

# ***Caltrain Service Planning Update: Fall 2023 Schedule Change***

Citizens Advisory Committee

August 16, 2023

Agenda Item 9



# Agenda

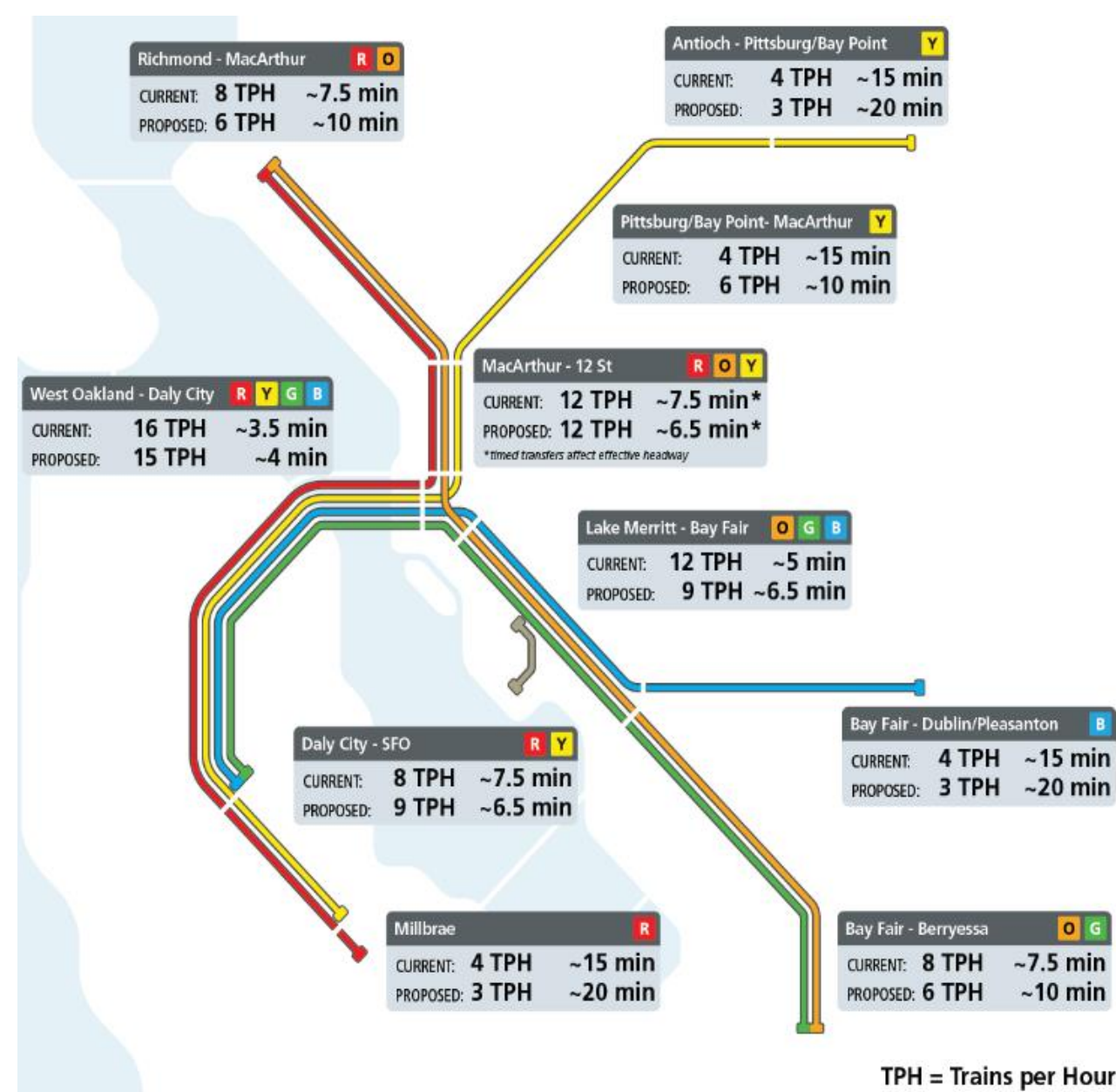
1. Schedule Change Summary
2. BART Schedule Change Overview
3. Millbrae Transfer Analysis
4. South County Survey Results
5. New Gilroy Schedule
6. Temporary Midday Tamien Service Adjustments
7. Next Steps

# Caltrain Weekday Schedule Change Effective September 25, 2023

- Optimize transfers to new BART schedule at Millbrae
- Faster local trains in the evening
- Provide a 4<sup>th</sup> roundtrip on the Gilroy line
- Temporary service adjustments to/from Tamien to accommodate midday work on the Guadalupe Bridge Rehabilitation project.

# **BART Schedule Change and Millbrae Transfer Analysis**

# BART's Reimagined Schedule Goes into Effect 9/11/2023



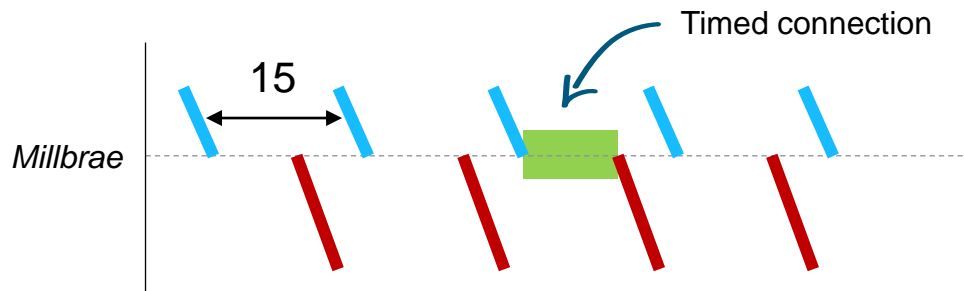
TPH = Trains per Hour



# Millbrae Transfer Analysis

BART's new September Schedule shifts from 15-minute to 20-minute headways at Millbrae, leading to worse connection times to and from Caltrain. Also, the additional SFO stop on red line trains traveling between Millbrae and SF will increase travel time for transferring passengers by 6-7 minutes.

## Existing (15-min headway) – Coordinated connection with BART



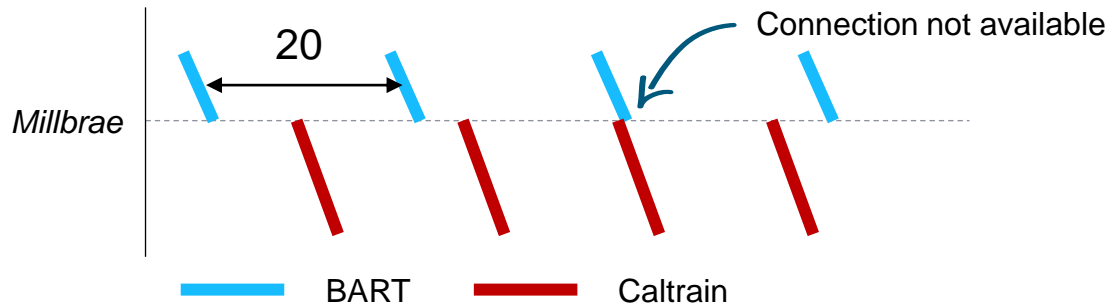
Average connection

12.16 (NB)

12.08 (SB)



## September 2023 (20-min headway) – Timed connection becomes irregular



Average connection

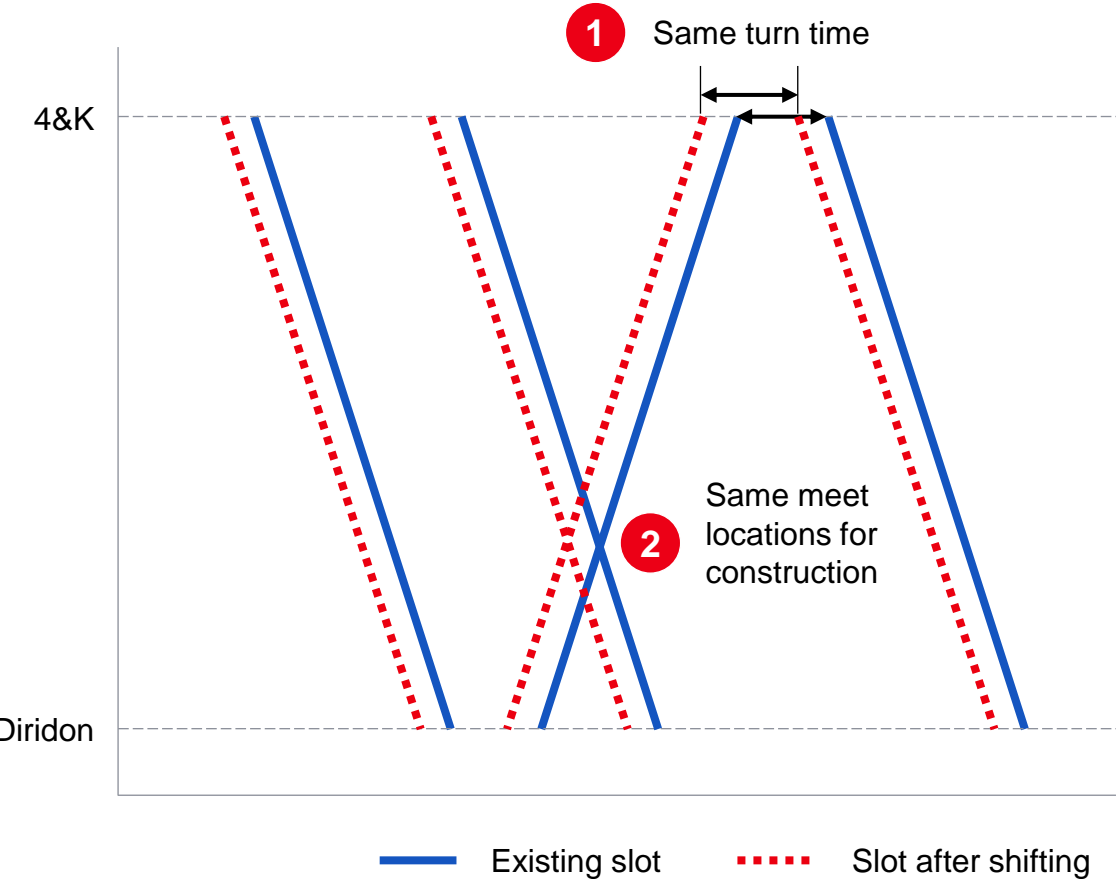
11.0 (NB)

18.3 (SB)



# Millbrae Transfer Analysis

The connection can be improved by shifting both NB and SB slots 2 minutes **earlier** while keeping the same slot structure to minimize impacts to the entire schedule.



Existing (Do nothing)	Shifting both NB and SB slots 2 min earlier
Total connection time	Total connection time
<b>1436</b>	<b>1373</b>
Average connection	Average connection
<b>11.0</b> (NB)	<b>12.1</b> (NB)
<b>18.3</b> (SB)	<b>15.3</b> (SB)



# **South County Survey Highlights: Service Preferences**

*Online Survey Conducted 6/12/23 – 6/25/23; 1,552 responses received*



# Current Gilroy Schedule

Effective September 12, 2022

NORTHBOUND			
Train Number	403	303	405
Pattern	L4	L3	L4
Station			
Gilroy	5:54a	6:31a	6:52a
San Martin	6:03a	6:40a	7:01a
Morgan Hill	6:09a	6:46a	7:07a
Blossom Hill	6:24a	7:01a	7:22a
Capitol	6:30a	7:07a	7:28a
Tamien	6:37a	7:14a	7:35a
San Jose Diridon	6:44a	7:23a	7:42a
College Park	↓	↓	7:46a
Santa Clara	6:50a	↓	7:50a
Lawrence	↓	7:33a	↓
Sunnyvale	6:58a	7:37a	7:58a
Mountain View	7:03a	7:42a	8:03a
San Antonio	↓	7:46a	↓
California Avenue	↓	7:50a	↓
Palo Alto	7:11a	7:54a	8:11a
Menlo Park	↓	7:58a	↓
Redwood City	7:17a	8:03a	8:17a
San Carlos	7:22a	↓	8:22a
Belmont	↓	8:09a	↓
Hillsdale	↓	8:13a	↓
Hayward Park	↓	↓	↓
San Mateo	7:30a	↓	8:30a
Burlingame	7:33a	↓	8:33a
Broadway	↓	↓	↓
Millbrae	7:38a	8:21a	8:38a
San Bruno	7:43a	↓	8:43a
South San Francisco	↓	8:28a	↓
Bayshore	↓	↓	↓
22nd Street	7:54a	↓	8:54a
San Francisco	8:00a	8:41a	9:00a
Train Number	403	303	405
Pattern	L4	L3	L4
Station			
Gilroy	5:54a	6:31a	6:52a
San Martin	6:03a	6:40a	7:01a
Morgan Hill	6:09a	6:46a	7:07a
Blossom Hill	6:24a	7:01a	7:22a
Capitol	6:30a	7:07a	7:28a
Tamien	6:37a	7:14a	7:35a
San Jose Diridon	6:44a	7:23a	7:42a

SOUTHBOUND			
Train Number	408	310	412
Pattern	L4	L3	L4
Station			
San Francisco	3:11p	4:29p	5:12p
22nd Street	3:16p	↓	5:17p
Bayshore	↓	↓	↓
South San Francisco	↓	4:42p	↓
San Bruno	3:27p	↓	5:28p
Millbrae	3:32p	4:48p	5:33p
Broadway	↓	↓	↓
Burlingame	3:37p	↓	5:38p
San Mateo	3:41p	↓	5:42p
Hayward Park	↓	↓	↓
Hillsdale	↓	4:57p	↓
Belmont	↓	5:01p	↓
San Carlos	3:49p	↓	5:50p
Redwood City	3:53p	5:07p	5:54p
Menlo Park	↓	5:12p	↓
Palo Alto	4:00p	5:16p	6:01p
California Avenue	↓	5:20p	↓
San Antonio	↓	5:24p	↓
Mountain View	4:08p	5:29p	6:09p
Sunnyvale	4:13p	5:34p	6:14p
Lawrence	↓	5:38p	↓
Santa Clara	4:21p	↓	6:22p
College Park	4:24p	↓	↓
San Jose Diridon	4:30p	5:51p	6:29p
Tamien	4:36p	5:57p	6:35p
Capitol	4:43p	6:04p	6:42p
Blossom Hill	4:49p	6:10p	6:48p
Morgan Hill	5:02p	6:23p	7:00p
San Martin	5:08p	6:29p	7:06p
Gilroy	5:21p	6:42p	7:19p
Train Number	408	310	412
Pattern	L4	L3	L4
Station			
San Jose Diridon	4:30p	5:51p	6:29p
Tamien	4:36p	5:57p	6:35p
Capitol	4:43p	6:04p	6:42p
Blossom Hill	4:49p	6:10p	6:48p
Morgan Hill	5:02p	6:23p	7:00p
San Martin	5:08p	6:29p	7:06p
Gilroy	5:21p	6:42p	7:19p



# Average Daily Ridership by Station

January – May 2023\*

\*excludes the two-week temporary weekday schedule operated in April

## Northbound

Station	403		303		405	
	On	Off	On	Off	On	Off
Gilroy	24	0	16	0	22	0
San Martin	6	0	6	0	12	0
Blossom Hill	10	1	7	0	12	0
Morgan Hill	16	0	18	0	29	0
Capitol	7	0	6	0	6	0
<b>Total</b>	<b>63</b>	<b>1</b>	<b>55</b>	<b>0</b>	<b>82</b>	<b>1</b>

## Southbound

Station	408		310		412	
	On	Off	On	Off	On	Off
Capitol	0	5	0	6	0	5
Morgan Hill	0	18	0	10	1	7
Blossom Hill	0	7	0	8	0	5
San Martin	0	7	0	5	0	2
Gilroy	0	33	0	18	0	9
<b>Total</b>	<b>0</b>	<b>69</b>	<b>0</b>	<b>48</b>	<b>1</b>	<b>27</b>

**Grand Total: 201 Boardings per Day**



# Corridor Survey: Priorities

- Respondents ranked frequency, later morning service, and shorter travel time as top priorities
- **85% of passengers traveled within Santa Clara County or southern San Mateo County**

## Service Improvement Preferences in Ranking Order

	Frequency	Earlier AM service	Later AM service	Earlier PM service	Later PM service	Shorter trip time	One seat ride
<b>Capitol</b>	1	4	3	6	7	2	5
<b>Blossom Hill</b>	1	5	2	4	7	3	6
<b>Morgan Hill</b>	1	5	2	6	4	3	7
<b>San Martin</b>	1	5	2	4	6	3	7
<b>Gilroy</b>	1	4	2	5	6	3	7

*Ranking Order: 1=most requested improvement; 7=least requested improvement*



# Morning Service

- Morning departure from 7:00 am to 7:30 am was the most preferred departure time. Current schedules meet preferences at all stations but Gilroy
- Existing schedule generally provides service earlier than preferred by riders
- Between 9-10 am was the most provided timeframe shared in the “Other” category (n=15)

## AM Service Preferences in Ranking Order

	5:00 - 5:30	5:30 - 6:00	6:00 - 6:30	6:30 - 7:00	7:00 - 7:30	7:30 - 8:00	8:00 - 8:30	8:30 - 9:00
<b>Gilroy</b>	6	5*	2	3**	1	4	7	8
<b>San Martin</b>	7	6	4*	2*	1**	3	5	8
<b>Morgan Hill</b>	7	6	4*	3*	1**	2	5	8
<b>Blossom Hill</b>	8	6	5*	2	1**	3	4	7
<b>Capitol</b>	7	5	4*	2	1**	3	6	8

*Ranking Order: 1=most requested time; 9=least requested time*

*\* = Served by 1 train under existing schedule*

*\*\* = Served by 2 trains under existing schedule*



# Evening Service

- Arrival service between 4:00 pm and 5:30 pm were the most highly ranked
- Of the 88 respondents who selected “Other,” 35 selected afternoon arrivals (between 12-4pm) and 33 selected late evening arrivals (after 8:30pm)

## PM Service Preferences in Ranking Order

	3:30 - 4:00	4:00 - 4:30	4:30 - 5:00	5:00 - 5:30	5:30 - 6:00	6:00 - 6:30	6:30 - 7:00	7:00 - 7:30	7:30 - 8:00	8:00 - 8:30
<b>Capitol</b>	4	3	1*	2	5	6*	7*	8	9	10
<b>Blossom Hill</b>	6	5	3*	1	2	4*	7*	8	9	10
<b>Morgan Hill</b>	4	3	5	1*	2	6*	7*	8	9	10
<b>San Martin</b>	5	2	3	1*	4	6*	7	8*	9	10
<b>Gilroy</b>	3	2	4	1*	5	6	7*	8*	9	10

Ranking Order: 1=most requested time; 10=least requested time

\* = Served by 1 train under existing schedule



# Prioritizing Potential Improvements

- Over 50% of respondents prioritized train frequency as the most preferred improvement.
- 56% of respondents ranked later morning service as one of their top three priorities.
- One seat ride was generally the lowest priority

## Service Improvement Preferences in Ranking Order

	Frequency	Earlier AM service	Later AM service	Earlier PM service	Later PM service	Shorter trip time	One seat ride
<b>Capitol</b>	1	4	3	6	7	2	5
<b>Blossom Hill</b>	1	5	2	4	7	3	6
<b>Morgan Hill</b>	1	5	2	6	4	3	7
<b>San Martin</b>	1	5	2	4	6	3	7
<b>Gilroy</b>	1	4	2	5	6	3	7

*Ranking Order: 1=most requested improvement; 7=least requested improvement*



# Key Takeaways: AM Schedule

- **Existing**
  - Schedule is skewed a little early
- **Near Term (4<sup>th</sup> Diesel Train)**
  - Prioritize adding a later train with a ~7:15-7:30 departure from Gilroy
- **Post-Electrification (September 2024)**
  - Results will be used in future service planning
  - Preliminary recommended AM Gilroy Departures:

5:00 - 5:30	5:30 - 6:00	6:00 - 6:30	6:30 - 7:00	7:00 - 7:30	7:30 - 8:00	8:00 - 8:30	8:30 - 9:00
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# Key Takeaways: PM Schedule

- **Existing**
  - Late PM trips are mismatched with early AM trips, which forces riders into very long workdays and limits choices
  - Two of three trains are in least preferred timeslots
- **Near Term (4<sup>th</sup> Diesel Train)**
  - Target a ~6pm arrival
- **Post-Electrification (September 2024)**
  - Results will be used in future service planning
  - Preliminary recommended PM Gilroy Arrivals:

3:30 -	4:00	4:30 -	5:00 -	5:30 -	6:00 -	6:30 -	7:00 -	7:30 -	8:00
4:00	-4:30	5:00	5:30	6:00	6:30	7:00	7:30	8:00	- 8:30



# Draft Gilroy Schedule

Effective September 25, 2023

Train Number	403	303	405	305		Train Number	408	410	310	412
Pattern	L4	L3	L4	L3		Pattern	L4	L4	L3	L4
Station						Station				
Gilroy	5:52a	6:29a	6:50a	7:29a		San Francisco	3:09p	4:10p	4:27p	5:10p
San Martin	6:01a	6:38a	6:59a	7:38a		22nd Street	3:14p	4:15p	↓	5:15p
Morgan Hill	6:07a	6:44a	7:05a	7:44a		Bayshore	↓	↓	↓	↓
Blossom Hill	6:22a	6:59a	7:20a	7:59a		South San Francisco	↓	↓	4:40p	↓
Capitol	6:28a	7:05a	7:26a	8:05a		San Bruno	3:25p	4:26p	↓	5:26p
Tamien	6:35a	7:12a	7:33a	8:12a		Millbrae	3:30p	4:31p	4:46p	5:31p
San Jose Diridon	6:42a	7:21a	7:40a	8:21a		Broadway	↓	↓	↓	↓
College Park	↓	↓	7:44a	↓		Burlingame	3:35p	4:36p	↓	5:36p
Santa Clara	6:48a	↓	7:48a	↓		San Mateo	3:39p	4:40p	↓	5:40p
Lawrence	↓	7:31a	↓	8:31a		Hayward Park	↓	↓	↓	↓
Sunnyvale	6:56a	7:35a	7:56a	8:35a		Hillsdale	↓	↓	4:55p	↓
Mountain View	7:01a	7:40a	8:01a	8:40a		Belmont	↓	↓	4:59p	↓
San Antonio	↓	7:44a	↓	8:44a		San Carlos	3:47p	4:48p	↓	5:48p
California Avenue	↓	7:48a	↓	8:48a		Redwood City	3:51p	4:52p	5:05p	5:52p
Palo Alto	7:09a	7:52a	8:09a	8:52a		Menlo Park	↓	↓	5:10p	↓
Menlo Park	↓	7:56a	↓	8:56a		Palo Alto	3:58p	4:59p	5:14p	5:59p
Redwood City	7:15a	8:01a	8:15a	9:01a		California Avenue	↓	↓	5:18p	↓
San Carlos	7:20a	↓	8:20a	↓		San Antonio	↓	↓	5:22p	↓
Belmont	↓	8:07a	↓	9:07a		Mountain View	4:06p	5:07p	5:27p	6:07p
Hillsdale	↓	8:11a	↓	9:11a		Sunnyvale	4:11p	5:12p	5:32p	6:12p
Hayward Park	↓	↓	↓	↓		Lawrence	↓	↓	5:36p	↓
San Mateo	7:28a	↓	8:28a	↓		Santa Clara	4:19p	5:20p	↓	6:20p
Burlingame	7:31a	↓	8:31a	↓		College Park	4:22p	↓	↓	↓
Broadway	↓	↓	↓	↓		San Jose Diridon	4:28p	5:26p	5:49p	6:27p
Millbrae	7:36a	8:19a	8:36a	9:19a		Tamien	4:34p	5:32p	5:55p	6:33p
San Bruno	7:41a	↓	8:41a	↓		Capitol	4:41p	5:39p	6:02p	6:40p
South San Francisco	↓	8:26a	↓	9:26a		Blossom Hill	4:47p	5:45p	6:08p	6:46p
Bayshore	↓	↓	↓	↓		Morgan Hill	5:00p	5:58p	6:21p	6:58p
22nd Street	7:52a	↓	8:52a	↓		San Martin	5:06p	6:04p	6:27p	7:04p
San Francisco	7:58a	8:39a	8:58a	9:39a		Gilroy	5:19p	6:17p	6:40p	7:17p



# Tamien Service Changes

# Guadalupe Bridge Project



- Guadalupe Bridge Rehabilitation project requires longer work windows during the midday
- Midday service to Tamien will be temporarily reduced from hourly to bi-hourly
- Tamien service maintained on highest ridership midday trains

# Draft Tamien Midday Service Changes

<b>Northbound</b>	<b>Train Number</b>	<b>111</b>	<b>113</b>	<b>115</b>	<b>117</b>	<b>119</b>	<b>121</b>	<b>123</b>	<b>125</b>	<b>127</b>
	<i>Pattern</i>	<i>L1</i>	<i>L1</i>	<i>L1</i>	<i>L1</i>	<i>L1</i>	<i>L1</i>	<i>L1</i>	<i>L1</i>	<i>L1</i>
	<b>Station</b>									
	Tamien	8:48a		10:46a		12:46p		2:46p		4:46p
	San Jose Diridon	8:54a	9:52a	10:52a	11:52a	12:52p	1:52p	2:52p	3:52p	4:52p

<b>Southbound</b>	<b>Train Number</b>	<b>108</b>	<b>110</b>	<b>112</b>	<b>114</b>	<b>116</b>	<b>118</b>	<b>120</b>	<b>122</b>
	<i>Pattern</i>	<i>L1</i>	<i>L1</i>	<i>L1</i>	<i>L1</i>	<i>L1</i>	<i>L1</i>	<i>L1</i>	<i>L1</i>
	<b>Station</b>								
	San Jose Diridon	9:17a	10:16a	11:16a	12:16p	1:16p	2:16p	3:16p	4:17p
	Tamien		10:21a		12:21p		2:21p		4:22p

Tamien service removed

# Next Steps

1. Distribute Final Schedule to Agency partners
2. Communications Outreach
3. Board notification in September
4. Develop Fall 2024 Electrified Service Plan