



City of Sunnyvale

Agenda Item

23-0428

Agenda Date: 5/18/2023

REPORT TO BICYCLE AND PEDESTRIAN ADVISORY COMMISSION

SUBJECT

Consider Converting All Part-Time Bike Lanes on Homestead Road Into Full-Time Bike Lanes

BACKGROUND

The Bicycle and Pedestrian Advisory Commission (BPAC) previously sponsored Study Issue DPW 15-04 to evaluate converting the existing part-time bike lanes on Homestead Road into full-time bike lanes. Currently, Homestead Road has part-time bike lanes within Sunnyvale city limits that restrict parking in the bike lanes on weekdays from 7 a.m. to 6 p.m. At all other times on weekdays and all day on weekends, vehicles are allowed to park in the bike lanes. This was done in the past as a compromise with residents along Homestead Road and bicyclists to provide bike lanes during weekday commute times and still have on-street parking for residents when they return home from work. Within the City of Cupertino city limits, on-street parking is prohibited and full-time bike lanes exist. The main cause is that within Sunnyvale there are primarily single-family and multi-family homes that front Homestead Road, but within Cupertino the majority are residential developments that back or side onto Homestead Road. The 2015 Study Issue recognized that there was a potential for transportation patterns and bike volumes to change with the Apple Campus development, which was under construction at that time. In November 2015 (RTC 15-0983), City Council approved a motion to maintain the existing conditions, closing the Study Issue, and directed staff to revisit the study of converting the part-time bike lanes into full-time bike lanes after a minimum period of three years and after the Apple Campus was fully operational.

The City continues to work towards the continued development of bicycling infrastructure to provide a safe and convenient transportation alternative to motor vehicles for all ages and abilities. Consistent with these efforts and pursuant to City Council direction from the 2015 Study Issue, staff started a study in May 2022 to re-evaluate the possibility of converting the part-time bike lanes on Homestead Road into full-time bike lanes. Implementing full-time bike lanes on Homestead Road will require the removal of on-street parking, which will affect the current parking patterns in the area.

The City Council is scheduled to consider this item on August 8, 2023.

EXISTING POLICY

General Plan, Chapter 3, *Land Use and Transportation Element* Policies:

- LT-5.5(d): Maximize the provision of bicycle and pedestrian facilities.
- LT-5.8: Provide a safe and comfortable system of pedestrian and bicycle pathways.
- LT-5.9: Appropriate accommodations for motor vehicles, bicycles, and pedestrians shall be determined for City streets to increase the use of bicycles for transportation and to enhance the safety and efficiency of the overall street network for bicyclists, pedestrians, and motor vehicles.
- LT-5.10: All modes of transportation shall have safe access to City streets.

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- LT-5.12: City streets are public space dedicated to the movement of vehicles, bicycles and pedestrians. Providing safe accommodation for all transportation modes takes priority over non-transport uses. Facilities that meet minimum appropriate safety standards for transport uses shall be considered before non-transport uses are considered.
- LT-5.13: Parking is the storage of transportation vehicles and shall not be considered a transport use.
- LT-5.14: Historical precedence for street space dedicated for parking shall be a lesser consideration than providing street space for transportation uses when determining the appropriate future use of street space.

ENVIRONMENTAL REVIEW

The creation of bicycle lanes on existing rights-of-way is exempt from environmental review under the California Environmental Quality Act pursuant to CEQA Guidelines Section 15304 as it involves a minor public alternation in the condition of land which does not involve removal of healthy, mature, scenic trees except for forestry and agricultural purposes and specifically subsection (h) that states that the “creation of bicycle lanes on existing rights-of-way is exempt from environmental review under CEQA.

DISCUSSION

This Study consisted of an evaluation of existing conditions (e.g., parking restrictions and striping), traffic and bicycle counts, collision data, parking utilization, and community outreach with adjacent property owners and all other interested parties to solicit feedback on the proposal. See Attachment 2 for the final report.

Existing Conditions

Homestead Road is an east-west arterial roadway that defines the southern limits of the City of Sunnyvale. The posted speed limit is 35 miles per hour. The study area limits are on Homestead Road from Bernardo Avenue in the west to the Kaiser Entrance in the east which is approximately 3.3 miles long. Homestead Road is predominantly a four-lane roadway (two lanes in each direction) with a two-way center left-turn lane, and bike lanes on both sides of the roadway. Including both eastbound and westbound directions, there are a total of 5.0 linear miles of full-time bike lanes and 1.6 linear miles of part-time bike lanes. Part-time bike lanes means that vehicles are prohibited from parking in the bike lanes on weekdays from 7 a.m. to 6 p.m. At all other times on weekdays and all day on weekends, vehicles are allowed to park in the bike lanes. The Apple Campus, Homestead High School, Cupertino Middle School, and West Valley Elementary School are likely generators of bicycle trips along this corridor.

Traffic Data & Bicycle Counts

For three typical weekdays and two typical weekend days, 24-hour directional vehicular Average Daily Traffic (ADT) volumes, speeds, and bicycle counts were collected while school was in session. Homestead Road carries an average ADT volume of 13,300 to 21,000 vehicles on weekdays and 12,400 to 18,600 vehicles on weekends. During the weekdays, the average a.m. peak hour volumes range from 1,290 to 1,570 vehicles, and the average p.m. peak hour volumes range from 1,075 to 1,895 vehicles. The average 85th percentile speed along the study corridor is approximately 40 mph, which is slightly higher than the posted speed limit of 35 mph.

Bicycle counts were collected for three typical weekdays and two typical weekend days while school

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was in session. On weekdays, Homestead Road carries 32 to 153 bicyclists during the morning peak period (6 to 9 a.m.), and 43 to 85 bicyclists during the evening peak period (5 to 8 p.m.). On weekdays, the westbound bicycle volume was 4 bicyclists between the hours of 6 to 7 a.m. and 33 bicyclists between the hours of 6 to 8 p.m. when parking is allowed in the bike lanes. On weekends when parking is allowed in the bike lane, there was 37 bicyclists riding in the westbound direction throughout the day with the highest number being 21 bicyclists from 11 a.m. to noon.

Collisions

In the past five years from 2017 to 2021, a total of 99 collisions were recorded within the study corridor. Two of the collisions resulted in severe injury; the remaining collisions resulted in a complaint of pain, other visible injuries, or property damage. None of the collisions resulted in a fatality. Of the 99 collisions, 14 collisions involved a bicyclist, and six collisions involved a pedestrian. Out of the 14 bicycle-related collisions, 11 collisions took place at intersections; the remaining three occurred mid-block. Two of the three mid-block collisions occurred when parking was allowed in the bike lanes.

Parking Utilization

Parking data was collected to determine the occupancy of on-street parking along Homestead Road, parking in the driveways of homes along Homestead Road, and parking on side streets within 500 feet of Homestead Road. Parking counts were conducted during time periods when parking demand is typically the highest, which is during the evening from 7 to 9 p.m., and at night from 11 p.m. to 1 a.m. on three weekdays and two weekend days.

Based on the parking data in the Final Report (Attachment 2), it was determined that Homestead Road has a total of 267 on-street parking spaces. Of which, 200 parking spaces are in the part-time bike lanes, which allow overnight and weekend parking, and the remaining 67 parking spaces have an adjacent full-time bike lane. Out of the 200 parking spaces that are in the part-time bike lanes, a maximum of 26 parking spaces were occupied during the peak period, giving an overall parking utilization of 13% along the entire corridor. The majority of on-street parking is in front of single-family homes. Most single-family homes within the study area have a two-car garage with driveways that can accommodate an additional two cars. Residential driveways along the corridor were observed to be high with most segments having an off-street parking utilization of over 85%. A majority of side streets were observed to have less than 80% parking utilization during the peak hours on at least one side of the street.

Elements of Implementing Full-Time Bike Lane

Alternative 1: This alternative would implement full-time bike lanes along Homestead Road by prohibiting on-street parking in areas where the roadway is not wide enough for the coexistence of a bike lane and on-street parking (Attachment 3). This would eliminate approximately 164 on-street parking spaces. The community expressed interest in an alternative that would provide a full-time bike lane and preserve as much on-street parking as possible. Staff evaluated the feasibility of this request by analyzing roadway width and the potential for a road diet at each segment with part-time bike lanes. Subsequently, two segments were identified to be feasible. From Blaney Avenue to approximately 500 feet east of Blaney Avenue, the travel lanes on both sides of Homestead Road can be narrowed down to 10 feet for the inner lane and 11 feet for the outer lane to provide enough width for a full-time bike lane and on-street parking. The outer lane is wider to provide adequate lane width for buses and trucks. This would require obtaining an encroachment permit and concurrence from the City of Cupertino as the southern half of Homestead Road is within Cupertino's city limits.

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From Bernardo to Wright Avenues, a road diet can be done to remove a westbound travel lane since vehicular volumes in that direction are less than what is needed for two vehicular lanes. The typical capacity of an arterial roadway is 900 vehicles per hour per lane. Between Bernardo and Wright Avenues, the average peak hour volume was 705 vehicles for the a.m. hours and 450 vehicles for the p.m. hours, indicating that the roadway would still operate under capacity. With one travel lane in each direction, this segment would have a balanced roadway configuration, which could potentially reduce speeding and improve safety. These modifications would preserve approximately 36 of the 200 on-street parking spaces in front of residential homes with high off-street parking utilization. The number of preserved parking spaces may vary depending on the design of the road diet. This alternative would involve resurfacing the roadway, restriping the lanes and markings, providing buffered bike lanes in segments with enough lane width, and removing and installing poles and signs.

Alternative 2: This alternative would implement full-time bike lanes along Homestead Road by prohibiting all on-street parking in areas where the roadway is not wide enough for the coexistence of a bike lane and on-street parking (Attachment 3). This would eliminate approximately 200 on-street parking spaces. A majority of the part-time bike lanes have low on-street parking utilization, the side streets have available on-street parking, and the distance to the side streets is less than 1,000 feet or 5 minutes of walking. This alternative would involve removing and installing poles and signs and refreshing bike lane markings.

Alternative 3: This alternative would maintain the part-time bike lanes the same as they are today (Attachment 3). Vehicular parking would continue to be allowed in the part-time bike lane segments from 6 p.m. to 7 a.m. on weekdays and all day on weekends.

The cost estimate for each alternative is broken down in the table below:

Alternative	Design Cost	Construction Cost	Total Cost
1	\$45,000	\$225,000	\$270,000
2	\$24,000	\$118,000	\$142,000
3	\$0	\$0	\$0

Considerations

Staff considered the following factors as part of the proposed recommendation:

- Homestead Road has high vehicular volume and relatively low bicycle volume.
- Bicyclists were observed in the bike lane when parking is allowed in the bike lane.
- The historic bicycle/vehicle collision frequency is relatively low with 14 bicycle-related collisions over the recent 5-year period from 2017 to 2021. Two mid-block collisions occurred when parking was allowed in the bike lanes.
- Full-time bike lanes would result in the loss of the majority of on-street parking for residents along Homestead Road.
- High off-street parking utilization of over 85% for most segments.
- On-street parking utilization on Homestead Road was found to be low (13%). Twelve out of 13 segments had less than 40% on-street parking utilization.
- Survey respondents indicated that they would bike more often if Homestead Road had full-time bike lanes.

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FISCAL IMPACT

The total project cost for Alternative 1 is approximately \$270,000. The total project cost for Alternative 2 is approximately \$142,000. After the selection of the alternative, staff will work through a future budget process to create a CIP for City Council consideration.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

Extensive outreach was conducted with residents and members of the public through three community meetings, an online survey, a stakeholder meeting, and one BPAC meeting. Staff also received a total of 71 emails from constituents (35 opposing, 30 supporting, 6 not stated). Feedback from the outreach helped guide the development and evaluation of potential alternatives.

During the stakeholder meetings, representatives from schools, school districts, and Valley Transportation Authority were supportive of the full-time bike lanes. On August 25, 2022, staff held the first public meeting to introduce the project and solicit feedback from the constituents. The meeting was held in a virtual setting and 50 people attended the meeting. General feedback from the community meetings consisted of support for a consistent bicycle facility, opposition to remove on-street parking from residents who lived on Homestead Road, and request to explore ideas to provide a full-time bike lane and preserve as much on-street parking as possible. On October 6, 2022, staff held a second public meeting and conducted an online survey. The survey collected 265 responses, 46 of which were from residents who live on Homestead Road. The survey results indicated that a majority of survey respondents who live on Homestead Road use the on-street parking and do not support changes to the part-time bike lanes, while respondents who do not live on Homestead Road support the permanent conversion of full-time bike lanes and indicated that they would bike more often if Homestead Road had full-time bike lanes. Staff presented to BPAC on October 20, 2022 to introduce the project and receive feedback. Feedback was used to develop the potential alternatives. Lastly, staff held a third community meeting on January 26, 2023 to introduce the alternatives and explain feasibility of each option.

ALTERNATIVES

1. Convert all part-time bike lanes on Homestead Road into permanent full-time bike lanes by removing parking and preserve some parking through a road diet between Bernardo and Wright Avenues and reallocate lane widths from Blaney Avenue to approximately 500 feet east of Blaney Avenue.
2. Convert all part-time bike lanes on Homestead Road into permanent full-time bike lanes by removing parking.
3. Continue to maintain the existing part-time bike lanes and parking as is on Homestead Road.

RECOMMENDATION

Alternative 1: Convert All Part-Time Bike Lanes on Homestead Road Into Permanent Full-Time Bike Lanes by Removing Parking and Preserve Some Parking Through a Road Diet Between Bernardo and Wright Avenues and Reallocate Lane Widths From Blaney Avenue to Approximately 500 Feet East of Blaney Avenue.

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Considering all elements of the Study, staff recommends converting all part-time bike lanes into permanent full-time bike lanes to provide a consistent bicycle facility along Homestead Road and preserve on-street parking between Bernardo and Wright Avenues and from Blaney Avenue to approximately 500 feet east of Blaney Avenue to minimize the parking impacts to some of the residential homes facing Homestead Road.

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Reviewed by: Chip Taylor, Director of Public Works
Reviewed by: Teri Silva, Assistant City Manager
Approved by: Kent Steffens, City Manager

ATTACHMENTS

1. Reserved for Report to Council
2. Final Report
3. Conceptual Figures of the Alternatives