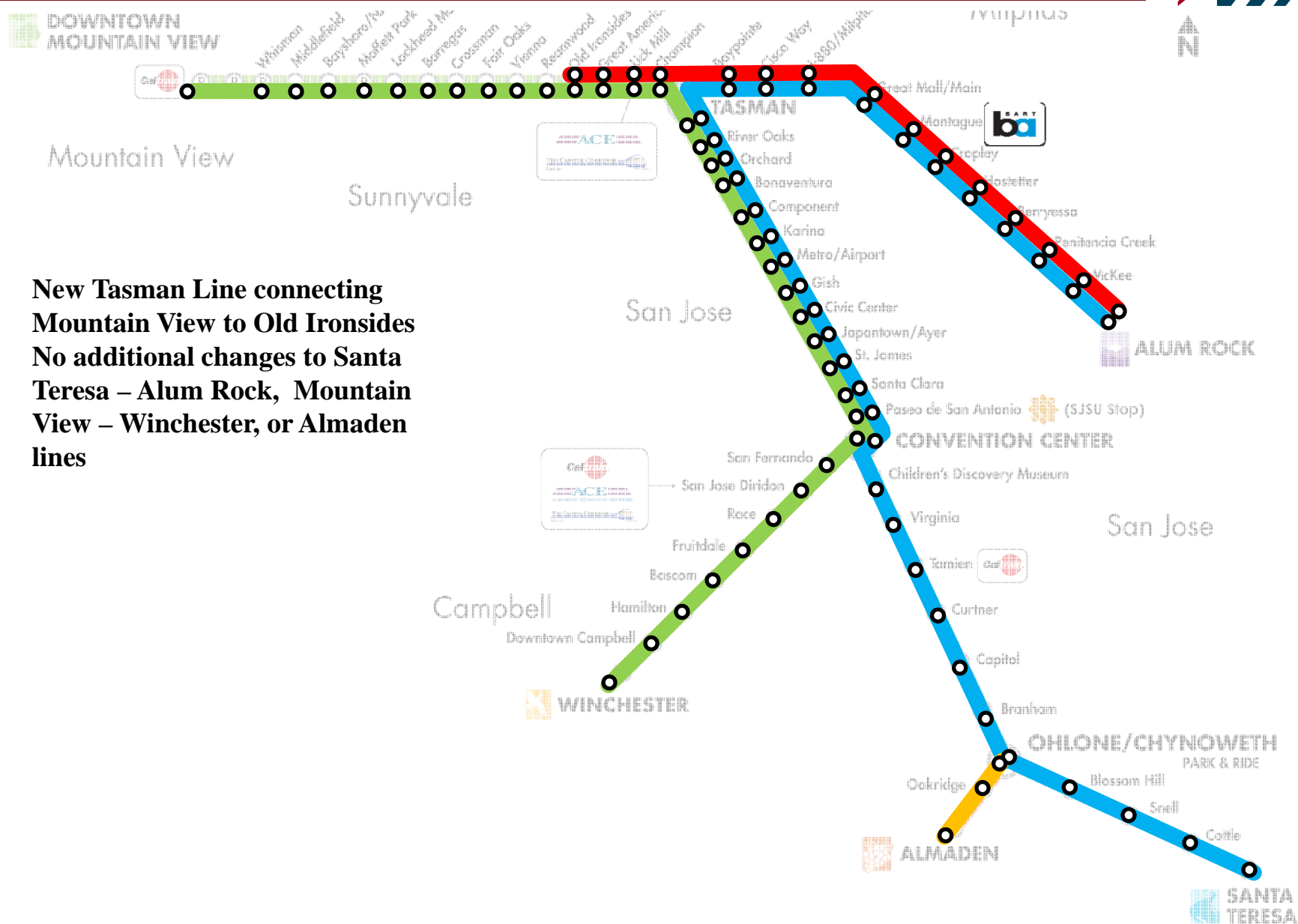
Recommendation:
 Improve midday frequencies from 30 minutes to 15 minutes and turns trains around before Mountain View

Final 3 Scenarios



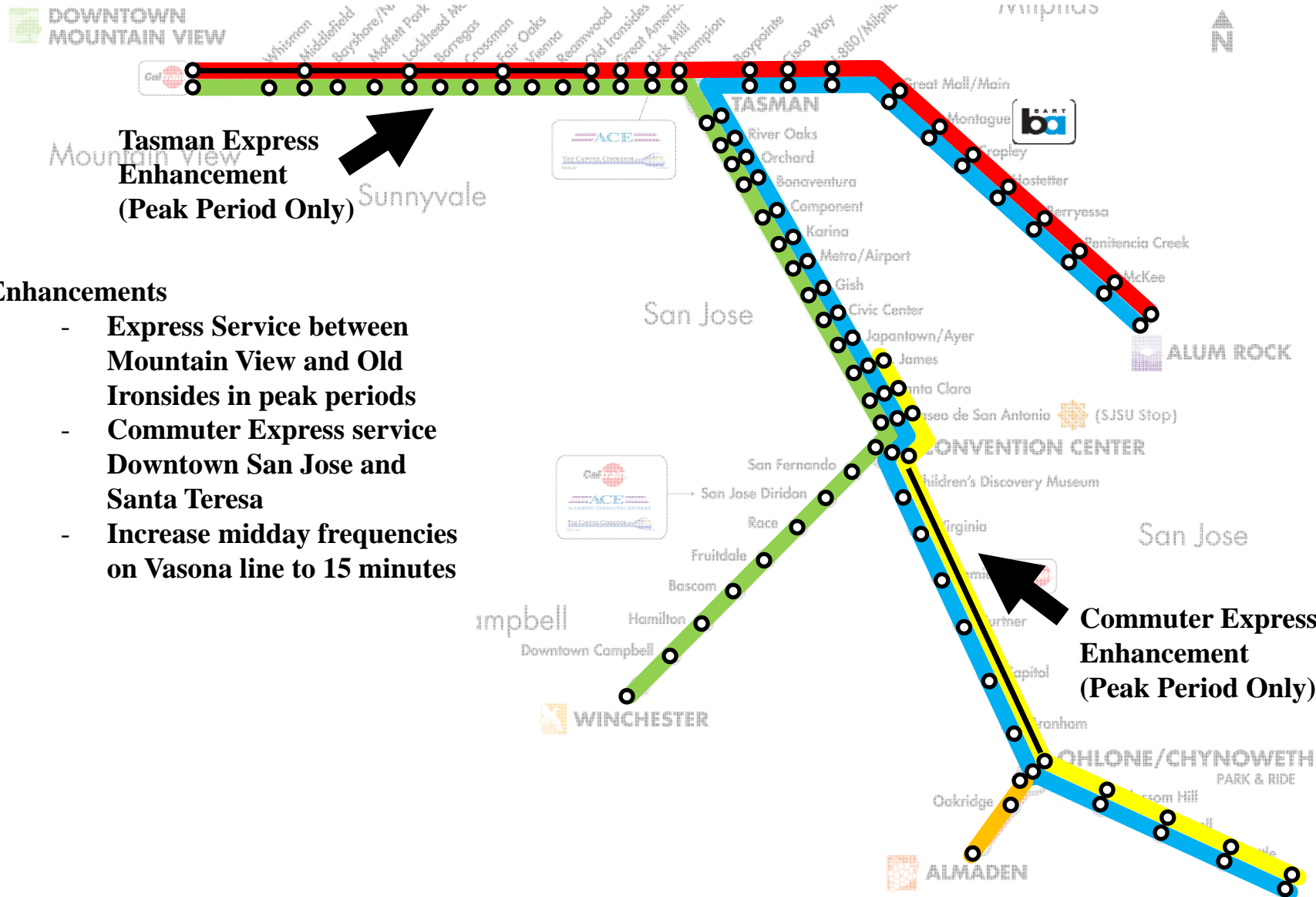
		Scenario 1	Scenario 2	Scenario 3
Base	General Description	Adds Mountain View to Alum Rock Line to Existing Service	Medium changes, most trips would be unchanged	Major changes, many existing trips would be effected
	Vasona Line turns back at...	Mountain View	Old Ironsides or Mountain View	Baypointe
	New Tasman Line	Alum Rock to Mountain View or Old Ironsides	Alum Rock to Mountain View	Alum Rock to Mountain View
Enhancements	Commuter Express	Yes	Yes	Yes
	Tasman Express	Yes	Yes	No
	Vasona Line Frequency	Yes	Yes	Yes

Scenario 1 Base



- New Tasman Line connecting Mountain View to Old Ironsides
- No additional changes to Santa Teresa – Alum Rock, Mountain View – Winchester, or Almaden lines

Scenario 1+

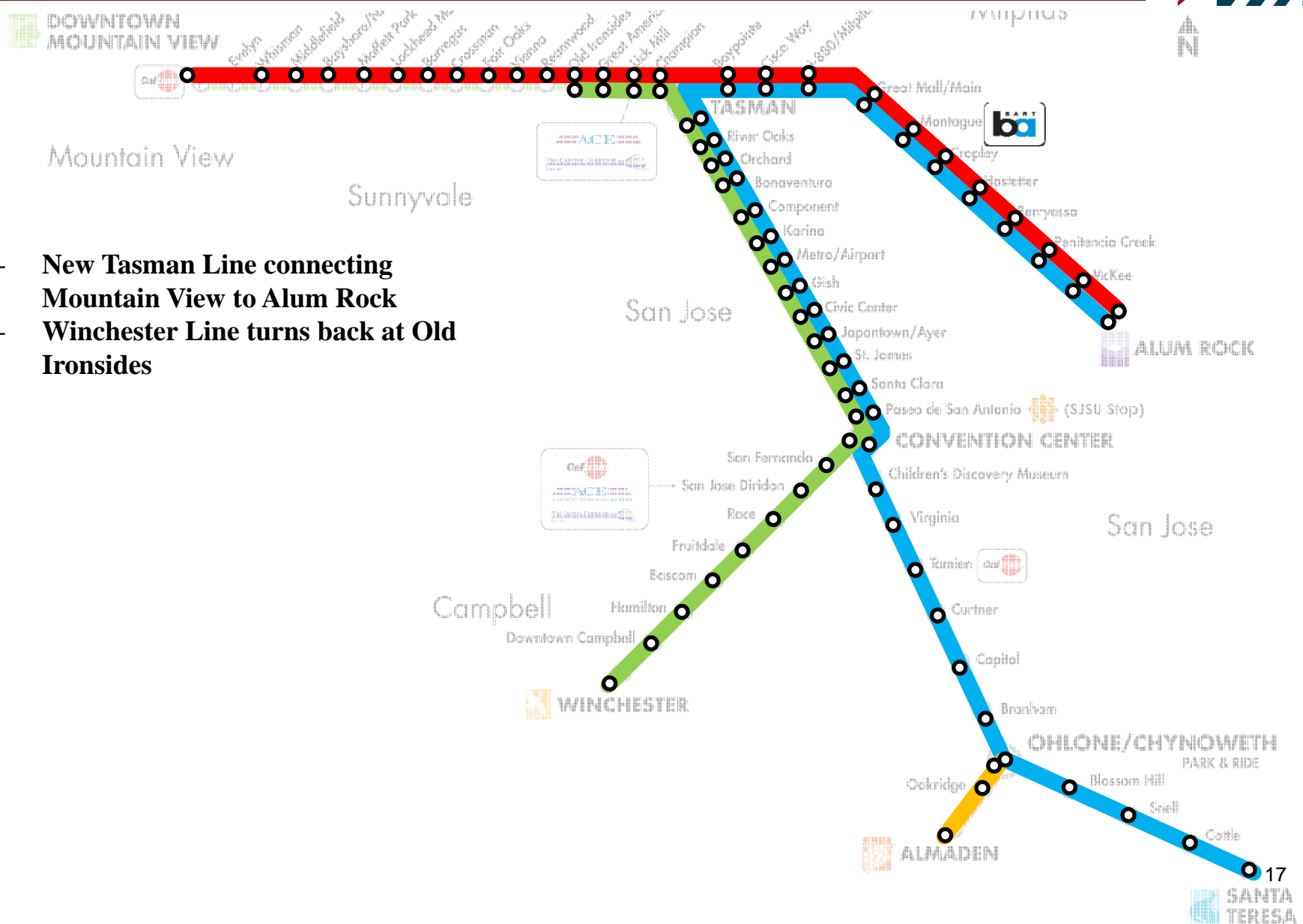


Enhancements

- Express Service between Mountain View and Old Ironsides in peak periods
- Commuter Express service Downtown San Jose and Santa Teresa
- Increase midday frequencies on Vasona line to 15 minutes

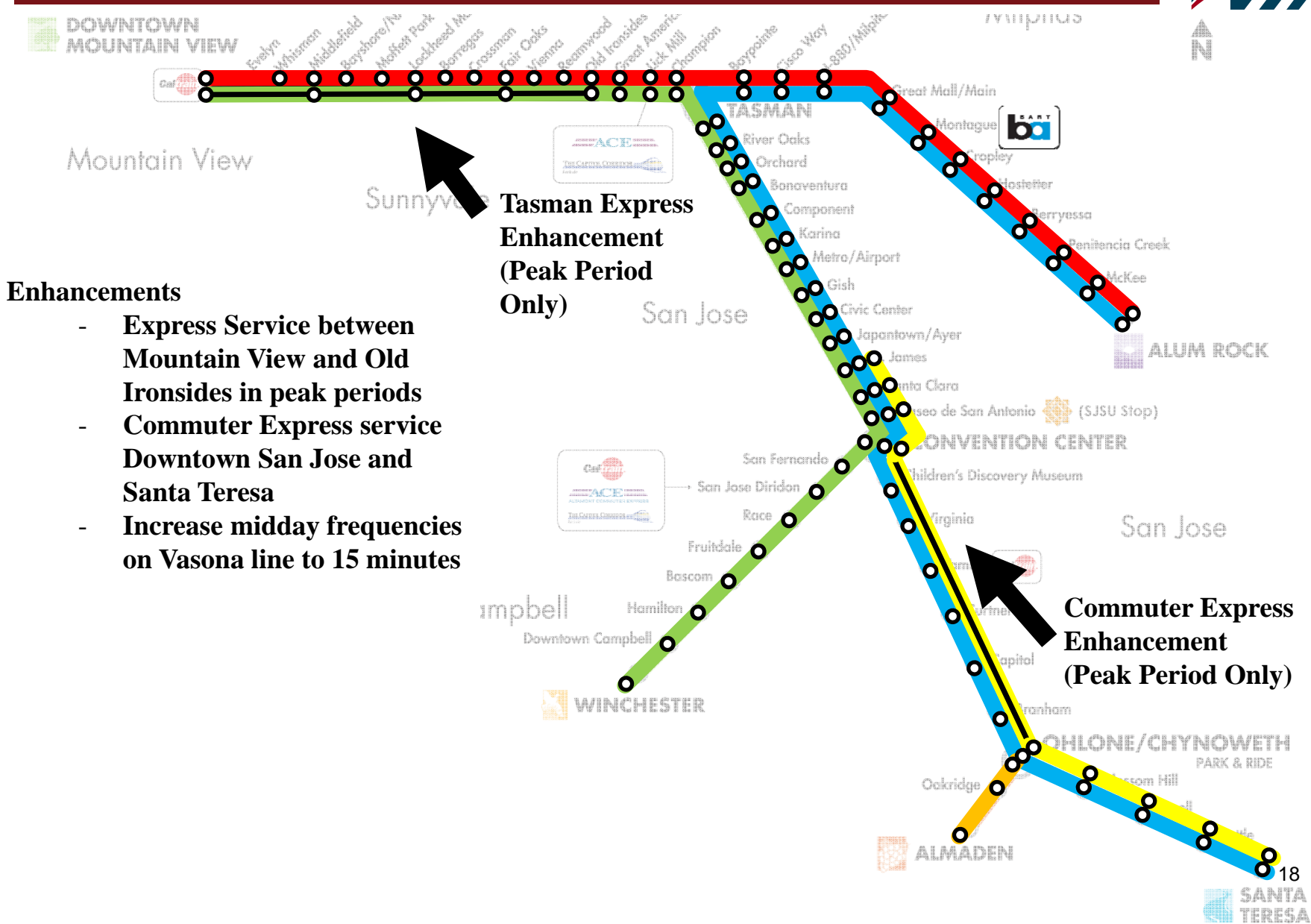


Scenario 2 Base



- New Tasman Line connecting Mountain View to Alum Rock
- Winchester Line turns back at Old Ironsides

Scenario 2+



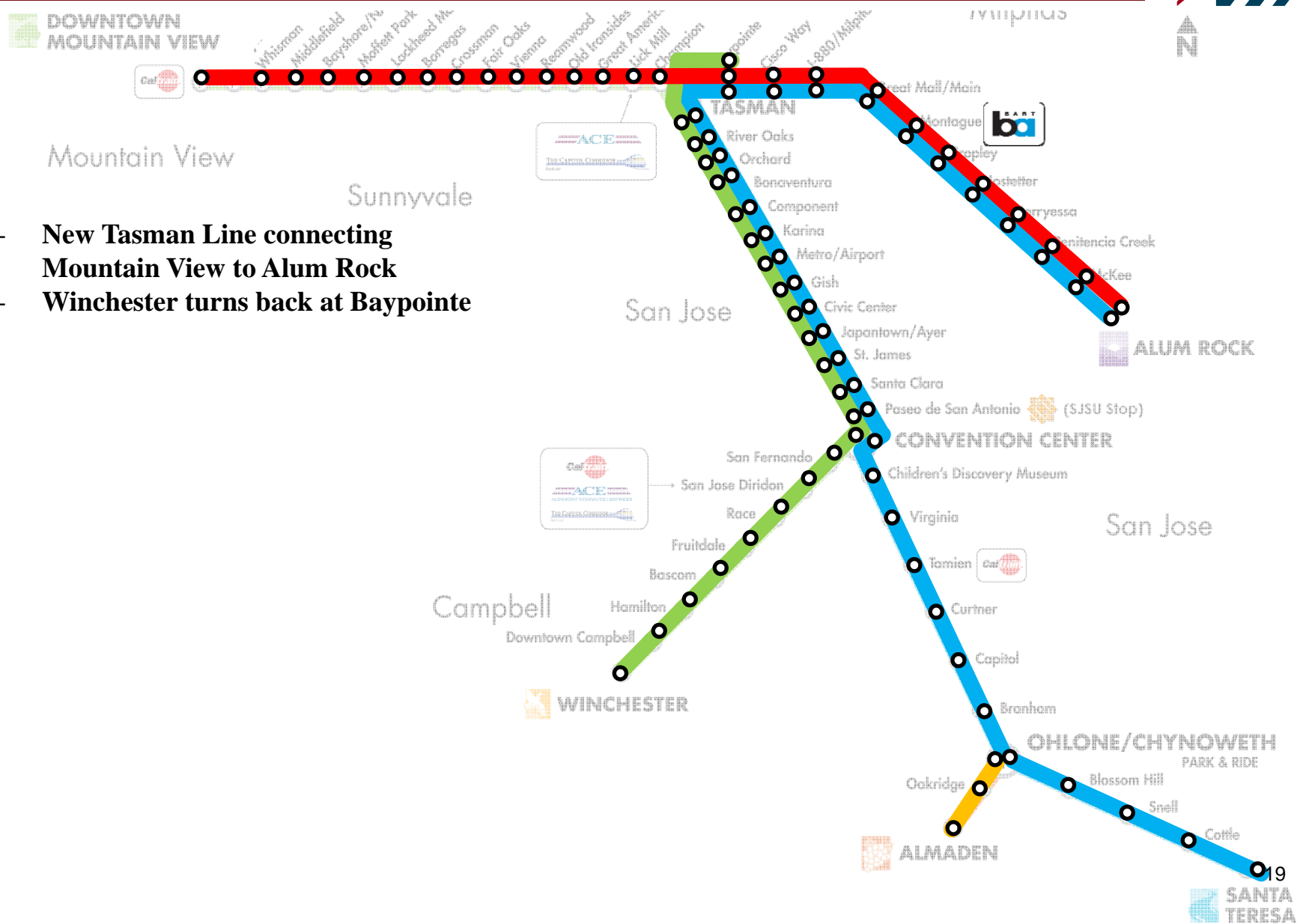
Enhancements

- Express Service between Mountain View and Old Ironsides in peak periods
- Commuter Express service Downtown San Jose and Santa Teresa
- Increase midday frequencies on Vasona line to 15 minutes

Tasman Express Enhancement (Peak Period Only)

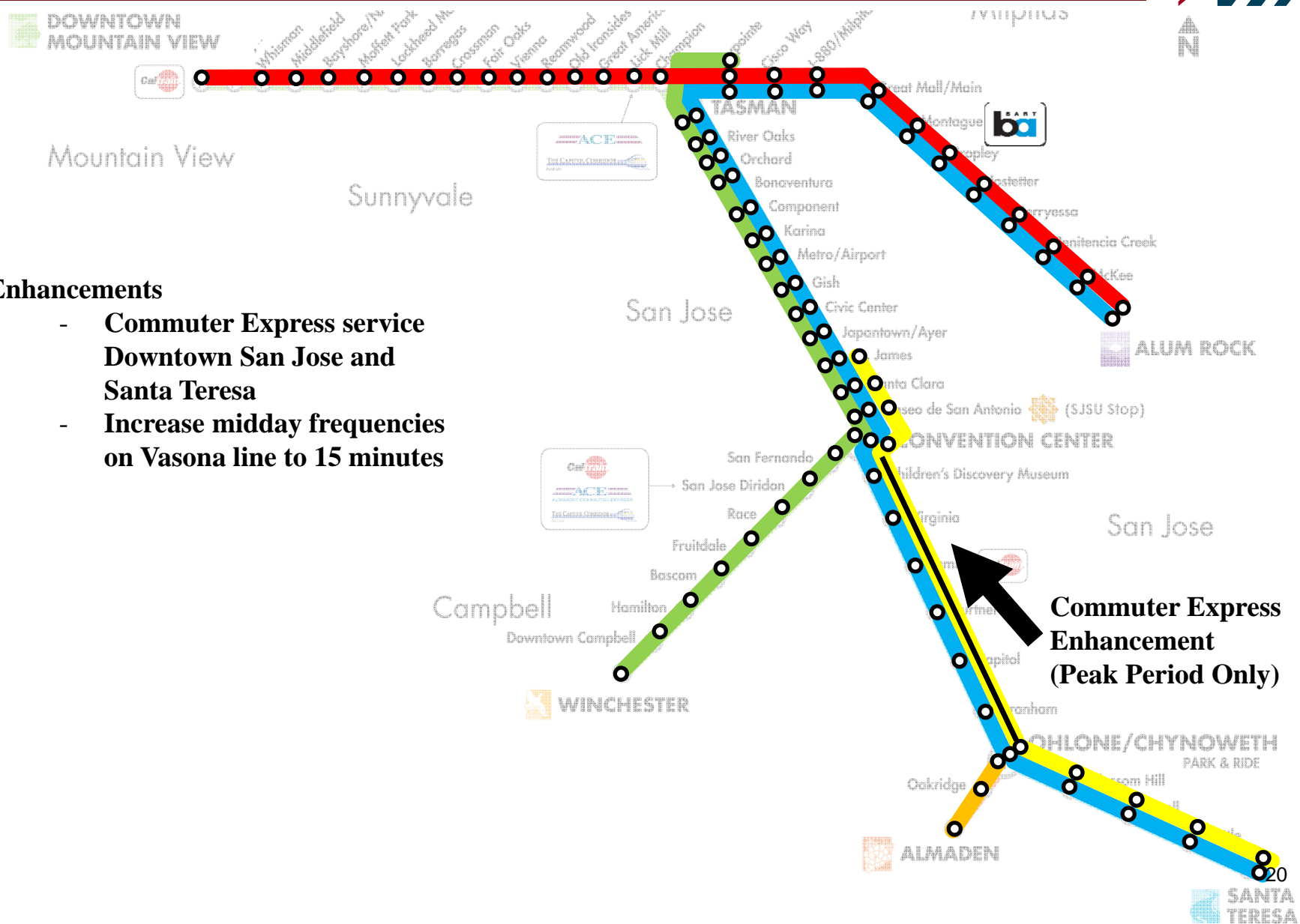
Commuter Express Enhancement (Peak Period Only)

Scenario 3 Base



- **New Tasman Line connecting Mountain View to Alum Rock**
- **Winchester turns back at Baypointe**

Scenario 3+



Enhancements

- **Commuter Express service Downtown San Jose and Santa Teresa**
- **Increase midday frequencies on Vasona line to 15 minutes**

Ridership and Operating Costs



Light Rail 2017 Operating Plan

									Enhancements		
	FY2015*	No Project	Scenario 1 Base	Scenario 1+	Scenario 2 Base	Scenario 2+	Scenario 3 Base	Scenario 3+	HWY 87 Express	Vasona 15 min freq	Tasman Express
Average Weekday Boardings	34,900	49,800	56,600	59,800	58,500	61,600	58,400	60,700	760	1,540	810
Montague Station (BART)	150	4,100	5,800	5,800	6,100	6,100	6,200	6,200	--	--	--
Increase over No Project	--	--	14%	20%	19%	24%	19%	21%	2%	3%	2%
Operating hours increase	--	--	16%	30%	16%	30%	11%	18%	3%	4%	6%
Annual Operating Cost (in millions)	\$80	\$82²	--	--	--	--	--	--	--	--	--
Increase over No Project¹	--	--	6.6%	12.3%	6.6%	12.3%	5.0%	7.8%	1.4%	1.5%	2.8%

Base Scenarios do not include Existing Commuter Express Service on Highway 87

Scenarios 1+ and 2+ include all enhancements, Scenario 3+ includes Commuter Express and 15 minute Vasona Line frequency enhancements

¹Operating cost and hours percentage increases vary because of marginal cost assumptions of additional service

²Cost of existing Commuter Express service is \$1.0 million

Upcoming Schedule



	Light Rail Operating Plan	Bus Operating Plan
January 2016		TPO: Introduction to Next Network Plan (INFO)
February 2016	TPO: Review Draft LRT Operating Plan (INFO)	Board: Introduction to Next Network Plan (INFO)
March 2016	Board: Review Draft LRT Operating Plan (INFO)	
April 2016	<i>community outreach</i>	Board Workshop: Preview Network Alternatives (INFO)
May 2016	<i>community outreach</i>	<i>community outreach</i>
June 2016	<i>community outreach</i>	<i>community outreach</i>
July 2016	<i>community outreach</i>	<i>community outreach</i>
August 2016	TPO: Review Revised LRT Operating Plan (INFO)	TPO: Review Network Alternatives (INFO)
September 2016	Board: Review Revised LRT Operating Plan (INFO)	Board: Review Network Alternatives (INFO)
October 2016		
November 2016		TPO: Review Draft Next Network Plan (INFO)
December 2016		Board: Review Draft Next Network Plan (INFO)
January 2017		<i>community outreach</i>
February 2017		<i>community outreach</i>
March 2017		<i>community outreach</i>
April 2017	TPO: Adopt FY18-19 Budget and Final Next Network Plan (ACTION)	
May 2017	Board: Adopt FY18-19 Budget and Final Next Network Plan (ACTION)	
Fall 2017	New Service Implementation (will coincide with the opening of BART to Berryessa service)	



Questions?
