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MEMORANDUM

То:	Rochelle Wheeler Senior Transportation Coordinator City of Alameda
From:	Ryan Dole, P.E., T.E. and Tyler Mickelson, E.I.T. Kimley-Horn and Associates, Inc.
Date:	August 13, 2021
Subject:	Alameda Commercial Streets Before and After Study

The City of Alameda has retained Kimley-Horn and Associates, Inc. to perform a before and after study of the traffic located on and around their new commercial streets program. The purpose of this study is to determine the effects of the implementation of the Alameda commercial streets program on Webster Street and Park Street in Alameda California. This memorandum summarizes the assumptions, methodology, and results of the before and after study conducted for the City.

Commercial Streets Project

Approved by the City Council at the May 19, 2020 meeting with the strong support of Alameda's major business associations, the Commercial Streets program repurposed existing travel lanes (one in each direction) to create a parking protected pedestrian spaces along core parts of Park and Webster Streets. The dedicated pedestrian space was made available to support social distancing as well as outdoor dining, retail and services. The program also streamlined the permit approval process for businesses to install parklets within the additional pedestrian area created by the roadway reconfiguration. City staff worked closely with the Downtown Area Business Association (DABA) and the West Alameda Business Association (WABA) to develop this new program to support the health of City businesses and the community through the COVID 19 pandemic. As of June 2021, the City has issued over 30 parklet permits and 6 sidewalk seating permits.¹

The Commercial Streets Program was implemented as follows:

- Park Street from Lincoln Avenue to Encinal Avenue was completed on July 10, 2020
- Webster Street from Lincoln Avenue to Taylor Avenue was completed on August 7, 2020
- Park Street from Encinal Avenue to San Jose Avenue was completed on April 2, 2021

¹ Quoted directly from the City's announcement on their webpage: https://www.alamedaca.gov/ALERTS-COVID-19/Commercial-Streets-Program

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Study Scope and Methodology

The before and after study was conducted by collecting traffic volume, travel time and speed data from StreetLight Data, Inc. for the following time periods:

- March and April 2019 (pre-COVID traffic conditions)
- March and April 2020 (immediately after shelter-on-place COVID conditions in effect)
- March and April 2021 (after implementation of commercial streets program)

Changes in traffic volumes, travel times and speeds were analyzed for the following weekday (Tuesday-Thursday) and weekend (Saturday-Sunday) time periods:

- AM Peak Period (6AM-10AM)
- Midday Peak Period (10AM-3PM)
- PM Peak Period (3PM-7PM)

Table 1: Study Roadway Segments

Traffic volumes and speeds were analyzed for Park and Webster Streets . Travel time was analyzed for full street lengths (e.g., Webster Street between Central Avenue and Buena Vista Avenue) as travel time data accuracy is less reliable for study segments shorter than one-quarter mile because data polling is once per minute and short segments have less location pings. This lowers the available data for metric algorithms.

Street Name Start End Central Santa Clara Santa Clara Lincoln Webster Street Lincoln Pacific Pacific Buena Vista 8th Central Lincoln 6th Central Lincoln Taylor 6th Webster Haight 8th Webster San Jose Encinal Encinal Central Central Lincoln **Park Street** Lincoln Buena Vista **Buena Vista** Clement

Blanding

Clement

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	San Jose	Encinal
Oak	Encinal	Lincoln
	Lincoln	Blanding
\A/alaut	Encinal	Lincoln
Walnut	Lincoln	Clement
	Otis	Encinal
Broadway	Encinal	Santa Clara
	Santa Clara	Blanding

Change in Volumes

Summary tables and charts showing the change in volume can be found in **Attachment A**, and an overview of the volume analysis findings is below. Across all study roadway segments, a 20-60 percent decrease in volumes were observed between spring of 2019 and spring of 2020. These large decreases are consistent with overall expectations due to COVID shelter-in-place mandates.

In an effort to characterize how current traffic volumes compare to pre-COVID 2019 conditions, the remainder of this study focuses on the difference between spring 2019 and spring 2021 (see **Figures 2, 4, 6, 8, 10, 12, 14, 16** in **Attachment A**). This evaluation of 2019 and 2021 allows for determination on whether traffic conditions are approaching pre-pandemic levels as COVID mandates and restrictions have been loosened or removed. The analysis also considers whether the Commercial Streets road diets have created any major shifts in local traffic routing.

A general note regarding volumes is that due to the Commercial Streets road diet, overall roadway capacity for Park Street and Webster Street has decreased. As such, it is expected that the lane reduction will impact 2021 volumes could lower overall volumes compared to 2019. The data generally shows overall decreases, so the trends are consistent with expectations. The analysis did not determine how much the capacity decrease influenced the volumes as compared to changes in driving patterns or other factors; however, the City anticipates doing periodic evaluations over the next year to study how the corridor operations changes over time under the continuing COVID pandemic and shifting traffic patterns.

Webster Street Averages:

Comparing 2019 to 2021 data, the average traffic volumes were found to be as follows (ranges reflect variation depending on direction of travel).

- Weekdays:
 - Morning: 35-55% lower than in 2019.
 - Midday: Less than 10% lower, so closer to pre-pandemic normal.
 - Afternoon: Varies with northbound (NB) volumes only slightly lower (around 10%), and southbound (SB) traffic (the commute direction) much lower (more than 40%).
- Weekends:
 - Morning: 20-25% lower than 2019.

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- Midday: Volumes are just slightly lower than in 2019.
- Afternoon: Traffic volumes were the same or slightly higher than 2019, possibly attributable to the events at the "Healing Garden" on Webster and Taylor.

Park Street Averages:

Comparing 2019 to 2021 data, the average traffic volumes were found to be as follows (ranges reflect variation depending on direction of travel).

- Weekdays:
 - o Morning: 25-45% lower than in 2019, depending on direction of travel.
 - Midday: Less than 7% lower, so closer to pre-pandemic normal.
 - Afternoon: 25% lower than in 2019.
- Weekends:
 - Morning: 10-20% lower than 2019.
 - Midday: 7-15% lower.
 - Afternoon: About 13% lower than in 2019.

Webster Street potential diversion streets:

Overall, the changes to Webster Street do appear to have caused some diversion to the nearby studied streets, however, volumes on these streets are generally (but not always) well below prepandemic (2019) levels.

- Sixth Street and Eighth Streets (Central to Lincoln)
 - Weekdays:
 - Overall, for both streets, it appears there may be some diversion off of Webster St, although volumes are still lower (in some cases significantly) in 2021 than 2019 in every time period except midday. In the midday period they are about 10% different from 2019 levels.
 - Sixth Street NB volumes appear to be getting closer to 2021 levels in all time periods more quickly than Webster Street and Eighth Street, which may indicate some people avoiding NB Webster St.
 - See Figures 2 and 6.
 - Weekends:
 - In the NB direction, there is no major evidence of significant diversions except for the percentage change increases for Sixth Street during PM peak. Estimated volume total changes for this period (3p-7p) is an additional 155 vehicles.
 - In the SB direction, things look different. While Webster Street is about 25% below pre-pandemic volumes, 2021 volumes on Eighth Street and Sixth Street during the morning are near or above 2019 levels. Increases during the 6a-10a period translate to 140 more vehicles on Eighth Street and 80 more vehicles on Sixth Street.
 - Percentage increases appear to indicate that the changes to Webster Street are causing people to use Sixth Street during the Weekend PM period. However, Eighth Street is still reflecting a net -20% change during Weekend PM.

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- This may mean that drivers aren't bypassing Webster. Instead, since Webster volumes are near pre-pandemic levels and the Sixth Street (and Taylor Street and Haight Avenue) volumes are higher in 2021, this seems to point to more people visiting Webster on weekends. This is corroborated by the business improvement area.
- See Figures 4 and 8
- Taylor Street (Sixth Street to Webster Street) and Haight Avenue (Eighth Street to Webster Street)
 - Weekdays: Percentage changes on Haight Street indicate there may be some small diversions of vehicles in the commute directions (WB in morning and EB in afternoon), and on Taylor Street in the afternoon (WB direction), since volumes are closer to 2019 levels than Webster Street is. See Figures 2 and 6.
 - Weekends: Haight Street afternoon, westbound volumes are much higher than 2019 (71%). Taylor is only slightly higher than 2019 levels, in the afternoon, in the EB direction. For WB Taylor and EB Haight, there is little evidence of diversion, except for Taylor in the PM, which is 20% higher than in 2019. All of these changes may reflect people both avoiding driving on Webster but also the increased commerce on Webster. See Figures 4 and 8.
 - Taylor Note: There is a school and church at the corner of Taylor/Sixth. These may have closed and re-opened over the analyzed periods. Also, a new community gathering space and outdoor dining space started at Webster/Taylor (the Healing Garden) in summer/fall 2020.
 - Haight Note: The Farmers Market closes this block of Haight Street every Tuesday and Saturday. The market continued to operate throughout the pandemic.

Park Street potential diversion streets:

Overall, the changes to Park Street do appear to have caused some diversion to Oak Street and Broadway, the two studied streets; however, volumes on both streets are generally (but not always) well below pre-pandemic (2019) levels.

Weekdays:

- Northbound: The 2020 to 2021 data shows the percent change in volumes for PM period for Oak Street (San Jose Avenue to Encinal Avenue) and Broadway (Otis Drive to Encinal Avenue) are 88% and 63%, respectively. These are significantly higher than the % change for the Park (San Jose Avenue to Encinal Avenue) segment which saw a 28% increase. This strongly suggests that vehicles are avoiding Park Street due to the road diet. While these were large percentage increases, the volumes are still generally lower in 2021 on the diversion streets than they were in 2019. See Figures 13 and 14.
- Southbound: 2021 Oak Street volumes during the midday are higher in 2021 than 2019 which indicates diversions around the road diet. Midday volumes on the Broadway segments are either the same or higher in 2021 compared to 2019, so Broadway appears to be used as an alternate route, as well, during this period. See **Figures 9 and 10**.

Weekends:

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• The most significant change is along Broadway in the SB direction, when the 2021 volumes are above or at the 2019 levels, especially in the morning period (11-30%). This could be to people diverting off of Park St, which appears to be busier at these times. Also, Oak Street, SB from Encinal Avenue to San Jose Avenue, is 13-19% higher than in 2021. See **Figures 12 and 16.**

Change in Speed and Travel Time

The inverse relationship between speed and travel time data allows for concurrent discussion of trends between these two types of data. As average speeds increased across corridors, travel times decreased and as speeds decreased, travel time increased. Overall, on commercial streets the average speed increased, and travel time decreased between 2019 and 2020. The change in speed and travel times between 2019 and 2021 is more varied and is as summarized below. Summary tables and charts showing changes in speeds and travel times can be found in **Attachment B**.

Webster St:

- Weekdays:
 - As shown in Figure 17, Webster Street weekday 2021 speeds are close to what they were in 2019 for the Midday and PM peaks. The AM peak period is still experiencing significantly higher speeds in 2021 compared to 2019. The average of all speeds (both directions, all periods) is the same in 2021 as it was in 2019: 12.5 mph.
 - Speeds on Webster Street to the north (Lincoln to Buena Vista), are faster in almost every segment, for every time period, in every direction, than in 2019. This is consistent with the volume data which shows volumes are still lower in 2021 compared to 2019. Speeds in the reconfigured sections of Webster Street (Central to Lincoln) are generally lower in 2021 compared to 2019, which is expected due to the reduced roadway capacity.
 - For the full studied length of Webster, the primary commute directions (NB in AM, and SB in PM) are still experiencing higher average speeds in 2021 compared to 2019, indicating that drivers have not returned to "typical" commute patterns.
- Weekends:
 - Similar to weekday trends, Webster Street weekend 2021 speeds are close (though slightly lower) compared 2019 values during the Midday and PM peaks. The AM peak speeds are still higher in 2021 compared to 2019. See Figure 19 and Figure 23.
 - Speeds in the reconfigured sections of Webster Street (Central to Lincoln) are nearly always lower in 2021 compared to 2019.

Park St:

• Weekdays:

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- Park Street speeds are slower for all periods of the day, in both NB and SB directions, with the greatest decreases in speeds seen between Lincoln and Encinal. See Figure 18.
- The biggest reduction in speeds is in the PM commute direction (SB) for the reconfigured section of Park Street (Lincoln to Encinal), with speeds 21% slower, now averaging 8.8 mph.
- Averaging all time periods and directions, speeds dropped 14% from an average of 11.9 mph in 2019 to 10.3 mph in 2021.
- Speeds for the other sections of Park Street to the north (Lincoln to Blanding), generally did not change as much and actually increased for some times-of-day.
- Weekends:
 - As shown in Figure 20 and Figure 24, weekend speeds have decreased during all time periods and directions of travel between 2019 and 2021. Speed decreases range from 2-17%.
 - Generally, all segments of Park Street experienced lower average speeds during 2021 compared to 2019, regardless of time-of-day.

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Attachment A – Commercial and Diversion Street Volumes



Figure 1: SB Webster Street and Diversion Streets - Weekdays % Change in Volumes

Figure 2: SB Webster Street and Diversion Streets - Weekdays % Change in Volumes (2019 to 2021)



Figure 3: SB Webster Street and Diversion Streets - Weekends % Change in Volumes



	(Santa Clara to Central)	(Lincoln to Santa Clara)	(Pacific to Lincoln)	(Buena Vista to Pacific)	(Lincoln to Central)	(Lincoln to Central)	(Webster to 6th)	(8th to Webster)
■%Δ ('19 to '20) Weekend AM	-33%	-34%	-30%	-35%	-27%	-11%	-66%	4%
■%Δ ('19 to '20) Weekend Mid	-35%	-40%	-42%	-45%	-45%	-46%	-45%	-36%
■%∆ ('19 to '20) Weekend PM	-39%	-38%	-36%	-40%	-50%	-12%	-29%	1%
■%∆ ('20 to '21) Weekend AM	15%	12%	12%	12%	46%	70%	149%	-66%
■%∆ ('20 to '21) Weekend Mid	52%	63%	68%	71%	64%	125%	53%	50%
■%∆ ('20 to '21) Weekend PM	59%	58%	57%	63%	58%	51%	70%	70%

Figure 4: SB Webster Street and Diversion Streets - Weekends % Change in Volumes (2019 to 2021)



🗖 %Δ ('19 to '20) Weekday AM 📲 %Δ ('19 to '20) Weekday Mid 🔳 %Δ ('19 to '20) Weekday PM ■ %Δ ('20 to '21) Weekday AM ■ %Δ ('20 to '21) Weekday Mid ■ %Δ ('20 to '21) Weekday PM 60% 20% 0% -80% 03 Webster NB 01 Webster NB 02 Webster NB 04 Webster NB 05 8th NB 06 6th NB 07 Taylor EB (6th 08 Haight EB (Central to Santa (Santa Clara to (Lincoln to (Pacific to Buena (Central to (Central to (Webster to 8th) to Webster) Clara) Lincoln) Pacific) Vista) Lincoln) Lincoln) **Δ** ('19 to '20) Weekday AM -38% -57% **%**Δ ('19 to '20) Weekday Mid -32% -27% -16% -30% -24% ■ %∆ ('19 to '20) Weekday PM -36% -37% -34% -37% -40% -46% -25% ■ %∆ ('20 to '21) Weekday AM -14% 44% -8% -55% **%**Δ ('20 to '21) Weekday Mid 40% 25% 22% ■ %∆ ('20 to '21) Weekday PM 40% 18% 39% 26%

Figure 5: NB Webster Street and Diversion Streets - Weekdays % Change in Volumes

Figure 6: NB Webster Street and Diversion Streets - Weekdays % Change in Volumes (2019 to 2021)



Figure 7: NB Webster Street and Diversion Streets - Weekends % Change in Volumes



Figure 8: NB Webster Street and Diversion Streets - Weekends % Change in Volumes (2019 to 2021)





Figure 9: SB Park Street and Diversion Streets - Weekdays

Figure 10: SB Park Street and Diversion Streets - Weekdays % Change in Volumes (2019 to 2021)



Figure 11: SB Park Street and Diversion Streets - Weekends % Change in Volumes ■ %Δ ('19 to '20) Weekend AM ■ %Δ ('19 to '20) Weekend Mid ■ %Δ ('19 to '20) Weekend PM ■ %Δ ('20 to '21) Weekend AM ■ %Δ ('20 to '21) Weekend Mid ■ %Δ ('20 to '21) Weekend PM 200% 150% 100% 0% -100% 22 21 12 Park SB 13 Park SB 14 Park SB 20 Broadway 09 Park SB 10 Park SB 11 Park SB 16 Oak SB 17 Oak SB 15 Oak SB Broadway (Blanding Broadway SB (Buena (Clement (Encinal to (Central to (Lincoln to (Blanding SB (Santa (Encinal to (Lincoln to Vista to SB (Encinal (Blanding to Buena San Jose) Encinal) Central) Encinal) to Lincoln) Clara to San Jose) Lincoln) Vista) Clement) to Otis) to Santa Encinal) Clara) **⁶**%Δ ('19 to '20) Weekend AM -27% -37% -37% -48% -38% -28% -36% **%**Δ ('19 to '20) Weekend Mid -44% -46% -48% -39% -43% -44% ■ %∆ ('19 to '20) Weekend PM -47% -44% -45% -37% -46% **%**Δ ('20 to '21) Weekend AM 80% 28% 48% 66% -7% 67% 165% 94% 73% **%**Δ ('20 to '21) Weekend Mid 44% 52% 99% 50% 55% 66% 78% 97% 74% 76% 73% ■ %∆ ('20 to '21) Weekend PM 52% 65% 66% 82% 83% 83% 77% 76% 90% 83% 83% 85%

Figure 12: SB Park Street and Diversion Streets - Weekends % Change in Volumes (2019 to 2021)





Figure 13: NB Park Street and Diversion Streets - Weekdays

Figure 14: NB Park Street and Diversion Streets - Weekdays % Change in Volumes (2019 to 2021)





Figure 15: NB Park Street and Diversion Streets - Weekends % Change in Volumes

Figure 16: NB Park Street and Diversion Streets - Weekends % Change in Volumes (2019 to 2021)



							W	eekday		
							AM Pe	ak (6a-10a))	
	Name	Start	End	Direction	2019	2020	%Δ ('19 to '20) Weekday AM	2021	%Δ ('20 to '21) Weekday AM	%Δ ('19 to '21) Weekday AM
	Webster	Central	Santa Clara	NB	1224	655	-46%	548	-16%	-55%
Webster Street	Webster	Santa Clara	Lincoln	NB	1997	894	-55%	770	-14%	-61%
webster street	Webster	Lincoln	Pacific	NB	2348	1138	-52%	1142	0%	-51%
	Webster	Pacific	Buena Vista	NB	3062	1538	-50%	1521	-1%	-50%
	8th	Central	Lincoln	NB	1851	1075	-42%	1133	5%	-39%
Webster Diversions	6th	Central	Lincoln	NB	413	257	-38%	371	44%	-10%
Webster Diversions	Taylor	6th	Webster	EB	261	112	-57%	103	-8%	-61%
	Haight	Webster	8th	EB	160	150	-6%	68	-55%	-58%
	Park	San Jose	Encinal	NB	2094	1062	-49%	864	-19%	-59%
	Park	Encinal	Central	NB	2425	1315	-46%	1114	-15%	-54%
Park Street	Park	Central	Lincoln	NB	2517	1384	-45%	1423	3%	-43%
Faik Stieet	Park	Lincoln	Buena Vista	NB	2826	1535	-46%	1723	12%	-39%
	Park	Buena Vista	Clement	NB	3230	1856	-43%	2133	15%	-34%
	Park	Clement	Blanding	NB	5726	3254	-43%	3597	11%	-37%
	Oak	San Jose	Encinal	NB	853	268	-69%	274	2%	-68%
	Oak	Encinal	Lincoln	NB	708	456	-36%	490	7%	-31%
Park Diversions	Oak	Lincoln	Blanding	NB	583	377	-35%	418	11%	-28%
Faik Diversions	Broadway	Otis	Encinal	NB	2607	1110	-57%	764	-31%	-71%
	Broadway	Encinal	Santa Clara	NB	1935	901	-53%	865	-4%	-55%
	Broadway	Santa Clara	Blanding	NB	2122	898	-58%	1021	14%	-52%

							Week	day (Tu-Th)		
							AM Pe	ak (6a-10a)		
	Name	Start	Start End		2019	2020	%Δ ('19 to '20) Weekday AM	2021	%Δ ('20 to '21) Weekday AM	%Δ ('19 to '21) Weekday AM
	Webster	Central	Santa Clara	SB	802	470	-41%	533	13%	-34%
Webster Street	Webster	Santa Clara	Lincoln	SB	990	566	-43%	613	8%	-38%
Webster Street	Webster	Lincoln	Pacific	SB	1068	676	-37%	728	8%	-32%
	Webster	Pacific	Buena Vista	SB	1341	727	-46%	783	8%	-42%
	8th	Central	Lincoln	SB	770	409	-47%	528	29%	-31%
Webster Diversions	6th	Central	Lincoln	SB	257	162	-37%	112	-31%	-56%
Webster Diversions	Taylor	6th	Webster	WB	124	200	61%	74	-63%	-40%
	Haight	Webster	8th	WB	167	152	-9%	154	1%	-8%
	Park	San Jose	Encinal	SB	1257	759	-40%	885	17%	-30%
	Park	Encinal	Central	SB	1463	803	-45%	1002	25%	-32%
Park Street	Park	Central	Lincoln	SB	1738	981	-44%	1083	10%	-38%
Faik Stieet	Park	Lincoln	Buena Vista	SB	1804	1189	-34%	1409	19%	-22%
	Park	Buena Vista	Clement	SB	1912	1220	-36%	1526	25%	-20%
	Park	Clement	Blanding	SB	2666	1886	-29%	2580	37%	-3%
	Oak	San Jose	Encinal	SB	165	122	-26%	111	-9%	-33%
	Oak	Encinal	Lincoln	SB	416	308	-26%	293	-5%	-30%
Park Diversions	Oak	Lincoln	Blanding	SB	326	354	9%	372	5%	14%
Faik Diversions	Broadway	Otis	Encinal	SB	994	618	-38%	675	9%	-32%
	Broadway	Encinal	Santa Clara	SB	815	559	-31%	584	4%	-28%
	Broadway	Santa Clara	Blanding	SB	804	596	-26%	577	-3%	-28%

							W	eekday		
							Midda	ay (10a-3p)		
	Name	Start	End	Direction	2019	2020	%Δ ('19 to '20) Weekday Mid	2021	%Δ ('20 to '21) Weekday Mid	%Δ ('19 to '21) Weekday Mid
	Webster	Central	Santa Clara	NB	1496	1039	-31%	1456	40%	-3%
Webster Street	Webster	Santa Clara	Lincoln	NB	1912	1227	-36%	1734	41%	-9%
webster street	Webster	Lincoln	Pacific	NB	2266	1483	-35%	2056	39%	-9%
	Webster	Pacific	Buena Vista	NB	2949	2017	-32%	2831	40%	-4%
	8th	Central	Lincoln	NB	1982	1447	-27%	2025	40%	2%
Webster Diversions	6th	Central	Lincoln	NB	507	428	-16%	473	11%	-7%
Webster Diversions	Taylor	6th	Webster	EB	347	242	-30%	302	25%	-13%
	Haight	Webster	8th	EB	368	281	-24%	342	22%	-7%
	Park	San Jose	Encinal	NB	2998	2081	-31%	2946	42%	-2%
	Park	Encinal	Central	NB	3260	2308	-29%	3204	39%	-2%
Park Street	Park	Central	Lincoln	NB	3253	2535	-22%	3474	37%	7%
Faik Stieet	Park	Lincoln	Buena Vista	NB	3617	2515	-30%	3421	36%	-5%
	Park	Buena Vista	Clement	NB	4026	2835	-30%	3810	34%	-5%
	Park	Clement	Blanding	NB	6340	4474	-29%	5941	33%	-6%
	Oak	San Jose	Encinal	NB	407	320	-21%	464	45%	14%
	Oak	Encinal	Lincoln	NB	975	618	-37%	944	53%	-3%
Park Diversions	Oak	Lincoln	Blanding	NB	761	482	-37%	722	50%	-5%
	Broadway	Otis	Encinal	NB	1785	1157	-35%	1877	62%	5%
	Broadway	Encinal	Santa Clara	NB	1789	1262	-29%	1734	37%	-3%
	Broadway	Santa Clara	Blanding	NB	1795	1200	-33%	1582	32%	-12%

							Week	day (Tu-Th))	
							Midda	ay (10a-3p)		
	Name	Start	End	Direction	2019	2020	%Δ ('19 to '20) Weekday Mid	2021	%Δ ('20 to '21) Weekday Mid	%Δ ('19 to '21) Weekday Mid
	Webster	Central	Santa Clara	SB	1847	1434	-22%	1669	16%	-10%
Webster Street	Webster	Santa Clara	Lincoln	SB	2137	1526	-29%	1921	26%	-10%
webster street	Webster	Lincoln	Pacific	SB	2286	1668	-27%	2151	29%	-6%
	Webster	Pacific	Buena Vista	SB	2626	1814	-31%	2404	33%	-8%
	8th	Central	Lincoln	SB	1772	1297	-27%	1609	24%	-9%
Webster Diversions	6th	Central	Lincoln	SB	344	311	-10%	393	26%	14%
Webster Diversions	Taylor	6th	Webster	WB	323	250	-23%	322	29%	0%
	Haight	Webster	8th	WB	278	274	-1%	227	-17%	-18%
	Park	San Jose	Encinal	SB	3022	2062	-32%	2757	34%	-9%
	Park	Encinal	Central	SB	3154	2115	-33%	2802	32%	-11%
Park Street	Park	Central	Lincoln	SB	3819	2287	-40%	3265	43%	-15%
Faik Stieet	Park	Lincoln	Buena Vista	SB	3691	2587	-30%	3530	36%	-4%
	Park	Buena Vista	Clement	SB	3710	2639	-29%	3639	38%	-2%
	Park	Clement	Blanding	SB	5328	3901	-27%	5244	34%	-2%
	Oak	San Jose	Encinal	SB	517	381	-26%	545	43%	5%
	Oak	Encinal	Lincoln	SB	858	592	-31%	1021	72%	19%
Park Diversions	Oak	Lincoln	Blanding	SB	565	508	-10%	695	37%	23%
Park Diversions	Broadway	Otis	Encinal	SB	1564	1227	-22%	1713	40%	10%
	Broadway	Encinal	Santa Clara	SB	1689	1196	-29%	1685	41%	0%
	Broadway	Santa Clara	Blanding	SB	1637	1179	-28%	1661	41%	1%

							W	eekday		
							PM Pe	eak (3p-7p)		
	Name	Start	End	Direction	2019	2020	%Δ ('19 to '20) Weekday PM	2021	%Δ ('20 to '21) Weekday PM	%Δ ('19 to '21) Weekday PM
	Webster	Central	Santa Clara	NB	1448	932	-36%	1219	31%	-16%
Webster Street	Webster	Santa Clara	Lincoln	NB	1644	1073	-35%	1497	40%	-9%
webster street	Webster	Lincoln	Pacific	NB	1942	1227	-37%	1750	43%	-10%
	Webster	Pacific	Buena Vista	NB	2553	1673	-34%	2322	39%	-9%
	8th	Central	Lincoln	NB	1991	1245	-37%	1551	25%	-22%
Webster Diversions	6th	Central	Lincoln	NB	692	415	-40%	622	50%	-10%
Webster Diversions	Taylor	6th	Webster	EB	561	305	-46%	359	18%	-36%
	Haight	Webster	8th	EB	403	301	-25%	379	26%	-6%
	Park	San Jose	Encinal	NB	3008	1868	-38%	2394	28%	-20%
	Park	Encinal	Central	NB	3314	1974	-40%	2492	26%	-25%
Park Street	Park	Central	Lincoln	NB	3308	2178	-34%	2549	17%	-23%
Faik Stieet	Park	Lincoln	Buena Vista	NB	3590	2051	-43%	2606	27%	-27%
	Park	Buena Vista	Clement	NB	4108	2332	-43%	2992	28%	-27%
	Park	Clement	Blanding	NB	6631	3802	-43%	4963	31%	-25%
	Oak	San Jose	Encinal	NB	517	273	-47%	514	88%	-1%
	Oak	Encinal	Lincoln	NB	1389	647	-53%	882	36%	-37%
Park Diversions	Oak	Lincoln	Blanding	NB	947	531	-44%	667	26%	-30%
Fair Diversions	Broadway	Otis	Encinal	NB	2147	1227	-43%	2001	63%	-7%
	Broadway	Encinal	Santa Clara	NB	2088	1156	-45%	1614	40%	-23%
	Broadway	Santa Clara	Blanding	NB	2157	1133	-47%	1620	43%	-25%

							Week	day (Tu-Th)		
							PM Pe	eak (3p-7p)		
	Name	Start	End	Direction	2019	2020	%Δ ('19 to '20) Weekday PM	2021	%Δ ('20 to '21) Weekday PM	%Δ ('19 to '21) Weekday PM
	Webster	Central	Santa Clara	SB	2733	1531	-44%	1707	11%	-38%
Webster Street	Webster	Santa Clara	Lincoln	SB	3382	1790	-47%	1968	10%	-42%
webster street	Webster	Lincoln	Pacific	SB	3683	1874	-49%	2109	13%	-43%
	Webster	Pacific	Buena Vista	SB	4340	2154	-50%	2428	13%	-44%
	8th	Central	Lincoln	SB	2643	1335	-49%	1651	24%	-38%
Webster Diversions	6th	Central	Lincoln	SB	706	472	-33%	433	-8%	-39%
Webster Diversions	Taylor	6th	Webster	WB	370	244	-34%	333	36%	-10%
	Haight	Webster	8th	WB	396	225	-43%	406	80%	3%
	Park	San Jose	Encinal	SB	3581	2068	-42%	2633	27%	-26%
	Park	Encinal	Central	SB	3831	2225	-42%	2683	21%	-30%
Park Street	Park	Central	Lincoln	SB	4320	2285	-47%	3054	34%	-29%
Faik Stieet	Park	Lincoln	Buena Vista	SB	4065	2495	-39%	3251	30%	-20%
	Park	Buena Vista	Clement	SB	4041	2528	-37%	3207	27%	-21%
	Park	Clement	Blanding	SB	5835	3494	-40%	4897	40%	-16%
	Oak	San Jose	Encinal	SB	770	410	-47%	710	73%	-8%
	Oak	Encinal	Lincoln	SB	1230	662	-46%	1196	81%	-3%
Park Diversions	Oak	Lincoln	Blanding	SB	721	493	-32%	755	53%	5%
Fair Diversions	Broadway	Otis	Encinal	SB	2479	1334	-46%	1941	46%	-22%
	Broadway	Encinal	Santa Clara	SB	2261	1256	-44%	1981	58%	-12%
	Broadway	Santa Clara	Blanding	SB	1990	1150	-42%	1770	54%	-11%

							W	eekend		
							AM Pe	ak (6a-10a))	
	Name	Start	rt End		2019	2020	%Δ ('19 to '20) Weekend AM	2021	%Δ ('20 to '21) Weekend AM	%Δ ('19 to '21) Weekend AM
	Webster	Central	Santa Clara	NB	601	305	-49%	447	47%	-26%
Webster Street	Webster	Santa Clara	Lincoln	NB	685	393	-43%	492	25%	-28%
webster street	Webster	Lincoln	Pacific	NB	979	494	-50%	803	63%	-18%
	Webster	Pacific	Buena Vista	NB	1330	692	-48%	1150	66%	-14%
	8th	Central	Lincoln	NB	990	591	-40%	716	21%	-28%
Webster Diversions	6th	Central	Lincoln	NB	246	58	-76%	121	109%	-51%
Webster Diversions	Taylor	6th	Webster	EB	165	63	-62%	90	43%	-45%
	Haight	Webster	8th	EB	87	152	75%	88	-42%	1%
	Park	San Jose	Encinal	NB	1103	592	-46%	660	11%	-40%
	Park	Encinal	Central	NB	1257	704	-44%	934	33%	-26%
Park Street	Park	Central	Lincoln	NB	1285	768	-40%	1140	48%	-11%
Faik Stieet	Park	Lincoln	Buena Vista	NB	1361	776	-43%	1244	60%	-9%
	Park	Buena Vista	Clement	NB	1593	835	-48%	1356	62%	-15%
	Park	Clement	Blanding	NB	2673	1386	-48%	2171	57%	-19%
	Oak	San Jose	Encinal	NB	228	97	-57%	181	87%	-21%
	Oak	Encinal	Lincoln	NB	258	175	-32%	294	68%	14%
Park Diversions	Oak	Lincoln	Blanding	NB	262	113	-57%	208	84%	-21%
Faik Diversions	Broadway	Otis	Encinal	NB	701	383	-45%	542	42%	-23%
	Broadway	Encinal	Santa Clara	NB	869	421	-52%	565	34%	-35%
	Broadway	Santa Clara	Blanding	NB	849	478	-44%	696	46%	-18%

							W	eekend		
							AM Pe	ak (6a-10a)	
	Name	Start	End	Direction	2019	2020	%Δ ('19 to '20) Weekend AM	2021	%Δ ('20 to '21) Weekend AM	%Δ ('19 to '21) Weekend AM
	Webster	Central	Santa Clara	SB	592	396	-33%	456	15%	-23%
Webster Street	Webster	Santa Clara	Lincoln	SB	668	439	-34%	491	12%	-26%
webster street	Webster	Lincoln	Pacific	SB	717	500	-30%	559	12%	-22%
	Webster	Pacific	Buena Vista	SB	789	510	-35%	572	12%	-28%
	8th	Central	Lincoln	SB	432	314	-27%	458	46%	6%
Webster Diversions	6th	Central	Lincoln	SB	166	147	-11%	250	70%	51%
Webster Diversions	Taylor	6th	Webster	WB	125	43	-66%	107	149%	-14%
	Haight	Webster	8th	WB	145	151	4%	52	-66%	-64%
	Park	San Jose	Encinal	SB	936	624	-33%	799	28%	-15%
	Park	Encinal	Central	SB	938	683	-27%	905	33%	-4%
Park Street	Park	Central	Lincoln	SB	1145	726	-37%	946	30%	-17%
Faik Stieet	Park	Lincoln	Buena Vista	SB	1135	759	-33%	1127	48%	-1%
	Park	Buena Vista	Clement	SB	1192	750	-37%	1149	53%	-4%
	Park	Clement	Blanding	SB	1754	993	-43%	1646	66%	-6%
	Oak	San Jose	Encinal	SB	141	91	-35%	85	-7%	-40%
	Oak	Encinal	Lincoln	SB	260	135	-48%	226	67%	-13%
Park Diversions	Oak	Lincoln	Blanding	SB	237	60	-75%	159	165%	-33%
Faik Diversions	Broadway	Otis	Encinal	SB	465	287	-38%	557	94%	20%
	Broadway	Encinal	Santa Clara	SB	398	287	-28%	517	80%	30%
	Broadway	Santa Clara	Blanding	SB	459	296	-36%	511	73%	11%

							W	eekend		
							Midda	ay (10a-3p)		
	Name	Start	End	Direction	2019	2020	%Δ ('19 to '20) Weekend Mid	2021	%Δ ('20 to '21) Weekend Mid	%∆ ('19 to '21) Weekend Mid
	Webster	Central	Santa Clara	NB	2170	1244	-43%	1907	53%	-12%
Webster Street	Webster	Santa Clara	Lincoln	NB	2504	1408	-44%	2203	56%	-12%
Webster Street	Webster	Lincoln	Pacific	NB	3049	1702	-44%	2691	58%	-12%
	Webster	Pacific	Buena Vista	NB	4106	2312	-44%	3695	60%	-10%
	8th	Central	Lincoln	NB	2753	1724	-37%	2505	45%	-9%
Webster Diversions	6th	Central	Lincoln	NB	659	485	-26%	617	27%	-6%
Webster Diversions	Taylor	6th	Webster	EB	429	261	-39%	478	83%	11%
	Haight	Webster	8th	EB	723	404	-44%	468	16%	-35%
	Park	San Jose	Encinal	NB	4105	2371	-42%	3765	59%	-8%
	Park	Encinal	Central	NB	4540	2621	-42%	4078	56%	-10%
Park Street	Park	Central	Lincoln	NB	4473	2902	-35%	4410	52%	-1%
Faik Stieet	Park	Lincoln	Buena Vista	NB	4777	2732	-43%	4467	64%	-6%
	Park	Buena Vista	Clement	NB	5488	3021	-45%	4999	65%	-9%
	Park	Clement	Blanding	NB	8306	4675	-44%	7677	64%	-8%
	Oak	San Jose	Encinal	NB	662	372	-44%	599	61%	-10%
	Oak	Encinal	Lincoln	NB	1672	650	-61%	1108	70%	-34%
Park Diversions	Oak	Lincoln	Blanding	NB	1148	449	-61%	809	80%	-30%
Faik Diversions	Broadway	Otis	Encinal	NB	2794	1325	-53%	2383	80%	-15%
	Broadway	Encinal	Santa Clara	NB	2869	1447	-50%	2272	57%	-21%
	Broadway	Santa Clara	Blanding	NB	2835	1461	-48%	2233	53%	-21%

				Direction	Weekend						
	Name	Start	End		Midday (10a-3p)						
					2019	2020	%Δ ('19 to '20) Weekend Mid	2021	%Δ ('20 to '21) Weekend Mid	%∆ ('19 to '21) Weekend Mid	
	Webster	Central	Santa Clara	SB	2494	1626	-35%	2464	52%	-1%	
Webster Street	Webster	Santa Clara	Lincoln	SB	2928	1769	-40%	2875	63%	-2%	
webster street	Webster	Lincoln	Pacific	SB	3167	1846	-42%	3105	68%	-2%	
	Webster	Pacific	Buena Vista	SB	3902	2136	-45%	3642	71%	-7%	
	8th	Central	Lincoln	SB	2408	1320	-45%	2167	64%	-10%	
Webster Diversions	6th	Central	Lincoln	SB	694	378	-46%	851	125%	23%	
	Taylor	6th	Webster	WB	482	267	-45%	409	53%	-15%	
	Haight	Webster	8th	WB	588	374	-36%	562	50%	-4%	
	Park	San Jose	Encinal	SB	4312	2544	-41%	3661	44%	-15%	
	Park	Encinal	Central	SB	4550	2528	-44%	3842	52%	-16%	
Park Street	Park	Central	Lincoln	SB	5605	2845	-49%	4270	50%	-24%	
Park Street	Park	Lincoln	Buena Vista	SB	5395	2978	-45%	4617	55%	-14%	
	Park	Buena Vista	Clement	SB	5412	2934	-46%	4862	66%	-10%	
	Park	Clement	Blanding	SB	7621	3868	-49%	6875	78%	-10%	
Park Diversions	Oak	San Jose	Encinal	SB	753	432	-43%	853	97%	13%	
	Oak	Encinal	Lincoln	SB	1261	655	-48%	1303	99%	3%	
	Oak	Lincoln	Blanding	SB	841	466	-45%	713	53%	-15%	
	Broadway	Otis	Encinal	SB	2438	1498	-39%	2608	74%	7%	
	Broadway	Encinal	Santa Clara	SB	2584	1480	-43%	2608	76%	1%	
	Broadway	Santa Clara	Blanding	SB	2474	1380	-44%	2384	73%	-4%	

					Weekend						
	Name	Start	End	Direction	PM Peak (3p-7p)						
					2019	2020	%Δ ('19 to '20) Weekend PM	2021	%Δ ('20 to '21) Weekend PM	%Δ ('19 to '21) Weekend PM	
Webster Chrest	Webster	Central	Santa Clara	NB	1527	885	-42%	1601	81%	5%	
	Webster	Santa Clara	Lincoln	NB	1670	1035	-38%	1913	85%	15%	
Webster Street	Webster	Lincoln	Pacific	NB	1972	1170	-41%	2243	92%	14%	
	Webster	Pacific	Buena Vista	NB	2569	1613	-37%	3013	87%	17%	
	8th	Central	Lincoln	NB	2255	1306	-42%	2146	64%	-5%	
Webster Diversions	6th	Central	Lincoln	NB	382	329	-14%	537	63%	41%	
	Taylor	6th	Webster	EB	304	161	-47%	326	102%	7%	
	Haight	Webster	8th	EB	415	225	-46%	307	36%	-26%	
	Park	San Jose	Encinal	NB	3665	2122	-42%	3173	50%	-13%	
	Park	Encinal	Central	NB	4095	2259	-45%	3401	51%	-17%	
Park Street	Park	Central	Lincoln	NB	3964	2366	-40%	3775	60%	-5%	
ParkStreet	Park	Lincoln	Buena Vista	NB	4235	2217	-48%	3615	63%	-15%	
	Park	Buena Vista	Clement	NB	4740	2519	-47%	3937	56%	-17%	
	Park	Clement	Blanding	NB	7087	3755	-47%	5842	56%	-18%	
Park Diversions	Oak	San Jose	Encinal	NB	471	336	-29%	417	24%	-11%	
	Oak	Encinal	Lincoln	NB	1454	624	-57%	987	58%	-32%	
	Oak	Lincoln	Blanding	NB	722	488	-32%	656	34%	-9%	
	Broadway	Otis	Encinal	NB	1925	1124	-42%	1958	74%	2%	
	Broadway	Encinal	Santa Clara	NB	1925	1127	-41%	1802	60%	-6%	
	Broadway	Santa Clara	Blanding	NB	2057	1093	-47%	1780	63%	-13%	

					Weekend						
	Name	Start	End	Direction	PM Peak (3p-7p)						
					2019	2020	%Δ ('19 to '20) Weekend PM	2021	%Δ ('20 to '21) Weekend PM	%Δ ('19 to '21) Weekend PM	
Webster Street	Webster	Central	Santa Clara	SB	2098	1286	-39%	2047	59%	-2%	
	Webster	Santa Clara	Lincoln	SB	2390	1485	-38%	2348	58%	-2%	
	Webster	Lincoln	Pacific	SB	2534	1622	-36%	2550	57%	1%	
	Webster	Pacific	Buena Vista	SB	2990	1793	-40%	2918	63%	-2%	
	8th	Central	Lincoln	SB	2230	1126	-50%	1778	58%	-20%	
Webster Diversions	6th	Central	Lincoln	SB	367	323	-12%	487	51%	33%	
	Taylor	6th	Webster	WB	329	232	-29%	395	70%	20%	
	Haight	Webster	8th	WB	338	340	1%	577	70%	71%	
	Park	San Jose	Encinal	SB	3460	1984	-43%	3023	52%	-13%	
	Park	Encinal	Central	SB	3868	2127	-45%	3517	65%	-9%	
Park Street	Park	Central	Lincoln	SB	4845	2296	-53%	3809	66%	-21%	
Park Street	Park	Lincoln	Buena Vista	SB	4470	2240	-50%	4070	82%	-9%	
	Park	Buena Vista	Clement	SB	4503	2255	-50%	4117	83%	-9%	
	Park	Clement	Blanding	SB	6323	3103	-51%	5689	83%	-10%	
Park Diversions	Oak	San Jose	Encinal	SB	677	456	-33%	805	77%	19%	
	Oak	Encinal	Lincoln	SB	1161	616	-47%	1087	76%	-6%	
	Oak	Lincoln	Blanding	SB	654	413	-37%	785	90%	20%	
	Broadway	Otis	Encinal	SB	2010	1126	-44%	2066	83%	3%	
	Broadway	Encinal	Santa Clara	SB	2162	1189	-45%	2181	83%	1%	
	Broadway	Santa Clara	Blanding	SB	2081	1127	-46%	2081	85%	0%	
Kimley **Whorn**

Attachment B – Commercial Street Speeds and Travel Time

	Av	g Speed (M	PH)		Change in Speed	
Segment	2019	2020	2021	%∆ ('19 to '20)	%∆ ('20 to '21)	%Δ ('19 to '21)
SB Park Street AM	17.1	17.5	16.5	2%	-6%	-4%
NB Park Street AM	15.3	17.1	14.5	12%	-15%	-5%
SB Park Street Mid	13.5	14.8	12.7	9%	-14%	-6%
NB Park Street Mid	13.0	14.5	12.0	11%	-17%	-8%
SB Park Street PM	13.2	14.3	12.7	9%	-12%	-4%
NB Park Street PM	12.5	14.5	11.9	16%	-18%	-4%
SB Webster Street AM	13.9	14.4	16.4	4%	13%	18%
NB Webster Street AM	12.6	14.3	14.5	13%	1%	15%
SB Webster Street Mid	12.3	12.8	12.5	4%	-3%	2%
NB Webster Street Mid	12.6	13.5	12.9	8%	-5%	3%
SB Webster Street PM	11.4	12.6	12.0	10%	-4%	5%
NB Webster Street PM	13.5	13.7	13.4	1%	-2%	-1%

Commercial Street Weekday Speed Data Summary

City of Alameda

Commercial Street Weekday Speed Data Summary

			Average NB Speed (6-10 AM)					
	From	То	2019	2020	2021	%∆ ('19 to '20)	%∆ ('20 to '21)	%Δ ('19 to '21)
	Central	Santa Clara	13.5	14.0	12.5	4%	-11%	-7%
Webster Street	Santa Clara	Lincoln	11.5	12.5	12.8	9%	2%	11%
	Lincoln	Pacific	12.8	15.5	16.8	22%	8%	31%
	Pacific	Buena Vista	12.8	15.3	16.0	20%	5%	25%
Average Corridor Speed			12.6	14.3	14.5	13%	1%	15%

				Average SB Speed (6-10 AM)					
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)	
	Santa Clara	Central	13.3	12.3	15.3	-8%	24%	15%	
Webster Street	Lincoln	Santa Clara	12.8	14.0	15.0	10%	7%	18%	
	Pacific	Lincoln	13.3	15.5	17.3	17%	11%	30%	
	Buena Vista	Pacific	16.3	16.0	18.0	-2%	13%	11%	
Average Corridor Speed			13.9	14.4	16.4	4%	13%	18%	

					Average	NB Speed (10 AN	1 - 3 PM)		
	From	То	2019	2020	2021	%∆ ('19 to '20)	%Δ ('20 to '21)	%Δ ('19 to '21)	
	Central	Santa Clara	12.8	13.8	12.3	8%	-11%	-4%	
Webster Street	Santa Clara	Lincoln	12.0	12.5	10.7	4%	-15%	-11%	
	Lincoln	Pacific	12.5	13.7	14.0	9%	2%	12%	
	Pacific	Buena Vista	13.0	14.2	14.7	9%	4%	13%	
	Average Corridor Speed			13.5	12.9	8%	-5%	3%	
			Average SB Speed (10 AM - 3 PM)						
	From	То	2019	2020	2021	%∆ ('19 to '20)	%Δ ('20 to '21)	%Δ ('19 to '21)	
	Santa Clara	Central	12.5	11.8	11.7	-5%	-1%	-7%	
Webster Street	Lincoln	Santa Clara	12.0	12.5	11.5	4%	-8%	-4%	
	Pacific	Lincoln	11.7	13.3	12.5	14%	-6%	7%	
	Buena Vista	Pacific	12.8	13.5	14.2	5%	5%	10%	
	Average Corridor Speed			12.8	12.5	4%	-3%	2%	

			Average NB Speed (3-7 PM)						
	From	То	2019	2020	2021	%∆ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)	
	Central	Santa Clara	14.0	14.0	13.0	0%	-7%	-7%	
Webster Street	Santa Clara	Lincoln	12.8	12.5	11.8	-2%	-6%	-8%	
	Lincoln	Pacific	13.3	13.8	14.3	4%	4%	8%	
	Pacific	Buena Vista	14.0	14.5	14.5	4%	0%	4%	
	Average Corridor Speed			13.7	13.4	1%	-2%	-1%	

					Aver	age SB Speed (3-7	7 PM)	
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%Δ ('19 to '21)
	Santa Clara	Central	11.8	11.5	12.0	-2%	4%	2%
Webster Street	Lincoln	Santa Clara	11.0	12.3	11.5	11%	-6%	5%
	Pacific	Lincoln	10.8	12.0	10.8	12%	-10%	0%
	Buena Vista	Pacific	12.0	14.5	13.8	21%	-5%	15%
Average Corridor Speed			11.4	12.6	12.0	10%	-4%	5%

					Avera	ige NB Speed (6-1	0 AM)	
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%Δ ('19 to '21)
	San Jose	Encinal	16.5	16.5	15.0	0%	-9%	-9%
	Encinal	Central	13.8	15.3	11.8	11%	-23%	-15%
Park Street	Central	Lincoln	13.5	15.0	11.5	11%	-23%	-15%
	Lincoln	Buena Vista	15.3	17.5	15.5	15%	-11%	2%
	Buena Vista	Clement	14.5	17.5	15.0	21%	-14%	3%
	Clement	Blanding	18.0	21.0	18.5	17%	-12%	3%
	15.3	17.1	14.5	12%	-15%	-5%		

					Avera	age SB Speed (6-1	0 AM)	
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%Δ ('19 to '21)
	Encinal	San Jose	17	16.5	15.75	-3%	-5%	-7%
	Central	Encinal	14.5	16.0	14.5	10%	-9%	0%
Park Street	Lincoln	Central	13.3	13.5	12.3	2%	-9%	-8%
	Buena Vista	Lincoln	17.8	18.0	18.0	1%	0%	1%
	Clement	Buena Vista	18.3	18.5	18.3	1%	-1%	0%
	Blanding	Clement	22.0	22.5	20.3	2%	-10%	-8%
	Average Corridor Speed			17.5	16.5	2%	-6%	-4%

					Average	NB Speed (10 AN	1 - 3 PM)	
	From	То	2019	2020	2021	%∆ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)
	San Jose	Encinal	13.2	13.7	12.2	4%	-11%	-8%
	Encinal	Central	11.3	13.2	9.5	16%	-28%	-16%
Park Street	Central	Lincoln	10.7	12.3	9.8	16%	-20%	-8%
	Lincoln	Buena Vista	13.5	14.3	12.7	6%	-12%	-6%
	Buena Vista	Clement	13.2	14.8	12.3	13%	-17%	-6%
	Clement	Blanding	16.3	18.5	15.7	13%	-15%	-4%
	Average Corridor Speed			14.5	12.0	11%	-17%	-8%

					Average	e SB Speed (10 AN	1 - 3 PM)	
	From	То	2019	2020	2021	%∆ ('19 to '20)	%∆ ('20 to '21)	%Δ ('19 to '21)
	Encinal	San Jose	13.8	14.7	13.7	6%	-7%	-1%
	Central	Encinal	11.3	13.0	9.8	15%	-24%	-13%
Park Street	Lincoln	Central	10.8	11.2	8.8	3%	-21%	-18%
	Buena Vista	Lincoln	13.5	15.2	13.3	12%	-12%	-1%
	Clement	Buena Vista	14.3	15.3	14.2	7%	-8%	-1%
	Blanding	Clement	17.3	19.3	16.3	12%	-16%	-6%
	Average Corridor Speed			14.8	12.7	9%	-14%	-6%

					Aver	age NB Speed (3-	7 PM)	
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%Δ ('19 to '21)
	San Jose	Encinal	13.0	13.3	12.5	2%	-6%	-4%
	Encinal	Central	11.5	13.8	9.5	20%	-31%	-17%
Park Street	Central	Lincoln	10.3	11.8	8.8	15%	-26%	-15%
	Lincoln	Buena Vista	13.0	14.5	12.8	12%	-12%	-2%
	Buena Vista	Clement	12.0	15.0	12.5	25%	-17%	4%
	Clement	Blanding	15.0	18.8	15.5	25%	-17%	3%
	Average Corridor Speed			14.5	11.9	16%	-18%	-4%

					Aver	age SB Speed (3-7	7 PM)	
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%Δ ('19 to '21)
	Encinal	San Jose	13	14	13.5	8%	-4%	4%
	Central	Encinal	11.5	12.5	9.5	9%	-24%	-17%
Park Street	Lincoln	Central	10.8	11.3	8.0	5%	-29%	-26%
	Buena Vista	Lincoln	13.5	14.8	13.8	9%	-7%	2%
	Clement	Buena Vista	13.8	15.0	15.0	9%	0%	9%
	Blanding	Clement	16.8	18.5	16.3	10%	-12%	-3%
Average Corridor Speed			13.2	14.3	12.7	9%	-12%	-4%



Figure 18: Park Street - Weekday % Change in Speed

■ %Δ ('19 to '20) ■ %Δ ('20 to '21) ■ %Δ ('19 to '21)



	Av	g Speed (M	PH)		Change in Speed	
Segment	2019	2020	2021	%∆ ('19 to '20)	%∆ ('20 to '21)	%Δ ('19 to '21)
SB Park Street AM	18.7	18.5	15.5	-1%	-16%	-17%
NB Park Street AM	18.4	19.5	15.8	6%	-19%	-14%
SB Park Street Mid	13.1	14.3	11.9	9%	-17%	-10%
NB Park Street Mid	11.8	14.1	11.6	20%	-18%	-2%
SB Park Street PM	13.6	15.1	12.5	11%	-17%	-8%
NB Park Street PM	12.4	14.4	12.1	16%	-16%	-3%
SB Webster Street AM	15.5	13.4	17.1	-13%	27%	10%
NB Webster Street AM	14.0	15.5	15.3	11%	-1%	9%
SB Webster Street Mid	11.7	13.5	11.1	16%	-18%	-5%
NB Webster Street Mid	12.4	13.4	12.1	8%	-10%	-2%
SB Webster Street PM	12.8	13.6	12.1	6%	-11%	-5%
NB Webster Street PM	13.6	14.2	13.2	5%	-7%	-3%

Commercial Street Weekend (Sa-Su) Speed Data Summary

City of Alameda

Commercial Street Weekend (Sa-Su) Speed Data Summary

					Avera	age NB Speed (6-1	0 AM)	
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)
	Central	Santa Clara	13.0	16.5	12.3	27%	-26%	-6%
Webster Street	Santa Clara	Lincoln	13.5	14.0	13.5	4%	-4%	0%
	Lincoln	Pacific	14.8	15.8	17.8	7%	13%	20%
	Pacific	Buena Vista	14.8	15.8	17.8	7%	13%	20%
Average Corridor Speed			14.0	15.5	15.3	11%	-1%	9%

					Avera	Average SB Speed (6-10 AM)			
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)	
	Santa Clara	Central	14.0	13.3	13.0	-5%	-2%	-7%	
Webster Street	Lincoln	Santa Clara	14.8	11.5	17.3	-22%	50%	17%	
	Pacific	Lincoln	16.8	14.0	18.8	-16%	34%	12%	
	Buena Vista	Pacific	16.5	15.0	19.5	-9%	30%	18%	
	Average Corridor Speed			13.4	17.1	-13%	27%	10%	

					Average	e NB Speed (10 AN	1 - 3 PM)	
	From	То	2019	2020	2021	%∆ ('19 to '20)	%∆ ('20 to '21)	%Δ ('19 to '21)
	Central	Santa Clara	12.3	12.8	12.0	4%	-6%	-3%
Webster Street	Santa Clara	Lincoln	12.2	13.2	9.7	8%	-27%	-21%
	Lincoln	Pacific	12.2	13.7	13.0	12%	-5%	7%
	Pacific	Buena Vista	12.8	14.0	13.7	9%	-2%	6%
	Average Corridor Speed			13.4	12.1	8%	-10%	-2%

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				Average SB Speed (10 AM - 3 PM)							
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)			
	Santa Clara	Central	11.8	12.2	11.2	3%	-8%	-6%			
Webster Street	Lincoln	Santa Clara	11.2	13.2	10.2	18%	-23%	-9%			
	Pacific	Lincoln	11.2	13.8	10.0	24%	-28%	-10%			
	Buena Vista	Pacific	12.5	14.8	13.0	19%	-12%	4%			
Average Corridor Speed			11.7	13.5	11.1	16%	-18%	-5%			

					Aver	age NB Speed (3-7	7 PM)	
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)
	Central	Santa Clara	14.0	14.0	12.5	0%	-11%	-11%
Webster Street	Santa Clara	Lincoln	13.0	13.8	10.5	6%	-24%	-19%
	Lincoln	Pacific	13.5	14.3	14.5	6%	2%	7%
	Pacific	Buena Vista	13.8	14.8	15.3	7%	3%	11%
	13.6	14.2	13.2	5%	-7%	-3%		

					Aver	rage SB Speed (3-7	' PM)	
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)
	Santa Clara	Central	12.5	12.8	11.0	2%	-14%	-12%
Webster Street	Lincoln	Santa Clara	12.8	13.3	11.3	4%	-15%	-12%
	Pacific	Lincoln	12.8	13.8	11.8	8%	-15%	-8%
	Buena Vista	Pacific	13.3	14.8	14.5	11%	-2%	9%
	12.8	13.6	12.1	6%	-11%	-5%		

					Avera	age NB Speed (6-1	0 AM)	
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)
	San Jose	Encinal	15.3	17.8	16.3	16%	-8%	7%
	Encinal	Central	13.5	16.3	11.5	20%	-29%	-15%
Park Street	Central	Lincoln	15.5	15.5	12.0	0%	-23%	-23%
	Lincoln	Buena Vista	20.0	21.0	16.5	5%	-21%	-18%
	Buena Vista	Clement	21.0	21.5	18.0	2%	-16%	-14%
	Clement	Blanding	25.3	24.8	20.3	-2%	-18%	-20%
	Average Corridor Speed			19.5	15.8	6%	-19%	-14%

					Avera	age SB Speed (6-1	0 AM)	
	From	То	2019	2020	2021	%∆ ('19 to '20)	%∆ ('20 to '21)	%Δ ('19 to '21)
	Encinal	San Jose	17.5	17	14.25	-3%	-16%	-19%
	Central	Encinal	15.0	15.0	12.3	0%	-18%	-18%
Park Street	Lincoln	Central	14.5	14.8	12.0	2%	-19%	-17%
	Buena Vista	Lincoln	19.0	20.5	16.3	8%	-21%	-14%
	Clement	Buena Vista	21.8	20.0	16.5	-8%	-18%	-24%
	Blanding	Clement	24.3	23.5	21.8	-3%	-7%	-10%
	Average Corridor Speed				15.5	-1%	-16%	-17%

					Average	NB Speed (10 AN	1 - 3 PM)	
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%Δ ('19 to '21)
	San Jose	Encinal	12.5	13.8	11.7	11%	-16%	-7%
	Encinal	Central	10.7	12.8	8.5	20%	-34%	-20%
Park Street	Central	Lincoln	9.7	11.2	9.2	16%	-18%	-5%
	Lincoln	Buena Vista	12.0	14.2	12.5	18%	-12%	4%
	Buena Vista	Clement	11.5	14.3	12.7	25%	-12%	10%
	Clement	Blanding	14.5	18.3	15.0	26%	-18%	3%
	Average	e Corridor Speed	11.8	14.1	11.6	20%	-18%	-2%

					Average	e SB Speed (10 AN	1 - 3 PM)	
	From	То	2019	2020	2021	%∆ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)
	Encinal	San Jose	13.2	14.3	13.2	9%	-8%	0%
	Central	Encinal	11.0	12.3	9.0	12%	-27%	-18%
Park Street	Lincoln	Central	9.7	11.7	7.3	21%	-37%	-24%
	Buena Vista	Lincoln	12.7	13.7	11.2	8%	-18%	-12%
	Clement	Buena Vista	14.0	14.3	14.2	2%	-1%	1%
	Blanding	Clement	18.2	19.2	16.3	6%	-15%	-10%
	Average Corridor Speed			14.3	11.9	9%	-17%	-10%

					Aver	age NB Speed (3-	7 PM)	
	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)
	San Jose	Encinal	12.8	14.3	11.5	12%	-19%	-10%
	Encinal	Central	10.3	12.8	8.3	24%	-35%	-20%
Park Street	Central	Lincoln	9.3	11.8	9.3	27%	-21%	0%
	Lincoln	Buena Vista	12.5	14.5	13.8	16%	-5%	10%
	Buena Vista	Clement	12.8	15.3	13.3	20%	-13%	4%
	Clement	Blanding	17.0	18.0	16.5	6%	-8%	-3%
Average Corridor Speed			12.4	14.4	12.1	16%	-16%	-3%

			Average SB Speed (3-7 PM)					
Park Street	From	То	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)
	Encinal	San Jose	13	14.75	13.75	13%	-7%	6%
	Central	Encinal	11.0	12.5	9.8	14%	-22%	-11%
	Lincoln	Central	10.0	11.3	7.8	13%	-31%	-23%
	Buena Vista	Lincoln	13.0	15.3	12.3	17%	-20%	-6%
	Clement	Buena Vista	15.0	16.5	14.5	10%	-12%	-3%
	Blanding	Clement	19.5	20.5	17.3	5%	-16%	-12%
Average Corridor Speed			13.6	15.1	12.5	11%	-17%	-8%



Figure 20: Park Street - Weekend % Change in Speed

□ %Δ ('19 to '20) **□** %Δ ('20 to '21) **■** %Δ ('19 to '21)



		Avg Travel Time (min)			Change in Travel Time		
Segment	2019	2020	2021	%∆ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)	
SB Park Street AM	3.95	4.37	3.83	11%	-12%	-3%	
NB Park Street AM	5.33	4.15	5.43	-22%	31%	2%	
SB Park Street Mid	4.95	4.83	5.50	-2%	14%	11%	
NB Park Street Mid	5.97	5.10	5.67	-15%	11%	-5%	
SB Park Street PM	5.23	4.70	5.32	-10%	13%	2%	
NB Park Street PM	5.38	5.10	5.63	-5%	10%	5%	
SB Webster Street AM	2.55	2.10	2.15	-18%	2%	-16%	
NB Webster Street AM	2.28	2.12	2.18	-7%	3%	-4%	
SB Webster Street Mid	2.37	2.23	2.28	-6%	2%	-4%	
NB Webster Street Mid	2.37	2.55	2.38	8%	-7%	1%	
SB Webster Street PM	2.23	2.20	2.28	-1%	4%	2%	
NB Webster Street PM	2.08	2.40	2.32	15%	-3%	11%	

Commercial Street Weekday Travel Time Summary

Figure 21: Webster Street - Weekday % Change in Travel Time

■ %Δ ('19 to '20) ■ %Δ ('20 to '21) ■ %Δ ('19 to '21)





		Avg Travel Time (min)			Change in Travel Time			
Segment	2019	2020	2021	%Δ ('19 to '20)	%∆ ('20 to '21)	%∆ ('19 to '21)		
SB Park Street AM	4.57	4.18	4.17	-8%	0%	-9%		
NB Park Street AM	4.72	4.82	4.80	2%	0%	2%		
SB Park Street Mid	5.40	4.90	6.28	-9%	28%	16%		
NB Park Street Mid	6.48	5.57	6.30	-14%	13%	-3%		
SB Park Street PM	5.10	4.45	5.68	-13%	28%	11%		
NB Park Street PM	6.02	4.78	5.67	-20%	18%	-6%		
SB Webster Street AM	2.22	2.42	1.47	9%	-39%	-34%		
NB Webster Street AM	2.08	2.13	2.03	2%	-5%	-2%		
SB Webster Street Mid	2.38	2.28	2.30	-4%	1%	-3%		
NB Webster Street Mid	2.48	2.58	2.23	4%	-14%	-10%		
SB Webster Street PM	2.08	2.13	2.30	2%	8%	10%		
NB Webster Street PM	2.23	2.40	2.12	7%	-12%	-5%		

Commercial Street Weekend Travel Time Summary



Figure 24: Park Street - Weekend % Change in Travel Time

■ %Δ ('19 to '20) ■ %Δ ('20 to '21) ■ %Δ ('19 to '21)

