

July 23, 2026

SOUTH PALO ALTO BIKE/PED CONNECTIVITY CIRCULATION STUDY

The purpose of this cursory circulation study is to assess neighborhood and circulation effects associated with a new Caltrain bicycle/pedestrian undercrossing (Alternatives A1 and A2) at El Dorado Avenue (including potential diversion patterns and cul-de-sac effects) and inform accompanying network enhancements. The analysis compares future conditions (without the new connection) with each crossing alternative, focusing on key intersections and corridors most likely to experience changes in traffic volumes. Findings from this initial study will inform decision-making by clarifying the trade-offs between alternatives and informing complementary network enhancements or operational strategies that may be needed to enhance safety and functional circulation under each alternative.

Pedestrian, bicycle, and vehicle counts were collected at 21 intersections on Thursday, March 19, 2026, between 7 a.m. and 7 p.m. Count locations focus on intersections nearest El Dorado Avenue since those streets will feel the effects the most. Several intersections were excluded from this initial study, including nearby intersections on the west-side of the rail corridor since circulation patterns are not expected to change as much. The analysis considers the following three scenarios:

1. **Future Conditions (Without New Connection):** Future conditions without a new bicycle/pedestrian undercrossing. Future weekday a.m. peak hour (8 a.m to 9 a.m.) volumes were forecast to account for land use and population growth in Palo Alto.¹
2. **El Dorado Avenue Tunnel + Alma Street Signal (Alternative A1):** Future conditions with a new bicycle/pedestrian tunnel under Caltrain at El Dorado Avenue and a signalized crossing at Alma Street. Peak period left-turn restrictions were assumed to be implemented at Alma Street/El Dorado Avenue with this alternative.²
3. **El Dorado Avenue Tunnel Under Alma Street (Alternative A2):** Future conditions with a new bicycle/pedestrian tunnel on the south side of El Dorado Avenue extending under both Alma Street and Caltrain. The intersection of Alma Street/El Dorado Avenue would be reconfigured with El Dorado Avenue as a one-way westbound roadway with right-out only operations at Alma Street.³

*All scenarios reflect future year 2031 conditions.

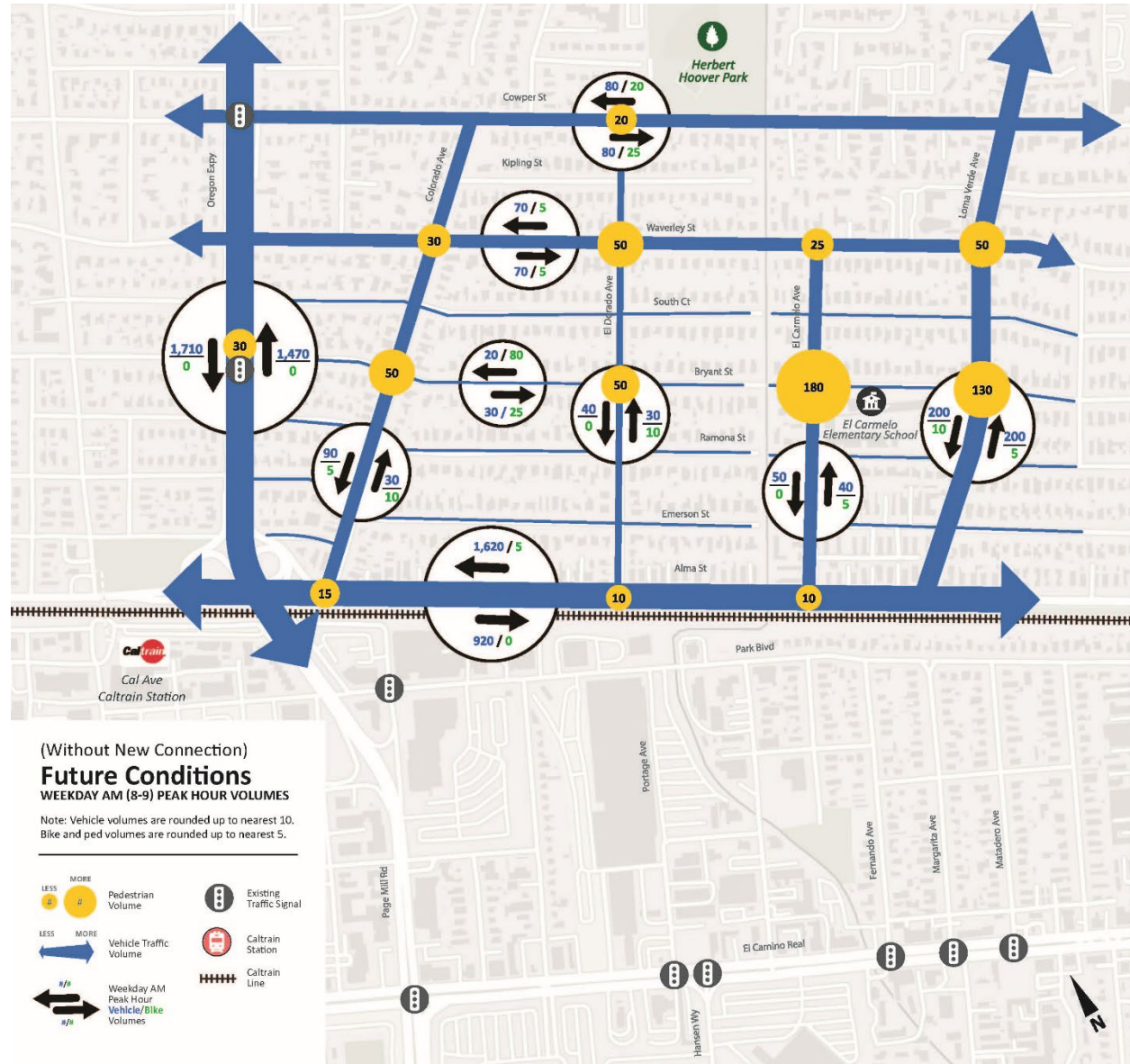
¹ Consistent with the demand estimates prepared for the Alternatives Analysis, available on the project webpage (www.paloalto.gov/BikePedCrossings), an annual growth rate of 1.099 was applied uniformly to all movements to reflect the expected increase in person trips between 2026 and 2031.

² With Alternative A1 the southbound left-turn and westbound left-turn movements at Alma Street/El Dorado Avenue were redistributed across the network.

³ With Alternative A2 the southbound left-turn, northbound right-turn, and westbound left-turn movements at Alma Street/El Dorado Avenue were redistributed across the network.

The weekday a.m. peak hour was selected for analysis as it represents the period of peak demand for the new grade-separated crossing.⁴ The Future Conditions (Without New Connection) Circulation Summary is presented in Exhibit 1. The Future Conditions with Alternative A1 and A2 Circulation Summary is presented in Exhibit 2. Existing and future counts for each scenario are included in Appendix A.

Exhibit 1. Future Conditions (Without New Connection) – Circulation Summary



⁴ Vehicle volumes are rounded up to the nearest 10 and pedestrian and bicycle volumes are rounded up to the nearest 5.

Exhibit 2. Future Conditions with Alternative A1 and A2 – Circulation Summary



A summary of findings and key takeaways is described below.

SUMMARY OF FINDINGS

Key Takeaways

- **Meaningful projected use:** By 2031, the El Dorado tunnel is expected to carry about 70 walk trips and 150 bike trips in the a.m. peak hour, and roughly 800 walk trips and 1,800 bike trips daily.
- **Good network fit:** Most connecting streets serving the undercrossing (El Dorado, Bryant, Cowper, Colorado, Loma Verde, and Park) in the surrounding neighborhoods are low-volume or low-stress routes suitable for bicycle and pedestrian access.

- **Limited traffic impacts:** Both crossing alternatives would cause little overall change in neighborhood traffic patterns, with some rerouting on nearby streets.
- **Access design will shape operations:** A signalized Alma Street crossing (Alternative A1) would preserve two-way El Dorado Avenue access, while the under-Alma Street option (Alternative A2) would shift more bicycle and pedestrian activity onto El Dorado Avenue and require more vehicle access changes.
- **Supportive improvements will be important:** Enhancements to surrounding streets would apply context-appropriate high-visibility crossings, lighting, markings, traffic control, and wayfinding, consistent with the Safe System Approach and other applicable safety standards to make tunnel approaches comfortable for all-ages-and-abilities.

Additional findings are described in this section.

Future Conditions (Without New Connection)

- Oregon Expressway and Alma Street carry the highest weekday a.m. peak hour vehicle volumes with about 3,180 vehicles (1,710 westbound and 1,470 eastbound) on Oregon Expressway, south of Bryant Street and 2,540 vehicles (1,620 northbound and 920 southbound) on Alma Street, north of El Dorado Avenue. These busier streets are barriers to walking and biking. The network recommendations consider safer and more comfortable crossings of these streets to improve access to and from the new tunnel.
- Cowper Street, Waverley Street, Bryant Street, Colorado Avenue, El Dorado Avenue, and El Carmelo Avenue carry less than 200 vehicles (between 30 and 90 vehicles in each direction) during the a.m. peak hour. Loma Verde Avenue carries approximately 400 vehicles (200 in each direction) during the a.m. peak hour. The peak hour and daily vehicle volumes would be under applicable vehicle volume thresholds for bike boulevards and bike lanes on streets with existing and proposed bikeways.⁵
- Pedestrians (180) and bicycles (80) outnumber vehicles (160) at the intersection of Bryant Street and El Carmelo Avenue, adjacent to El Carmelo Elementary School during the a.m. peak hour. The network recommendations consider enhancements, such as bulb-outs, to shorten crossing distances, reduce turning vehicle and bicycle speeds, and provide more space on the street corner and sidewalk for the relatively high volumes of pedestrians at this location.
- Bicyclists (80 northbound, 25 southbound) outnumber drivers (20 northbound, 25 southbound) on Bryant Street, between Colorado Avenue and El Dorado Avenue during the a.m. peak hour. The network recommendations consider installing a traffic circle at the intersection of the Bryant Street and El Dorado Avenue bike boulevards to reduce speeds, reduce number of crossing conflicts, and improve traffic flow.
- Approximate weekday a.m. peak hour left-turning vehicle volumes on/off of Alma Street:
 - 15 southbound left-turns and 5 westbound left-turns at Colorado Avenue
 - 20 southbound left-turns and 20 westbound left-turns at El Dorado Avenue

⁵ National Association of City Transportation Officials (NACTO) Guidance for Selecting All Ages and Abilities Bikeways. https://nacto.org/wp-content/uploads/p071_table_PART3-1.png. Daily and peak hour vehicle volume thresholds for bicycle boulevards are 150 vehicles per hour in the peak direction or 2,000 vehicles per day. The daily and peak hour vehicle volume thresholds for bike lanes are 300 vehicles per hour in the peak direction or 3,000 vehicles per day.

- 25 southbound left-turns and 10 westbound left-turns at El Carmelo Avenue
- 80 southbound left-turns and 40 westbound left-turns at Loma Verde Avenue

El Dorado Avenue Tunnel + Alma Street Signal (Alternative A1)

- Under Alternative A1, a new traffic signal at El Dorado Avenue/Alma Street would provide a controlled crossing opportunity for bicyclists and pedestrians to access the tunnel. The signal would facilitate crossings for pedestrians and bicyclists through the presence of marked crosswalks, use of countdown timers, and implementation of leading pedestrian intervals, which can reduce the potential for conflicts and reduce the frequency and severity of crashes. Installation of a traffic signal would also introduce a controlled stopping point for vehicles, which would help manage vehicle speeds along the corridor, reducing the likelihood of high-speed crossing conflicts. Vehicle progression could be optimized to minimize vehicle delay through coordination with upstream and/or downstream intersections. Signalization may make this route more attractive to turning drivers by creating a more convenient and predictable opportunity to turn left onto or off of Alma Street. Access to El Dorado Avenue, could be managed with the potential to implement turn restrictions, such as prohibiting left turns and allowing right-in/right-out only operations during peak periods or other time periods. Based on a review of potential trip origins and destinations and possible travel routes, approximately 40 drivers that currently make left turns to or from El Dorado Avenue during the weekday a.m. peak hour were shifted to alternate routes. This shifting of traffic would result in the reduction of vehicle traffic volumes on El Dorado Avenue between Alma Street and Emerson Street and changes (increases and decreases) of fewer than 20 vehicle trips on nearby streets and intersections during the weekday a.m. peak hour.
- Alternative A1 would maintain two-way vehicle circulation on El Dorado Avenue, which would help preserve local circulation and driveway access. Signal timing and phasing, including use of advance detection, crossing time for leading pedestrian intervals, and implementation of turn restrictions, would continue to be refined throughout the design process and may be modified after construction.

El Dorado Avenue Tunnel Under Alma Street (Alternative A2)

- Under Alternative A2, the bicycle/pedestrian undercrossing would extend along the south side of El Dorado Avenue with El Dorado Avenue proposed to be converted to one-way westbound right-turn only vehicle operations. Drivers that currently turn onto El Dorado Avenue from Alma Street (20 southbound left-turns, 20 northbound right-turns) or turn left onto Alma Street from El Dorado Avenue (20 westbound left-turns) would be shifted to alternate routes. This shifting of traffic would result in the reduction of vehicle traffic volumes on El Dorado Avenue between Alma Street and Emerson Street and shift fewer than 20 vehicle trips to nearby streets during the weekday a.m. peak hour.
- As shown in Exhibit 2, with Alternatives A1 and A2, there would be little overall change in traffic volumes on the tunnel approaches. Vehicle volumes would continue to be relatively low, and daily and peak hour volumes on streets with existing or proposed bikeways (including El Dorado

Avenue, Bryant Street, Cowper Street, Loma Verde Avenue, Colorado Avenue, and Park Boulevard) would remain under applicable thresholds for those facilities.

Pedestrian and Bicycle Circulation

- Based on the prior Alternatives Analysis, available on the project webpage (www.paloalto.gov/BikePedCrossings), there would be an estimated total of 70 walk trips and 150 bicycle trips using the undercrossing at El Dorado Avenue during the weekday a.m peak hour in 2031, with an estimated 800 walk and 1,800 bike trips daily. The 70 walk trips are anticipated to be distributed across the network on the most direct route between destinations. For instance, 150 bike trips are expected to mostly use the existing bicycle boulevards and low-stress routes including Cowper Street, Bryant Street, Colorado Avenue, Loma Verde Avenue, and Park Boulevard.
- For Alternative A1, 70 walk and 150 bike trips would cross at the intersection of Alma Street/El Dorado Avenue to access the undercrossing. With Alternative A2, the tunnel entrance is located on El Dorado Avenue. Therefore, it is expected that more people would travel along El Dorado Avenue rather than Alma Street to access the crossing.

APPENDICES

Appendix A: Existing Counts and Future Volumes

Appendix A

Existing Weekday AM Peak Hour Vehicle Counts

Intersection	N-S Street	E-W Street	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL
1	Alma St	El Dorado Ave	0	821	16	26	0	17	15	1,465	0	0	0	0
2	Emerson St	El Dorado Ave	4	0	1	2	33	1	4	1	4	4	21	7
3	Ramona St	El Dorado Ave	4	3	2	1	25	5	9	1	6	2	23	2
4	Bryant St	El Dorado Ave	5	3	9	11	21	1	5	3	5	3	29	2
5	South Ct	El Dorado Ave	1	3	1	2	26	2	0	2	4	3	38	1
6	Waverley St	El Dorado Ave	4	62	2	2	14	35	29	56	12	14	16	7
7	Cowper St	El Dorado Ave	42	36	0	0	0	0	0	40	9	16	0	34
8	Alma St	Colorado Ave	0	603	12	88	0	4	8	1,500	0	0	0	0
9	Bryant St	Colorado Ave	9	12	10	40	63	2	3	17	1	0	23	3
10	Waverley St	Colorado Ave	4	53	4	3	82	2	5	47	18	7	20	10
11	Bryant St	Oregon Expy	55	14	34	15	1,452	5	9	6	45	11	1,309	17
12	Alma St	El Carmelo Ave	0	807	22	56	0	9	9	1,413	0	0	0	0
13	Emerson St	El Carmelo Ave	4	0	1	2	40	8	8	0	20	4	28	1
14	Ramona St	El Carmelo Ave	2	0	0	1	18	12	31	0	28	6	30	1
15	Bryant St	El Carmelo Ave	4	1	0	2	19	34	23	1	8	12	39	1
16	Waverley St	El Carmelo Ave	48	63	0	0	0	0	0	41	12	18	0	51
17	Alma St	Loma Verde Ave	0	752	71	132	0	36	65	1,284	0	0	0	0
18	Emerson St	Loma Verde Ave	4	3	13	9	160	8	5	3	2	6	134	3
19	Ramona St	Loma Verde Ave	4	11	8	7	132	17	8	16	5	29	168	13
20	Bryant St	Loma Verde Ave	9	2	26	19	199	8	8	1	3	7	156	9
21	Waverley St	Loma Verde Ave	5	43	32	21	207	45	35	24	9	6	159	15

NOTES: Peak Hour (8-9 AM) counts collected by Traffic Data Service on Thursday, March 31st, 2026, from 7 AM to 7 PM

SBR: Southbound Right

SBT: Southbound Through

SBL: Southbound Left

WBR: Westbound Right

WBT: Westbound Through

WBL: Westbound Left

NBR: Northbound Right

NBT: Northbound Through

NBL: Northbound Left

EBR: Eastbound Right

EBT: Eastbound Through

EBL: Eastbound Left

Appendix A

Existing Weekday AM Peak Hour Pedestrian Counts

Intersection	N-S Street	E-W Street	SB	WB	NB	EB
1	Alma St	El Dorado Ave	0	7	0	0
2	Emerson St	El Dorado Ave	3	0	3	1
3	Ramona St	El Dorado Ave	0	7	4	0
4	Bryant St	El Dorado Ave	6	17	11	5
5	South Ct	El Dorado Ave	6	0	11	0
6	Waverley St	El Dorado Ave	5	8	23	8
7	Cowper St	El Dorado Ave	4	0	8	5
8	Alma St	Colorado Ave	0	11	0	0
9	Bryant St	Colorado Ave	5	15	9	5
10	Waverley St	Colorado Ave	7	5	9	4
11	Bryant St	Oregon Expy	0	25	0	0
12	Alma St	El Carmelo Ave	0	6	0	0
13	Emerson St	El Carmelo Ave	1	1	3	0
14	Ramona St	El Carmelo Ave	3	2	16	0
15	Bryant St	El Carmelo Ave	10	27	72	53
16	Waverley St	El Carmelo Ave	3	0	6	12
17	Alma St	Loma Verde Ave	0	6	0	0
18	Emerson St	Loma Verde Ave	0	0	13	1
19	Ramona St	Loma Verde Ave	19	12	21	20
20	Bryant St	Loma Verde Ave	59	7	7	45
21	Waverley St	Loma Verde Ave	15	14	5	13

NOTES: Peak Hour (8-9 AM) counts collected by Traffic Data Service on Thursday, March 31st, 2026, from 7 AM to 7 PM

SB: Southbound

WB: Westbound

NB: Northbound

EB: Eastbound

Appendix A

Existing Weekday AM Peak Hour Bike Counts

Intersection	N-S Street	E-W Street	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL
1	Alma St	El Dorado Ave	0	0	0	0	0	0	0	1	0	0	0	0
2	Emerson St	El Dorado Ave	0	0	2	0	0	0	2	0	0	0	5	0
3	Ramona St	El Dorado Ave	0	0	0	0	0	0	2	0	0	0	13	0
4	Bryant St	El Dorado Ave	0	23	0	1	0	14	0	40	0	3	3	7
5	South Ct	El Dorado Ave	4	0	0	0	11	0	1	1	0	0	2	1
6	Waverley St	El Dorado Ave	2	10	0	0	10	5	0	0	0	2	1	0
7	Cowper St	El Dorado Ave	7	21	0	0	0	0	0	17	1	0	0	2
8	Alma St	Colorado Ave	0	0	0	0	0	0	0	1	0	0	0	0
9	Bryant St	Colorado Ave	0	13	5	26	2	5	1	49	1	2	1	5
10	Waverley St	Colorado Ave	5	4	0	0	46	1	0	0	0	2	4	2
11	Bryant St	Oregon Expy	0	20	0	0	0	0	0	107	0	0	0	0
12	Alma St	El Carmelo Ave	0	0	0	0	0	0	0	0	0	0	0	0
13	Emerson St	El Carmelo Ave	0	0	0	0	0	0	2	0	0	1	4	0
14	Ramona St	El Carmelo Ave	0	1	0	0	0	1	1	0	0	1	7	0
15	Bryant St	El Carmelo Ave	0	43	1	0	0	1	0	33	0	0	4	5
16	Waverley St	El Carmelo Ave	1	21	0	0	0	0	0	1	0	5	0	0
17	Alma St	Loma Verde Ave	0	0	0	0	0	0	0	0	0	0	0	0
18	Emerson St	Loma Verde Ave	1	1	4	0	1	1	1	0	0	1	2	0
19	Ramona St	Loma Verde Ave	1	2	1	0	6	1	0	1	0	0	1	1
20	Bryant St	Loma Verde Ave	0	14	6	17	4	7	0	21	1	4	2	1
21	Waverley St	Loma Verde Ave	0	27	1	0	31	11	0	0	1	1	8	0

NOTES: Peak Hour (8-9 AM) counts collected by Traffic Data Service on Thursday, March 31st, 2026, from 7 AM to 7 PM

SBR: Southbound Right

SBT: Southbound Through

SBL: Southbound Left

WBR: Westbound Right

WBT: Westbound Through

WBL: Westbound Left

NBR: Northbound Right

NBT: Northbound Through

NBL: Northbound Left

EBR: Eastbound Right

EBT: Eastbound Through

EBL: Eastbound Left

Appendix A

Future 2031 Weekday AM Peak Hour Vehicle Counts

Intersection	N-S Street	E-W Street	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL
1	Alma St	El Dorado Ave	0	902	18	29	0	19	16	1,610	0	0	0	0
2	Emerson St	El Dorado Ave	4	0	1	2	36	1	4	1	4	4	23	8
3	Ramona St	El Dorado Ave	4	3	2	1	27	5	10	1	7	2	25	2
4	Bryant St	El Dorado Ave	5	3	10	12	23	1	5	3	5	3	32	2
5	South Ct	El Dorado Ave	1	3	1	2	29	2	0	2	4	3	42	1
6	Waverley St	El Dorado Ave	4	68	2	2	15	38	32	62	13	15	18	8
7	Cowper St	El Dorado Ave	46	40	0	0	0	0	0	44	10	18	0	37
8	Alma St	Colorado Ave	0	663	13	97	0	4	9	1,648	0	0	0	0
9	Bryant St	Colorado Ave	10	13	11	44	69	2	3	19	1	0	25	3
10	Waverley St	Colorado Ave	4	58	4	3	90	2	5	52	20	8	22	11
11	Bryant St	Oregon Expy	60	15	37	16	1,596	5	10	7	49	12	1,439	19
12	Alma St	El Carmelo Ave	0	887	24	62	0	10	10	1,553	0	0	0	0
13	Emerson St	El Carmelo Ave	4	0	1	2	44	9	9	0	22	4	31	1
14	Ramona St	El Carmelo Ave	2	0	0	1	20	13	34	0	31	7	33	1
15	Bryant St	El Carmelo Ave	4	1	0	2	21	37	25	1	9	13	43	1
16	Waverley St	El Carmelo Ave	53	69	0	0	0	0	0	45	13	20	0	56
17	Alma St	Loma Verde Ave	0	826	78	145	0	40	71	1,411	0	0	0	0
18	Emerson St	Loma Verde Ave	4	3	14	10	176	9	5	3	2	7	147	3
19	Ramona St	Loma Verde Ave	4	12	9	8	145	19	9	18	5	32	185	14
20	Bryant St	Loma Verde Ave	10	2	29	21	219	9	9	1	3	8	171	10
21	Waverley St	Loma Verde Ave	5	47	35	23	227	49	38	26	10	7	175	16

NOTES: Growth Rate of 1.099 was applied to existing volumes uniformly on each movement to represent the growth from 2026 to 2031

SBR: Southbound Right

NBR: Northbound Right

SBT: Southbound Through

NBT: Northbound Through

SBL: Southbound Left

NBL: Northbound Left

WBR: Westbound Right

EBR: Eastbound Right

WBT: Westbound Through

EBT: Eastbound Through

WBL: Westbound Left

EBL: Eastbound Left

Weekday AM Peak Hour: 8 AM - 9 AM

Appendix A

Future 2031 Weekday AM Peak Hour Pedestrian Counts

Intersection	N-S Street	E-W Street	SB	WB	NB	EB
1	Alma St	El Dorado Ave	0	8	0	0
2	Emerson St	El Dorado Ave	3	0	3	1
3	Ramona St	El Dorado Ave	0	8	4	0
4	Bryant St	El Dorado Ave	7	19	12	5
5	South Ct	El Dorado Ave	7	0	12	0
6	Waverley St	El Dorado Ave	5	9	25	9
7	Cowper St	El Dorado Ave	4	0	9	5
8	Alma St	Colorado Ave	0	12	0	0
9	Bryant St	Colorado Ave	5	16	10	5
10	Waverley St	Colorado Ave	8	5	10	4
11	Bryant St	Oregon Expy	0	27	0	0
12	Alma St	El Carmelo Ave	0	7	0	0
13	Emerson St	El Carmelo Ave	1	1	3	0
14	Ramona St	El Carmelo Ave	3	2	18	0
15	Bryant St	El Carmelo Ave	11	30	79	58
16	Waverley St	El Carmelo Ave	3	0	7	13
17	Alma St	Loma Verde Ave	0	7	0	0
18	Emerson St	Loma Verde Ave	0	0	14	1
19	Ramona St	Loma Verde Ave	21	13	23	22
20	Bryant St	Loma Verde Ave	65	8	8	49
21	Waverley St	Loma Verde Ave	16	15	5	14

NOTES: Growth Rate of 1.099 was applied to existing volumes uniformly on each movement to represent the growth from 2026 to 2031

SB: Southbound

WB: Westbound

NB: Northbound

EB: Eastbound

Weekday AM Peak Hour: 8 AM - 9 AM

Appendix A

Future 2031 Weekday AM Peak Hour Bike Counts

Intersection	N-S Street	E-W Street	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL
1	Alma St	El Dorado Ave	0	0	0	0	0	0	0	1	0	0	0	0
2	Emerson St	El Dorado Ave	0	0	2	0	0	0	2	0	0	0	5	0
3	Ramona St	El Dorado Ave	0	0	0	0	0	0	2	0	0	0	14	0
4	Bryant St	El Dorado Ave	0	25	0	1	0	15	0	44	0	3	3	8
5	South Ct	El Dorado Ave	4	0	0	0	12	0	1	1	0	0	2	1
6	Waverley St	El Dorado Ave	2	11	0	0	11	5	0	0	0	2	1	0
7	Cowper St	El Dorado Ave	8	23	0	0	0	0	0	19	1	0	0	2
8	Alma St	Colorado Ave	0	0	0	0	0	0	0	1	0	0	0	0
9	Bryant St	Colorado Ave	0	14	5	29	2	5	1	54	1	2	1	5
10	Waverley St	Colorado Ave	5	4	0	0	51	1	0	0	0	2	4	2
11	Bryant St	Oregon Expy	0	22	0	0	0	0	0	118	0	0	0	0
12	Alma St	El Carmelo Ave	0	0	0	0	0	0	0	0	0	0	0	0
13	Emerson St	El Carmelo Ave	0	0	0	0	0	0	2	0	0	1	4	0
14	Ramona St	El Carmelo Ave	0	1	0	0	0	1	1	0	0	1	8	0
15	Bryant St	El Carmelo Ave	0	47	1	0	0	1	0	36	0	0	4	5
16	Waverley St	El Carmelo Ave	1	23	0	0	0	0	0	1	0	5	0	0
17	Alma St	Loma Verde Ave	0	0	0	0	0	0	0	0	0	0	0	0
18	Emerson St	Loma Verde Ave	1	1	4	0	1	1	1	0	0	1	2	0
19	Ramona St	Loma Verde Ave	1	2	1	0	7	1	0	1	0	0	1	1
20	Bryant St	Loma Verde Ave	0	15	7	19	4	8	0	23	1	4	2	1
21	Waverley St	Loma Verde Ave	0	30	1	0	34	12	0	0	1	1	9	0

NOTES: Growth Rate of 1.099 was applied to existing volumes uniformly on each movement to represent the growth from 2026 to 2031

SBR: Southbound Right

NBR: Northbound Right

SBT: Southbound Through

NBT: Northbound Through

SBL: Southbound Left

NBL: Northbound Left

WBR: Westbound Right

EBR: Eastbound Right

WBT: Westbound Through

EBT: Eastbound Through

WBL: Westbound Left

EBL: Eastbound Left

Weekday AM Peak Hour: 8 AM - 9 AM

Appendix A

Future 2031 Alt1a and Alt2 Weekday AM Peak Hour Bike Counts

Intersection	N-S Street	E-W Street	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL
1	Alma St	El Dorado Ave	0	0	0	0	130	0	0	1	0	0	20	0
2	Emerson St	El Dorado Ave	0	0	2	0	130	0	2	0	0	0	25	0
3	Ramona St	El Dorado Ave	0	0	0	0	130	0	2	0	0	0	34	0
4	Bryant St	El Dorado Ave	30	25	0	1	40	15	0	44	60	13	11	10
5	South Ct	El Dorado Ave	4	0	0	0	52	0	1	1	0	0	10	1
6	Waverley St	El Dorado Ave	2	11	0	0	51	5	0	0	0	2	9	0
7	Cowper St	El Dorado Ave	8	23	0	0	40	0	0	19	1	0	8	2
8	Alma St	Colorado Ave	0	0	0	0	0	0	0	1	0	0	0	0
9	Bryant St	Colorado Ave	0	44	5	29	2	5	1	56	1	2	1	5
10	Waverley St	Colorado Ave	5	4	0	0	51	1	0	0	0	2	4	2
11	Bryant St	Oregon Expy	0	52	0	0	0	0	0	120	0	0	0	0
12	Alma St	El Carmelo Ave	0	0	0	0	0	0	0	0	0	0	0	0
13	Emerson St	El Carmelo Ave	0	0	0	0	0	0	2	0	0	1	4	0
14	Ramona St	El Carmelo Ave	0	1	0	0	0	1	1	0	0	1	8	0
15	Bryant St	El Carmelo Ave	0	57	1	0	0	1	0	96	0	0	4	5
16	Waverley St	El Carmelo Ave	1	23	0	0	0	0	0	1	0	5	0	0
17	Alma St	Loma Verde Ave	0	0	0	0	0	0	0	0	0	0	0	0
18	Emerson St	Loma Verde Ave	1	1	4	0	1	1	1	0	0	1	2	0
19	Ramona St	Loma Verde Ave	1	2	1	0	7	1	0	1	0	0	1	1
20	Bryant St	Loma Verde Ave	0	25	7	19	4	8	0	83	1	4	2	1
21	Waverley St	Loma Verde Ave	0	30	1	0	34	12	0	0	1	1	9	0

NOTES: Growth Rate of 1.099 was applied to existing volumes uniformly on each movement to represent the growth from 2026 to 2031

SBR: Southbound Right

NBR: Northbound Right

SBT: Southbound Through

NBT: Northbound Through

SBL: Southbound Left

NBL: Northbound Left

WBR: Westbound Right

EBR: Eastbound Right

WBT: Westbound Through

EBT: Eastbound Through

WBL: Westbound Left

EBL: Eastbound Left

Weekday AM Peak Hour: 8 AM - 9 AM

Appendix A

Future 2031 Weekday AM Peak Hour Multimodal Counts

Intersection	N-S Street	E-W Street	Total Hourly Counts				% Total Hourly Counts			
			Peds	Bikes	Veh	All	Peds	Bikes	Veh	All
1	Alma St	El Dorado Ave	8	1	2,594	2,603	0%	0%	100%	100%
2	Emerson St	El Dorado Ave	7	9	90	106	7%	8%	85%	100%
3	Ramona St	El Dorado Ave	12	15	91	118	10%	13%	77%	100%
4	Bryant St	El Dorado Ave	43	91	107	241	18%	38%	44%	100%
5	South Ct	El Dorado Ave	19	20	91	130	15%	15%	70%	100%
6	Waverley St	El Dorado Ave	48	30	278	356	13%	8%	78%	100%
7	Cowper St	El Dorado Ave	18	48	195	261	7%	18%	75%	100%
8	Alma St	Colorado Ave	12	1	2,434	2,447	0%	0%	99%	100%
9	Bryant St	Colorado Ave	36	110	201	347	10%	32%	58%	100%
10	Waverley St	Colorado Ave	27	64	280	371	7%	17%	75%	100%
11	Bryant St	Oregon Expy	27	127	3,266	3,420	1%	4%	95%	100%
12	Alma St	El Carmelo Ave	7	0	2,545	2,552	0%	0%	100%	100%
13	Emerson St	El Carmelo Ave	5	7	127	139	4%	5%	91%	100%
14	Ramona St	El Carmelo Ave	23	11	142	176	13%	6%	81%	100%
15	Bryant St	El Carmelo Ave	178	87	158	423	42%	21%	37%	100%
16	Waverley St	El Carmelo Ave	23	28	256	307	7%	9%	83%	100%
17	Alma St	Loma Verde Ave	7	0	2,572	2,579	0%	0%	100%	100%
18	Emerson St	Loma Verde Ave	15	12	385	412	4%	3%	93%	100%
19	Ramona St	Loma Verde Ave	79	14	459	552	14%	3%	83%	100%
20	Bryant St	Loma Verde Ave	130	77	491	698	19%	11%	70%	100%
21	Waverley St	Loma Verde Ave	50	80	660	790	6%	10%	84%	100%

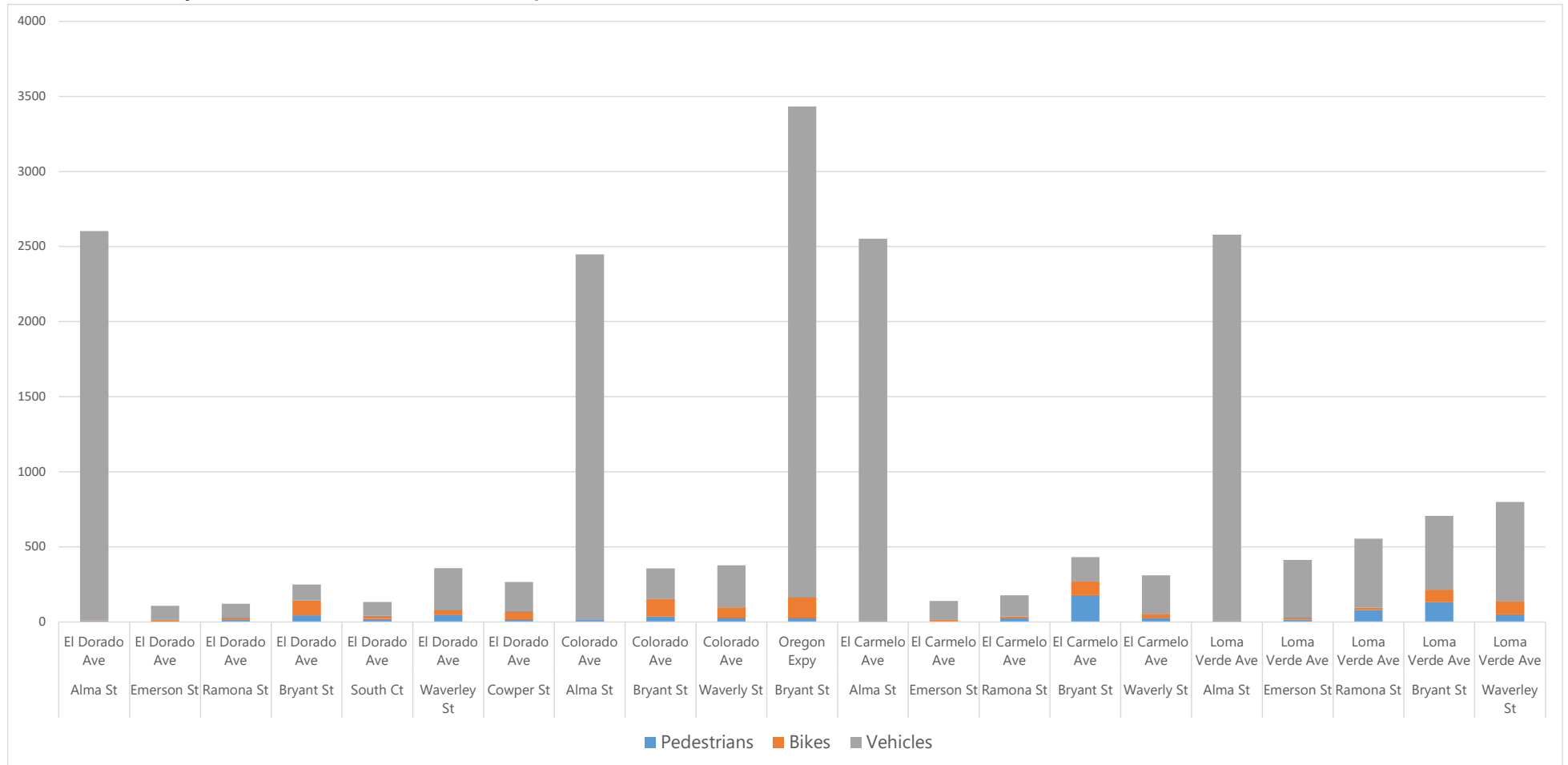
Peds: Pedestrians

Veh: Vehicles

Weekday AM Peak Hour: 8 AM - 9 AM

Appendix A

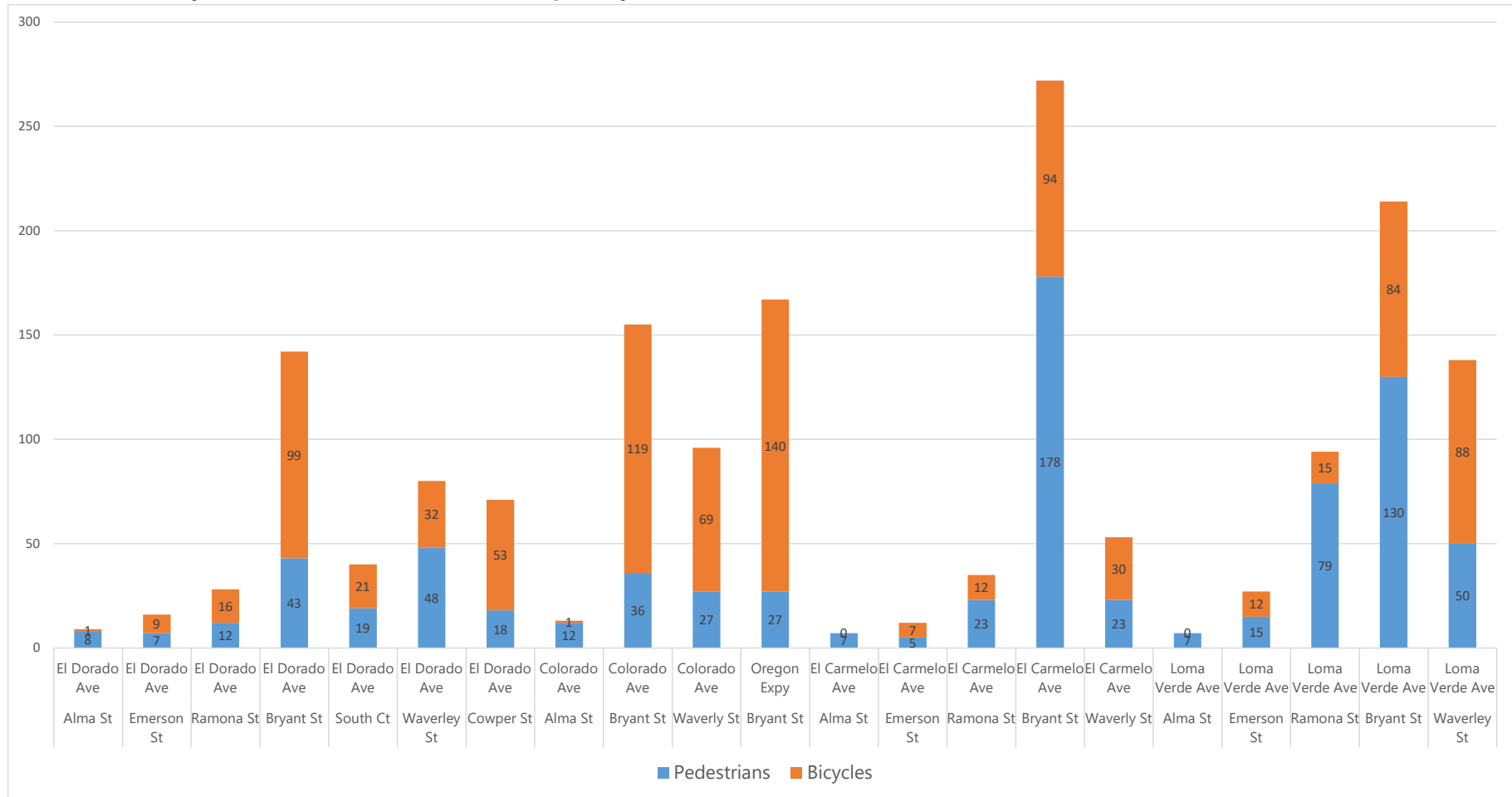
Future 2031 Weekday AM Peak Hour Multimodal Counts Graph



Weekday AM Peak Hour: 8 AM - 9 AM

Appendix A

Future 2031 Weekday AM Peak Hour Multimodal Counts Graph (Only Bike and Pedestrian)



Weekday AM Peak Hour: 8 AM - 9 AM

Appendix A

Daily Volumes Comparison

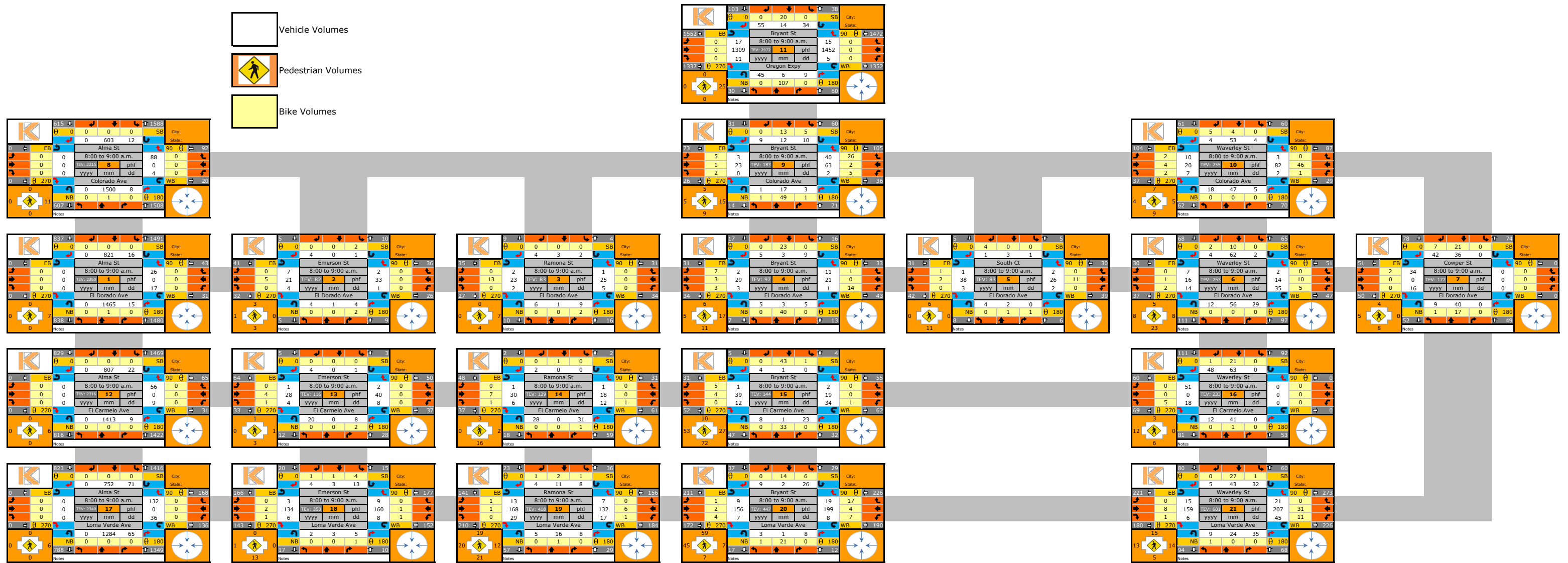
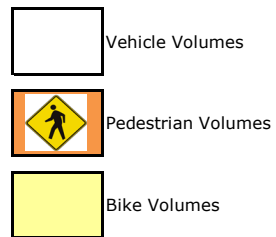
Street Name	Cross Streets		Direction	AM Peak Hour		PM Peak Hour		Daily (AM)		Daily (PM)		Daily (Average)		7AM - 7 PM	
				N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W	N/E	S/W
Colorado	Bryant	Waverley	EW	37	105	54	65	370	1,050	540	650	455	850	327	640
El Dorado	Ramona	Bryant	EW	34	31	39	26	340	310	390	260	365	285	323	306
El Carmelo	Ramona	Bryant	EW	52	31	30	20	520	310	300	200	410	255	251	209
Loma Verde	Ramona	Bryant	EW	172	156	271	283	1,720	1,560	2,710	2,830	2,215	2,195	1,481	1,708
Bryant	El Dorado	Colorado	NS	21	9	8	6	210	90	80	60	145	75	159	481
Waverley	El Dorado	Colorado	NS	70	68	36	71	700	680	360	710	530	695	415	582
Cowper	El Dorado		NS	49	78	38	81	490	780	380	810	435	795	406	624
Oregon	Bryant		EW	1,337	1,472	1,623	1,093	13,370	14,720	16,230	10,930	14,800	12,825	15,168	14,607

Weekday AM Peak Hour: 8 AM - 9 AM

Based on the Loma Verde/Alma Count Report, the PM peak hour is from 4:45-5:45 PM

Appendix A

Existing AM Volume Network Tool



Vehicle Volumes

Pedestrian Volumes

Bike Volumes

