# 1 California Temporary Emergency Transit Lanes Project

## Evaluation Report

SFMTA.com/TempLanes1Cal

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SFMTA

# Contents

## Introduction

The 1 California Temporary Emergency Transit Lanes Project (1 California TETL Project) is part of the SFMTA's efforts to respond to the COVID-19 pandemic. The project includes new 24/7 transit lanes on California Street and several blocks of Clay and Sacramento Streets, four blocks of new peak-hour towaway transit lanes on Clay Street, and increased hours for existing peak-hour towaway transit lanes on Clay and Sacramento Streets. Altogether, these treatments are intended to protect transit from the return of traffic congestion to provide faster, more reliable trips for Muni riders and to limit the potential for crowding and pass-ups. Following public outreach in early 2021, the 1 California TETL Project was approved by the SFMTA Board in April 2021. Installation of the changes was completed in July 2021. Enforcement of towaway lanes began in August 2021. More information about the project is available at SFMTA.com/TempLanes1Cal.
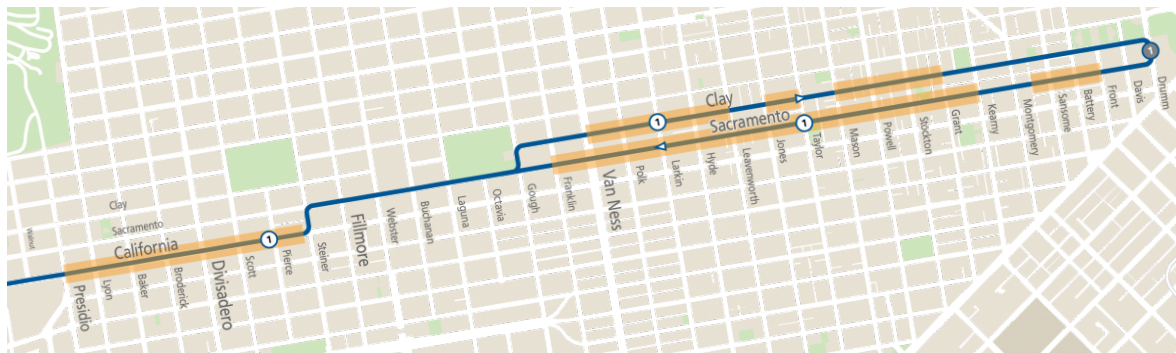


*Figure 1: Map of the 1 California TETL project*

The 1 California TETL Project was approved as a temporary project, subject to removal within 120 days of the lifting of San Francisco's State of Emergency Order, pending evaluation and additional public process to consider whether to keep transit lanes in place. This document presents the results of the 1 California TETL project evaluation, which finds that new transit lanes are helping keep 1 California buses moving, with minimal traffic impacts to California, Sacramento, and Clay streets. However, commute travel to the Financial District has not yet rebounded to pre-pandemic levels. We expect the full benefits of the project will not be realized until a greater level of this travel is restored.

The rest of the document is organized as follows. First, the evaluation approach is summarized including overviewing the objectives analyzed and analysis periods included. Then, methods and findings for the relevant metrics for each of the eight objectives considered in the evaluation are presented. Finally, some proposed project changes that respond to evaluation findings and stakeholder feedback are outlined along with next steps for the project.

## Evaluation approach

Table 1 below summarizes each objective considered in the 1 California TETL Project evaluation. This framework was developed to consider potential project benefits and impacts and was informed by community feedback in early 2021.

| Objective |
|---|
| 1.   Consider stakeholder feedback |
| 2.   Improve experience for Muni operators |
| 3.   Provide a safe travel option for those with the fewest travel choices, particularly Black, Indigenous, People of Color, lower income and homeless individuals |
| 4.   Preserve Muni travel time savings |
| 5.   Monitor collision rates along 1 California TETL area and nearby streets |
| 6.   Monitor traffic impacts |
| 7.   Ensure loading needs are met where parking changes are implemented |
| 8.   Monitor compliance with transit lane locations and hours |

*Table 1: Evaluation objectives for the 1 California TETL project*

In addition to this project-level evaluation of the 1 California TETL Project, some additional metrics will be considered programmatically across all TETL projects. When available, this information will be shared online at SFMTA.com/TempLanes.

# Stakeholder feedback

## *Methods*

A public survey was distributed to ask 1 California corridor travelers and nearby residents and merchants about their perceptions of changes in travel along the 1 California corridor after implementation of the 1 California TETL Project. The survey questions are available in Appendix A.

The survey was available online during August 2021. The survey was advertised via posters at bus stops and intersection corners near the project area; a mailer to properties within 1-2 blocks of the corridor; advertisements in Facebook, Instagram, Spotify, and Sing Tao; emails to relevant project and supervisorial district lists; and posting on the SFMTA website. Surveys were available in English and Chinese. Paper surveys were also distributed to the Chinatown YMCA food bank for distribution with pre-paid envelopes as a part of food packages.

A total of 963 responses were received. 96% (922) were completed in English and 4% (41) in Chinese.

## *Key Findings*

**Likely due to the primarily-online survey format necessitated by the COVID-19 pandemic, respondents to the survey did not comprise a representative sample of those affected by the 1 California project, with people who own vehicles and people of higher-incomes over-represented in the responses. To help ensure the needs of all affected stakeholders are taken into account, subsets of responses from underrepresented and overrepresented groups in the survey are displayed alongside the overall totals in this report.**

The survey attracted significantly more attention from car owners than non-car-owners. Only one third of Chinatown and Nob Hill households own cars[1], but two-thirds of survey respondents from those neighborhoods reported having a car in the household. (Car ownership was strongly associated with income: less than half of those with household incomes under $50,000 had access to a car, compared to over 70% of those with incomes over $150,000.) Only about 10% of respondents reported household incomes under $35,000, compared to a range of 17% to 49% for the neighborhoods as a whole.

Because the respondents are not a representative sample of users of the 1 California corridor, some results are filtered by reported travel mode or income to reflect those who are most dependent on transit. Figure 2 shows reported travel mode on California, Sacramento and/or Clay streets for all respondents, divided by income brackets. This question focused on primary travel mode within the project corridor, and does not necessarily represent travel modes used to reach other parts of the city.

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[1] American Community Survey 2019, Table B08201

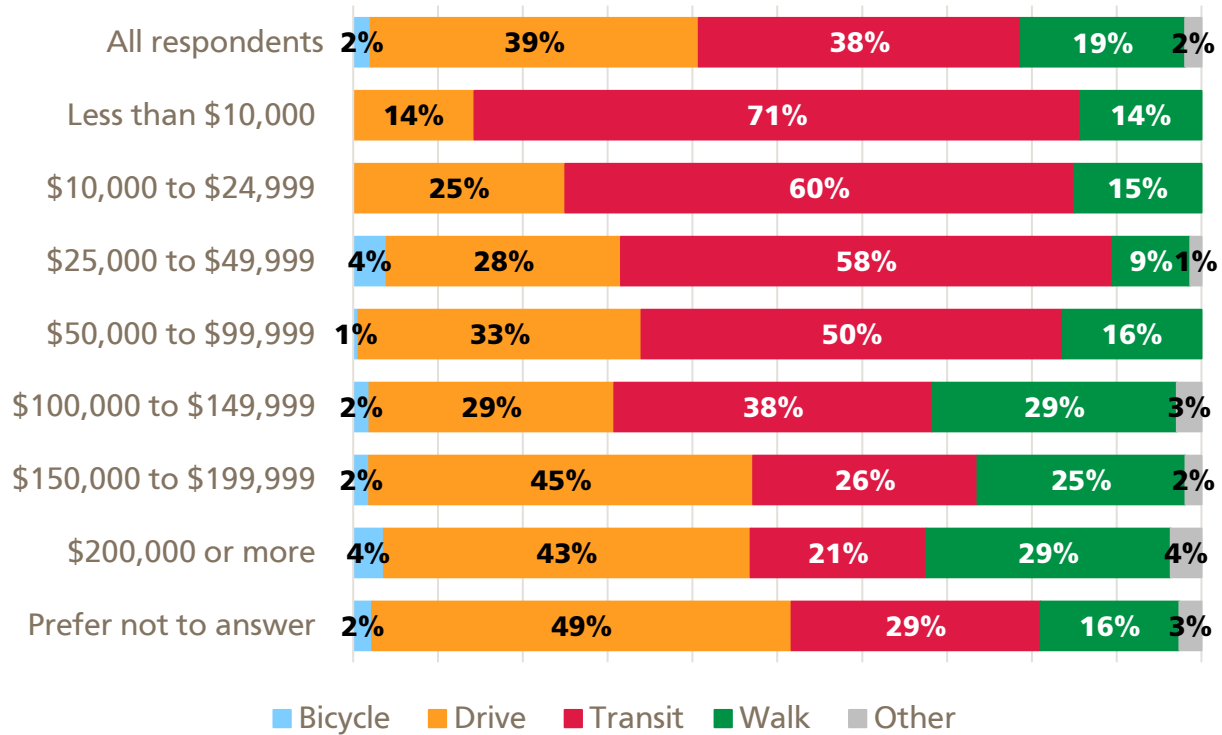| | Bicycle | Drive | Transit | Walk | Other |
|---|---|---|---|---|---|
| All respondents | 2% | 39% | 38% | 19% | 2% |
| Less than $10,000 | | 14% | 71% | 14% | |
| $10,000 to $24,999 | | 25% | 60% | 15% | |
| $25,000 to $49,999 | 4% | 28% | 58% | 9% | 1% |
| $50,000 to $99,999 | 1% | 33% | 50% | 16% | |
| $100,000 to $149,999 | 2% | 29% | 38% | 29% | 3% |
| $150,000 to $199,999 | 2% | 45% | 26% | 25% | 2% |
| $200,000 or more | 4% | 43% | 21% | 29% | 4% |
| Prefer not to answer | 2% | 49% | 29% | 16% | 3% |

Figure 2: Responses to "Thinking about your trips since early July, how do you most often travel on California, Sacramento and/or Clay streets?"

**Support for the project, and belief that it is important to make sure that Muni does not get delayed in traffic, was highly correlated with travel mode.**

Overall, 73% of respondents agreed it is somewhat, very, or extremely important to make sure Muni does not get delayed in traffic (Figure 3). 89% of transit riders and 84% of bicyclists agreed with those statements, while 74% of walkers and 55% of drivers agreed.
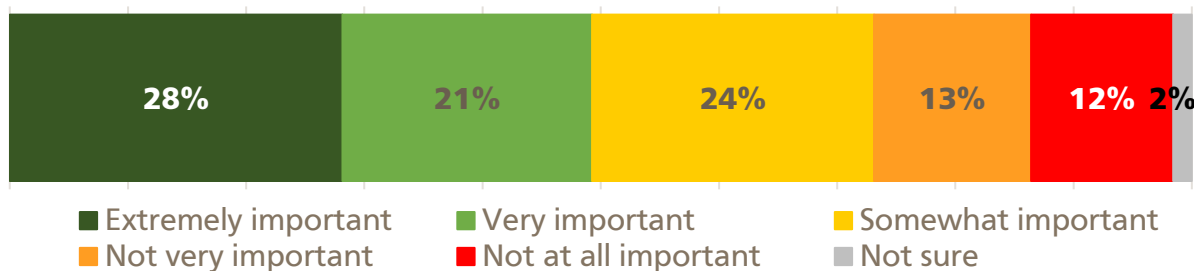


| Extremely important | Very important | Somewhat important | Not very important | Not at all important | Not sure |
|---|---|---|---|---|---|
| 28% | 21% | 24% | 13% | 12% | 2% |

Figure 3: Responses to "How important is it to you that Muni doesn't get delayed in traffic?"

Overall, 41% of respondents would definitely or probably support keeping the 1 California TETL Project in place, while 51% were opposed (Figure 4). 64% of transit riders and 79% of cyclists supported continuing the project, while 45% of walkers and only 12% of drivers supported it (Figure 5).

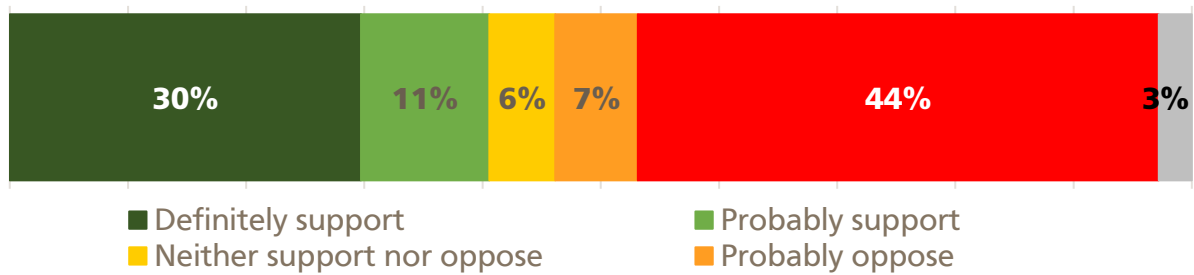| Definitely support | Probably support |
|---|---|
| Neither support nor oppose | Probably oppose |

*Figure 4: Overall responses to "Emergency transit lanes are a temporary measure to benefit those who rely on Muni. Would you support making them permanent?"*



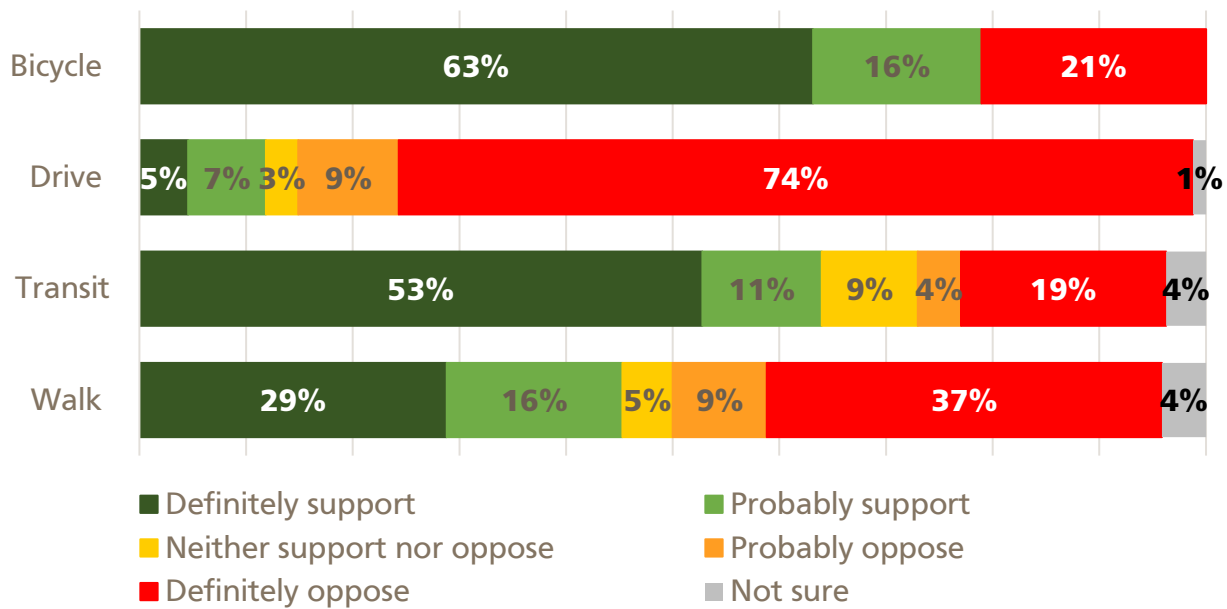| Definitely support | Probably support |
|---|---|
| Neither support nor oppose | Probably oppose |
| Definitely oppose | Not sure |

*Figure 5: Responses to "Emergency transit lanes are a temporary measure to benefit those who rely on Muni. Would you support making them permanent?" divided by stated travel mode*

**Most respondents who regularly ride the 1 California thought overall trip quality was better or about the same, with about one-third of respondents indicating an improvement (Figure 6).**



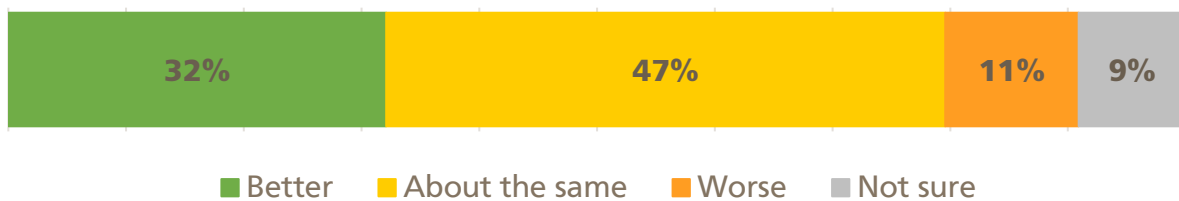| Better | About the same | Worse | Not sure |
|---|---|---|---|

*Figure 6: Responses to "The project installed a combination of full-time and part-time transit lanes in June. Thinking about the overall quality of your Muni trips since then (for example, travel time or reliability), would you say the 1 California is…"*

***Additional findings***

In addition to the key findings above, the following summarizes the results for other survey questions.

59% of respondents had ridden the 1 California since early July 2021; of those who had, the frequency of their rides is shown in Figure 7.



*Figure 7: Responses to "How often do you currently take the 1 California?"*

As shown in Figure 8, 1 California passengers noticed changes most during weekday afternoons, with fewer passengers noticing changes at other times. 35% of passengers reported changes during weekends, even though the TETL project only added 24/7 transit lanes on part of the corridor.
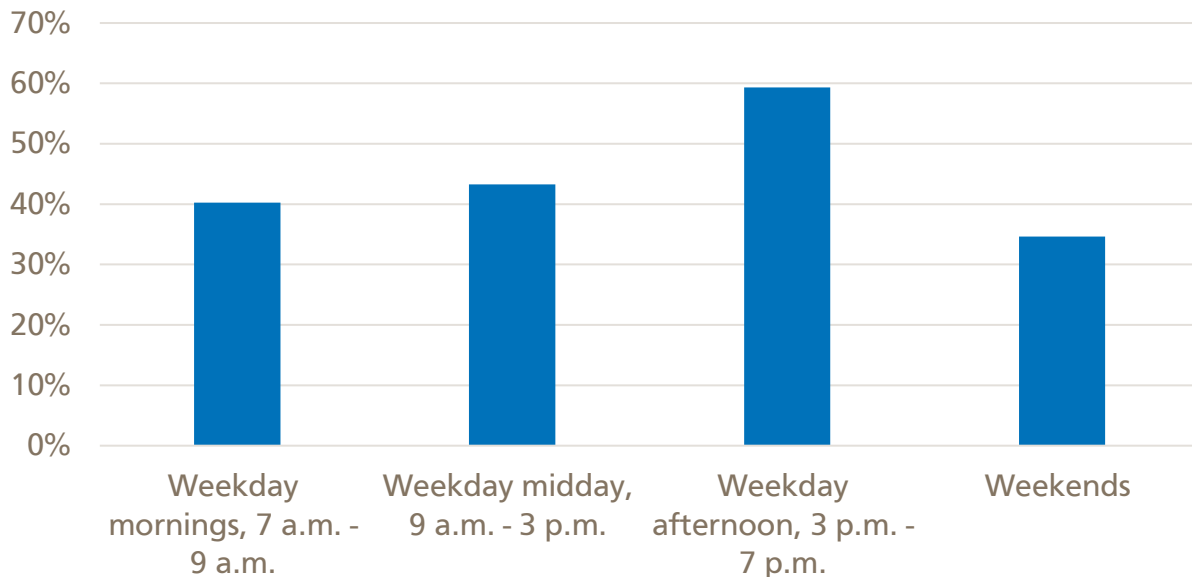


*Figure 8: Responses to "At what time(s) did you notice these changes to your 1 California trips? Choose all that apply:"*

Sixty-seven percent of respondents reported that someone in their household owned a car for trips in San Francisco, while 30% reported that no one in their household owned a car. For those who primarily drove in the corridor, responses about driving difficulty in the project area are shown in Figure 9, and parking difficulty in Figure 10.

| 2% | 19% | 71% | 5% | 2% |

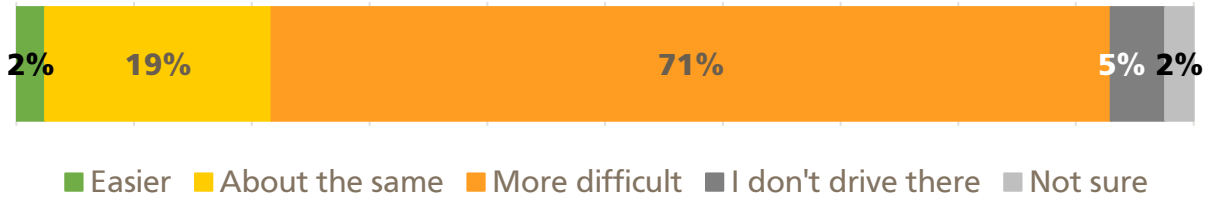■ Easier  ■ About the same  ■ More difficult  ■ I don't drive there  ■ Not sure

*Figure 9: Responses to "Full-time and part-time transit lanes were installed in June. Since then, how would you describe driving on or near California, Sacramento and/or Clay streets?"*

| 1% | 10% | 50% | 33% | 6% |

■ Easier  ■ About the same  ■ More difficult  ■ I don't park there  ■ Not sure

*Figure 10: Responses to " How would you describe parking on or near Sacramento and/or Clay streets between Larkin and Front streets since early July?"*

As shown in Figure 11, in terms of safety, most people felt walking along or across the corridor felt about the same since the project was implemented. Feelings about pedestrian safety varied significantly by indicated mode, as shown in Figure 11.

| 14% | 53% | 24% | 5% | 4% |

■ Safer  ■ About the same  ■ Less safe  ■ I don't walk there  ■ Not sure

*Figure 11: Responses to "Thinking about traffic safety, since transit lanes were installed or expanded in June, how safe do you feel walking along or across California, Sacramento and/or Clay streets?"*
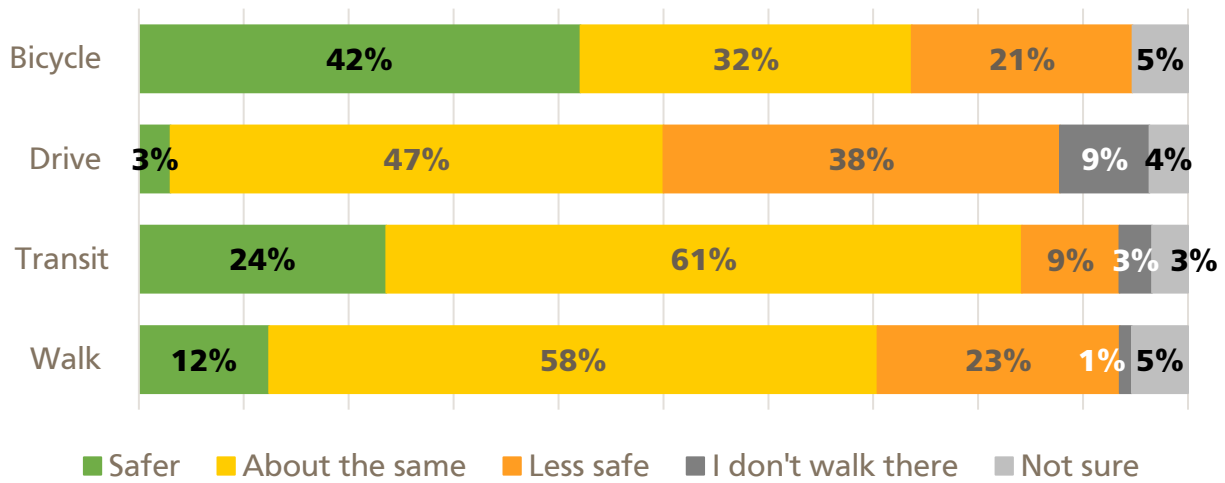
*Figure 12: Responses by travel mode to "Thinking about traffic safety, since transit lanes were installed or expanded in June, how safe do you feel walking along or across California, Sacramento and/or Clay streets?"*

About one-third of respondents supported adding weekday hours to the transit lanes in Nob Hill in Chinatown, with a similar fraction who supported including weekends. Twenty percent of respondents supported including two additional blocks of Clay Street, which would require removing two trees that overhang the street. These results are shown in Figure 13.
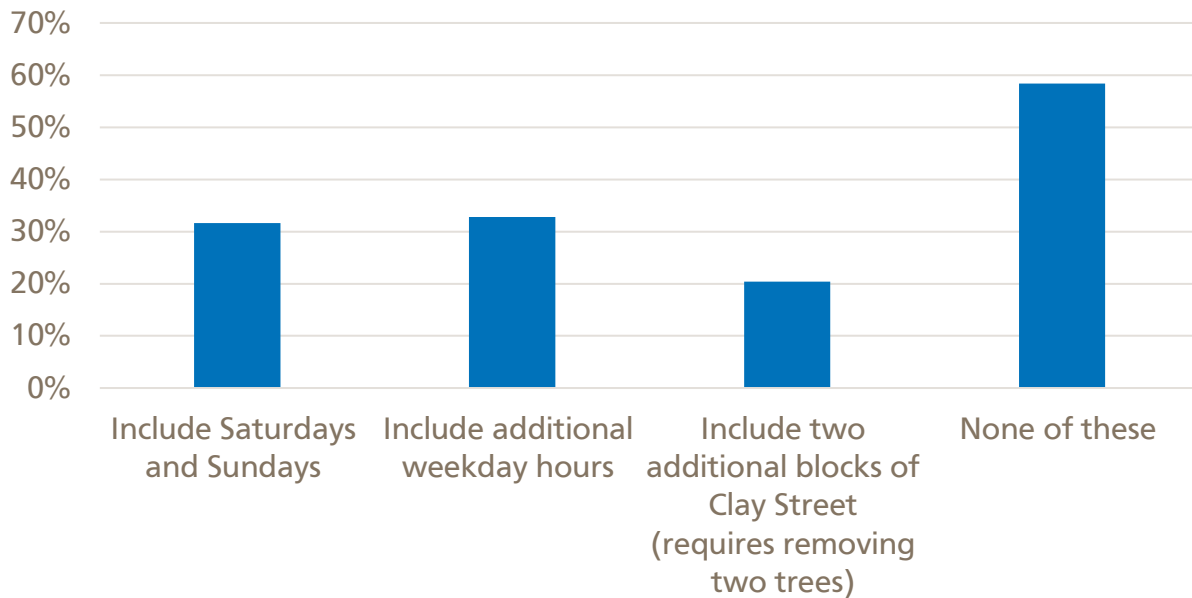


*Figure 13: Responses to "During public outreach, many commenters suggested expanding the proposed hours of the part-time emergency transit lanes in Nob Hill and Chinatown. Would you support any of the following (choose all that apply):"*

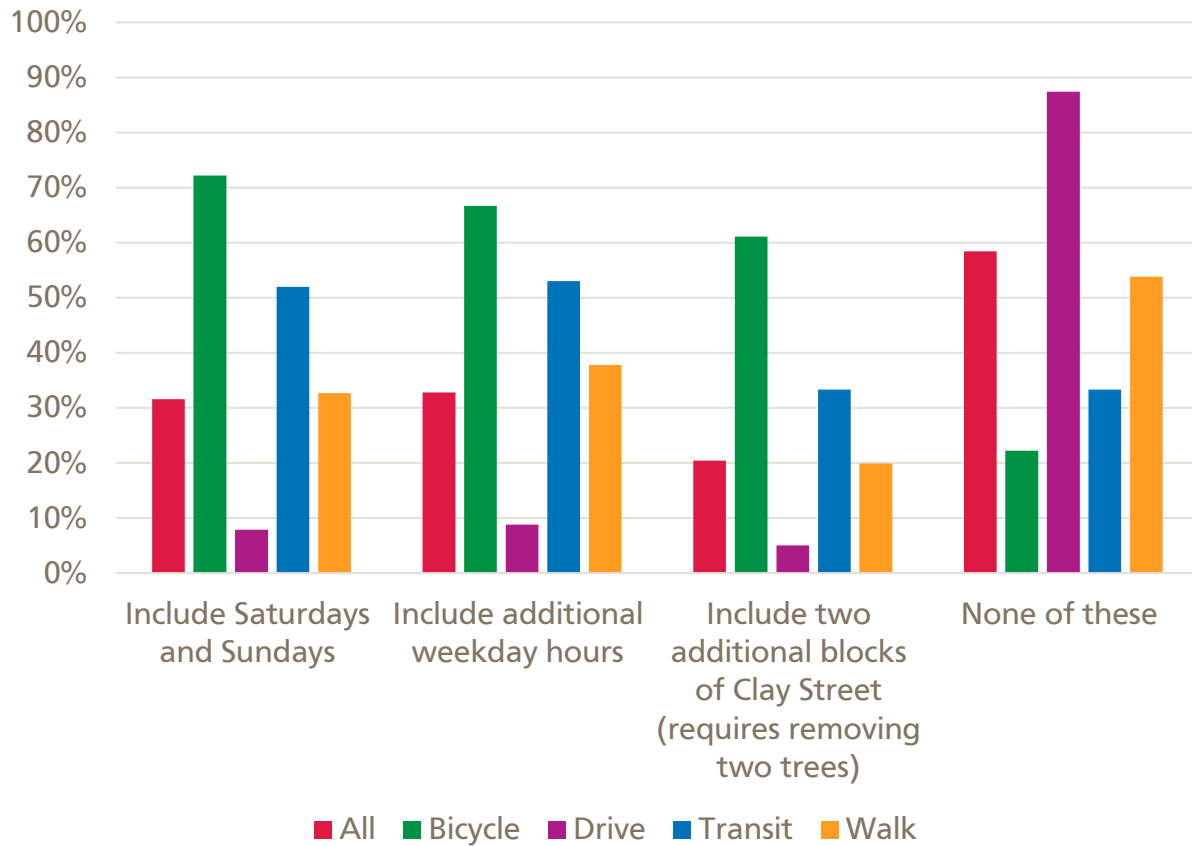As with other questions, support for these additions varied significantly by reported mode (Figure 14).



Figure 14: Responses by travel mode to "During public outreach, many commenters suggested expanding the proposed hours of the part-time emergency transit lanes in Nob Hill and Chinatown. Would you support any of the following (choose all that apply):"

# Operator feedback

### Methods

Muni's highly trained operators can offer valuable firsthand knowledge of how street changes affect their day-to-day operating experiences. In addition, Muni operators are frontline essential workers who have an extremely difficult and important job, particularly during the COVID-19 pandemic. Improving operators' work experience is explicitly part of the TETL programs' goals. Paper surveys were distributed to operators at Presidio Division, from which 1 California service is run. Eight operator survey responses were completed.

### Key findings

Over 70 percent of operators who were aware of the 1 California TETL changes reported that these changes had made their jobs easier. Half reported fewer conflicts with other vehicles, indicating that the emergency transit lanes are helping to protect buses from private vehicle traffic.

All operators reported that the TETL changes had not changed transit travel times. The vast majority reported that continued illegal behavior by private auto drivers, particularly double-parking in the California Street transit lanes and parking in the towaway lane on Clay Street, was preventing more efficient bus operations.

## Equity

### Methods

One of the key TETL program objectives is to provide a safe travel option for those reliant on Muni, particularly Black, Indigenous, People of Color, lower income and homeless individuals. This section provides information about the equity implications of the 1 California TETL Project by sharing more information about the demographics of 1 California riders who are the key beneficiaries of the project. Data considered includes information on Muni rider demographics collected through SFMTA's biennial On Board Survey[2] and comparing that to census data of the neighborhoods served by the 1 California line.

### Key findings

- The 1 California line serves several neighborhoods – Financial District, Chinatown, Nob Hill, and the Richmond District – with a greater proportion of low-income residents and/or people of color than the Muni systemwide average.
- Although 1 California riders are less likely to be low-income than residents of the neighborhoods that the line serves, the median household income of 1 California riders is substantially lower than in most of those neighborhoods. This indicates that 1 California riders are more likely to be low or moderate income than high income; this is consistent with indicated mode choice in the public survey.

### Additional results

Table 2 compares customer demographics of the 1 California to Muni system-wide averages, and to demographics of the neighborhoods served by the 1 California line.

|  | Household income below $35,000[3] | Median Household Income | People of Color |
|---|---|---|---|
| **1 California** | 17% | $69k | 43% |
| **Systemwide average** | 26% | $59k | 57% |
| **Financial District[2]** | 41% | $53k | 26% |
| **Chinatown[4]** | 49% | $51k | 80% |
| **Nob Hill[3]** | 28% | $101k | 58% |
| **Pacific Heights[2]** | 17% | $163k | 35% |
| **Presidio Heights[2]** | 34% | $174k | 32% |
| **Laurel Heights[2]** | 23% | $138k | 39% |
| **Lake Street[2]** | 20% | $133k | 40% |
| **Richmond District[2]** | 24% | $119k | 62% |

*Table 2: 1 California and systemwide customer demographics and neighborhood demographics (pre-COVID)*

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[2] This survey was conducted pre-COVID; current ridership demographics may be different.

[3] Low income households are defined by the SFMTA as those with total incomes under 200% of the federal poverty level per household size. Household size data was not readily available, so household income under $35,000 (approximately 200% of the federal poverty level for a two-person household) is used as a proxy.

[4] American Community Survey 2019 data via city-data.com

## Transit travel time

### Methods

Transit travel time data for the 1 California line was processed from automated vehicle location (AVL) data collected in Muni's OrbCAD system. Time periods used were January 15 to February 28, 2020 (typical conditions prior to COVID pandemic), April 15 to May 31, 2020 (lowest traffic during initial shutdown), April 1 to May 15, 2021 (typical conditions prior to project implementation) and August 1 to October 28, 2021 (typical conditions after project implementation, with traffic levels in many parts of the city close to pre-COVID). Travel times were calculated for a number of segments:

- Financial District: Grant to Drumm eastbound / Davis to Kearny westbound
- Chinatown: Powell to Grant eastbound / Kearny to Stockton westbound
- Nob Hill: Larkin to Powell eastbound / Stockton to Larkin westbound
- Polk Gulch: Van Ness to Larkin eastbound / Larkin to Franklin westbound
- Pacific Heights: Franklin – Fillmore (no changes were made to this segment by the TETL project)
- California Street: Presidio – Fillmore

$50^{th}$ percentile (median) running times were calculated, which approximates the typical passenger experience. The following time periods were analyzed: AM peak (7-10am), midday (10am-3pm), and PM peak (3-7pm) for analysis, with all-day (7am-7pm) also analyzed.

As ridership increases on a route, the amount of time spent at stops (dwell time) also increases. This is particularly the case for the 1 California, which has close stop spacing due to the hilly geography of the area. Because ridership varied substantially during the analysis period, dwell times were removed from all travel times in this analysis in order to better isolate the effects of the 1 California TETL project.

### Key findings

**The 1 California TETL project has preserved much of the travel time savings created by reduced congestion during COVID.** During the morning peak, 48% of inbound travel time savings and 85% of outbound savings have been retained. During the evening peak, 18% of eastbound savings and 55% of outbound savings have been retained. This represents a savings of 1-3 minutes between Drumm Street and Presidio Avenue. These results are shown in Figure 15.
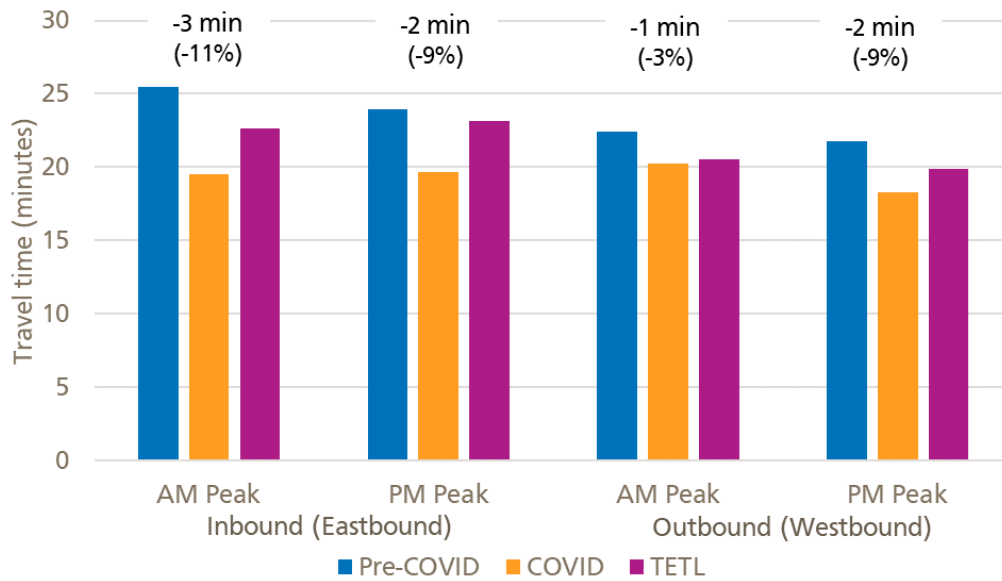
*Figure 15: 1 California peak hour travel times between Presidio Avenue and Drumm Street during pre-COVID, pre-TETL during COVID (Spring 2020), and after TETL implementation. Travel time savings since pre-COVID are shown at top.*

**Transit travel time preservation was most significant where transit lanes were implemented in congested areas.** Travel time changes since pre-COVID for California Street, Nob Hill, and Chinatown are shown in Figure 16, Figure 17, and Figure 18. During the AM peak, 83% percent of eastbound travel time on Nob Hill was retained where four new blocks of transit lane were added, which represents a savings of almost one minute (about one-quarter of pre-COVID travel time on that segment). Savings were less significant on less congested segments of the corridor such as in the off-peak direction (e.g. AM westbound/outbound or PM eastbound/inbound).
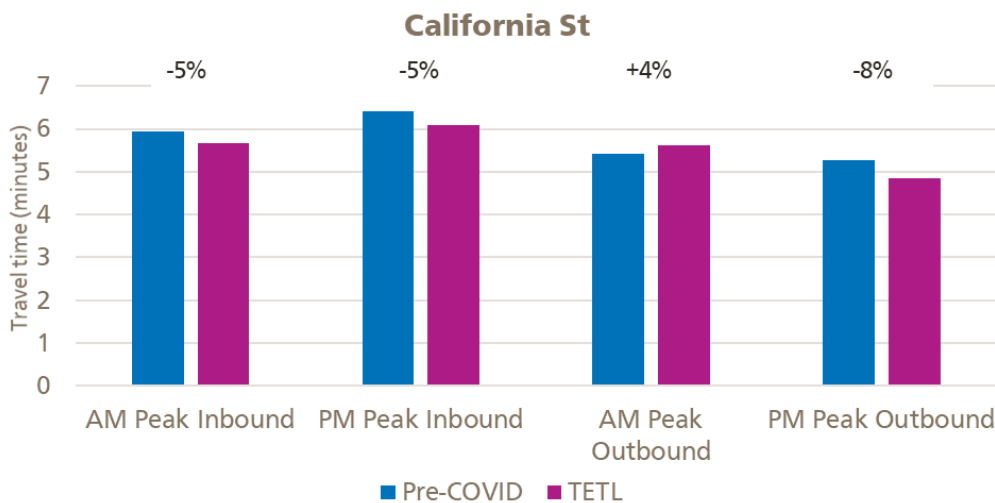


*Figure 16: 1 California peak hour travel times between Presidio Avenue and Fillmore Street pre-COVID and after TETL implementation. Travel time savings since pre-COVID are shown at top.*
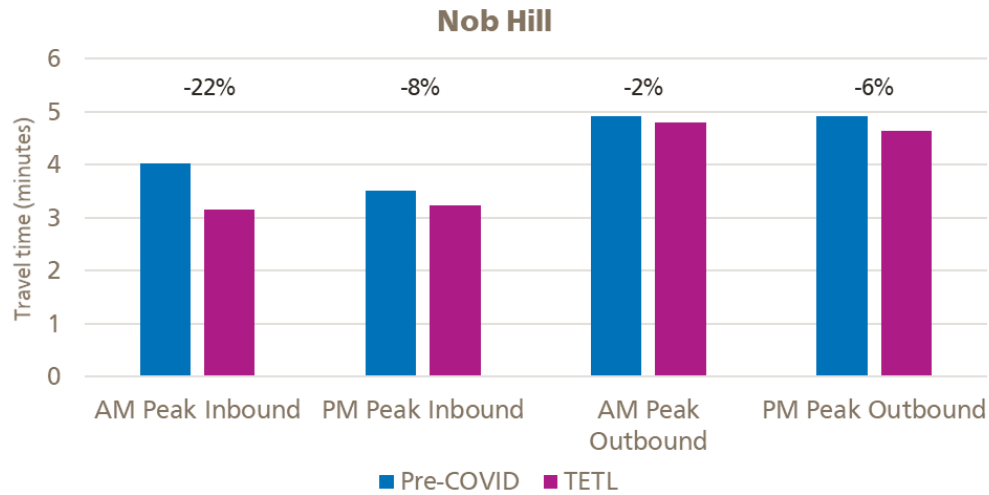
## Nob Hill



*Figure 17: 1 California peak hour travel times in Nob Hill pre-COVID and after TETL implementation. Travel time savings since pre-COVID are shown at top.*
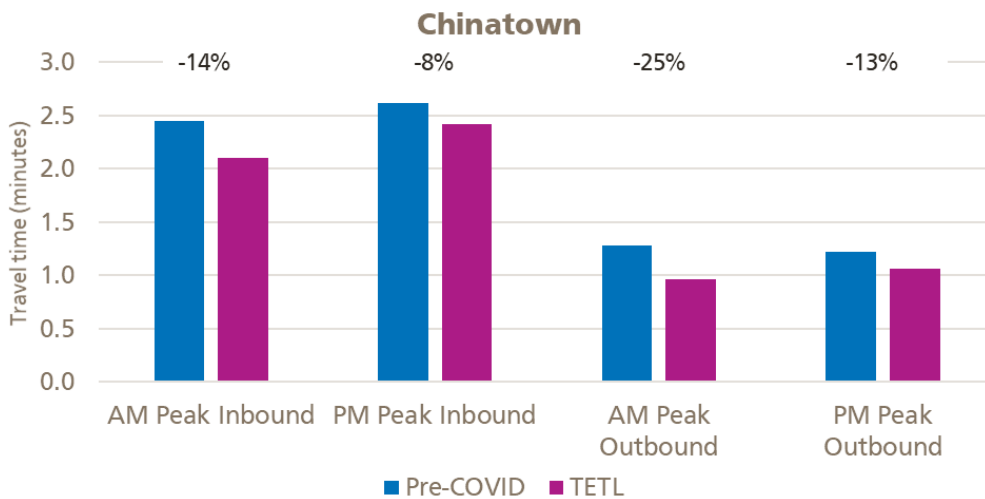
## Chinatown



*Figure 18: 1 California peak hour travel times in Chinatown pre-COVID and after TETL implementation. Travel time savings since pre-COVID are shown at top.*

While travel time charts aren't included for project segments in Polk Gulch or the Financial District, findings for these segments are as follows:

- **Polk Gulch** (Larkin to Franklin streets): similar results to Nob Hill.
- **Financial District**: the only change from the TETL project in this portion of the corridor was changing two blocks from daytime to 24-hour transit lanes. Travel times were largely constant across the analysis period.

# Traffic

## *Methods*

To make room for a dedicated transit lane, the 1 California TETL project reduced the number of directional travel lanes from two to one on California Street and on Sacramento and Clay streets through Polk Gulch. The purpose of this component of the evaluation was to understand whether the reduction in travel lanes increased traffic congestion on California, Sacramento, or Clay streets to the extent that some people driving diverted to nearby streets (referred to as "diversions", and in turn increased congestion on those nearby streets.

Analyzing changes in auto travel times and speeds requires contextualizing by analyzing changes in other "control" corridors that would not have been affected by project changes. This is particularly important in a COVID context, where there have been large changes in the overall level of trip-making in San Francisco as restrictions have lifted, COVID case counts have declined, and a large portion of the population has been vaccinated. Travel times on arterial streets like California, Sacramento, and Clay Streets with existing congestion may be more sensitive to changes in vehicle volumes than uncongested local streets.

Traffic conditions were monitored using the Inrix IQ Roadway Analytics suite (https://inrix.com/products/roadway-analytics/), which aggregates data from navigation apps, commercial vehicle GPS locations, and other sources to estimate speeds and travel times. Block-by-block average speeds were aggregated into 12 sections of road, largely matching those used for travel time analysis.

Only data from Tuesdays, Wednesday, and Thursdays was used, as these tend to be the days with the highest levels of congestion. The time periods used for analysis were April 2021 (before project implementation began) and August 2021 (after 1 California TETL project implementation, after towaway enforcement began)[5].

## *Key Findings*

**The 1 California TETL project did not substantially impact vehicle speeds in the project area.** All-day speed changes from April to August 2021 varied from -1.7% on eastbound Clay Street in the Financial District to +2.7% on westbound Sacramento Street in Nob Hill (see Table 3). Speed changes during peak periods were similar (-2.5% to +4.5%). In addition, in locations where new transit lanes were implemented during peak hours (see Figure 19), no portions of the corridor showed auto speed reductions greater than 1% (the Financial District, which showed the greatest reduction in speeds at 2.5% during the AM inbound/eastbound peak period, only had nighttime transit lane hours added, so the speed reduction is likely explained by other factors such as an increase in commute traffic). 1 California corridor traffic speed changes were consistent with those on nine control corridors that did not have changes during the

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[5] A change in the methodology that Inrix uses to calculate traffic speeds took effect on March 30, 2021. Data from after this time cannot be directly compared with previous data.

analysis period, indicating that the 1 California TETL Project did not significantly affect traffic speeds in the corridor.
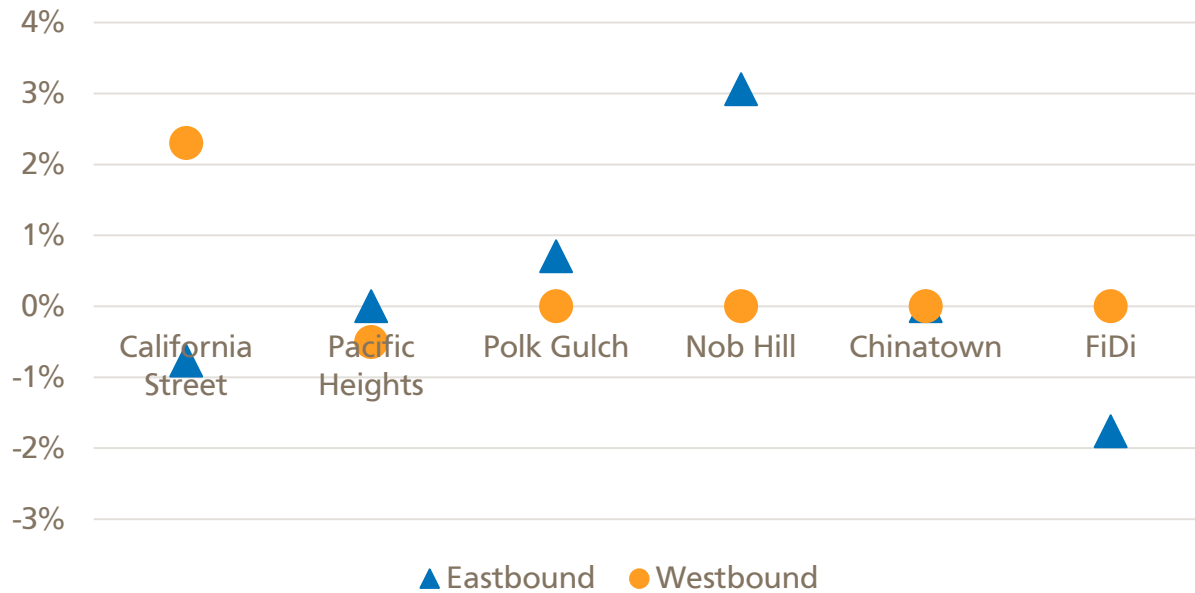


Figure 19: Changes in peak-hour peak-direction auto travel speeds from April to August 2021

|  |  | AM | PM | All day |
|---|---|---|---|---|
| California Street | EB | -0.8% | -1.1% | 0.0% |
| | WB | 1.7% | 2.3% | -0.7% |
| Pacific Heights | EB | 0.0% | 0.0% | -1.4% |
| | WB | 1.9% | -0.5% | 2.0% |
| Polk Gulch | EB | 0.7% | 0.0% | 0.0% |
| | WB | 3.1% | 0.0% | 0.0% |
| Nob Hill | EB | 3.1% | -0.9% | 0.0% |
| | WB | 3.8% | 0.0% | 2.7% |
| Chinatown | EB | 0.0% | -2.5% | 0.0% |
| | WB | 3.0% | 0.0% | 0.0% |
| Financial District | EB | -1.8% | -2.2% | -1.7% |
| | WB | 4.5% | 0.0% | 1.6% |
| Control corridors | Largest decrease | -9.6% | -14.4% | -9.2% |
| | Average | -1.5% | -2.5% | -1.6% |
| | Largest increase | 3.4% | 2.7% | 5.6% |

Table 3: Traffic speed changes in the 1 California TETL area from April to August 2021 at AM peak, PM peak, and all day.  A negative number means auto speeds have decreased since TETL implementation and a positive number means auto speeds have increased.

## Collisions

### Methods

All SFMTA projects aim to support the city's Vision Zero policy, which aims to achieve zero traffic deaths by 2024. The TransBASE Dashboard (https://transbase.sfgov.org/dashboard/dashboard.php) displays the location and basic data for all traffic collisions in San Francisco involving injury or death. The data is provided by the SFMTA, San Francisco Police Department (SFPD), and San Francisco Department of Public Health (SFDPH). Collision data is updated quarterly.

Collisions were monitored on California Street between Presidio Avenue and Steiner Street, Sacramento Street between Franklin Street and Drumm Street, and Clay Street between Van Ness Avenue and Drumm Street, with monthly rates calculated. Time periods used were pre-COVID (September 2019 – February 2020), pre-TETL (November 2020 – April 2021) and TETL (July 2021 – September 2021).

### Key findings

During the pre-COVID period, 2.8 injury collisions per month (17 total) were reported in the TETL project area. During the pre-TETL period, 2.3 injury collisions per month (14 total) were reported in the same area. During the TETL period, 2.0 injury collisions per month (6 total) were reported in the project area. No individual street segments or intersections showed a significant increase in collisions that would indicate a potential deterioration in safety. Collision reports were reviewed by SFMTA, with no collisions attributed to conditions that changed as part of the 1 California TETL project. Additionally, no Muni-involved collisions took place in the TETL project area since implementation. Therefore, the evaluation does not show that the 1 California TETL project caused any increase in collisions.

| | Pre-COVID<br>*September 2019 -<br>Feb 2020* | Pre-TETL<br>*November 2020 -<br>April 2021* | TETL<br>*July - September<br>2021* |
|---|---|---|---|
| **California: Presidio to Steiner** | 0.3 | 1.3 | 0.3 |
| **Sacramento: Franklin to Larkin** | 0.5 | 0.0 | 0.0 |
| **Sacramento: Larkin to Powell** | 0.5 | 0.0 | 0.7 |
| **Sacramento: Powell to Kearny** | 0.0 | 0.0 | 0.3 |
| **Sacramento: Kearny to Drumm** | 0.0 | 0.5 | 0.0 |
| **Clay: Van Ness to Larkin** | 0.3 | 0.2 | 0.3 |
| **Clay: Larkin to Powell** | 0.5 | 0.0 | 0.3 |
| **Clay: Powell to Kearny** | 0.2 | 0.0 | 0.0 |
| **Clay: Kearny to Drumm** | 0.5 | 0.3 | 0.0 |
| **TOTAL** | 2.8 | 2.3 | 2.0 |

*Table 4: Monthly average collision rates in the TETL project corridor*

## Loading availability

### *Methods*

White passenger loading zones and yellow commercial loading zones provide dedicated curb space to accommodate loading needs and decrease the potential for double-parking. The 1 California TETL project's implementation of new or expanded part-time towaway transit lanes decreased the available hours of some white and yellow zones. Affected blocks are shown in Table 5. Three of the seven blocks, which included 60% of the affected loading spaces, had only a 30-minute reduction in availability.

Clay Street:

| Block | Loading spaces impacted | Times impacted |
|---|---|---|
| Jones to Taylor | 2 yellow | 7-9 am and 3-6 pm |
| Powell to Stockton | 1 white | 3-6 pm |
| Stockton to Grant | 2 yellow | 3-6 pm |

Sacramento Street:

| Block | Loading spaces impacted | Times impacted |
|---|---|---|
| Kearny to Grant | 10 yellow | 3-3:30 pm |
| Grant to Stockton | 3 white, 1 yellow | 7-9 am and 3-3:30 pm |
| Mason to Taylor | 6 white | 3-3:30 pm |
| Taylor to Jones | 1 white | 3-3:30 pm |

*Table 5: Blocks with loading zones impacted by new or expanded part-time towaway transit lanes*

In-person observations were used to evaluate whether the reduction in the hours loading zones were available created any loading issues. SFMTA staff walked along Sacramento and Clay streets to determine whether loading zones (those not affected by the towaway lanes) were available during peak periods. Additionally, staff recorded any incidents of double parking, and whether transit lanes were blocked by parked vehicles or loading. Evaluation included all blocks east of Powell Street (where loading zones are present on all blocks), as well as the three blocks west of Powell Street where loading zone duration was affected by towaway lanes.

Evaluation took place between 7-9 am and 3-6 pm on midweek days in August and October 2021. Each block was surveyed once during each peak period; the Kearny-Grant block of Sacramento Street was surveyed twice during each period because a higher number of loading zones are affected by the towaway lanes. Several blocks on Sacramento Street do not have a towaway lane during the AM peak and were only surveyed in the PM peak.

### *Results*
**It does not appear the 1 California TETL project has substantially impacted loading availability in this corridor.** Results for both peaks are summarized in Table 6.

- In the AM Peak, of the two blocks where the 1 California TETL Project decreased loading availability, there was one instance of double-parking observed on the block of Clay between Jones and Taylor. This block had an active construction project underway that may have contributed to the presence of double parking on this block.
- In the PM peak, of the seven blocks where the 1 California TETL Project decreased loading availability, there were no instances of double-parking observed.

|  | AM | AM double parking | PM | PM double parking |
|---|---|---|---|---|
| Loading zones available | 1 | 0 | 0 | 0 |
| All loading zones occupied | 0 | 0 | 0 | 0 |
| No designated loading zones | 1 | 1 | 7 | 0 |

*Table 6: Summary of loading zone availability (by block) during peak hours on blocks where loading zones were impacted by the TETL project*

Only one truck was observed using the transit lane for loading on the block of Sacramento between Kearny and Grant in the morning peak, and a loading zone was available on the block at that time.

# Transit lane compliance

## *Methods*

Because compliance with transit lanes is essential to their effectiveness in improving transit travel time, the evaluation also gauged compliance when surveying loading availability (detailed methods described in prior section) by observing whether transit lanes were blocked by parked vehicles or loading.

## *Results*

**Transit lane compliance, particularly for part-time towaway transit lanes, is in need of improvement which could further improve transit performance benefits.**

Table 7 summarizes the results of transit lane compliance observations. During the AM peak, of the 17 blocks of towaway transit lanes surveyed, six were blocked by one or more vehicles illegally parked in the lane. Eight of these vehicles were private automobiles or Transportation Network Company (or "TNC", e.g. Lyft/Uber) vehicles; one was a truck loading on a block with an available yellow zone.

|  | # of blocks with towaway transit lanes surveyed | # of blocks with one or more vehicles parked/ stopped in transit lane | % compliance |
|---|---|---|---|
| AM Peak | 17 | 6 | 65% |
| PM Peak | 20 | 4 | 80% |

*Table 7: Summary of transit lane compliance during peak hours on select 1 California TETL blocks monitored in Financial District, Chinatown, and Nob Hill*

During the PM Peak, of the 20 blocks of towaway transit lane surveyed, three were occupied by one or more illegally parked private automobiles. On another block, the right turn lane was blocked by a TNC vehicle stopped outside a hotel (which had an off-street drop-off lane), causing autos to queue in the transit lane. Even before 6 pm, one block of transit lane on Clay Street was already fully occupied by private autos, as were several blocks of the left-side towaway lane.

Muni buses have onboard cameras that allow the SFMTA to issue citations for these violations. SFMTA staff will work with the enforcement team to prioritize review of these corridors to increase compliance rates.

## Proposed project changes and next steps

SFMTA is recommending to keep most transit lanes in place, with four recommended changes to respond to stakeholder feedback and evaluation findings. These recommended changes are summarized below and will be presented to the SFMTA Board for approval at a future meeting anticipated in January 2022.

### 1. Rescind the afternoon transit lane hours on Clay Street between Powell and Stockton streets in Chinatown.

**Reasons for the change:**
- A white passenger loading zone at Powell Street and the queue of vehicles turning right at Stockton leaves little room for a usable transit lane on this block. Observations indicated that over 70% of buses were not making use of the transit lane on this block
- Chinatown merchants have expressed concern with the loss of afternoon parking availability

**Next steps**: 1 California travel times on this block remain extremely slow. A future 1 California Muni Forward project is planned to consider a broader set of tools to improve transit performance along this block and the entire 1 California corridor.

### 2. Rescind south side general traffic afternoon peak hour tow-away lanes on Sacramento Street between Stockton and Montgomery.

**Reasons for the change:**
- This responds to stakeholder feedback about an existing condition prior to the 1 California TETL Project and the COVID pandemic. During afternoon peak hours, both sides of Sacramento Street do not allow parking on these blocks. On the north side of the street, this towaway lane is for transit; and on the south side, this towaway lane is for general-purpose traffic. In light of reduced traffic volumes due to the pandemic, stakeholders raised concerns about the undue impact of not being able to park on either side of the street, plus the potential for excess lane capacity to lead to speeding.

**Next steps:** While this excess lane capacity is not needed at this time, the SFMTA will monitor conditions and could consider reinstituting the towaway lane in the future if traffic levels become so severe that transit performance is impacted.

### 3. Add two new blocks of AM and PM peak transit lanes on Clay Street in Nob Hill: between Mason and Taylor and between Jones and Leavenworth.

**Reason for the change:**
- These blocks were not included in the temporary emergency transit lane project because there are two trees that overhang into the curbside lane on these blocks that would prevent a bus from operating in this lane. Because evaluation results show promising travel time improvements on adjacent segments of Clay Street, especially during the morning peak period, and because continuous transit lanes are more legible and

effective than discontinuous transit lanes, we are recommending adding these blocks as transit lanes.

**Next steps:** If these new transit lanes are approved by the SFMTA Board, the SFMTA would then need to follow an administrative public process to notice and consider removal of the two trees. After completing this process, SFMTA would arrange for the removal of the trees and would plant replacement trees to address the loss to the urban canopy. SFMTA will strive to add two trees for each tree that is removed.

### *4. Continued evaluation of transit lane performance on Clay Street in the afternoon peak period in Nob Hill.*

**Reason for the recommendation:**
- Transit performance benefits were much clearer on Clay Street through Nob Hill in the morning than in the afternoon. However, commute travel to the Financial District has not yet rebounded to pre-pandemic levels. We expect the full benefits of the project won't be realized until a greater level of this travel is restored.

**Next steps:** We will conduct ongoing monitoring and could make additional changes to transit lane design after Financial District traffic has returned and we have a better picture of longer-term transit performance.

## Appendix A: Public survey questions

1. Which neighborhood do you live in?
   A. Financial District
   B. Chinatown
   C. Nob Hill
   D. Pacific Heights
   E. Presidio Heights/Laurel Heights
   F. Other

2. Thinking about your trips since **early July,** how do you most often travel on California, Sacramento and/or Clay streets?
   A. Bus/Transit
   B. Walk
   C. Drive
   D. Bicycle
   E. Taxi
   F. Uber/Lyft
   G. Scooter (Lime/Spin/etc)
   H. Other
   I. I don't travel there
   J. Not sure

If answer is C, E, F (Drive, Taxi, Uber/Lyft) send them to Question #9

If answer is anything else, send them to Question #3

3. How important is it to you that Muni doesn't get delayed in traffic?
   A. Extremely important
   B. Very important
   C. Somewhat important
   D. Not very important
   E. Not at all important
   F. Not sure

4. Have you ridden the 1 California since early July?
   A. Yes
   B. No
   C. Not sure

If answer is 4A or 4C, send them to Question #5

If answer is 4B, send them to Question #13

[Ask Questions 5-8 if 4A or 4C (Yes or Not Sure) is selected]

5. How often do you currently take the 1 California?
   A. Daily
   B. At least once a week
   C. At least once a month
   D. Occasionally
   E. Never
   F. Not sure

6. The project installed a combination of full-time and part-time transit lanes in June. Thinking about the overall quality of your Muni trips since then (for example, travel time or reliability), would you say the 1 California is:
   A. Better
   B. About the same
   C. Worse
   D. Not sure

[Ask Question 7 if A or C is selected. Skip to Question 9 if answer is B or D]
7. How has your 1 California trip changed since early July?

8. At what time(s) did you notice these changes to your 1 California trips? Choose all that apply:
   A. Weekday mornings, 7 a.m. - 9 a.m.
   B. Weekday midday, 9 a.m. - 3 p.m.
   C. Weekday afternoon, 3 p.m. - 7 p.m.
   D. Weekends
Whatever the answer is, send them to Question #13.

[Ask Question 9 if 1C, E, F (How do you travel? Drive, Taxi, Uber/Lyft) is selected]
9. Full-time and part-time transit lanes were installed in June. Since then, how would you describe driving on or near California, Sacramento and/or Clay streets?
   A. Easier
   B. About the same
   C. More difficult
   D. I don't drive there
   E. Not sure
If answer is 8A or C, send them to Question #10
If answer is 8B, D E, send them to Question #11

[Ask Question 10 if 8A or C is selected]
10. How has your driving experience changed on or near California, Sacramento and/or Clay streets?
   A. Open-ended
Answer is open-ended, send them to Question #11

11. How would you describe parking on or near Sacramento and/or Clay streets between Larkin and Front streets since early July?
   A. Easier
   B. About the same
   C. More difficult
   D. I don't park there
   E. Not sure
If answer is 11A or C, send them to Question #12
If answer is anything else, send them BACK to Question #3

[Ask Question 12 if 10A or C is selected]
12. How has parking changed on or near Sacramento and/or Clay streets?

A. Open-ended

Answer is open-ended, send them BACK to Question #3

[Back to asking everyone]

13. Thinking about traffic safety, since transit lanes were installed or expanded in June, how safe do you feel walking along or across California, Sacramento and/or Clay streets?
    A. Safer
    B. About the same
    C. Less safe
    D. I don't walk there
    E. Not sure

14. Emergency transit lanes are a temporary measure to benefit those who rely on Muni. Would you support making them permanent?
    A. Definitely support
    B. Probably support
    C. Neither support nor oppose
    D. Probably oppose
    E. Definitely oppose
    F. Not sure

15. During public outreach, many commenters suggested expanding the proposed hours of the part-time emergency transit lanes in Nob Hill and Chinatown. Would you support any of the following (choose all that apply):
    A. Include Saturdays and Sundays
    B. Include additional weekday hours
    C. Include two additional blocks of Clay Street (requires removing two trees)
    D. None of these

16. Is there anything you'd like to add about the emergency transit lanes or service for the 1 California?
    A. Open-ended

*[demographic questions]*

17. What is your age?
    A. 18 or under
    B. 19-24
    C. 25-34
    D. 35-44
    E. 45-54
    F. 55-64
    G. 65-74
    H. 75 or over
    I. Not sure
    J. Prefer not to answer

18. How do you describe your gender identity?
    A. Female
    B. Male
    C. Non-binary
    D. Another gender
    E. Not sure
    F. Prefer not to answer

19. With what race and/or ethnicity do you identify?
    A. Asian, Pacific Islander
    B. Black, African American
    C. Hispanic, Latinx
    D. Middle Eastern, North African
    E. Native American
    F. White
    G. Other
    H. Not sure
    I. Prefer not to answer

20. Do you have a disability that currently affects your daily life?
    A. Yes
    B. No
    C. Not sure
    D. Prefer not to answer

[Ask Question 21 if 20A (Yes) is selected]

21. Do you use a wheelchair or another mobility device?
    A. Yes
    B. No
    C. Not sure
    D. Prefer not to answer

22. What is your total annual household income?
    A. Less than $10,000
    B. $10,000 to $24,999
    C. $25,000 to $49,999
    D. $50,000 to $99,999
    E. $100,000 to $149,999
    F. $150,000 to $199,999
    G. $200,000 or more
    H. Not sure
    I. Prefer not to answer

23. How many people are in your household?
    A. 1
    B. 2
    C. 3
    D. 4
    E. 5

      F.  6 or more
      G.  Not sure
      H.  Prefer not to answer

24. Do you or someone in your household own a car that is used for transportation in San Francisco?
      A.  Yes
      B.  No
      C.  Not applicable/Not sure

25. What is your zip code?
      A.  Open ended

26. Would you like text or email updates about the future of the temporary emergency transit lanes?
      A.  Yes! Text me updates.
      B.  Yes! Email me.
      C.  No thanks.

[Ask Question 27 if 26A (Text) is selected]
27. What phone number would you like subscribed to project update texts?
      A.  Open ended

[Ask Question 28 if 26B (Email) is selected]
28. What email address would you like subscribed to project update emails?
      A.  Open ended (ensure it only accepts email formats)

Thank you for your feedback!