

Figure 5.3c: Opening Year I 2026 With Project AM Peak Hour PCE Traffic Volumes (Continued)

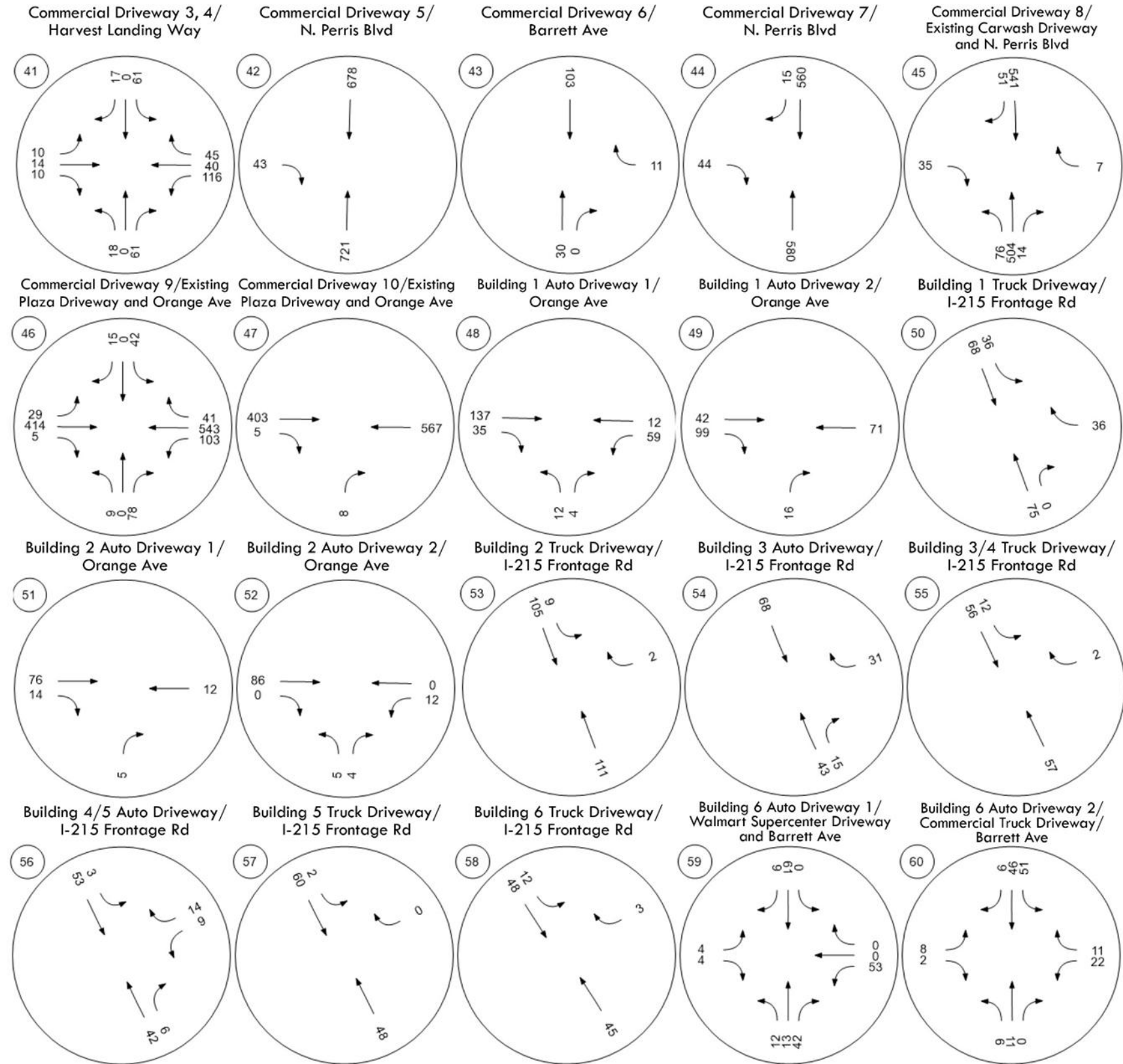
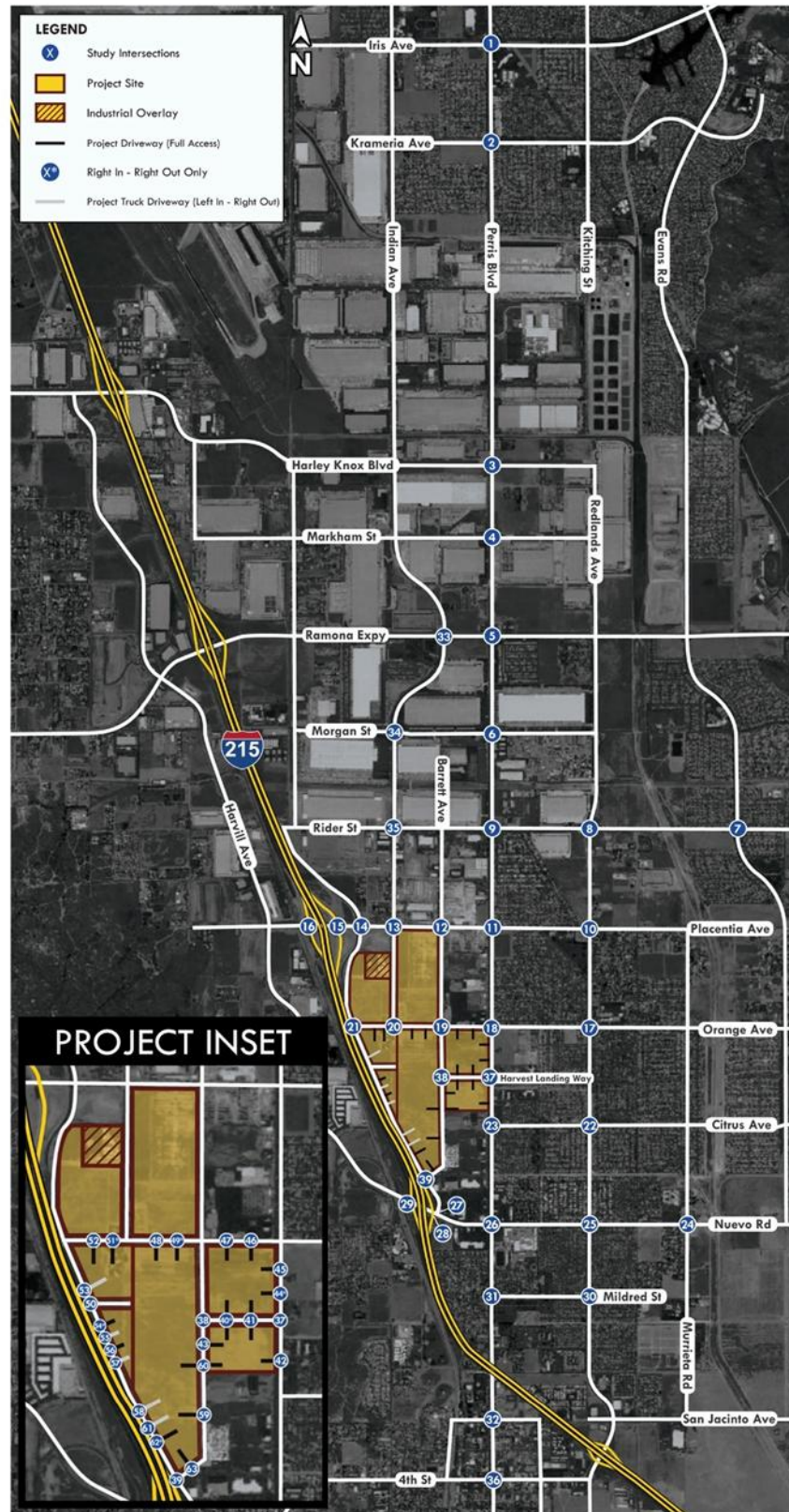


Figure 5.3d: Opening Year I 2026 With Project AM Peak Hour PCE Traffic Volumes (Continued)

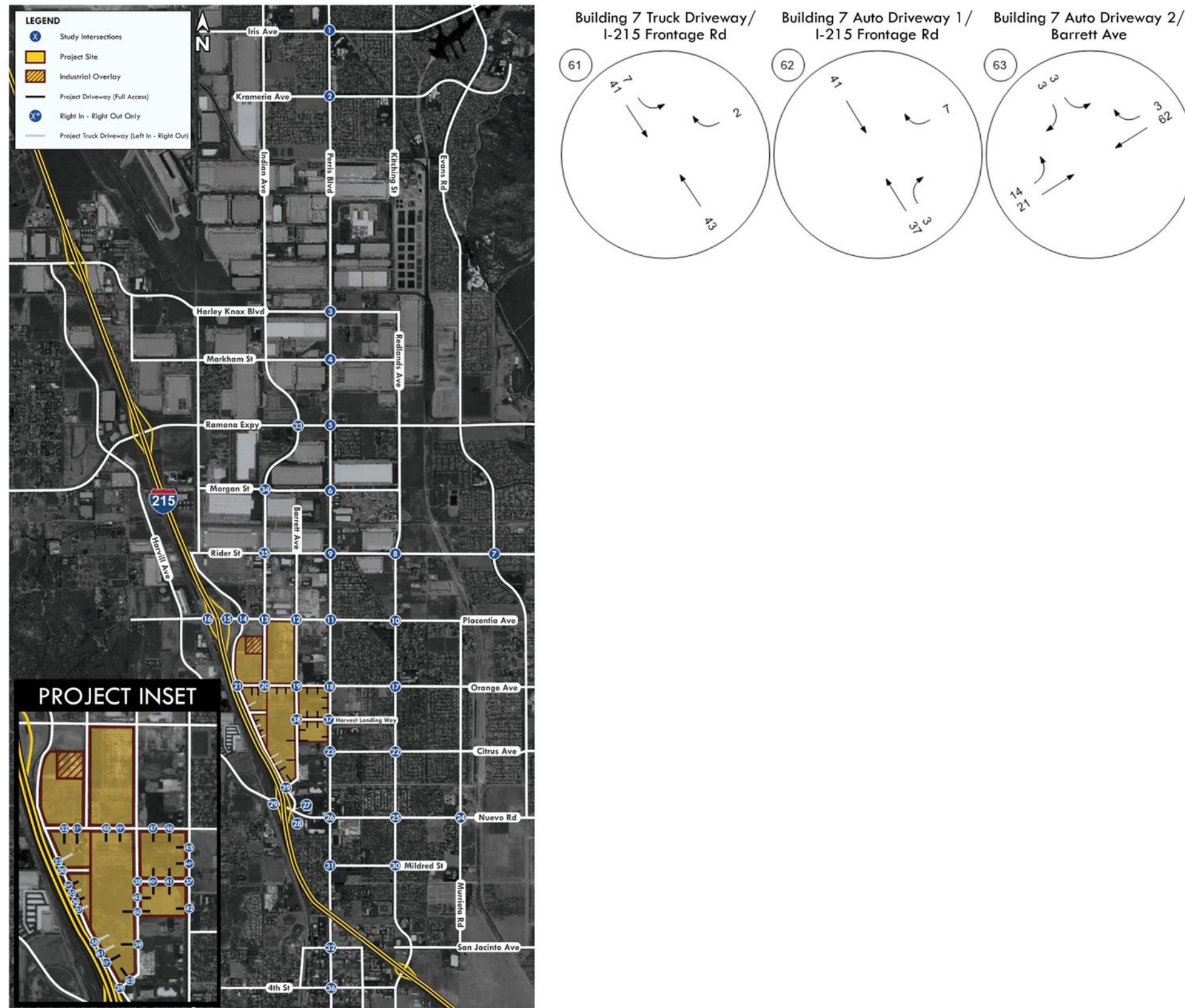


Figure 5.4a: Opening Year I 2026 With Project PM Peak Hour PCE Traffic Volumes

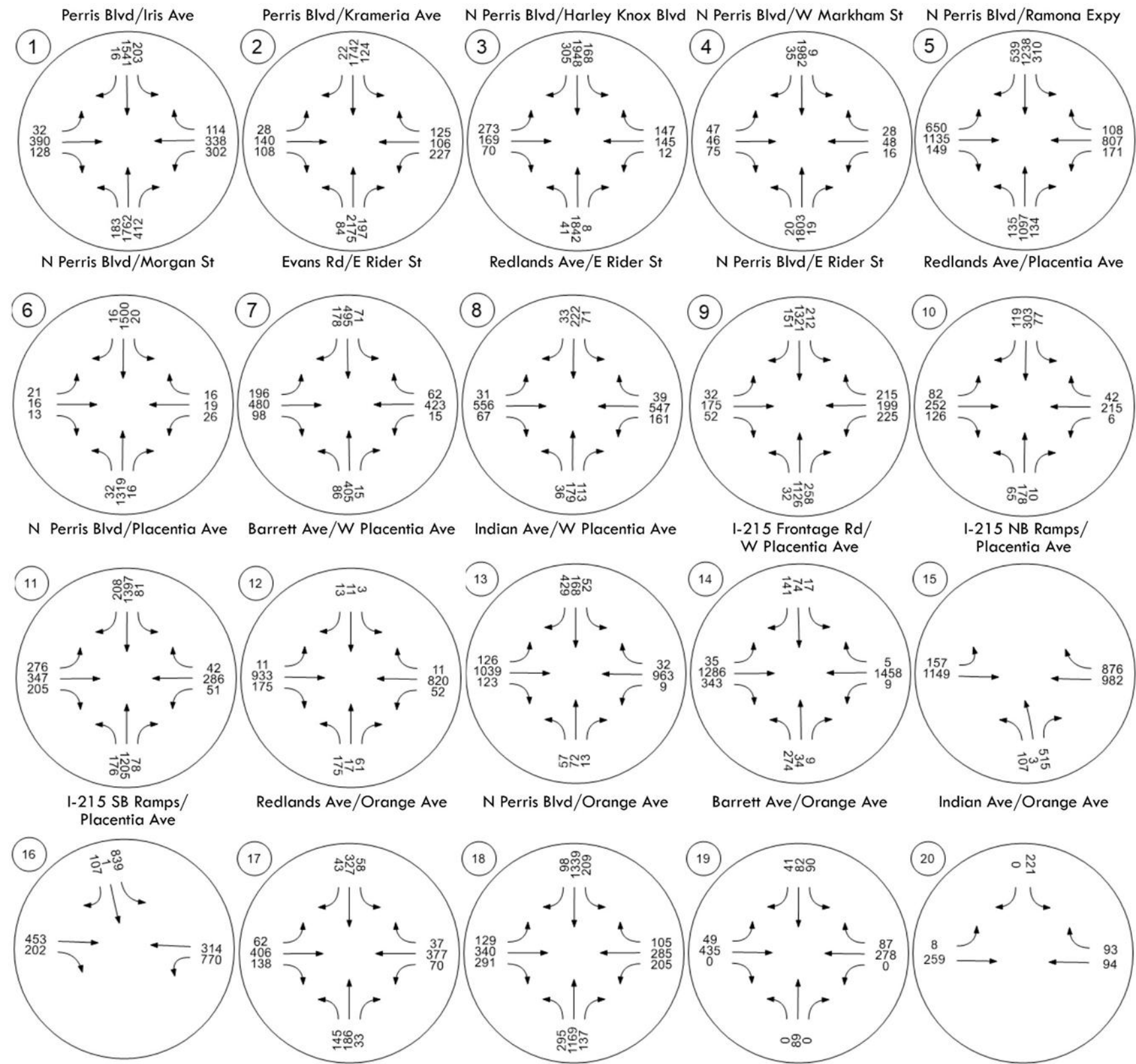
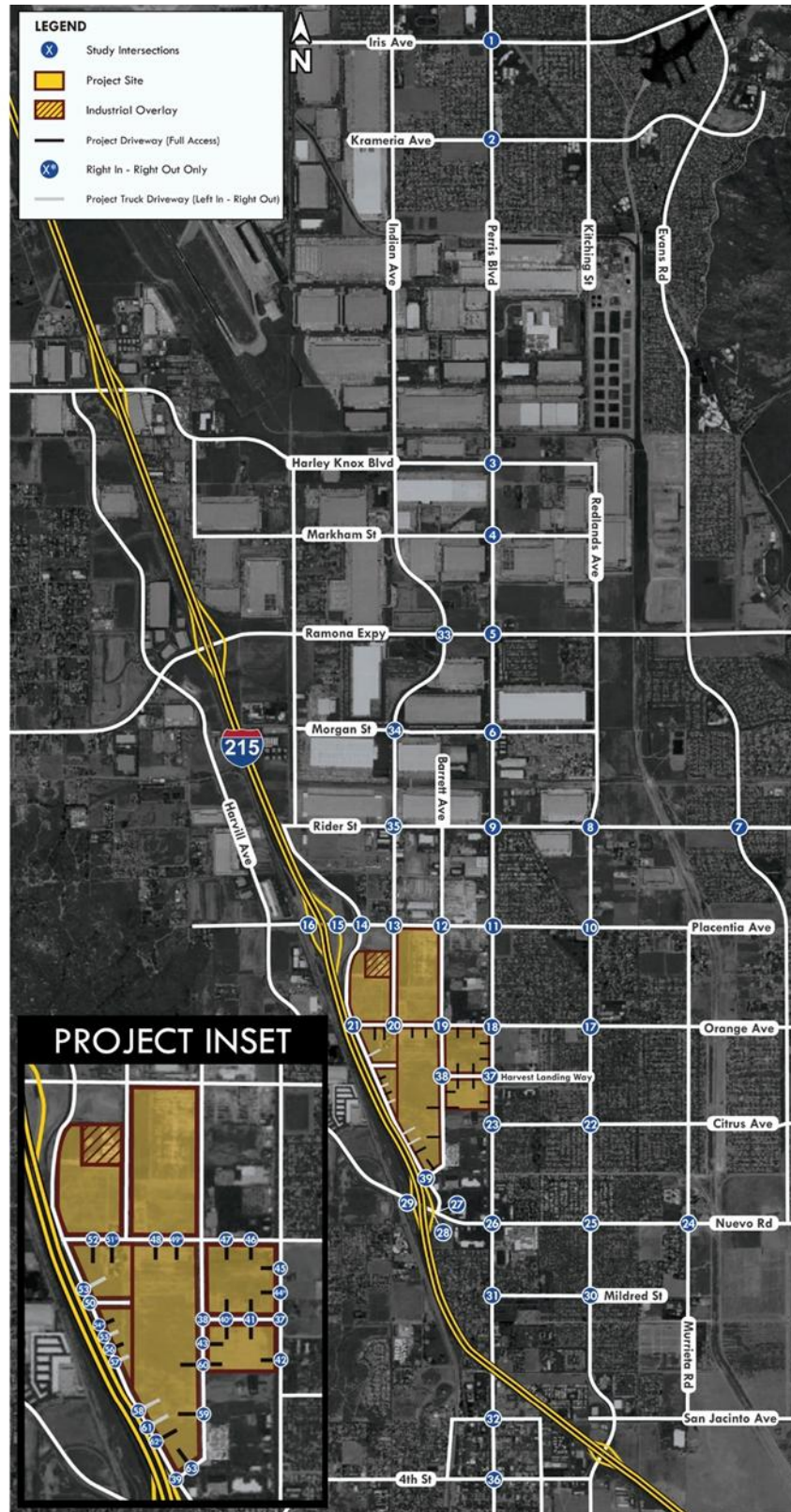


Figure 5.4b: Opening Year I 2026 With Project PM Peak Hour PCE Traffic Volumes (Continued)

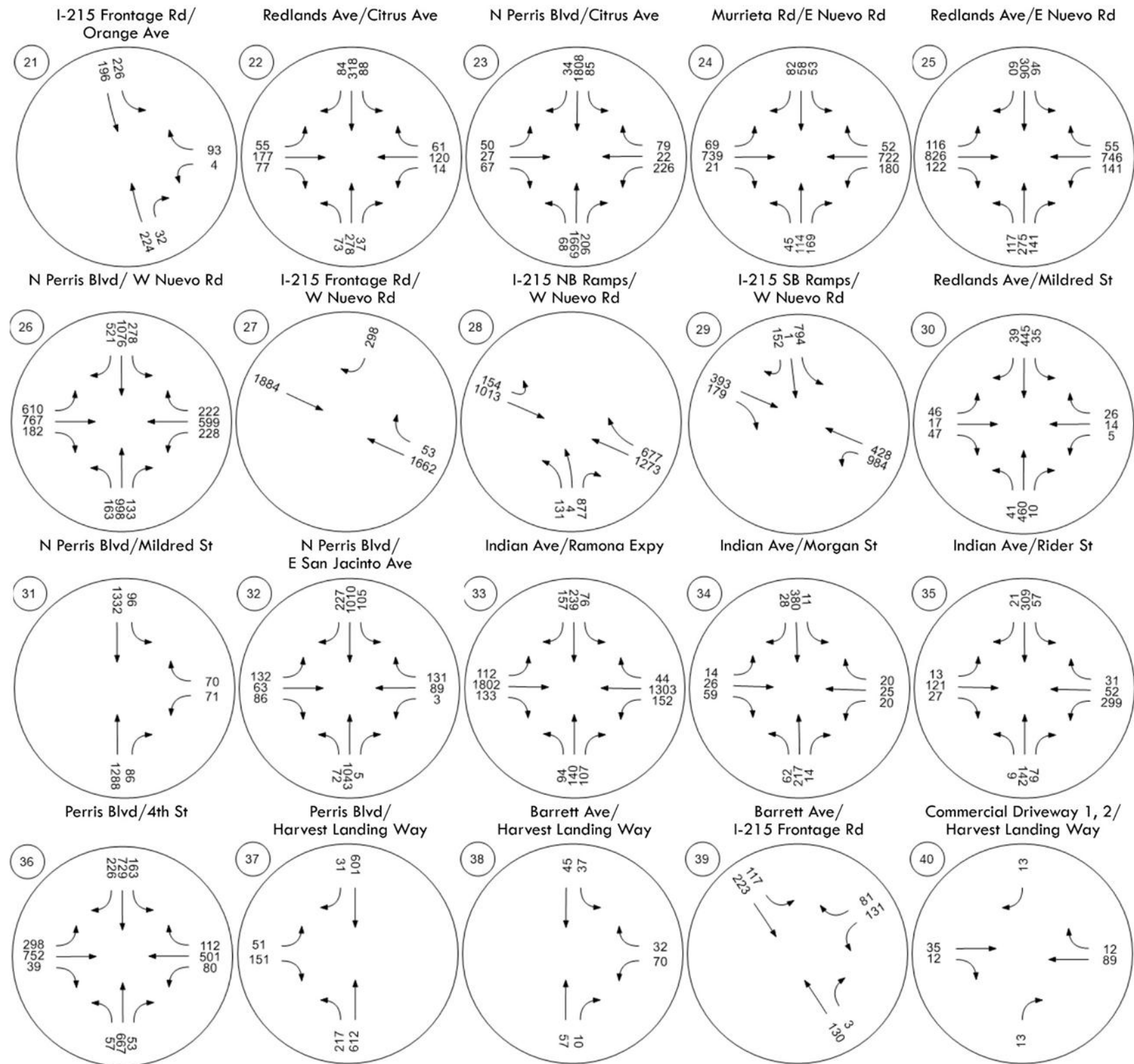


Figure 5.4c: Opening Year I 2026 With Project PM Peak Hour PCE Traffic Volumes (Continued)

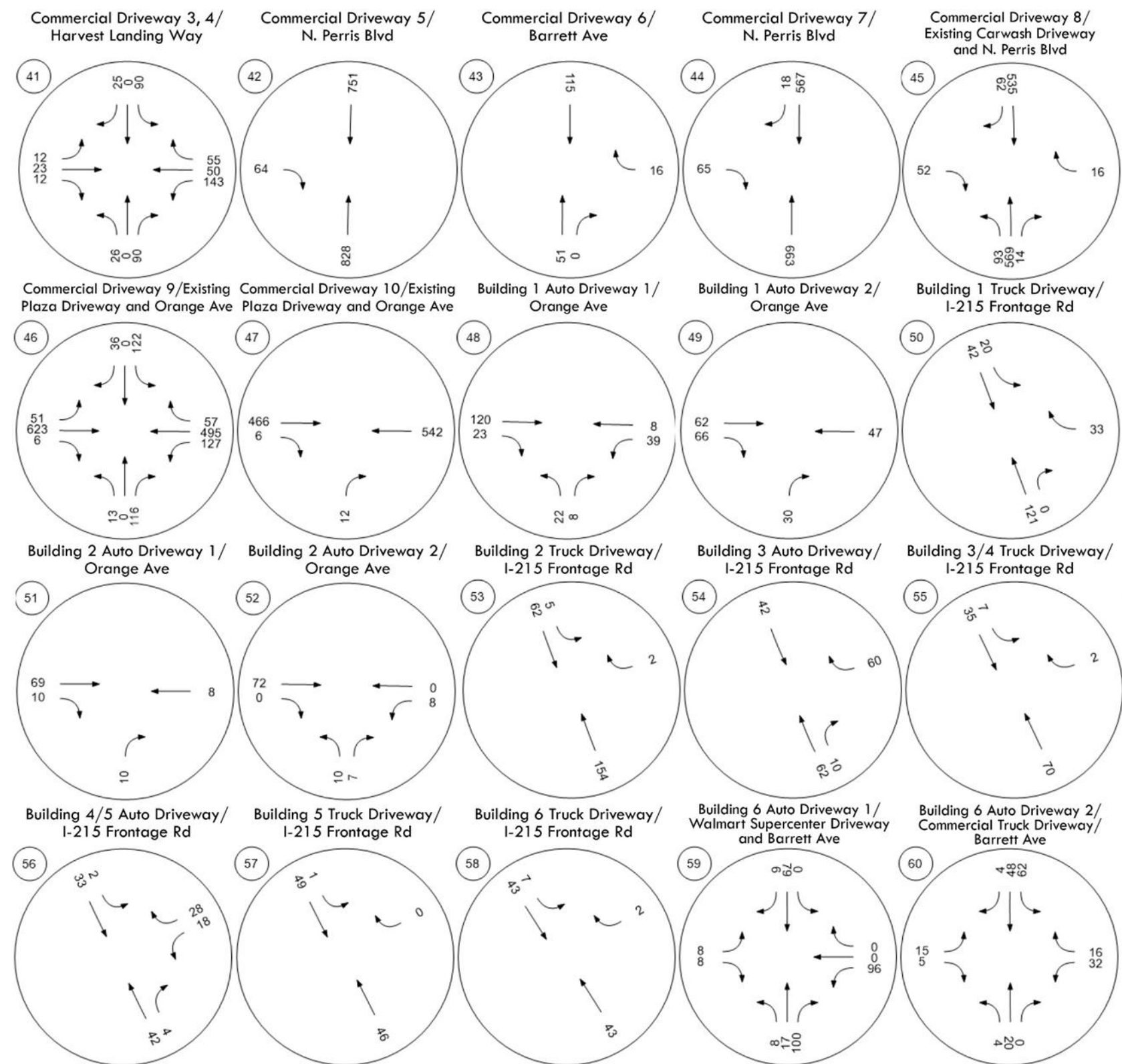
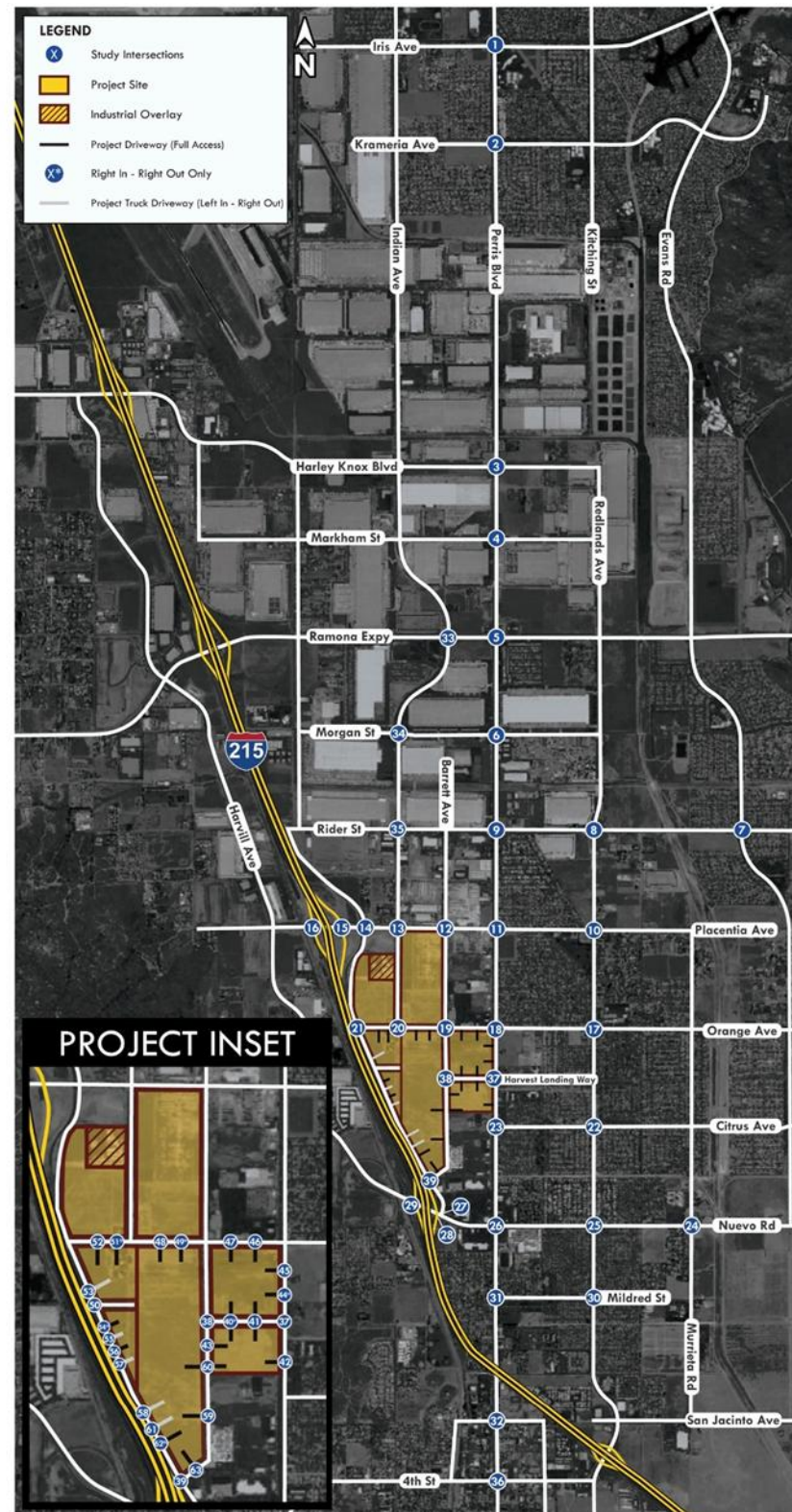
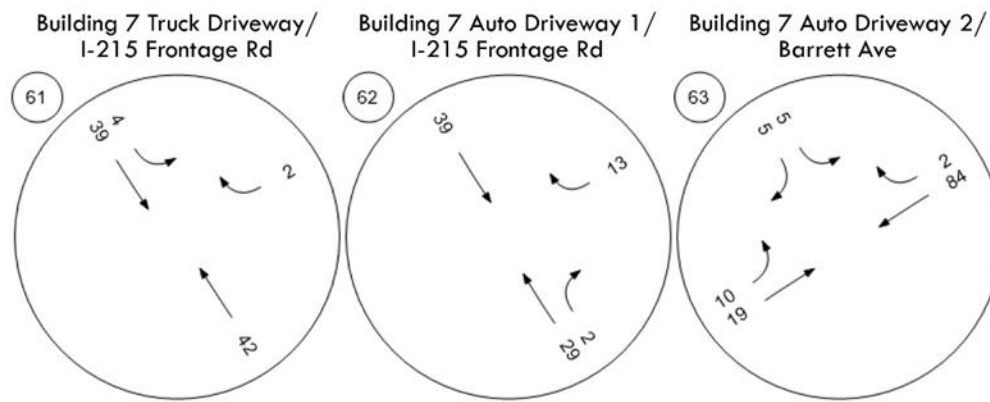
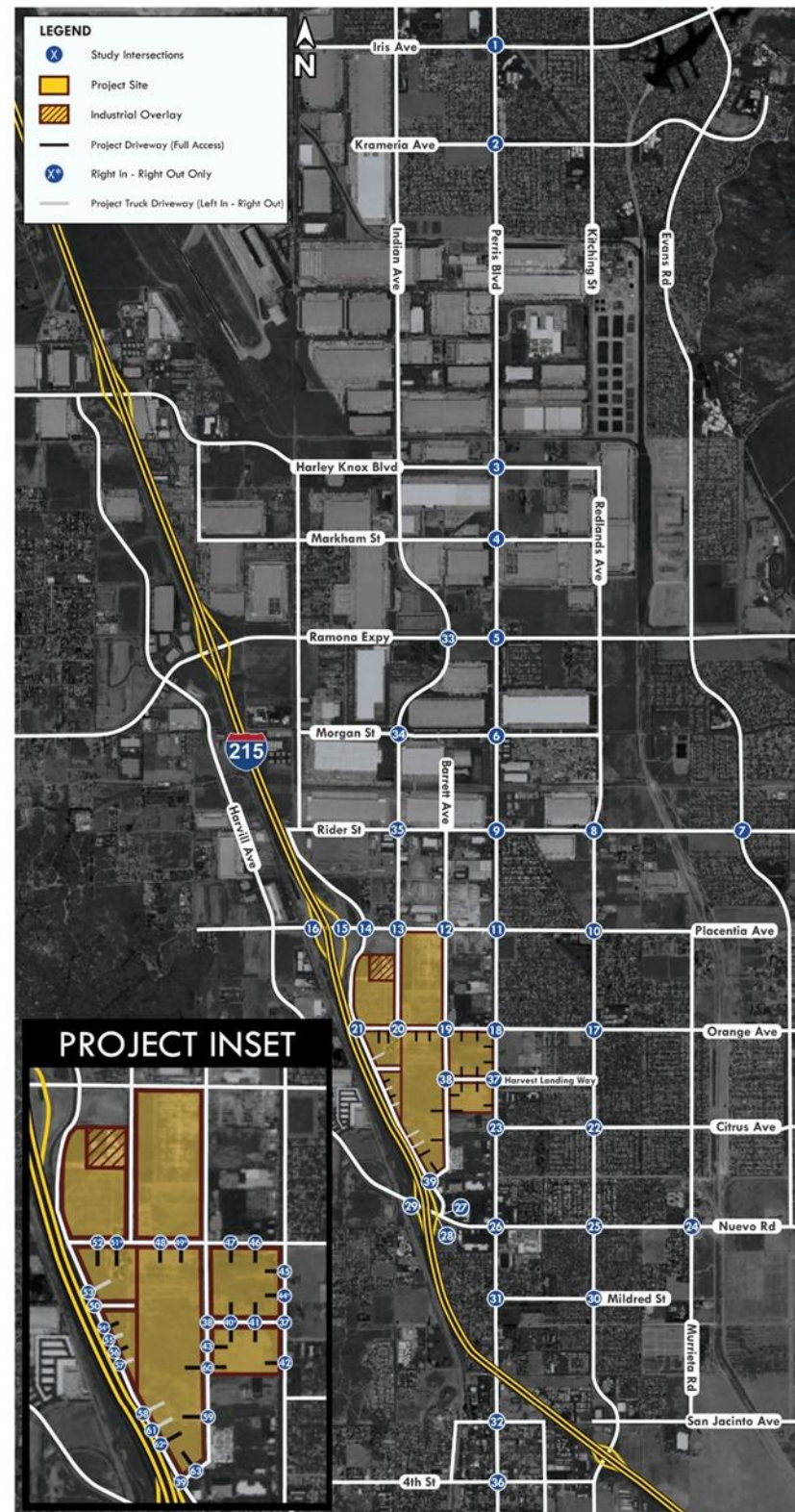


Figure 5.4d: Opening Year I 2026 With Project PM Peak Hour PCE Traffic Volumes (Continued)



5.2 Opening Year II 2030 with Project Traffic Conditions

Opening Year II 2030 With Project traffic volumes were determined by adding the Project trips to the Opening Year II 2030 Without Project traffic volumes. The Opening Year II 2030 With Project AM and PM peak hour traffic volumes at the study area intersections are shown in Figure 5.7 and Figure 5.8 respectively. The Opening Year II 2030 Project trip assignments for the AM and PM peak hour are shown in Figure 5.5 and Figure 5.6, respectively.

The Project proposes to remove 2,700 feet of Indian Avenue between Orange Avenue and I-215 Frontage Road South. The Project would also construct the planned segment of Barrett Ave south of Orange Avenue from Orange Avenue to the existing southern portion of Barrett Avenue that connects to I-215 Frontage Road. As part of the analysis for this scenario, the inbound trips to Indian Avenue at intersection #20 (Indian Avenue/Orange Avenue) were redirected to intersection #21 (I-215 Frontage Rd/Orange Ave) and ultimately to intersection #39 (Barrett Ave/I-215 Frontage Road). Additionally, the outbound trips originating from Indian Avenue were rerouted from intersection #39 (Barrett Ave/I-215 Frontage Road) to intersection #19 (Barrett Ave/Orange Ave), and finally to intersection #20 (Indian Avenue/Orange Ave) as a westbound right-turn.

An intersection operations analysis was conducted for the study area to evaluate the Opening Year II 2030 With Project AM and PM peak hour conditions. Intersection operations were calculated using the LOS methodology described previously in Section 2.3 - Methodology. Table 5.5 provides a comparison between the Opening Year II 2030 Without and With-Project scenarios.

As shown in Table 5.5, the following 13 intersections would operate at an unsatisfactory LOS under the Opening Year II 2030 With Project conditions:

- #1. Perris Blvd/Iris Ave (LOS F during AM and LOS E during PM peak hour)
- #2. Perris Blvd/Krameria Ave (LOS E during AM and PM peak hour)
- #5. Perris Blvd/Ramona Expy (LOS F during AM peak hour)
- #11. N Perris Blvd/Placentia Ave (LOS E during PM peak hour)
- #13. Indian Ave/W Placentia Ave (LOS E during AM and PM peak hour)
- #14. I-215 Frontage Rd/W Placentia Ave (LOS E during AM peak hour and LOS F during PM peak hour)
- #18. N Perris Blvd/Orange Ave (LOS E during AM peak hour and LOS F during PM peak hour)
- #21. I-215 Frontage Rd/Orange Ave (LOS F during AM and PM peak hour)
- #24. Murrieta Rd/E Nuevo Rd (LOS E during AM peak hour)
- #26. N Perris Blvd/ W Nuevo Rd (LOS F during AM and PM peak hour)
- #27. I-215 Frontage Rd/W Nuevo Rd (LOS F during AM and PM peak hour)
- #30. Redlands Ave/Midred St (LOS E during AM peak hour)
- #36. Perris Blvd/4th St (LOS F during AM and PM peak hour)

Recommended improvements for the intersections with an unsatisfactory LOS can be found in Section 6.

Table 5.5: Opening Year II 2030 With Project AM and PM Peak Hour LOS

Intersection	Jurisdiction	Control Type	Opening Year II 2030 Conditions				Opening Year II 2030 Plus Project Conditions				Difference		LOS Standard	Satisfactory?
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak	PM Peak		
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Delay		
1. Perris Blvd/Iris Ave	City of Moreno Valley	Signalized	84.3	F	61.5	E	92.3	F	65.9	E	8.0	4.4	D	No
2. Perris Blvd/Krameria Ave	City of Moreno Valley	Signalized	64.6	E	57.7	E	76.7	E	70.1	E	12.1	12.4	D	No
3. N Perris Blvd/Harley Knox Blvd	City of Perris	Signalized	37.4	D	38.6	D	37.8	D	39.2	D	0.4	0.6	D	Yes
4. N Perris Blvd/W Markham St	City of Perris	Signalized	17.2	B	16.8	B	20.1	C	18.2	B	2.9	1.4	D	Yes
5. N Perris Blvd/Ramona Expy	City of Perris	Signalized	92.4	F	59.3	E	104.3	F	73.7	E	11.9	14.4	E	No
6. N Perris Blvd/Morgan St	City of Perris	Signalized	12.6	B	11.5	B	13.1	B	11.7	B	0.5	0.2	D	Yes
7. Evans Rd/E Rider St	City of Perris	Signalized	35.8	D	29.8	C	36.9	D	33.0	C	1.1	3.2	D	Yes
8. Reulands Ave/E Rider St	City of Perris	Signalized	31	C	38.7	D	31.7	C	40.3	D	-0.7	1.6	D	Yes
9. N Perris Blvd/E Rider St	City of Perris	Signalized	30.2	C	29.7	C	31.0	C	32.3	C	0.8	2.6	D	Yes
10. Reulands Ave/Placentia Ave	City of Perris	All-way stop	20.6	C	22.8	C	23.9	C	33.2	D	3.3	10.4	D	Yes
11. N Perris Blvd/Placentia Ave	City of Perris	Signalized	41.5	D	34.2	C	52.7	D	59.3	E	11.2	25.1	D	No
12. Barrett Ave/W Placentia Ave	City of Perris	Signalized	30.9	D	19.6	C	33.9	C	27.1	C	3.0	7.5	D	Yes
13. Indian Ave/W Placentia Ave	City of Perris	Signalized	41.3	D	39	D	59.0	E	61.9	E	17.7	22.9	D	No
14. I-215 Frontage Rd/W Placentia Ave	City of Perris	Signalized	29.4	C	21.1	C	76.2	E	245.9	F	46.8	224.8	D	No
15. I-215 NB Ramps/Placentia Ave	Caltrans/City of Perris	Signalized	15.3	B	28.2	C	14.2	B	23.4	C	-1.1	-4.8	E	Yes
16. I-215 SB Ramps/Placentia Ave	Caltrans/City of Perris	Signalized	17.0	B	22.8	C	22.1	C	71.2	E	5.1	48.4	E	Yes
17. Reulands Ave/Orange Ave	City of Perris	Signalized	26.4	C	29.1	C	43.0	D	32.4	C	16.6	3.3	D	Yes
18. N Perris Blvd/Orange Ave	City of Perris	Signalized	26.1	C	39.4	D	60.5	E	125.9	F	34.4	86.5	D	No
19. Barrett Ave/Orange Ave	City of Perris	Signalized	21.8	C	16.6	C	20.9	C	14.4	B	-0.9	-2.2	D	Yes
20. Indian Ave/Orange Ave	City of Perris	Signalized	14.8	B	12.8	B	16.3	B	11.7	B	1.5	-1.1	D	Yes
21. I-215 Frontage Rd/Orange Ave	City of Perris	Signalized	15.5	C	16.1	C	111.7	F	166.0	F	96.2	149.9	D	No
22. Reulands Ave/Citrus Ave	City of Perris	All-way stop	13	B	14.9	B	14.9	B	18.8	C	1.9	3.9	D	Yes
23. N Perris Blvd/Citrus Ave	City of Perris	Signalized	15.9	B	22.4	C	16.8	B	32.1	C	0.9	9.7	D	Yes
24. Murrieta Rd/E Nuevo Rd	City of Perris	Signalized	42.2	D	32.1	C	57.9	E	32.7	C	15.7	0.6	D	No
25. Reulands Ave/E Nuevo Rd	City of Perris	Signalized	23.8	C	23.3	C	27.5	C	48.2	D	3.7	24.9	D	Yes
26. N Perris Blvd/W Nuevo Rd	City of Perris	Signalized	48.1	D	44.2	D	84.0	F	82.6	F	35.9	38.4	D	No
27. I-215 Frontage Rd/W Nuevo Rd	City of Perris	Two-way stop	24.5	C	39.3	F	40.5	F	169.4	F	16.0	130.1	D	No
28. I-215 NB Ramps/W Nuevo Rd	Caltrans/City of Perris	Signalized	21.1	C	23.0	C	21.6	C	24.1	C	0.5	1.1	E	Yes
29. I-215 SB Ramps/W Nuevo Rd	Caltrans/City of Perris	Signalized	19.5	B	30.1	C	29.4	C	76.6	E	9.9	46.5	E	Yes
30. Reulands Ave/Mildred St	City of Perris	All-way stop	32.5	D	15.9	C	37.4	E	17.7	C	4.9	1.8	D	No
31. N Perris Blvd/Mildred St	City of Perris	Signalized	18.3	B	8.4	A	23.8	C	9.8	A	5.5	1.4	D	Yes
32. N Perris Blvd/E San Jacinto Ave	City of Perris	Signalized	29.9	C	22.1	C	40.5	D	24.1	C	10.6	2.0	D	Yes
33. Indian Ave/Ramona Expy	City of Perris	Signalized	36.7	D	42.9	D	37.3	D	44.5	D	0.6	1.6	E	Yes
34. Indian Ave/Morgan St	City of Perris	Signalized	20.5	C	16.8	B	19.7	B	16.0	B	-0.8	-0.8	D	Yes
35. Indian Ave/Rider St	City of Perris	Signalized	22.4	C	29.2	C	21.6	C	28.3	C	-0.8	-0.9	D	Yes
36. Perris Blvd/4th St	Caltrans/City of Perris	Signalized	72.1	E	63.8	E	93.2	F	91.4	F	21.1	27.6	E	No
37. Perris Blvd/Harvest Landing Way	City of Perris	Signalized	-	-	-	-	10.2	B	12.8	B	-	-	D	Yes
38. Barrett Ave/Harvest Landing Way	City of Perris	All-way stop	-	-	-	-	8.4	A	8.6	A	-	-	D	Yes
39. Barrett Ave/I-215 Frontage Road	City of Perris	Signalized	13.4	B	15.5	C	17.0	B	16.0	B	3.6	0.5	D	Yes
40. Commercial Driveway 1, 2 and Harvest Landing Way	City of Perris	Two-way stop	-	-	-	-	8.5	A	8.6	A	-	-	D	Yes
41. Commercial Driveway 3, 4 and Harvest Landing Way	City of Perris	Two-way stop	-	-	-	-	12.7	B	15.1	C	-	-	D	Yes
42. Commercial Driveway 5 and N. Perris Blvd	City of Perris	Two-way stop	-	-	-	-	12.1	B	13.5	B	-	-	D	Yes
43. Commercial Driveway 6 and Barrett Ave	City of Perris	Two-way stop	-	-	-	-	8.6	A	9.0	A	-	-	D	Yes
44. Commercial Driveway 7 and N. Perris Blvd	City of Perris	Two-way stop	-	-	-	-	11.4	B	12.3	B	-	-	D	Yes
45. Commercial Driveway 8 and N. Perris Blvd	City of Perris	Two-way stop	10.3	B	10.6	B	11.9	B	13.0	B	-	-	D	Yes
46. Commercial Driveway 9/Existing Plaza Driveway and Orange Ave	City of Perris	Signalized	24.4	C	45.9	E	9.2	A	12.2	B	-15.2	-33.7	D	Yes
47. Commercial Driveway 10/Orange Ave	City of Perris	Two-way stop	-	-	-	-	10.3	B	11.0	B	-	-	D	Yes
48. Building 1 Auto Driveway 1 and Orange Ave	City of Perris	Two-way stop	-	-	-	-	13.2	B	12.0	B	-	-	D	Yes
49. Building 1 Auto Driveway 2 and Orange Ave	City of Perris	Two-way stop	-	-	-	-	8.9	A	9.7	A	-	-	D	Yes
50. Building 1 Truck Driveway and I-215 Frontage Rd	City of Perris	Signalized	-	-	-	-	3.2	A	3.0	A	-	-	D	Yes
51. Building 2 Auto Driveway 1 and Orange Ave	City of Perris	Two-way stop	-	-	-	-	8.9	A	8.7	A	-	-	D	Yes
52. Building 2 Auto Driveway 2 and Orange Ave	City of Perris	Two-way stop	-	-	-	-	19.9	C	13.9	B	-	-	D	Yes
53. Building 2 Truck Driveway and I-215 Frontage Rd	City of Perris	Two-way stop	-	-	-	-	9.1	A	8.8	A	-	-	D	Yes
54. Building 3 Auto Driveway and I-215 Frontage Rd	City of Perris	Two-way stop	-	-	-	-	9.1	A	8.8	A	-	-	D	Yes
55. Building 3 Auto Driveway and I-215 Frontage Rd	City of Perris	Two-way stop	-	-	-	-	8.9	A	8.6	A	-	-	D	Yes
56. Building 3/4 Truck Driveway and I-215 Frontage Rd	City of Perris	Two-way stop	-	-	-	-	10.3	B	9.8	A	-	-	D	Yes
57. Building 5 Truck Driveway and I-215 Frontage Rd	City of Perris	Two-way stop	-	-	-	-	7.7	A	7.4	A	-	-	D	Yes
58. Building 6 Truck Driveway and I-215 Frontage Rd	City of Perris	Two-way stop	-	-	-	-	8.9	A	8.5	A	-	-	D	Yes
59. Building 6 Auto Driveway 1/Walmart Supercenter Driveway and Barrett Ave	City of Perris	Two-way stop	-	-	-	-	10.6	B	11.6	B	-	-	D	Yes
60. Building 6 Auto Driveway 2 and Barrett Ave	City of Perris	Two-way stop	-	-	-	-	10.9	B	11.4	B	-	-	D	Yes
61. Building 7 Truck Driveway and I-215 Frontage Rd	City of Perris	Two-way stop	-	-	-	-	8.9	A	8.5	A	-	-	D	Yes
62. Building 7 Auto Driveway 1 and I-215 Frontage Rd	City of Perris	Two-way stop	-	-	-	-	8.9	A	8.5	A	-	-	D	Yes
63. Building 7 Auto Driveway 2 and Barrett Ave	City of Perris	Two-way stop	-	-	-	-	9.8	A	9.9	A	-	-	D	Yes

Notes: Delay Reported in Seconds per Vehicle

LOS = Level of Service

Unsatisfactory Level of Service

5.2.1 Opening Year II 2030 With Project Intersection Queueing Analysis

A queueing analysis was conducted at four study intersections during AM and PM peak hour involving ramps along the I-215. These intersections include Intersection #15 at I-215 Northbound Ramps and Placentia Avenue, Intersection #16 at I-215 Southbound Ramps and Placentia Avenue, Intersection #28 at I-215 Northbound Ramps and West Nuevo Road, and Intersection #29 at I-215 Southbound Ramps and West Nuevo Road. The required queueing length at the study area intersections were determined using 95-percentile queue length analysis. *Table 5.6* shows the queue lengths at each intersection approach. As shown in *Table 5.6*, queueing deficiencies were observed under Opening Year II 2030 With Project conditions, for the following approaches:

- #15. I-215 Northbound Ramps/Placentia Avenue – westbound right-turn lane (PM peak hour)
- #28. I-215 Northbound Ramps/West Nuevo Road – eastbound left-turn lane (AM and PM peak hour)
- #28. I-215 Northbound Ramps/West Nuevo Road – westbound right-turn lane (AM and PM peak hour)
- #29. I-215 Southbound Ramps/West Nuevo Road – southbound left-turn lane (PM peak hour)
- #29. I-215 Southbound Ramps/West Nuevo Road – westbound left-turn lane (PM peak hour)

Even though the queue length for the NBR at intersection #15 exceeds the available storage length, it can still be safely accommodated. This is due to the fact that the queue falls within the additional 100 feet of storage provided beyond the striped storage lane that extends past the NBR lane. Similarly, an additional 260 feet of storage is provided beyond the NBR and NBL at intersection #28, an additional 360 feet of storage is provided for the SBL at intersection #29, as well as an additional 600 feet beyond the SBL at intersection #16, ensuring that the additional queue can also be safely accommodated.

Table 5.6: Opening Year II 2030 With Project AM and PM Peak Hour Queuing Analysis

	Opening Year II 2030 Conditions								Opening Year II 2030 Plus Project Conditions								Difference							
	Northbound		Southbound		Eastbound		Westbound		Northbound		Southbound		Eastbound		Westbound		Northbound		Southbound		Eastbound		Westbound	
	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT
15. I-215 NB Ramps/Placentia Ave																								
Storage Length Per Lane	570	570***	-	-	280	-	-	390	570	570***	-	-	280	-	-	390	570	570***	-	-	280	-	-	390
AM Queue Length Per Lane	60	270	-	-	40	-	-	205	105	575	-	-	40	-	-	230	45	305	-	-	0	-	-	25
PM Queue Length Per Lane	50	275	-	-	135	-	-	595	100	605	-	-	125	-	-	1160	50	330	-	-	-10	-	-	565
16. I-215 SB Ramps/Placentia Ave																								
Storage Length Per Lane	-	-	340****	340	-	320	315	-	-	-	340****	340	-	320	315	-	-	-	340****	340	-	320	315	-
AM Queue Length Per Lane	-	-	95	40	-	40	95	-	-	-	350	40	-	40	125	-	-	-	255	0	-	0	30	-
PM Queue Length Per Lane	-	-	225	45	-	120	250	-	-	-	940	60	-	115	310	-	-	-	715	15	-	-5	60	-
28. I-215 NB Ramps/W Nuevo Rd																								
Storage Length Per Lane	170*	170*	-	-	135	-	-	200	170*	170*	-	-	135	-	-	200	170*	170*	-	-	135	-	-	200
AM Queue Length Per Lane	225	185	-	-	155	-	-	350	235	240	-	-	155	-	-	355	10	55	-	-	0	-	-	5
PM Queue Length Per Lane	110	230	-	-	225	-	-	410	115	320	-	-	225	-	-	415	5	90	-	-	0	-	-	5
29. I-215 SB Ramps/W Nuevo Rd																								
Storage Length Per Lane	-	-	185**	185	-	N/A	315	-	-	-	185**	185	-	N/A	315	-	-	-	185**	185	-	N/A	315	-
AM Queue Length Per Lane	-	-	215	100	-	260	165	-	-	-	365	120	-	260	205	-	-	-	150	20	-	0	40	-
PM Queue Length Per Lane	-	-	390	95	-	285	310	-	-	-	960	120	-	285	380	-	-	-	570	25	-	0	70	-

Notes:

Queuing Impacts

LT = Left-turn Lane, RT = Right-turn Lane

Queue length reported in feet for the AM(PM) peak periods and are rounded up to the nearest increment of 5 feet.

* There is an additional 260 feet of storage provided beyond the back of the striping storage pocket that extends past the NBR and NBL lanes.

** There is an additional 360 feet of storage provided beyond the back of the striping storage pocket that extends past the SBL lanes.

*** There is an additional 100 feet of storage provided beyond the back of the striping storage pocket that extends past the NBR lanes.

**** There is an additional 600 feet of storage provided beyond the back of the striping storage pocket that extends past the SBL lanes.

5.2.2 Opening Year II 2030 With Project Driveways Queueing Analysis

A full queueing analysis was conducted at all the Project driveways under the Opening Year II 2030 With Project Conditions to ensure that queueing remains within acceptable storage limits. Driveway access spacing is in accordance with Riverside County Standard Plan No. 114, and the driveway spacing measurements have been provided in Appendix F.

The required queueing length at the study area intersections were determined using 95-percentile queue length analysis. *Table 5.7a* shows the queue lengths at each Project driveway approach. *Table 5.7b* assess whether queues from these adjacent intersections would potentially block any project access points based on the followings:

- Queue length at adjacent study intersections compared to the distance to the closest project driveway, in order to assess whether queues from these adjacent intersections would potentially block any project access points.
- Queue length for through movements along Orange Avenue (from Barrett Avenue to Perris Boulevard) compared to the distance to the closest project driveway, in order to assess whether queues from through movements will stack back and block and driveways.

As shown in *Table 5.7a* and *Table 5.7b*, queueing deficiencies were not observed under Opening Year II 2030 With Project Conditions. Therefore, no alternative access configurations are needed, as the driveway queueing analysis indicates no queueing deficiencies or safety concerns at any Project driveways.

Table 5.7a: Opening Year II 2030 With Project AM and PM Peak Hour Project Driveways Queuing Analysis

	Opening Year II 2030 Plus Project Conditions																							
	Northbound		Southbound		Eastbound		Westbound		Northbound		Southbound		Eastbound		Westbound		Northbound		Southbound		Eastbound		Westbound	
	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT	LT	RT
	40. Commercial Driveway 1, 2 and Harvest Landing Way								50. Building 1 Truck Driveway and I-215 Frontage Rd								58. Building 6 Truck Driveway and I-215 Frontage Rd							
Storage Length Per Lane (ft)	N/A	226	N/A	46	N/A	424	N/A	224	N/A	165	200	N/A	N/A	N/A	N/A	300+	N/A	328	200	N/A	N/A	N/A	N/A	840
AM Queue Length Per Lane (ft)	N/A	25	N/A	25	N/A	0	N/A	0	N/A	25	25	N/A	N/A	N/A	N/A	25	N/A	0	25	N/A	N/A	N/A	N/A	25
PM Queue Length Per Lane (ft)	N/A	25	N/A	25	N/A	0	N/A	0	N/A	25	25	N/A	N/A	N/A	N/A	25	N/A	0	25	N/A	N/A	N/A	N/A	25
	41. Commercial Driveway 3, 4 and Harvest Landing Way								51. Building 2 Auto Driveway 1 and Orange Ave								59. Building 6 Auto Driveway 1 and Barrett Ave							
Storage Length Per Lane (ft)	226	226	40	40	160	245	160	343	N/A	39	N/A	N/A	N/A	213	N/A	N/A	N/A	707	200	691.8	40	40	100	100
AM Queue Length Per Lane (ft)	25	25	25	25	25	0	25	0	N/A	25	N/A	N/A	N/A	0	N/A	N/A	25	25	0	0	25	25	25	0
PM Queue Length Per Lane (ft)	25	25	25	25	25	0	25	0	N/A	25	N/A	N/A	N/A	0	N/A	N/A	25	25	0	0	25	25	25	0
	42. Commercial Driveway 5 and N. Perris Blvd								52. Building 2 Auto Driveway 2 and Orange Ave								60. Building 6 Auto Driveway 2 and Barrett Ave							
Storage Length Per Lane (ft)	N/A	N/A	N/A	507	N/A	41	N/A	N/A	38	38	N/A	N/A	N/A	203	100	N/A	N/A	692	160	782	39.3	39.3	134	134
AM Queue Length Per Lane (ft)	N/A	N/A	N/A	N/A	N/A	25	N/A	N/A	25	25	N/A	N/A	N/A	0	25	N/A	25	0	25	0	25	25	25	25
PM Queue Length Per Lane (ft)	N/A	N/A	N/A	N/A	N/A	25	N/A	N/A	25	25	N/A	N/A	N/A	0	25	N/A	25	0	25	0	25	25	25	25
	43. Commercial Driveway 6 and Barrett Ave								53. Building 2 Truck Driveway and I-215 Frontage Rd								61. Building 7 Truck Driveway and I-215 Frontage Rd							
Storage Length Per Lane (ft)	N/A	526	N/A	N/A	N/A	N/A	N/A	74	N/A	531	200	N/A	N/A	N/A	N/A	410	N/A	493	200	N/A	N/A	N/A	N/A	255
AM Queue Length Per Lane (ft)	N/A	0	N/A	N/A	N/A	N/A	N/A	25	N/A	0	25	N/A	N/A	N/A	N/A	25	N/A	0	25	N/A	N/A	25	N/A	N/A
PM Queue Length Per Lane (ft)	N/A	0	N/A	N/A	N/A	N/A	N/A	25	N/A	0	25	N/A	N/A	N/A	N/A	25	N/A	0	25	N/A	N/A	25	N/A	N/A
	44. Commercial Driveway 7 and N. Perris Blvd								54. Building 3 Auto Driveway and I-215 Frontage Rd								62. Building 7 Auto Driveway 1 and I-215 Frontage Rd							
Storage Length Per Lane (ft)	N/A	N/A	N/A	100	N/A	137	N/A	N/A	N/A	253	N/A	N/A	N/A	N/A	N/A	48	N/A	354	N/A	N/A	N/A	N/A	N/A	44
AM Queue Length Per Lane (ft)	N/A	N/A	N/A	0	N/A	25	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	25	N/A	0	N/A	N/A	N/A	N/A	N/A	25
PM Queue Length Per Lane (ft)	N/A	N/A	N/A	0	N/A	25	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	25	N/A	0	N/A	N/A	N/A	N/A	N/A	25
	45. Commercial Driveway 8 and N. Perris Blvd								55. Building 3/4 Truck Driveway and I-215 Frontage Rd								63. Building 7 Auto Driveway 2 and Barrett Ave							
Storage Length Per Lane (ft)	160	N/A	N/A	100	N/A	144	N/A	N/A	N/A	204	200	N/A	N/A	N/A	N/A	176	N/A	N/A	44	44	N/A	N/A	N/A	244
AM Queue Length Per Lane (ft)	25	N/A	N/A	0	N/A	25	N/A	N/A	N/A	0	25	N/A	N/A	N/A	N/A	25	N/A	N/A	25	25	25	N/A	N/A	0
PM Queue Length Per Lane (ft)	25	N/A	N/A	0	N/A	25	N/A	N/A	N/A	0	25	N/A	N/A	N/A	N/A	25	N/A	N/A	25	25	25	N/A	N/A	0
	48. Building 1 Auto Driveway 1 and Orange Ave								56. Building 4/5 Auto Driveway and I-215 Frontage Rd															
Storage Length Per Lane (ft)	240	240	N/A	N/A	N/A	470	160	N/A	N/A	219	120	N/A	N/A	N/A	35	35								
AM Queue Length Per Lane (ft)	25	25	N/A	N/A	N/A	0	25	N/A	N/A	0	25	N/A	N/A	N/A	25	25								
PM Queue Length Per Lane (ft)	25	25	N/A	N/A	N/A	0	25	N/A	N/A	0	25	N/A	N/A	N/A	25	25								
	49. Building 1 Auto Driveway 2 and Orange Ave								57. Building 5 Truck Driveway and I-215 Frontage Rd															
Storage Length Per Lane (ft)	N/A	236	N/A	N/A	N/A	468	N/A	N/A	N/A	379	120	N/A	N/A	N/A	N/A	25								
AM Queue Length Per Lane (ft)	N/A	25	N/A	N/A	N/A	0	N/A	N/A	N/A	0	25	N/A	N/A	N/A	N/A	0								
PM Queue Length Per Lane (ft)	N/A	25	N/A	N/A	N/A	0	N/A	N/A	N/A	0	25	N/A	N/A	N/A	N/A	0								

Notes:

LT = Left-turn Lane, RT = Right-turn Lane

Queue length reported in feet for the AM(PM) peak periods and are rounded up to the nearest increment of 5 feet.

Table 5.7b: Opening Year II 2030 With Project AM and PM Peak Hour Project Driveways Queuing Analysis – Expanded

	Opening Year II 2030 Plus Project Conditions																																			
	Northbound			Southbound			Eastbound			Westbound			Northbound			Southbound			Eastbound			Westbound			Northbound			Southbound			Eastbound			Westbound		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
	46. Commercial Driveway 9 and Orange Ave												20. Orange Ave and Indian Ave												38. Barrett Ave and Harvest Landing Way											
Distance to Closest Project Access Point (ft)	41	N/A	41				206	206	206	383	383	383	N/A	N/A	N/A				160	160	N/A	N/A	470	470	N/A	174	174	1,253	1,253	N/A	N/A	N/A	N/A	391	N/A	391
AM Queue Length Per Lane (ft)	25	N/A	25				25	40	40	35	50	50	N/A	N/A	N/A				25	45	N/A	N/A	30	100	N/A	25	25	25	25	N/A	N/A	N/A	N/A	25	N/A	25
PM Queue Length Per Lane (ft)	25	N/A	25				25	110	110	55	65	65	N/A	N/A	N/A				25	35	N/A	N/A	30	40	N/A	25	25	25	25	N/A	N/A	N/A	N/A	25	N/A	25
	47. Commercial Driveway 10 and Orange Ave												21. Orange Ave and Frontage Rd												39. Barrett Ave and I-215 Frontage Road											
Distance to Closest Project Access Point (ft)	N/A	N/A	32	N/A	N/A	N/A	N/A	413	413	N/A	N/A	N/A	N/A	334	334				N/A	N/A	N/A	642	642	642				990	990	N/A	N/A	N/A	N/A	225	N/A	225
AM Queue Length Per Lane (ft)	N/A	N/A	25	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	230	260				N/A	N/A	N/A	405	N/A	395				110	25	N/A	N/A	N/A	N/A	100	N/A	100
PM Queue Length Per Lane (ft)	N/A	N/A	25	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	45	25				N/A	N/A	N/A	155	N/A	220				180	25	N/A	N/A	N/A	N/A	115	N/A	65
	18. Orange Ave and Perris Blvd												23. Citrus Ave and Perris Blvd																							
Distance to Closest Project Access Point (ft)	730	730	730					383	383	383							625	625	N/A																	
AM Queue Length Per Lane (ft)	460	355	25					235	230	180					45	255	N/A																			
PM Queue Length Per Lane (ft)	670	345	60					205	310	355					275	580	N/A																			
	19. Orange Ave and Barrett Ave												37. Perris Blvd and Harvest Landing Way																							
Distance to Closest Project Access Point (ft)	200	1,253	N/A				160	160	160	714	714	714	518	518	N/A	N/A	242	242	342	342	342	N/A	N/A	N/A												
AM Queue Length Per Lane (ft)	0	60	N/A				80	125	0	0	215	205	160	25	N/A	N/A	45	25	35	N/A	35	N/A	N/A	N/A												
PM Queue Length Per Lane (ft)	0	110	N/A				115	65	0	0	75	75	215	25	N/A	N/A	65	25	55	N/A	65	N/A	N/A	N/A												

Notes:

Queuing Impacts

LT = Left-turn Lane, TH = Thru Lane, RT = Right-turn Lane

Queue length reported in feet for the AM(PM) peak periods and are rounded up to the nearest increment of 5 feet.

5.2.3 Opening Year II 2030 With Project Roadway Segment Analysis

Opening Year II 2030 With Project Without Project roadway segments volumes were developed by adding the Project trips to the Opening Year II 2030 Without Project roadway segments volumes, with the adjustments noted in Section 5.1.2.

The LOS at the Opening Year II 2030 With Project study roadway segments were determined using the methodology described previously in *Section 2.3 Methodology*. The Opening Year II 2030 With Project LOS at the study roadway segments are shown in *Table 5.8*. As shown in *Table 5.8*, the following seven (7) roadway segments would operate at an unsatisfactory LOS in the Opening Year II 2030 With Project condition:

- #3. Perris Blvd between Orange Ave and Citrus Ave
- #6. Perris Blvd between Rider St and Placentia Ave
- #7. Nuevo Rd between Perris Blvd and I-215 NB Ramps
- #11. Nuevo Rd between I-215 NB Ramps and I-215 SB Ramps
- #12. Perris Blvd between Citrus Ave and Nuevo Rd
- #13. Placentia Ave between I-215 NB Ramps and I-215 SB Ramps
- #14. Placentia Ave between I-215 NB Ramps and Indian Ave

Table 5.8: Opening Year II 2030 With Project Roadway Segment Level of Service

Segment	Classification ²	# of Lanes Without Project	Roadway Capacity Without Project ²	Opening Year II 2030 ADT ¹	V/C Ratio	LOS	# of Lanes Plus Project	Roadway Capacity Plus Project ²	Opening Year II 2030 Plus Project ADT ¹	V/C Ratio	LOS	LOS Standard ²	Unsatisfactory ?
1. Indian Ave between Water Ave and Orange Ave	Arterial	2	18,000	6,017	0.334	A	4	35,900	7,884	0.220	A	D	No
2. Orange Ave between Indian Ave and Perris Blvd	Arterial	4	35,900	10,611	0.296	A	4	35,900	19,376	0.540	A	D	No
3. Perris Blvd between Orange Ave and Citrus Ave	Arterial	4	35,900	43,121	1.201	F	6	53,900	56,749	1.053	F	D	Yes
4. Barrett Ave between Placentia Ave and Orange Ave	Collector	2	13,000	1,669	0.128	A	2	13,000	9,313	0.716	C	D	No
5. Perris Blvd between Placentia Ave and Orange Ave	Arterial	4	35,900	41,300	1.150	F	6	53,900	44,634	0.828	D	D	No
6. Perris Blvd between Rider St and Placentia Ave	Arterial	4	35,900	43,634	1.215	F	4	35,900	48,043	1.338	F	D	Yes
7. Nuevo Rd between Perris Blvd and I-215 NB Ramps	Arterial	6	53,900	50,226	0.932	E	6	53,900	59,070	1.096	F	D	Yes
8. I-215 Frontage Rd between Placentia Ave and Orange Ave	Arterial	2	18,000	7,307	0.406	A	4	35,900	20,714	0.577	A	D	No
9. I-215 Frontage Rd between Orange Ave and Nuevo Rd	Arterial	2	18,000	3,675	0.204	A	4	35,900	8,237	0.229	A	D	No
10. Orange Ave between I-215 Frontage Rd and Indian Ave	Arterial	4	35,900	3,876	0.108	A	4	35,900	13,926	0.388	A	D	No
11. Nuevo Rd between I-215 NB Ramps and I-215 SB Ramps	Arterial	4	35,900	35,372	0.985	E	4	35,900	40,099	1.117	F	D	Yes
12. Perris Blvd between Citrus Ave and Nuevo Rd	Arterial	6	53,900	44,786	0.831	D	6	53,900	57,101	1.059	F	D	Yes
13. Placentia Ave between I-215 NB Ramps and I-215 SB Ramps	Arterial	4	35,900	36,547	1.018	F	4	35,900	46,594	1.298	F	D	Yes
14. Placentia Ave between I-215 NB Ramps and Indian Ave	Arterial	4	35,900	51,765	1.442	F	4	35,900	71,034	1.979	F	D	Yes
15. Placentia Ave between Indian Ave and Perris Blvd	Arterial	6	53,900	27,969	0.519	A	6	53,900	33,086	0.614	B	D	No
16. Barrett Ave between Orange Ave and Harvest Landing Wy	Collector	2	13,000	-	-	-	2	13,000	7,102	0.546	A	D	No
17. Barrett Ave between Harvest Landing Wy and I-215 Frontage Rd	Collector	2	13,000	-	-	-	2	13,000	9,653	0.743	C	D	No
18. Harvest Landing Wy between Barrett Ave and Perris Blvd	Collector	4	25,900	-	-	-	4	25,900	7,855	0.303	A	D	No
19. Indian Ave between Placentia Ave and Water Ave	Collector	2	13,000	-	0.000	A	2	13,000	7,884	0.606	B	D	No

Notes:

LOS = Level of Service

1 Opening year ADT is calculated based on an ambient growth rate of 3% per year. All volumes are presented in PCE.

2 Classification, Roadway Capacity and LOS Standard from City of Perris General Plan Circulation Element.

Unsatisfactory Level of Service

Figure 5.5a: Opening Year II 2030 Project AM Peak Hour PCE Trip Assignment

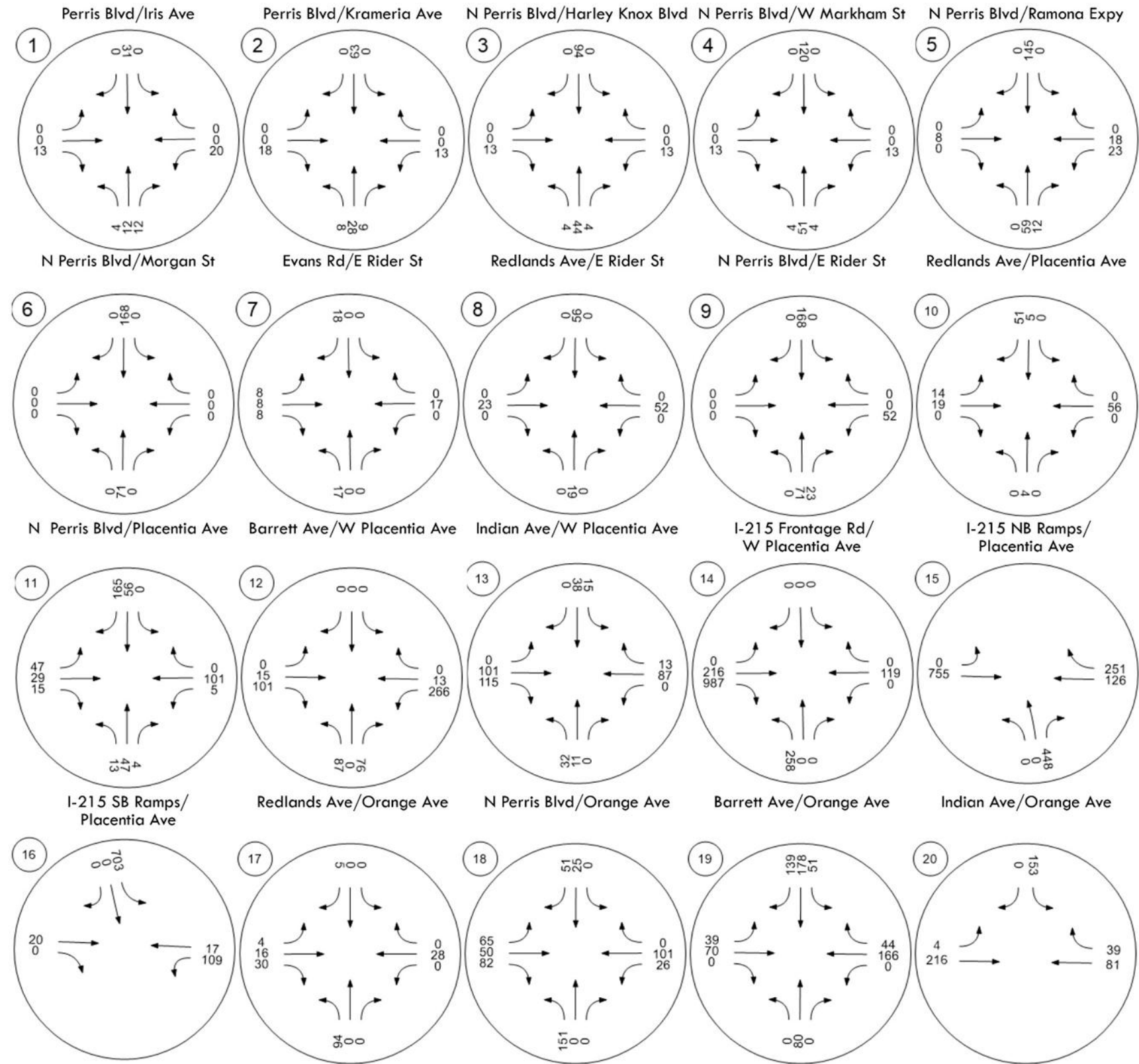
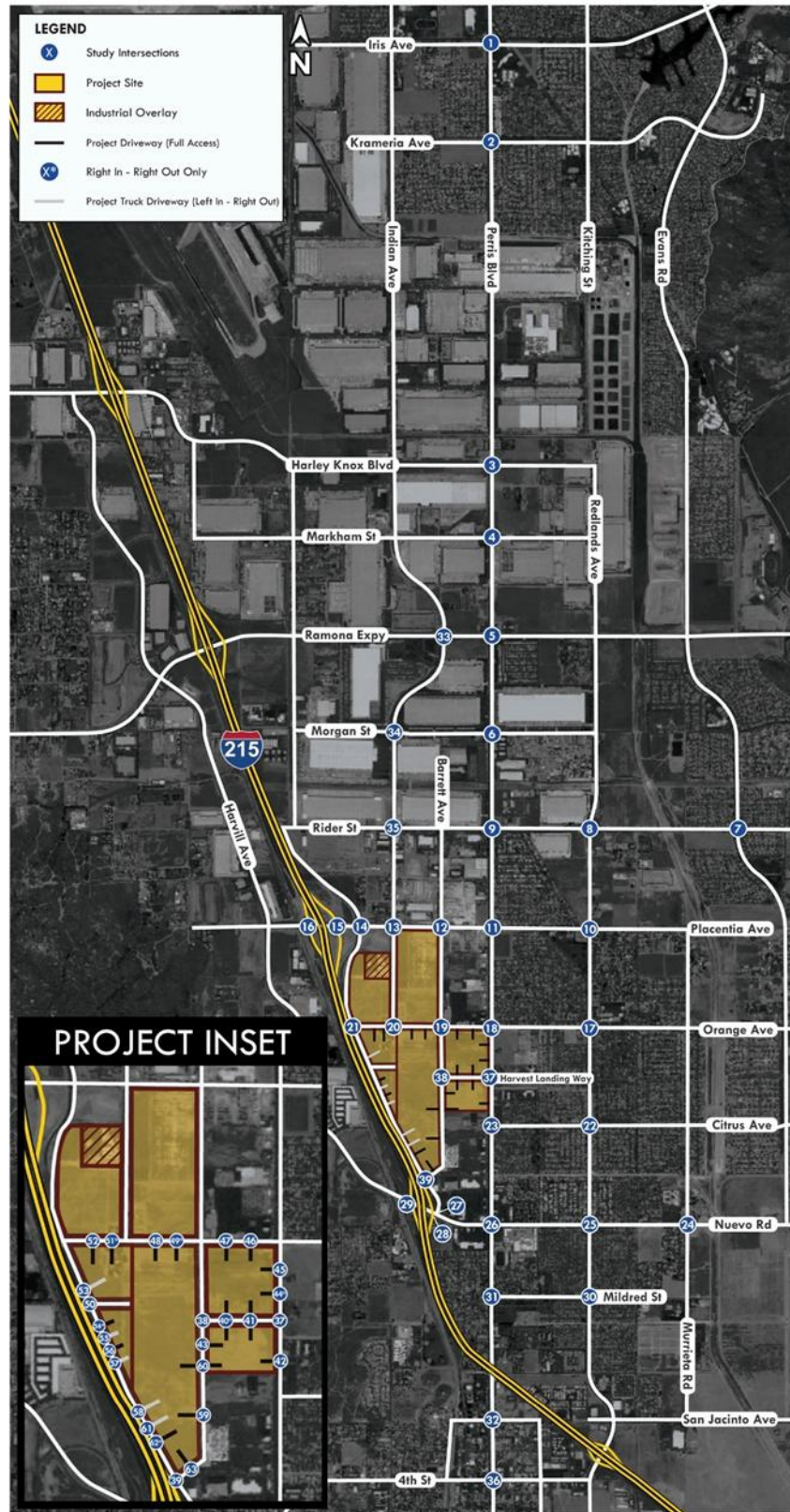


Figure 5.5b: Opening Year II 2030 Project AM Peak Hour PCE Trip Assignment (Continued)

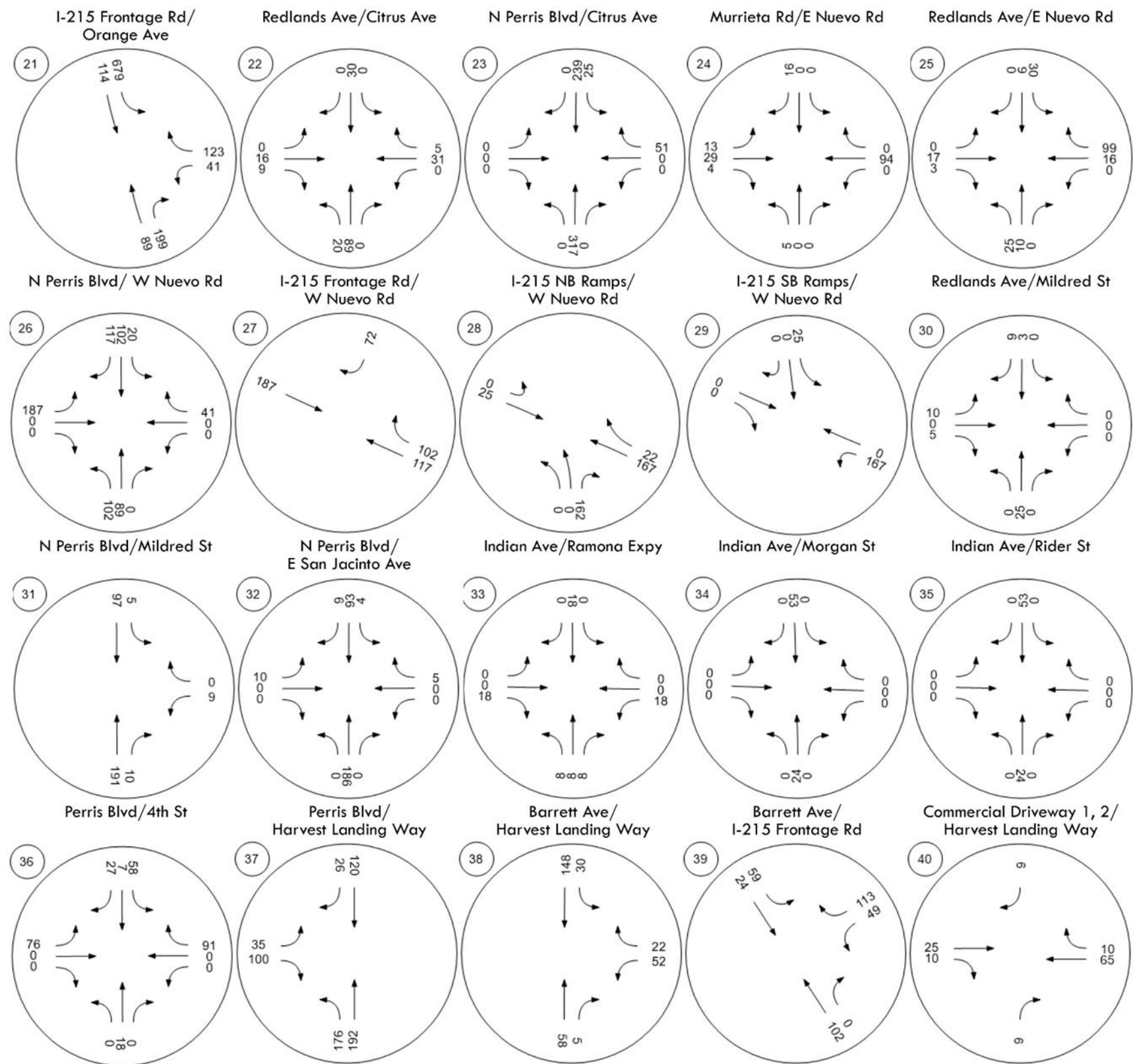


Figure 5.5c: Opening Year II 2030 Project AM Peak Hour PCE Trip Assignment (Continued)

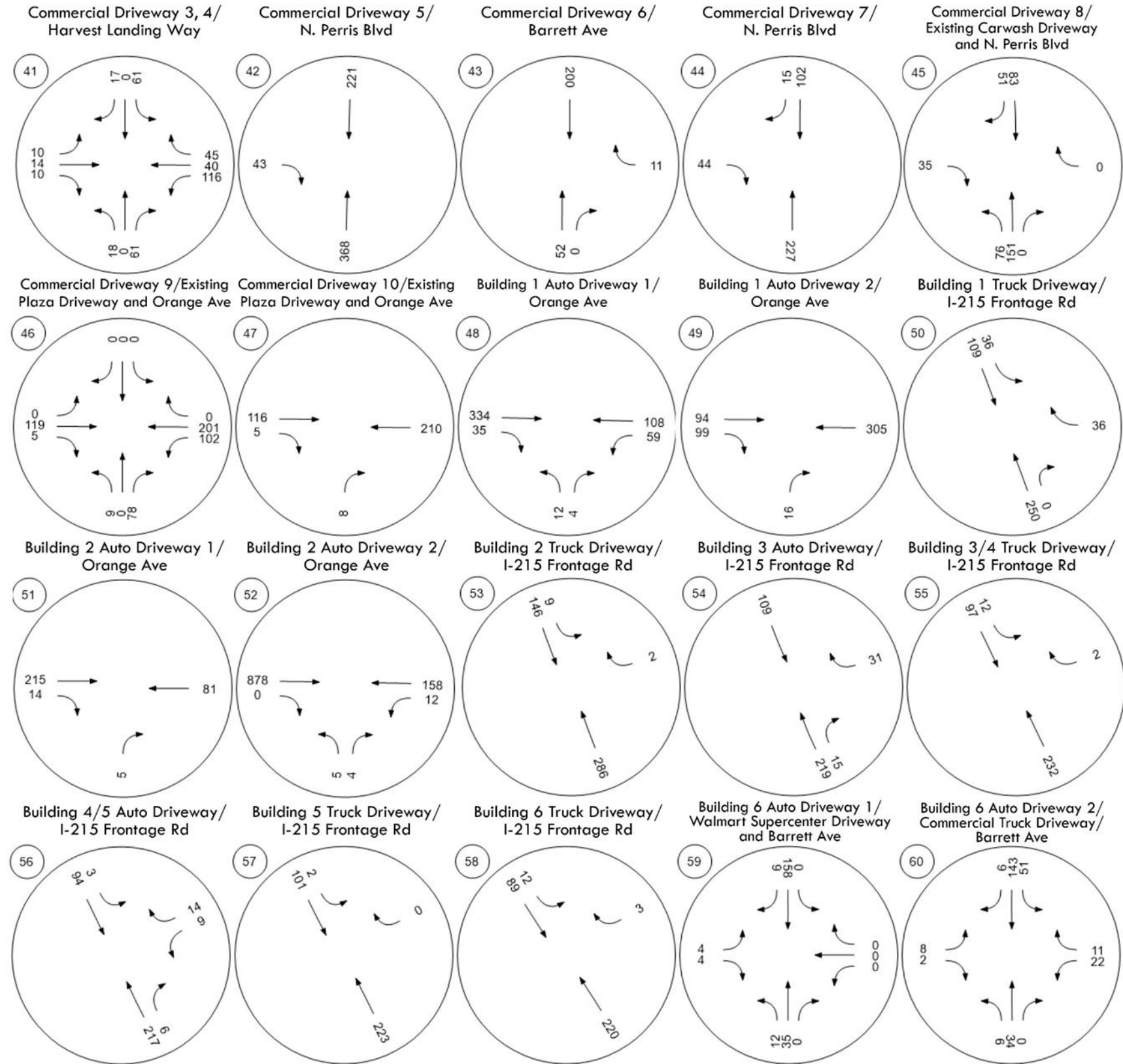
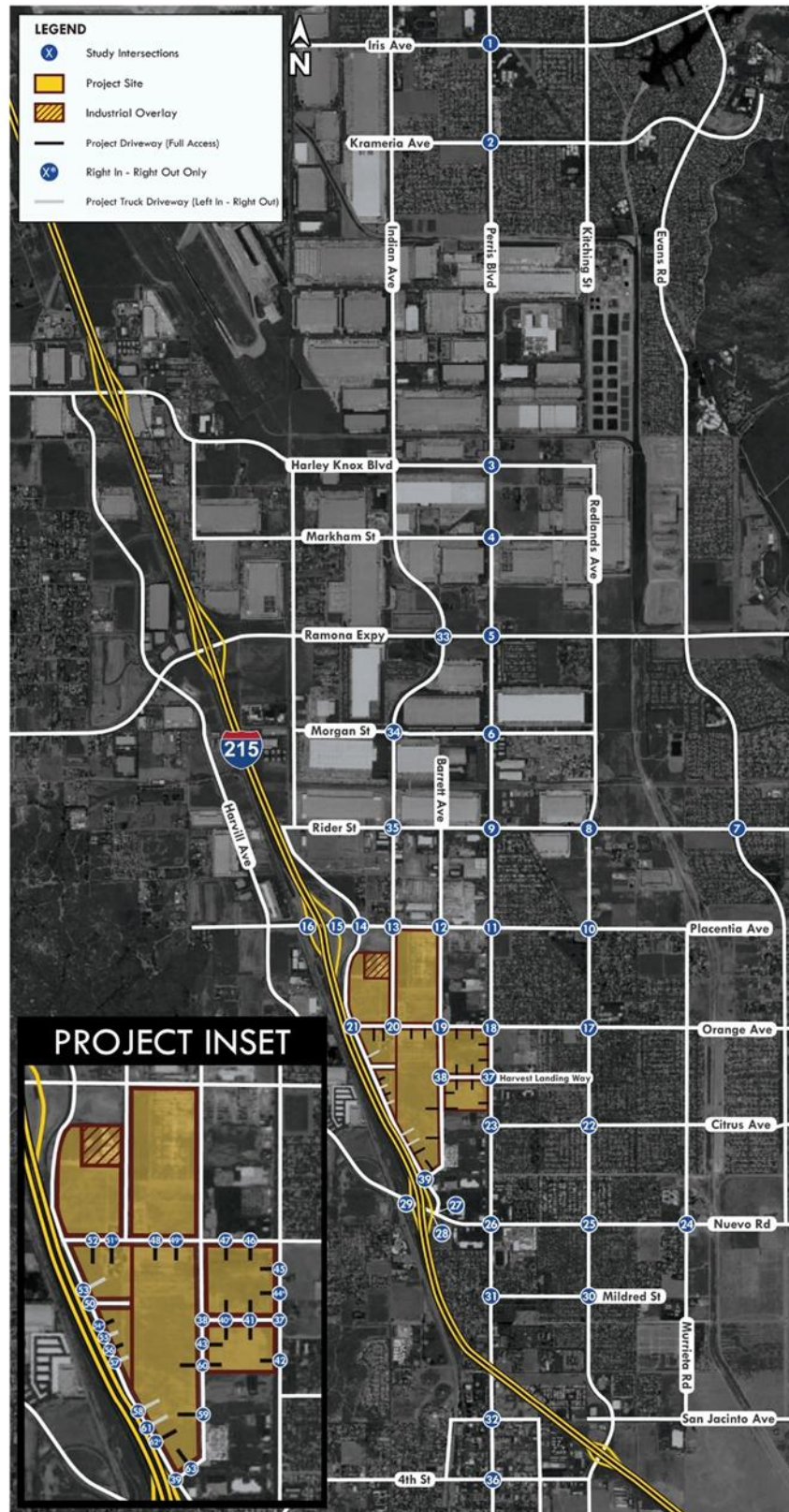


Figure 5.5d: Opening Year II 2030 Project AM Peak Hour PCE Trip Assignment (Continued)

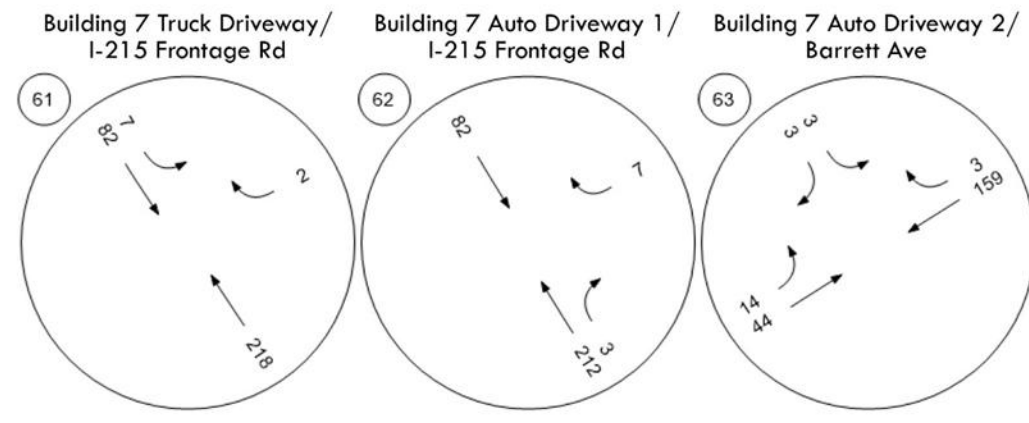
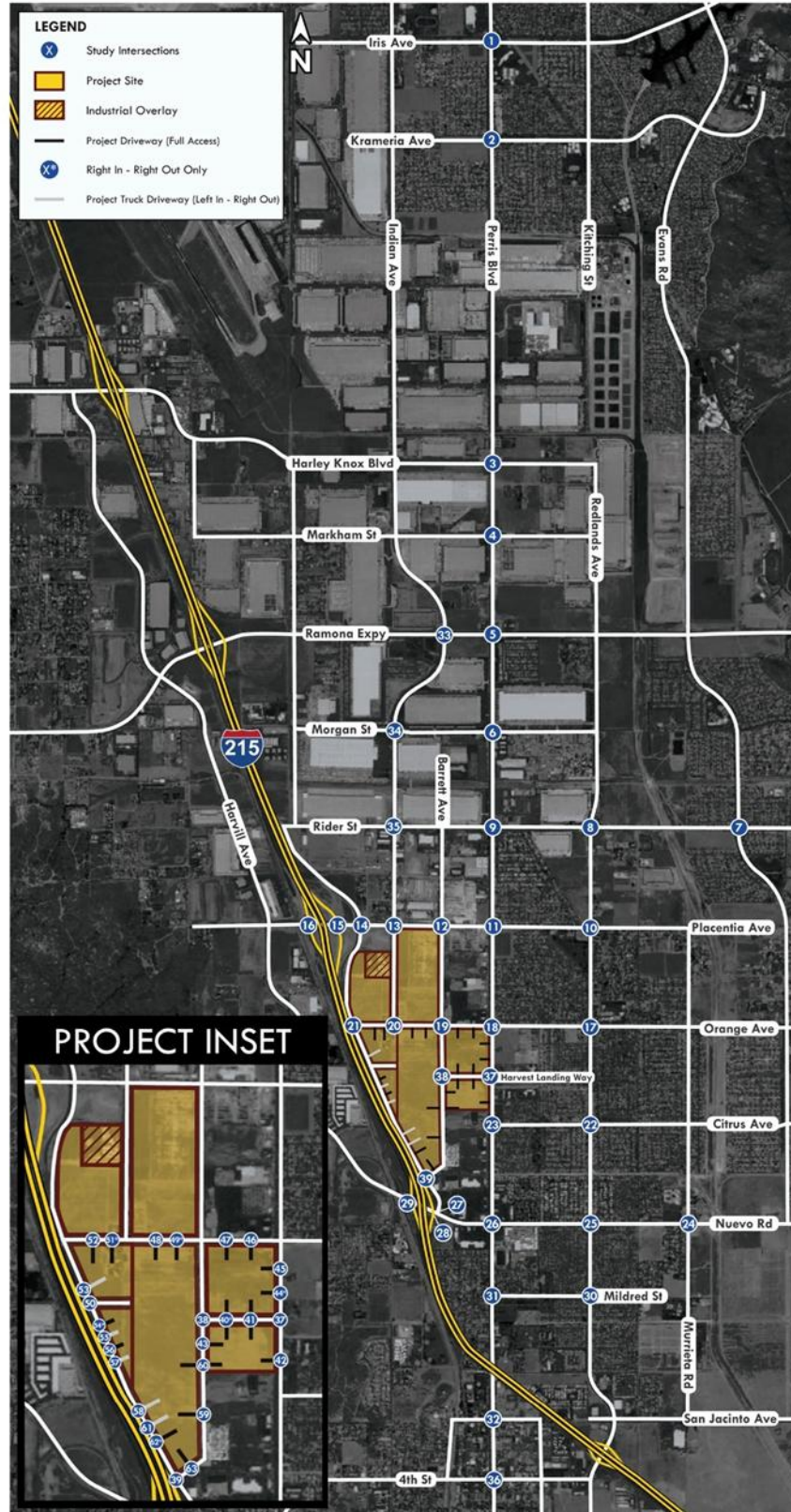


Figure 5.6a: Opening Year II 2030 PM Peak Hour PCE Project Trip Assignment

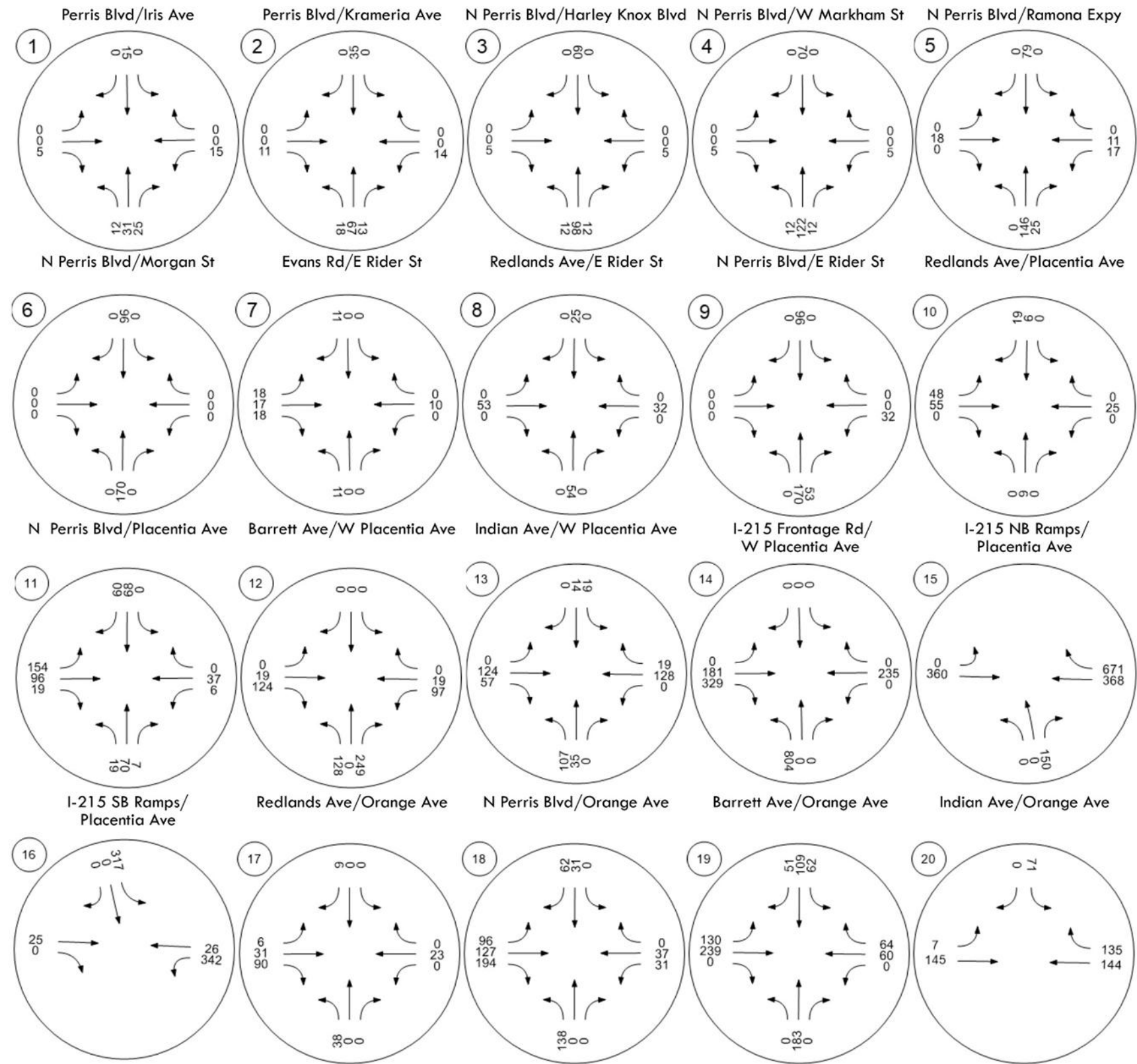
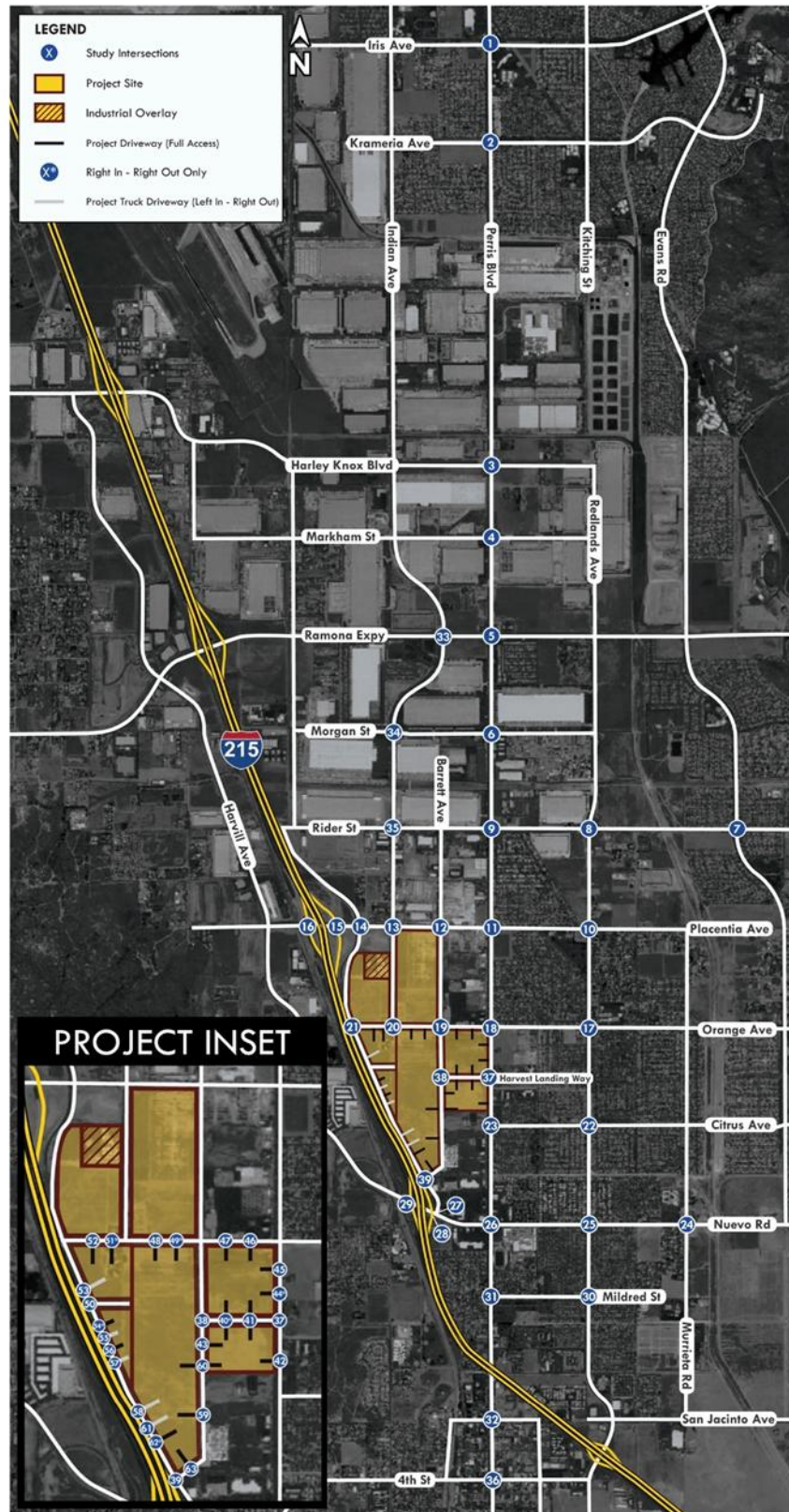


Figure 5.6b: Opening Year II 2030 PM Peak Hour PCE Project Trip Assignment (Continued)

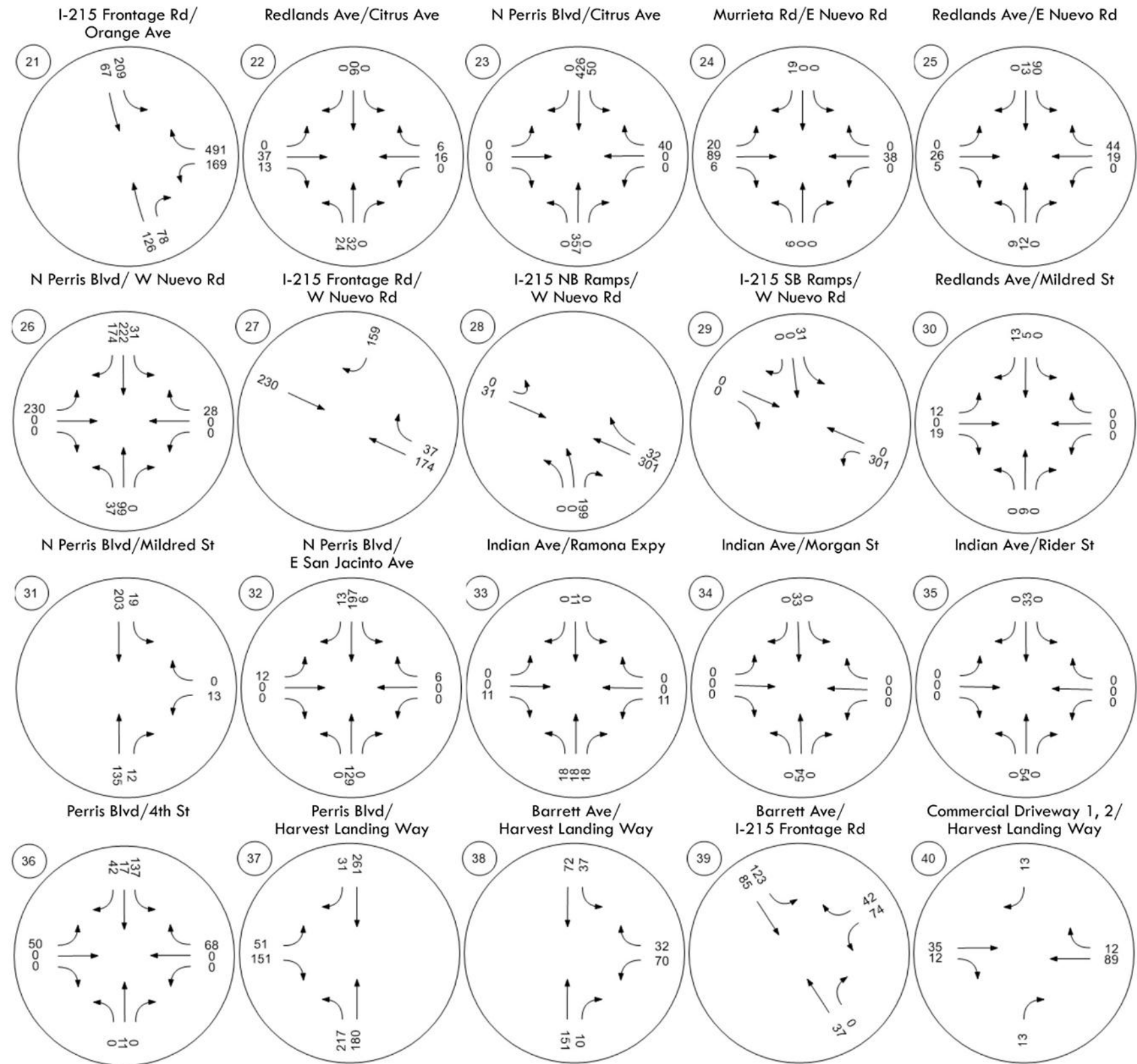
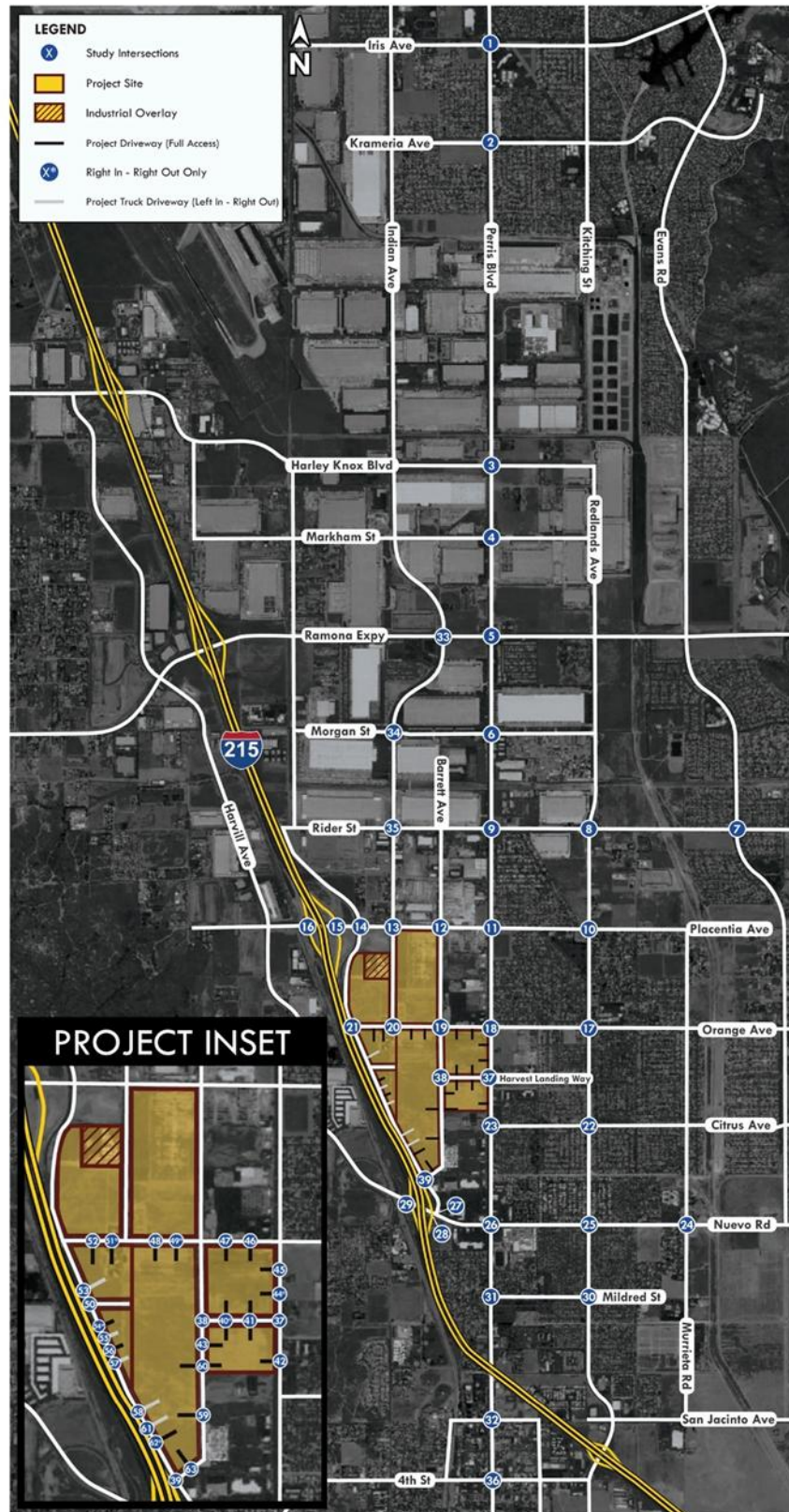


Figure 5.6c: Opening Year II 2030 PM Peak Hour Project PCE Trip Assignment (Continued)

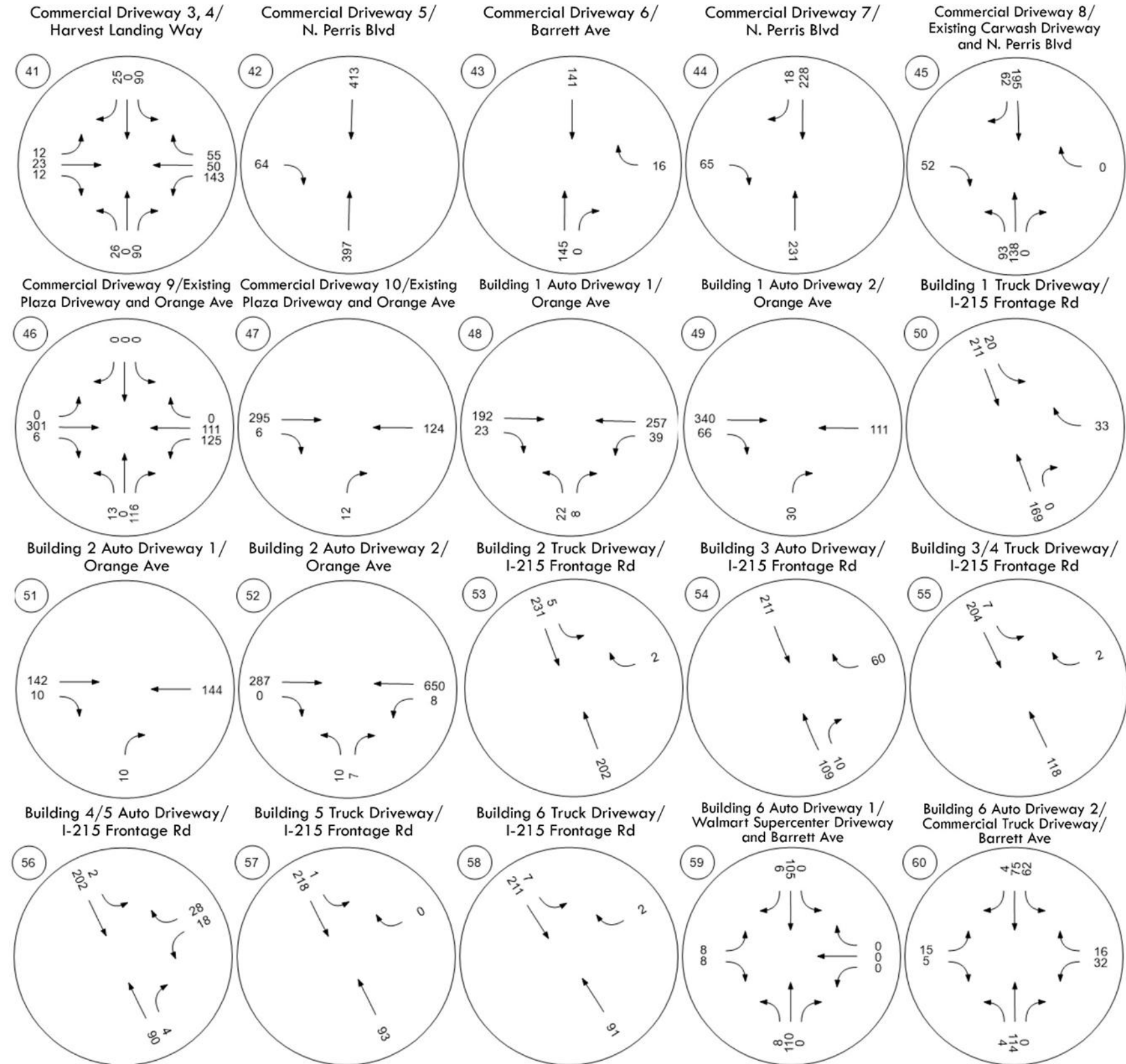
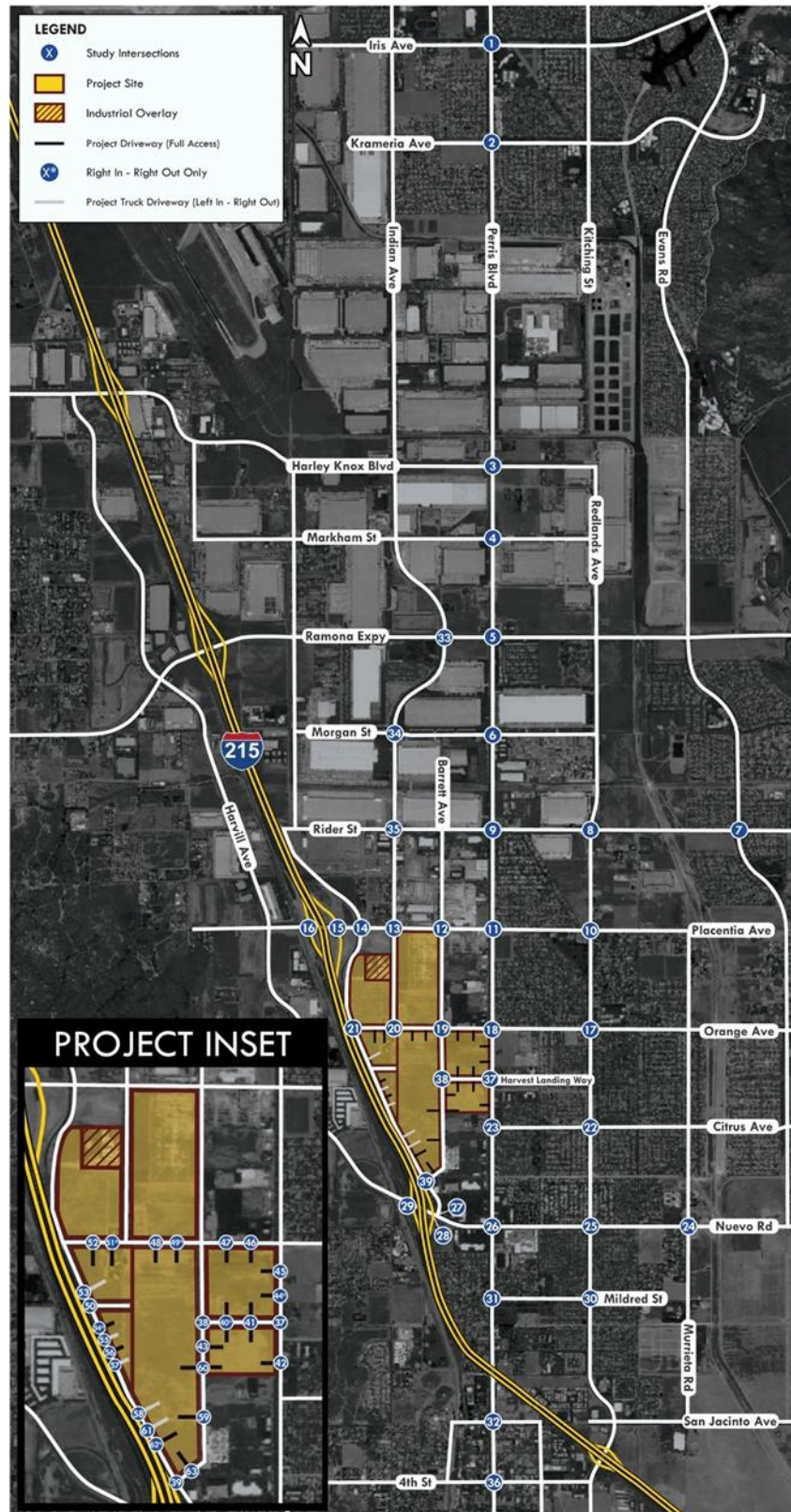


Figure 5.6d: Opening Year II 2030 PM Peak Hour PCE Project Trip Assignment (Continued)

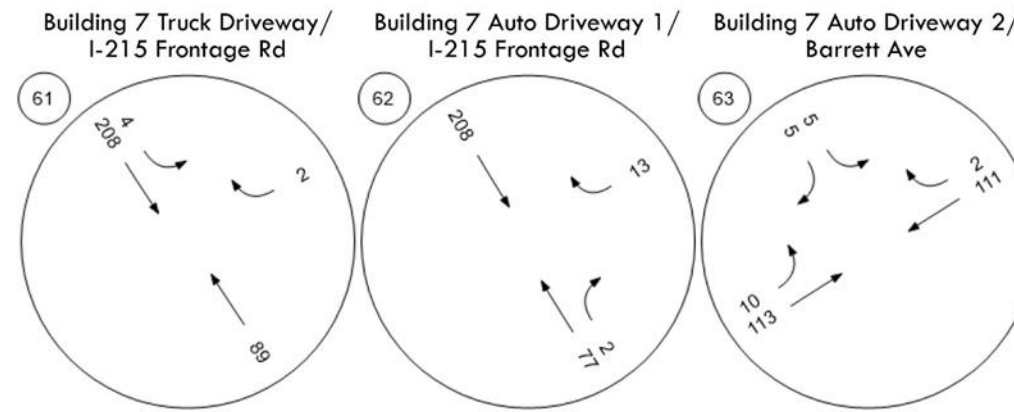
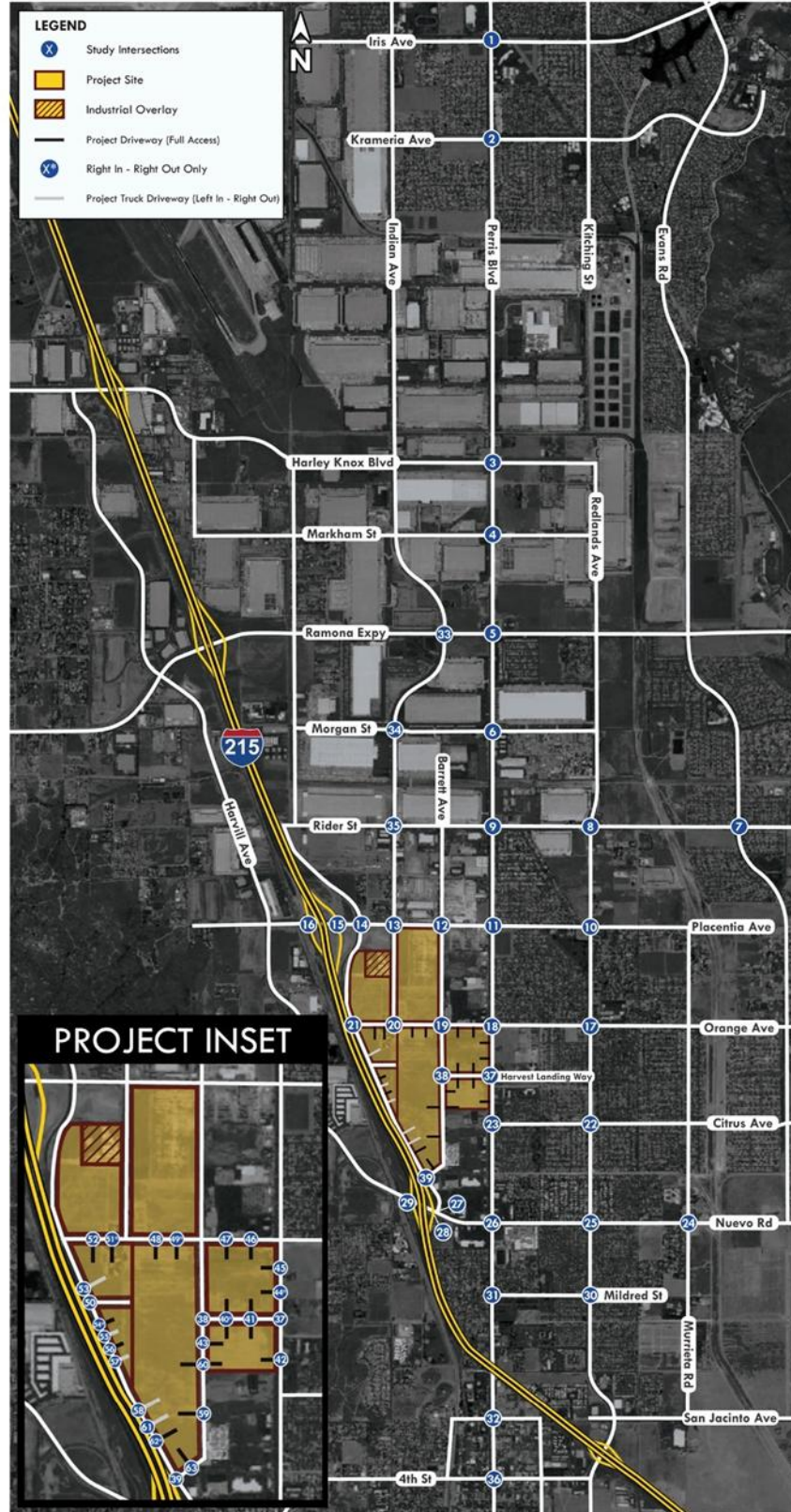


Figure 5.7a: Opening Year II 2030 With Project AM Peak Hour PCE Traffic Volumes

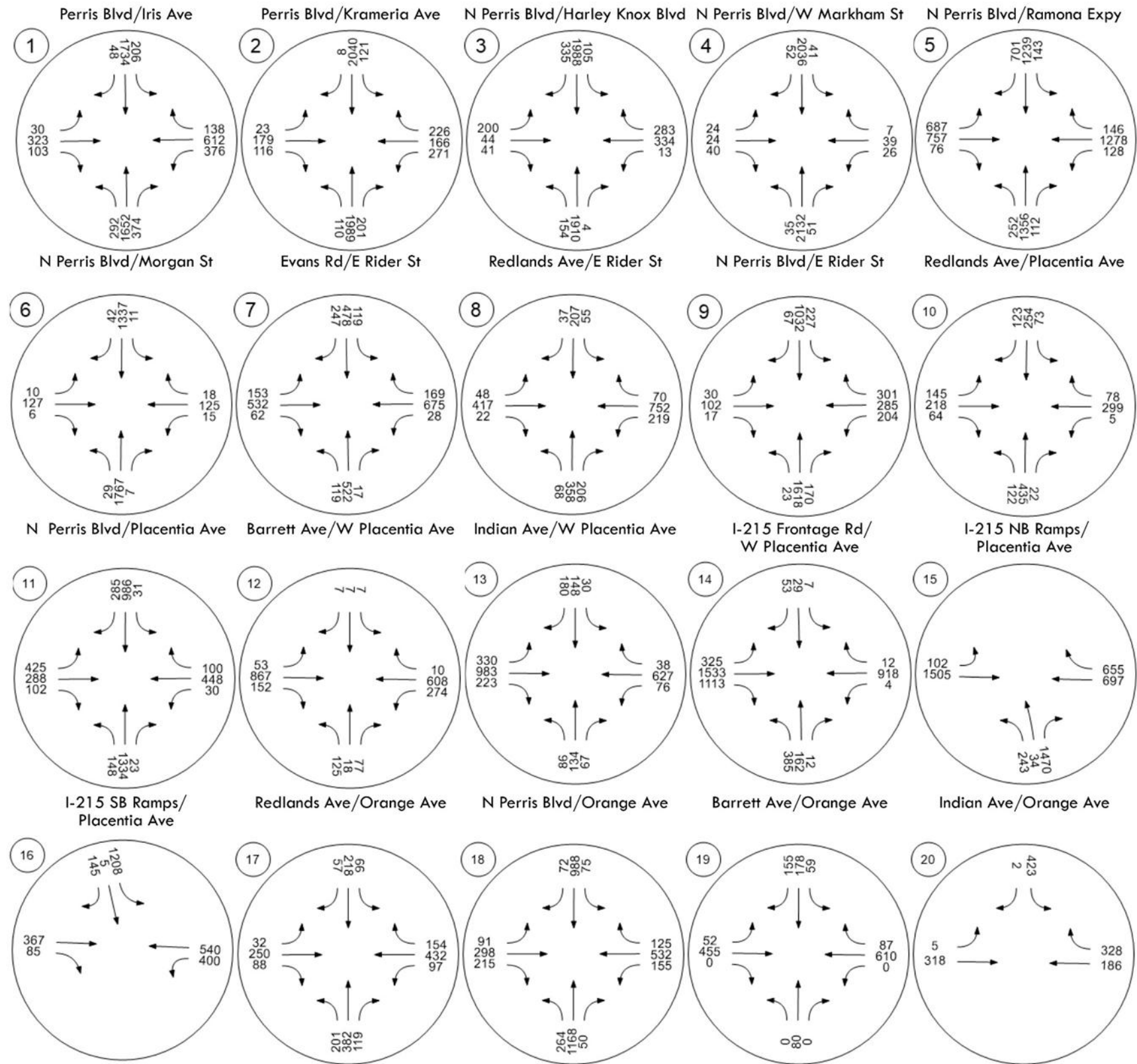
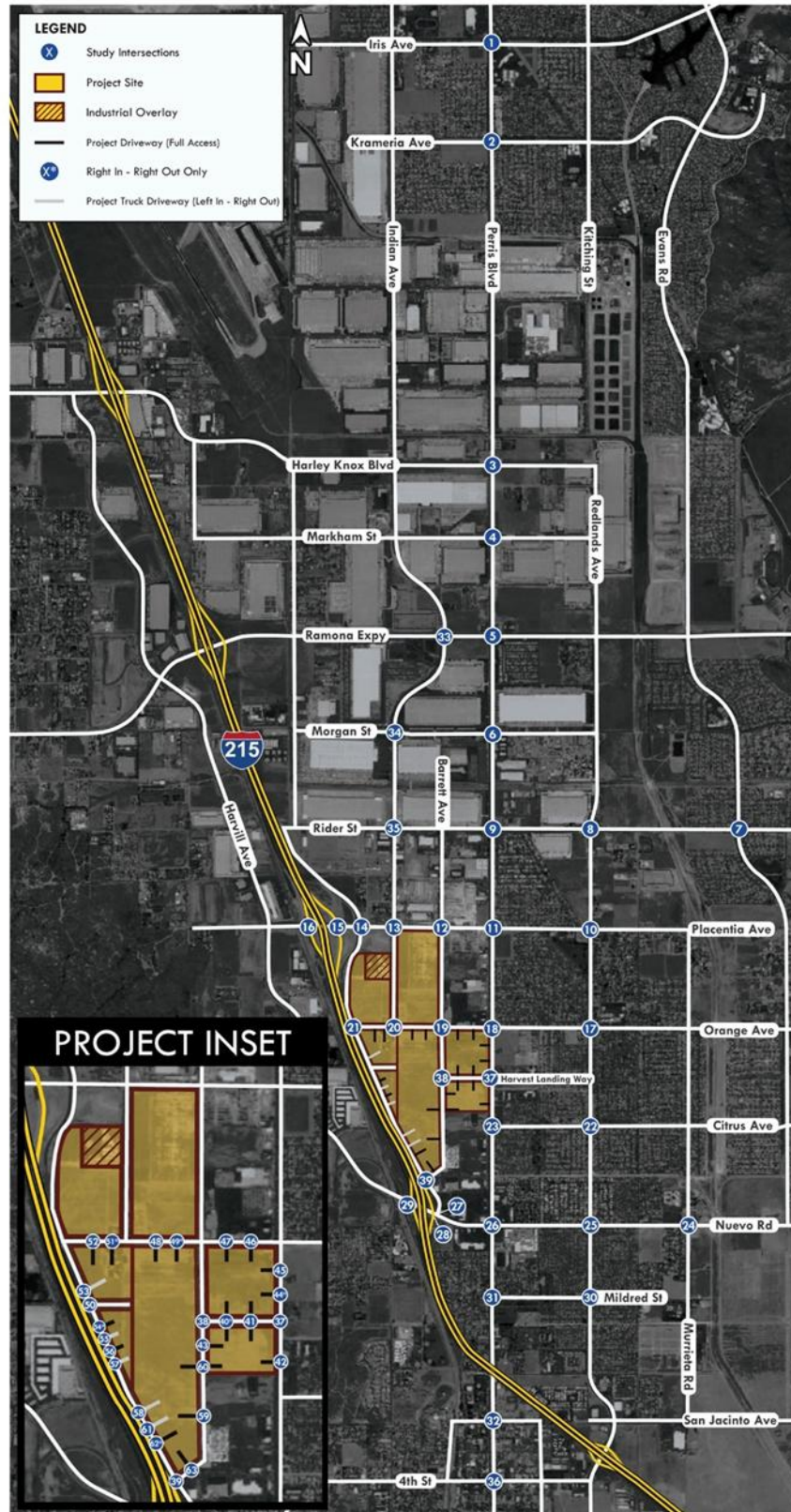


Figure 5.7b: Opening Year II 2030 With Project AM Peak Hour PCE Traffic Volumes (Continued)

