

Revised Memorandum

Date: 6/9/21

To: Douglas Krauss – Environmental Programs Manager, City of Hermosa Beach

From: Seth Contreras, Planner, and Michael Kennedy, Principal – Fehr & Peers

Subject: Summary of Changes in Vehicular, Bicycle, and Pedestrian Volumes Post-Project Installation, Task 3

LB21-0029

Task 3 – Post-Project Data Summary & Before/After Comparison

Key Takeaways

- Based on one day of traffic counts collected in both January and May, there was an overall average increase in Downtown vehicular volumes of 21%. To investigate whether this was associated with COVID related closures and reopenings, Fehr & Peers reviewed cellphone based travel data and credit card sales data in the City of Hermosa Beach, which confirmed an overall increase in vehicle travel and sales data, particularly for restaurants and bars. This suggests that the overall observed increase in traffic volumes is due to reopenings.
- While the cellphone based travel data source indicates an increase in vehicle traffic between January and May, walking and biking activity remained fairly consistent in this period.
- The before/after data collected indicated that the lane reduction pilot may have contributed to a 59% increase in walking and 28% increase in biking, which was not observed for the City overall; and therefore may not be driven primarily by COVID related reopenings.
- The before/after data also indicated that the pilot may have contributed to 5% slower speeds observed on the roadways, which has a safety benefit for pedestrians and cyclists.
- While the before/after counts indicated an overall increase in traffic volumes, likely associated with COVID related reopenings, a disproportionate growth in traffic occurred on 8th Street between Hermosa Avenue and Monterey Boulevard, indicating that the pilot project may have contributed to a shift in traffic at this location.



Overview

This memorandum summarizes observed changes in traffic volumes and bicycle/pedestrian activity along several Downtown streets in Hermosa Beach before and after the pilot project. The pilot project involved a one lane reduction in both directions of travel along Hermosa Avenue (from 8th Street to 14th Street) and Pier Avenue (from Hermosa Avenue to Valley Drive) in Downtown. The counts were taken in January 2021 and May 2021 (on the first Thursday of each month) to capture before and after conditions. While the dates of the counts were during the COVID-19 pandemic, this comparison could help serve as an estimation of how the City's pilot project has affected traffic volumes, including walking and biking, on these streets.

Table 1 below provides a summary of the overall change in daily traffic volumes in Downtown at five selected street segments:

1. 8th Street between Hermosa Avenue and Monterey Boulevard (start of lane reduction)
2. Hermosa Avenue at 11th Street (lane reduction section)
3. Hermosa Avenue at 13th Street (lane reduction section)
4. Pier Avenue between Hermosa Avenue and Monterey Boulevard (lane reduction section)
5. Monterey Boulevard between 11th and Pier Avenue (adjacent to lane reduction section)

Overall, the five Downtown locations saw an average increase of 21% in daily vehicular volumes after the pilot project was installed. The northbound vehicular volumes in Downtown increased twice as much as the southbound volumes, with one southbound location showing a slight decrease in daily volumes after the pilot project. One possible explanation for the observed increase in vehicular volumes, in spite of the lane reduction, is the reopening of businesses in May. Based on Replica consumer spend data (replicahq.com), there was a 75% increase in consumer spending for restaurants and bars in the City in the first quarter of 2021.

Table 1 – Observed Daily Traffic Volumes in Downtown Hermosa Beach Before and After Pilot in 2021

Downtown		Traffic Volumes Before the Pilot			Traffic Volumes After the Pilot			
No.	Street Segment	January 2021 NB/EB	January 2021 SB/WB	January 2021 Total Segment Volumes	May 2021 NB/EB	May 2021 SB/WB	May 2021 Total Segment Volumes	% Change in Total Volumes Before v. After Pilot
1	8 th St between Hermosa Ave & Monterey Blvd	748	790	1,538	1,195	1,280	2,475	61%
2	Hermosa Ave north of 11 th St	3,183	3,086	6,269	4,037	2,869	6,906	10%
3	Hermosa Ave north of 13 th St	2,936	2,689	5,625	3,792	3,103	6,895	23%
4	Pier Ave between Hermosa Ave & Monterey Blvd	2,392	2,213	4,605	2,572	2,918	5,490	19%
5	Monterey Blvd between 11 St & Pier Ave	1,214	1,024	2,238	1,555	1,194	2,749	23%
Total Average % Change								+21%

NB = Northbound, EB = Eastbound, SB = Southbound, WB = Westbound

On average, vehicular volumes increased by 21% between the January, 2021 and May, 2021 traffic counts across the five road segments in Downtown. 8th Street saw a larger increase in vehicular volumes in May. One possible explanation, in addition to reopening of businesses, could be that traffic is rerouting itself in response to the lane reductions on Hermosa Avenue. Monterey Boulevard, which is not part of the pilot, also saw an increase in vehicular volumes in May -but with a percentage increase closer to the percentage increases observed on Hermosa Avenue and Pier Avenue.

When looking closer at the vehicular volumes in Table 1 for Hermosa Avenue in May, 2021, the total segment volumes after the pilot installation are roughly one-half the volumes observed in 2014 (pre-COVID, and without lane reductions) as part of the City's General Plan data collection. **Figures 1-2** show the daily segment traffic volumes before and after the pilot for road segments in Downtown.

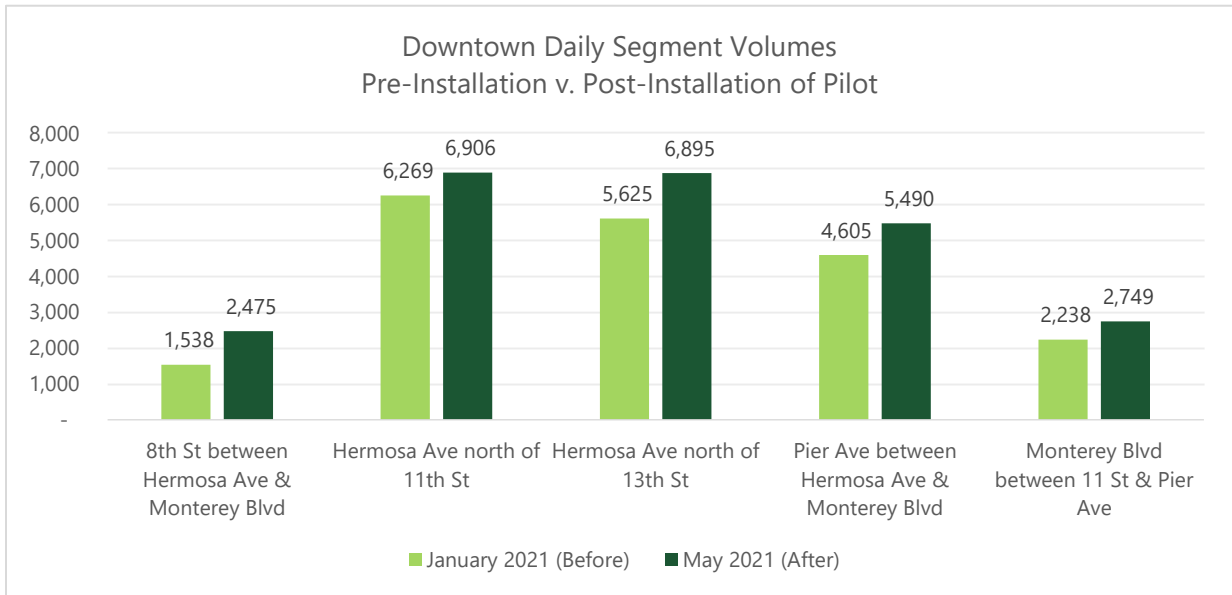


Figure 1

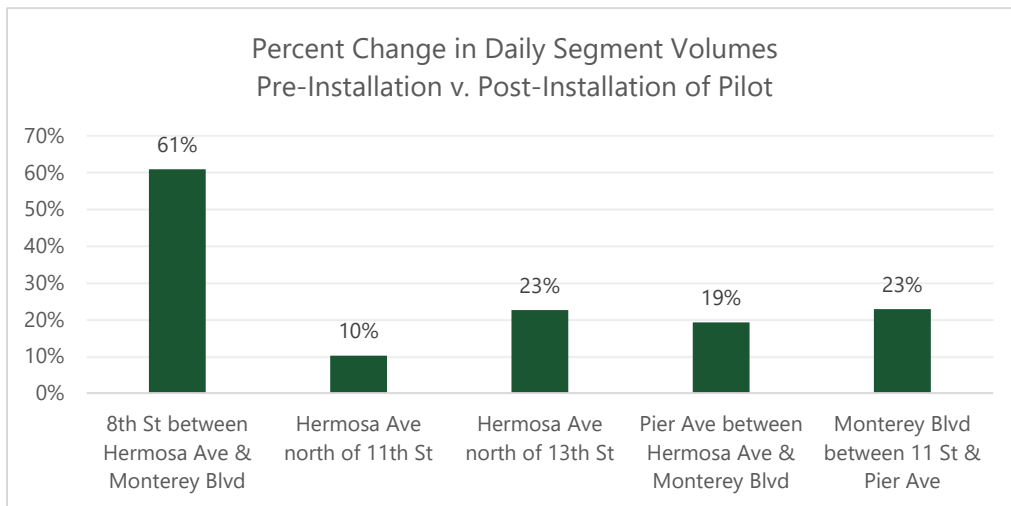


Figure 2

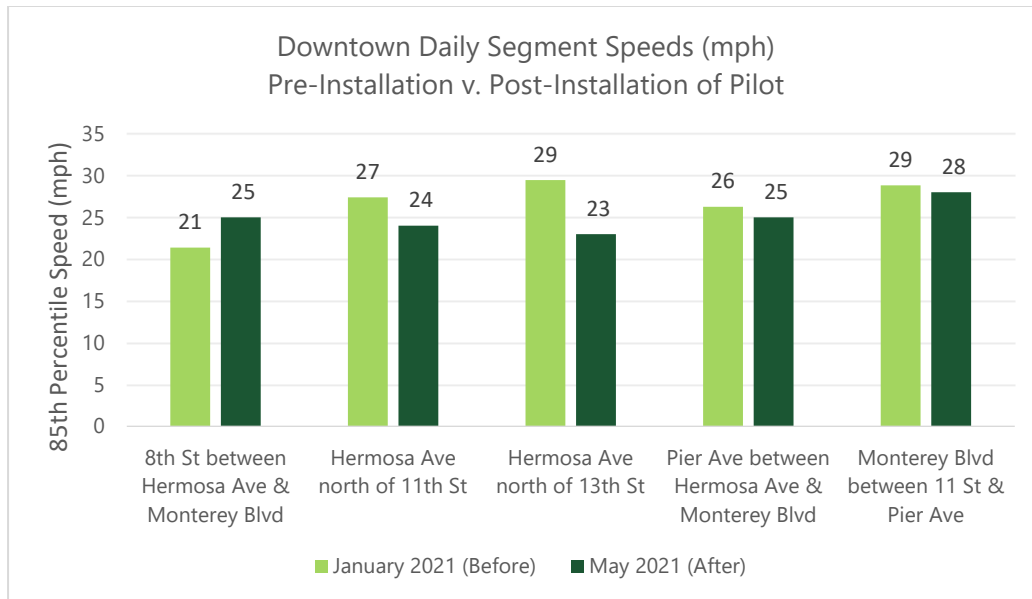


Figure 3

Figure 3 above shows the 85th percentile speed for each road segment (for both directions of travel) before and after the pilot. Most of the segments saw minor decreases in speed after the pilot, but the Hermosa Avenue segment north of 13th Street saw a decrease in speed of 6 mph (or approximately 22%) compared to pre-installation of the pilot. 8th Street saw an increase in speed of 4 mph after the pilot was installed. Overall, speeds were 5% slower after the pilot.

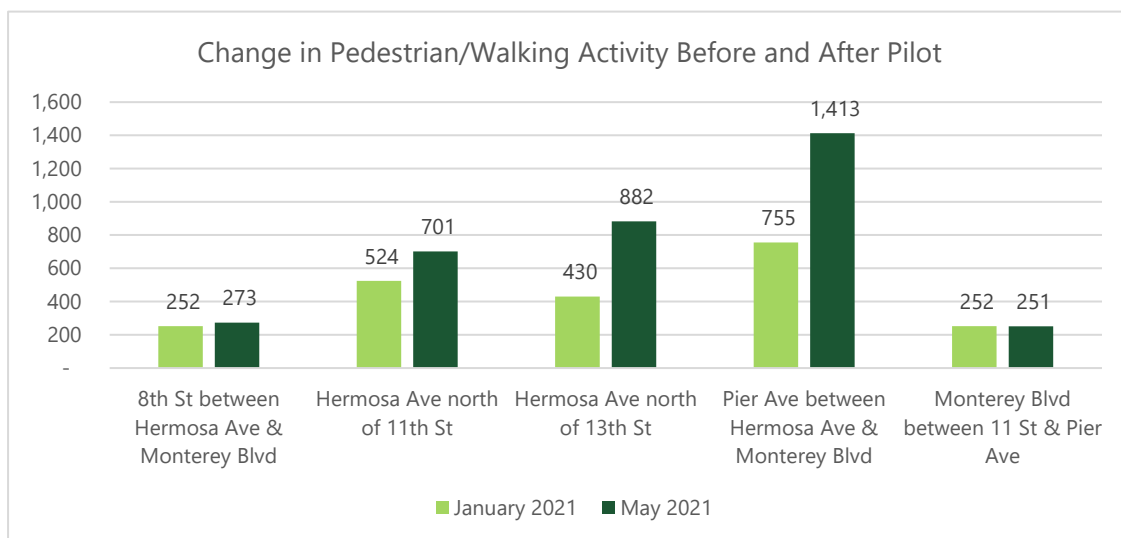


Figure 4 (collected using cameras)

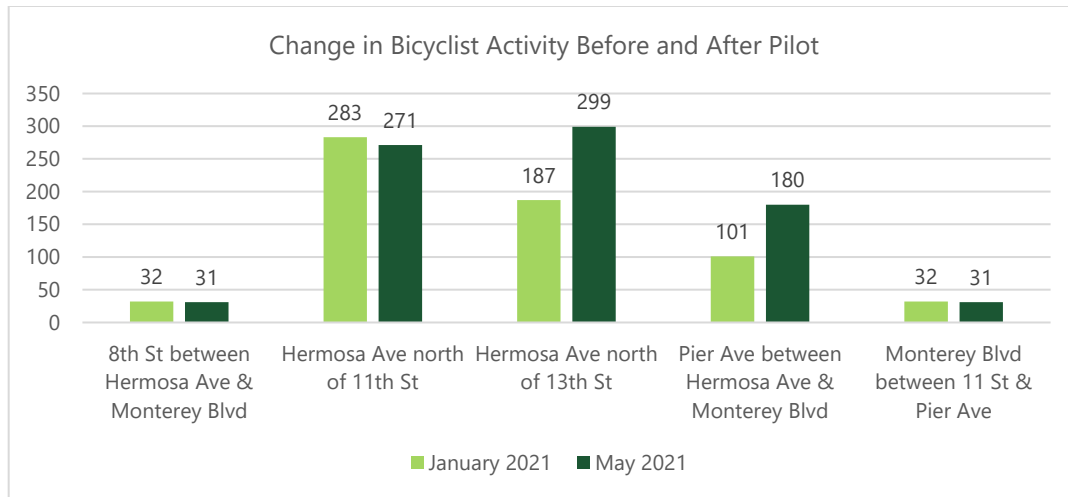
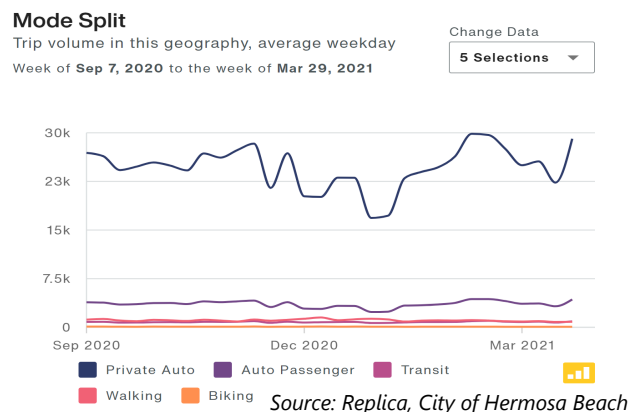


Figure 5 (collected using cameras)

Figure 4 shows the change in pedestrian/walking activity, and **Figure 5** shows the change in bicycle activity in Downtown. Pedestrian volumes increased on average by 59% and bicyclist volumes grew by an average of 28% after the pilot project. Individually, there were no significant decreases in biking or walking at any of the observed locations after the pilot project

Replica Mobility and Consumer Spend Data (Source: [Replicahq.com](https://replicahq.com))

To get a broader picture of travel activity in the City, Big Data was retrieved from Replica (replicahq.com). Replica is anonymous data based on a composite of data sources, including but not limited to road traffic, smartphone location, and financial transaction data. The information is updated weekly at the census tract level. Advanced modeling and statistical weighting methods are applied to generate a representative estimate of activities across the entire population. Based on the mode split figure shown below, the City saw a steady increase in automobile travel in the first three months of 2021. Walking, biking, and transit remained relatively constant throughout the City during this same time period.





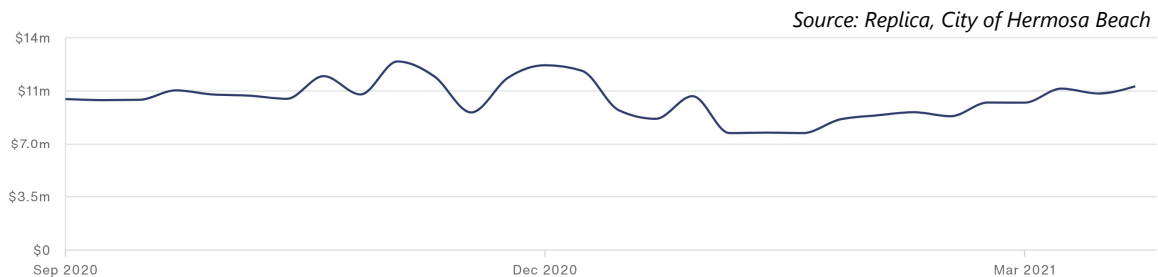
The figures shown below reflect consumer spending data in the City of Hermosa Beach from Replica. It covers the time period of September, 2020 to March, 2021. The Replica spending information in the City (in total dollars) comes from issuers/banks, as well as merchant sources. The data is then calibrated using census monthly retail trade estimates. The consumer spend data categories includes retail, grocery, gas/parking, restaurants, entertainment, and recreation. Based on Replica consumer spend data, there was a 75% increase in consumer spending for restaurants and bars in the City in the first quarter of 2021.

Hermosa Beach, CA

All Spend Categories

Spend in this geography, weekly total

Week of Sep 7, 2020 to the week of Mar 29, 2021



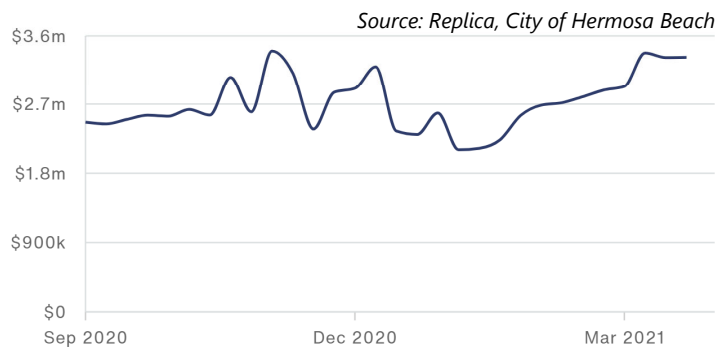
Zooming in closer to the consumer spend data, restaurants and bars in the City (figure below) saw a steady increase in sales in the first three months of 2021.

Hermosa Beach, CA

Restaurants & Bars

Spend in this geography, weekly total

Week of Sep 7, 2020 to the week of Mar 29, 2021





Conclusions

- Based on one day of traffic counts collected in both January and May, there was an overall average increase in Downtown vehicular volumes of 21%. Cellphone based travel data and credit card sales data in the City of Hermosa Beach confirmed an overall increase in vehicle travel and sales data, particularly for restaurants and bars. This suggests that the overall observed increase in traffic volumes is due to reopenings.
- The before/after data collected indicated that the lane reduction pilot may have contributed to a 59% increase in walking and 28% increase in biking, which was not observed for the City overall; and therefore may not be driven primarily by COVID related reopenings.
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Next Steps

- Further study and data collection is planned. An additional cellphone based travel data source (called StreetLight) will be used to expand the sample size and time period of vehicular volumes; which will include an evaluation of average traffic volumes from 2019 (pre-COVID) as well as post install traffic volumes in the most recently available quarter, to further differentiate traffic patterns associated with COVID versus traffic pattern changes associated with the pilot.