



Administrative Report

Date: January 27, 2025

To: Public Works and Sustainability Commission

From: Public Works Department

Subject: DISCUSSION OF BICYCLE LANE FEASIBILITY ON PALOS VERDES BOULEVARD

SUMMARY:

Per City Council direction at the December 3, 2024 City Council meeting, staff is bringing forward a parking utilization and feasibility analysis to convert the on-street parking lanes on Palos Verdes Boulevard (PVB) to be protected bike lanes (Class IV). This analysis only applies to the segment of PVB between Pacific Coast Highway (PCH) and S Irena Avenue. At this time, the City has approved and will install striped bike lanes (Class II) between Irena and the eastern City boundary with City of Torrance, east of Prospect. Parking data and staff's feasibility analysis indicate that the space currently used as street parking could be utilized as protected bicycle lanes with relatively low impact to parking demand. Notice of this meeting was provided to addresses within 200 feet of the PVB corridor between PCH and Prospect. Noticing was also sent to the District 1 Councilmember. Staff is seeking input on this matter from the public and a recommendation from the PWSC on the feasibility of installing the Class IV bike lanes on PVB to provide to City Council.

ANALYSIS:

Over the past several years, the City has been working to implement its portion of the adopted South Bay Bicycle Master Plan (SBBMP), a regional plan to improve traffic safety, reduce vehicle use/traffic, and improve mobility for all ages and abilities. The City Council previously approved limited bicycle facilities on PVB, which includes Class II bicycle lanes (striping only) between S Irena Avenue and the City border with Torrance, and Class III bicycle route markings (sharrows) between Irena and PCH. PVB narrows west of Irena, so any dedicated bicycle lanes would require a reduction in either vehicle or parking lanes. For this reason, staff recommended only sharrows for this stretch in the SBBMP implementation project, which was approved by the City Council in 2024. Recent state law and contemporary research has suggested that sharrows on higher speed/volume streets to be ineffective in providing additional protection for cyclists. In response to this, the Council directed staff to bring the matter to the PWSC to provide a recommendation for the most suitable bicycle facilities on this portion of Palos Verdes Blvd. Staff was also directed to determine the feasibility to install dedicated bicycle lanes on PVB with respect to the impacts to traffic and parking demands.

Staff determined that the most feasible option would be to convert underutilized on-street parking to be protected bicycle lanes. Staff does not recommend reducing travel lanes on PVB from two in each direction to one in each direction at this time. **Attachment 1** shows recently collected traffic data and speeds near Avenue E. At this location, PVB carries a bi-directional average daily traffic (ADT) count of 16,147 vehicles per day, and the 85th percentile speed is 35 mph. This level of traffic could potentially be accommodated with one lane in each direction, which would open up other opportunities to calm traffic, improve safety, improve all-way stop/crosswalk compliance, and allow for additional crosswalks along the corridor. However, PVB contains one or two lanes in each direction in the City of Torrance, which borders both ends of Redondo's PVB segment. In order to prevent the addition of merges to facilitate lane reductions along the corridor, any effort to reduce travel lanes would be best studied at a regional level in cooperation with Torrance and possibly cities on the PV Peninsula. Therefore, potentially removing street parking was determined to be the easiest and most expedient way forward to provide bicycle lanes on PVB in Redondo.

The City's traffic data vendor collected hourly parking utilization data from 7 AM to 7 PM on both sides of PVB. Data was collected on one weekday (Tuesday, 12/17/2024) and one weekend day (Saturday, 12/20/2024). Additionally, City staff counted the number of parked cars in both directions on different days around 9:45 PM to reflect overnight conditions. **Attachment 2** shows the parking utilization of the 116 total spaces along PVB from PCH to Prospect, between 7 AM and 7 PM, broken down by each side and each block. No single block face along PVB where parking is allowed showed more than 50% occupancy. At any given time between 7 AM and 7 PM on a weekday, no more than seven (7) vehicles were parked on either side of PVB between PCH and Irena, less on the weekend. Separately, Public Works night staff performed parking utilization sweeps at 9:45 PM on eight (8) different nights in December 2024. No more than five (5) vehicles were parked along PVB between PCH and Prospect during that hour. Therefore, it can be concluded that parking utilization is very low along the corridor west of Irena, since all homes along PVB primarily face intersecting streets with ample on-street parking. Only residences along PVB east of Irena have primary frontage along PVB, which already will have Class II bicycle lanes with on-street parking.

Therefore, staff has concluded that converting underutilized on-street parking lanes on PVB between PCH and Irena to be protected Class IV bicycle lanes would not cause substantial parking effects on the neighborhood. From a public perspective, bicycle lanes are considered a more efficient use of public space along a street, as opposed to providing free on-street storage of private property (personal vehicles). Street parking is plentiful on intersecting side streets along PVB, since all residences west of Irena have their front doors facing the side streets. Other benefits of providing bicycle lanes along this corridor include:

- Safer conditions for bicycles and other mobility devices
- Reduced bicycle riding in vehicular lanes and on sidewalks
- Narrower travel lanes that reduce speeding and crashes
- Reduced turning speeds onto slower side streets (traffic calming)
- Improved bicycle access to Riviera Village (reduced traffic and parking)
- Connects to Class II bicycle lanes along PVB in Torrance (West of PCH)

Attachment 3 shows existing and proposed cross sections of PVB. In order to reduce vehicular intrusion into bicycle lanes and provide the most effective traffic calming and bicycle safety benefits, staff recommends reducing travel lanes to 10' widths, which are standard for urban areas. Ten-foot lanes are recommended in urban areas, while 11-foot lanes can be used along bus and truck corridors, which PVB is not. Staff also recommends 6' wide bicycle lanes and 4' wide buffers, which will allow for two-abreast cycling. The inclusion of vertical barriers for increased safety would require coordination with Athens Services to deploy smaller street sweepers. A 4' wide buffer without vertical barriers would be considered a buffered Class II bicycle lane, while the inclusion of vertical barriers would classify the bicycle lanes as Class IV. If vertical barriers are used, staff recommends utilizing rigid barrier materials rather than flexible posts, which degrade quickly, do not truly protect vulnerable roadway users from vehicular impacts, and may not be considered aesthetically pleasing. Rigid barrier materials include prefabricated curb sections, rubber parking stops, and jersey barrier-like materials. Rigid barrier materials can be spaced to allow for continued drainage flows but do have impacts to street sweeping activities. Barriers are otherwise feasible along this corridor since driveways are fairly limited along PVB west of Irena. Openings and painted conflict zones would be provided at driveways. These openings would also provide opportunities for cyclists to exit the bikeway and perform left-turns from PVB onto streets like Avenue E and Helberta.

If approved by the City Council, staff would need to engage a design consultant to prepare plans, specifications, and estimates for restriping PVB. Staff expects the design and restriping of PVB to cost approximately \$200,000, which assumes the purchase of high-quality rigid barrier materials, if included in the design, and for the bicycle lane road markings. Design and construction are not funded at this time. A protected bicycle lane could be tested with a temporary parking restriction and cones, but staff would need to procure additional temporary traffic control devices.

In the future, if funds and engineering analyses allow, the City could also choose to install a raised bicycle lane or protected bicycle lane with permanent curb and gutter protection.

COORDINATION:

Coordination of this evaluation and report took place within the Public Works Department and with the Councilmember for District 1.

Prepared by:

Ryan Liu, Transportation Engineer

Submitted by:

Andrew Winje, Public Works Director

ATTACHMENTS:

- 1 – Speeds and Volumes Along PVB
- 2 – Weekday/Weekend 7 AM-7 PM Parking Utilization Along PVB
- 3 – Existing and Proposed Cross Sections

Palos Verdes Bl (Between Avenue E and Gertruda)
Speed and Volume Summary

DATE	NORTHEAST VOLUME (VEH/DAY)	SOUTHWEST VOLUME	TOTAL DAILY VOLUME	NORTHEAST 85TH % SPEED (MPH)	SOUTHWEST 85TH % SPEED	TOTAL 85TH % SPEED
Friday, 13 December 2024	8848	8747	17595	35	34	35
Saturday, 14 December 2024	7592	7457	15049	35	34	35
Sunday, 15 December 2024	6529	6598	13127	36	34	35
Monday, 16 December 2024	8056	7956	16012	35	34	34
Tuesday, 17 December 2024	8524	8364	16888	35	34	35
Wednesday, 18 December 2024	8749	8629	17378	35	34	35
Thursday, 19 December 2024	8553	8427	16980	35	34	34
7-DAY AVERAGE			16147			
AVERAGE 85TH % SPEED				35	34	35

[a] Northeast is towards Prospect, southwest is towards PCH.

Prepared by National Data & Surveying Services

Parking Study

Project ID: 24-020445
City: Redondo Beach, CA

Date: 12/14/24
Day: Saturday

Number of spaces provided for "Unmarked" segments are only approximate. Occupancy may exceed inventory.

Segment	Street	From	To	Curb Type	Side of the Street	Marked/Unmarked	Restriction	Measurement (ft)	Approximate Space	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	AVG
OSP-001	Palos Verdes Blvd	Avenue H	Pacific Coast Hwy	Regular	N	Unmarked	No Stopping Anytime	0'	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-002	Palos Verdes Blvd	Pacific Coast Hwy	Avenue H	Regular	S	Unmarked	No Parking 2am-6am Vehicles more than 22ft Long or a Combination of 8ft high and 7ft wide on all City Streets in Redondo Beach	145'	7	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-003	Palos Verdes Blvd	Avenue G	Avenue H	Regular	N	Unmarked	No Stopping Anytime	0'	0	0	0	0	0	0	0	0	1	0	0	0	0	0
OSP-004	Palos Verdes Blvd	Avenue H	Avenue G	Regular	S	Unmarked	No Stopping Anytime	0'	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-005	Palos Verdes Blvd	Ave F	Avenue G	Regular	N	Unmarked	No Parking Wed 9am-12nn/Parking by Permit Only 8pm-3am Everyday	170'	9	2	2	2	3	3	2	2	2	2	2	2	2	2
OSP-006	Palos Verdes Blvd	Avenue G	Ave F	Regular	S	Unmarked	No Parking Wed 9am-12nn/Parking by Permit Only 8pm-3am Everyday	40'	2	0	0	0	0	0	0	0	0	0	0	1	1	0
OSP-007	Palos Verdes Blvd	Avenue E	Ave F	Regular	N	Unmarked	No Parking Wed 9am-12nn	150'	8	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-008	Palos Verdes Blvd	Ave F	Avenue E	Regular	S	Unmarked	No Parking Wed 9am-12nn/90 Minute Parking Commercial Vehicles Over 3 Tons	145'	7	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-009	Palos Verdes Blvd	S Gertruda Ave	Avenue E	Regular	N	Unmarked	No Parking Wed 9am-12nn	105'	5	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-010	Palos Verdes Blvd	Avenue E	S Gertruda Ave	Regular	S	Unmarked	No Parking Wed 9am-12nn	165'	8	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-011	Palos Verdes Blvd	S Helberta Ave	S Gertruda Ave	Regular	N	Unmarked	No Parking Wed 9am-12nn/90 Minute Parking Commercial Vehicles Over 3 Tons	160'	8	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-012	Palos Verdes Blvd	S Gertruda Ave	S Helberta Ave	Regular	S	Unmarked	No Parking Wed 9am-12nn	170	8	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-013	Palos Verdes Blvd	S Irena Ave	S Helberta Ave	Regular	N	Unmarked	No Parking Wed 9am-12nn	165'	8	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-014	Palos Verdes Blvd	S Helberta Ave	S Irena Ave	Regular	S	Unmarked	No Parking Wed 9am-12nn	170'	8	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-015	Palos Verdes Blvd	S Prospect Ave	S Irena Ave	Regular	N	Unmarked	No Parking Wed 9am-12nn/90 Minute Parking Commercial Vehicles Over 3 Tons	440'	22	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-016	Palos Verdes Blvd	S Irena Ave	S Prospect Ave	Regular	S	Unmarked	No Parking Wed 9am-12nn/90 Minute Parking Commercial Vehicles Over 3 Tons	305'	15	2	3	2	2	2	3	2	2	2	2	2	2	2

Palos Verdes Blvd	Avenue H	Pacific Coast Hwy
Palos Verdes Blvd	Pacific Coast Hwy	Avenue H
Palos Verdes Blvd	Avenue G	Avenue H
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Palos Verdes Blvd	Ave F	Avenue G
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Utilization														AVG
7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM			
0														
7	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
0														
0														
9	22%	22%	22%	33%	33%	22%	22%	22%	22%	22%	22%	22%	24%	
2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%	8%	
8	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
7	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
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8	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
9	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
22	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
15	13%	20%	13%	13%	13%	20%	13%	13%	13%	13%	13%	13%	14%	

Prepared by National Data & Surveying Services

Parking Study

Project ID: 24-020445
City: Redondo Beach, CA

Date: 12/17/24
Day: Tuesday

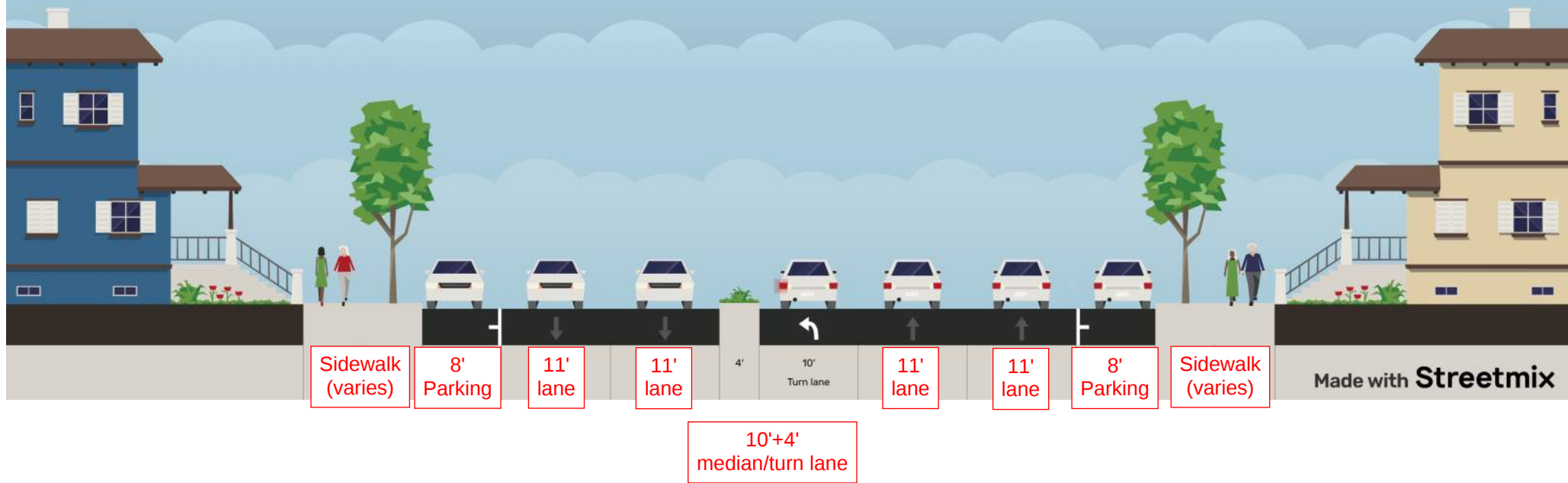
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OSP-003	Palos Verdes Blvd	Avenue G	Avenue H	Regular	N	Unmarked	No Stopping Anytime	0'	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-004	Palos Verdes Blvd	Avenue H	Avenue G	Regular	S	Unmarked	No Stopping Anytime	0'	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-005	Palos Verdes Blvd	Ave F	Avenue G	Regular	N	Unmarked	No Parking Wed 9am-12nn/Parking by Permit Only 8pm-3am Everyday	170'	9	4	3	1	1	0	2	0	0	0	0	0	0	1
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OSP-009	Palos Verdes Blvd	S Gertruda Ave	Avenue E	Regular	N	Unmarked	No Parking Wed 9am-12nn	105'	5	0	0	0	0	0	0	0	0	0	0	0	0	0
OSP-010	Palos Verdes Blvd	Avenue E	S Gertruda Ave	Regular	S	Unmarked	No Parking Wed 9am-12nn	165'	8	0	0	0	0	0	0	0	0	0	0	0	0	0
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OSP-015	Palos Verdes Blvd	S Prospect Ave	S Irena Ave	Regular	N	Unmarked	No Parking Wed 9am-12nn/90 Minute Parking Commercial Vehicles Over 3 Tons	440'	22	0	0	0	0	0	0	0	0	0	0	0	0	0
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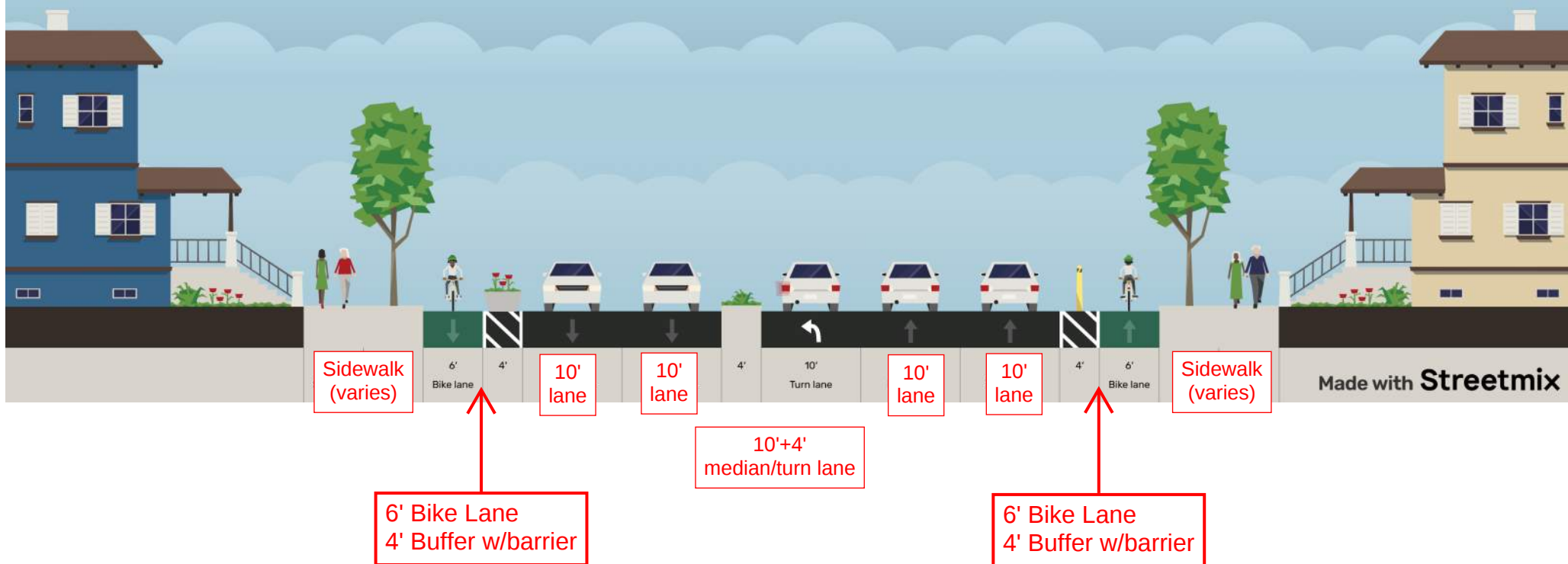
Palos Verdes Blvd	Avenue H	Pacific Coast Hwy
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Palos Verdes Blvd	Avenue G	Avenue H
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Palos Verdes Blvd	Ave F	Avenue G
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Utilization													7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	
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7													0%	0%	0%	0%	0%	14%	0%	0%	0%	0%	0%	1%	
5													0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8													0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8													0%	0%	0%	13%	13%	0%	50%	25%	25%	13%	0%	0%	11%
8													0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8													0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
9													38%	25%	25%	0%	0%	13%	0%	0%	0%	0%	0%	13%	9%
22													0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
15													13%	20%	7%	7%	7%	7%	0%	7%	13%	13%	20%	20%	11%

Palos Verdes Bl (PCH to Irena) [Existing]



PV BI (PCH to Irena) [Protected Bike Lanes]



City proposes to remove very low utilization street parking along Palos Verdes Boulevard (only PCH to Irena) to install protected bike lanes (Class IV). Barrier type can be a variety of materials, but staff prefers something rigid and not flexible such as concrete barriers, rubber parking stops, or planter boxes (subject to maintenance). Vertical barriers are critical to prevent drivers from illegally driving in bicycle lanes.

Narrower through lanes decreases speed and provides traffic calming

East of Irena to Torrance border, PVB is wider and transitions to Class II striped bike lanes with street parking.