TABLE 32 EXISTING + PRECISE PLAN INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			Existing	3		Existi	ng + Precise Pla	ın
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue AM	Signal	16.3	В	16.1	В	-0.2	No
	PM		17.1	В	17.2	В	0.1	No
2	Park Boulevard/Upas Street AM	Signal	18.6	В	18.5	В	-0.1	No
	PM		14.4	В	14.2	В	-0.1	No No
3	Park Boulevard/Morley Field Drive	0: 1						
	AM PM		18.6 19.2	B	18.5 19.2	B	-0.1 0.0	No No
4	Park Boulevard/Zoo Place							.,,,
	AM PM	+ -	16.1 21.5	B	20.1 21.8	C	4.0 0.3	No No
5	Park Boulevard/Village Place		1::0		21.0	Ŭ	0.0	140
	AM PM	1 - 3 -	3.9 11.3	A B	4.0 11.1	A B	0.1 -0.2	No No
6	Park Boulevard/Space Theatre Way		11.3	В	11.1	В	-0.2	INU
	Northbound Left							
	AM PM	4	9.0 9.7	A	8.7 9.3	A	-0.3 -0.4	No No
	Eastbound Left							
	AM PM		12.1 19.2	B	11.6 16.8	B C	-0.5 -2.4	No No
7	Park Boulevard/Inspiration Way		10.2		10.0		2.7	140
	AM PM		3.1	A	3.2	A	0.1	No
8	Park Boulevard/Presidents Way		4.5	Α	4.6	Α	0.1	No
	AM		14.7	В	16.0	В	1.3	No
9	PM Park Boulevard/SR 163 NB Ramps		21.8	С	22.0	С	0.2	No
Ů	Northbound Left							
	AM PM	_	8.8	A B	8.8 12.8	A B	0.0	No No
10	Park Boulevard/I-5 Ramps		12.8	В	12.0	В	0.0	INU
	AM PM		26.2	С	26.0	С	-0.2	No
11	Park Boulevard/A Street		19.9	В	19.7	В	-0.2	No
	AM		11.5	В	11.3	В	-0.2	No
12	PM Richmond Street/Robinson Avenue		13.3	В	13.0	В	-0.3	No
	AM		15.0	В	15.0	В	0.0	No
10	PM Richmond Street/Upas Street		14.5	В	14.5	В	0.0	No
13	AM	All Way Stop	7.7	Α	7.7	Α	0.0	No
	PM		8.0	Α	8.0	Α	0.0	No
14	6th Avenue/Robinson Avenue AM	Signal	20.5	С	20.0	С	-0.5	No
	PM		22.6	С	22.6	С	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive AM	Signal	9.6	Α	9.3	Α	-0.3	No
	PM		11.7	В	11.5	В	-0.2	No
16	6th Avenue/Quince Drive	Signal	12.1	D	10.4	В	0.3	Na
	PM		12.1 12.1	B	12.4 14.1	В	0.3 2.0	No No
17	6th Avenue/Laurel Street	G: .						
	AM PM		13.0 15.0	В	12.9 14.9	B	-0.1 -0.1	No No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM PM		8.6 12.8	A B	9.3 13.0	A B	0.7 0.2	No No
19	6th Avenue/Ash Street					D		INU
	AM		11.5	В	11.8	В	0.3	No
20	PM 6th Avenue/A Street		10.9	В	10.5	В	-0.4	No
	AM		11.8	В	11.7	В	-0.1	No
21	PM A Street/10th Avenue		11.5	В	11.6	В	0.1	No
- '	AM		11.9	В	11.2	В	-0.7	No
20	PM		14.0	В	14.1	В	0.1	No
22	A Street/11th Avenue AM	Signal	11.0	В	10.4	В	-0.6	No
	PM		13.9	В	13.3	В	-0.6	No
23	Balboa Drive/El Prado AM	All Way Stop	7.8	Α	7.6	Α	-0.2	No
	PM		10.8	В	9.2	В	-1.6	No

TABLE 33 EXISTING + PRECISE PLAN INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			Existing	9		Existi	ng + Precise Pla	n
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue	0:1	44.5	,			0.1	
	AM PM	Signal	14.5 13.8	B	14.4 13.7	B	-0.1 -0.1	No No
2	Park Boulevard/Upas Street						311	
	AM PM	Signal	19.2	В	18.8	В	-0.4	No
3	Park Boulevard/Morley Field Drive		15.5	В	15.3	В	-0.2	No
	AM	Signal	17.0	В	16.9	В	-0.1	No
4	PM Park Boulevard/Zoo Place		20.0	С	20.0	В	0.0	No
4	AM	Signal	30.0	С	29.6	С	-0.4	No
	PM	_	24.0	С	24.2	С	0.2	No
5	Park Boulevard/Village Place AM	Signal	18.5	В	18.2	В	-0.3	No
	PM	Oigilai	15.5	В	15.6	В	0.1	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left AM		11.3	В	10.6	В	-0.7	No
	PM	Unsignalized	11.1	В	10.4	В	-0.7	No
	Eastbound Left		04.0		00.7		7.5	
	AM PM		31.2 20.3	D	23.7 17.4	C	-7.5 -2.9	No No
7	Park Boulevard/Inspiration Way		20.0				2.0	110
	AM	Signal	4.1	A	4.1	A	0.0	No
8	PM Park Boulevard/Presidents Way		4.1	Α	4.3	Α	0.2	No
	AM	Signal	25.0	С	25.7	С	0.7	No
	PM		26.8	С	26.9	С	0.1	No
9	Park Boulevard/SR 163 NB Ramps Northbound Left							
	AM	Unsignalized	10.5	В	10.5	В	0.0	No
40	PM		15.4	С	15.8	С	0.4	No
10	Park Boulevard/I-5 Ramps AM	Signal	21.8	С	21.8	С	0.0	No
	PM	3	16.2	В	16.1	В	-0.1	No
11	Park Boulevard/A Street AM	Cianal	40.0	_	40.7	_	0.4	
	PM	Signal	12.8 13.8	B	12.7 13.6	В	-0.1 -0.2	No No
12	Richmond Street/Robinson Avenue							
	AM PM	Signal	13.0 12.7	B	13.0 12.7	B	0.0	No No
13	Richmond Street/Upas Street		12.7	В	12.7	В	0.0	INO
	AM	All Way Stop	8.8	Α	8.8	Α	0.0	No
14	PM 6th Avenue/Robinson Avenue		7.7	Α	7.7	Α	0.0	No
14	AM	Signal	24.3	С	24.5	С	0.2	No
	PM		24.8	С	25.2	С	0.4	No
15	6th Avenue/ Upas Street-Balboa Drive AM	Signal	8.3	A	8.0	Α	-0.3	No
	PM	Oigilai	11.1	В	10.7	В	-0.4	No
16	6th Avenue/Quince Drive	0:	40.6			_		
	AM PM	Signal	13.9 13.5	B	14.2 13.7	B	0.3	No No
17	6th Avenue/Laurel Street							110
	AM PM	Signal	14.8	В	14.6	В	-0.2	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp		14.7	В	14.7	В	0.0	No
	AM	Signal	10.9	В	10.9	В	0.0	No
19	PM 6th Avenue/Ash Street		11.5	В	11.6	В	0.1	No
19	oth Avenue/Ash Street AM	Signal	11.2	В	12.5	В	1.3	No
	PM)	10.7	В	10.3	В	-0.4	No
20	6th Avenue/A Street AM	Signal	11.4	В	11.3	В	-0.1	No
	PM		11.4	В	11.3	В	-0.1	No No
21	A Street/10th Avenue							
	AM PM	Signal	11.4	В	10.8	В	-0.6	No
22	A Street/11th Avenue		10.4	В	9.8	Α	-0.6	No
	AM	Signal	9.8	Α	9.3	Α	-0.5	No
23	PM Balboa Drive/El Prado		9.2	Α	8.9	Α	-0.3	No
23	AM	All Way Stop	10.5	В	7.0	Α	-3.5	No
	PM		10.3	В	7.0	Α	-3.3	No

TABLE 34 **EXISTING + PRECISE PLAN** ROADWAY SEGMENT ANALYSIS (WEEKDAY)

				Existing			Existing + Precise Plan					
Roadway Segment	Functional	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No		
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector1	4 Lane Major	15,000	12,549	0.837	D	13,214	0.881	E	0.044	YES	
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	12,179	0.304	Α	10,498	0.262	Α	-0.042	NO	
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	14,478	0.362	Α	12,726	0.318	Α	-0.044	NO	
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	15,006	0.375	В	13,175	0.329	Α	-0.046	NO	
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	16,946	0.424	В	14,912	0.373	Α	-0.051	NO	
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	19,047	0.476	В	19,123	0.478	В	0.002	NO	
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	17,424	0.436	В	16,570	0.414	В	-0.021	NO	
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	15,372	0.384	В	13,420	0.335	Α	-0.049	NO	
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	18,003	0.600	С	20,577	0.686	D	0.086	NO	
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	13,658	0.455	В	15,789	0.526	С	0.071	NO	
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	13,018	0.434	В	14,528	0.484	С	0.050	NO	
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	10,045	0.335	В	10,537	0.351	В	0.016	NO	
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	9,893	0.440	В	10,952	0.487	С	0.047	NO	
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,223	0.122	Α	1,300	0.130	Α	0.000	NO	
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,146	0.115	Α	637	0.064	Α	0.000	NO	
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	3,856	0.386	Α	3,856	0.386	Α	0.000	NO	
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	7,996	0.800	D	8,204	0.820	D	0.021	NO	
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector1	3 Lane Collector	15,000	10,344	0.690	D	10,623	0.708	D	0.019	NO	
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	3,880	0.388	Α	3,880	0.388	Α	0.000	NO	
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,070	0.607	С	4,553	0.455	В	0.000	NO	
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	С	3,512	0.351	Α	0.000	NO	
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,866	0.787	D	8,834	0.883	D	0.097	NO	
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,968	0.397	Α	4,063	0.406	В	0.010	NO	
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,660	0.566	С	6,549	0.655	С	0.089	NO	
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,818	0.582	С	5,818	0.582	С	0.000	NO	
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	16,655	0.740	D	14,273	0.634	С	-0.106	NO	
30 Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	5,050	0.505	В	0.000	NO	
31 Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,560	0.856	D	5,160	0.516	В	-0.340	NO	
33 The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	С	3,512	0.351	Α	-0.220	NO	

LOS = Level of Service Segments with Significant Impacts Shown in Bold

Significant Impact: LOS D or Better to LOS E or Worse
Incremental V/C Ratio ≥ 0.02 for LOS E
Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

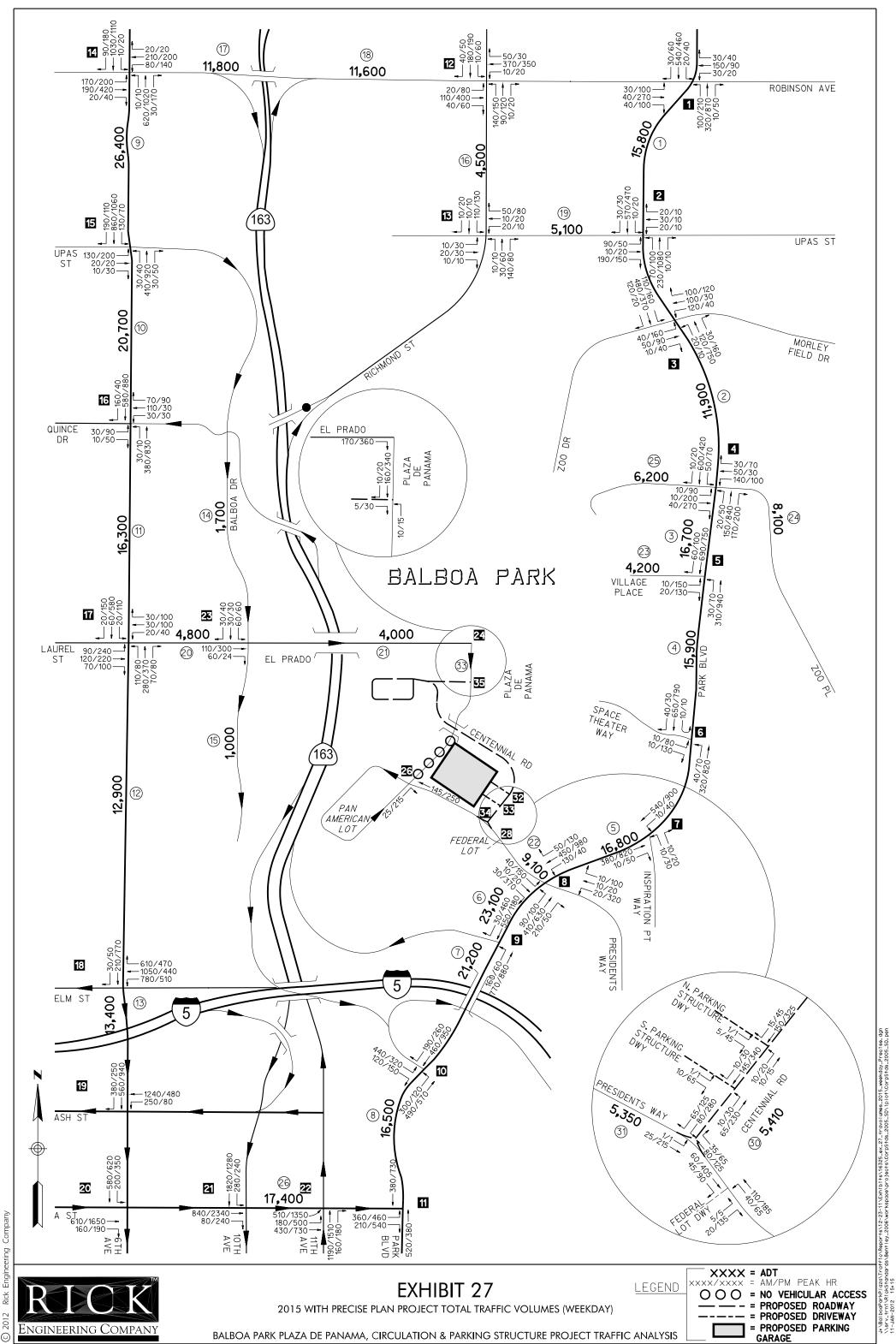
2 Estimated capacity (3/4 of 4 lane collector)

TABLE 35 EXISTING + PRECISE PLAN INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

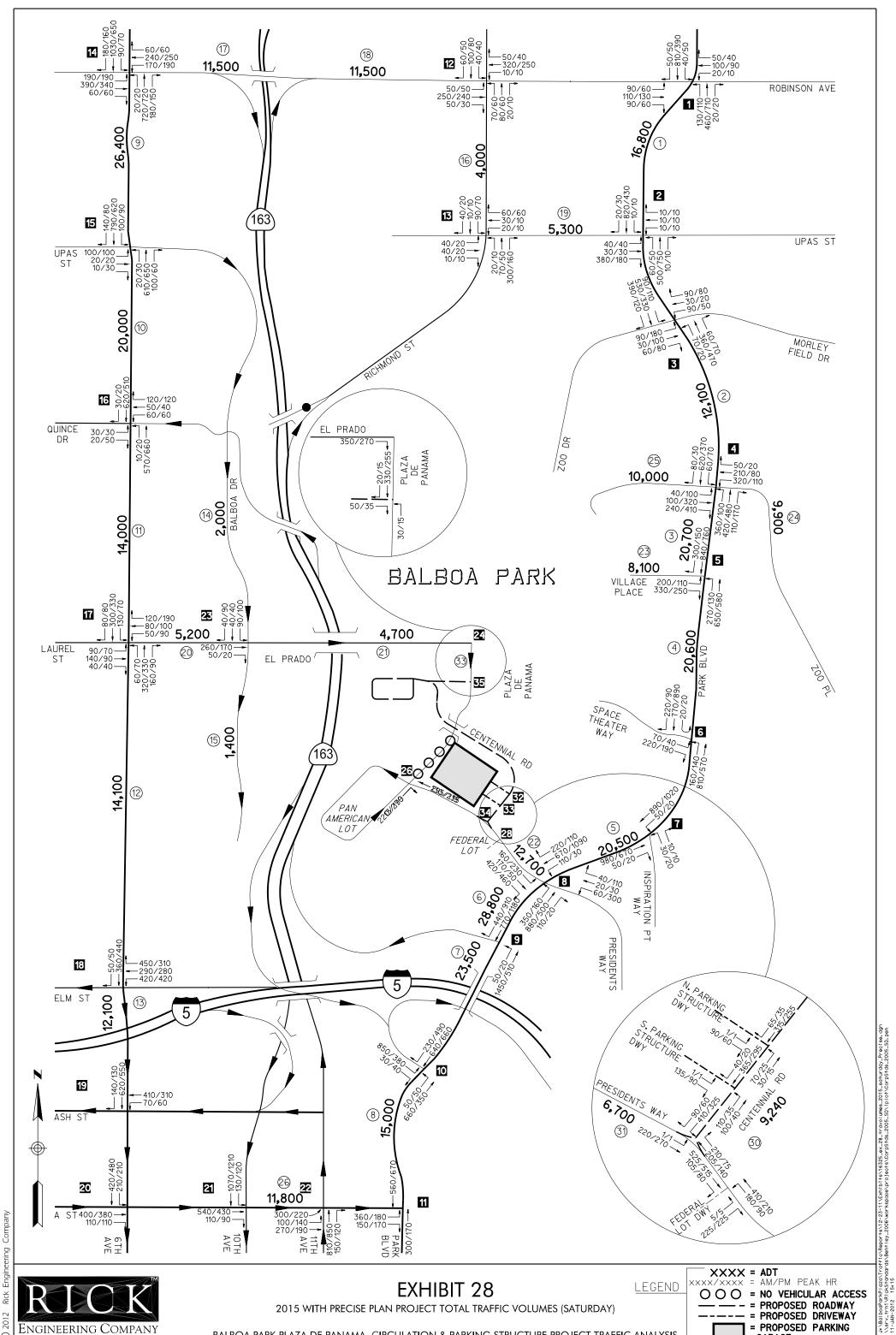
		Existing + F	Precise Plan
Intersection	Control	Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot			
AM	Ston		
Northbound Shared Left-Right	Stop	8.8	Α
Westbound Left		2.0	Α
32 Centennial Road/Parking Garage North Entrance/Exit			
AM	04		
Northbound Left	Stop	7.5	Α
Eastbound Left		9.0	Α
33 Centennial Road/Parking Garage South Entrance/Exit			
AM			
Northbound Left	Stop	7.5	Α
Eastbound Left		9.3	Α
Eastbound Right		9.0	Α
34 Presidents Way/Centennial Road			
AM			
Eastbound Left	Stop	7.4	Α
Southbound Left	1	9.4	Α
Southbound Right	1	8.9	Α

TABLE 36 EXISTING + PRECISE PLAN INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

		Existing + F	Precise Plan
Intersection	Control	Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot			
AM	Cton		
Northbound Shared Left-Righ	t Stop	17.6	С
Westbound Lef	t	4.5	Α
32 Centennial Road/Parking Garage North Entrance/Exit			
AN	040.0		
Northbound Lef	t Stop	8.1	Α
Eastbound Lef	t	10.4	В
33 Centennial Road/Parking Garage South Entrance/Exit			
AN	ī Ctom		
Northbound Lef	t Stop	8.3	Α
Eastbound Lef	t	11.6	В
Eastbound Righ	t	11.3	В
34 Presidents Way/Centennial Road			
AN	Ī		
Eastbound Lef	t Stop	8.1	Α
Southbound Lef	t	23.3	С
Southbound Righ	t	9.8	Α



2012 \odot



2012 \odot

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

GARAGE

TABLE 37 2015 + PRECISE PLAN INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			2015 No Pro	ject		201	5 + Precise Plan	
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue	0:	40.0	-	40.0		0.0	
	AM PM	Signal	16.3 19.5	B B	16.0 19.2	B	-0.3 -0.3	No No
2	Park Boulevard/Upas Street							
	AM PM	Signal	20.3	C B	19.3 15.4	B	-1.0 -3.2	No
3	Park Boulevard/Morley Field Drive		18.6	В	15.4	В	-3.2	No
	AM	Signal	18.8	В	18.6	В	-0.2	No
4	PM Park Boulevard/Zoo Place		20.4	С	19.6	В	-0.8	No
4	AM	Signal	16.2	В	15.6	В	-0.6	No
	PM	,	22.5	С	19.9	В	-2.6	No
5	Park Boulevard/Village Place AM	Signal	4.1	^	2.0	۸	-0.3	No
	PM	Signal	4.1 11.7	A B	3.8 11.1	A B	-0.5 -0.6	No No
6	Park Boulevard/Space Theatre Way							
	Northbound Left AM		0.7	^	9.1	۸	0.6	Na
	PM	Unsignalized	9.7 11.2	A B	9.1	A	-0.6 -1.4	No No
	Eastbound Left	-						
	AM PM		13.5 33.1	B D	12.2 20.2	B C	-1.3 -12.9	No No
7	Park Boulevard/Inspiration Way		33.1	U	20.2		~1∠.ਹ	No
	AM	Signal	2.9	Α	3.2	Α	0.3	No
	PM Park Boulevard/Presidents Way		4.7	Α	4.6	Α	-0.1	No
8	AM	Signal	14.7	В	14.7	В	0.0	No
	PM		28.4	С	24.8	С	-3.6	No
9	Park Boulevard/SR 163 NB Ramps Northbound Left							
	Northbound Left AM	Unsignalized	9.5	Α	9.3	Α	-0.2	No
	PM		17.4	С	15.6	С	-1.8	No
10	Park Boulevard/I-5 Ramps							
	AM PM	Signal	28.9	C	27.8 21.6	C	-1.1 -2.3	No No
11	Park Boulevard/A Street		23.3	0	21.0		-2.5	INU
	AM	Signal	11.8	В	11.6	В	-0.2	No
12	PM Richmond Street/Robinson Avenue		14.7	В	14.0	В	-0.7	No
12	AM	Signal	15.6	В	15.6	В	0.0	No
	PM		15.6	В	15.3	В	-0.3	No
13	Richmond Street/Upas Street AM	All Way Stop	8.3	Α	8.1	Α	-0.2	No
	PM	All Way Glop	8.9	A	8.4	A	-0.5	No
14	6th Avenue/Robinson Avenue							
	AM PM	Signal	23.4 31.1	C	22.8 30.2	C	-0.6 -0.9	No
15	6th Avenue/ Upas Street-Balboa Drive		31.1	C	30.2	C	-0.9	No
	AM	Signal	9.6	Α	9.3	Α	-0.3	No
40	PM 6th Avenue/Quince Drive		12.6	В	12.6	В	0.0	No
16	oth Avenue/Quince Drive AM	Signal	15.3	В	15.6	В	0.3	No
	PM	3 -	13.9	В	13.9	В	0.0	No
17	6th Avenue/Laurel Street	Cianal	12.2	P	12.0	P	0.0	NI-
	AM PM	Signal	13.2 15.7	B B	13.0 15.4	B B	-0.2 -0.3	No No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM PM	Signal	10.3	В	12.0	В	1.7	No
19	6th Avenue/Ash Street		13.4	В	13.8	В	0.4	No
	AM	Signal	12.1	В	12.4	В	0.3	No
20	PM		11.3	В	10.8	В	-0.5	No
20	6th Avenue/A Street AM	Signal	12.3	В	12.1	В	-0.2	No
	PM	3 -	13.2	В	12.9	В	-0.3	No
21	A Street/10th Avenue	Cianal	40.0	7	10.0	_	0.0	h.
	AM PM	Signal	12.8 16.6	B B	12.2 16.2	B B	-0.6 -0.4	No No
22	A Street/11th Avenue		. 5.0				5.7	140
-	AM	Signal	11.6	В	11.0	В	-0.6	No
23	PM Balboa Drive/El Prado		15.6	В	14.6	В	-1.0	No
۷.	AM	All Way Stop	8.1	Α	8.0	Α	-0.1	No
	PM		12.0	В	9.9	Α	-2.1	No

TABLE 38 2015 + PRECISE PLAN INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			2015 No Project			201	5 + Precise Plan	
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue	0:	45.0	1	44.0	-		
	AN PN	1 0	15.0 14.5	B	14.6 13.9	B B	-0.4 -0.6	No No
2	Park Boulevard/Upas Street		14.5		10.0		-0.0	INU
	AN		24.3	С	20.6	С	-3.7	No
3	PM Park Boulevard/Morley Field Drive		19.6	В	16.4	В	-3.2	No
<u> </u>	AN	Signal	17.5	В	16.6	В	-0.9	No
	PM	1 0	20.2	С	20.1	С	-0.1	No
4	Park Boulevard/Zoo Place	Cianal	07.0		04.0	_	0.0	
	AN PN	1 0	27.2 24.0	C	24.9 22.2	C	-2.3 -1.8	No No
5	Park Boulevard/Village Place		21.0					110
	AM		21.3	С	18.9	В	-2.4	No
6	PM Park Boulevard/Space Theatre Way		16.6	В	15.5	В	-1.1	No
0	Northbound Lef	:						
	AN	Ī	13.9	В	11.6	В	-2.3	No
	PN Footbound Lef	1 0	13.9	В	11.3	В	-2.6	No
	Eastbound Lef AM	-	112.7	F	33.4	D	-79.3	No
	PM	4	44.6	E	21.3	С	-23.3	No
7	Park Boulevard/Inspiration Way							
	AN PN	1 0	3.9	A	4.2 4.1	A	0.3	No No
8	Park Boulevard/Presidents Way		3.0	A	4.1	A	0.3	INO
	AN	1 0	31.3	С	29.1	С	-2.2	No
	PM		52.4	D	36.4	D	-16.0	No
9	Park Boulevard/SR 163 NB Ramps Northbound Lef							
	AN	- Linsianalizea	12.4	В	11.7	В	-0.7	No
	PN		22.4	С	19.5	С	-2.9	No
10	Park Boulevard/I-5 Ramps AN	Signal	25.1	С	23.6	С	-1.5	No
	PN		18.5	В	17.6	В	-0.9	No No
11	Park Boulevard/A Street						3.0	
	AM	- 3	13.3	В	13.1	В	-0.2	No
12	PN Richmond Street/Robinson Avenue		14.6	В	14.2	В	-0.4	No
-12	AN	Signal	13.7	В	13.6	В	-0.1	No
	PN		13.6	В	13.0	В	-0.6	No
13	Richmond Street/Upas Street AN	All Way Stop	11.5	В	10.1	В	-1.4	No
	PN		9.3	A	8.2	A	-1.1	No
14	6th Avenue/Robinson Avenue				-			
	AM	- 3	37.2	D	40.1	D	2.9	No
15	PN 6th Avenue/ Upas Street-Balboa Drive		30.5	С	30.1	С	-0.4	No
	AM	Signal	8.3	Α	8.2	Α	-0.1	No
	PM		11.6	В	10.7	В	-0.9	No
16	6th Avenue/Quince Drive	Signal	17.6	В	18.2	В	0.6	No
	PN		16.5	В	17.2	В	0.7	No
17	6th Avenue/Laurel Street	- ·						
	AN PN		15.1 15.0	B	14.8 14.8	B B	-0.3 -0.2	No No
18	6th Avenue/Elm Street-I-5 NB Off Ramp		13.0	0	14.0	٥	-0.2	INU
	AN	4 -	11.6	В	10.0	В	-1.6	No
	PM		12.0	В	12.2	В	0.2	No
10	6th Avenue/Ash Street	Signal	11.4	В	11.1	В	-0.3	No
19	AM				10.5	В	-0.4	No
19	AM PM	1 0	10.9	В	10.5			
	6th Avenue/A Street					-		
	6th Avenue/A Street Alv	Signal	11.7	В	11.4	В	-0.3 -0.3	No
20	6th Avenue/A Street	Signal				ВВ	-0.3 -0.3	No No
	6th Avenue/A Street AM PN A Street/10th Avenue AN	Signal	11.7	В	11.4			
20	6th Avenue/A Street Alv PN A Street/10th Avenue Alv PN	Signal	11.7 11.5	B B	11.4 11.2	В	-0.3	No
20	PN 6th Avenue/A Street AN PN A Street/10th Avenue AN PN A Street/11th Avenue	Signal	11.7 11.5 11.8 10.7	B B B	11.4 11.2 11.1 10.1	B B B	-0.3 -0.7 -0.6	No No No
20	6th Avenue/A Street Alv PN A Street/10th Avenue Alv PN	Signal Signal Signal	11.7 11.5	B B	11.4 11.2	В	-0.3 -0.7	No No
20	PN 6th Avenue/A Street AM PN A Street/10th Avenue AN PN A Street/11th Avenue AN A Street/11th Avenue	Signal Signal	11.7 11.5 11.8 10.7	B B B	11.4 11.2 11.1 10.1	B B B	-0.3 -0.7 -0.6	No No No

TABLE 39 2015 + PRECISE PLAN **ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

					2015 No Proje	ct			2015 + Pred	cise Plan	
Roadway Segment	Future Classification/Lanes		LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector1	4 Lane Major	15,000	15,000	1.000	E	15,800	1.053	F	0.053	YES
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	13,800	0.345	Α	11,900	0.298	Α	-0.048	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	19,000	0.475	В	16,700	0.418	В	-0.058	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	18,100	0.453	В	15,900	0.398	В	-0.055	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	19,100	0.478	В	16,800	0.420	В	-0.058	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	23,000	0.575	С	23,100	0.578	С	0.003	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	21,200	0.530	С	-0.028	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	18,900	0.473	В	16,500	0.413	В	-0.060	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	23,100	0.770	D	26,400	0.880	Е	0.110	YES
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	17,900	0.597	С	20,700	0.690	D	0.093	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	14,600	0.487	С	16,300	0.543	С	0.057	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	12,300	0.410	В	12,900	0.430	В	0.020	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	12,100	0.538	С	13,400	0.596	С	0.058	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,600	0.160	А	1,700	0.170	Α	0.010	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,800	0.180	Α	1,000	0.100	Α	-0.080	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	4,500	0.450	В	4,500	0.450	В	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	11,500	1.150	F	11,800	1.180	F	0.030	YES
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector ¹	3 Lane Collector	15,000	11,300	0.753	D	11,600	0.773	D	0.020	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,100	0.510	В	5,100	0.510	В	0.000	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,400	0.640	С	4,800	0.480	В	-0.160	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	С	4,000	0.400	В	-0.250	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,100	0.810	D	9,100	0.910	Е	0.100	YES
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	4,100	0.410	В	4,200	0.420	В	0.010	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	7,000	0.700	С	8,100	0.810	D	0.110	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,200	0.620	С	6,200	0.620	С	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	20,300	0.902	Е	17,400	0.773	D	-0.129	NO
30 Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	5,410	0.541	В	0.000	NO
31 Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,470	0.947	Е	5,350	0.535	В	-0.412	NO
33 The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	С	4,000	0.400	В	-0.250	NO

LOS = Level of Service Segments with Significant Impacts Shown in Bold

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)
- Presidents Way west of Park Boulevard (LOS E)
- 6th Avenue between Robinson and Upas Street (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F).

Significant impacts were calculated based on the current significance thresholds.

Tables 40 and 41 show all the weekday and Saturday internal study intersections to operate acceptably at LOS D or better.

2030

Exhibit 29 and Exhibit 30 show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 42 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods, with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, PM peak)

Significant impacts were calculated based on the current significance thresholds.

Table 43 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM and LOS E, PM peak)
- Park Boulevard/Presidents Way (LOS F, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, AM and PM peaks)

Significant impacts were calculated at these locations based on the current significance thresholds.

Table 44 shows that all study area roadways to operate at LOS D or better on a daily basis with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)*
- 6th Avenue between Robinson Avenue and Upas Street (LOS F)*
- 6th Avenue between Upas Street and Quince Street (LOS E)*
- 6th Avenue between Elm Street and Ash Street (LOS E)*
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)*
- Robinson Avenue between Vermont Street and Park Boulevard (LOS E)
- Zoo Place east of Park Boulevard (LOS F)*
- Presidents Way west of Park Boulevard (LOS E)*

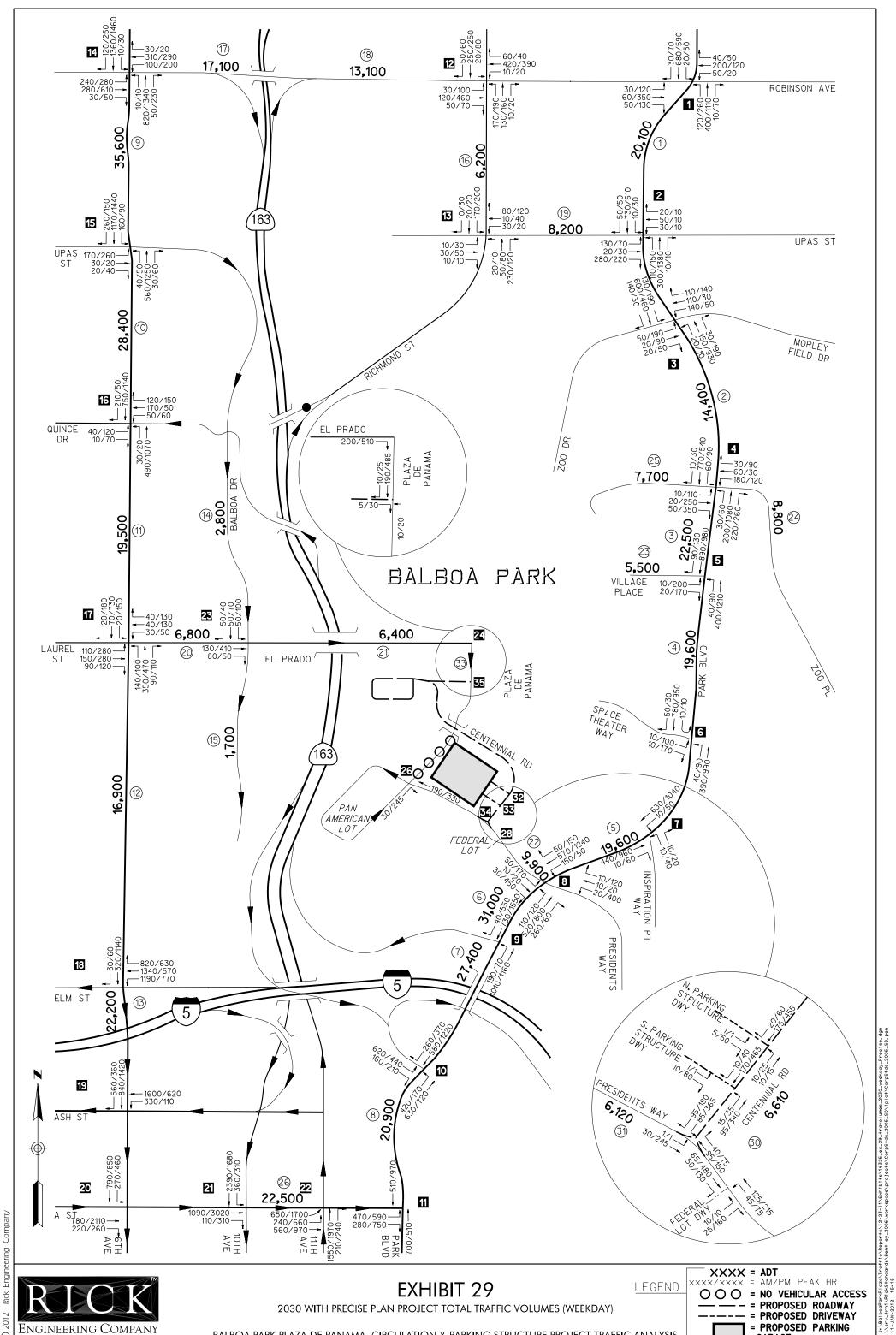
Significant impacts were calculated at these "*" locations based on the current significance thresholds.

TABLE 40 2015 + PRECISE PLAN INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

		2015 + Pro	ecise Plan
Intersection	Control	Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot			
AM	Cton		
Northbound Shared Left-Right	Stop	9.2	Α
Westbound Left		2.2	Α
32 Centennial Road/Parking Garage North Entrance/Exit			
AM	01		
Northbound Left	Stop	7.6	Α
Eastbound Left		9.2	Α
33 Centennial Road/Parking Garage South Entrance/Exit			
AM			
Northbound Left	Stop	7.6	Α
Eastbound Left	1	9.5	Α
Eastbound Right	1	9.1	Α
34 Presidents Way/Centennial Road			
AM	1		
Eastbound Left	Stop	7.5	Α
Southbound Left	-	9.5	Α
Southbound Right	1	9.0	Α

TABLE 41 2015 + PRECISE PLAN INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

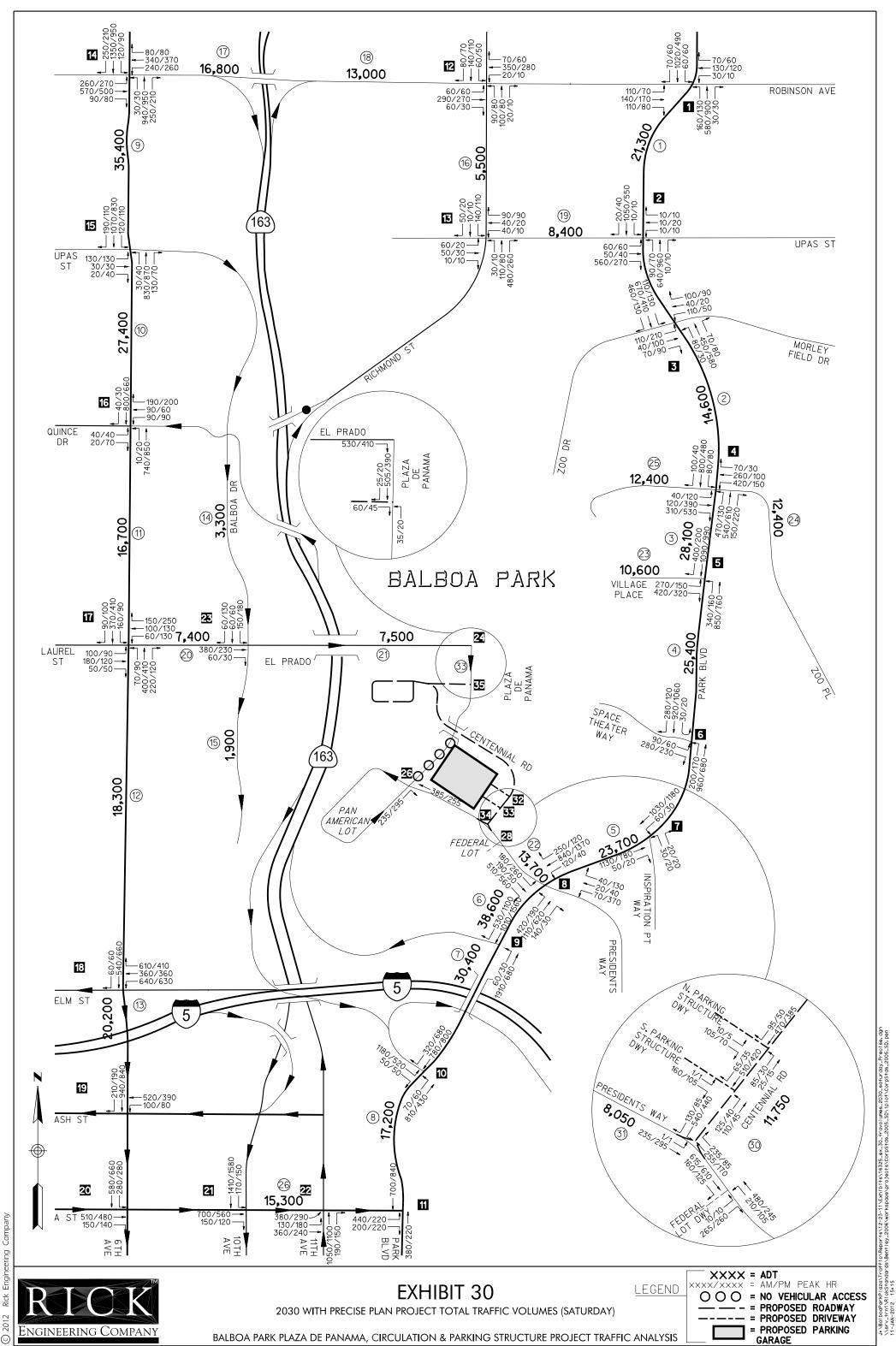
		2015 + Pro	ecise Plan
Intersection	Control	Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot			
AM	Cton		
Northbound Shared Left-Right	Stop	22.5	С
Westbound Left	1	5.1	Α
32 Centennial Road/Parking Garage North Entrance/Exit			
AM	04		
Northbound Left	Stop	8.4	Α
Eastbound Left		11.0	В
33 Centennial Road/Parking Garage South Entrance/Exit			
AM			
Northbound Left	Stop	8.4	Α
Eastbound Left	1	11.3	В
Eastbound Right	1	12.1	В
34 Presidents Way/Centennial Road			
AM	1		
Eastbound Left	Stop	8.2	Α
Southbound Left	1	32.7	D
Southbound Right	1	10.0	В



2012 0

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

GARAGE



2012 \odot

TABLE 42 2030 + PRECISE PLAN INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			2030 No Pro	ject		2030) + Precise Plar	1
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM PM	Signal	17.5 31.0	B	17.3 34.8	B C	-0.2 3.8	No No
2	Park Boulevard/Upas Street		01.0	J	04.0		0.0	140
	AM	Signal	24.8	С	22.9	С	-1.9	No
3	PM Park Boulevard/Morley Field Drive		24.1	С	19.5	В	-4.6	No
	AM	Signal	19.2	В	18.9	В	-0.3	No
	PM Park Boulevard/Zoo Place		22.6	С	20.8	С	-1.8	No
4	Park Boulevard/200 Place AM	Signal	16.7	В	16.1	В	-0.6	No
	PM		29.3	С	22.5	С	-6.8	No
5	Park Boulevard/Village Place AM	Cianal	4.0		4.0		0.0	NI-
	AW PM	Signal	4.6 13.1	A B	4.0 11.8	A B	-0.6 -1.3	No No
6	Park Boulevard/Space Theatre Way		10.1		11.0			
	Northbound Left	,	10.0	_	0.7		2.2	
	AM PM	NA	10.6 12.9	B B	9.7 10.8	A B	-0.9 -2.1	No No
	Eastbound Left		12.0		10.0		2.1	140
	AM		15.1	С	13.3	В	-1.8	No
7	PM Park Boulevard/Inspiration Way		112.1	F	35.8	Е	-76.3	No
	AM	Signal	3.0	Α	2.9	Α	-0.1	No
	PM		4.7	Α	4.9	Α	0.2	No
8	Park Boulevard/Presidents Way AM	Signal	14.7	В	14.7	В	0.0	No
	PM	Signal	62.0	E	14.7 40.9	D	-21.1	No No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left AM	NA	40.0	_	10.1	В	0.5	NI-
	PM		10.9 28.4	B D	10.4 23.3	С	-0.5 -5.1	No No
10	Park Boulevard/I-5 Ramps		20.1		20.0		0	
	AM	Signal	38.4	D	33.8	С	-4.6	No
11	PM Park Boulevard/A Street		43.6	D	28.9	С	-14.7	No
	AM	Signal	12.5	В	12.1	В	-0.4	No
	PM		20.1	O	16.3	В	-3.8	No
12	Richmond Street/Robinson Avenue AM	Signal	16.7	В	16.7	В	0.0	No
	PM	Oigilai	17.3	В	16.9	В	-0.4	No
13	Richmond Street/Upas Street							
	AM PM	All Way Stop	9.6	A B	9.3 9.8	A	-0.3 -0.8	No No
14	6th Avenue/Robinson Avenue		10.0	В	9.0		-0.0	INU
	AM	Signal	30.6	С	30.4	С	-0.2	No
15	PM 6th Avenue/ Upas Street-Balboa Drive		103.0	F	104.1	F	1.1	Yes
15	AM	Signal	11.1	В	10.9	В	-0.2	No
	PM		15.3	В	15.2	В	-0.1	No
16	6th Avenue/Quince Drive AM	Signal	18.7	В	19.2	В	0.5	Na
	PM	Jiyildi	16.9	В	18.0	В	0.5 1.1	No No
17	6th Avenue/Laurel Street							
	AM PM	Signal	13.7	В	13.4	В	-0.3	No No
18	6th Avenue/Elm Street-I-5 NB Off Ramp		17.8	В	17.0	В	-0.8	No
	AM	Signal	31.1	С	63.9	E	32.8	Yes
-40	PM 6th Avenue/Ash Street		17.6	В	19.9	В	2.3	No
19	otn Avenue/Asn Street AM	Signal	14.7	В	14.7	В	0.0	No
	PM	3	11.7	В	11.1	В	-0.6	No
20	6th Avenue/A Street	Cianal	10.1	_	10.0		0.0	NI-
	AM PM	Signal	13.1 17.6	B B	12.8 15.6	B B	-0.3 -2.0	No No
21	A Street/10th Avenue							
	AM	Signal	15.7	В	15.3	В	-0.4	No
	A Street/11th Avenue		42.1	D	28.0	С	-14.1	No
22		0: 1	13.0	В	12.0	В	-1.0	No
22	AM	Signal	13.0					
	AM PM	Signal	21.6	С	18.7	В	-2.9	No
22	AM							

TABLE 43 2030 + PRECISE PLAN INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			2030 No Pro	ject		203	0 + Precise Plan	1
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AN PN		16.5 15.5	B B	16.0 15.3	B	-0.5 -0.2	No No
2	Park Boulevard/Upas Street		15.5	ь	15.5	В	-0.2	No
	AN	- 5	51.3	D	31.6	С	-19.7	No
	PM		23.3	С	19.2	В	-4.1	No
3	Park Boulevard/Morley Field Drive AM	Signal	19.3	В	17.7	В	-1.6	No
	PM		20.7	С	20.3	С	-0.4	No
4	Park Boulevard/Zoo Place	6: 1		,				
	AN PN		36.1 27.4	D C	28.1 24.1	C	-8.0 -3.3	No No
5	Park Boulevard/Village Place		21.4	U	24.1		-3.3	INO
	AN		37.7	D	23.7	С	-14.0	No
6	PN Park Boulevard/Space Theatre Way		19.3	В	16.9	В	-2.4	No
ь	Northbound Left							
	AN	4	19.4	С	14.2	В	-5.2	No
	PN Facethours Lati	_	18.5	С	13.4	В	-5.1	No
	Eastbound Left AM	-	460.8	F	145.2	F	-315.6	No
	PM	_	168.8	F	46.6	E	-122.2	No
7	Park Boulevard/Inspiration Way	6: 1						
	AN PN		4.9	A	4.6 4.4	A	-0.3 0.4	No No
8	Park Boulevard/Presidents Way			,,		,	0.1	110
	AM		56.4	E	46.5	D	-9.9	No
9	PM Park Boulevard/SR 163 NB Ramps		126.4	F	87.0	F	-39.4	No
9	Northbound Left	N/A						
	AN	4	15.5	С	14.5	В	-1.0	No
10	PM Park Boulevard/I-5 Ramps		40.7	Е	32.6	D	-8.1	No
10	AM	Signal	32.6	С	28.4	С	-4.2	No
	PM		23.8	С	20.7	С	-3.1	No
11	Park Boulevard/A Street	0:1	110		40.0		2.2	
	AN PN	- 3	14.2 16.4	B	13.6 14.8	B	-0.6 -1.6	No No
12	Richmond Street/Robinson Avenue							
	AN PN		14.6	В	14.6	В	0.0	No
13	Richmond Street/Upas Street		14.4	В	14.0	В	-0.4	No
	AM	All Way Stop	29.2	D	19.4	С	-9.8	No
	PM		11.7	В	9.6	Α	-2.1	No
14	6th Avenue/Robinson Avenue	Signal	151.7	F	168.4	F	16.7	Yes
	PM	- 3	75.5	E	86.7	F	11.2	Yes
15	6th Avenue/ Upas Street-Balboa Drive							
	AN PN	- 3	9.5 12.4	A B	9.4 11.6	A B	-0.1 -0.8	No No
16	6th Avenue/Quince Drive		12.4		11.0		-0.0	NO
	AM		21.6	С	22.1	С	0.5	No
17	PM 6th Avenue/Laurel Street		20.0	В	20.9	С	0.9	No
17	AM	Signal	15.7	В	15.2	В	-0.5	No
	PM		15.4	В	15.1	В	-0.3	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp AN	Signal	11.3	В	11.9	В	0.6	N/a
	PM		11.3	В	13.1	В	0.6	No No
19	6th Avenue/Ash Street							
	AN PN		11.8	B	11.3 10.4	B	-0.5 -0.5	No No
20	6th Avenue/A Street		10.9	В	10.4	-	-0.5	No
_,	AM		12.1	В	11.8	В	-0.3	No
6.1	PM		11.9	В	11.5	В	-0.4	No
21	A Street/10th Avenue	Signal	12.5	В	11.8	В	-0.7	No
	PM	-	11.4	В	10.8	В	-0.6	No
22	A Street/11th Avenue	Cian-I	10.6		10.0	-		
	AM PM	_	10.8	B B	10.2 9.6	B A	-0.6 -0.4	No No
23	Balboa Drive/El Prado							
	AM		24.7	0	12.0	В	-12.7	No
	PM	1	21.9	С	10.1	В	-11.8	No

TABLE 44 2030 + PRECISE PLAN **ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

				2	030 No Projec	t			2030 + Pred	ise Plan	
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	19,100	1.273	F	20,100	1.340	F	0.067	YES
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	16,700	0.418	В	14,400	0.360	Α	-0.058	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	25,600	0.640	С	22,500	0.563	С	-0.078	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	19,600	0.490	В	-0.068	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	19,600	0.490	В	-0.068	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	30,900	0.773	D	31,100	0.778	D	0.005	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	28,800	0.720	С	27,400	0.685	С	-0.035	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	24,000	0.600	С	20,900	0.523	В	-0.078	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	31,200	1.040	F	35,600	1.187	F	0.147	YES
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	24,500	0.817	D	28,400	0.947	E	0.130	YES
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	17,500	0.583	С	19,500	0.650	С	0.067	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	16,100	0.537	С	16,900	0.563	С	0.027	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	20,100	0.893	E	22,200	0.987	E	0.093	YES
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	2,700	0.270	Α	2,800	0.280	Α	0.010	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,000	0.300	А	1,700	0.170	Α	-0.130	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	6,200	0.620	С	6,200	0.620	С	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	16,700	1.670	F	17,100	1.710	F	0.040	YES
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector1	3 Lane Collector	15,000	12,800	0.853	D	13,100	0.873	Е	0.020	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,200	0.820	D	8,200	0.820	D	0.000	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,100	0.910	E	6,800	0.680	С	-0.230	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	F	6,400	0.640	С	-0.390	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,800	0.880	D	9,900	0.990	E	0.110	YES
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,400	0.540	В	5,500	0.550	В	0.010	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,800	0.880	D	10,200	1.020	F	0.140	YES
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,700	0.770	D	7,700	0.770	D	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	26,300	1.169	F	22,500	1.000	Е	-0.169	NO
30 Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	6,610	0.661	С	0.000	NO
31 Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,800	0.980	Е	6,120	0.612	С	-0.368	NO
33 The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	F	6,400	0.640	С	-0.390	NO

LOS = Level of Service Segments with Significant Impacts Shown in Bold

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

Tables 45 and 46 show all the weekday and Saturday internal study intersections to operate at LOS C or better, with the exception of:

- Presidents Way/Federal Lot (NB shared left-right, LOS E)
- Presidents Way/Centennial Road (SB left, LOS F)

These are deemed significant impacts.

ALTERNATIVE 3A – PEDESTRIANIZE CABRILLO BRIDGE WITH NO NEW PARKING OPERATIONS

Exhibit 31 shows the intersection lane geometry and configurations of the study area intersections.

Exhibit 32 shows the percent distribution for this alternative.

Existing

Exhibit 33 and Exhibit 34 show the Existing + Project Alternative 3A traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 47 shows all the study area intersections to operate acceptably at LOS C or better during the weekday AM and PM peak periods. No significant impacts were calculated.

Table 48 shows all the study area intersections to operate acceptably at LOS D or better during the weekend AM and PM peak periods. No significant impacts were calculated.

Table 49 shows that all study area roadways to operate at LOS D or better on a daily basis. No significant impact based on the current significance thresholds.

Tables 50 and 51 show all the weekday and Saturday internal study intersections to operate acceptably at LOS C or better.

2015

Exhibit 35 and Exhibit 36 show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 52 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods with the exception of:

• Park Boulevard/Space Theatre Way (EB left turn, LOS F, PM peak)

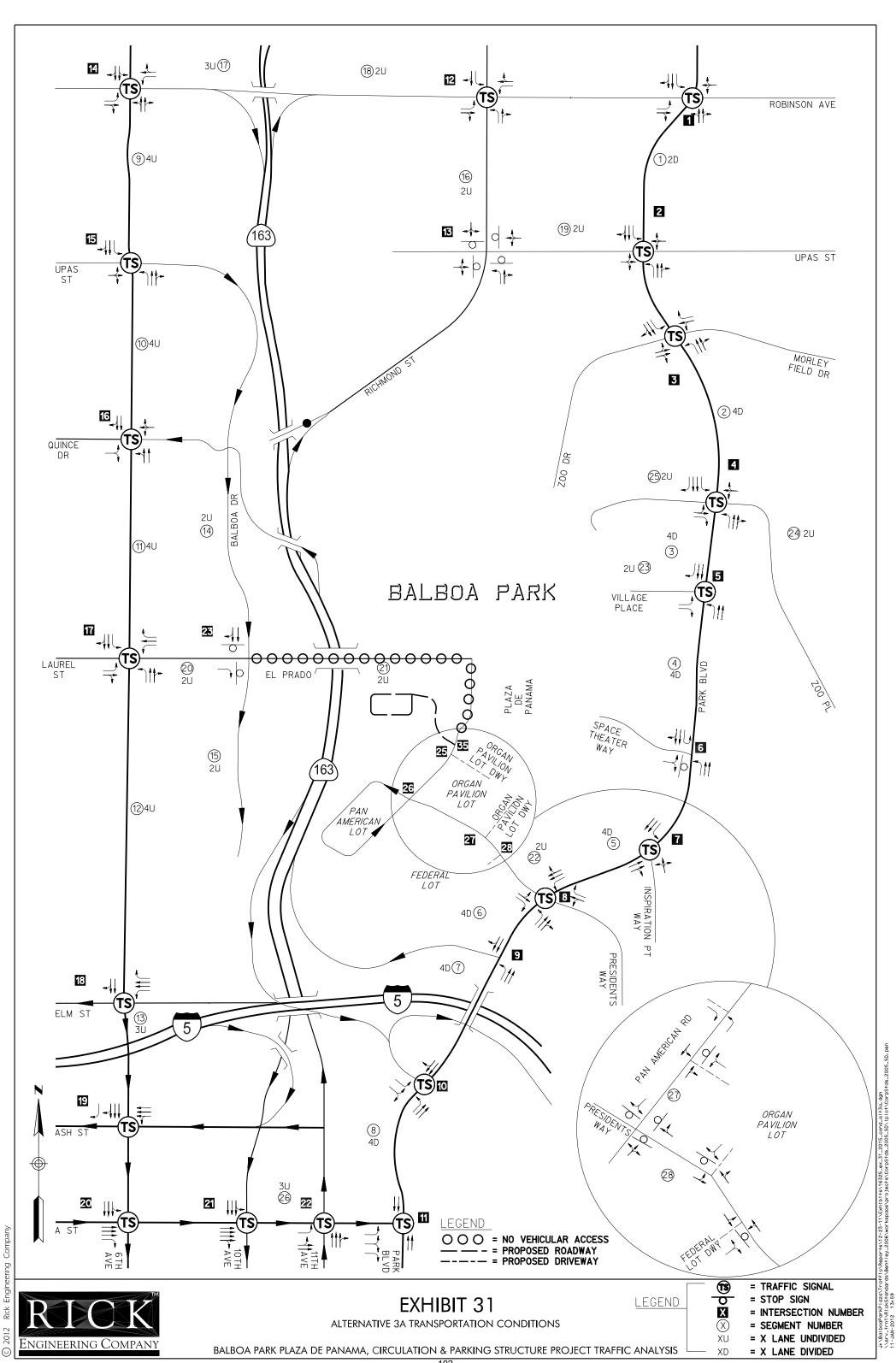
This is deemed a significant impact.

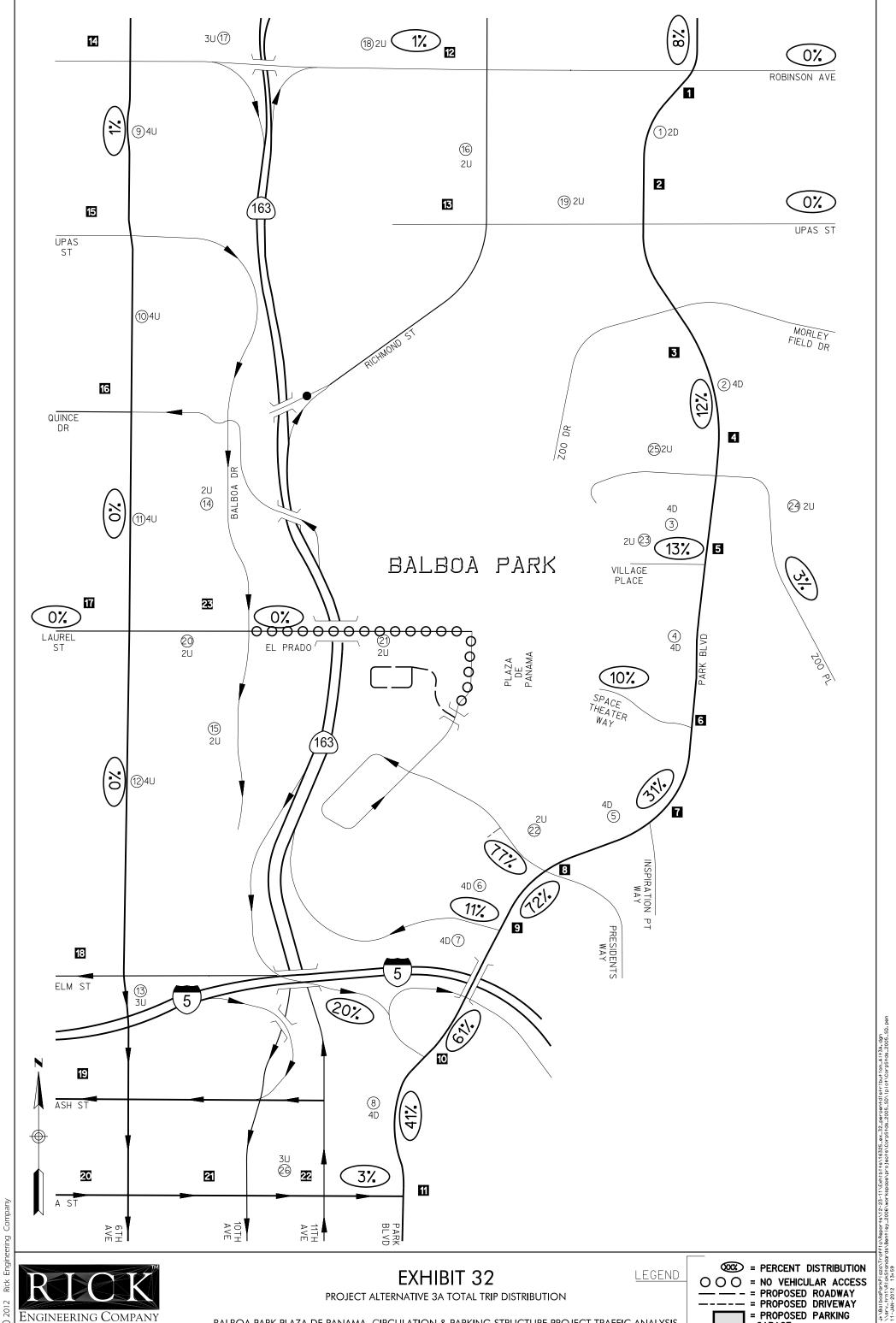
TABLE 45 2030 + PRECISE PLAN INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

		2030 + Pre	ecise Plan
Intersection	Control	Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot			
AM	Ston		
Northbound Shared Left-Right	Stop	9.5	Α
Westbound Left		2.2	Α
32 Centennial Road/Parking Garage North Entrance/Exit			
AM	04		
Northbound Left	Stop	7.7	Α
Eastbound Left		9.3	Α
33 Centennial Road/Parking Garage South Entrance/Exit			
AM			
Northbound Left	Stop	7.7	Α
Eastbound Left		9.6	Α
Eastbound Right		9.3	Α
34 Presidents Way/Centennial Road			
AM			
Eastbound Left	Stop	7.5	Α
Southbound Left		9.7	Α
Southbound Right		9.2	Α

TABLE 46 2030 + PRECISE PLAN INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

		2030 + Pro	ecise Plan
Intersection	Control	Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot			
AM	Cton		
Northbound Shared Left-Right	Stop	37.0	Е
Westbound Left		6.7	Α
32 Centennial Road/Parking Garage North Entrance/Exit			
AM	04		
Northbound Left	Stop	9.1	Α
Eastbound Left		13.3	В
33 Centennial Road/Parking Garage South Entrance/Exit			
AM			
Northbound Left	Stop	9.4	Α
Eastbound Left	1	13.7	В
Eastbound Right	1	15.0	С
34 Presidents Way/Centennial Road			
AM	1		
Eastbound Left	Stop	8.5	Α
Southbound Left	1	>50	F
Southbound Right	1	10.8	В





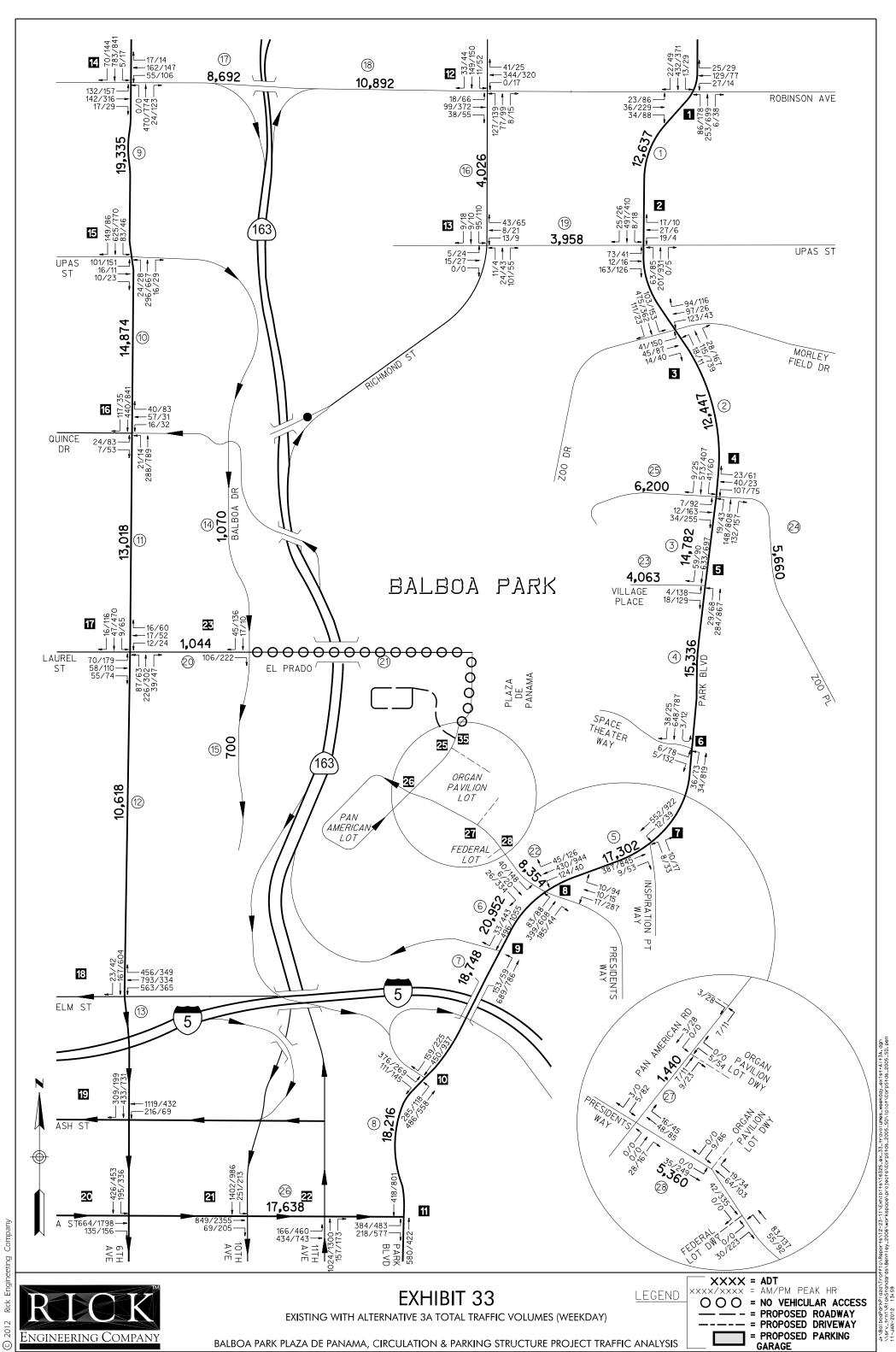
PROJECT ALTERNATIVE 3A TOTAL TRIP DISTRIBUTION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS 103

= PROPOSED DRIVEWAY = PROPOSED PARKING GARAGE

2012

Engineering Company



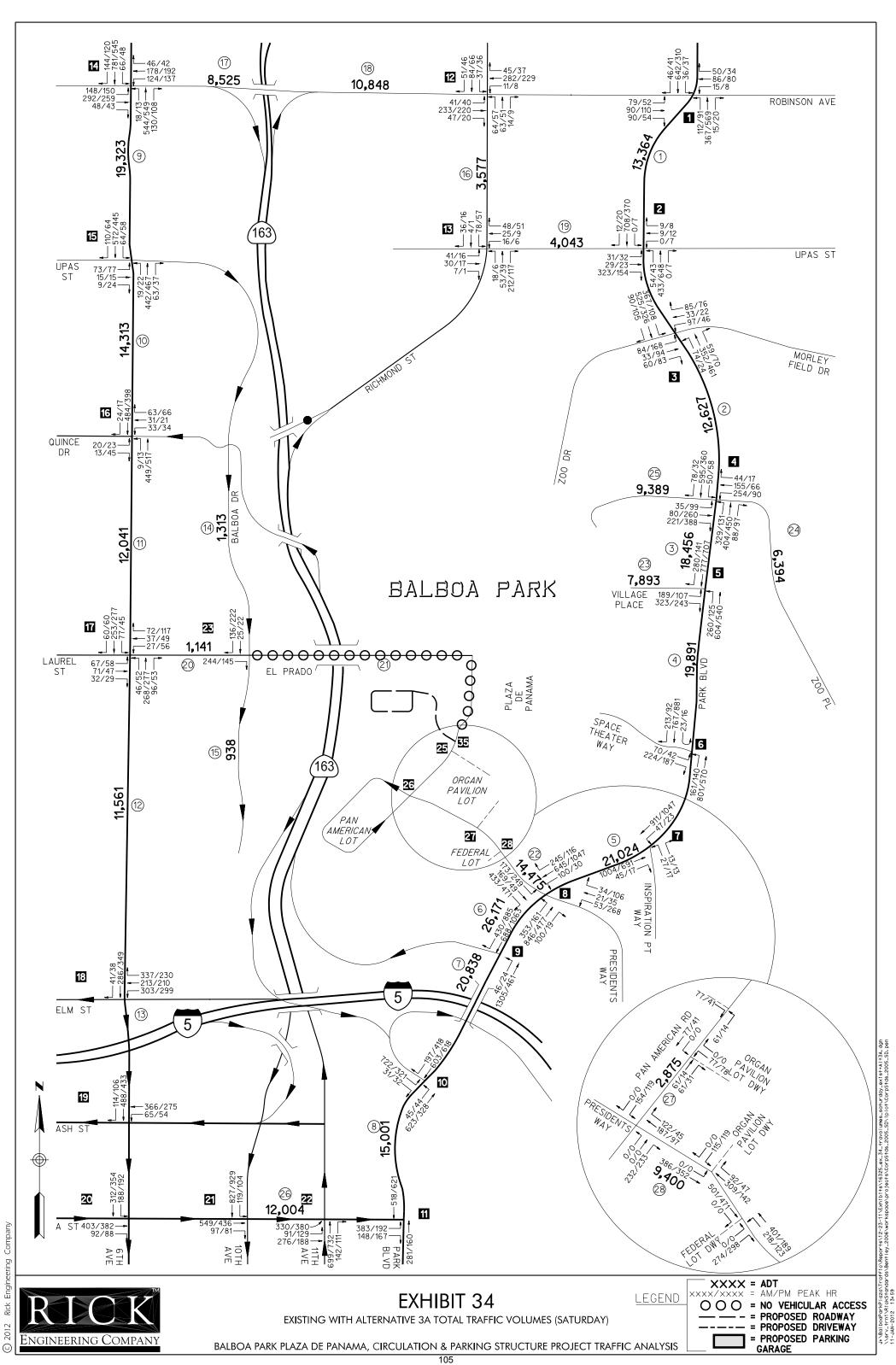


TABLE 47 EXISTING + PROJECT ALTERNATIVE 3A INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			Existing	9	Exi	sting +	Project Alterna	tive 3A	
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No	
11	Park Boulevard/Robinson Avenue AM	Signal	46.0	В	16.0	В	0.0	NI-	
	PM	Signal	16.3 17.1	В	16.3 17.2	В	0.0	No No	
2	Park Boulevard/Upas Street						0.1	.,,	
	AM	Signal	18.6	В	18.7	В	0.1	No	
3	PM Park Boulevard/Morley Field Drive		14.4	В	14.5	В	0.1	No	
	AM	Signal	18.6	В	18.6	В	0.0	No	
	PM	•	19.2	В	19.2	В	0.0	No	
4	Park Boulevard/Zoo Place AM	Signal	16.1	В	16.1	В	0.0	No	
	PM	Signal	21.5	С	21.8	С	0.0	No	
5	Park Boulevard/Village Place								
	AM PM	Signal	3.9	A	3.9	A	0.0	No	
6	Park Boulevard/Space Theatre Way		11.3	В	11.2	В	-0.1	No	
	Northbound Left	:							
	AM		9.0	Α	9.1	Α	0.1	No	
	PM Eastbound Left	NA	9.7	Α	9.8	Α	0.1	No	
	AM		12.1	В	12.2	В	0.1	No	
	PM	•	19.2	С	20.0	С	0.8	No	
7	Park Boulevard/Inspiration Way	Cianal	0.4		0.4		0.0	NI-	
	AM PM	Signal	3.1 4.5	A	3.1 4.5	A	0.0	No No	
8	Park Boulevard/Presidents Way								
	AM	Signal	14.7	В	14.6	В	-0.1	No	
9	PM Park Boulevard/SR 163 NB Ramps		21.8	С	22.9	С	1.1	No	
	Northbound Left	N A							
	AM	NA	8.8	Α	9.0	Α	0.2	No	
10	PM Park Boulevard/I-5 Ramps		12.8	В	14.1	В	1.3	No	
10	Park Boulevard/1-5 Ramps AM	Signal	26.2	С	26.7	С	0.5	No	
	PM		19.9	В	20.5	C	0.6	No	
11	Park Boulevard/A Street	6: 1	44.5	_	44.0	_			
	AM PM	Signal	11.5 13.3	B	11.6 14.6	B B	0.1 1.3	No No	
12	Richmond Street/Robinson Avenue		10.0		14.0		1.0	140	
	AM	Signal	15.0	В	15.1	В	0.1	No	
13	PM Richmond Street/Upas Street		14.5	В	14.6	В	0.1	No	
13	AM	All Way Stop	7.7	Α	7.8	Α	0.1	No	
	PM		8.0	Α	8.0	Α	0.0	No	
14	6th Avenue/Robinson Avenue AM	0:1	20.5	С	20.6	С	0.4		
	PM	Signal	20.5	C	23.1	C	0.1 0.5	No No	
15	6th Avenue/ Upas Street-Balboa Drive								
	AM	Signal	9.6	A	9.2	A	-0.4	No	
16	PM 6th Avenue/Quince Drive		11.7	В	11.4	В	-0.3	No	
	AM	Signal	12.1	В	12.0	В	-0.1	No	
	PM		12.1	В	13.7	В	1.6	No	
17	6th Avenue/Laurel Street AM	Signal	13.0	В	12.3	В	-0.7	No	
	PM	Jigiliai	15.0	В	14.3	В	-0.7	No	
18	6th Avenue/Elm Street-I-5 NB Off Ramp								
	AM PM	Signal	8.6 12.8	A B	8.7 12.9	A B	0.1 0.1	No No	
19	6th Avenue/Ash Street		12.0	В	12.9	- 0	U.T	No	
	AM	Signal	11.5	В	11.5	В	0.0	No	
00	PM		10.9	В	10.9	В	0.0	No	
20	6th Avenue/A Street	Signal	11.8	В	11.8	В	0.0	No	
	PM		11.5	В	11.8	В	0.3	No	
21	A Street/10th Avenue	0:- 1	4		46 :				
	AM PM		11.9 14.0	B	12.1 14.1	B B	0.2 0.1	No No	
22	A Street/11th Avenue		1 7.0		1-7.1	,	0.1	140	
	AM	Signal	11.0	В	11.3	В	0.3	No	
22	PM Balboa Drive/El Prado		13.9	В	14.2	В	0.3	No	
23	Baiboa Drive/El Prado AM	All Way Stop	7.8	Α	7.1	Α	-0.7	No	
	PM	.,	10.8	В	7.3	A	-3.5	No	

TABLE 48 EXISTING + PROJECT ALTERNATIVE 3A INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			Existing	9	Exi	sting +	Project Alterna	ntive 3A
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
		M Signal	14.5 13.8	B	14.6 13.9	B	0.1	No No
2	Park Boulevard/Upas Street	IVI	13.0	В	13.9	В	0.1	No
	,	M Signal	19.2	В	19.3	В	0.1	No
		PM	15.5	В	15.5	В	0.0	No
3	Park Boulevard/Morley Field Drive	M Signal	17.0	В	17.0	В	0.0	No
		PM	20.0	С	20.0	С	0.0	No
4	Park Boulevard/Zoo Place							
		M Signal	30.0 24.0	C	30.3 24.2	C	0.3	No No
5	Park Boulevard/Village Place	IVI	24.0		24.2	C	0.2	INO
		M Signal	18.5	В	18.7	В	0.2	No
		PM	15.5	В	15.5	В	0.0	No
6	Park Boulevard/Space Theatre Way Northbound L	eft						
		MM	11.3	В	11.5	В	0.2	No
		PM NA	11.1	В	11.2	В	0.1	No
	Eastbound L	eft M	31.2	D	33.6	D	2.4	No
		PM	20.3	C	21.2	С	0.9	No
7	Park Boulevard/Inspiration Way							
		M Signal	4.1	A	4.1	Α	0.0	No
8	Park Boulevard/Presidents Way	PM	4.1	Α	4.1	Α	0.0	No
0		M Signal	25.0	С	29.7	С	4.7	No
		PM	26.8	С	34.4	С	7.6	No
9	Park Boulevard/SR 163 NB Ramps Northbound L	oft						
		M NA	10.5	В	11.1	В	0.6	No
		PM	15.4	С	17.8	С	2.4	No
10	Park Boulevard/I-5 Ramps							
		M Signal	21.8 16.2	C B	22.3 16.3	В	0.5 0.1	No No
11	Park Boulevard/A Street	IVI	10.2	_ D	10.5	ь	0.1	INO
		M Signal	12.8	В	13.3	В	0.5	No
40	Richmond Street/Robinson Avenue	PM	13.8	В	14.4	В	0.6	No
12		M Signal	13.0	В	13.0	В	0.0	No
	I	PM	12.7	В	12.7	В	0.0	No
13	Richmond Street/Upas Street	M All Marin Otalia	0.0					
		All Way Stop	8.8 7.7	A	8.8 7.8	A	0.0	No No
14	6th Avenue/Robinson Avenue				7.0		0.1	110
		M Signal	24.3	С	25.1	С	0.8	No
15	6th Avenue/ Upas Street-Balboa Drive	PM	24.8	С	25.8	С	1.0	No
13		M Signal	8.3	Α	7.8	Α	-0.5	No
		PM	11.1	В	10.6	В	-0.5	No
16	6th Avenue/Quince Drive	M Signal	12.0	В	12.0	В	0.0	No
		M Signal	13.9 13.5	В	13.9 13.5	В	0.0	No No
17	6th Avenue/Laurel Street							
		M Signal	14.8	В	13.6	B B	-1.2 -1.0	No No
18	6th Avenue/Elm Street-I-5 NB Off Ramp	IVI	14.7	В	13.7	В	-1.0	No
		M Signal	10.9	В	11.1	В	0.2	No
4-		PM	11.5	В	11.7	В	0.2	No
19	6th Avenue/Ash Street	M Signal	11.2	В	11.2	В	0.0	No
		PM Signal	10.7	В	10.7	В	0.0	No
20	6th Avenue/A Street							
		M Signal	11.4 11.3	B	11.4 11.4	B	0.0	No No
21	A Street/10th Avenue		11.3	В	11.4		0.1	No
		M Signal	11.4	В	11.5	В	0.1	No
		PM	10.4	В	10.5	В	0.1	No
00		1				1		
22	A Street/11th Avenue	M Signal	9.8	Δ	10.0	Δ	0.2	No
22	ı	M Signal PM	9.8 9.2	A	10.0 9.4	A	0.2 0.2	No No
22	Balboa Drive/El Prado							

TABLE 49 **EXISTING + PROJECT ALTERNATIVE 3A ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

					Existing			Exist	ing + Project	Alternative 3A	
Roadway Segment	Roadway Segment Functional Classification/Lanes		LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	12,549	0.837	D	12,637	0.842	D	0.006	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	12,179	0.304	Α	12,447	0.311	Α	0.007	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	14,478	0.362	Α	14,782	0.370	Α	0.008	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	15,006	0.375	В	15,336	0.383	В	0.008	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	16,946	0.424	В	17,302	0.433	В	0.009	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	19,047	0.476	В	20,952	0.524	В	0.048	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	17,424	0.436	В	18,748	0.469	В	0.033	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	15,372	0.384	В	18,216	0.455	В	0.071	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	18,003	0.600	С	19,335	0.645	С	0.044	NO
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	13,658	0.455	В	14,874	0.496	С	0.041	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	13,018	0.434	В	13,018	0.434	В	0.000	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	10,045	0.335	В	10,618	0.354	В	0.019	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	9,893	0.440	В	10,061	0.447	В	0.007	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,223	0.122	Α	1,070	0.107	Α	0.000	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,146	0.115	Α	700	0.070	Α	0.000	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	3,856	0.386	Α	4,026	0.403	В	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	7,996	0.800	D	8,692	0.869	D	0.070	NO
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector ¹	3 Lane Collector	15,000	10,344	0.690	D	10,892	0.726	D	0.037	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	3,880	0.388	Α	3,958	0.396	Α	0.008	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,070	0.607	С	1,044	0.104	Α	0.000	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	С	0	0.000	Α	0.000	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,866	0.787	D	8,354	0.835	D	0.049	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,968	0.397	Α	4,063	0.406	В	0.010	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,660	0.566	С	5,660	0.566	С	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,818	0.582	С	6,200	0.620	С	0.038	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	16,655	0.740	D	17,638	0.784	D	0.044	NO
27 Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,767	0.577	С	1,440	0.144	Α	-0.433	NO
28 Presidents Way east of Pan American Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,560	0.856	D	5,360	0.536	В	-0.320	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

* Park roads (maximum capacity estimated at 10,000 ADT)

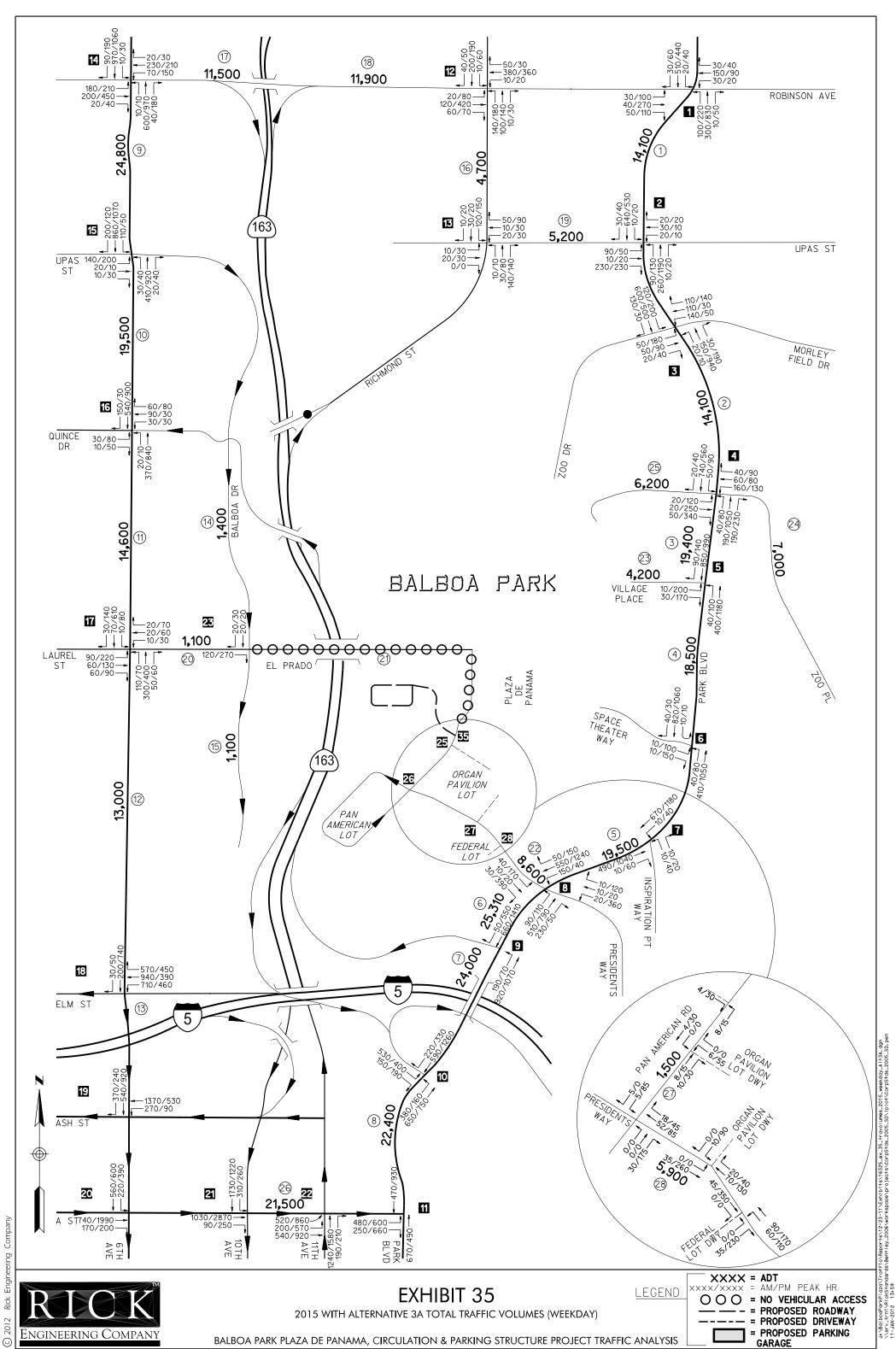
1 with Two-way left turn lane
2 Estimated capacity (3/4 of 4 lane collector)

TABLE 50 EXISTING + PROJECT ALTERNATIVE 3A INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

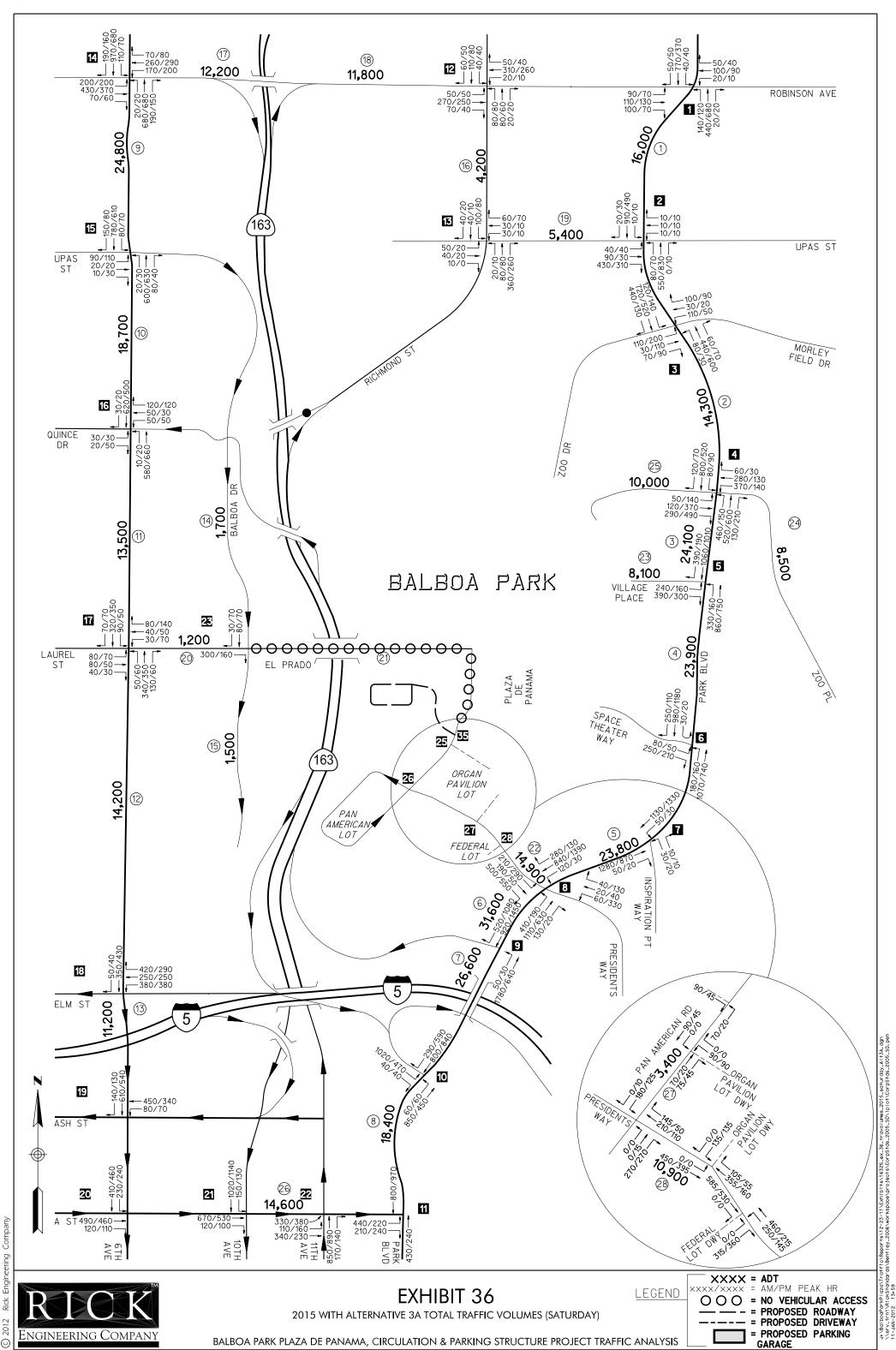
			Existing +	Alt 3A
	Intersection	Control	Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot			
	AM	Stop		
	Southbound Left	Stop	1.8	Α
	Westbound Shared Left-Right		8.6	Α
26	Pan American Road/Presidents Way	All May Stan		
	AM	All Way Stop	7.3	Α
27	Presidents Way/Organ Pavilion Lot			
	AM	Cton		
	Southbound Shared Left-Right	Stop	9.1	Α
	Eastbound Left		0.2	Α
28	Presidents Way/Federal-Aerospace Lot			
	AM	Cton		
	Northbound Shared Left-Right	Stop	8.7	Α
	Westbound Left		3.1	Α

TABLE 51 EXISTING + PROJECT ALTERNATIVE 3A INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

			Existing +	Alt 3A
	Intersection	Control	Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot			
	AM	Stop		
	Southbound Left	Stop	0.1	Α
	Westbound Shared Left-Right		10.0	Α
26	Pan American Road/Presidents Way	All May Stop		
	AM	All Way Stop	11.0	В
27	Presidents Way/Organ Pavilion Lot			
	AM	Cton		
	Southbound Shared Left-Right	Stop	20.9	С
	Eastbound Left		0.0	Α
28	Presidents Way/Federal-Aerospace Lot			
	AM	Cton		
	Northbound Shared Left-Right	Stop	20.3	С
	Westbound Left		5.3	Α



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2012 \odot

TABLE 52 2015 + PROJECT ALTERNATIVE 3A INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			2015 No Pro	Project 2015 + Project Alternative 3A							
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No			
1	Park Boulevard/Robinson Avenue	0:	10.0	-	10.0	-					
	AM PM	Signal	16.3 19.5	B B	16.3 19.6	B B	0.0	No No			
2	Park Boulevard/Upas Street		10.0		10.0		0.1	110			
	AM PM	Signal	20.3	С	20.5	С	0.2	No			
3	Park Boulevard/Morley Field Drive		18.6	В	18.6	В	0.0	No			
	AM	Signal	18.8	В	18.7	В	-0.1	No			
	PM Park Boulevard/Zoo Place		20.4	С	20.4	С	0.0	No			
4	AM	Signal	16.2	В	16.1	В	-0.1	No			
	PM		22.5	С	22.8	С	0.3	No			
5	Park Boulevard/Village Place	Signal	4.4	^	4.0	^	0.1	No			
	AM PM	Signal	4.1 11.7	A B	4.0 11.8	A B	-0.1 0.1	No No			
6	Park Boulevard/Space Theatre Way										
	Northbound Left AM	:	0.7	^	0.0	^	0.4	N-			
	PM	NA	9.7 11.2	A B	9.8 11.4	A B	0.1	No No			
	Eastbound Left										
	AM PM	:	13.5 33.1	B D	13.6 39.0	В F	0.1	No			
7	Park Boulevard/Inspiration Way		33.1	U	39.0	Г	5.9	Yes			
	AM	Signal	2.9	Α	2.9	Α	0.0	No			
	PM		4.7	Α	4.6	Α	-0.1	No			
8	Park Boulevard/Presidents Way AM	Signal	14.7	В	14.2	В	-0.5	No			
	PM	9	28.4	С	33.6	С	5.2	No			
9	Park Boulevard/SR 163 NB Ramps										
	Northbound Left AM	NA	9.5	Α	10.1	В	0.6	No			
	PM		17.4	C	20.6	С	3.2	No			
10	Park Boulevard/I-5 Ramps										
	AM PM	Signal	28.9 23.9	С	30.2 26.0	C	1.3 2.1	No			
11	Park Boulevard/A Street		23.9	C	20.0	C	2.1	No			
	AM	Signal	11.8	В	12.1	В	0.3	No			
12	PM Richmond Street/Robinson Avenue		14.7	В	15.8	В	1.1	No			
12	AM	Signal	15.6	В	15.7	В	0.1	No			
	PM	· -	15.6	В	15.8	В	0.2	No			
13	Richmond Street/Upas Street AM	All Way Stop	8.3	Α	8.3	Α	0.0	No			
	PM	All Way Stop	8.9	A	9.0	A	0.0	No			
14	6th Avenue/Robinson Avenue										
	AM PM	Signal	23.4 31.1	C	23.6 32.8	C	0.2 1.7	No No			
15	6th Avenue/ Upas Street-Balboa Drive		31.1	C	32.0	C	1.7	INO			
	AM	Signal	9.6	Α	9.8	Α	0.2	No			
16	PM 6th Avenue/Quince Drive		12.6	В	12.4	В	-0.2	No			
10	AM	Signal	15.3	В	15.3	В	0.0	No			
	PM	-	13.9	В	13.6	В	-0.3	No			
17	6th Avenue/Laurel Street AM	Signal	13.2	В	12.3	В	-0.9	No			
	PM	Jigilai	15.7	В	14.8	В	-0.9	No			
18	6th Avenue/Elm Street-I-5 NB Off Ramp					_					
	AM PM	Signal	10.3 13.4	B B	10.4 13.6	B B	0.1	No No			
19	6th Avenue/Ash Street		10.4		10.0	<u> </u>	0.2	INU			
	AM	Signal	12.1	В	12.2	В	0.1	No			
20	PM 6th Avenue/A Street		11.3	В	11.3	В	0.0	No			
	AM	Signal	12.3	В	12.3	В	0.0	No			
	PM		13.2	В	13.3	В	0.1	No			
21	A Street/10th Avenue AM	Signal	12.8	В	13.2	В	0.4	No			
	PM	Signal	16.6	В	17.2	В	0.4	No			
22	A Street/11th Avenue										
	AM PM	Signal	11.6 15.6	B B	11.9 16.1	B B	0.3 0.5	No No			
23	Balboa Drive/El Prado		13.0	В	10.1	D	0.0	INU			
	AM	All Way Stop	8.1	Α	7.0	Α	-1.1	No			
	PM		12.0	В	7.3	Α	-4.7	No			

Table 53 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM peak and LOS E, PM peak)
- Park Boulevard/Presidents Way (LOS F, PM peak)

Significant impacts are calculated at these locations.

Table 54 shows that all study area roadways to operate at LOS D or better on a daily basis, with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)
- A Street between 6th Avenue and Park Boulevard (LOS E)*
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)*

Significant impacts were calculated at these "*" locations based on the current significance thresholds.

Tables 55 and 56 show all the weekday and Saturday internal study intersections to operate acceptably at LOS D or better.

2030

Exhibit 37 and Exhibit 38 show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 57 shows all the study area intersections to currently operate at LOS D or better during the weekday AM and PM peak periods, with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, PM peak)
- Park Boulevard/Presidents Way (LOS F, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, PM peak)

Significant impacts were calculated at these locations.

Table 58 shows all the study area intersections to currently operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM and PM peak)*
- Park Boulevard/Presidents Way (LOS F, AM peak and PM peak)*
- Park Boulevard/SR 163 NB on Ramp (LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, AM and PM peak)*

Significant impacts were calculated at these "*" locations.

Table 59 shows that all study area roadways to currently operate at LOS D or better on a daily basis with the exception of:

TABLE 53 2015 + PROJECT ALTERNATIVE 3A INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			2015 No Pro	ject	20	15 + P	roject Alternati	Iternative 3A		
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No		
1	Park Boulevard/Robinson Avenue									
	AM	Signal	15.0	В	15.2	В	0.2	No		
2	PM Park Boulevard/Upas Street		14.5	В	14.4	В	-0.1	No		
	AM	Signal	24.3	С	24.3	С	0.0	No		
	PM		19.6	В	19.9	В	0.3	No		
3	Park Boulevard/Morley Field Drive AM	Cianal	17.5	В	17.4	В	-0.1	No		
	PM	Signal	20.2	С	20.1	С	-0.1	No No		
4	Park Boulevard/Zoo Place									
	AM PM	1	27.2	С	27.3	С	0.1	No		
5	Park Boulevard/Village Place		24.0	С	24.0	С	0.0	No		
	AM	Signal	21.3	С	21.7	С	0.4	No		
	PM		16.6	В	16.6	В	0.0	No		
6	Park Boulevard/Space Theatre Way Northbound Left									
	AM		13.9	В	14.1	В	0.2	No		
	PM	NA	13.9	В	14.2	В	0.3	No		
	Eastbound Left		440.7		400.5	_				
	AM PM	1	112.7 44.6	F	120.5 47.0	F E	7.8 2.4	Yes Yes		
7	Park Boulevard/Inspiration Way		74.0	_	77.0	_	2.4	162		
	AM	Signal	3.9	Α	3.9	Α	0.0	No		
	PM		3.8	Α	3.8	Α	0.0	No		
8	Park Boulevard/Presidents Way AM	Signal	31.3	С	46.8	D	15.5	No		
	PM	O.g. i.a.	52.4	D	86.5	F	34.1	Yes		
9	Park Boulevard/SR 163 NB Ramps									
	Northbound Left AM	NΑ	12.4	В	10.5	В	4.4	NI-		
	PM		22.4	С	13.5 29.0	B D	1.1 6.6	No No		
10	Park Boulevard/I-5 Ramps				20.0		0.0	110		
	AM	Signal	25.1	O	26.2	С	1.1	No		
11	PM Park Boulevard/A Street		18.5	В	19.3	В	8.0	No		
	AM	Signal	13.3	В	13.6	В	0.3	No		
	PM	,	14.6	В	15.4	В	0.8	No		
12	Richmond Street/Robinson Avenue	Cianal	40.7		40.7	_				
	AM PM	1	13.7 13.6	B	13.7 13.5	B B	0.0 -0.1	No No		
13	Richmond Street/Upas Street						0			
	AM	All Way Stop	11.5	В	11.6	В	0.1	No		
14	PM 6th Avenue/Robinson Avenue		9.3	Α	9.4	Α	0.1	No		
14	AM	Signal	37.2	D	47.3	D	10.1	No		
	PM		30.5	С	31.9	С	1.4	No		
15	6th Avenue/ Upas Street-Balboa Drive	0:	0.0		0.4					
	AM PM		8.3 11.6	A B	8.1 11.2	A B	-0.2 -0.4	No No		
16	6th Avenue/Quince Drive						J. T	.10		
	AM		17.6	В	17.7	В	0.1	No		
17	PM 6th Avenue/Laurel Street		16.5	В	16.3	В	-0.2	No		
17	AM	Signal	15.1	В	13.8	В	-1.3	No		
	PM		15.0	В	13.9	В	-1.1	No		
18	6th Avenue/Elm Street-I-5 NB Off Ramp AM	Signal	11.6	В	11.8	В	0.0	Ma		
	PM		11.6	В	11.8	В	0.2	No No		
19	6th Avenue/Ash Street						J. <u>L</u>	.10		
	AM		11.4	В	11.4	В	0.0	No		
20	PM 6th Avenue/A Street		10.9	В	10.9	В	0.0	No		
20	AM	Signal	11.7	В	11.7	В	0.0	No		
	PM	1	11.5	В	11.6	В	0.1	No		
21	A Street/10th Avenue	Cierral	44.0	,	44.0	-		ļ		
	AM PM		11.8	B	11.9 10.9	B B	0.1 0.2	No No		
22	A Street/11th Avenue		10.7		10.3		0.2	140		
	AM	1 -	10.2	В	10.4	В	0.2	No		
23	PM Balboa Drive/El Prado		9.5	Α	9.7	Α	0.2	No		
23	AM	All Way Stop	12.2	В	7.7	Α	-4.5	No		
	PM	4	10.7	В	7.4	Α	-3.3	No		

TABLE 54 2015 + PROJECT ALTERNATIVE 3A **ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

				2	2015 No Projec	ct		201	5 + Project A	Iternative 3A	
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	15,000	1.000	E	15,100	1.007	F	0.007	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	13,800	0.345	Α	14,100	0.353	Α	0.008	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	19,000	0.475	В	19,400	0.485	В	0.010	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	18,100	0.453	В	18,500	0.463	В	0.010	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	19,100	0.478	В	19,500	0.488	В	0.010	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	23,000	0.575	С	25,310	0.633	С	0.058	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	24,000	0.600	С	0.043	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	18,900	0.473	В	22,400	0.560	С	0.088	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	23,100	0.770	D	24,800	0.827	D	0.057	NO
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	17,900	0.597	С	19,500	0.650	С	0.053	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	14,600	0.487	С	14,600	0.487	С	0.000	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	12,300	0.410	В	13,000	0.433	В	0.023	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	12,100	0.538	С	12,300	0.547	С	0.009	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,600	0.160	Α	1,400	0.140	Α	0.000	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,800	0.180	Α	1,100	0.110	Α	0.000	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	4,500	0.450	В	4,700	0.470	В	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	11,500	1.150	F	12,500	1.250	F	0.100	YES
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector1	3 Lane Collector	15,000	11,300	0.753	D	11,900	0.793	D	0.040	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,100	0.510	В	5,200	0.520	В	0.010	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,400	0.640	С	1,100	0.110	Α	0.000	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	С	0	0.000	Α	0.000	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,100	0.810	D	8,600	0.860	D	0.050	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	4,100	0.410	В	4,200	0.420	В	0.010	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	7,000	0.700	С	7,000	0.700	С	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,200	0.620	С	6,200	0.620	С	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	20,300	0.902	Е	21,500	0.956	Е	0.053	YES
27 Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,700	0.670	С	1,500	0.150	Α	-0.520	NO
28 Presidents Way east of Pan American Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,470	0.947	E	5,900	0.590	С	-0.357	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

^{*} Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

TABLE 55 2015 + PROJECT ALTERNATIVE 3A INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

			2015 + Al	t 3A
	Intersection	Control	Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot			
	AM	Stop		
	Southbound Left	Stop	1.5	Α
	Westbound Shared Left-Right		8.6	Α
26	Pan American Road/Presidents Way	All May Stan		
	AM	All Way Stop	7.3	Α
27	Presidents Way/Organ Pavilion Lot			
	AM	Cton		
	Southbound Shared Left-Right	Stop	9.2	Α
	Eastbound Left		0.2	Α
28	Presidents Way/Federal-Aerospace Lot			
	AM	Cton		
	Northbound Shared Left-Right	Stop	8.7	Α
	Westbound Left		3.2	Α

LOS = Level of Service; Minor approach delay reported for unsignalized intersections Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold Significant Impact: 1) LOS D or better to LOS E or worse

2) Incremental Delay ≥ 2 seconds for LOS E

3) Incremental Delay ≥ 1 second for LOS F

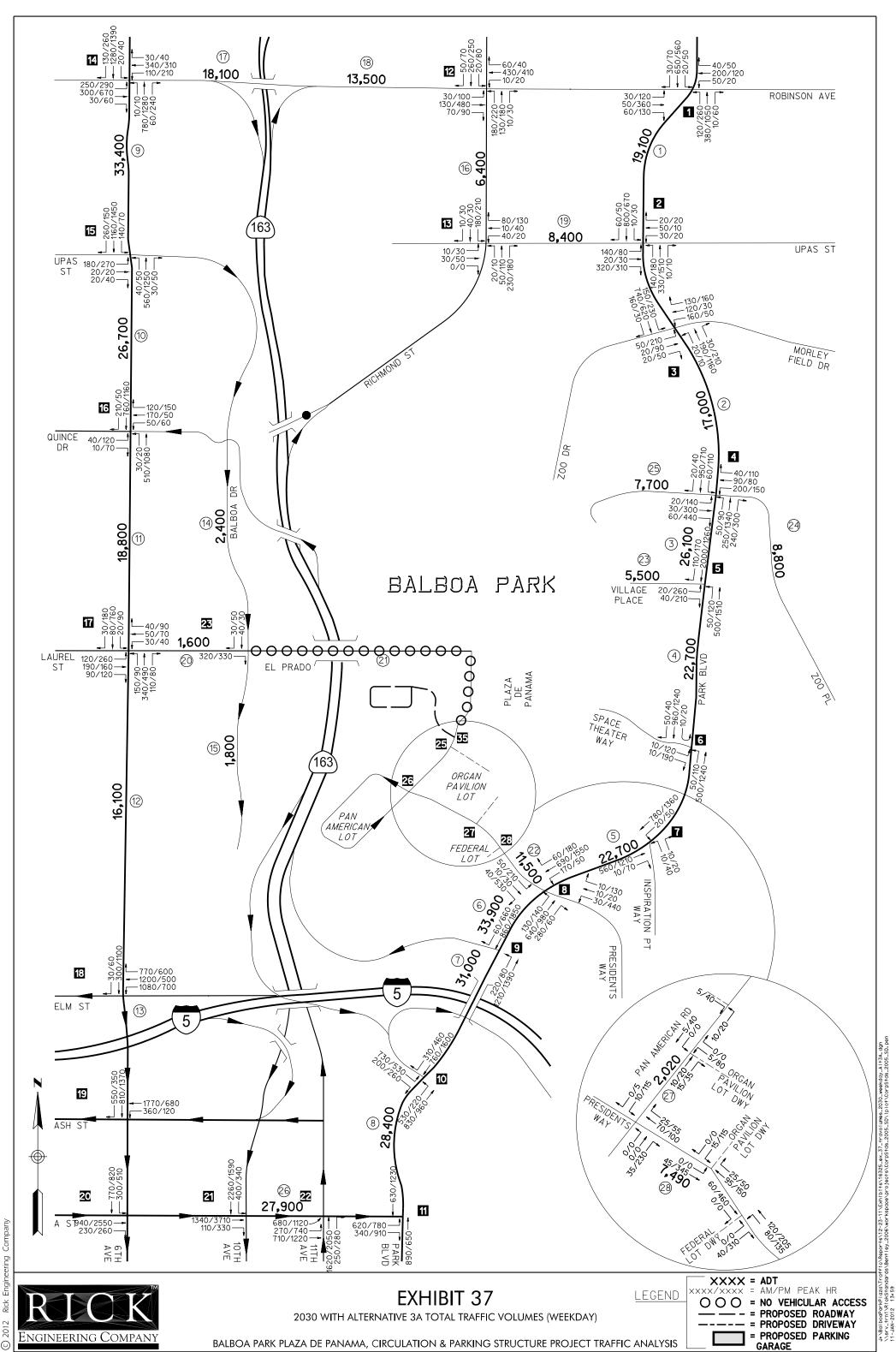
TABLE 56 2015 + PROJECT ALTERNATIVE 3A INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

			2015 + A	t 3A
	Intersection	Control	Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot			
	AM	Stop		
	Southbound Left	Stop	0.1	Α
	Westbound Shared Left-Right		10.3	В
26	Pan American Road/Presidents Way	All May Stop		
	AM	All Way Stop	12.8	В
27	Presidents Way/Organ Pavilion Lot			
	AM	Cton		
	Southbound Shared Left-Right	Stop	29.0	D
	Eastbound Left		0.0	Α
28	Presidents Way/Federal-Aerospace Lot			
	AM	Cton		
	Northbound Shared Left-Right	Stop	31.5	D
	Westbound Left		6.4	Α

LOS = Level of Service; Minor approach delay reported for unsignalized intersections Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold Significant Impact: 1) LOS D or better to LOS E or worse

2) Incremental Delay ≥ 2 seconds for LOS E

3) Incremental Delay ≥ 1 second for LOS F



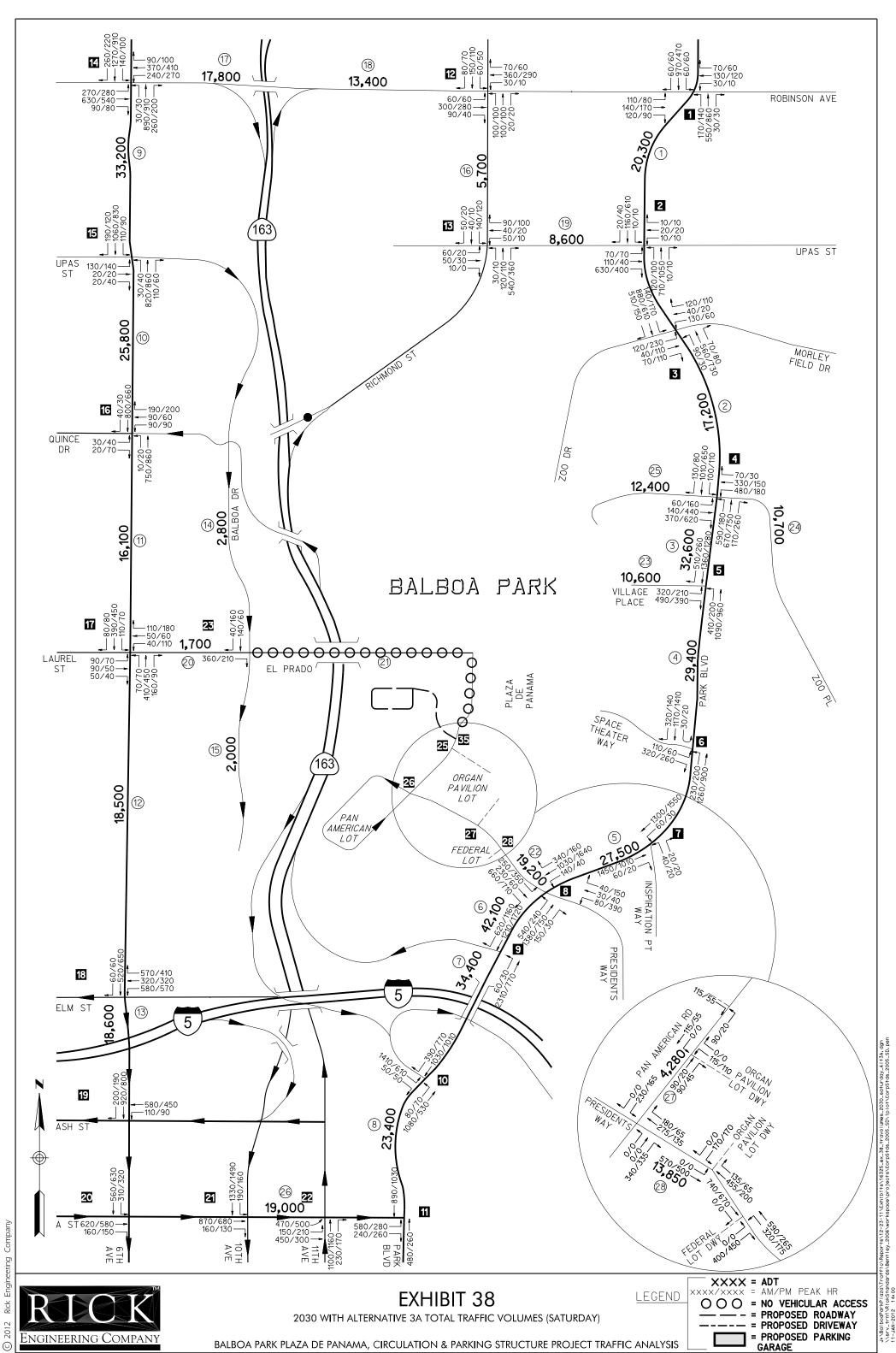


TABLE 57 2030 + PROJECT ALTERNATIVE 3A INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			2030 No Pro	ject	20	ve 3A		
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue	0: 1						
	AM PM	Signal	17.5 31.0	B	17.5 31.9	B C	0.0 0.9	No No
2	Park Boulevard/Upas Street		31.0	U	31.3		0.9	INO
	AM	Signal	24.8	С	25.4	С	0.6	No
3	PM Park Boulevard/Morley Field Drive		24.1	С	24.3	С	0.2	No
	AM	Signal	19.2	В	19.3	В	0.1	No
	PM	· -	22.6	С	22.7	С	0.1	No
4	Park Boulevard/Zoo Place AM	Signal	16.7	В	16.7	В	0.0	No
	PM	Signal	29.3	С	29.8	С	0.5	No No
5	Park Boulevard/Village Place							
	AM PM	Signal	4.6	A B	4.5 13.6	A B	-0.1 0.5	No
6	Park Boulevard/Space Theatre Way		13.1	В	13.0	В	0.5	No
	Northbound Left							
	AM	NA	10.6	В	10.6	В	0.0	No
	PM Eastbound Left	INA	12.9	В	13.2	В	0.3	No
	AM		15.1	С	15.2	С	0.1	No
	PM Park Paulayard/Inspiration Way		112.1	F	141.0	F	28.9	Yes
7	Park Boulevard/Inspiration Way AM	Signal	3.0	Α	3.0	Α	0.0	No
	PM		4.7	Α	4.7	Α	0.0	No
8	Park Boulevard/Presidents Way	Cianal	44.7	_	44.0	-	0.4	
	AM PM	Signal	14.7 62.0	В Е	14.8 93.4	В F	0.1 31.4	No Yes
9	Park Boulevard/SR 163 NB Ramps		02.0		00.1	•	01.4	100
	Northbound Left	NA	40.0	_	44.0	_	0.0	
	AM PM		10.9 28.4	B D	11.8 33.5	B D	0.9 5.1	No No
10	Park Boulevard/I-5 Ramps		20.4	D	33.3	U	5.1	INO
	AM	Signal	38.4	D	48.7	D	10.3	No
11	PM Park Boulevard/A Street		43.6	D	51.5	D	7.9	No
- 11	AM	Signal	12.5	В	12.9	В	0.4	No
	PM		20.1	С	16.2	В	-3.9	No
12	Richmond Street/Robinson Avenue AM	Signal	16.7	В	16.8	В	0.1	No
	PM	Olgilai	17.3	В	17.9	В	0.6	No
13	Richmond Street/Upas Street							
	AM PM	All Way Stop	9.6 10.6	A B	9.7 10.7	A B	0.1 0.1	No No
14	6th Avenue/Robinson Avenue		10.6	В	10.7	В	0.1	INO
	AM	Signal	30.6	С	32.5	С	1.9	No
15	PM 6th Avenue/ Upas Street-Balboa Drive		103.0	F	124.0	F	21.0	Yes
13	AM	Signal	11.1	В	11.1	В	0.0	No
	PM		15.3	В	15.5	В	0.2	No
16	6th Avenue/Quince Drive AM	Signal	18.7	В	18.7	В	0.0	No
	PM	Signal	16.7	В	17.8	В	0.0	No
17	6th Avenue/Laurel Street					_		
	AM PM	Signal	13.7 17.8	B B	13.7 15.7	B B	0.0 -2.1	No No
18	6th Avenue/Elm Street-I-5 NB Off Ramp		17.0	٥	13.1	ں	- <u>-</u> 2.1	140
	AM	Signal	31.1	С	33.1	С	2.0	No
19	PM 6th Avenue/Ash Street		17.6	В	18.2	В	0.6	No
19	AM	Signal	14.7	В	14.8	В	0.1	No
	PM	· -	11.7	В	11.7	В	0.0	No
20	6th Avenue/A Street AM	Signal	13.1	В	13.1	В	0.0	No
	PM	Jigilai	17.6	В	18.4	В	0.0	No
21	A Street/10th Avenue	0				_		
	AM PM	Signal	15.7 42.1	B D	16.3 54.9	B D	0.6 12.8	No No
22	A Street/11th Avenue		4 ∠. 1	U	J+1.8	U	12.0	INO
	AM	Signal	13.0	В	13.4	В	0.4	No
22	PM Balboa Drive/El Prado		21.6	С	24.2	С	2.6	No
23	Balboa Drive/El Prado AM	All Way Stop	8.9	Α	7.3	Α	-1.6	No
	PM	,F	27.5	D	7.5	Α	-20.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 58 2030 + PROJECT ALTERNATIVE 3A INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			2030 No Project 2030 + Project Alterna					ive 3A
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue AM	Signal	16.5	В	16.5	В	0.0	No
	PM		15.5	В	15.8	В	0.3	No
2	Park Boulevard/Upas Street AM	Signal	51.3	D	53.0	D	1.7	No
	PM	Oignai	23.3	С	23.3	C	0.0	No
3	Park Boulevard/Morley Field Drive AM	Signal	19.3	В	19.3	В	0.0	No
	PM	Signal	20.7	С	20.6	С	-0.1	No No
4	Park Boulevard/Zoo Place	0: 1						
	AM PM	Signal	36.1 27.4	D C	36.9 27.5	D C	0.8	No No
5	Park Boulevard/Village Place							
	AM PM	Signal	37.7 19.3	D B	40.7 20.0	D C	3.0 0.7	No No
6	Park Boulevard/Space Theatre Way		13.3	Б	20.0	Ü	0.7	INO
	Northbound Left AM		19.4	С	20.6	С	4.0	N-
	PM	NA	18.5	С	20.6	С	1.2 1.5	No No
	Eastbound Left							
	AM PM		460.8 168.8	F	517.7 198.0	F	56.9 29.2	Yes Yes
7	Park Boulevard/Inspiration Way		100.0		100.0	-	20.2	100
	AM PM	Signal	4.9	A	4.9 4.0	A	0.0	No No
8	Park Boulevard/Presidents Way		4.0		4.0		0.0	INU
	AM	Signal	56.4	E	112.3	F	55.9	Yes
9	PM Park Boulevard/SR 163 NB Ramps		126.4	F	126.1	F	-0.3	Yes
	Northbound Left	NA						
	AM PM		15.5 40.7	C E	18.1 41.1	C E	2.6 0.4	No No
10	Park Boulevard/I-5 Ramps		40.7		41.1	-	0.4	INU
	AM PM	Signal	32.6	0	38.5	D	5.9	No
11	Park Boulevard/A Street		23.8	С	24.3	С	0.5	No
	AM	Signal	14.2	В	14.8	В	0.6	No
12	PM Richmond Street/Robinson Avenue		16.4	В	17.3	В	0.9	No
12	AM	Signal	14.6	В	14.7	В	0.1	No
13	PM Richmond Street/Upas Street		14.4	В	14.4	В	0.0	No
13	AM	All Way Stop	29.2	D	29.2	D	0.0	No
	PM		11.7	В	12.0	В	0.3	No
14	6th Avenue/Robinson Avenue AM	Signal	151.7	F	181.7	F	30.0	Yes
	PM		75.5	E	98.2	F	22.7	Yes
15	6th Avenue/ Upas Street-Balboa Drive AM	Signal	9.5	Α	8.9	Α	-0.6	No
	PM	oigna.	12.4	В	11.5	В	-0.9	No
16	6th Avenue/Quince Drive AM	Signal	21.6	С	22.3	С	0.7	No
	PM	Jigilal	20.0	В	21.1	С	1.1	No
17	6th Avenue/Laurel Street	Cianal		_	10.7			
	AM PM	Signal	15.7 15.4	B B	13.7 14.0	B B	-2.0 -1.4	No No
18	6th Avenue/Elm Street-I-5 NB Off Ramp	c: :						
-	AM PM	Signal	11.3 12.5	B B	11.7 12.9	B B	0.4	No No
19	6th Avenue/Ash Street							
	AM PM	Signal	11.8 10.9	B B	11.7 11.1	B B	-0.1 0.2	No No
20	6th Avenue/A Street		10.9	D	11.1	ت	0.2	No
	AM	Signal	12.1	В	12.2	В	0.1	No
21	A Street/10th Avenue		11.9	В	12.0	В	0.1	No
	AM	Signal	12.5	В	12.7	В	0.2	No
22	A Street/11th Avenue		11.4	В	11.5	В	0.1	No
- 44	AM	Signal	10.8	В	11.1	В	0.3	No
23	PM Balboa Drive/El Prado		10.0	В	10.2	В	0.2	No
	AM	All Way Stop	24.7	С	8.4	Α	-16.3	No
	PM		21.9	С	8.0	Α	-13.9	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 59 2030 + PROJECT ALTERNATIVE 3A **ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

				2	030 No Projec	:t		203	0 + Project A	Alternative 3A	
Roadway Segment	Functional		LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector1	4 Lane Major	15,000	19,100	1.273	F	19,100	1.273	F	0.000	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	16,700	0.418	В	17,000	0.425	В	0.008	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	25,600	0.640	С	26,100	0.653	С	0.013	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	22,700	0.568	С	0.010	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	22,700	0.568	С	0.010	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	30,900	0.773	D	33,900	0.848	D	0.075	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	28,800	0.720	С	31,000	0.775	D	0.055	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	24,000	0.600	С	28,400	0.710	С	0.110	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	31,200	1.040	F	33,400	1.113	F	0.073	YES
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	24,500	0.817	D	26,700	0.890	E	0.073	YES
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	17,500	0.583	С	18,800	0.627	С	0.043	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	16,100	0.537	С	16,100	0.537	С	0.000	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	20,100	0.893	E	20,400	0.907	E	0.013	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	2,700	0.270	Α	2,400	0.240	Α	-0.030	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,000	0.300	Α	1,800	0.180	Α	-0.120	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	6,200	0.620	С	6,400	0.640	С	0.020	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	16,700	1.670	F	18,100	1.810	F	0.140	YES
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector ¹	3 Lane Collector	15,000	12,800	0.853	D	13,500	0.900	Е	0.047	YES
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,200	0.820	D	8,400	0.840	D	0.020	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,100	0.910	E	1,600	0.160	Α	-0.750	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	F	0	0.000	Α	-1.030	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,800	0.880	D	11,500	1.150	F	0.270	YES
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,400	0.540	В	5,500	0.550	В	0.010	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,800	0.880	D	8,800	0.880	D	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,700	0.770	D	7,700	0.770	D	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	26,300	1.169	F	27,900	1.240	F	0.071	YES
27 Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,220	0.822	D	2,020	0.202	Α	-0.620	NO
28 Presidents Way east of Pan American Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,800	0.980	E	7,490	0.749	С	-0.231	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio \geq 0.02 for LOS E Incremental V/C Ratio \geq 0.01 for LOS F

^{*} Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)
- 6th Avenue between Robinson Avenue and Upas Street (LOS F)*
- 6th Avenue between Upas Street and Quince Drive (LOS F)*
- 6th Avenue between Elm Street and Ash Street (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)*
- Robinson Avenue between Vermont Street and Park Boulevard (LOS E)*
- Presidents Way, west of Park Boulevard (LOS F) *
- A Street between 6th and Park Boulevard (LOS F)*

Six of the eight segments as denoted with an "*" were deemed a significant impact.

Tables 60 and 61 show all the weekday and Saturday internal study intersections to operate at LOS C or better, with the exception of:

- Presidents Way/Federal Lot (NB shared left-right, LOS F)
- Presidents Way/Organ Pavilion Lot (SB shared left-right, LOS F)

Significant impacts were calculated at these intersections.

ALTERNATIVE 3B – PEDESTRIANIZE CABRILLO BRIDGE, ORGAN PAVILLION PARKING STRUCTURE OPERATIONS

Exhibit 39 shows the intersection lane geometry and configurations of the study area intersections.

Exhibit 40 shows the percent distribution for this alternative.

Existing

Exhibit 41 and Exhibit 42 show the Existing + Project Alternative 3A traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 62 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods. No significant impacts were calculated.

Table 63 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods. No significant impacts were calculated.

Table 64 shows that all study area roadways to operate at LOS D or better on a daily basis. No significant impacts were calculated.

Table 65 shows all the Saturday internal study intersections to operate acceptably at LOS C or better.

2015

TABLE 60 2030 + PROJECT ALTERNATIVE 3A INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

			2030 + Al	t 3A
	Intersection	Control	Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot			
	AM	Stop		
	Southbound Left	Stop	1.2	Α
	Westbound Shared Left-Right		8.6	Α
26	Pan American Road/Presidents Way	All Way Stop		
	AM	All Way Stop	7.5	Α
27	Presidents Way/Organ Pavilion Lot			
	AM	Cton		
	Southbound Shared Left-Right	Stop	9.4	Α
	Eastbound Left		0.2	Α
28	Presidents Way/Federal-Aerospace Lot			
	AM	Ston		
	Northbound Shared Left-Right	Stop	8.8	Α
	Westbound Left		3.3	Α

LOS = Level of Service; Minor approach delay reported for unsignalized intersections Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold Significant Impact: 1) LOS D or better to LOS E or worse

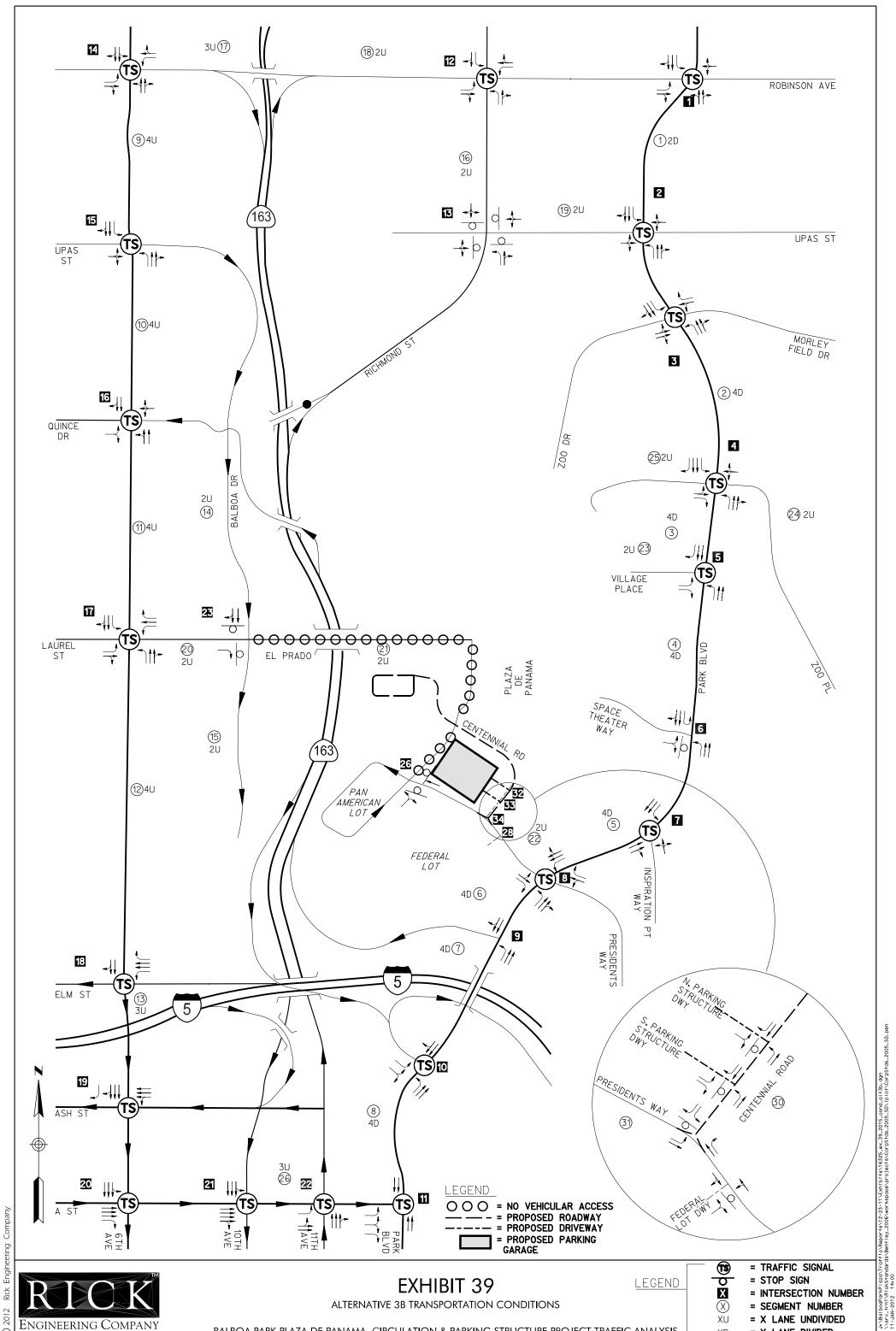
- 2) Incremental Delay ≥ 2 seconds for LOS E 3) Incremental Delay ≥ 1 second for LOS F

TABLE 61 2030 + PROJECT ALTERNATIVE 3A INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

			2030 + A	lt 3A
	Intersection	Control	Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot			
	AM	Ston		
	Southbound Left	Stop	0.1	Α
	Westbound Shared Left-Right		11.1	В
26	Pan American Road/Presidents Way	All May Stan		
	AM	All Way Stop	20.4	С
27	Presidents Way/Organ Pavilion Lot			
	AM	Cton		
	Southbound Shared Left-Right	Stop	>50	F
	Eastbound Left		0.0	Α
28	Presidents Way/Federal-Aerospace Lot			
	AM	Stop		
	Northbound Shared Left-Right	Stop	>50.0	F
	Westbound Left		10.0	В

LOS = Level of Service; Minor approach delay reported for unsignalized intersections Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold Significant Impact: 1) LOS D or better to LOS E or worse

- 2) Incremental Delay ≥ 2 seconds for LOS E 3) Incremental Delay ≥ 1 second for LOS F

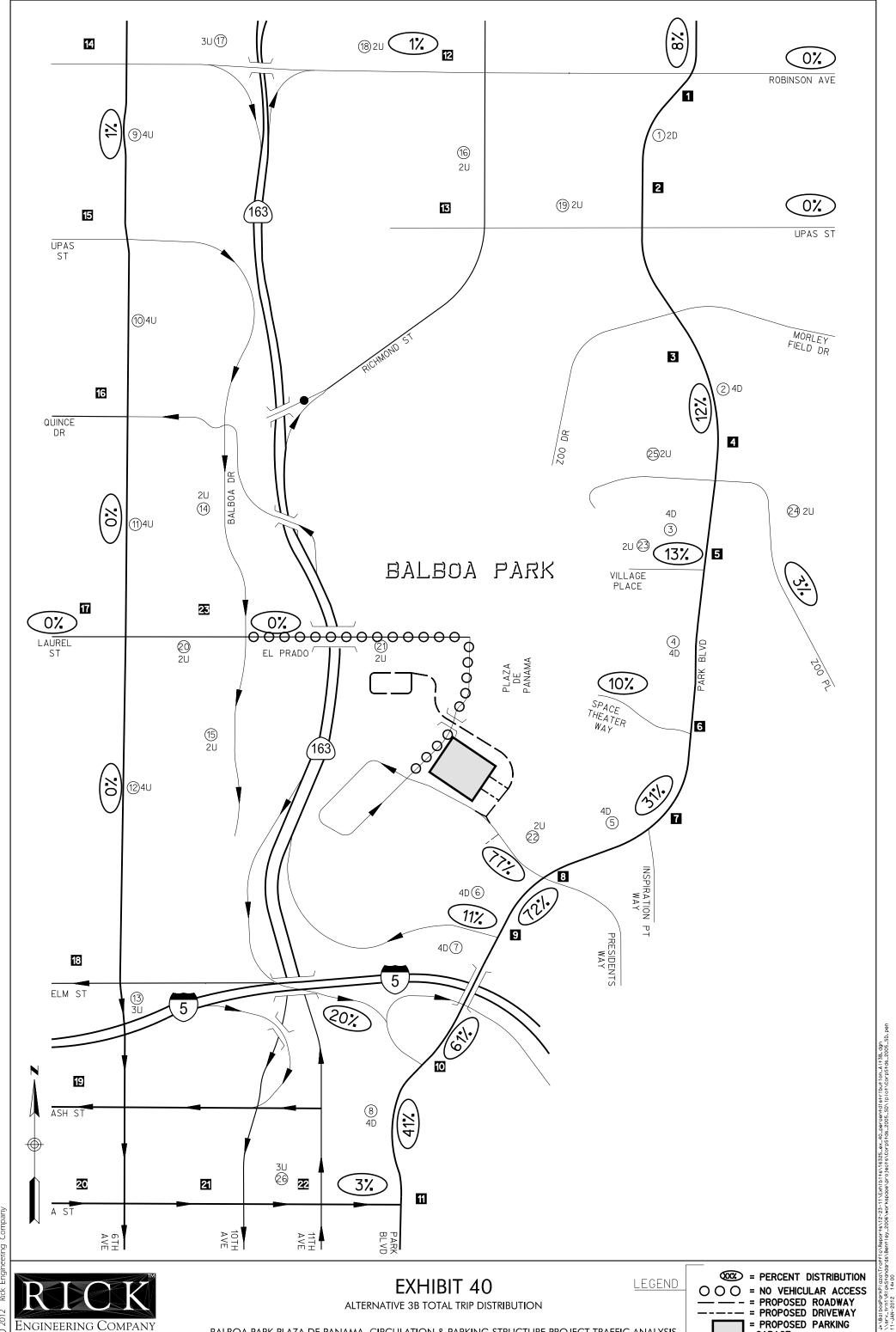


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XD

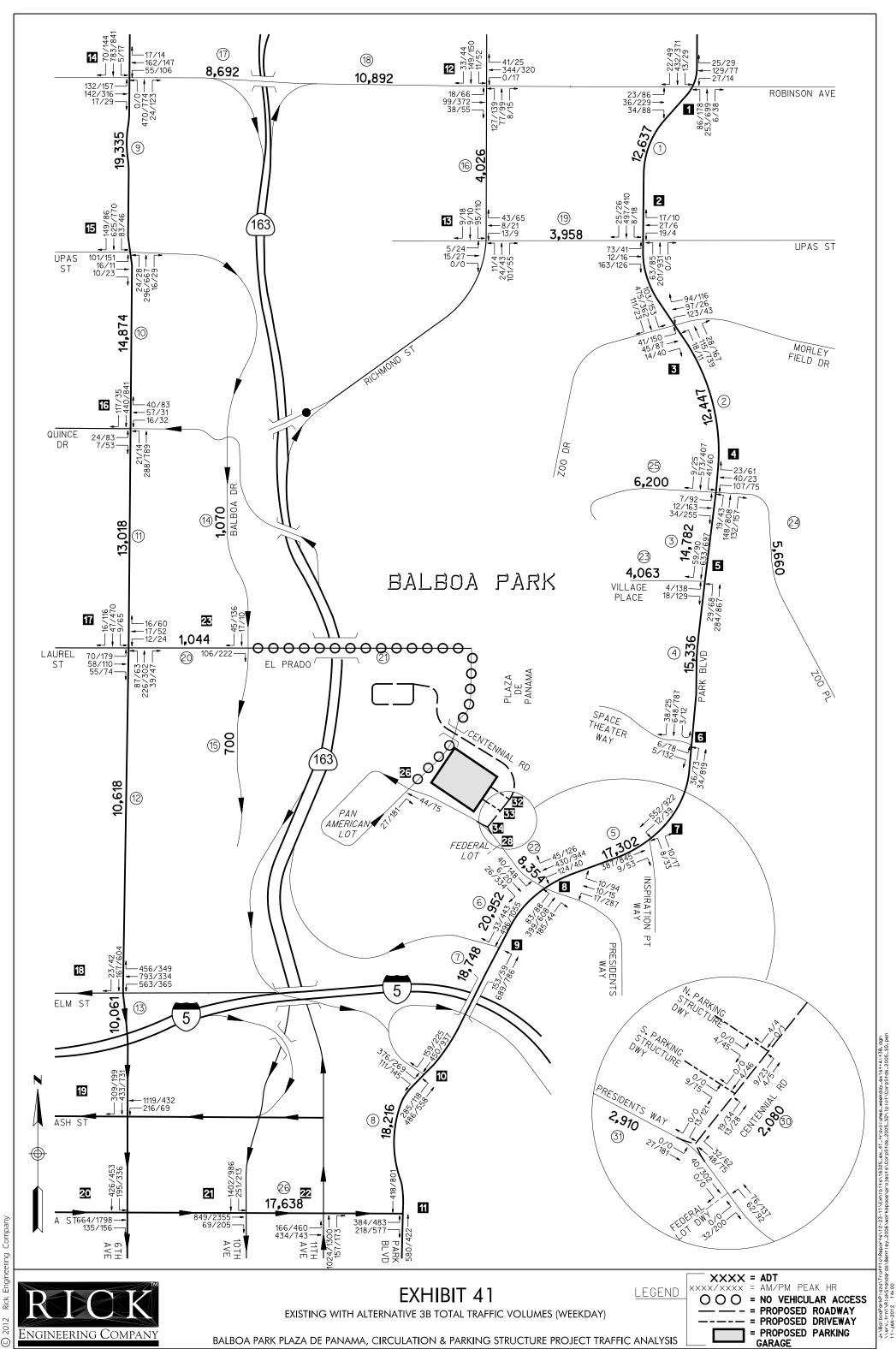
= X LANE DIVIDED



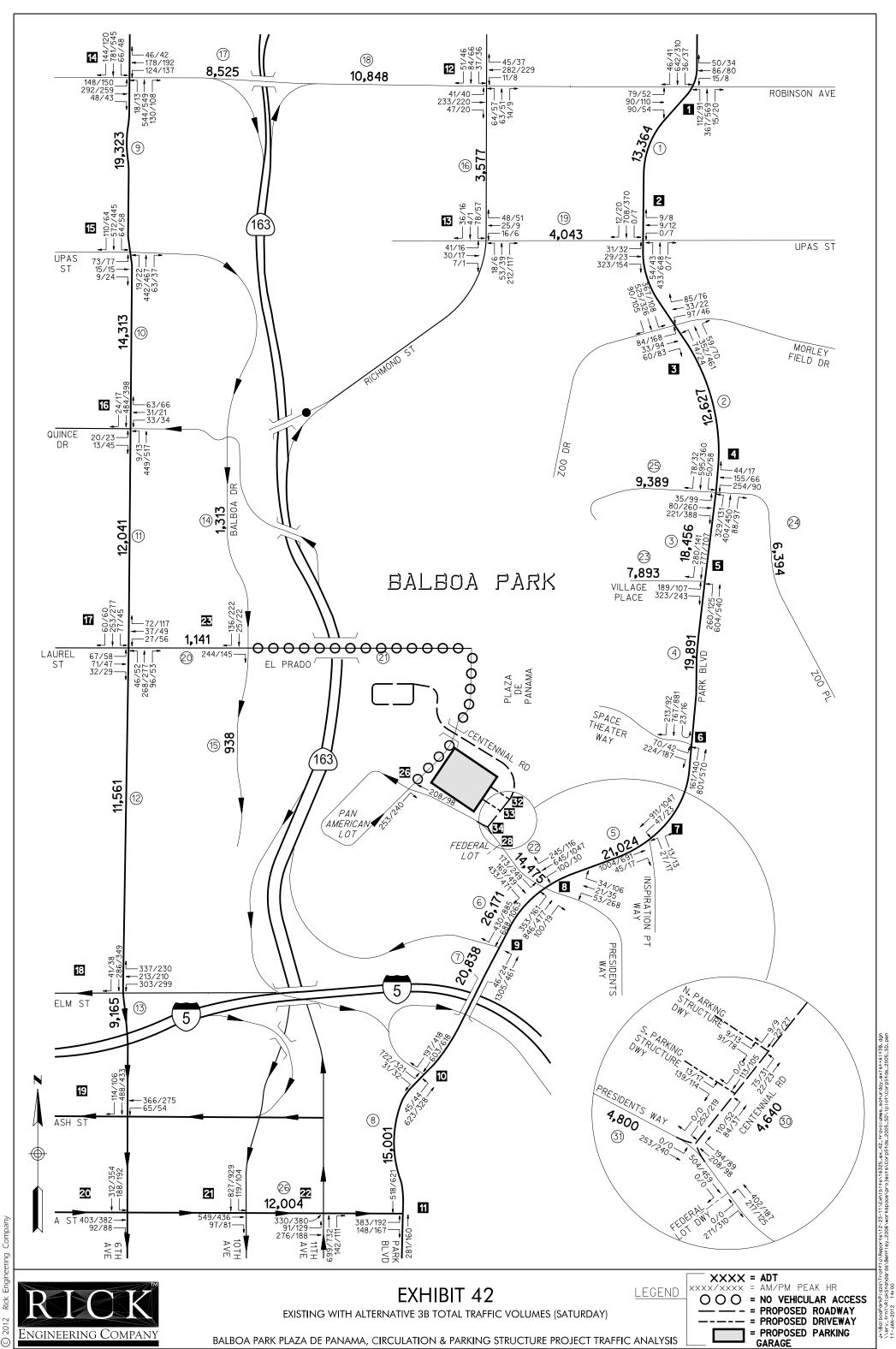
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BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS



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TABLE 62 EXISTING + PROJECT ALTERNATIVE 3B INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			Existing	9	Ex	isting +	Project Alterna	tive 3B
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue AM	Signal	16.3	В	16.3	В	0.0	No
	PM	O.g. i.a.	17.1	В	17.2	В	0.1	No
2	Park Boulevard/Upas Street AM	Cianal	40.0		40.7	-	0.4	NI-
	PM	Signal	18.6 14.4	B	18.7 14.5	B B	0.1 0.1	No No
3	Park Boulevard/Morley Field Drive							1.7
	AM PM	Signal	18.6 19.2	B	18.6 19.2	B B	0.0	No
4	Park Boulevard/Zoo Place		19.2	В	19.2	ь	0.0	No
	AM	Signal	16.1	В	16.1	В	0.0	No
5	PM Park Boulevard/Village Place		21.5	С	21.8	С	0.3	No
5	AM	Signal	3.9	Α	3.9	Α	0.0	No
	PM		11.3	В	11.2	В	-0.1	No
6	Park Boulevard/Space Theatre Way Northbound Left							
	AM		9.0	Α	9.1	Α	0.1	No
	PM	NA	9.7	Α	9.8	Α	0.1	No
	Eastbound Left AM		12.1	В	12.2	В	0.1	No
	PM		19.2	С	20.0	С	0.1	No
7	Park Boulevard/Inspiration Way							
	AM PM	Signal	3.1 4.5	A	3.1 4.5	A	0.0	No No
8	Park Boulevard/Presidents Way		4.0	A	4.5	Α	0.0	INO
	AM	Signal	14.7	В	14.6	В	-0.1	No
	PM Park Boulevard/SR 163 NB Ramps		21.8	С	22.9	С	1.1	No
9	Northbound Left							
	AM	NA	8.8	Α	9.0	Α	0.2	No
40	PM		12.8	В	14.1	В	1.3	No
10	Park Boulevard/I-5 Ramps AM	Signal	26.2	С	26.7	С	0.5	No
	PM	Oig.i.a.	19.9	В	20.5	C	0.6	No
11	Park Boulevard/A Street			,		_		
	AM PM	Signal	11.5 13.3	ВВ	11.6 14.6	B	0.1 1.3	No No
12	Richmond Street/Robinson Avenue		10.0		14.0		1.0	140
	AM	Signal	15.0	В	15.1	В	0.1	No
13	PM Richmond Street/Upas Street		14.5	В	14.6	В	0.1	No
-10	AM	All Way Stop	7.7	Α	7.8	Α	0.1	No
	PM		8.0	Α	8.0	Α	0.0	No
14	6th Avenue/Robinson Avenue AM	Signal	20.5	С	20.6	С	0.1	No
	PM	oignai	22.6	С	23.1	C	0.5	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM PM	Signal	9.6 11.7	A B	9.2 11.4	A B	-0.4 -0.3	No No
16	6th Avenue/Quince Drive						3.0	.,,
	AM	Signal	12.1	В	12.0	В	-0.1	No
17	PM 6th Avenue/Laurel Street		12.1	В	13.7	В	1.6	No
	AM	Signal	13.0	В	12.3	В	-0.7	No
10	PM 6th Avenue/Elm Street LE ND Off Doma		15.0	В	14.3	В	-0.7	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp AM	Signal	8.6	A	8.7	Α	0.1	No
	PM	3.10.	12.8	В	12.9	В	0.1	No
19	6th Avenue/Ash Street	Cianal	44.5	D	44.5	D	0.0	NI-
	AM PM	Signal	11.5 10.9	B	11.5 10.9	B B	0.0	No No
20	6th Avenue/A Street						4.0	
	AM	Signal	11.8	В	11.8	В	0.0	No
21	A Street/10th Avenue		11.5	В	11.8	В	0.3	No
	AM	Signal	11.9	В	12.1	В	0.2	No
	PM		14.0	В	14.1	В	0.1	No
22	A Street/11th Avenue AM	Signal	11.0	В	11.3	В	0.3	No
	PM	Oigilai	13.9	В	14.2	В	0.3	No
23	Balboa Drive/El Prado				_			
	AM PM	All Way Stop	7.8 10.8	A B	7.1 7.3	A	-0.7 -3.5	No No
	I PW		10.0	D	1.3	I A	-3.5	INO

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 63 EXISTING + PROJECT ALTERNATIVE 3B INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

Intersection	Incremental	
AM Signal 14.5 B 14.6 B 13.9 B 13.9 B 13.9 B 13.9 B 13.9 B 13.8 B 13.9 B 13.9 B 13.8 B 13.9 B 13.8 B 13.9 B 13.8 B 13.9 B 13.9 B 13.8 B 13.9 B 13.9 B 13.0	Delay	Significant Project Impact Yes/No
Park Boulevard/Upas Street	3 0.1	No
AM Signal 19.2 B 19.3 B 15.5 B 17.0		No
PM	3 0.1	No
AM		No
PM	3 0.0	No
AM		No
PM		NI-
AM		No No
PM		NI-
Northbound Left		No No
AM		
Max	3 0.2	No
AM	0.1	No
Park Boulevard/Inspiration Way	2.4	No
AM		No
PM	A 0.0	No
AM		No
PM Park Boulevard/SR 163 NB Ramps Northbound Left NA	2 4.7	No
Northbound Left		No No
NA		
10	3 0.6	No
AM		No
PM	0.5	No
AM		No
PM	3 0.5	No
AM		No
PM 12.7 B 12.7 B 13.7 B 13.7 B 13.7 B 13.8 A A A A A A A A A	3 0.0	No
AM PM All Way Stop 8.8 A 8.8 A 7.8 A		No
PM	A 0.0	No
AM Signal 24.3 C 25.1 C		No
PM 24.8 C 25.8 C	0.8	No
AM Signal 8.3 A 7.8 A		No
PM	0.5	
AM Signal 13.9 B 13.9 B 17 6th Avenue/Laurel Street AM Signal 13.5 B 13.5 B 17 6th Avenue/Laurel Street AM Signal 14.8 B 13.6 B PM 14.7 B 13.7 B 18 6th Avenue/Elm Street-I-5 NB Off Ramp AM Signal 10.9 B 11.1 B		No No
PM 13.5 B 13.5 B 13.5 B 17 Street Str		
17 6th Avenue/Laurel Street AM Signal 14.8 B 13.6 B		No No
PM 14.7 B 13.7 B 18 6th Avenue/Elm Street-I-5 NB Off Ramp AM Signal 10.9 B 11.1 B		
18 6th Avenue/Elm Street-I-5 NB Off Ramp AM Signal 10.9 B 11.1 B		No No
PM 11.5 B 11.7 B		No No
19 6th Avenue/Ash Street		
AM Signal 11.2 B 11.2 B PM 10.7 B 10.7 B		No No
20 6th Avenue/A Street		
AM Signal 11.4 B 11.4 B PM 11.3 B 11.4 B		No No
21 A Street/10th Avenue		
AM Signal 11.4 B 11.5 B PM 10.4 B 10.5 B		No No
22 A Street/11th Avenue		140
AM Signal 9.8 A 10.0 A PM 9.2 A 9.4 A		No No
23 Balboa Drive/El Prado		
AM All Way Stop 10.5 B 6.9 A PM 10.3 B 6.9 A		No No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 64 **EXISTING + PROJECT ALTERNATIVE 3B ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

					Existing			Exist	ing + Project	Alternative 3B	
Roadway Segment	Functional Classification/Lanes		LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector1	4 Lane Major	15,000	12,549	0.837	D	12,637	0.842	D	0.006	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	12,179	0.304	Α	12,447	0.311	Α	0.007	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	14,478	0.362	Α	14,782	0.370	Α	0.008	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	15,006	0.375	В	15,336	0.383	В	0.008	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	16,946	0.424	В	17,302	0.433	В	0.009	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	19,047	0.476	В	20,952	0.524	В	0.048	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	17,424	0.436	В	18,748	0.469	В	0.033	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	15,372	0.384	В	18,216	0.455	В	0.071	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	18,003	0.600	С	19,335	0.645	С	0.044	NO
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	13,658	0.455	В	14,874	0.496	С	0.041	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	13,018	0.434	В	13,018	0.434	В	0.000	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	10,045	0.335	В	10,618	0.354	В	0.019	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	9,893	0.440	В	10,061	0.447	В	0.007	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,223	0.122	Α	1,070	0.107	Α	0.000	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,146	0.115	Α	700	0.070	Α	0.000	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	3,856	0.386	Α	4,026	0.403	В	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	7,996	0.800	D	8,692	0.869	D	0.070	NO
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector1	3 Lane Collector	15,000	10,344	0.690	D	10,892	0.726	D	0.037	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	3,880	0.388	Α	3,958	0.396	Α	0.008	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,070	0.607	С	1,044	0.104	Α	0.000	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	С	0	0.000	Α	0.000	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,866	0.787	D	8,354	0.835	D	0.049	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,968	0.397	Α	4,063	0.406	В	0.010	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,660	0.566	С	5,660	0.566	С	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,818	0.582	С	6,200	0.620	С	0.038	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	16,655	0.740	D	17,638	0.784	D	0.044	NO
30 Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	2,080	0.208	Α	0.000	NO
31 Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,560	0.856	D	2,910	0.291	Α	-0.565	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

^{*} Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

TABLE 65 EXISTING + PROJECT ALTERNATIVE 3B INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

		Existing +	Alt 3B
Intersection	Control	Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot			
AM	Ston		
Northbound Shared Left-Right	Stop	20.2	С
Westbound Left		5.3	Α
32 Centennial Road/Parking Garage North Entrance/Exit			
AM	04		
Northbound Left	Stop	7.4	Α
Eastbound Left		8.9	Α
33 Centennial Road/Parking Garage South Entrance/Exit			
AM			
Northbound Left	Stop	7.7	Α
Eastbound Left		11.1	В
Eastbound Right		9.6	Α
34 Presidents Way/Centennial Road			
AM			
Eastbound Left	Stop	8.2	Α
Southbound Left	· -	19.0	С
Southbound Right		9.4	Α

LOS = Level of Service; Minor approach delay reported for unsignalized intersections Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold Significant Impact: 1) LOS D or better to LOS E or worse

2) Incremental Delay ≥ 2 seconds for LOS E

3) Incremental Delay ≥ 1 second for LOS F

Exhibit 43 and Exhibit 44 show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 66 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods with the exception of:

• Park Boulevard/Space Theatre Way (EB left-turn, LOS F, PM peak)

This is deemed a significant impact.

Table 67 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM peak and LOS E, PM peak)
- Park Boulevard/Presidents Way (LOS F, PM peak)

Significant impacts are calculated at these locations.

Table 68 shows that all study area roadways to operate at LOS D or better on a daily basis, with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)
- A Street between 6th Avenue and Park Boulevard (LOS E)*
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)*

Significant impacts were calculated at these "*" locations based on the current significance thresholds.

Table 69 shows all the Saturday internal study intersections to operate acceptably at LOS D or better.

2030

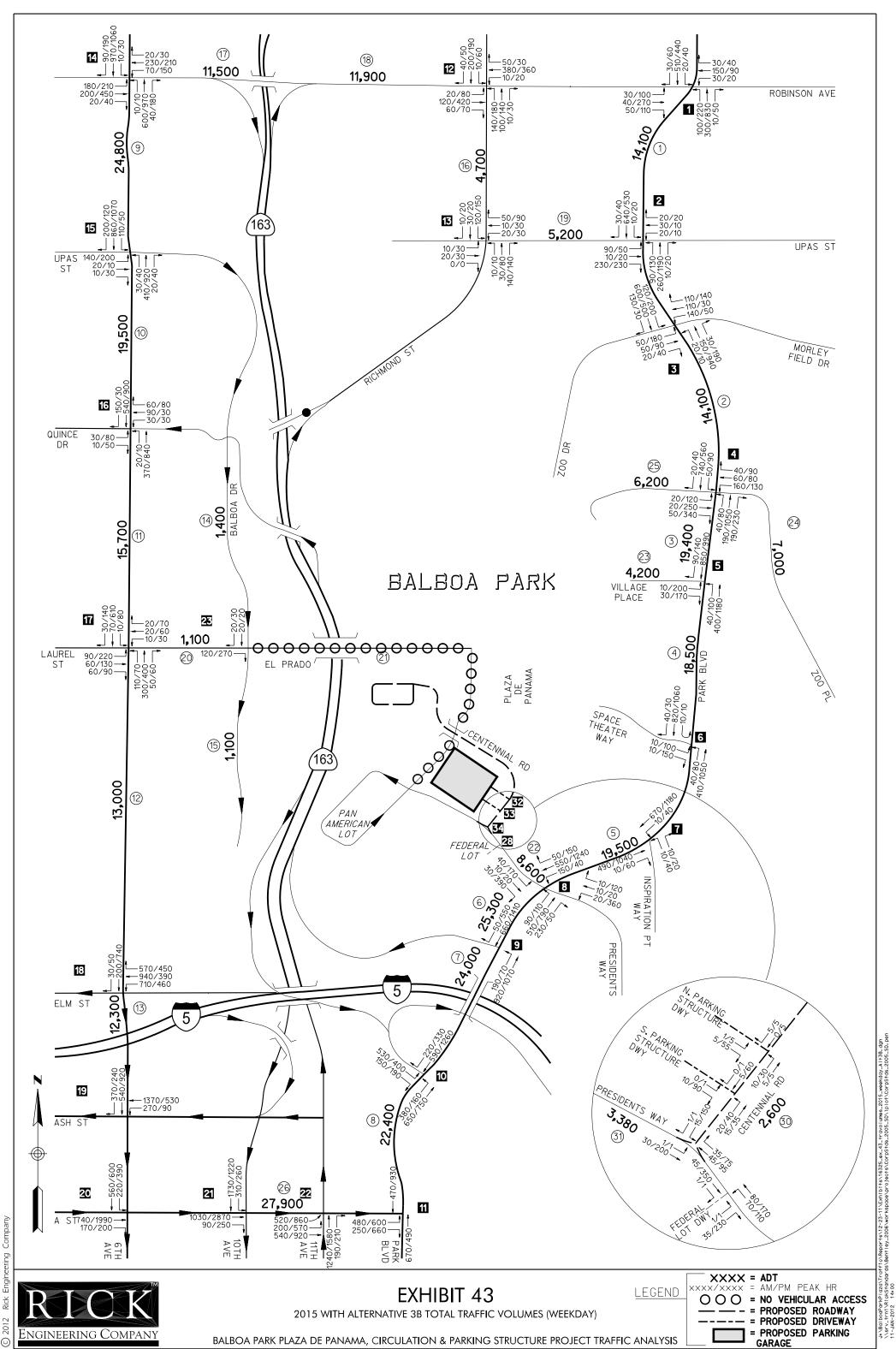
Exhibit 45 and Exhibit 46 show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 70 shows all the study area intersections to currently operate at LOS D or better during the weekday AM and PM peak periods, with the exception of:

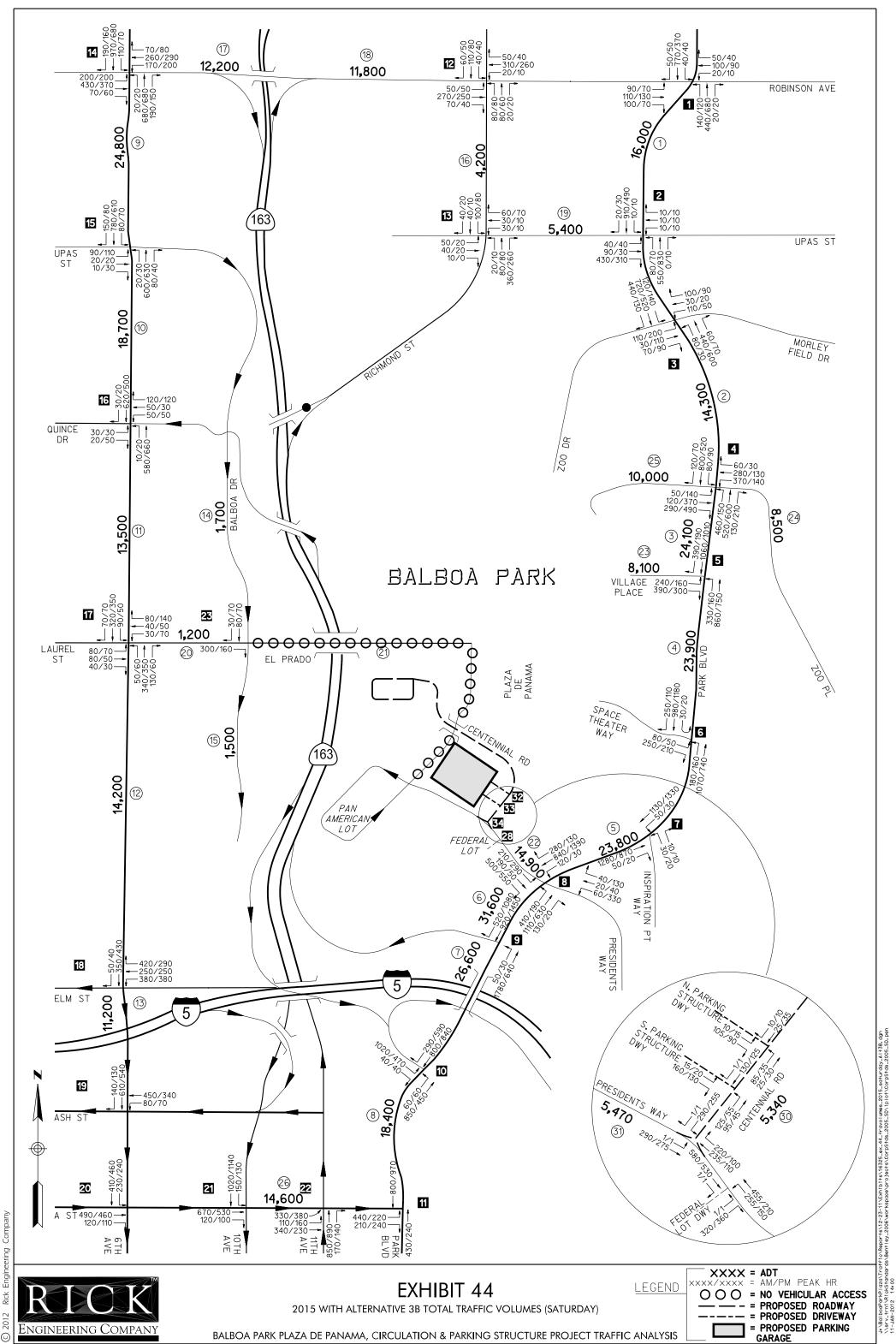
- Park Boulevard/Space Theatre Way (EB left turn, LOS F, PM peak)
- Park Boulevard/Presidents Way (LOS F, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, PM peak)

Significant impacts were calculated at these locations.

Table 71 shows all the study area intersections to currently operate at LOS D or better during the weekend AM and PM peak periods with the exception of:



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TABLE 66 2015 + PROJECT ALTERNATIVE 3B INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			2015 No Pro	ject	2	015 + P	roject Alternativ	/e 3B
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue AM	Signal	16.3	В	16.3	В	0.0	No
	PM	Signal	19.5	В	19.6	В	0.0	No
2	Park Boulevard/Upas Street	0:	00.0	0	00.5	0	0.0	
	AM PM	Signal	20.3 18.6	C B	20.5 18.6	C B	0.2	No No
3	Park Boulevard/Morley Field Drive							
	AM PM	Signal	18.8	B C	18.7 20.4	B C	-0.1 0.0	No No
4	Park Boulevard/Zoo Place				20.4		0.0	140
	AM PM	Signal	16.2 22.5	B C	16.1 22.8	B C	-0.1 0.3	No No
5	Park Boulevard/Village Place		22.5	C	22.0	C	0.3	INO
	AM PM	Signal	4.1	A	4.0	Α	-0.1	No
6	Park Boulevard/Space Theatre Way		11.7	В	11.8	В	0.1	No
	Northbound Left							
	AM PM	NA	9.7	A B	9.8 11.4	A B	0.1	No No
	Eastbound Left						0.2	110
	AM PM		13.5 33.1	B D	13.6 39.0	B F	0.1 5.9	No Yes
7	Park Boulevard/Inspiration Way		55.1	D	33.0		3.9	165
	AM PM	Signal	2.9 4.7	A	2.9 4.6	A A	0.0	No
8	Park Boulevard/Presidents Way		4.7	A	4.0	А	-0.1	No
	AM	Signal	14.7	В	14.2	В	-0.5	No
9	PM Park Boulevard/SR 163 NB Ramps		28.4	С	33.6	С	5.2	No
	Northbound Left	NA						
	AM PM	IN/A	9.5 17.4	A C	10.1 20.6	B C	0.6 3.2	No No
10	Park Boulevard/I-5 Ramps		17.4	C	20.0	C	3.2	INO
	AM	Signal	28.9	C	30.2	O	1.3	No
11	PM Park Boulevard/A Street		23.9	С	26.0	С	2.1	No
	AM	Signal	11.8	В	12.1	В	0.3	No
12	PM Richmond Street/Robinson Avenue		14.7	В	15.8	В	1.1	No
	AM	Signal	15.6	В	15.7	В	0.1	No
13	PM Richmond Street/Upas Street		15.6	В	15.8	В	0.2	No
10	AM	All Way Stop	8.3	Α	8.3	Α	0.0	No
14	PM 6th Avenue/Robinson Avenue		8.9	Α	9.0	Α	0.1	No
14	AM	Signal	23.4	С	23.6	С	0.2	No
	PM 6th Avenue/ Upas Street-Balboa Drive		31.1	С	32.8	С	1.7	No
15	AM	Signal	9.6	Α	9.8	Α	0.2	No
	PM		12.6	В	12.4	В	-0.2	No
16	6th Avenue/Quince Drive AM	Signal	15.3	В	15.3	В	0.0	No
	PM	- 3	13.9	В	13.6	В	-0.3	No
17	6th Avenue/Laurel Street AM	Signal	13.2	В	12.3	В	-0.9	No
	PM	g.iui	15.7	В	14.8	В	-0.9	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp AM	Signal	10.3	В	10.4	В	0.1	No
	PM	Signal	13.4	В	13.6	В	0.1	No
19	6th Avenue/Ash Street	0:- 1				_		
	AM PM	Signal	12.1 11.3	B B	12.2 11.3	B B	0.1	No No
20	6th Avenue/A Street							
-	AM PM	Signal	12.3 13.2	B B	12.3 13.3	B B	0.0	No No
21	A Street/10th Avenue							110
	AM PM	Signal	12.8 16.6	ВВ	13.2 17.2	B B	0.4	No
22	A Street/11th Avenue		10.0	В	11.2	В	0.6	No
	AM	Signal	11.6	В	11.9	В	0.3	No
23	PM Balboa Drive/El Prado		15.6	В	16.1	В	0.5	No
	AM	All Way Stop	8.1	Α	7.0	Α	-1.1	No
	PM		12.0	В	7.3	Α	-4.7	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 67 2015 + PROJECT ALTERNATIVE 3B INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			2015 No Project 2015 + Project Alternative 3B						
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No	
1	Park Boulevard/Robinson Avenue AM	Signal	15.0	В	15.2	В	0.0	No	
	PM	Signal	14.5	В	14.4	В	0.2 -0.1	No No	
2	Park Boulevard/Upas Street AM	Cianal	24.3	O	24.3	С	0.0	No	
	PM	Signal	19.6	В	19.9	В	0.0	No No	
3	Park Boulevard/Morley Field Drive	Cianal	47.5)	47.4	-	0.1	N-	
	AM PM	Signal	17.5 20.2	B C	17.4 20.1	B C	-0.1 -0.1	No No	
4	Park Boulevard/Zoo Place								
	AM PM	Signal	27.2 24.0	C	27.3 24.0	C	0.1	No No	
5	Park Boulevard/Village Place								
	AM PM	Signal	21.3 16.6	СВ	21.7 16.6	C B	0.4	No No	
6	Park Boulevard/Space Theatre Way		10.0		10.0		0.0	140	
	Northbound Left AM		13.9	В	14.1	В	0.2	No	
	PM	NA	13.9	В	14.1	В	0.2	No	
	Eastbound Left AM		112.7	F	120.5	F	7.0	V	
	PM		44.6	E	47.0	E	7.8 2.4	Yes Yes	
7	Park Boulevard/Inspiration Way					_			
	AM PM	Signal	3.9	A	3.9	A	0.0	No No	
8	Park Boulevard/Presidents Way								
	AM PM	Signal	31.3 52.4	C D	46.8 86.5	D F	15.5 34.1	No Yes	
9	Park Boulevard/SR 163 NB Ramps		02.4		00.0	•	34.1	163	
	Northbound Left AM	NA	12.4	В	13.5	В	1.1	No	
	PM		22.4	С	29.0	D	6.6	No	
10	Park Boulevard/I-5 Ramps	0:	05.4	O	00.0	_			
	AM PM	Signal	25.1 18.5	В	26.2 19.3	C B	1.1 0.8	No No	
11	Park Boulevard/A Street	· ·							
	AM PM	Signal	13.3 14.6	B B	13.6 15.4	B B	0.3 0.8	No No	
12	Richmond Street/Robinson Avenue								
	AM PM	Signal	13.7	B B	13.7 13.5	B B	0.0 -0.1	No No	
13	Richmond Street/Upas Street							110	
	AM PM	All Way Stop	9.3	B A	11.6 9.4	B A	0.1 0.1	No No	
14	6th Avenue/Robinson Avenue				-	,,	0.1	110	
	AM PM	Signal	37.2 30.5	D C	47.3 31.9	D C	10.1 1.4	No No	
15	6th Avenue/ Upas Street-Balboa Drive		30.3	C	31.9	C	1.4	INU	
	AM	Signal	8.3	A	8.1	A	-0.2	No	
16	6th Avenue/Quince Drive		11.6	В	11.2	В	-0.4	No	
	AM PM	Signal	17.6	В	17.7	В	0.1	No	
17	6th Avenue/Laurel Street		16.5	В	16.3	В	-0.2	No	
	AM	_	15.1	В	13.8	В	-1.3	No	
18	PM 6th Avenue/Elm Street-I-5 NB Off Ramp		15.0	В	13.9	В	-1.1	No	
-	AM	Signal	11.6	В	11.8	В	0.2	No	
19	PM 6th Avenue/Ash Street		12.0	В	12.2	В	0.2	No	
	AM	Signal	11.4	В	11.4	В	0.0	No	
20	PM 6th Avenue/A Street		10.9	В	10.9	В	0.0	No	
	AM	Signal	11.7	В	11.7	В	0.0	No	
21	A Street/10th Avenue		11.5	В	11.6	В	0.1	No	
1	AM	Signal	11.8	В	11.9	В	0.1	No	
22	A Street/11th Avenue		10.7	В	10.9	В	0.2	No	
	AM	Signal	10.2	В	10.4	В	0.2	No	
23	PM Balboa Drive/El Prado		9.5	Α	9.7	Α	0.2	No	
	AM	All Way Stop	12.2	В	7.7	Α	-4.5	No	
	PM		10.7	В	7.4	Α	-3.3	No	

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 68 2015 + PROJECT ALTERNATIVE 3B **ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

				2	015 No Projec	ct	2015 + Project Alternative 3B					
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No	
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	15,000	1.000	E	15,100	1.007	F	0.007	NO	
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	13,800	0.345	Α	14,100	0.353	Α	0.008	NO	
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	19,000	0.475	В	19,400	0.485	В	0.010	NO	
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	18,100	0.453	В	18,500	0.463	В	0.010	NO	
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	19,100	0.478	В	19,500	0.488	В	0.010	NO	
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	23,000	0.575	С	25,310	0.633	С	0.058	NO	
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	24,000	0.600	С	0.043	NO	
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	18,900	0.473	В	22,400	0.560	С	0.088	NO	
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	23,100	0.770	D	24,800	0.827	D	0.057	NO	
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	17,900	0.597	С	19,500	0.650	С	0.053	NO	
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	14,600	0.487	С	14,600	0.487	С	0.000	NO	
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	12,300	0.410	В	13,000	0.433	В	0.023	NO	
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	12,100	0.538	С	12,300	0.547	С	0.009	NO	
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,600	0.160	Α	1,400	0.140	Α	0.000	NO	
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,800	0.180	Α	1,100	0.110	Α	0.000	NO	
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	4,500	0.450	В	4,700	0.470	В	0.000	NO	
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	11,500	1.150	F	12,500	1.250	F	0.100	YES	
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector ¹	3 Lane Collector	15,000	11,300	0.753	D	11,900	0.793	D	0.040	NO	
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,100	0.510	В	5,200	0.520	В	0.010	NO	
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,400	0.640	С	1,100	0.110	Α	0.000	NO	
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	С	0	0.000	Α	0.000	NO	
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,100	0.810	D	8,600	0.860	D	0.050	NO	
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	4,100	0.410	В	4,200	0.420	В	0.010	NO	
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	7,000	0.700	С	7,000	0.700	С	0.000	NO	
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,200	0.620	С	6,200	0.620	С	0.000	NO	
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	20,300	0.902	E	21,500	0.956	E	0.053	YES	
30 Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	2,600	0.260	Α	0.000	NO	
31 Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,470	0.947	Е	3,380	0.338	Α	-0.609	NO	

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

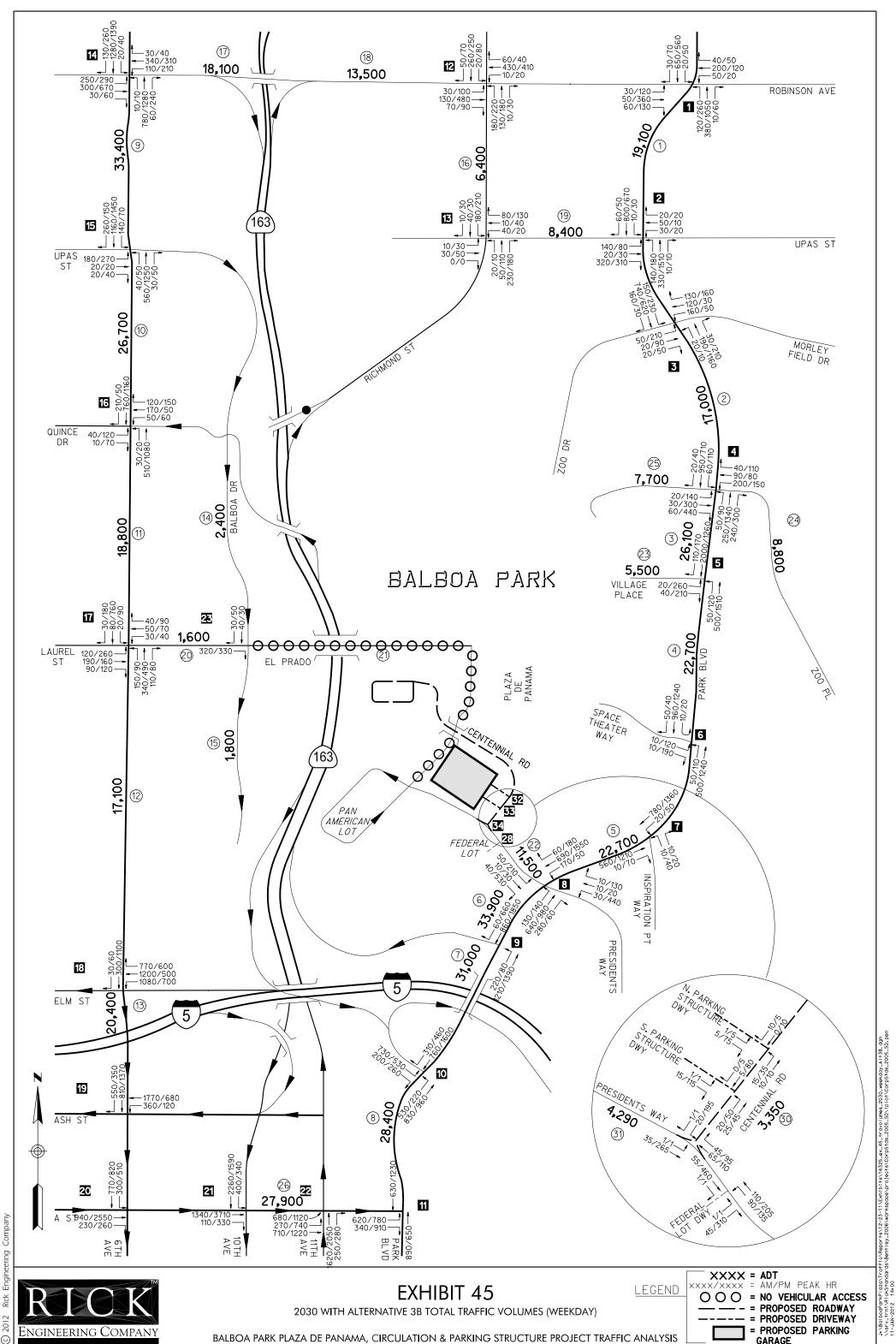
TABLE 69 2015 + PROJECT ALTERNATIVE 3B INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

Interse	ection	Control	Control Delay (sec/veh)	LOS			
28 Presidents Way/Federal-Aerosp	ace Lot						
	AM	Stop					
	Northbound Shared Left-Right						
	Westbound Left		6.2	Α			
32 Centennial Road/Parking Garag	e North Entrance/Exit						
	AM	Stop					
	Northbound Lef						
	Eastbound Left		9.0	Α			
33 Centennial Road/Parking Garag	e South Entrance/Exit						
	AM						
	Northbound Left	Stop	7.8	Α			
	Eastbound Left	·	11.6	В			
	Eastbound Right		9.9	Α			
34 Presidents Way/Centennial Roa	ıd						
	AM						
	Eastbound Left	Stop	8.4	Α			
	Southbound Left	·	25.6	D			
	Southbound Right		9.6	Α			

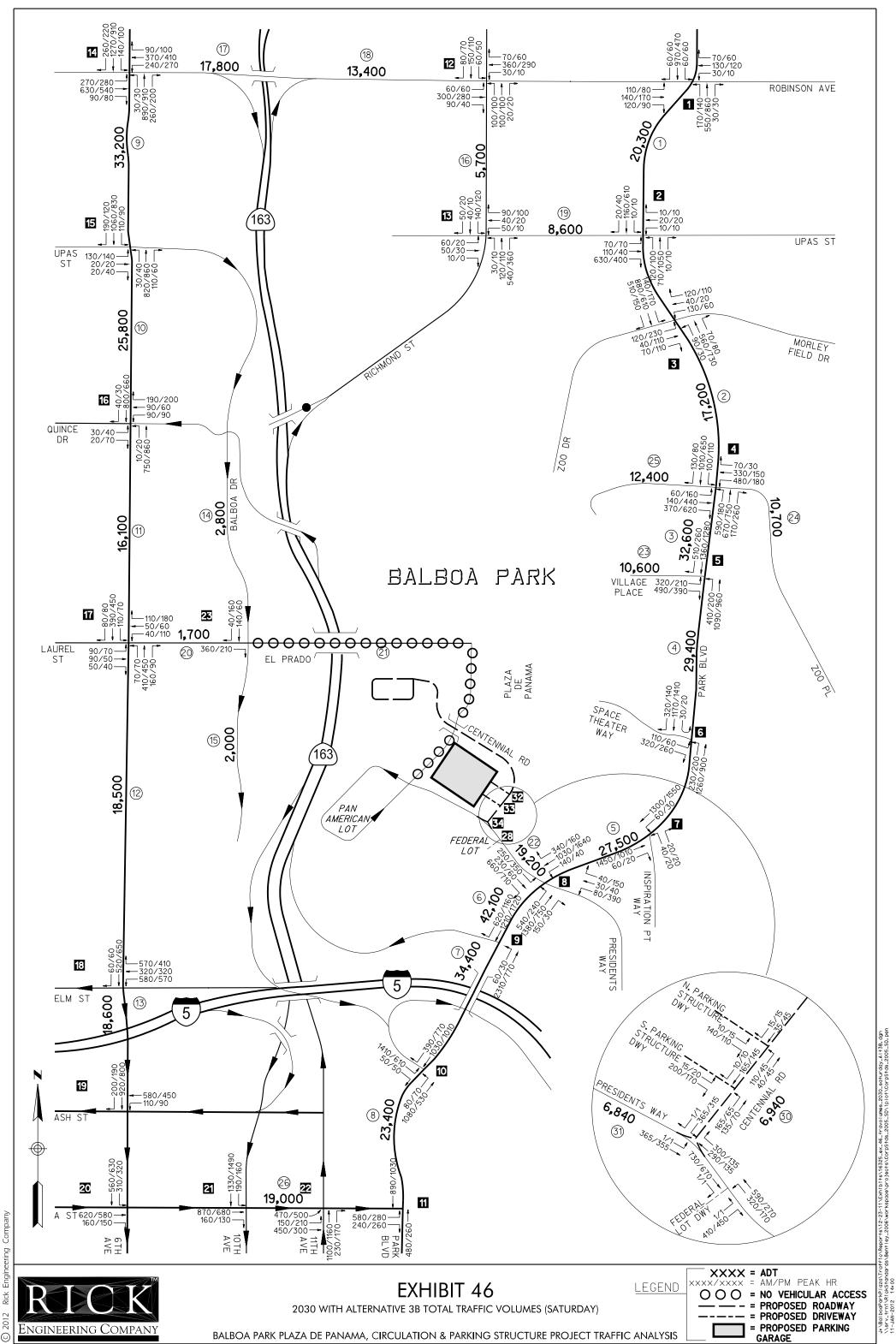
LOS = Level of Service; Minor approach delay reported for unsignalized intersections Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold Significant Impact: 1) LOS D or better to LOS E or worse

2) Incremental Delay ≥ 2 seconds for LOS E

3) Incremental Delay ≥ 1 second for LOS F



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TABLE 70 2030 + PROJECT ALTERNATIVE 3B INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

		2030 No Project 2030 + Project Alternative 3B								
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No		
1	Park Boulevard/Robinson Avenue	0:1	47.5	-	47.5	-				
	AM PM	Signal	17.5 31.0	B	17.5 31.9	B C	0.0	No No		
2	Park Boulevard/Upas Street		01.0	J	01.0		0.0	110		
	AM PM	Signal	24.8	С	25.4	С	0.6	No		
3	Park Boulevard/Morley Field Drive		24.1	С	24.3	С	0.2	No		
	AM	Signal	19.2	В	19.3	В	0.1	No		
4	PM Park Boulevard/Zoo Place		22.6	С	22.7	С	0.1	No		
4	AM	Signal	16.7	В	16.7	В	0.0	No		
	PM	•	29.3	С	29.8	С	0.5	No		
5	Park Boulevard/Village Place AM	Signal	4.6	Α	4.5	Α	-0.1	No		
	PM	Signal	13.1	В	13.6	В	0.5	No		
6	Park Boulevard/Space Theatre Way									
	Northbound Left AM		10.6	В	10.6	В	0.0	No		
	PM	NA	12.9	В	13.2	В	0.0	No		
	Eastbound Left									
	AM PM		15.1 112.1	C F	15.2 141.0	С F	0.1 28.9	No Yes		
7	Park Boulevard/Inspiration Way		112.1	•	141.0	•	20.9	ies		
	AM	Signal	3.0	Α	3.0	Α	0.0	No		
8	PM Park Boulevard/Presidents Way		4.7	Α	4.7	Α	0.0	No		
- 0	AM	Signal	14.7	В	14.8	В	0.1	No		
	PM		62.0	E	93.4	F	31.4	Yes		
9	Park Boulevard/SR 163 NB Ramps Northbound Left									
	AM	NA	10.9	В	11.8	В	0.9	No		
	PM		28.4	D	33.5	D	5.1	No		
10	Park Boulevard/I-5 Ramps AM	Signal	38.4	D	48.7	D	10.3	No		
	PM	Olgilai	43.6	D	51.5	D	7.9	No		
11	Park Boulevard/A Street									
	AM PM	Signal	12.5 20.1	B	12.9 16.2	B B	0.4 -3.9	No No		
12	Richmond Street/Robinson Avenue		20.1		10.2		-3.5	140		
	AM	Signal	16.7	В	16.8	В	0.1	No		
13	PM Richmond Street/Upas Street		17.3	В	17.9	В	0.6	No		
10	AM	All Way Stop	9.6	Α	9.7	Α	0.1	No		
	PM		10.6	В	10.7	В	0.1	No		
14	6th Avenue/Robinson Avenue AM	Signal	30.6	С	32.5	С	1.9	No		
	PM	o.g.i.a.	103.0	F	124.0	F	21.0	Yes		
15	6th Avenue/ Upas Street-Balboa Drive									
	AM PM	Signal	11.1 15.3	B B	11.1 15.5	B B	0.0	No No		
16	6th Avenue/Quince Drive		10.0		10.0		0.2			
	AM	Signal	18.7	В	18.7	В	0.0	No		
17	PM 6th Avenue/Laurel Street		16.9	В	17.8	В	0.9	No		
	AM	Signal	13.7	В	13.7	В	0.0	No		
40	PM 6th Avenue/Elm Street I 5 NR Off Pamp		17.8	В	15.7	В	-2.1	No		
18	6th Avenue/Elm Street-I-5 NB Off Ramp AM	Signal	31.1	С	33.1	С	2.0	No		
	PM		17.6	В	18.2	В	0.6	No		
19	6th Avenue/Ash Street	Cian-I	44.7	D	14.0	Б	0.4	NI-		
	AM PM		14.7 11.7	B B	14.8 11.7	B B	0.1	No No		
20	6th Avenue/A Street									
	AM PM		13.1	В	13.1	В	0.0	No		
21	A Street/10th Avenue		17.6	В	18.4	В	0.8	No		
	AM		15.7	В	16.3	В	0.6	No		
00	PM A Street/11th Avenue		42.1	D	54.9	D	12.8	No		
22	A Street/11th Avenue AM	Signal	13.0	В	13.4	В	0.4	No		
	PM	g	21.6	С	24.2	С	2.6	No		
23	Balboa Drive/El Prado	All Moss Chr	0.0	_	7.0	_	1.0	NI-		
	AM PM	, ,	8.9 27.5	A D	7.3 7.5	A	-1.6 -20.0	No No		
	FIVE	<u> </u>	21.5	J	1.5	_ ^	20.0	140		

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 71 2030 + PROJECT ALTERNATIVE 3B INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			2030 No Pro	2030 + Project Alternative 3B						
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No		
1	Park Boulevard/Robinson Avenue									
	AN PN		16.5	B B	16.5	В	0.0	No		
2	Park Boulevard/Upas Street		15.5	В	15.8	В	0.3	No		
	AN	Signal	51.3	D	53.0	D	1.7	No		
	PM	İ	23.3	С	23.3	С	0.0	No		
3	Park Boulevard/Morley Field Drive AM	l Signal	19.3	В	19.3	В	0.0	No		
	PN		20.7	С	20.6	С	-0.1	No		
4	Park Boulevard/Zoo Place									
	AN PN		36.1	D	36.9	D	0.8	No		
5	Park Boulevard/Village Place		27.4	С	27.5	С	0.1	No		
,	AN	_	37.7	D	40.7	D	3.0	No		
	PM	l	19.3	В	20.0	С	0.7	No		
6	Park Boulevard/Space Theatre Way Northbound Lef									
	AN		19.4	С	20.6	С	1.2	No		
	PN	-	18.5	С	20.0	С	1.5	No		
	Eastbound Lef		460.0	F	E477	-	50.0	V		
	AN PN	-	460.8 168.8	F	517.7 198.0	F	56.9 29.2	Yes Yes		
7	Park Boulevard/Inspiration Way		100.0		100.0	i i	20.2	163		
	AN		4.9	Α	4.9	Α	0.0	No		
•	PM		4.0	Α	4.0	Α	0.0	No		
8	Park Boulevard/Presidents Way AN	l Signal	56.4	Е	112.3	F	55.9	Yes		
	PM		126.4	F	126.1	F	-0.3	Yes		
9	Park Boulevard/SR 163 NB Ramps									
	Northbound Lef AM	NA NA	15.5	С	18.1	С	2.6	No		
	PN	-	40.7	E	41.1	E	0.4	No		
10	Park Boulevard/I-5 Ramps									
	AM		32.6	С	38.5	D	5.9	No		
11	PN Park Boulevard/A Street		23.8	С	24.3	С	0.5	No		
	AN	l Signal	14.2	В	14.8	В	0.6	No		
	PN	1	16.4	В	17.3	В	0.9	No		
12	Richmond Street/Robinson Avenue AN	l Signal	14.6	В	14.7	В	0.1	No		
	PN		14.4	В	14.4	В	0.0	No No		
13	Richmond Street/Upas Street									
	AN PN	, ,	29.2	D	29.2	D	0.0	No		
14	6th Avenue/Robinson Avenue		11.7	В	12.0	В	0.3	No		
17	AN	l Signal	151.7	F	181.7	F	30.0	Yes		
	PN		75.5	Е	98.2	F	22.7	Yes		
15	6th Avenue/ Upas Street-Balboa Drive	l Signal	9.5	Α	8.9	Α	-0.6	No		
	PN		12.4	В	11.5	В	-0.0	No		
16	6th Avenue/Quince Drive									
	AN PN		21.6	С	22.3	С	0.7	No No		
17	6th Avenue/Laurel Street		20.0	В	21.1	С	1.1	No		
	AN		15.7	В	13.7	В	-2.0	No		
40	PN		15.4	В	14.0	В	-1.4	No		
18	6th Avenue/Elm Street-I-5 NB Off Ramp AN	l Signal	11.3	В	11.7	В	0.4	No		
	PN	4	12.5	В	12.9	В	0.4	No		
19	6th Avenue/Ash Street									
	AN PN		11.8 10.9	B	11.7 11.1	B	-0.1	No No		
20	6th Avenue/A Street		10.9		11.1	- 0	0.2	No		
	AM		12.1	В	12.2	В	0.1	No		
	PN	1	11.9	В	12.0	В	0.1	No		
21	A Street/10th Avenue AN	l Signal	12.5	В	12.7	В	0.2	No		
	PN	4	12.5	В	11.5	В	0.2 0.1	No No		
22	A Street/11th Avenue									
	AN	_	10.8	В	11.1	В	0.3	No No		
23	PN Balboa Drive/El Prado		10.0	В	10.2	В	0.2	No		
	AN		24.7	С	8.4	Α	-16.3	No		
_	PN		21.9	С	8.0	Α	-13.9	No		

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM and PM peak)*
- Park Boulevard/Presidents Way (LOS F, AM and PM peak)*
- Park Boulevard/SR 163 NB on Ramp (LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, AM and PM peak)*

Significant impacts were calculated at these "*" locations.

Table 72 shows that all study area roadways to currently operate at LOS D or better on a daily basis with the exception of:

- Park Boulevard between Robinson and Avenue and Upas Street (LOS F)
- 6th Avenue between Robinson Avenue and Upas Street (LOS F)*
- 6th Avenue between Upas Street and Quince Drive (LOS E)*
- 6th Avenue between Elm Street and Ash Street (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)*
- Robinson Avenue between Vermont Street and Park Boulevard (LOS E)*
- Presidents Way, west of Park Boulevard (LOS F) *
- A Street between 6th and Park Boulevard (LOS F)*

Six of the eight segments as denoted with an "*" were deemed a significant impact.

Table 73 shows all the Saturday internal study intersections to operate at LOS B or better, with the exception of:

- Presidents Way/Federal Lot (NB shared left-right, LOS F)
- Presidents Way/Centennial Road (SB left, LOS F)

ALTERNATIVE 3C - PEDESTRIANIZE CABRILLO BRIDGE, WEST MESA PARKING STRUCTURE OPERATIONS

Exhibit 47 shows the intersection lane geometry and configurations of the study area intersections.

Exhibit 48 shows the percent distribution for this alternative.

Existing

Exhibit 49 and Exhibit 50 show the Existing + Project Alternative 3C traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 74 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods. No significant impacts were calculated.

Table 75 shows all the study area intersections to operate at LOS C or better during the weekend AM and PM peak periods with the exception of:

Park Boulevard/Space Theatre Way (EB left turn, LOS E, AM peak)

TABLE 72 2030 + PROJECT ALTERNATIVE 3B **ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

				2	2030 No Projec	ct		203	0 + Project /	Alternative 3B	
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector1	4 Lane Major	15,000	19,100	1.273	F	19,100	1.273	F	0.000	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	16,700	0.418	В	17,000	0.425	В	0.008	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	25,600	0.640	С	26,100	0.653	С	0.013	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	22,700	0.568	С	0.010	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	22,700	0.568	С	0.010	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	30,900	0.773	D	33,900	0.848	D	0.075	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	28,800	0.720	С	31,000	0.775	D	0.055	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	24,000	0.600	С	28,400	0.710	С	0.110	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	31,200	1.040	F	33,400	1.113	F	0.073	YES
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	24,500	0.817	D	26,700	0.890	E	0.073	YES
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	17,500	0.583	С	18,800	0.627	С	0.043	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	16,100	0.537	С	16,100	0.537	С	0.000	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	20,100	0.893	E	20,400	0.907	E	0.013	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	2,700	0.270	Α	2,400	0.240	Α	-0.030	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,000	0.300	Α	1,800	0.180	Α	-0.120	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	6,200	0.620	С	6,400	0.640	С	0.020	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	16,700	1.670	F	18,100	1.810	F	0.140	YES
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector ¹	3 Lane Collector	15,000	12,800	0.853	D	13,500	0.900	E	0.047	YES
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,200	0.820	D	8,400	0.840	D	0.020	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,100	0.910	E	1,600	0.160	Α	-0.750	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	F	0	0.000	Α	-1.030	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,800	0.880	D	11,500	1.150	F	0.270	YES
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,400	0.540	В	5,500	0.550	В	0.010	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,800	0.880	D	8,800	0.880	D	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,700	0.770	D	7,700	0.770	D	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	26,300	1.169	F	27,900	1.240	F	0.071	YES
30 Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	3,350	0.335	Α	0.000	NO
31 Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,800	0.980	E	4,290	0.429	В	-0.551	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio \geq 0.02 for LOS E Incremental V/C Ratio \geq 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

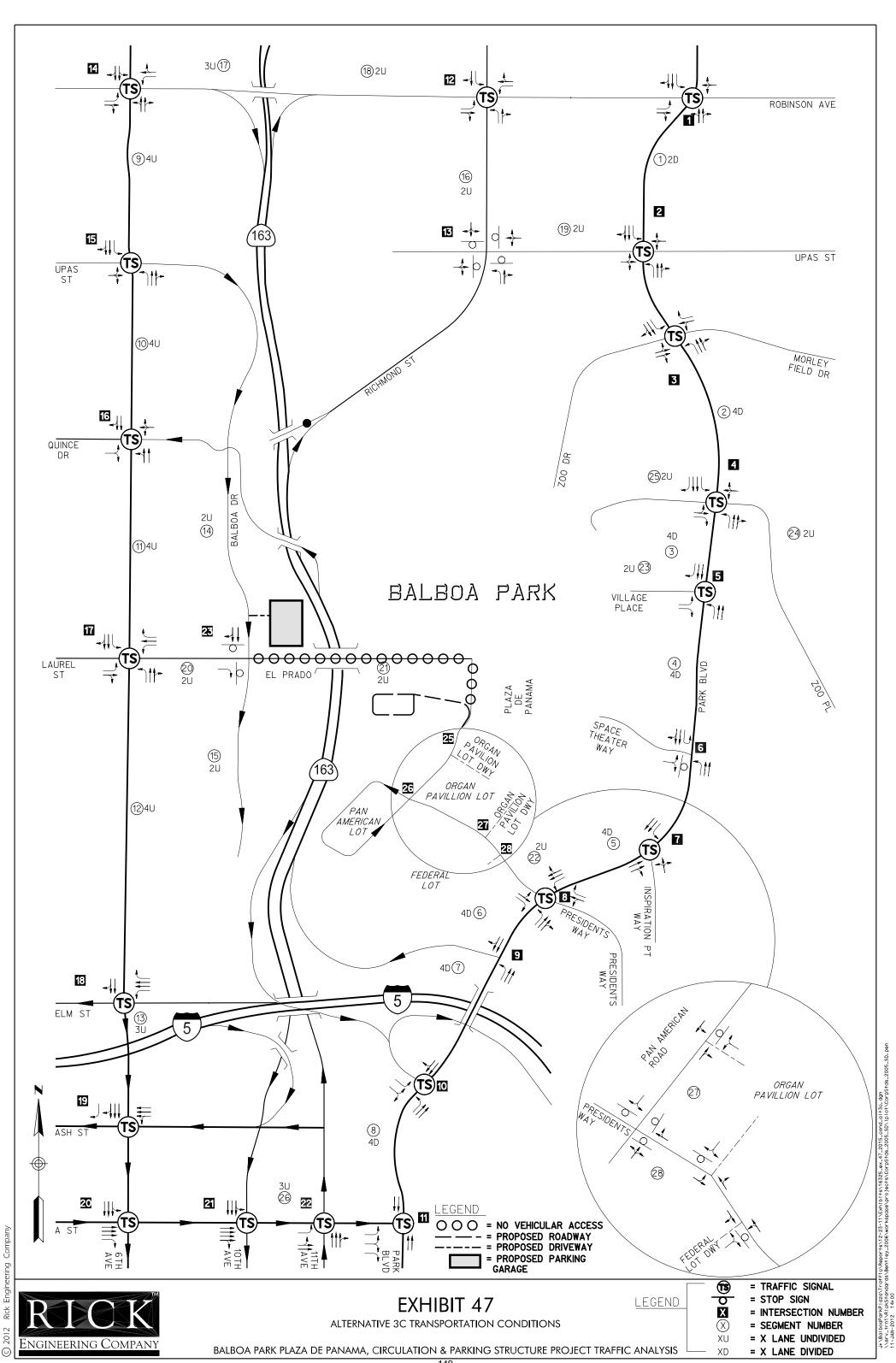
TABLE 73 2030 + PROJECT ALTERNATIVE 3B INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

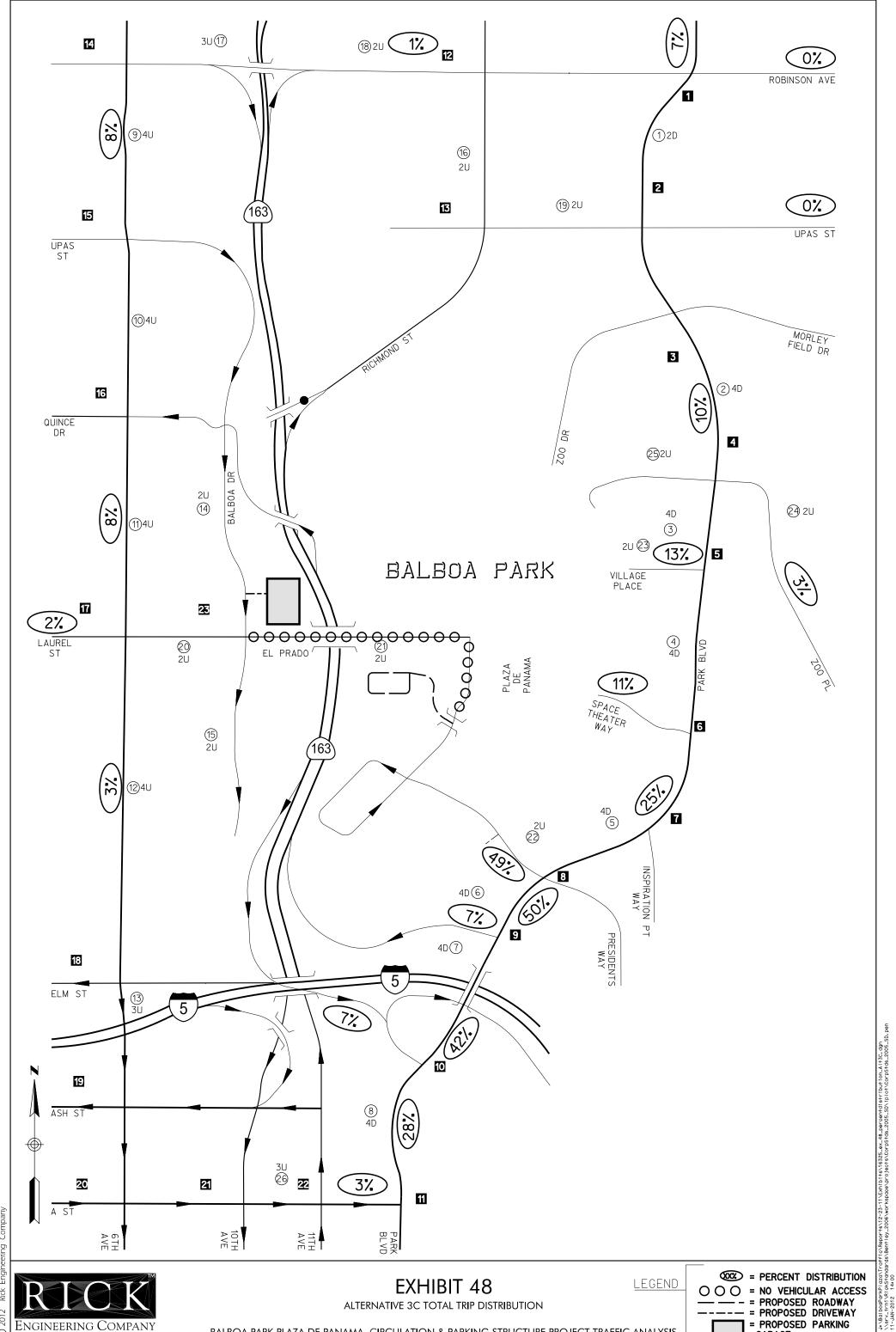
		2030 +	Alt 3B
Intersection	Control	Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot			
AM	Ston		
Northbound Shared Left-Right	Stop	>50.0	F
Westbound Left	1	9.9	Α
32 Centennial Road/Parking Garage North Entrance/Exit			
AM	Ct		
Northbound Left	Stop	7.5	Α
Eastbound Left		9.3	А
33 Centennial Road/Parking Garage South Entrance/Exit			
AM			
Northbound Left	Stop	8.0	А
Eastbound Left	+	13.2	В
Eastbound Right	†	10.6	В
34 Presidents Way/Centennial Road		-	
AM	†		
Eastbound Left	Stop	8.8	Α
Southbound Left		>50	F
Southbound Right	<u> </u>	10.0	Α

LOS = Level of Service; Minor approach delay reported for unsignalized intersections Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold Significant Impact: 1) LOS D or better to LOS E or worse

2) Incremental Delay ≥ 2 seconds for LOS E

3) Incremental Delay ≥ 1 second for LOS F

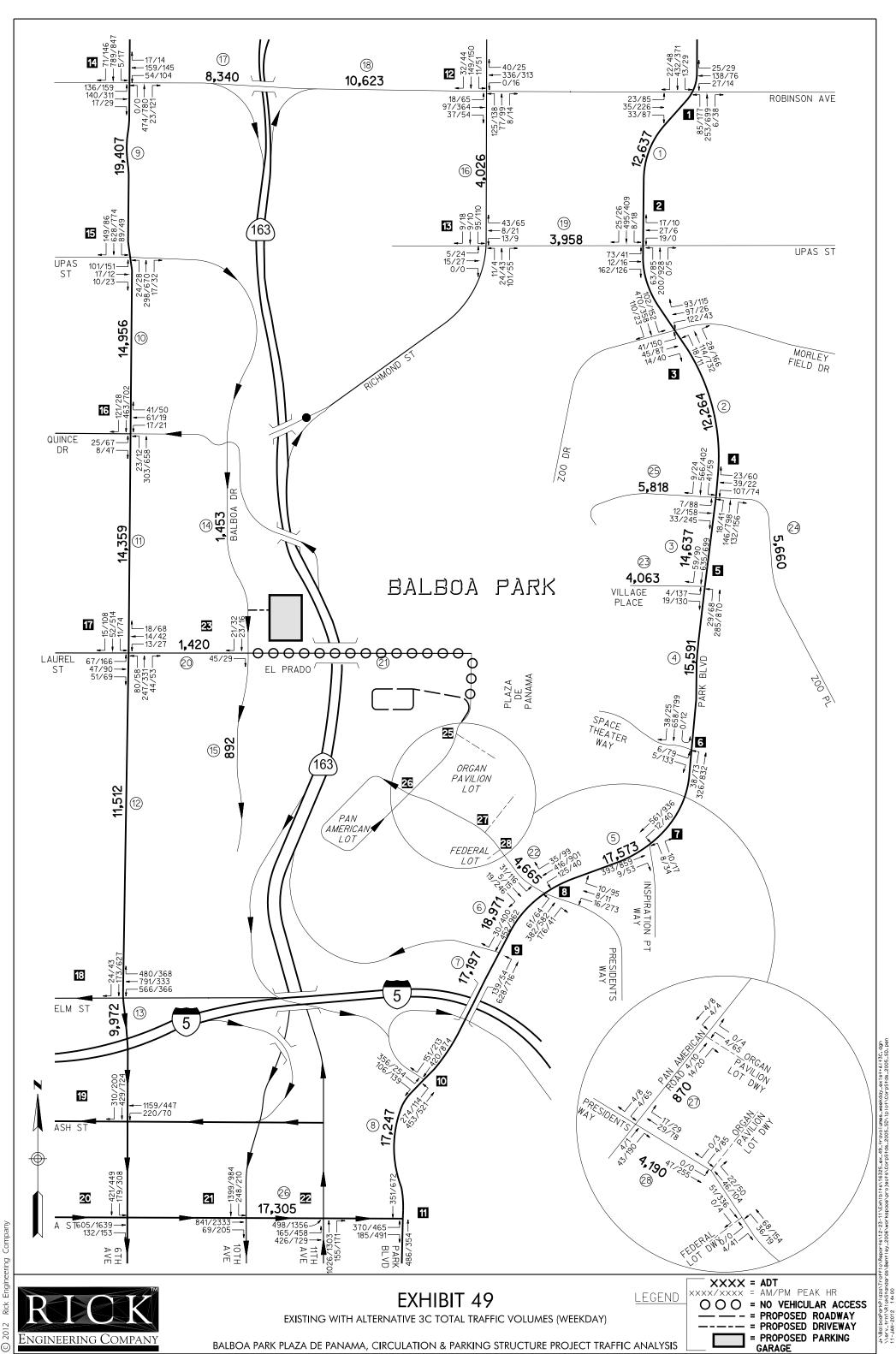




Engineering Company 2012

ALTERNATIVE 3C TOTAL TRIP DISTRIBUTION

= PROPOSED DRIVEWAY = PROPOSED PARKING GARAGE



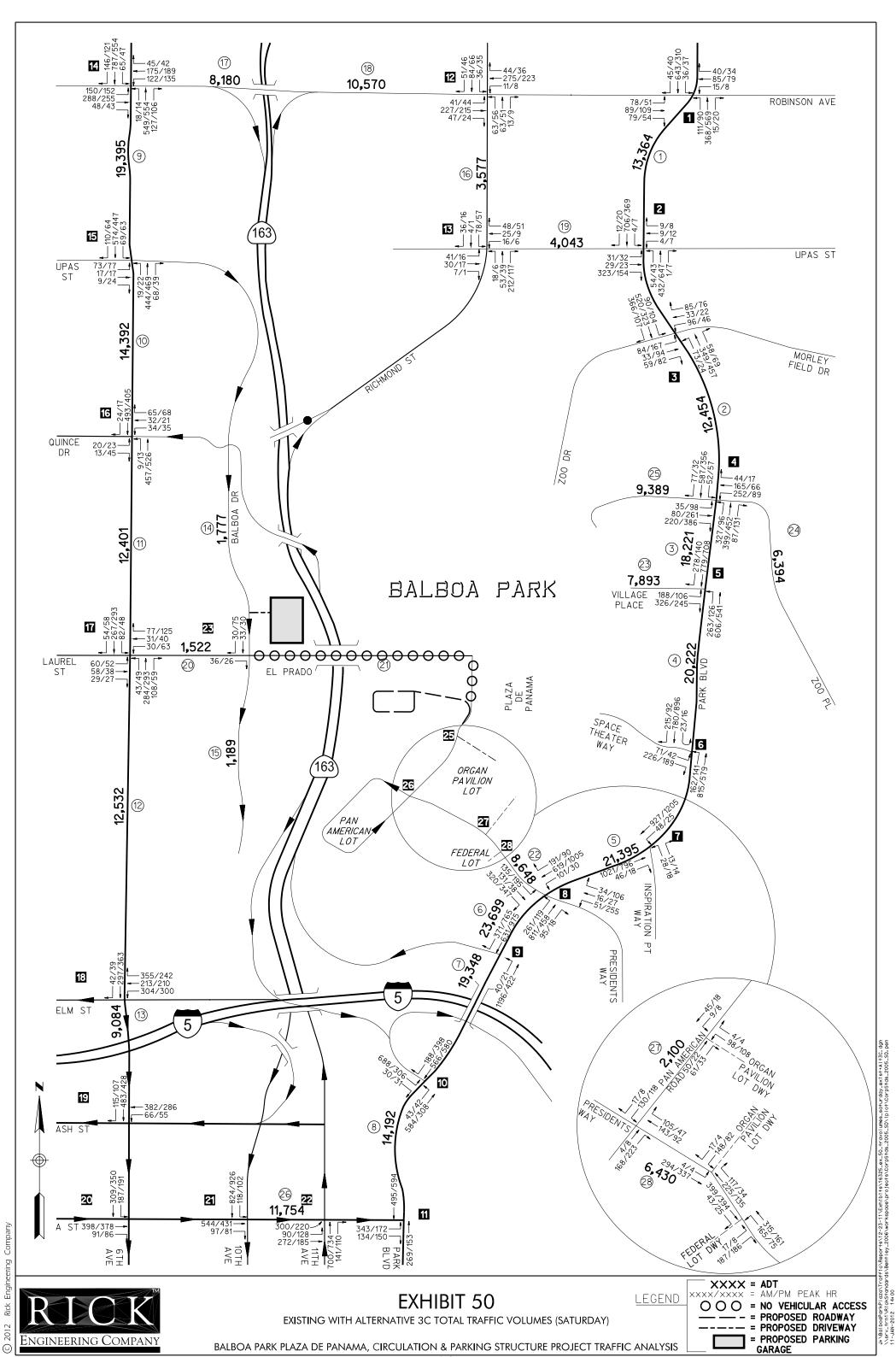


TABLE 74 EXISTING + PROJECT ALTERNATIVE 3C INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			Existing	9	Exis	sting +	Project Alterna	tive 3C
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue	Cianal	40.0		40.0	-	0.4	
	AM PM	Signal	16.3 17.1	B	16.2 17.1	B B	-0.1 0.0	No No
2	Park Boulevard/Upas Street						0.0	110
	AM	Signal	18.6	В	18.7	В	0.1	No
3	PM Park Boulevard/Morley Field Drive		14.4	В	14.5	В	0.1	No
	AM	Signal	18.6	В	18.6	В	0.0	No
	PM		19.2	В	19.2	В	0.0	No
4	Park Boulevard/Zoo Place AM	Signal	16.1	В	16.1	В	0.0	No
	PM	oig.id.	21.5	С	21.5	С	0.0	No
5	Park Boulevard/Village Place	0:1					0.0	
	AM PM	Signal	3.9 11.3	A B	3.9 11.1	A B	0.0 -0.2	No No
6	Park Boulevard/Space Theatre Way		11.0				0.2	110
	Northbound Left				0.1			
	AM PM	NA	9.0 9.7	A	9.1 9.9	A	0.1 0.2	No No
	Eastbound Left		0.1		0.0	,,	0.2	140
	AM		12.1	В	12.3	В	0.2	No
7	PM Park Boulevard/Inspiration Way		19.2	С	20.5	С	1.3	No
	AM	Signal	3.1	Α	3.0	Α	-0.1	No
	PM		4.5	Α	4.5	Α	0.0	No
8	Park Boulevard/Presidents Way AM	Signal	14.7	В	14.0	В	-0.7	No
	PM		21.8	С	20.7	С	-1.1	No
9	Park Boulevard/SR 163 NB Ramps	:						
	Northbound Left AM	NA	8.8	Α	8.8	Α	0.0	No
	PM	•	12.8	В	12.9	В	0.1	No
10	Park Boulevard/I-5 Ramps AM	Cianal	00.0		00.4	_	0.0	
	PM	Signal	26.2 19.9	В	26.4 20.3	C	0.2	No No
11	Park Boulevard/A Street						0.1	.,,
	AM PM	Signal	11.5 13.3	B	11.6 13.5	B B	0.1 0.2	No No
12	Richmond Street/Robinson Avenue		10.0	ь	13.3	В	0.2	NO
	AM	Signal	15.0	В	15.1	В	0.1	No
13	PM Richmond Street/Upas Street		14.5	В	14.6	В	0.1	No
- 13	AM	All Way Stop	7.7	Α	7.8	Α	0.1	No
	PM	,	8.0	Α	8.0	Α	0.0	No
14	6th Avenue/Robinson Avenue AM	Signal	20.5	С	20.5	С	0.0	No
	PM	oig.id.	22.6	С	23.0	С	0.4	No
15	6th Avenue/ Upas Street-Balboa Drive						• •	
	AM PM	Signal	9.6 11.7	A B	9.2 11.4	A B	-0.4 -0.3	No No
16	6th Avenue/Quince Drive							
	AM PM	Signal	12.1	В	12.1	В	0.0	No
17	6th Avenue/Laurel Street		12.1	В	12.3	В	0.2	No
	AM	Signal	13.0	В	11.9	В	-1.1	No
18	PM 6th Avenue/Elm Street-I-5 NB Off Ramp		15.0	В	13.9	В	-1.1	No
-10	AM	Signal	8.6	Α	8.8	Α	0.2	No
-	PM		12.8	В	13.1	В	0.3	No
19	6th Avenue/Ash Street AM	Signal	11.5	В	11.4	В	-0.1	No
	PM	2.9.131	10.9	В	11.1	В	0.2	No
20	6th Avenue/A Street	0:			44.6			
	AM PM	Signal	11.8 11.5	B	11.8 11.4	B B	0.0 -0.1	No No
21	A Street/10th Avenue							
	AM PM	Signal	11.9	В	12.0	В	0.1	No
22	A Street/11th Avenue		14.0	В	14.1	В	0.1	No
	AM	Signal	11.0	В	11.2	В	0.2	No
23	PM Balboa Drive/El Prado		13.9	В	14.1	В	0.2	No
23	AM	All Way Stop	7.8	Α	6.9	Α	-0.9	No
	PM	*	10.8	В	6.8	Α	-4.0	No

TABLE 75 EXISTING + PROJECT ALTERNATIVE 3C INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			Existing	g	Exi	sting +	Project Alterna	ntive 3C
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AN PN		14.5 13.8	B	14.5 13.8	B B	0.0	No No
2	Park Boulevard/Upas Street		13.0	В	13.0	ь	0.0	INO
	AN		19.2	В	19.3	В	0.1	No
	PM		15.5	В	15.6	В	0.1	No
3	Park Boulevard/Morley Field Drive AN	Signal	17.0	В	17.0	В	0.0	No
	PN		20.0	С	20.0	В	0.0	No
4	Park Boulevard/Zoo Place							
	AN PN		30.0 24.0	C	30.1 24.1	C	0.1	No No
5	Park Boulevard/Village Place		24.0		24.1	U	0.1	INO
	AN		18.5	В	18.8	В	0.3	No
	PM		15.5	В	15.6	В	0.1	No
6	Park Boulevard/Space Theatre Way Northbound Left	+						
	AN	4	11.3	В	11.6	В	0.3	No
	PM	4	11.1	В	11.4	В	0.3	No
	Eastbound Left AN		31.2	D	35.6	Е	4.4	V
	AN PN	+	20.3	С	21.7	C	4.4 1.4	Yes No
7	Park Boulevard/Inspiration Way		20.0				1.4	110
	Alv		4.1	Α	4.1	Α	0.0	No
8	PARK Boulevard/Presidents Way		4.1	Α	3.9	Α	-0.2	No
0	AN	Signal	25.0	С	23.6	С	-1.4	No
	PM		26.8	С	25.4	С	-1.4	No
9	Park Boulevard/SR 163 NB Ramps	<u> </u>						
	Northbound Left AN	- NA	10.5	В	10.5	В	0.0	No
	PN	4	15.4	С	15.4	С	0.0	No
10	Park Boulevard/I-5 Ramps							
	AN PN		21.8	С	22.1	С	0.3	No
11	Park Boulevard/A Street		16.2	В	16.2	В	0.0	No
	AN	Signal	12.8	В	13.0	В	0.2	No
	PM		13.8	В	14.1	В	0.3	No
12	Richmond Street/Robinson Avenue AN	Signal	13.0	В	13.1	В	0.1	No
	PN		12.7	В	12.8	В	0.1	No
13	Richmond Street/Upas Street							
	AN PN	4 , ,	8.8	A	8.8 7.8	A	0.0	No
14	6th Avenue/Robinson Avenue	!	7.7	Α	7.0	A	0.1	No
	AM	Signal	24.3	С	24.9	С	0.6	No
	PN		24.8	С	25.0	С	0.2	No
15	6th Avenue/ Upas Street-Balboa Drive	Signal	8.3	A	7.9	Α	-0.4	No
	PN	- 3 -	11.1	В	10.7	В	-0.4	No
16	6th Avenue/Quince Drive							
	AN PN		13.9	В	14.0	В	0.1	No
17	6th Avenue/Laurel Street		13.5	В	13.6	В	0.1	No
	AN		14.8	В	13.2	В	-1.6	No
16	PN	[14.7	В	13.5	В	-1.2	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp AN	Signal	10.9	В	11.3	В	0.4	No
	PN	4	11.5	В	11.9	В	0.4	No
19	6th Avenue/Ash Street	ļ						
	AN PN		11.2 10.7	B	12.8 10.8	B	1.6	No No
20	6th Avenue/A Street		10.7	В	10.0	-	0.1	No
	AN		11.4	В	11.4	В	0.0	No
	PN		11.3	В	11.3	В	0.0	No
21	A Street/10th Avenue	Signal	11.4	В	11.5	В	0.1	No
	PN	4	10.4	В	10.5	В	0.1 0.1	No No
22	A Street/11th Avenue					Ĺ		
	AN	4 -	9.8	A	9.9	A	0.1	No
23	PM Balboa Drive/El Prado	ų .	9.2	Α	9.3	Α	0.1	No
	Alv	4	10.5	В	7.6	Α	-2.9	No
	PM		10.3	В	7.5	Α	-2.8	No

This is deemed a significant impact.

Table 76 shows that all study area roadways to operate at LOS D or better on a daily basis. No significant impacts were calculated.

Tables 77 and 78 show all the weekday and Saturday internal study intersections to operate acceptably at LOS C or better.

2015

Exhibit 51 and Exhibit 52 show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 79 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods with the exception of:

• Park Boulevard/Space Theatre Way (EB left-turn, LOS E, PM peak).

This is deemed a significant impact.

Table 80 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

• Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM and PM peak)

Significant impacts are calculated at this location.

Table 81 shows that all study area roadways to operate at LOS D or better on a daily basis, with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)
- A Street between 6th Avenue and Park Boulevard (LOS E)*
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)*

Significant impacts were calculated at these "*" locations based on the current significance thresholds.

Tables 82 and 83 show all the weekday and Saturday internal study intersections to operate acceptably at LOS C or better.

2030

Exhibit 53 and Exhibit 54 show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 84 shows all the study area intersections to currently operate at LOS D or better during the weekday AM and PM peak periods, with the exception of:

TABLE 76 **EXISTING + PROJECT ALTERNATIVE 3C ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

					Existing			Existi	ing + Project	Alternative 3C	
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	12,549	0.837	D	12,637	0.842	D	0.006	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	12,179	0.304	Α	12,264	0.307	Α	0.002	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	14,478	0.362	Α	14,637	0.366	Α	0.004	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	15,006	0.375	В	15,591	0.390	В	0.015	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	16,946	0.424	В	17,573	0.439	В	0.016	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	19,047	0.476	В	18,971	0.474	В	-0.002	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	17,424	0.436	В	17,197	0.430	В	-0.006	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	15,372	0.384	В	17,247	0.431	В	0.047	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	18,003	0.600	С	19,407	0.647	С	0.047	NO
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	13,658	0.455	В	14,956	0.499	С	0.043	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	13,018	0.434	В	14,359	0.479	С	0.045	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	10,045	0.335	В	11,512	0.384	В	0.049	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	9,893	0.440	В	9,972	0.443	В	0.004	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,223	0.122	Α	1,453	0.145	Α	0.000	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,146	0.115	Α	892	0.089	Α	0.000	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	3,856	0.386	Α	4,026	0.403	В	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	7,996	0.800	D	8,340	0.834	D	0.034	NO
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector ¹	3 Lane Collector	15,000	10,344	0.690	D	10,623	0.708	D	0.019	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	3,880	0.388	Α	3,958	0.396	Α	0.008	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,070	0.607	С	1,420	0.142	Α	0.000	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	С	0	0.000	Α	0.000	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,866	0.787	D	4,665	0.466	В	-0.320	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,968	0.397	Α	4,063	0.406	В	0.010	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,660	0.566	С	5,660	0.566	С	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,818	0.582	С	5,818	0.582	С	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	16,655	0.740	D	17,305	0.769	D	0.029	NO
27 Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,767	0.577	С	870	0.087	Α	-0.490	NO
28 Presidents Way east of Pan American Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,560	0.856	D	4,190	0.419	В	-0.437	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

^{*} Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

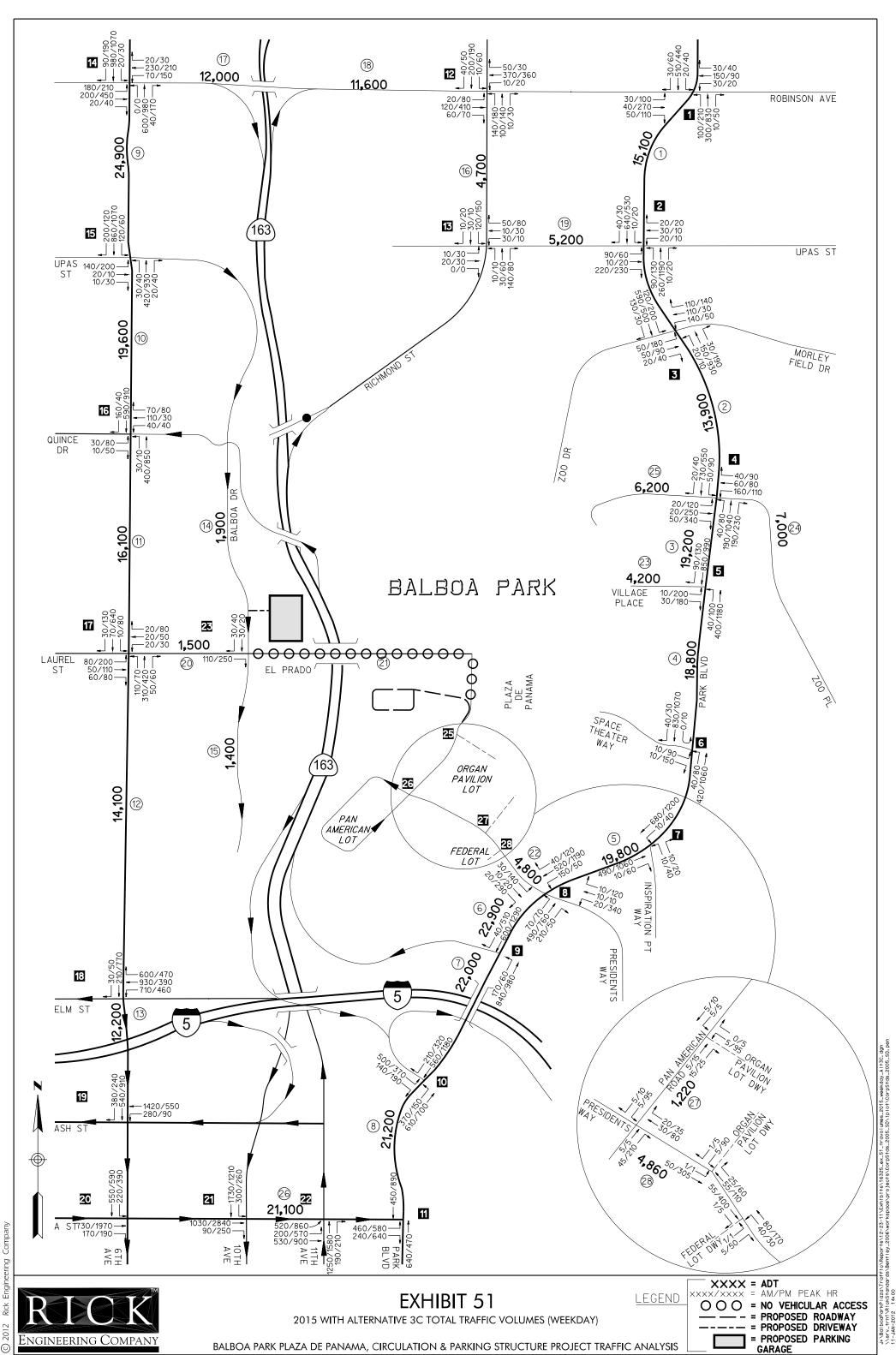
2 Estimated capacity (3/4 of 4 lane collector)

TABLE 77 EXISTING + PROJECT ALTERNATIVE 3C INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

			20ntrol Delay (sec/veh) 3.6 8.6 6.8 9.0 0.2	Alt 3C
	Intersection	Control		LOS
25	Pan American Road/Organ Pavilion Lot			
	AM	Stop		
	Southbound Left	Stop	3.6	Α
	Westbound Shared Left-Right		8.6	Α
26	Pan American Road/Presidents Way	All Way Stop		
	AM	All Way Stop	6.8	Α
27	Presidents Way/Organ Pavilion Lot			
	AM	Cton		
	Southbound Shared Left-Right	Stop	9.0	Α
	Eastbound Left		0.2	Α
28	Presidents Way/Federal-Aerospace Lot			
	AM	Cton		
	Northbound Shared Left-Right	Stop	8.8	Α
	Westbound Left		2.7	Α

TABLE 78 EXISTING + PROJECT ALTERNATIVE 3C INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

		Control Delay (sec/veh) 1.3 10.0 9.2 17.8 0.1	Alt 3C
Intersection	Control		LOS
25 Pan American Road/Organ Pavilion Lot			
AM	Stop		
Southbound Left	Stop	1.3	Α
Westbound Shared Left-Right		10.0	Α
26 Pan American Road/Presidents Way	All Way Stop		
AM	All Way Stop	9.2	Α
27 Presidents Way/Organ Pavilion Lot			
AM	Ston		
Southbound Shared Left-Right	Stop	17.8	С
Eastbound Left		0.1	Α
28 Presidents Way/Federal-Aerospace Lot			
AM	Cton		
Northbound Shared Left-Right	Stop	17.9	С
Westbound Left	1	4.3	Α



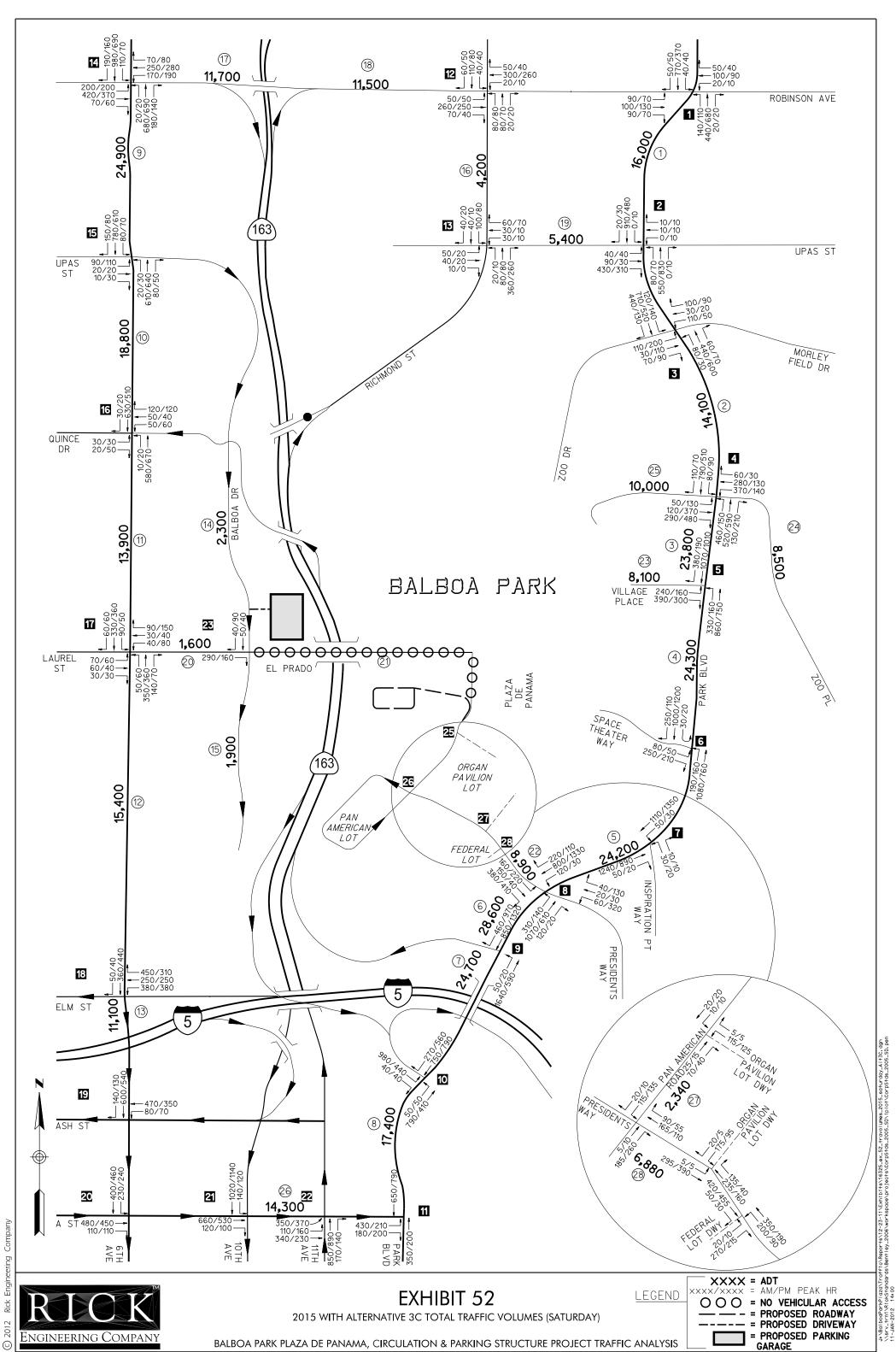


TABLE 79 2015 + PROJECT ALTERNATIVE 3C INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			2015 No Pro	ject	20	15 + P	roject Alternati	ve 3C
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM PM	Signal	16.3 19.5	B B	16.3 19.5	B B	0.0	No No
2	Park Boulevard/Upas Street		10.0		10.0		0.0	140
	AM	Signal	20.3	С	20.3	С	0.0	No
3	PM Park Boulevard/Morley Field Drive		18.6	В	18.6	В	0.0	No
	AM	Signal	18.8	В	18.8	В	0.0	No
	PM		20.4	С	20.4	С	0.0	No
4	Park Boulevard/Zoo Place AM	Signal	16.2	В	16.2	В	0.0	No
	PM	Sigilal	22.5	С	22.5	С	0.0	No No
5	Park Boulevard/Village Place							
	AM PM	Signal	4.1	A B	4.0 11.9	A B	-0.1 0.2	No
6	Park Boulevard/Space Theatre Way		11.7	В	11.9	В	0.2	No
	Northbound Left							
	AM	NA	9.7	A	9.9	A	0.2	No
	PM Eastbound Left	INA	11.2	В	11.4	В	0.2	No
	AM		13.5	В	13.7	В	0.2	No
	PM Park Paulovard/Inspiration Way		33.1	D	40.1	E	7.0	Yes
7	Park Boulevard/Inspiration Way AM	Signal	2.9	Α	2.9	Α	0.0	No
	PM	3	4.7	Α	4.6	Α	-0.1	No
8	Park Boulevard/Presidents Way AM	Cianal	14.7	В	40.7	В	4.0	N-
	PM	Signal	28.4	С	13.7 25.4	B C	-1.0 -3.0	No No
9	Park Boulevard/SR 163 NB Ramps						0.0	.,,
	Northbound Left	NA	0.5		0.0		0.4	NI-
	AM PM		9.5 17.4	A C	9.6 17.6	A C	0.1	No No
10	Park Boulevard/I-5 Ramps						0.2	
	AM	Signal	28.9	С	29.4	С	0.5	No
11	PM Park Boulevard/A Street		23.9	С	24.8	С	0.9	No
	AM	Signal	11.8	В	12.0	В	0.2	No
40	PM		14.7	В	15.3	В	0.6	No
12	Richmond Street/Robinson Avenue AM	Signal	15.6	В	15.7	В	0.1	No
	PM	3	15.6	В	15.8	В	0.2	No
13	Richmond Street/Upas Street	All May Stan	0.0	^	0.0	^	0.0	N-
	AM PM	All Way Stop	8.3 8.9	A	8.3 9.0	A	0.0	No No
14	6th Avenue/Robinson Avenue						0.1	
	AM	Signal	23.4	С	23.6	С	0.2	No
15	PM 6th Avenue/ Upas Street-Balboa Drive		31.1	С	32.9	С	1.8	No
	AM	Signal	9.6	Α	9.7	Α	0.1	No
40	PM		12.6	В	12.4	В	-0.2	No
16	6th Avenue/Quince Drive AM	Signal	15.3	В	15.7	В	0.4	No
	PM	3 -	13.9	В	13.5	В	-0.4	No
17	6th Avenue/Laurel Street AM	Signal	13.2	В	12.0	D	4.0	Nia
	PM	Signal	15.7	В	14.3	B B	-1.2 -1.4	No No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM PM		10.3	В	10.5	В	0.2	No
19	6th Avenue/Ash Street		13.4	В	13.8	В	0.4	No
	AM		12.1	В	12.2	В	0.1	No
	PM		11.3	В	11.4	В	0.1	No
20	6th Avenue/A Street AM	Signal	12.3	В	12.2	В	-0.1	No
	PM		13.2	В	13.2	В	0.0	No
21	A Street/10th Avenue	Signal	10.0	P	12.4	Р	0.0	NI-
	AM PM		12.8 16.6	B B	13.1 17.0	B B	0.3 0.4	No No
22	A Street/11th Avenue							
	AM	Signal	11.6	В	11.8	В	0.2	No
23	PM Balboa Drive/El Prado		15.6	В	16.0	В	0.4	No
	AM	, ,	8.1	Α	6.9	Α	-1.2	No
	PM		12.0	В	6.8	Α	-5.2	No

TABLE 80 2015 + PROJECT ALTERNATIVE 3C INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			2015 No Pro	ject	20	15 + P	roject Alternati	ve 3C
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AN PN		15.0	В	15.2	В	0.2	No
2	Park Boulevard/Upas Street	1	14.5	В	14.5	В	0.0	No
_	AN	1 Signal	24.3	С	24.3	С	0.0	No
	PN	1	19.6	В	19.9	В	0.3	No
3	Park Boulevard/Morley Field Drive AN	1 Signal	17.5	В	17.5	В	0.0	No
	PN		20.2	С	20.1	С	-0.1	No No
4	Park Boulevard/Zoo Place							
	AN PN		27.2	С	27.3	С	0.1	No
5	Park Boulevard/Village Place	1	24.0	С	24.0	С	0.0	No
	AN	l Signal	21.3	С	21.8	С	0.5	No
	PN	1	16.6	В	16.6	В	0.0	No
6	Park Boulevard/Space Theatre Way Northbound Lef	 						
	AN	→	13.9	В	14.6	В	0.7	No
	PN	1 NA	13.9	В	14.4	В	0.5	No
	Eastbound Lef	-	440.7		400.0	_	00.5	
	AN PN	 	112.7 44.6	F	136.0 49.7	F	23.3 5.1	Yes Yes
7	Park Boulevard/Inspiration Way	1	74.0	_	73.1		J. I	169
	AN		3.9	Α	3.9	Α	0.0	No
	PN	1	3.8	Α	3.7	Α	-0.1	No
8	Park Boulevard/Presidents Way AN	1 Signal	31.3	С	27.8	С	-3.5	No
	PN		52.4	D	45.8	D	-6.6	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Lef	→ NA	12.4	В	10.4		0.0	NI-
	PN	→	22.4	С	12.4 22.8	B C	0.0	No No
10	Park Boulevard/I-5 Ramps				22.0		0.4	110
	AN		25.1	O	25.2	С	0.1	No
11	Park Boulevard/A Street	1	18.5	В	18.3	В	-0.2	No
11	AN Bodievard/A offeet	1 Signal	13.3	В	13.5	В	0.2	No
	PN	1	14.6	В	14.8	В	0.2	No
12	Richmond Street/Robinson Avenue	Cianal	40.7		40.0	_	0.4	
	AN PN		13.7 13.6	B B	13.8 13.5	B B	0.1 -0.1	No No
13	Richmond Street/Upas Street						0.1	
	AN		11.5	В	11.6	В	0.1	No
14	6th Avenue/Robinson Avenue	1	9.3	Α	9.4	Α	0.1	No
14	AN A	1 Signal	37.2	D	46.5	D	9.3	No
	PN		30.5	С	31.5	С	1.0	No
15	6th Avenue/ Upas Street-Balboa Drive	0:			0.4			
	AN PN	- 5	8.3 11.6	A B	8.1 11.2	A B	-0.2 -0.4	No No
16	6th Avenue/Quince Drive						3 .¬	.,,,
	AN		17.6	В	17.5	В	-0.1	No
17	6th Avenue/Laurel Street	1	16.5	В	17.2	В	0.7	No
17	AN	1 Signal	15.1	В	13.3	В	-1.8	No
	PN		15.0	В	13.9	В	-1.1	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp AN	1 Signal	11.6	В	10.2	В	4.4	No
	PN PN	4 -	11.6	В	10.2	В	-1.4 0.4	No No
19	6th Avenue/Ash Street						,,	.,,
	AN		11.4	В	11.5	В	0.1	No
20	6th Avenue/A Street	1	10.9	В	11.0	В	0.1	No
20	AN	l Signal	11.7	В	11.7	В	0.0	No
	PN		11.5	В	11.5	В	0.0	No
21	A Street/10th Avenue	0				_		
	AN PN	4 -	11.8	B	11.9 10.9	B B	0.1 0.2	No No
22	A Street/11th Avenue	1	10.7	D	10.8	В	U.Z	INU
	AN	→ ~	10.2	В	10.4	В	0.2	No
23	PN Balboa Drive/El Prado	1	9.5	Α	9.7	Α	0.2	No
23	Baiboa Drive/El Prado AN	1 All Way Stop	12.2	В	7.7	Α	-4.5	No

TABLE 81 2015 + PROJECT ALTERNATIVE 3C ROADWAY SEGMENT ANALYSIS (WEEKDAY)

				2	015 No Projec	ct		201	5 + Project A	Iternative 3C	
Roadway Segment	Functional	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No	
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	15,000	1.000	E	15,100	1.007	F	0.007	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	13,800	0.345	Α	13,900	0.348	Α	0.003	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	19,000	0.475	В	19,200	0.480	В	0.005	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	18,100	0.453	В	18,800	0.470	В	0.018	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	19,100	0.478	В	19,800	0.495	В	0.018	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	23,000	0.575	С	22,900	0.573	С	-0.002	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	22,000	0.550	С	-0.007	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	18,900	0.473	В	21,200	0.530	С	0.058	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	23,100	0.770	D	24,900	0.830	D	0.060	NO
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	17,900	0.597	С	19,600	0.653	С	0.057	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	14,600	0.487	С	16,100	0.537	С	0.050	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	12,300	0.410	В	14,100	0.470	С	0.060	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	12,100	0.538	С	12,200	0.542	С	0.004	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,600	0.160	Α	1,900	0.190	Α	0.000	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,800	0.180	Α	1,400	0.140	Α	0.000	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	4,500	0.450	В	4,700	0.470	В	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	11,500	1.150	F	12,000	1.200	F	0.050	YES
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector ¹	3 Lane Collector	15,000	11,300	0.753	D	11,600	0.773	D	0.020	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,100	0.510	В	5,200	0.520	В	0.010	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,400	0.640	С	1,500	0.150	Α	0.000	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	С	0	0.000	Α	0.000	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,100	0.810	D	4,800	0.480	В	-0.330	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	4,100	0.410	В	4,200	0.420	В	0.010	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	7,000	0.700	С	7,000	0.700	С	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,200	0.620	С	6,200	0.620	С	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	20,300	0.902	E	21,100	0.938	Е	0.036	YES
27 Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,700	0.670	С	1,220	0.122	Α	-0.548	NO
28 Presidents Way east of Pan American Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,470	0.947	Е	4,860	0.486	В	-0.461	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

^{*} Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

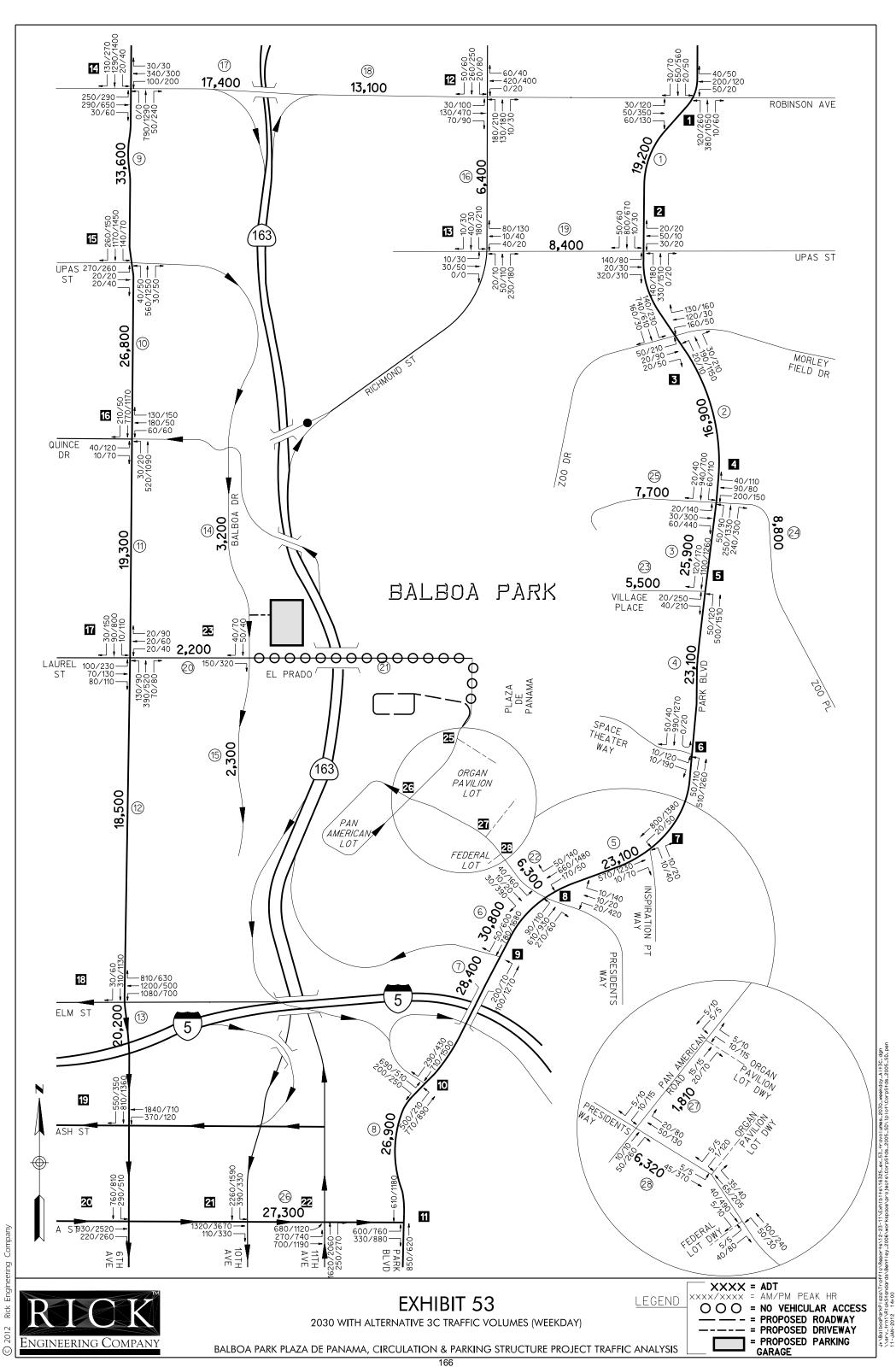
2 Estimated capacity (3/4 of 4 lane collector)

TABLE 82 2015 + PROJECT ALTERNATIVE 3C INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

			2015 + Al Control Delay (sec/veh) 3.6 8.7 6.9 9.1 0.2	lt 3C
	Intersection	Control	Delay	LOS
25	Pan American Road/Organ Pavilion Lot			
	AM	Stop		
	Southbound Left	Stop	3.6	Α
	Westbound Shared Left-Right		8.7	Α
26	Pan American Road/Presidents Way	All May Stan		
	AM	All Way Stop	6.9	Α
27	Presidents Way/Organ Pavilion Lot			
	AM	Cton		
	Southbound Shared Left-Right	Stop	9.1	Α
	Eastbound Left		0.2	Α
28	Presidents Way/Federal-Aerospace Lot			
	AM	Cton		
	Northbound Shared Left-Right	Stop	8.8	Α
	Westbound Left		2.6	Α

TABLE 83 2015 + PROJECT ALTERNATIVE 3C INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

		2015 + Al Control Delay (sec/veh) 2.5 9.8 9.3 20.3 0.2	t 3C
Intersection	Control	Delay	LOS
25 Pan American Road/Organ Pavilion Lot			
AM	Stop		
Southbound Left	Stop	2.5	Α
Westbound Shared Left-Right		9.8	Α
26 Pan American Road/Presidents Way	All Way Stop		
AM	All Way Stop	9.3	Α
27 Presidents Way/Organ Pavilion Lot			
AM	Cton		
Southbound Shared Left-Right	Stop	20.3	С
Eastbound Left	Ī	0.2	Α
28 Presidents Way/Federal-Aerospace Lot			
AM	Cton		
Northbound Shared Left-Right	Stop	23.0	С
Westbound Left		4.8	Α



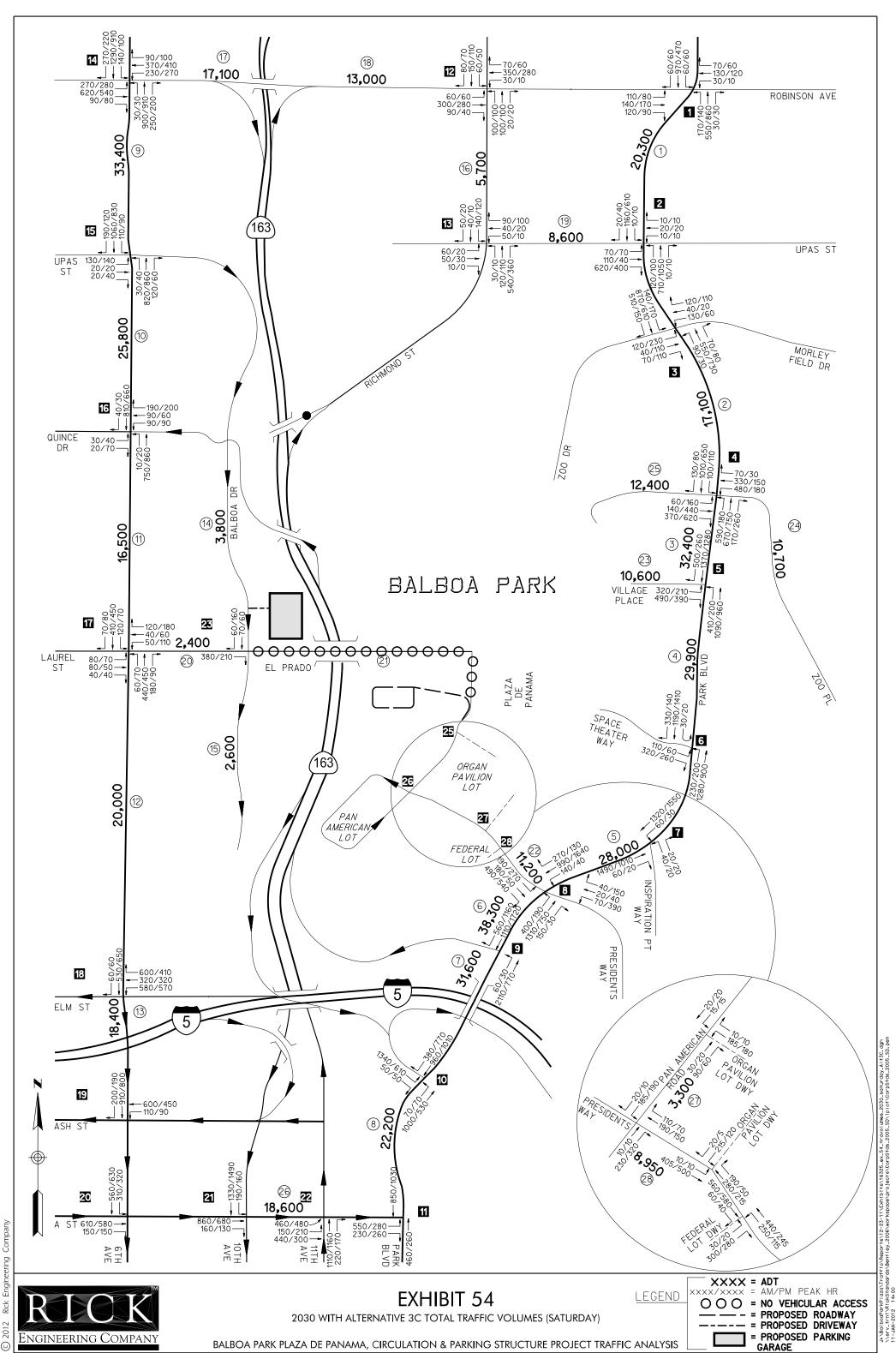


TABLE 84 2030 + PROJECT ALTERNATIVE 3C INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			2030 No Pro	ject	20	30 + P	roject Alternativ	ve 3C
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM PM	Signal	17.5 31.0	B	17.5 31.0	B C	0.0	No No
2	Park Boulevard/Upas Street		31.0	U	31.0		0.0	INO
	AM	Signal	24.8	С	25.4	С	0.6	No
3	PM Park Boulevard/Morley Field Drive		24.1	С	24.2	С	0.1	No
3	AM	Signal	19.2	В	19.2	В	0.0	No
	PM		22.6	С	22.7	С	0.1	No
4	Park Boulevard/Zoo Place AM	Signal	16.7	В	16.7	В	0.0	No
	PM	Signal	29.3	С	29.6	С	0.0	No No
5	Park Boulevard/Village Place							
	AM PM	Signal	4.6	A B	4.5 13.4	A B	-0.1 0.3	No
6	Park Boulevard/Space Theatre Way		13.1	В	13.4	В	0.3	No
	Northbound Left							
	AM PM	NA	10.6	В	10.8	В	0.2	No
	Eastbound Left	INA	12.9	В	13.3	В	0.4	No
	AM		15.1	С	15.5	С	0.4	No
-	PM Park Reuleverd/Inspiration Way		112.1	F	150.8	F	38.7	Yes
7	Park Boulevard/Inspiration Way AM	Signal	3.0	Α	4.2	Α	1.2	No
	PM	3	4.7	Α	4.6	Α	-0.1	No
8	Park Boulevard/Presidents Way AM	Cianal	14.7	В	40.7	В	4.0	NI-
	PM	Signal	62.0	E	13.7 54.8	B D	-1.0 -7.2	No No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA	40.0	_	40.0	-	0.0	Nie
	AM PM		10.9 28.4	B D	10.9 28.4	B D	0.0	No No
10	Park Boulevard/I-5 Ramps		20.1		20		0.0	
	AM	Signal	38.4	D	42.4	D	4.0	No
11	PM Park Boulevard/A Street		43.6	D	50.7	D	7.1	No
	AM	Signal	12.5	В	12.8	В	0.3	No
40	PM		20.1	С	15.8	В	-4.3	No
12	Richmond Street/Robinson Avenue AM	Signal	16.7	В	16.8	В	0.1	No
	PM	3	17.3	В	17.4	В	0.1	No
13	Richmond Street/Upas Street AM	All May Stan	0.6	^	0.7	^	0.4	NI-
	PM	All Way Stop	9.6	A B	9.7 10.7	A B	0.1 0.1	No No
14	6th Avenue/Robinson Avenue						0.1	
	AM PM	Signal	30.6	C F	32.4	C	1.8	No
15	6th Avenue/ Upas Street-Balboa Drive		103.0	Г	122.3	F	19.3	Yes
	AM	Signal	11.1	В	11.1	В	0.0	No
10	6th Avenue/Quince Drive		15.3	В	15.5	В	0.2	No
16	AM	Signal	18.7	В	19.8	В	1.1	No
	PM	-	16.9	В	17.8	В	0.9	No
17	6th Avenue/Laurel Street AM	Signal	13.7	В	12.4	В	1.2	No
	PM	Signal	17.8	В	14.9	В	-1.3 -2.9	No No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM PM		31.1 17.6	C B	32.9 18.8	C B	1.8 1.2	No No
19	6th Avenue/Ash Street		17.0	٥	10.0	ت	1.2	No
	AM		14.7	В	14.9	В	0.2	No
20	PM 6th Avenue/A Street		11.7	В	11.9	В	0.2	No
20	AM	Signal	13.1	В	13.0	В	-0.1	No
	PM		17.6	В	18.2	В	0.6	No
21	A Street/10th Avenue AM	Signal	15.7	В	16.1	В	0.4	No
	PM		42.1	D	51.8	D	9.7	No
22	A Street/11th Avenue							
	AM PM	Signal	13.0 21.6	B C	13.4 23.6	B C	0.4 2.0	No No
23	Balboa Drive/El Prado		21.0	3	20.0		۷۷	140
	AM	, ,	8.9	Α	7.1	A	-1.8	No
	PM		27.5	D	7.1	Α	-20.4	No

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, PM peak)

Significant impacts were calculated at these locations.

Table 85 shows all the study area intersections to currently operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM and PM peak)*
- Park Boulevard/Presidents Way (LOS F, PM peak)
- Park Boulevard/SR 163 NB on Ramp (LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, AM and PM peak)*

Significant impacts were calculated at these "*" locations.

Table 86 shows that all study area roadways to currently operate at LOS D or better on a daily basis with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)
- 6th Avenue between Robinson Avenue and Upas Street (LOS F)*
- 6th Avenue between Upas Street and Quince Drive (LOS E)*
- 6th Avenue between Elm Street and Ash Street (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)*
- Robinson Avenue between Vermont Street and Park Boulevard (LOS E)
- A Street between 6th and Park Boulevard (LOS F)*

Four of the seven segments as denoted with an "*" were deemed a significant impact.

Tables 87 and 88 show all the weekday and Saturday internal study intersections to operate at LOS B or better, with the exception of:

- Presidents Way/Federal Lot (NB shared left-right, LOS F)
- Presidents Way/Organ Pavilion Lot (SB shared left-right, LOS E)

ALTERNATIVE 3D - PEDESTRIANIZE CABRILLO BRIDGE, INSPIRATION POINT PARKING STRUCTURE OPERATIONS

Exhibit 55 shows the intersection lane geometry and configurations of the study area intersections.

Exhibit 56 shows the percent distribution for this alternative.

Existing

Exhibit 57 and Exhibit 58 show the Existing + Project Alternative 3D volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

TABLE 85 2030 + PROJECT ALTERNATIVE 3C INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			2030 No Pro	ject	20)30 + P	roject Alternati	ve 3C
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AN		16.5	В	16.5	В	0.0	No
2	PAR Boulevard/Upas Street	1	15.5	В	15.8	В	0.3	No
	AN Bodievara/opas street	l Signal	51.3	D	53.5	D	2.2	No
	PN	1	23.3	С	23.3	С	0.0	No
3	Park Boulevard/Morley Field Drive AN	l Signal	19.3	В	19.3	В	0.0	No
	PN		20.7	С	20.6	С	-0.1	No No
4	Park Boulevard/Zoo Place							
	AN PN		36.1	D	36.9	D	0.8	No
5	Park Boulevard/Village Place	1	27.4	С	27.5	С	0.1	No
	AN	l Signal	37.7	D	41.3	D	3.6	No
	PN	1	19.3	В	20.0	С	0.7	No
6	Park Boulevard/Space Theatre Way Northbound Lef							
	AN		19.4	С	21.4	С	2.0	No
	PN	l NA	18.5	С	20.0	C	1.5	No
	Eastbound Lef	-	400.0	_	5510	-	05.5	
	AN PN	-	460.8 168.8	F	554.6 197.6	F	93.8 28.8	Yes Yes
7	Park Boulevard/Inspiration Way	•	100.0		197.0		20.0	res
	AN		4.9	Α	4.9	Α	0.0	No
	PN	1	4.0	Α	4.0	Α	0.0	No
8	Park Boulevard/Presidents Way AN	l Signal	56.4	E	51.8	D	-4.6	No
	PN		126.4	F	126.1	F	-0.3	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Lef	- NA	45.5	С	10.1	-	0.0	NI-
	PN	_	15.5 40.7	E	16.1 41.1	C E	0.6	No No
10	Park Boulevard/I-5 Ramps			_			0.4	140
	AN		32.6	С	33.7	С	1.1	No
11	PAR Boulevard/A Street	1	23.8	С	24.3	С	0.5	No
- 11	AN A	l Signal	14.2	В	14.5	В	0.3	No
	PN	1	16.4	В	17.3	В	0.9	No
12	Richmond Street/Robinson Avenue	Cianal	44.0		447	_	0.4	
	AN PN		14.6 14.4	B B	14.7 14.4	B B	0.1	No No
13	Richmond Street/Upas Street						0.0	
	AN	, ,	29.2	D	29.2	D	0.0	No
14	PN 6th Avenue/Robinson Avenue	1	11.7	В	12.0	В	0.3	No
14	AN	l Signal	151.7	F	181.2	F	29.5	Yes
	PN		75.5	E	98.2	F	22.7	Yes
15	6th Avenue/ Upas Street-Balboa Drive	0:	0.5					
	AN PN	- 5	9.5 12.4	A B	8.9 11.5	A B	-0.6 -0.9	No No
16	6th Avenue/Quince Drive					Ĺ	3.0	.,,
	AN		21.6	С	22.3	С	0.7	No
17	6th Avenue/Laurel Street	1	20.0	В	21.1	С	1.1	No
17	AN	1 Signal	15.7	В	13.4	В	-2.3	No
	PN		15.4	В	14.0	В	-1.4	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp AN	1 Signal	11.3	В	11.0	В	0.5	No
	PN	_	11.3	В	11.8 12.9	В	0.5 0.4	No No
19	6th Avenue/Ash Street						2	
	AN		11.8	В	11.9	В	0.1	No
20	6th Avenue/A Street	1	10.9	В	11.1	В	0.2	No
20	AN	1 Signal	12.1	В	12.1	В	0.0	No
	PN		11.9	В	12.0	В	0.1	No
21	A Street/10th Avenue	C:	40.5	_	46.7	-		ļ
	AN PN	_	12.5 11.4	B	12.7 11.5	B B	0.2 0.1	No No
22	A Street/11th Avenue	1	11.4		11.3	, J	0.1	140
	AN		10.8	В	11.0	В	0.2	No
23	Balboa Drive/El Prado	1	10.0	В	10.2	В	0.2	No
د2	AN	All Way Stop	24.7	С	8.1	Α	-16.6	No
	PN		21.9	С	8.0	Α	-13.9	No

TABLE 86 2030 + PROJECT ALTERNATIVE 3C ROADWAY SEGMENT ANALYSIS (WEEKDAY)

				2	2030 No Projec	ct		2030	0 + Project A	Iternative 3C	
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	19,100	1.273	F	19,200	1.280	F	0.007	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	16,700	0.418	В	16,900	0.423	В	0.005	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	25,600	0.640	С	25,900	0.648	С	0.007	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	23,100	0.578	С	0.020	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	23,100	0.578	С	0.020	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	30,900	0.773	D	30,800	0.770	D	-0.002	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	28,800	0.720	С	28,400	0.710	С	-0.010	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	24,000	0.600	С	26,900	0.673	С	0.073	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	31,200	1.040	F	33,600	1.120	F	0.080	YES
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	24,500	0.817	D	26,800	0.893	Е	0.077	YES
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	17,500	0.583	С	19,300	0.643	С	0.060	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	16,100	0.537	С	18,500	0.617	С	0.080	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	20,100	0.893	E	20,200	0.898	Е	0.004	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	2,700	0.270	Α	3,200	0.320	Α	0.050	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,000	0.300	Α	2,300	0.230	Α	-0.070	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	6,200	0.620	С	6,400	0.640	С	0.020	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	16,700	1.670	F	17,400	1.740	F	0.070	YES
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector1	3 Lane Collector	15,000	12,800	0.853	D	13,100	0.873	Е	0.020	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,200	0.820	D	8,400	0.840	D	0.020	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,100	0.910	E	2,200	0.220	Α	-0.690	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	F	0	0.000	Α	-1.030	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,800	0.880	D	6,300	0.630	С	-0.250	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,400	0.540	В	5,500	0.550	В	0.010	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,800	0.880	D	8,800	0.880	D	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,700	0.770	D	7,700	0.770	D	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	26,300	1.169	F	27,300	1.213	F	0.044	YES
27 Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,220	0.822	D	1,810	0.181	Α	-0.641	NO
28 Presidents Way east of Pan American Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,800	0.980	E	6,320	0.632	С	-0.348	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

^{*} Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

TABLE 87 2030 + PROJECT ALTERNATIVE 3C INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

			2030 + Al	t 3C
	Intersection	Control	Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot			
	AM	Stop		
	Southbound Left	Stop	3.7	Α
	Westbound Shared Left-Right		8.7	Α
26	Pan American Road/Presidents Way	All Way Stop		
	AM	All Way Stop	7.1	Α
27	Presidents Way/Organ Pavilion Lot			
	AM	Cton		
	Southbound Shared Left-Right	Stop	8.8	Α
	Eastbound Left		8.0	Α
28	Presidents Way/Federal-Aerospace Lot			
	AM	Ston		
	Northbound Shared Left-Right	Stop	8.9	Α
	Westbound Left		2.6	Α

LOS = Level of Service; Minor approach delay reported for unsignalized intersections Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold Significant Impact: 1) LOS D or better to LOS E or worse

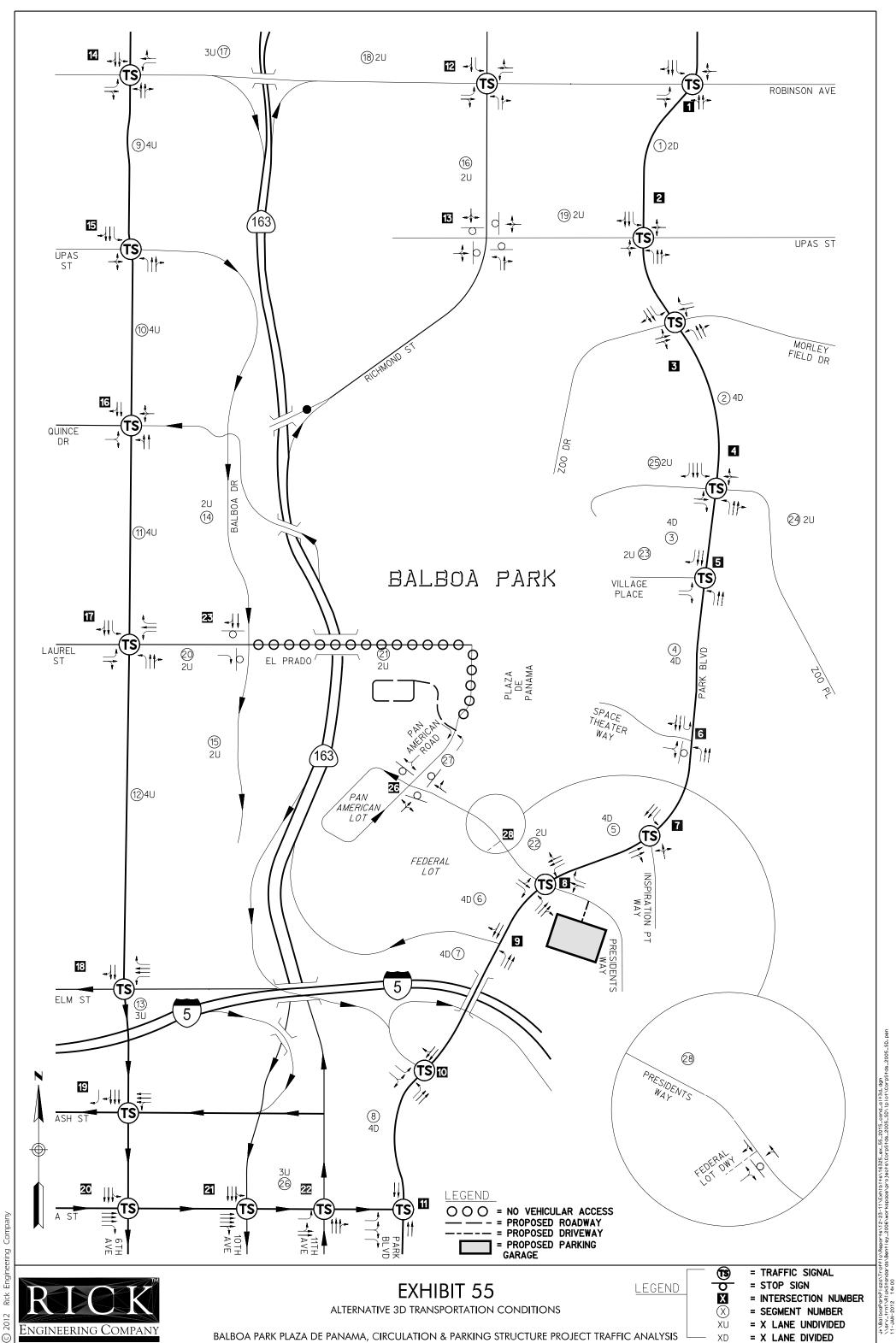
- 2) Incremental Delay ≥ 2 seconds for LOS E 3) Incremental Delay ≥ 1 second for LOS F

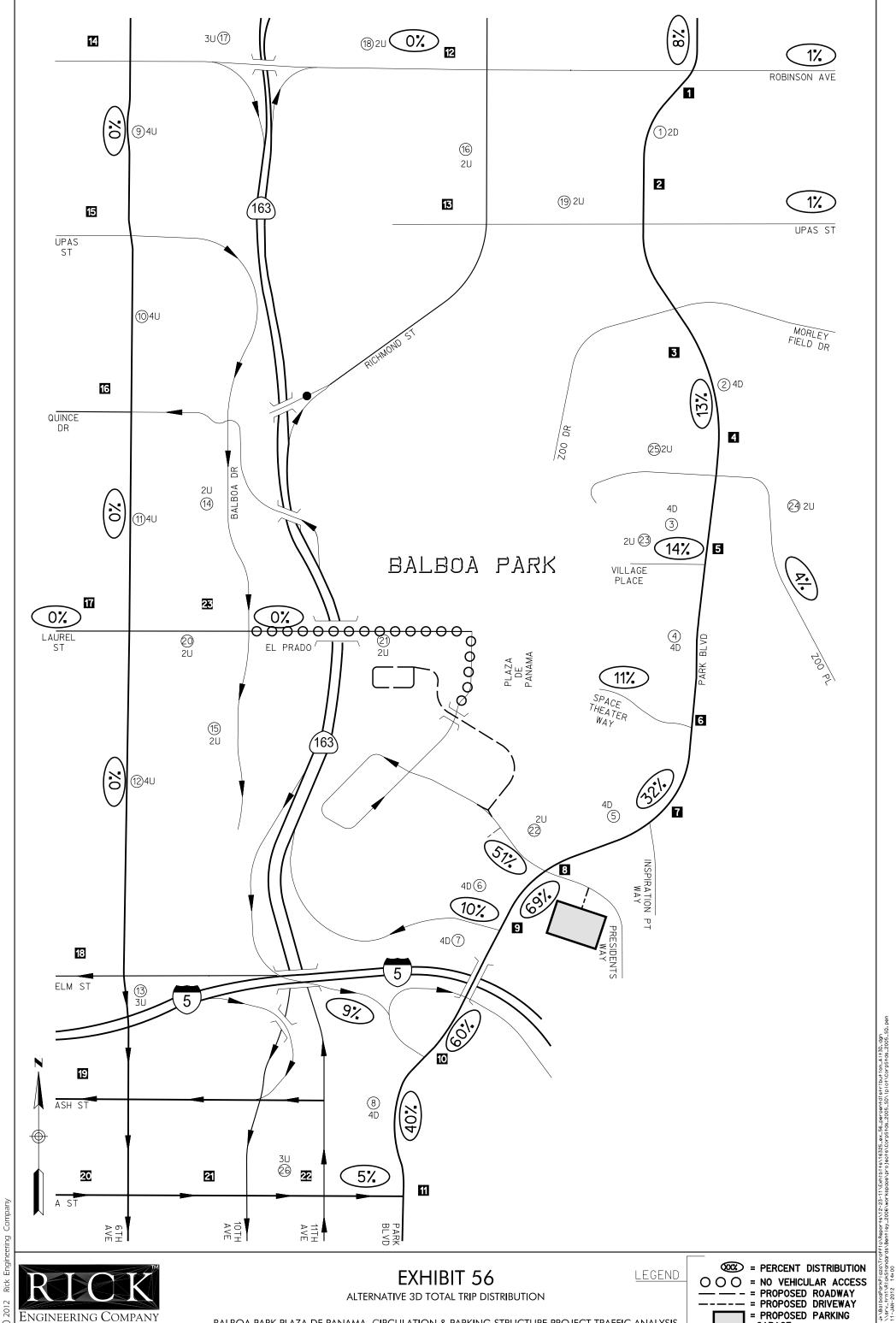
TABLE 88 2030 + PROJECT ALTERNATIVE 3C INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

			2030 + A	lt 3C
	Intersection	Control	Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot			
	AM	Ston		
	Southbound Left	Stop	3.3	Α
	Westbound Shared Left-Right		10.6	В
26	Pan American Road/Presidents Way	All May Stan		
	AM	All Way Stop	10.8	В
27	Presidents Way/Organ Pavilion Lot			
	AM	Cton		
	Southbound Shared Left-Right	Stop	44.1	Е
	Eastbound Left		0.3	Α
28	Presidents Way/Federal-Aerospace Lot			
	AM	Ston		
	Northbound Shared Left-Right	Stop	>50.0	F
	Westbound Left		6.4	Α

LOS = Level of Service; Minor approach delay reported for unsignalized intersections Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold Significant Impact: 1) LOS D or better to LOS E or worse

- 2) Incremental Delay ≥ 2 seconds for LOS E 3) Incremental Delay ≥ 1 second for LOS F





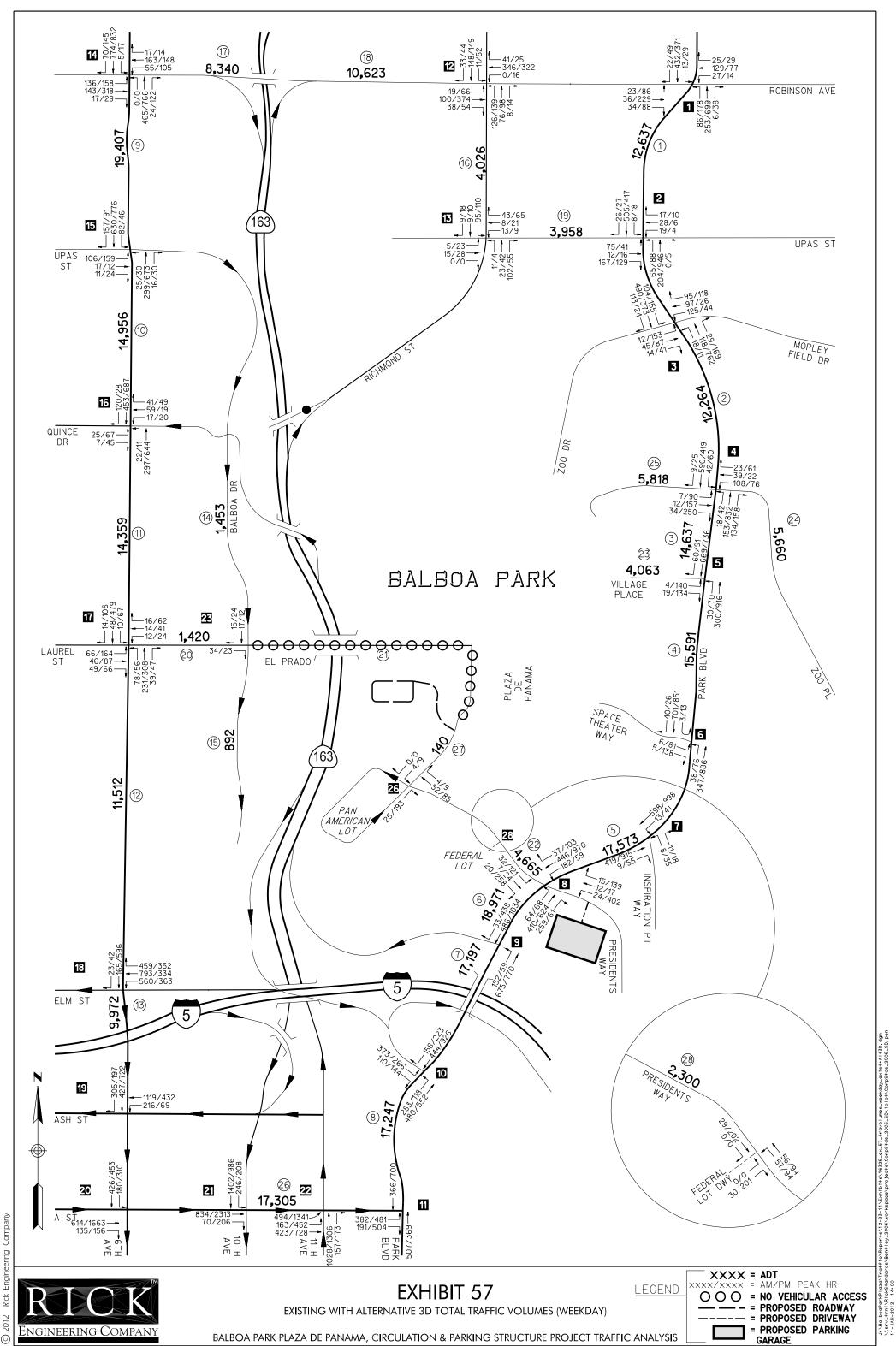
ALTERNATIVE 3D TOTAL TRIP DISTRIBUTION

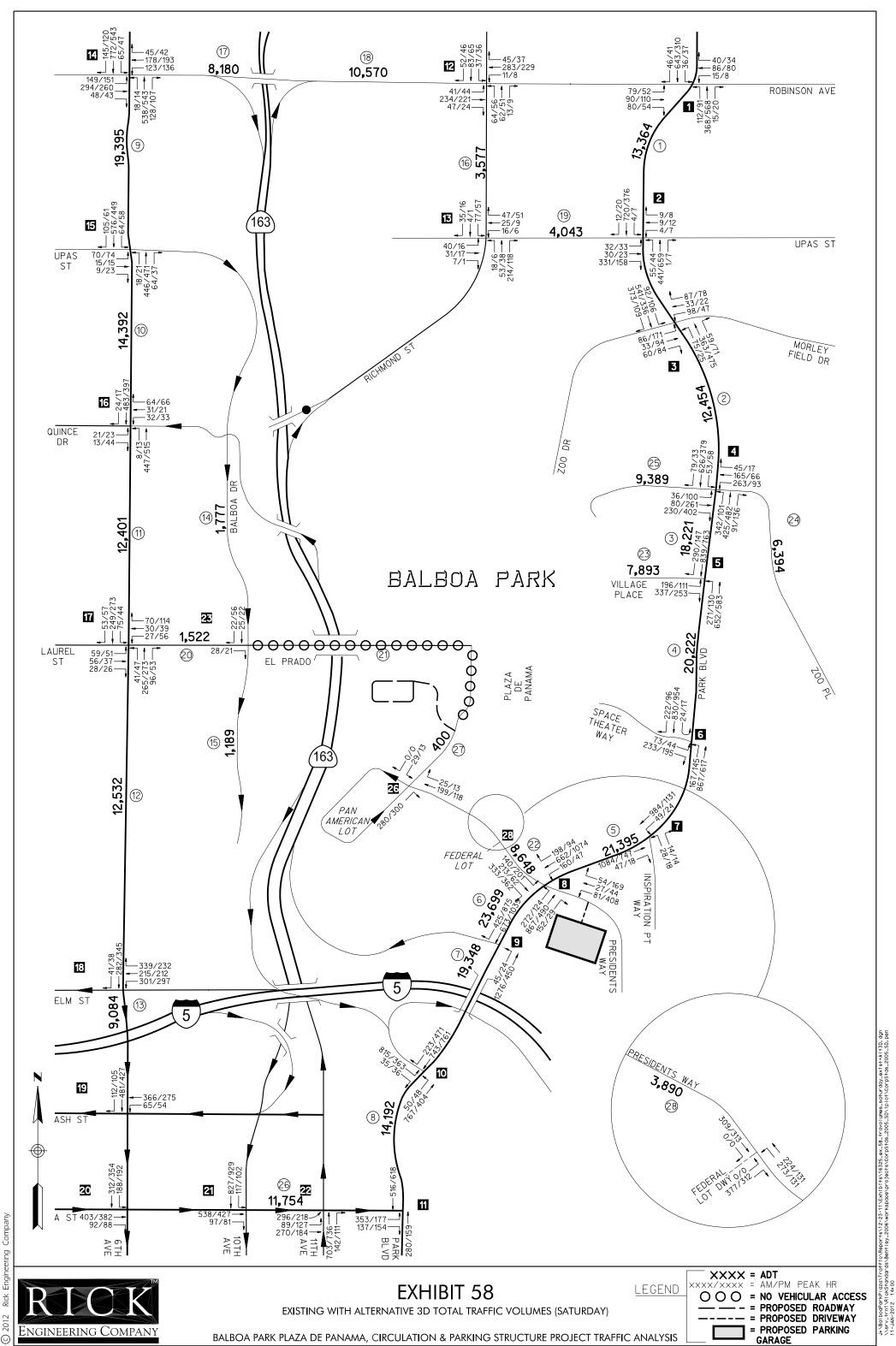
BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS 175

= PROPOSED DRIVEWAY = PROPOSED PARKING GARAGE

2012

Engineering Company





2012 \odot

Engineering Company

Table 89 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods. No significant impacts were calculated.

Table 90 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

• Park Boulevard/Space Theatre Way (EB left turn, LOS E, AM peak)

A significant impact was calculated at this location.

Table 91 shows that all study area roadways to operate at LOS D or better on a daily basis. No significant impacts were calculated.

Tables 92 and 93 show all the weekday and Saturday internal study intersections to operate acceptably at LOS C or better.

2015

Exhibit 59 and Exhibit 60 show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 94 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods with the exception of:

• Park Boulevard/Space Theatre Way (EB left-turn, LOS E, PM peak).

This is deemed a significant impact.

Table 95 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM and PM peak)
- Park Boulevard/Presidents Way (LOS F, PM peak)

Significant impacts are calculated at these locations.

Table 96 shows that all study area roadways to operate at LOS D or better on a daily basis, with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)
- A Street between 6th Avenue and Park Boulevard (LOS E).

A significant impact was calculated only for the Robinson Avenue roadway segment based on the current significance thresholds.

Tables 97 and 98 show all the weekday and Saturday internal study intersections to operate acceptably at LOS D or better.

TABLE 89 EXISTING + PROJECT ALTERNATIVE 3D INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			Existing	9	Exi	sting +	Project Alterna	ive 3D
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
11	Park Boulevard/Robinson Avenue AM	Signal	46.0	В	16.0	В	0.0	NI-
	PM	Signal	16.3 17.1	В	16.3 17.2	В	0.0	No No
2	Park Boulevard/Upas Street						0.1	.,,
	AM	Signal	18.6	В	18.8	В	0.2	No
3	PM Park Boulevard/Morley Field Drive		14.4	В	14.6	В	0.2	No
<u> </u>	AM	Signal	18.6	В	18.6	В	0.0	No
	PM		19.2	В	19.2	В	0.0	No
4	Park Boulevard/Zoo Place	6: 1	10.1		40.0	_		
	AM PM	Signal	16.1 21.5	В	16.0 21.7	B C	-0.1 0.2	No No
5	Park Boulevard/Village Place		21.0				0.2	110
	AM	Signal	3.9	Α	3.9	Α	0.0	No
	PM Park Boulevard/Space Theatre Way		11.3	В	11.0	В	-0.3	No
6	Northbound Left							
	AM	•	9.0	Α	9.3	Α	0.3	No
	PM	NA	9.7	Α	10.1	В	0.4	No
	Eastbound Left AM		12.1	В	12.7	В	0.6	No
	PM		19.2	C	22.8	С	3.6	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	3.1	A	3.0	Α	-0.1	No
8	PM Park Boulevard/Presidents Way		4.5	A	4.5	Α	0.0	No
0	AM	Signal	14.7	В	14.9	В	0.2	No
	PM		21.8	С	25.3	С	3.5	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left AM	NA	8.8	A	9.0	Α	0.2	No
	PM		12.8	В	13.9	В	1.1	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	26.2	С	26.6	С	0.4	No
11	PM Park Boulevard/A Street		19.9	В	20.5	С	0.6	No
- ' '	AM	Signal	11.5	В	11.7	В	0.2	No
	PM		13.3	В	13.7	В	0.4	No
12	Richmond Street/Robinson Avenue AM	Cianal	15.0	В	15.0	В	0.0	No
	PM	Signal	14.5	В	14.6	В	0.0	No No
13	Richmond Street/Upas Street							
	AM	All Way Stop	7.7	Α	7.8	Α	0.1	No
11	PM		8.0	Α	8.0	Α	0.0	No
14	6th Avenue/Robinson Avenue AM	Signal	20.5	С	20.7	С	0.2	No
	PM	,	22.6	С	23.1	С	0.5	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM PM	Signal	9.6 11.7	A B	9.5 11.8	A B	-0.1 0.1	No No
16	6th Avenue/Quince Drive		11.7		11.0	٥	V.1	140
	AM		12.1	В	12.1	В	0.0	No
47	PM		12.1	В	12.3	В	0.2	No
17	6th Avenue/Laurel Street AM	Signal	13.0	В	12.0	В	-1.0	No
	PM		15.0	В	13.9	В	-1.1	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM PM		8.6	A	8.7	A	0.1	No
19	6th Avenue/Ash Street		12.8	В	12.9	В	0.1	No
	AM	Signal	11.5	В	11.4	В	-0.1	No
	PM		10.9	В	11.0	В	0.1	No
20	6th Avenue/A Street	Signal	14.0	P	14.0	P	0.0	No
	AM PM		11.8 11.5	B	11.8 11.5	B	0.0	No No
21	A Street/10th Avenue					Ľ	0.0	
	AM		11.9	В	12.0	В	0.1	No
20	PM A Street/11th Avenue		14.0	В	14.1	В	0.1	No
22	A Street/11th Avenue AM	Signal	11.0	В	11.2	В	0.2	No
	PM		13.9	В	14.1	В	0.2	No
23	Balboa Drive/El Prado							
	AM DM	, ,	7.8	A	7.1	A	-0.7	No No
	PM		10.8	В	7.3	Α	-3.5	No

TABLE 90 EXISTING + PROJECT ALTERNATIVE 3D INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			Existing	9	Exis	sting +	Project Alterna	tive 3D	
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No	
1	Park Boulevard/Robinson Avenue AM	Signal	14.5	В	14.6	В	0.1	No	
	PM	Oig.iu.	13.8	В	13.9	В	0.1	No	
2	Park Boulevard/Upas Street AM	Signal	19.2	В	19.5	С	0.3	No	
	PM	Oignai	15.5	В	15.7	В	0.2	No	
3	Park Boulevard/Morley Field Drive AM	Signal	17.0	В	17.0	В	0.0	No	
	PM	Oigilai	20.0	С	20.0	В	0.0	No	
4	Park Boulevard/Zoo Place AM	Signal	30.0	С	31.3	С	1.3	No	
	PM	Oignai	24.0	С	24.3	С	0.3	No	
5	Park Boulevard/Village Place AM	Signal	18.5	В	19.1	С	0.6	No	
	PM	Signal	15.5	В	15.5	В	0.0	No	
6	Park Boulevard/Space Theatre Way								
	Northbound Left AM		11.3	В	12.2	В	0.9	No	
	PM	NA	11.1	В	11.8	В	0.7	No	
	Eastbound Left AM		31.2	D	44.4	E	13.2	Yes	
	PM		20.3	С	24.6	С	4.3	No	
7	Park Boulevard/Inspiration Way AM	Signal	4.1	Α	4.1	Α	0.0	No	
	PM		4.1	A	4.0	Α	-0.1	No	
8	Park Boulevard/Presidents Way AM	Signal	25.0	С	26.6	С	1.6	No	
	PM	Oignai	26.8	С	44.9	D	18.1	No	
9	Park Boulevard/SR 163 NB Ramps Northbound Left								
	AM	NA	10.5	В	11.0	В	0.5	No	
40	PM		15.4	С	17.4	С	2.0	No	
10	Park Boulevard/I-5 Ramps AM	Signal	21.8	С	23.2	С	1.4	No	
	PM		16.2	В	16.5	В	0.3	No	
11	Park Boulevard/A Street AM	Signal	12.8	В	13.1	В	0.3	No	
	PM		13.8	В	14.1	В	0.3	No	
12	Richmond Street/Robinson Avenue AM	Signal	13.0	В	13.0	В	0.0	No	
	PM		12.7	В	12.7	В	0.0	No	
13	Richmond Street/Upas Street AM	All Way Stop	8.8	A	8.8	В	0.0	No	
	PM		7.7	Α	7.7	A	0.0	No	
14	6th Avenue/Robinson Avenue AM	Signal	24.3	С	25.0	D	0.7	No	
	PM	Oigilai	24.8	С	25.8	С	1.0	No	
15	6th Avenue/ Upas Street-Balboa Drive AM	Signal	8.3	A	7.6	Α	-0.7	No	
	PM	Signal	11.1	В	10.3	В	-0.7	No No	
16	6th Avenue/Quince Drive AM	Signal	13.9	В	13.9	В	0.0	Na	
	PM	Gigilai	13.5	В	13.5	В	0.0	No No	
17	6th Avenue/Laurel Street AM	Signal	14.8	В	13.2	В	1.6	No	
	AM PM		14.8	В	13.4	В	-1.6 -1.3	No No	
18	6th Avenue/Elm Street-I-5 NB Off Ramp	Signal	10.0		11.0	Р	0.1	NI-	
	AM PM	Signal	10.9 11.5	B	11.0 11.6	B B	0.1 0.1	No No	
19	6th Avenue/Ash Street	Cianci							
	AM PM	Signal	11.2 10.7	B	12.7 10.7	B B	1.5 0.0	No No	
20	6th Avenue/A Street	0:- '							
	AM PM	Signal	11.4 11.3	В	11.4 11.4	B B	0.0 0.1	No No	
21	A Street/10th Avenue	0:							
	AM PM	Signal	11.4 10.4	B	11.5 10.4	B B	0.1 0.0	No No	
22	A Street/11th Avenue								
	AM PM	Signal	9.8 9.2	A	9.9 9.3	B A	0.1 0.1	No No	
23	Balboa Drive/El Prado	A11144 =:							
	AM PM	All Way Stop	10.5 10.3	В	7.5 7.4	A	-3.0 -2.9	No No	
	, FIVI		10.3	ט	7.7		-2.3	INU	

TABLE 91 **EXISTING + PROJECT ALTERNATIVE 3D ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

					Existing			Existi	ing + Project	Alternative 3D	
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	12,549	0.837	D	12,637	0.842	D	0.006	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	12,179	0.304	Α	12,800	0.320	Α	0.016	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	14,478	0.362	Α	15,245	0.381	В	0.019	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	15,006	0.375	В	16,582	0.415	В	0.039	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	16,946	0.424	В	18,725	0.468	В	0.044	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	19,047	0.476	В	20,456	0.511	В	0.035	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	17,424	0.436	В	18,435	0.461	В	0.025	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	15,372	0.384	В	18,062	0.452	В	0.067	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	18,003	0.600	С	19,245	0.642	С	0.041	NO
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	13,658	0.455	В	15,188	0.506	С	0.051	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	13,018	0.434	В	13,552	0.452	В	0.018	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	10,045	0.335	В	10,618	0.354	В	0.019	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	9,893	0.440	В	9,814	0.436	В	-0.004	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,223	0.122	Α	1,070	0.107	Α	0.000	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,146	0.115	Α	700	0.070	Α	0.000	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	3,856	0.386	Α	3,941	0.394	Α	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	7,996	0.800	D	8,556	0.856	D	0.056	NO
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector ¹	3 Lane Collector	15,000	10,344	0.690	D	10,985	0.732	D	0.043	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	3,880	0.388	Α	4,031	0.403	В	0.015	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,070	0.607	С	1,044	0.104	Α	0.000	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	С	0	0.000	Α	0.000	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,866	0.787	D	4,665	0.466	В	-0.320	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,968	0.397	Α	4,063	0.406	В	0.010	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,660	0.566	С	5,660	0.566	С	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,818	0.582	С	5,818	0.582	С	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	16,655	0.740	D	16,905	0.751	D	0.011	NO
27 Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,767	0.577	С	140	0.014	Α	-0.563	NO
28 Presidents Way east of Pan American Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,560	0.856	D	2,300	0.230	Α	-0.626	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

^{*} Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

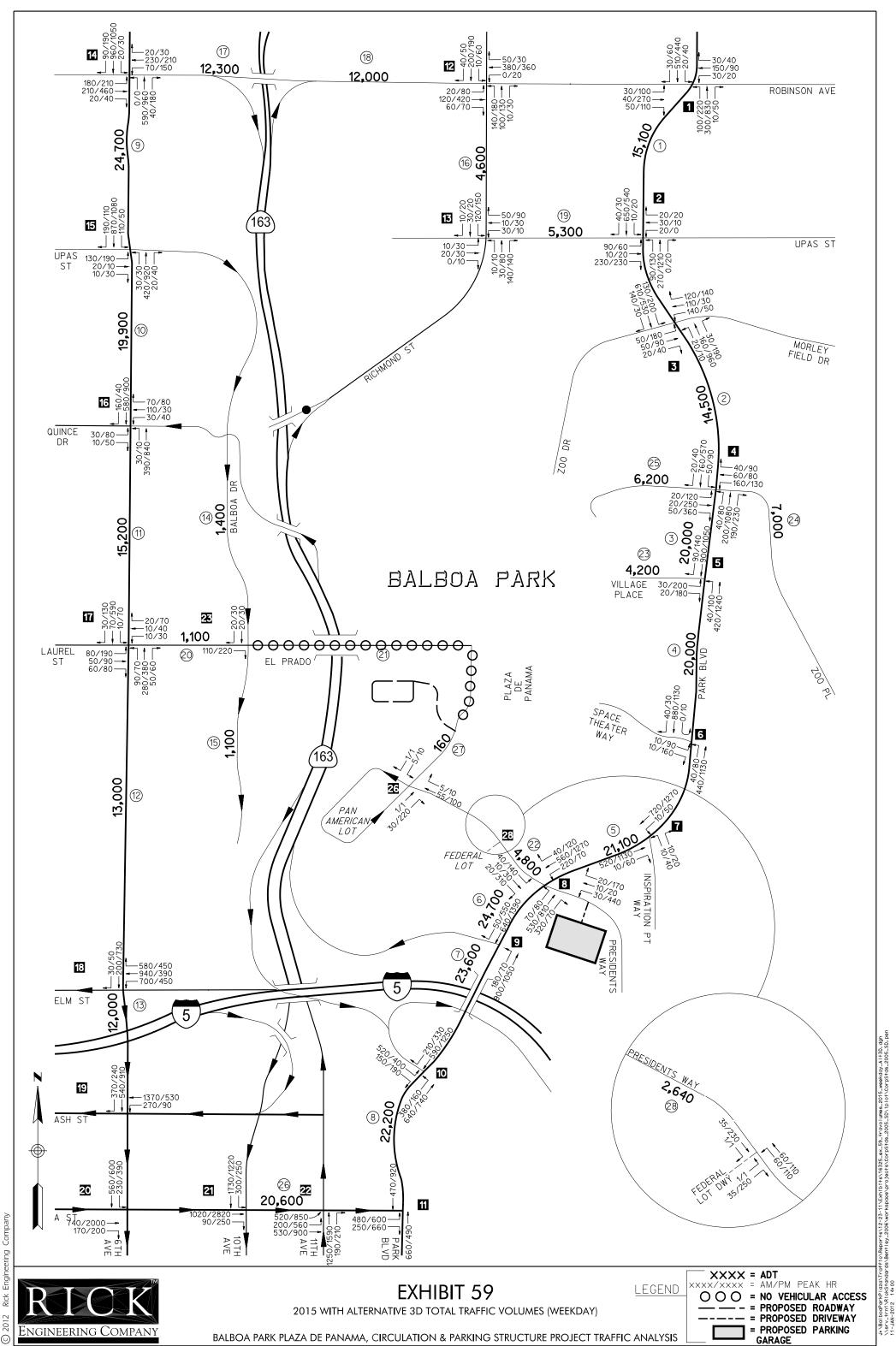
2 Estimated capacity (3/4 of 4 lane collector)

TABLE 92 EXISTING + PROJECT ALTERNATIVE 3D INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

			Existing + Alt 3D			
	Intersection	Control	Control Delay (sec/veh)	LOS		
26	Presidents Way/Pan American Plaza	All May Stan				
	AM	All Way Stop	7.0	Α		
28	Presidents Way/Federal-Aerospace Lot					
	AM	Stop		·		
	Northbound Shared Left-Right	Stop	8.6	Α		
	Westbound Left		3.9	Α		

TABLE 93 EXISTING + PROJECT ALTERNATIVE 3D INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

			Existing + Alt 3D			
	Intersection	Control	Control Delay (sec/veh)	LOS		
26	Presidents Way/Pan American Plaza	All May Stop				
	AM	All Way Stop	9.2	Α		
28	Presidents Way/Federal-Aerospace Lot					
	AM	Ston				
	Northbound Shared Left-Right	Stop	17.2	С		
	Westbound Left		6.0	Α		



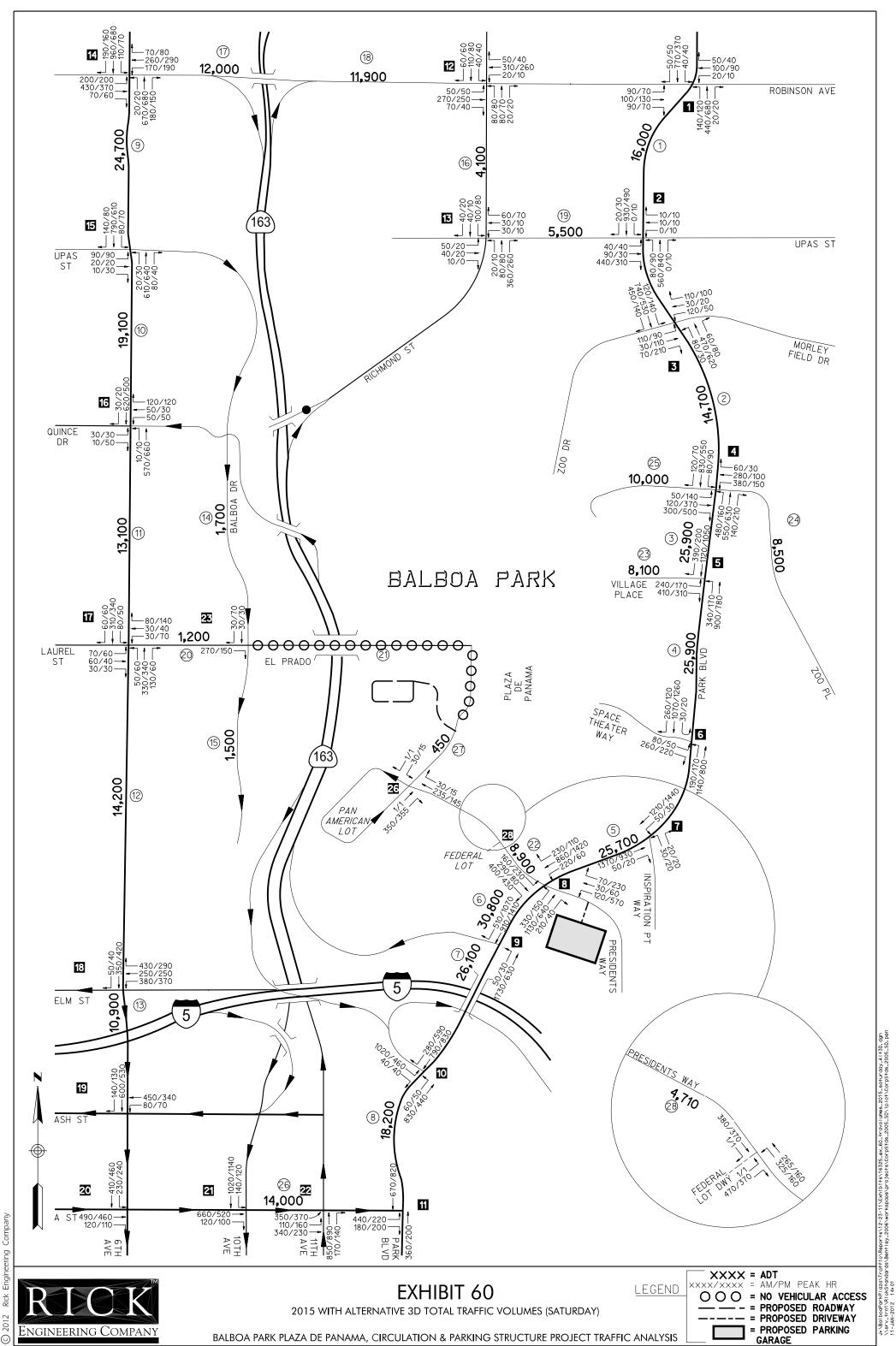


TABLE 94 2015 + PROJECT ALTERNATIVE 3D INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

		2015 No Project 2015 + Project Alternative 3								
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No		
1	Park Boulevard/Robinson Avenue	0:1	10.0	-	10.0	-				
	AM PM	Signal	16.3 19.5	B B	16.3 19.6	B B	0.0	No No		
2	Park Boulevard/Upas Street		10.0		10.0		0.1	110		
	AM	Signal	20.3	С	20.4	С	0.1	No		
3	PM Park Boulevard/Morley Field Drive		18.6	В	18.6	В	0.0	No		
	AM	Signal	18.8	В	18.8	В	0.0	No		
	PM	•	20.4	C	20.3	С	-0.1	No		
4	Park Boulevard/Zoo Place AM	Signal	16.2	В	16.0	В	-0.2	No		
	PM	Olgilai	22.5	С	22.9	С	0.4	No		
5	Park Boulevard/Village Place									
	AM PM	Signal	4.1 11.7	A B	4.0 11.7	A B	-0.1 0.0	No No		
6	Park Boulevard/Space Theatre Way		11.7	В	11.7	ъ	0.0	NO		
	Northbound Left									
	AM PM	NA	9.7 11.2	A B	10.1 11.8	B B	0.4	No		
	Eastbound Left	. INC	11.2	В	11.0	В	0.6	No		
	AM		13.5	В	14.2	С	0.7	No		
-	PM Park Roulevard/Inspiration Way		33.1	D	49.4	E	16.3	Yes		
7	Park Boulevard/Inspiration Way AM	Signal	2.9	Α	2.8	Α	-0.1	No		
	PM		4.7	Α	4.8	Α	0.1	No		
8	Park Boulevard/Presidents Way	0:	44.7	_	45.0	_				
	AM PM	Signal	14.7 28.4	B	15.2 49.3	B D	0.5 20.9	No No		
9	Park Boulevard/SR 163 NB Ramps		20.4		40.0		20.3	140		
	Northbound Left	NA								
	AM PM	:	9.5 17.4	A C	9.9 20.3	A C	0.4 2.9	No No		
10	Park Boulevard/I-5 Ramps		17.4	C	20.3	U	2.9	NO		
	AM	Signal	28.9	С	30.0	С	1.1	No		
11	PM Park Boulevard/A Street		23.9	С	26.0	С	2.1	No		
- 11	AM	Signal	11.8	В	12.1	В	0.3	No		
	PM		14.7	В	15.6	В	0.9	No		
12	Richmond Street/Robinson Avenue AM	Signal	15.6	В	15.7	В	0.1	No		
	PM	Olgilai	15.6	В	15.7	В	0.1	No		
13	Richmond Street/Upas Street									
	AM PM	All Way Stop	8.3 8.9	A	8.3 9.0	A	0.0	No No		
14	6th Avenue/Robinson Avenue		6.9	A	9.0	A	0.1	INO		
	AM	Signal	23.4	С	23.7	С	0.3	No		
15	PM 6th Avenue/ Upas Street-Balboa Drive		31.1	С	33.1	С	2.0	No		
10	AM	Signal	9.6	Α	9.3	Α	-0.3	No		
	PM		12.6	В	12.0	В	-0.6	No		
16	6th Avenue/Quince Drive AM	Signal	15.3	В	15.8	В	0.5	Na		
	PM	Jiyilal	13.9	В	13.5	В	0.5 -0.4	No No		
17	6th Avenue/Laurel Street									
	AM PM	Signal	13.2 15.7	B B	12.1 14.2	B B	-1.1 -1.5	No No		
18	6th Avenue/Elm Street-I-5 NB Off Ramp		15.7	Б	14.2	В	-1.0	INU		
	AM	Signal	10.3	В	10.4	В	0.1	No		
10	PM 6th Avenue/Ash Street		13.4	В	13.5	В	0.1	No		
19	AM	Signal	12.1	В	12.2	В	0.1	No		
	PM	. •	11.3	В	11.3	В	0.0	No		
20	6th Avenue/A Street AM	Signal	12.2	В	10.0	D	0.0	No		
	PM	Signal	12.3 13.2	В	12.3 13.3	B B	0.0	No No		
21	A Street/10th Avenue									
	AM PM	Signal	12.8	В	13.1	В	0.3	No		
22	A Street/11th Avenue		16.6	В	16.9	В	0.3	No		
	AM	Signal	11.6	В	11.8	В	0.2	No		
	PM		15.6	В	15.9	В	0.3	No		
23	Balboa Drive/El Prado AM	All Way Stop	8.1	Α	7.6	Α	-0.5	No		
l	PM	.,	12.0	В	8.8	A	-3.2	No		

TABLE 95 2015 + PROJECT ALTERNATIVE 3D INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			2015 No Pro	ject	20	15 + P	Project Alternative 3D		
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No	
1	Park Boulevard/Robinson Avenue	0:1	45.0	-	45.0	_			
	AM PM	Signal	15.0 14.5	B B	15.2 14.4	B B	0.2 -0.1	No No	
2	Park Boulevard/Upas Street		1 1.0				0.1	110	
	AM	Signal	24.3	O	24.8	С	0.5	No	
3	PM Park Boulevard/Morley Field Drive		19.6	В	20.1	С	0.5	No	
J	AM	Signal	17.5	В	17.8	В	0.3	No	
	PM		20.2	С	20.2	С	0.0	No	
4	Park Boulevard/Zoo Place AM	Signal	27.2	С	27.8	С	0.6	No	
	PM	Signal	24.0	С	24.4	С	0.6 0.4	No No	
5	Park Boulevard/Village Place								
	AM PM	Signal	21.3	С	23.3	С	2.0	No	
6	Park Boulevard/Space Theatre Way		16.6	В	17.0	В	0.4	No	
- 0	Northbound Left								
	AM		13.9	В	15.6	С	1.7	No	
	PM Eastbound Left	NA	13.9	В	15.6	С	1.7	No	
	Eastbound Left AM		112.7	F	179.7	F	67.0	Yes	
	PM	<u> </u>	44.6	E	66.5	F	21.9	Yes	
7	Park Boulevard/Inspiration Way								
	AM PM	Signal	3.9	A	4.3	A	0.4	No No	
8	Park Boulevard/Presidents Way		3.0		4.1		0.3	INO	
	AM	Signal	31.3	С	43.9	D	12.6	No	
_	PM		52.4	D	153.0	F	100.6	Yes	
9	Park Boulevard/SR 163 NB Ramps Northbound Left								
	AM	NA	12.4	В	13.3	В	0.9	No	
	PM		22.4	С	28.0	D	5.6	No	
10	Park Boulevard/I-5 Ramps	Cianal	25.1	С	26.4	_	4.0	N-	
	AM PM	Signal	25.1 18.5	В	26.1 18.7	В	1.0 0.2	No No	
11	Park Boulevard/A Street						0.1		
	AM	Signal	13.3	В	13.6	В	0.3	No	
12	PM Richmond Street/Robinson Avenue		14.6	В	15.4	В	0.8	No	
12	AM	Signal	13.7	В	13.7	В	0.0	No	
	PM		13.6	В	13.7	В	0.1	No	
13	Richmond Street/Upas Street AM	All Way Stop	11.5	В	11.6	ь	0.4	N-	
	PM	All Way Stop	9.3	А	11.6 9.4	B A	0.1 0.1	No No	
14	6th Avenue/Robinson Avenue						0.1		
	AM	Signal	37.2	D	46.2	D	9.0	No	
15	PM 6th Avenue/ Upas Street-Balboa Drive		30.5	С	31.6	С	1.1	No	
13	AM	Signal	8.3	Α	8.1	Α	-0.2	No	
	PM		11.6	В	10.6	В	-1.0	No	
16	6th Avenue/Quince Drive AM	Signal	17.6	В	17.6	В	0.0	No	
	PM		17.6 16.5	В	17.6 16.4	В	0.0 -0.1	No No	
17	6th Avenue/Laurel Street								
	AM		15.1	В	13.2	В	-1.9	No	
18	PM 6th Avenue/Elm Street-I-5 NB Off Ramp		15.0	В	13.8	В	-1.2	No	
		Signal	11.6	В	10.1	В	-1.5	No	
	AM	-				В	0.1	No	
,-	PM	-	12.0	В	12.1	-	0.1		
19	PM 6th Avenue/Ash Street								
19	PM	Signal	12.0 11.4 10.9	B B B	12.1 11.4 10.9	ВВ	0.0	No No	
19	6th Avenue/Ash Street AM PM 6th Avenue/A Street	Signal	11.4 10.9	B B	11.4 10.9	B B	0.0 0.0	No No	
	6th Avenue/Ash Street AM PM 6th Avenue/A Street AM	Signal	11.4 10.9 11.7	B B	11.4 10.9	B B	0.0 0.0 0.0	No No	
20	6th Avenue/Ash Street AM PM 6th Avenue/A Street AM 6th Avenue/A Street AM PM	Signal	11.4 10.9	B B	11.4 10.9	B B	0.0 0.0	No No	
	6th Avenue/Ash Street AM PM 6th Avenue/A Street AM PM A Street/10th Avenue AM	Signal Signal Signal	11.4 10.9 11.7	B B	11.4 10.9	B B	0.0 0.0 0.0	No No	
20	6th Avenue/Ash Street AM PM 6th Avenue/A Street AM PM A Street/10th Avenue AM PM A Street/10th Avenue	Signal Signal Signal	11.4 10.9 11.7 11.5	B B B	11.4 10.9 11.7 11.6	B B B	0.0 0.0 0.0 0.1	No No No No	
20	6th Avenue/Ash Street AM PM 6th Avenue/A Street AM PM A Street/10th Avenue AM PM A Street/11th Avenue	Signal Signal	11.4 10.9 11.7 11.5 11.8 10.7	B B B B	11.4 10.9 11.7 11.6 11.9	B B B B	0.0 0.0 0.0 0.1 0.1 0.1	No No No No No	
20	6th Avenue/Ash Street AM PM 6th Avenue/A Street AM PM A Street/10th Avenue AM PM A Street/10th Avenue	Signal Signal	11.4 10.9 11.7 11.5	B B B	11.4 10.9 11.7 11.6	B B B	0.0 0.0 0.0 0.1	No No No No	
20	6th Avenue/Ash Street AM PM 6th Avenue/A Street AM PM A Street/10th Avenue AM PM A Street/11th Avenue AM A Street/11th Avenue	Signal Signal Signal	11.4 10.9 11.7 11.5 11.8 10.7	B B B B B B B	11.4 10.9 11.7 11.6 11.9 10.8	B B B B B B	0.0 0.0 0.0 0.1 0.1 0.1	No No No No No No	

TABLE 96 2015 + PROJECT ALTERNATIVE 3D **ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

				2	2015 No Projec	et		201	5 + Project A	Iternative 3D	
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	15,000	1.000	E	15,100	1.007	F	0.007	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	13,800	0.345	Α	14,500	0.363	Α	0.018	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	19,000	0.475	В	20,000	0.500	В	0.025	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	18,100	0.453	В	20,000	0.500	В	0.048	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	19,100	0.478	В	21,100	0.528	С	0.050	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	23,000	0.575	С	24,700	0.618	С	0.043	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	23,600	0.590	С	0.033	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	18,900	0.473	В	22,200	0.555	С	0.083	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	23,100	0.770	D	24,700	0.823	D	0.053	NO
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	17,900	0.597	С	19,900	0.663	С	0.067	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	14,600	0.487	С	15,200	0.507	С	0.020	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	12,300	0.410	В	13,000	0.433	В	0.023	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	12,100	0.538	С	12,000	0.533	С	-0.004	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,600	0.160	Α	1,400	0.140	Α	0.000	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,800	0.180	Α	1,100	0.110	Α	0.000	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	4,500	0.450	В	4,600	0.460	В	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	11,500	1.150	F	12,300	1.230	F	0.080	YES
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector1	3 Lane Collector	15,000	11,300	0.753	D	12,000	0.800	D	0.047	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,100	0.510	В	5,300	0.530	В	0.020	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,400	0.640	С	1,100	0.110	Α	0.000	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	С	0	0.000	Α	0.000	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,100	0.810	D	4,800	0.480	В	-0.330	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	4,100	0.410	В	4,200	0.420	В	0.010	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	7,000	0.700	С	7,000	0.700	С	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,200	0.620	С	6,200	0.620	С	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	20,300	0.902	E	20,600	0.916	E	0.013	NO
27 Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,700	0.670	С	160	0.016	Α	-0.654	NO
28 Presidents Way east of Pan American Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,470	0.947	Е	2,640	0.264	Α	-0.683	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

^{*} Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

TABLE 97 2015 + PROJECT ALTERNATIVE 3D INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

			2015 + Alt 3D		
	Intersection	Control	Control Delay (sec/veh)	LOS	
26	Presidents Way/Pan American Plaza	All May Stan			
	AM	All Way Stop	7.1	Α	
28	Presidents Way/Federal-Aerospace Lot				
	AM	Stop			
	Northbound Shared Left-Right	Stop	8.7	Α	
	Westbound Left		3.9	Α	

TABLE 98 2015 + PROJECT ALTERNATIVE 3D INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

			2015 + Alt 3D		
	Intersection	Control	Control Delay (sec/veh)	LOS	
26	Presidents Way/Pan American Plaza	All May Stan			
	AM	All Way Stop	10.4	В	
28	Presidents Way/Federal-Aerospace Lot				
	AM	Stop			
	Northbound Shared Left-Right		30.5	D	
	Westbound Left		6.8	Α	

Exhibit 61 and Exhibit 62 show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 99 shows all the study area intersections to currently operate at LOS D or better during the weekday AM and PM peak periods, with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, PM peak)
- Park Boulevard/Presidents Way (LOS F, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, PM peak)

Significant impacts were calculated at these locations.

Table 100 shows all the study area intersections to currently operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM and PM peak)
- Park Boulevard/Presidents Way (LOS F, AM and PM peak)
- Park Boulevard/SR 163 NB on Ramp (LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, AM and PM peak)

Significant impacts were calculated at these locations.

Table 101 shows that all study area roadways to currently operate at LOS D or better on a daily basis with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)
- 6th Avenue between Robinson Avenue and Upas Street (LOS F)*
- 6th Avenue between Upas Street and Quince Drive (LOS E)*
- 6th Avenue between Elm Street and Ash Street (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)*
- Robinson Avenue between Vermont Street and Park Boulevard (LOS E)*
- A Street between 6th and Park Boulevard (LOS F)*

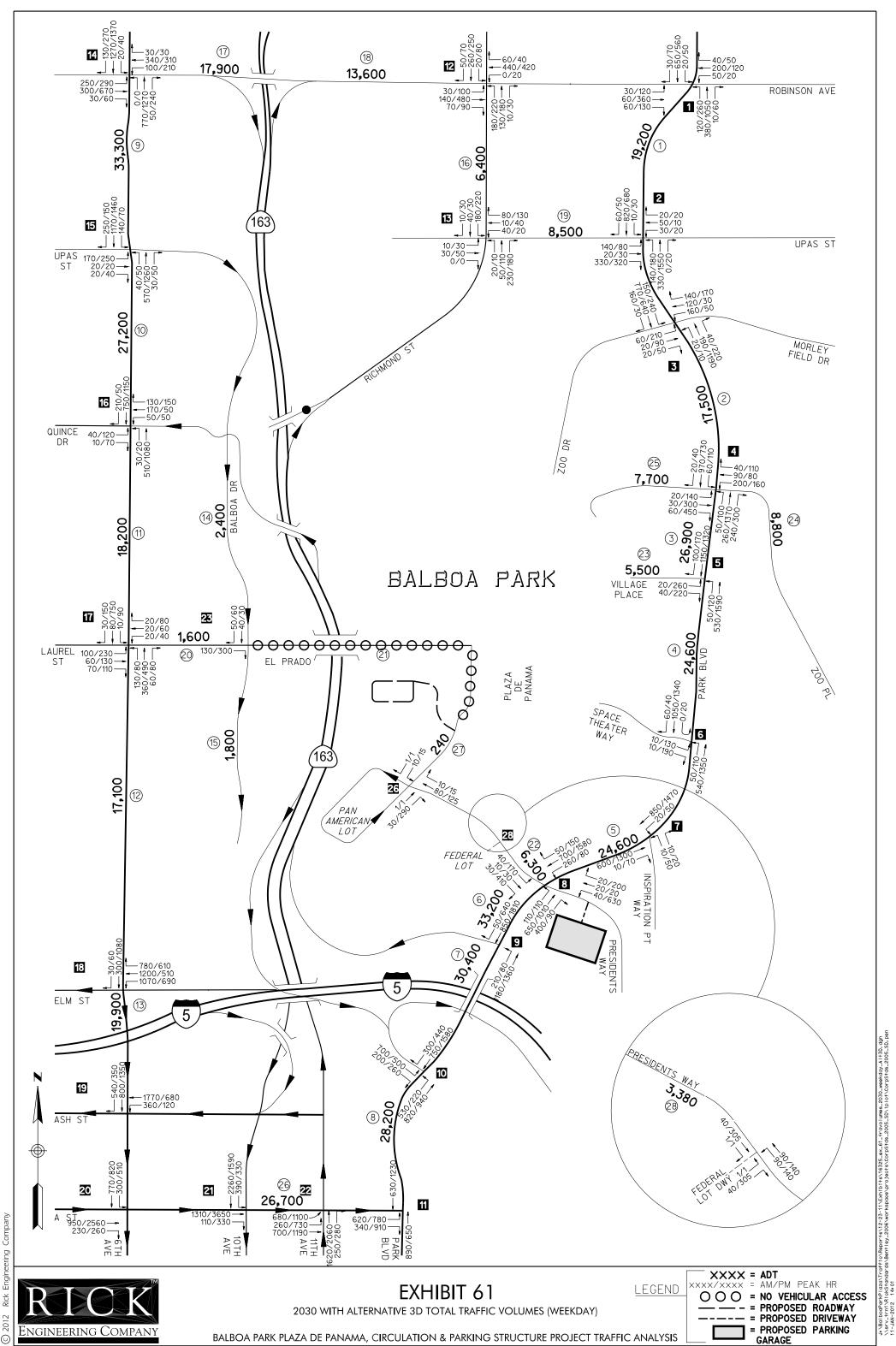
Five of the seven segments as denoted with an "*" were deemed a significant impact.

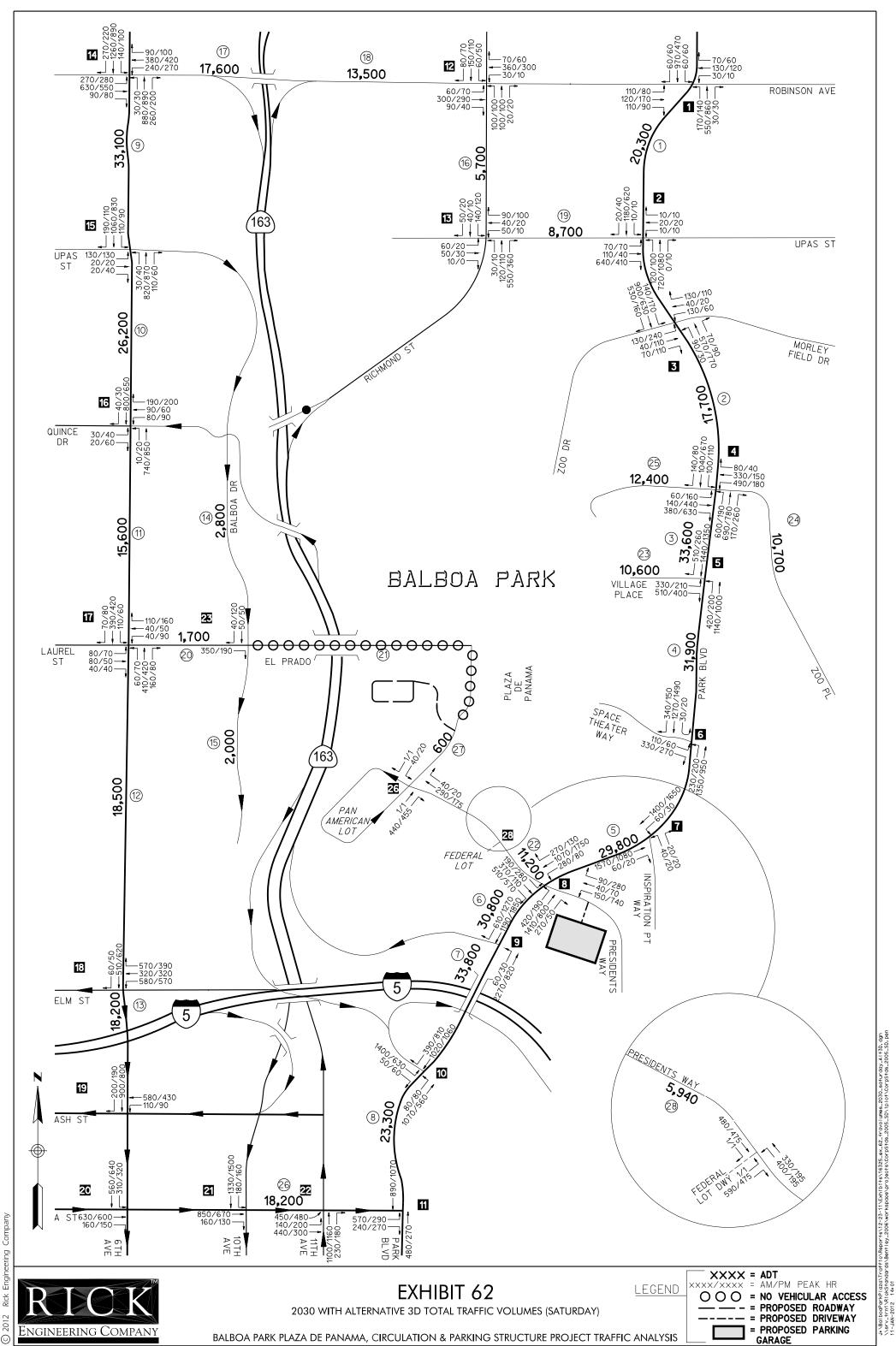
Mitigation measures for the locations deemed significant will be discussed later in this report.

Tables 102 and 103 show all the weekday and Saturday internal study intersections to operate at LOS B or better, with the exception of:

• Presidents Way/Federal Lot (NB shared left-right, LOS F)

ALTERNATIVE 4Ai – GOLD GULCH PARKING STRUCTURE ALTERNATIVE, CABRILLO BRIDGE OPEN WITH CENTENNIAL BRIDGE, OPERATIONS





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TABLE 99 2030 + PROJECT ALTERNATIVE 3D INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			2030 No Project 2030 + Project Alternative 3D						
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No	
1	Park Boulevard/Robinson Avenue	0:1	47.5	,	47.5	-			
	AM PM	Signal	17.5 31.0	B C	17.5 31.9	B C	0.0	No No	
2	Park Boulevard/Upas Street		01.0		01.0		0.0	110	
	AM PM	Signal	24.8	С	25.9	С	1.1	No	
3	Park Boulevard/Morley Field Drive		24.1	С	25.1	С	1.0	No	
	AM	Signal	19.2	В	19.3	В	0.1	No	
	PM Park Boulevard/Zoo Place		22.6	С	23.3	С	0.7	No	
4	AM	Signal	16.7	В	16.6	В	-0.1	No	
	PM		29.3	С	31.0	С	1.7	No	
5	Park Boulevard/Village Place	Signal	4.6	_	4.5	^	0.1	No	
	AM PM	Signal	4.6 13.1	A B	4.5 13.8	A B	-0.1 0.7	No No	
6	Park Boulevard/Space Theatre Way								
	Northbound Left AM	:	10.6	п	44.0	В	0.0	NI-	
	PM	NA	10.6 12.9	B B	11.2 14.0	B B	0.6 1.1	No No	
	Eastbound Left								
	AM PM		15.1 112.1	C F	16.3 218.2	C F	1.2 106.1	No Yes	
7	Park Boulevard/Inspiration Way		112.1	Г	210.2	Г	106.1	res	
	AM	Signal	3.0	Α	4.1	Α	1.1	No	
	PM		4.7	Α	5.0	Α	0.3	No	
8	Park Boulevard/Presidents Way AM	Signal	14.7	В	16.0	В	1.3	No	
	PM	9	62.0	E	128.7	F	66.7	Yes	
9	Park Boulevard/SR 163 NB Ramps								
	Northbound Left AM	NA	10.9	В	11.5	В	0.6	No	
	PM		28.4	D	31.1	D	2.7	No	
10	Park Boulevard/I-5 Ramps								
	AM PM	Signal	38.4 43.6	D D	47.3 49.8	D D	8.9	No	
11	Park Boulevard/A Street		43.0	U	49.0	D	6.2	No	
	AM	Signal	12.5	В	12.9	В	0.4	No	
12	PM Richmond Street/Robinson Avenue		20.1	С	16.2	В	-3.9	No	
12	AM	Signal	16.7	В	16.9	В	0.2	No	
	PM		17.3	В	17.9	В	0.6	No	
13	Richmond Street/Upas Street AM	All Way Stop	9.6	Α	9.7	Α	0.1	No	
	PM	All Way Stop	10.6	В	10.8	В	0.1	No	
14	6th Avenue/Robinson Avenue								
	AM PM	Signal	30.6 103.0	C F	32.2 122.3	C F	1.6 19.3	No Yes	
15	6th Avenue/ Upas Street-Balboa Drive		103.0		122.3		19.3	Tes	
	AM	Signal	11.1	В	10.6	В	-0.5	No	
16	PM 6th Avenue/Quince Drive		15.3	В	15.1	В	-0.2	No	
10	AM	Signal	18.7	В	19.1	В	0.4	No	
	PM	-	16.9	В	17.8	В	0.9	No	
17	6th Avenue/Laurel Street AM	Signal	13.7	В	12.2	В	-1.5	No	
	PM	Jigilai	17.8	В	14.8	В	-3.0	No	
18	6th Avenue/Elm Street-I-5 NB Off Ramp					_			
	AM PM	Signal	31.1 17.6	C B	31.9 17.9	C B	0.8	No No	
19	6th Avenue/Ash Street		17.0		11.3		0.5	INU	
	AM	Signal	14.7	В	14.7	В	0.0	No	
20	PM 6th Avenue/A Street		11.7	В	11.7	В	0.0	No	
	AM	Signal	13.1	В	13.1	В	0.0	No	
	PM		17.6	В	18.5	В	0.9	No	
21	A Street/10th Avenue AM	Signal	15.7	В	16.0	В	0.3	No	
	PM	Signal	42.1	D	50.6	D	8.5	No	
22	A Street/11th Avenue								
	AM PM	Signal	13.0 21.6	B C	13.3 23.6	B C	0.3 2.0	No No	
23	Balboa Drive/El Prado		21.0	U	23.0		2.0	INU	
	AM	All Way Stop	8.9	Α	8.1	Α	-0.8	No	
	PM		27.5	D	11.3	В	-16.2	No	

TABLE 100 2030 + PROJECT ALTERNATIVE 3D INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			2030 No Pro	ject	20	30 + P	roject Alternativ	ve 3D
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue AM	Signal	16.5	В	16.5	В	0.0	No
	PM	Signal	15.5	В	15.8	В	0.0	No No
2	Park Boulevard/Upas Street	Cianal	E4.0	7	F0.7	Е	7.4	V
	AM PM	Signal	51.3 23.3	D C	58.7 23.6	C	7.4 0.3	Yes No
3	Park Boulevard/Morley Field Drive	· .						
	AM PM	Signal	19.3 20.7	B	19.6 20.8	B C	0.3	No No
4	Park Boulevard/Zoo Place			_			-	
	AM PM	Signal	36.1 27.4	D C	39.0 27.8	D C	2.9 0.4	No No
5	Park Boulevard/Village Place							
	AM PM	Signal	37.7 19.3	D B	48.4 20.8	D C	10.7 1.5	No No
6	Park Boulevard/Space Theatre Way		10.0		20.0	Ŭ	1.0	140
	Northbound Left AM		19.4	С	24.1	С	4.7	No
	PM	NA	18.5	С	22.5	С	4.7	No
	Eastbound Left AM		460.8	F	692.1	F	224.2	V
	PM		168.8	F	264.8	F	231.3 96.0	Yes Yes
7	Park Boulevard/Inspiration Way	0:	4.0					
	AM PM	Signal	4.9	A	4.9 4.0	A	0.0	No No
8	Park Boulevard/Presidents Way							
	AM PM	Signal	56.4 126.4	E F	117.0 474.0	F	60.6 347.6	Yes Yes
9	Park Boulevard/SR 163 NB Ramps		120.4	•	474.0	-	047.0	163
	Northbound Left AM	NA	15.5	С	17.6	С	2.1	No
	PM		40.7	E	44.3	E	3.6	Yes
10	Park Boulevard/I-5 Ramps	0:1	20.0	C	07.0	-		
	AM PM	Signal	32.6 23.8	С	37.8 27.0	D C	5.2 3.2	No No
11	Park Boulevard/A Street	· .						
	AM PM	Signal	14.2 16.4	B B	14.7 17.9	B B	0.5 1.5	No No
12	Richmond Street/Robinson Avenue							
	AM PM	Signal	14.6 14.4	B B	14.7 14.3	B B	0.1 -0.1	No No
13	Richmond Street/Upas Street							110
	AM PM	All Way Stop	29.2 11.7	D B	31.0 12.0	D B	1.8 0.3	No No
14	6th Avenue/Robinson Avenue				12.0		0.5	140
	AM PM	Signal	151.7 75.5	F E	181.3 97.3	F	29.6 21.8	Yes Yes
15	6th Avenue/ Upas Street-Balboa Drive		13.3	_	91.3		21.0	162
	AM	Signal	9.5 12.4	A	8.9	A	-0.6	No
16	6th Avenue/Quince Drive		12.4	В	11.1	В	-1.3	No
	AM PM	Signal	21.6	С	21.8	С	0.2	No
17	6th Avenue/Laurel Street		20.0	В	21.1	С	1.1	No
	AM	Signal	15.7	В	13.4	В	-2.3	No
18	PM 6th Avenue/Elm Street-I-5 NB Off Ramp		15.4	В	13.7	В	-1.7	No
	AM	Signal	11.3	В	11.6	В	0.3	No
19	PM 6th Avenue/Ash Street		12.5	В	12.6	В	0.1	No
	AM	Signal	11.8	В	11.8	В	0.0	No
20	6th Avenue/A Street		10.9	В	10.9	В	0.0	No
	AM	Signal	12.1	В	12.2	В	0.1	No
21	A Street/10th Avenue		11.9	В	12.0	В	0.1	No
	AM	Signal	12.5	В	12.7	В	0.2	No
22	A Street/11th Avenue		11.4	В	11.5	В	0.1	No
	AM	Signal	10.8	В	10.9	В	0.1	No
23	PM Balboa Drive/El Prado		10.0	В	10.1	В	0.1	No
	AM	All Way Stop	24.7	С	7.7	Α	-17.0	No
	PM		21.9	С	7.7	Α	-14.2	No

TABLE 101 2030 + PROJECT ALTERNATIVE 3D **ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

				2	2030 No Projec	et .		203	0 + Project A	Alternative 3D	
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	19,100	1.273	F	19,200	1.280	F	0.007	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	16,700	0.418	В	17,500	0.438	В	0.020	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	25,600	0.640	С	26,900	0.673	С	0.033	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	24,600	0.615	С	0.058	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	33,200	0.830	D	0.273	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	30,900	0.773	D	30,400	0.760	D	-0.013	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	28,800	0.720	С	28,200	0.705	С	-0.015	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	24,000	0.600	С	26,900	0.673	С	0.073	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	31,200	1.040	F	33,300	1.110	F	0.070	YES
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	24,500	0.817	D	27,200	0.907	E	0.090	YES
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	17,500	0.583	С	18,200	0.607	С	0.023	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	16,100	0.537	С	17,100	0.570	С	0.033	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	20,100	0.893	E	19,900	0.884	E	-0.009	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	2,700	0.270	А	2,400	0.240	Α	-0.030	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,000	0.300	А	1,800	0.180	Α	-0.120	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	6,200	0.620	С	6,400	0.640	С	0.020	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	16,700	1.670	F	17,900	1.790	F	0.120	YES
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector ¹	3 Lane Collector	15,000	12,800	0.853	D	13,600	0.907	E	0.053	YES
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,200	0.820	D	8,500	0.850	D	0.030	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,100	0.910	E	1,600	0.160	Α	-0.750	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	F	0	0.000	Α	-1.030	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,800	0.880	D	6,300	0.630	С	-0.250	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,400	0.540	В	5,500	0.550	В	0.010	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,800	0.880	D	8,800	0.880	D	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,700	0.770	D	7,700	0.770	D	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	26,300	1.169	F	26,700	1.187	F	0.018	YES
27 Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,220	0.822	D	240	0.024	Α	-0.798	NO
28 Presidents Way east of Pan American Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,800	0.980	E	3,380	0.338	Α	-0.642	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

^{*} Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

TABLE 102 2030 + PROJECT ALTERNATIVE 3D INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

			2030 +	Alt 3D
	Intersection	Control	Control Delay (sec/veh)	LOS
26	Presidents Way/Pan American Road	All Way Stop		
	AM	All Way Stop	7.3	Α
28	Presidents Way/Federal-Aerospace Lot			
	AM	Stop		
	Northbound Shared Left-Right	Stop	8.7	Α
	Westbound Left		4.0	А

TABLE 103 2030 + PROJECT ALTERNATIVE 3D INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

			2030 +	Alt 3D
	Intersection	Control	Control Delay (sec/veh)	LOS
26	Presidents Way/Pan American Plaza	All Way Stop		
	AM	All Way Stop	13.0	В
28	Presidents Way/Federal-Aerospace Lot			
	AM	Stop		
	Northbound Shared Left-Right	SiOp	>50.0	F
	Westbound Left		8.6	Α

Exhibit 63 shows the intersection lane geometry and configurations of the study area intersections.

Exhibit 64 shows the percent distribution for this alternative.

Existing

Exhibit 65 and Exhibit 66 show the Existing + 4Ai traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 104 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods. No significant impacts were calculated.

Table 105 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods. No significant impacts were calculated.

Table 106 shows that all study area roadways to operate at LOS D or better on a daily basis. No significant impacts were calculated.

Tables 107 and 108 show all the weekday and Saturday internal study intersections to operate acceptably at LOS D or better.

2015

Exhibit 67 and Exhibit 68 show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 109 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods.

Table 110 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

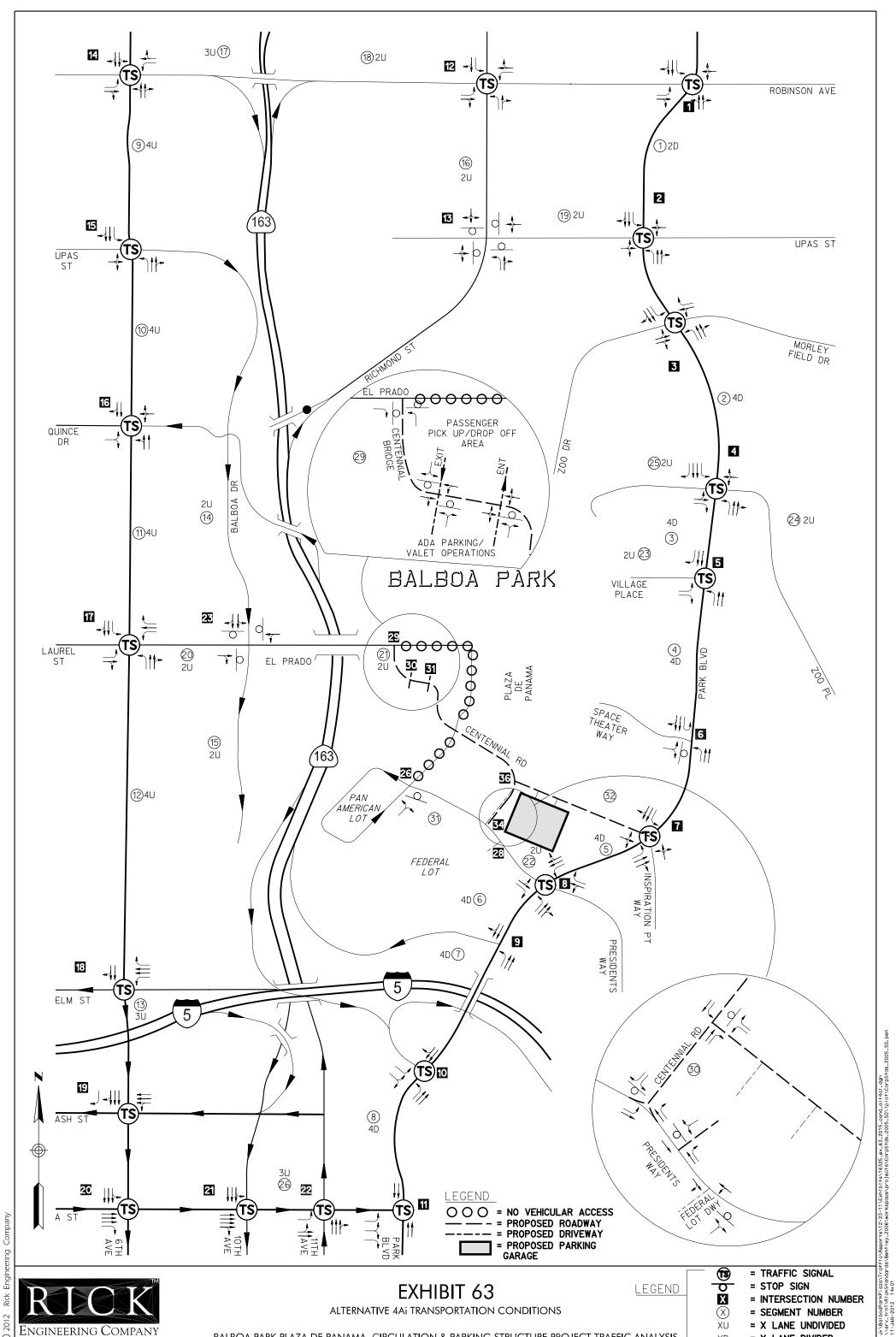
• Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM peak and LOS E, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

Table 111 shows that all study area roadways to operate at LOS D or better on a daily basis, with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS E)
- A Street between 6th Avenue and Park Boulevard (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F).

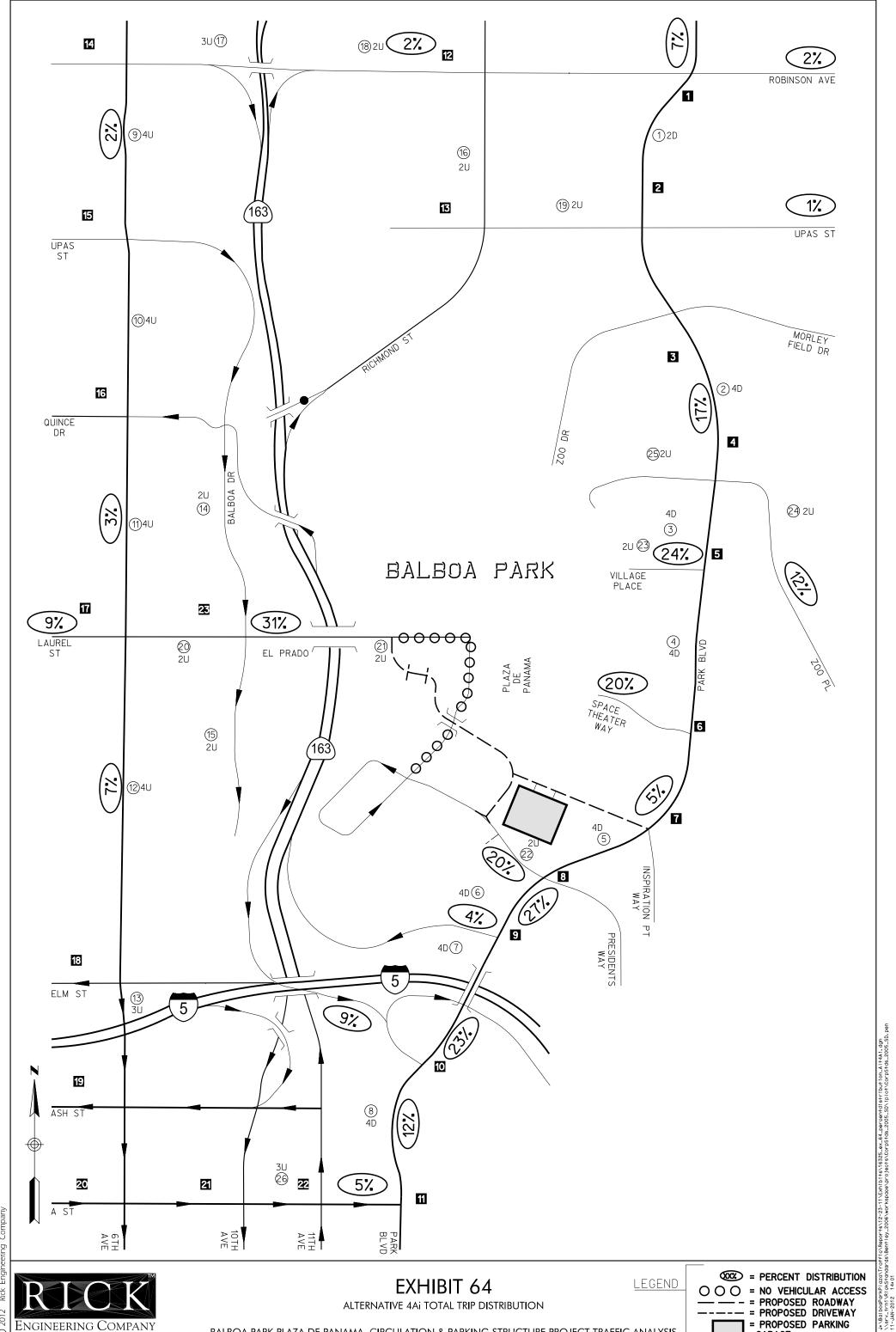
No impacts were calculated based on the current significance thresholds.



BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

200

= X LANE DIVIDED

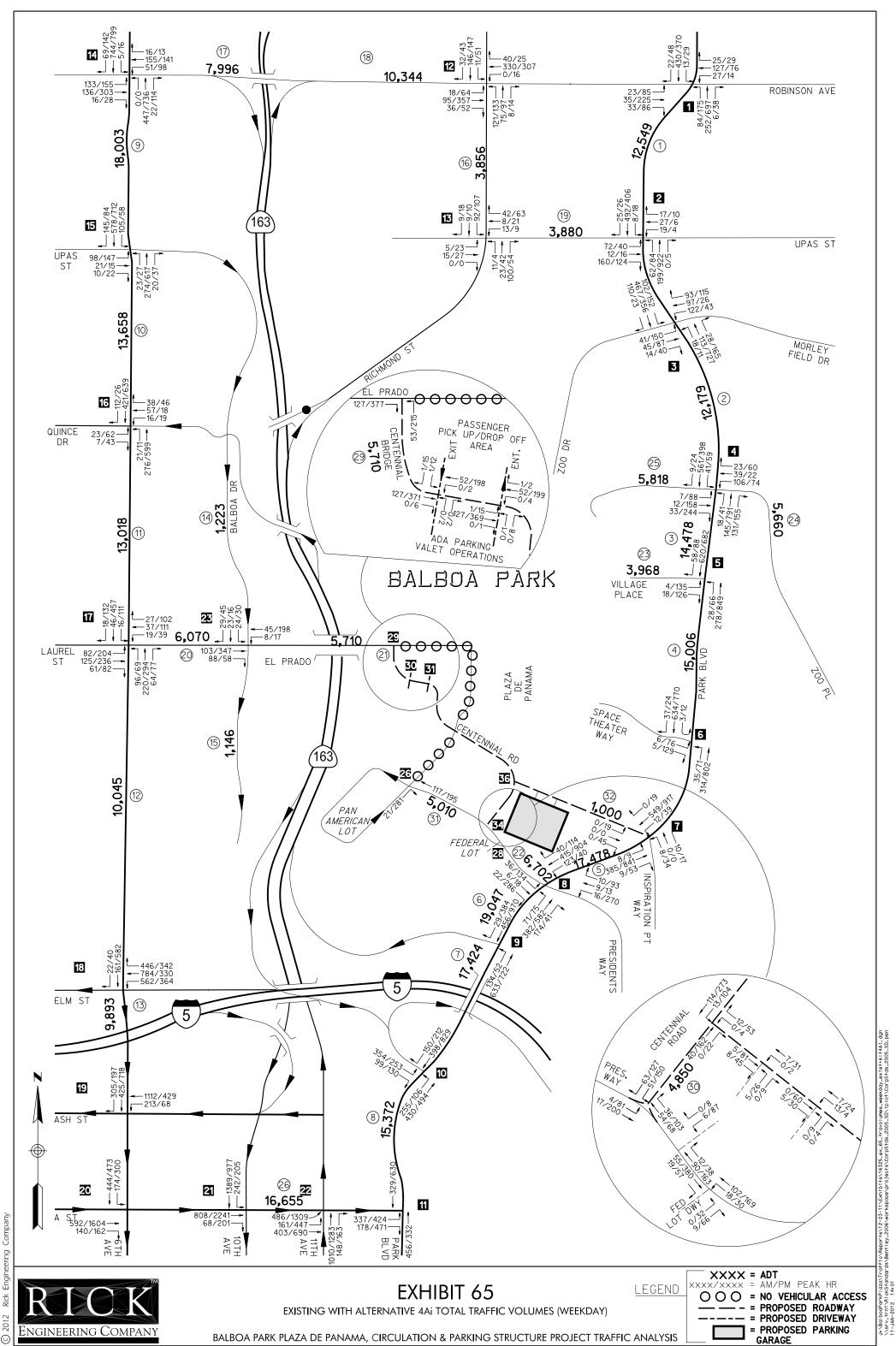


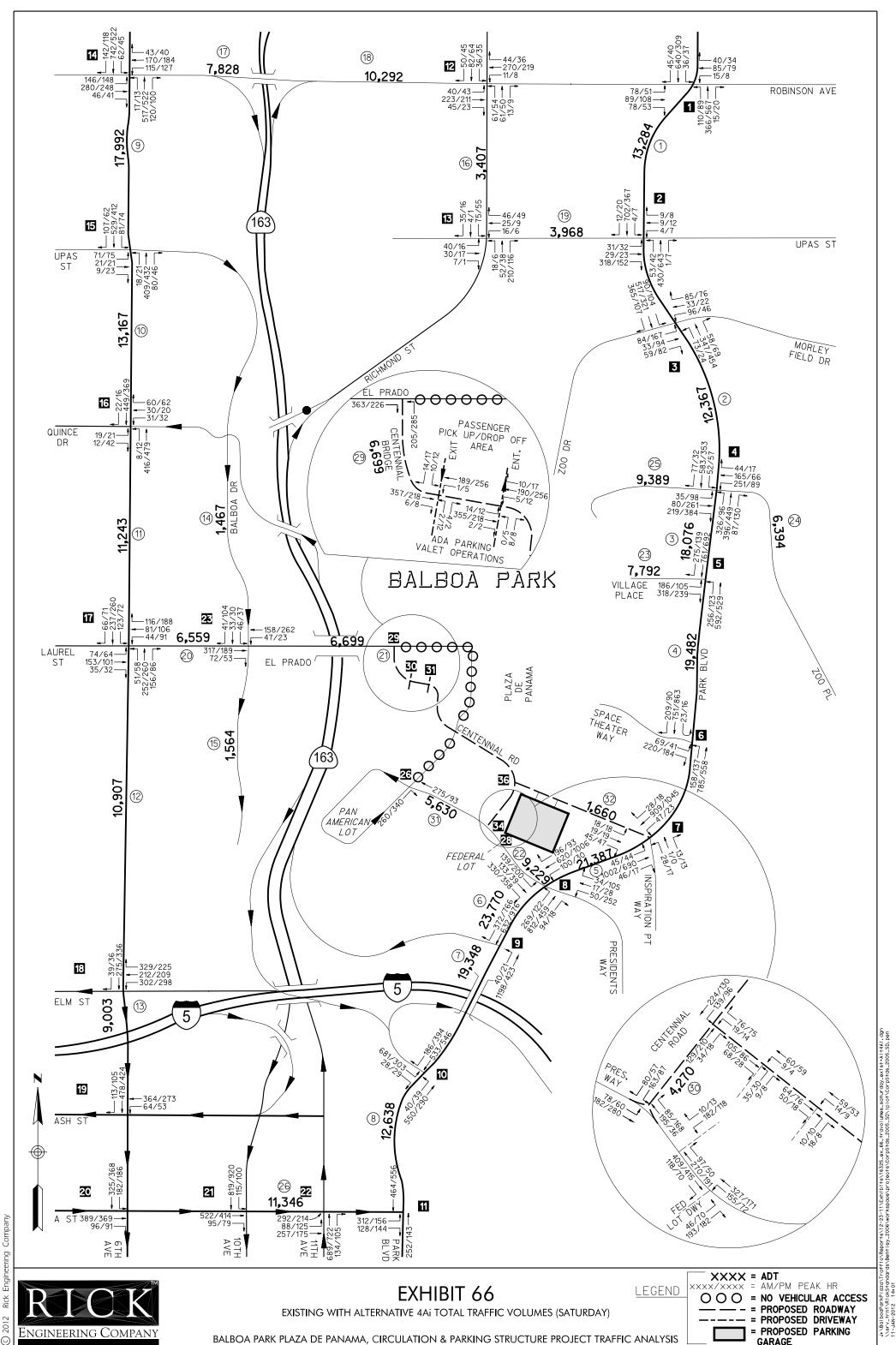
Engineering Company 2012

Engineering Company

= PROPOSED DRIVEWAY = PROPOSED PARKING GARAGE

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS





GARAGE

TABLE 104 EXISTING + PROJECT ALTERNATIVE 4AI INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			Existing	9	Exis	ting +	Project Alterna	tive 4Ai
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue	0:1	10.0		10.0	_		
	AM PM	Signal	16.3 17.1	B	16.3 17.1	B B	0.0	No No
2	Park Boulevard/Upas Street							
	AM PM	Signal	18.6 14.4	B	18.6 14.4	B B	0.0	No No
3	Park Boulevard/Morley Field Drive		17.7		14.4		0.0	140
	AM PM	Signal	18.6 19.2	B	18.6 19.2	B B	0.0	No
4	Park Boulevard/Zoo Place		19.2	В	19.2	В	0.0	No
	AM	Signal	16.1	В	16.1	В	0.0	No
5	PM Park Boulevard/Village Place		21.5	С	21.5	С	0.0	No
	AM	Signal	3.9	Α	3.9	Α	0.0	No
6	PM Park Boulevard/Space Theatre Way		11.3	В	11.3	В	0.0	No
- 0	Northbound Left							
	AM	NIA	9.0	A	9.0	A	0.0	No
	PM Eastbound Left	NA	9.7	Α	9.7	Α	0.0	No
	AM		12.1	В	12.1	В	0.0	No
7	PM Park Boulevard/Inspiration Way		19.2	С	19.2	С	0.0	No
-	AM	Signal	3.1	Α	3.6	Α	0.5	No
	PM		4.5	Α	8.3	Α	3.8	No
8	Park Boulevard/Presidents Way AM	Signal	14.7	В	14.5	В	-0.2	No
	PM	Olg.Iu.	21.8	С	21.4	С	-0.4	No
9	Park Boulevard/SR 163 NB Ramps Northbound Left							
	AM	NA	8.8	Α	8.8	Α	0.0	No
	PM		12.8	В	12.8	В	0.0	No
10	Park Boulevard/I-5 Ramps AM	Signal	26.2	С	26.2	С	0.0	No
	PM	Oigilai	19.9	В	19.9	В	0.0	No
11	Park Boulevard/A Street	0:1	44.5)	44.5	-	0.0	
	AM PM	Signal	11.5 13.3	B	11.5 13.3	B B	0.0	No No
12	Richmond Street/Robinson Avenue							
	AM PM	Signal	15.0 14.5	B	15.0 14.5	B B	0.0	No No
13	Richmond Street/Upas Street		14.5		14.0	D	0.0	140
	AM PM	All Way Stop	7.7	A	7.7	A	0.0	No
14	6th Avenue/Robinson Avenue		8.0	Α	8.0	Α	0.0	No
	AM	Signal	20.5	С	20.5	С	0.0	No
15	PM 6th Avenue/ Upas Street-Balboa Drive		22.6	С	22.6	С	0.0	No
- 13	AM	Signal	9.6	Α	9.6	Α	0.0	No
40	PM		11.7	В	11.7	В	0.0	No
16	6th Avenue/Quince Drive AM	Signal	12.1	В	12.1	В	0.0	No
	PM	-	12.1	В	12.1	В	0.0	No
17	6th Avenue/Laurel Street AM	Signal	13.0	В	13.0	В	0.0	No
	PM	2.9.131	15.0	В	15.0	В	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp AM	Signal	0.0		0.0	^	0.0	Na
	PM	Signal	8.6 12.8	A B	8.6 12.8	A B	0.0	No No
19	6th Avenue/Ash Street							
	AM PM	Signal	11.5 10.9	B	11.5 10.9	B B	0.0	No No
20	6th Avenue/A Street							
	AM PM	Signal	11.8	ВВ	11.8 11.5	B B	0.0	No No
21	A Street/10th Avenue		11.5	В	11.5	O CO	0.0	INO
	AM	Signal	11.9	В	11.9	В	0.0	No
22	PM A Street/11th Avenue		14.0	В	14.0	В	0.0	No
	AM	Signal	11.0	В	11.0	В	0.0	No
	PM Relbes Drive/EL Prode		13.9	В	13.9	В	0.0	No
23	Balboa Drive/El Prado AM	All Way Stop	7.8	Α	7.8	Α	0.0	No
1	PM	2	10.8	В	10.8	В	0.0	No

TABLE 105 EXISTING + PROJECT ALTERNATIVE 4AI INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			Existing	g	Exis	sting +	Project Alterna	tive 4Ai
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue	AAA ():	44.5					
		AM Signal PM	14.5 13.8	B	14.5 13.8	B	0.0	No No
2	Park Boulevard/Upas Street		13.0		10.0		0.0	NO
		AM Signal	19.2	В	19.2	В	0.0	No
•	Park Boulevard/Morley Field Drive	PM	15.5	В	15.5	В	0.0	No
3	·	AM Signal	17.0	В	17.0	В	0.0	No
		PM	20.0	С	20.0	С	0.0	No
4	Park Boulevard/Zoo Place	AAA 0:	00.0	_	20.0			
		AM Signal PM	30.0 24.0	C	30.0 24.1	C	0.0	No No
5	Park Boulevard/Village Place		20				0.1	140
		AM Signal	18.5	В	18.5	В	0.0	No
6	Park Boulevard/Space Theatre Way	PM	15.5	В	15.5	В	0.0	No
О	Northbound I	.eft						
		AM	11.3	В	11.3	В	0.0	No
		PM NA	11.1	В	11.1	В	0.0	No
	Eastbound I	.eft AM	31.2	D	31.2	D	0.0	No
		PM	20.3	С	20.3	С	0.0	No
7	Park Boulevard/Inspiration Way							
		AM Signal PM	4.1	A	9.4 9.7	A	5.3 5.6	No No
8	Park Boulevard/Presidents Way	IVI	7.1		5.1		3.0	NO
		AM Signal	25.0	С	24.0	С	-1.0	No
0	Park Boulevard/SR 163 NB Ramps	PM	26.8	С	25.7	С	-1.1	No
9	Northbound I	eft						
		AM NA	10.5	В	10.5	В	0.0	No
		PM	15.4	С	15.4	С	0.0	No
10	Park Boulevard/I-5 Ramps	AM Signal	21.8	С	21.8	С	0.0	No
		PM Signal	16.2	В	16.2	В	0.0	No
11	Park Boulevard/A Street							
		AM Signal	12.8	B	12.8	В	0.0	No
12	Richmond Street/Robinson Avenue	PM	13.8	В	13.8	В	0.0	No
12		AM Signal	13.0	В	13.0	В	0.0	No
		PM	12.7	В	12.7	В	0.0	No
13	Richmond Street/Upas Street	AM All Way Stop	8.8	A	8.8	В	0.0	No
		PM	7.7	A	7.7	A	0.0	No
14	6th Avenue/Robinson Avenue							
		AM Signal PM	24.3 24.8	C	24.3 24.8	C	0.0	No No
15	6th Avenue/ Upas Street-Balboa Drive	TIVI	24.0		24.0		0.0	INO
		AM Signal	8.3	Α	8.3	Α	0.0	No
40		PM	11.1	В	11.1	В	0.0	No
16	6th Avenue/Quince Drive	AM Signal	13.9	В	13.9	В	0.0	No
		PM	13.5	В	13.5	В	0.0	No
17	6th Avenue/Laurel Street	AAA C:	410		44.0	-	0.0	
		AM Signal PM	14.8 14.7	B	14.8 14.7	B B	0.0	No No
18	6th Avenue/Elm Street-I-5 NB Off Ramp		. 1.1				3.0	.,,
		AM Signal	10.9	В	10.9	В	0.0	No
19	6th Avenue/Ash Street	PM	11.5	В	11.5	В	0.0	No
ıθ		AM Signal	11.2	В	12.7	В	1.5	No
		РМ	10.7	В	10.7	В	0.0	No
20	6th Avenue/A Street	AM Signal	11.4	D	11.4	В	0.0	Ma
		PM Signal	11.4 11.3	В	11.4 11.3	В	0.0	No No
21	A Street/10th Avenue					Ĺ		
		AM Signal	11.4	В	11.4	В	0.0	No
22	A Street/11th Avenue	PM	10.4	В	10.4	В	0.0	No
22		AM Signal	9.8	Α	9.8	В	0.0	No
		PM	9.2	Α	9.2	Α	0.0	No
	D : D : (EL : .							1
23	Balboa Drive/El Prado	AM All Way Stop	10.5	В	10.5	В	0.0	No

TABLE 106 **EXISTING + PROJECT ALTERNATIVE 4Ai ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

					Existing			Existi	ng + Project	Alternative 4Ai	
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	12,549	0.837	D	12,549	0.837	D	0.000	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	12,179	0.304	Α	12,179	0.304	Α	0.000	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	14,478	0.362	Α	14,478	0.362	Α	0.000	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	15,006	0.375	В	15,006	0.375	В	0.000	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	16,946	0.424	В	17,478	0.437	В	0.013	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	19,047	0.476	В	19,047	0.476	В	0.000	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	17,424	0.436	В	17,424	0.436	В	0.000	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	15,372	0.384	В	15,372	0.384	В	0.000	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	18,003	0.600	С	18,003	0.600	С	0.000	NO
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	13,658	0.455	В	13,658	0.455	В	0.000	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	13,018	0.434	В	13,018	0.434	В	0.000	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	10,045	0.335	В	10,045	0.335	В	0.000	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	9,893	0.440	В	9,893	0.440	В	0.000	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,223	0.122	Α	1,223	0.122	Α	0.000	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,146	0.115	Α	1,146	0.115	Α	0.000	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	3,856	0.386	Α	3,856	0.386	А	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	7,996	0.800	D	7,996	0.800	D	0.000	NO
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector1	3 Lane Collector	15,000	10,344	0.690	D	10,344	0.690	D	0.000	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	3,880	0.388	Α	3,880	0.388	Α	0.000	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,070	0.607	С	6,070	0.607	С	0.000	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	С	5,710	0.571	С	0.000	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,866	0.787	D	6,702	0.670	С	-0.116	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,968	0.397	Α	3,968	0.397	А	0.000	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,660	0.566	С	5,660	0.566	С	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,818	0.582	С	5,818	0.582	С	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	16,655	0.740	D	16,655	0.740	D	0.000	NO
29 Centennial Bridge south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	5,710	0.571	С	0.000	NO
30 Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	4,850	0.485	В	0.000	NO
31 Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,560	0.856	D	5,010	0.501	В	-0.355	NO
32 Inspiration Point Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	1,000	0.100	Α	0.000	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)

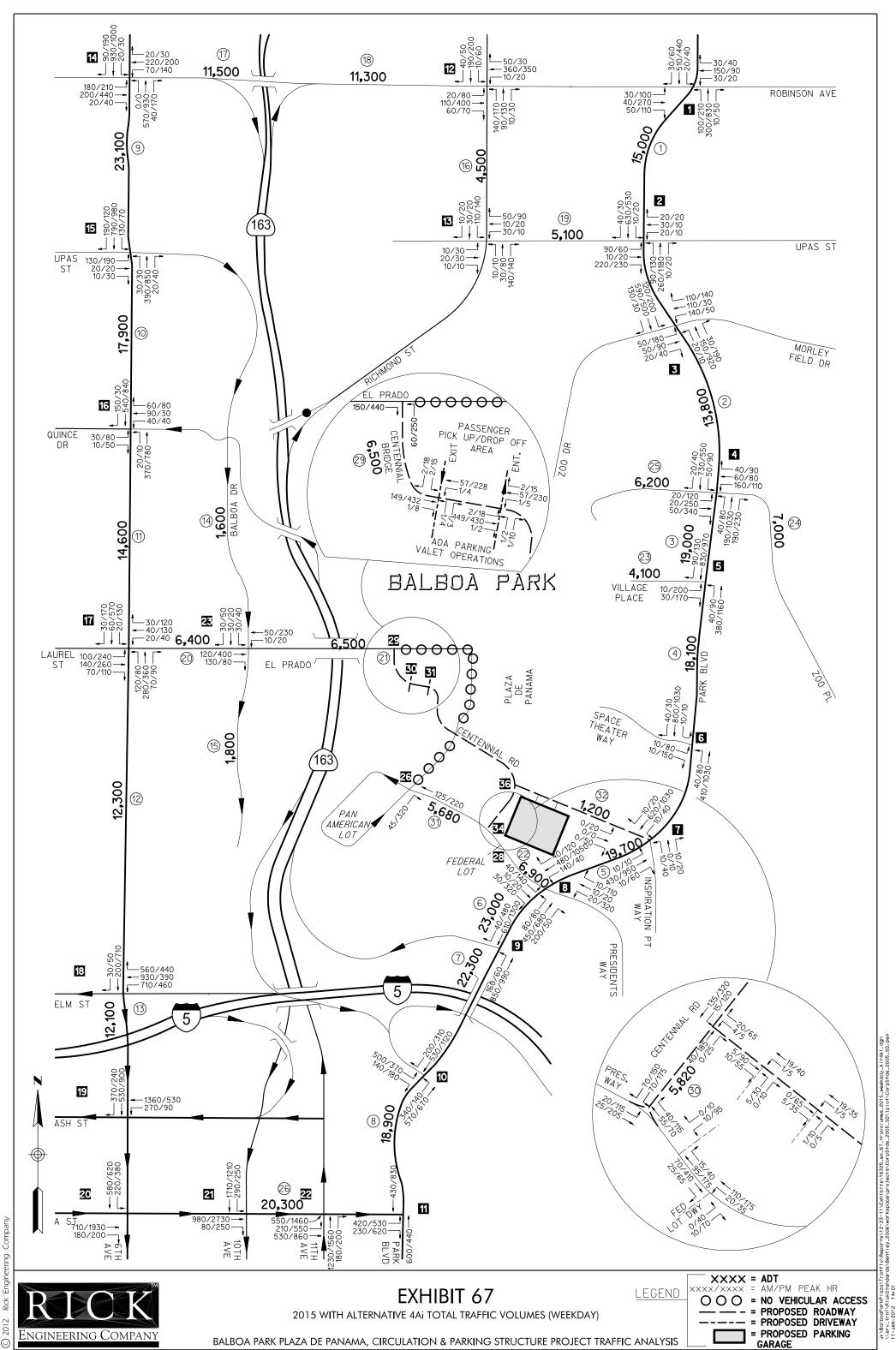
1 with Two-way left turn lane
2 Estimated capacity (3/4 of 4 lane collector)

TABLE 107 EXISTING + PROJECT ALTERNATIVE 4Ai INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

			Existing +	Alt 4Ai
Inters	section	Control	Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aeros	space Lot			
	AM	Stop		
	Northbound Shared Left-Right	Stop	8.8	Α
	Westbound Left		1.2	Α
29 El Prado/Centennial Bridge		All Way Stop		
	AM	7 til VVay Otop	7.2	Α
30 Centennial Road/ADA Parking	·			
	AM			
	Northbound Shared Left-Right	Stop	9.4	Α
	Southbound Shared Left-Right		9.2	Α
	Westbound Left		0.1	Α
31 Centennial Road/ADA Parking				
	AM			
	Westbound Left	Stop	0.1	Α
	Northbound Shared Left-Right		9.9	Α
	Eastbound Left		0.1	Α
34 Presidents Way/Centennial Ro				
	AM			
	Eastbound Left	Stop	7.4	Α
	Southbound Left		9.0	Α
	Southbound Right		9.0	Α
36 Pan American Road/Inspiratio				
	AM			
	Westbound Left	Stop	9.6	Α
	Westbound Right		8.6	Α
	Southbound Left		7.3	Α

TABLE 108 EXISTING + PROJECT ALTERNATIVE 4Ai INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

			Existing +	Alt 4Ai
	Intersection	Control	Control Delay (sec/veh)	LOS
28	Presidents Way/Federal-Aerospace Lot			
	AM	Stop		
	Northbound Shared Left-Right	Оюр	33.0	D
	Westbound Left		4.3	Α
29	El Prado/Centennial Bridge	All Way Stop		
	AM	7 iii Way Olop	10.0	Α
30	Centennial Road/ADA Parking & Valet Operations			
	AM			
	Northbound Shared Left-Right	Stop	11.8	В
	Southbound Shared Left-Right		11.6	В
	Westbound Left		0.1	Α
31	<u> </u>			
	AM			
	Westbound Left	Stop	0.2	Α
	Northbound Shared Left-Right		11.3	В
	Eastbound Left		0.4	Α
34	Presidents Way/Centennial Road			
	AM			
	Eastbound Left	Stop	8.1	Α
	Southbound Left		15.6	С
	Southbound Right		15.6	В
36	Pan American Road/Inspiration Point Extension			
	AM	_		
	Westbound Left	Stop	15.6	С
	Westbound Right		9.5	Α
	Southbound Left		7.9	Α



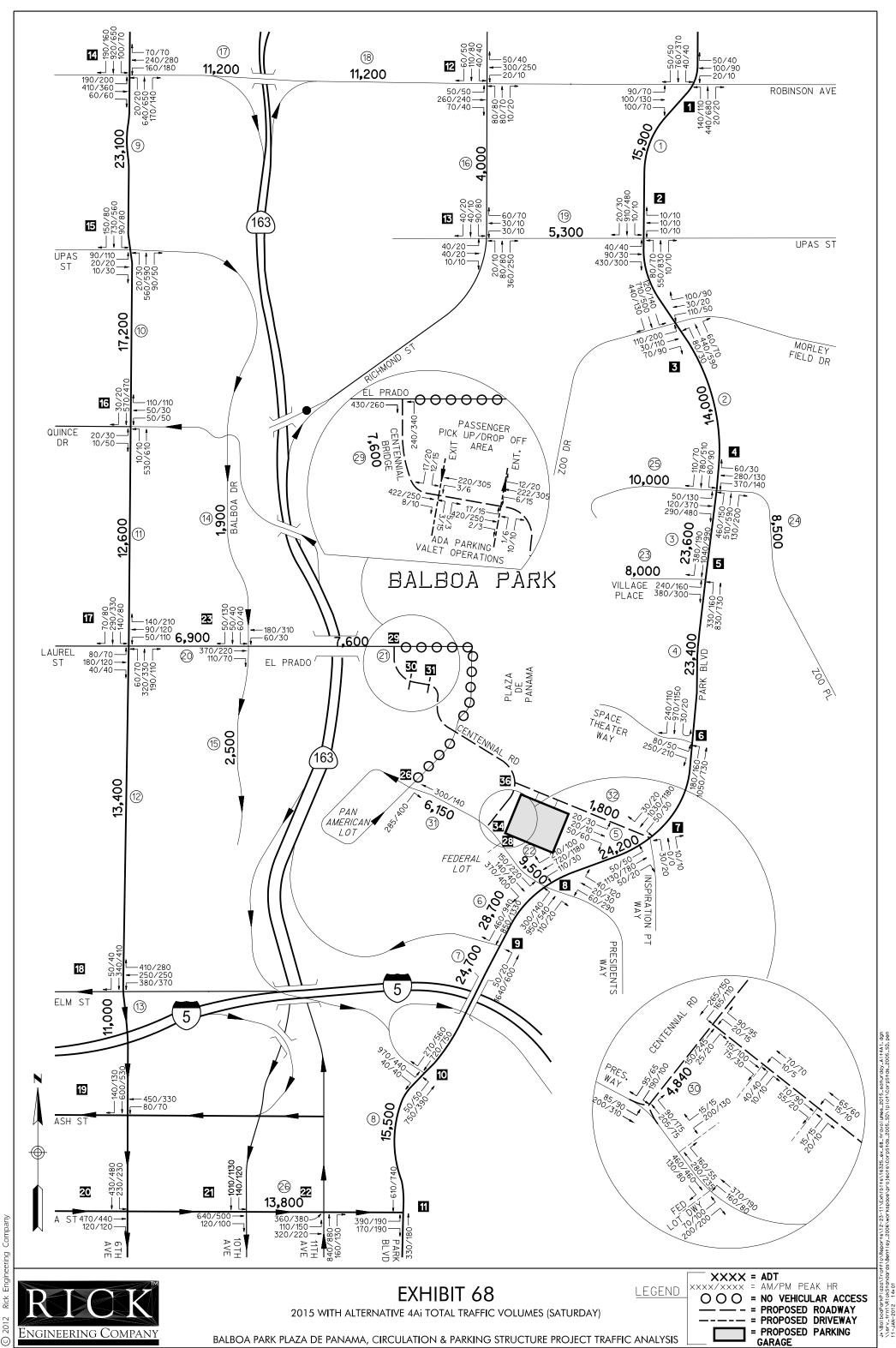


TABLE 109 2015 + PROJECT ALTERNATIVE 4AI INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			2015 No Pro	ject	20	15 + P	roject Alternativ	ve 4Ai
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM PM	Signal	16.3 19.5	B	16.3 19.5	B	0.0	No No
2	Park Boulevard/Upas Street		19.5	В	19.5	В	0.0	INU
	AM	Signal	20.3	С	20.3	С	0.0	No
	PM	•	18.6	В	18.6	В	0.0	No
3	Park Boulevard/Morley Field Drive AM	Signal	18.8	В	18.8	В	0.0	No
	PM	Olgilai	20.4	С	20.4	С	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	16.2	В	16.2	В	0.0	No
5	PM Park Boulevard/Village Place		22.5	С	22.5	С	0.0	No
	AM	Signal	4.1	Α	4.1	Α	0.0	No
	PM		11.7	В	11.7	В	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left AM		9.7	Α	9.7	Α	0.0	No
	PM	NA	11.2	В	11.2	В	0.0	No
	Eastbound Left							
	AM		13.5	В	13.5	В	0.0	No
7	PM Park Boulevard/Inspiration Way		33.1	D	33.1	D	0.0	No
ı	Park Boulevard/Inspiration way AM	Signal	2.9	Α	5.2	Α	2.3	No
	PM	- 5	4.7	A	9.1	A	4.4	No
8	Park Boulevard/Presidents Way							
	AM PM	Signal	14.7	В	14.6	В	-0.1	No
9	Park Boulevard/SR 163 NB Ramps		28.4	С	25.7	С	-2.7	No
	Northbound Left	NIA						
	AM	NA	9.5	Α	9.5	Α	0.0	No
	PM		17.4	С	17.4	С	0.0	No
10	Park Boulevard/I-5 Ramps AM	Signal	28.9	С	28.9	С	0.0	No
	PM	Signal	23.9	С	23.9	C	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	11.8	В	11.8	В	0.0	No
12	PM Richmond Street/Robinson Avenue		14.7	В	14.7	В	0.0	No
12	AM	Signal	15.6	В	15.6	В	0.0	No
	PM		15.6	В	15.6	В	0.0	No
13	Richmond Street/Upas Street	AII) A/ O4			0.0		0.0	
	AM PM	All Way Stop	8.3 8.9	A	8.3 8.9	A	0.0	No No
14	6th Avenue/Robinson Avenue		0.9		0.9		0.0	INU
	AM	Signal	23.4	С	23.4	С	0.0	No
	PM		31.1	С	31.1	С	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive AM	Signal	9.6	Α	9.6	Α	0.0	No
	PM	Signal	12.6	В	12.6	В	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	15.3	В	15.3	В	0.0	No
17	PM 6th Avenue/Laurel Street		13.9	В	13.9	В	0.0	No
17	AM	Signal	13.2	В	13.2	В	0.0	No
	PM		15.7	В	15.7	В	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp	<u> </u>				_		
	AM PM	Signal	10.3	В	10.3	В	0.0	No
19	6th Avenue/Ash Street		13.4	В	13.4	В	0.0	No
.0	AM	Signal	12.1	В	12.1	В	0.0	No
	PM	-	11.3	В	11.3	В	0.0	No
20	6th Avenue/A Street	C:	40.0		40.0	E	0.0	NI -
	AM PM	Signal	12.3 13.2	B B	12.3 13.2	B	0.0	No No
21	A Street/10th Avenue		10.2		10.2	٥	0.0	140
	AM		12.8	В	12.8	В	0.0	No
	PM		16.6	В	16.6	В	0.0	No
22	A Street/11th Avenue AM	Signal	11.6	В	11.6	В	0.0	No
	PM	Signal	15.6	В	15.6	В	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	8.1	Α	8.1	Α	0.0	No
	PM		12.0	В	12.0	В	0.0	No

TABLE 110 2015 + PROJECT ALTERNATIVE 4AI INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			2015 No Pro	ject	20	15 + Pı	roject Alternativ	re 4Ai
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue AM	Signal	15.0	В	15.0	В	0.0	No
	PM	Signal	14.5	В	14.5	В	0.0	No No
2	Park Boulevard/Upas Street AM	Signal	24.3	С	24.3	С	0.0	No
	PM		19.6	В	19.6	В	0.0	No
3	Park Boulevard/Morley Field Drive AM	Signal	17.5	В	17.5	В	0.0	No
	PM		20.2	С	20.2	С	0.0	No
4	Park Boulevard/Zoo Place AM	Signal	27.2	С	27.2	С	0.0	No
	PM		24.0	С	24.0	С	0.0	No
5	Park Boulevard/Village Place AM	Signal	21.3	С	21.3	С	0.0	No
	PM	Olgilai	16.6	В	16.6	В	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left AM		13.9	В	13.9	В	0.0	No
	PM	NA	13.9	В	13.9	В	0.0	No
	Eastbound Left AM		112.7	F	112.7	F	0.0	No
	PM		44.6	E	44.6	E	0.0	No
7	Park Boulevard/Inspiration Way AM	Signal	3.9	Α	4.5	Α	0.6	No
	PM	Olgilai	3.8	A	10.1	В	6.3	No
8	Park Boulevard/Presidents Way	Cianal	04.0	0	07.0	0	0.5	
	AM PM	Signal	31.3 52.4	C D	27.8 42.1	C D	-3.5 -10.3	No No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left AM	NA	12.4	В	12.4	В	0.0	No
	PM		22.4	С	22.4	С	0.0	No
10	Park Boulevard/I-5 Ramps AM	Signal	25.1	С	25.1	С	0.0	No
	PM	Sigilal	18.5	В	18.5	В	0.0	No
11	Park Boulevard/A Street	· ·						
	AM PM	Signal	13.3 14.6	B B	13.3 14.6	B B	0.0	No No
12	Richmond Street/Robinson Avenue							
	AM PM	Signal	13.7 13.6	B B	13.7 13.6	B B	0.0	No No
13	Richmond Street/Upas Street							NO
	AM PM	All Way Stop	9.3	B A	11.5 9.3	B A	0.0	No
14	6th Avenue/Robinson Avenue		9.3	A	9.3	A	0.0	No
	AM	Signal	37.2	D	37.2	D	0.0	No
15	PM 6th Avenue/ Upas Street-Balboa Drive		30.5	С	30.5	С	0.0	No
	AM	Signal	8.3	Α	8.3	Α	0.0	No
16	PM 6th Avenue/Quince Drive		11.6	В	11.6	В	0.0	No
	AM	Signal	17.6	В	17.6	В	0.0	No
17	6th Avenue/Laurel Street		16.5	В	16.5	В	0.0	No
.,	AM	Signal	15.1	В	15.1	В	0.0	No
18	PM 6th Avenue/Elm Street-I-5 NB Off Ramp		15.0	В	15.0	В	0.0	No
16	otn Avenue/Eim Street-i-5 NB Off Ramp AM	Signal	11.6	В	11.6	В	0.0	No
10	PM		12.0	В	12.0	В	0.0	No
19	6th Avenue/Ash Street AM	Signal	11.4	В	11.4	В	0.0	No
	PM		10.9	В	10.9	В	0.0	No
20	6th Avenue/A Street AM	Signal	11.7	В	11.7	В	0.0	No
	PM	2.3.101	11.5	В	11.5	В	0.0	No
21	A Street/10th Avenue AM	Signal	11.8	В	11.8	В	0.0	No
	PM	Gigilai	10.7	В	10.7	В	0.0	No No
22	A Street/11th Avenue	Signal			10.0	_		
	AM PM	Signal	9.5	B A	10.2 9.5	B A	0.0	No No
23	Balboa Drive/El Prado	All May Cta-					0.0	
	AM PM	All Way Stop	12.2 10.7	B B	12.2 10.7	B B	0.0	No No
	I FIVE		10.7	٥	10.7	ט	0.0	INU

TABLE 111 2015 + PROJECT ALTERNATIVE 4Ai ROADWAY SEGMENT ANALYSIS (WEEKDAY)

				2	2015 No Projec	ct		201	5 + Project A	Iternative 4Ai	
Roadway Segment	Roadway Segment Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	15,000	1.000	E	15,000	1.000	E	0.000	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	13,800	0.345	Α	13,800	0.345	Α	0.000	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	19,000	0.475	В	19,000	0.475	В	0.000	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	18,100	0.453	В	18,100	0.453	В	0.000	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	19,100	0.478	В	19,700	0.493	В	0.015	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	23,000	0.575	С	23,000	0.575	С	0.000	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	22,300	0.558	С	0.000	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	18,900	0.473	В	18,900	0.473	В	0.000	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	23,100	0.770	D	23,100	0.770	D	0.000	NO
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	17,900	0.597	С	17,900	0.597	С	0.000	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	14,600	0.487	С	14,600	0.487	С	0.000	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	12,300	0.410	В	12,300	0.410	В	0.000	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	12,100	0.538	С	12,100	0.538	С	0.000	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,600	0.160	Α	1,600	0.160	Α	0.000	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,800	0.180	Α	1,800	0.180	Α	0.000	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	4,500	0.450	В	4,500	0.450	В	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	11,500	1.150	F	11,500	1.150	F	0.000	NO
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector1	3 Lane Collector	15,000	11,300	0.753	D	11,300	0.753	D	0.000	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,100	0.510	В	5,100	0.510	В	0.000	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,400	0.640	С	6,400	0.640	С	0.000	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	С	6,500	0.650	С	0.000	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,100	0.810	D	6,900	0.690	С	-0.120	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	4,100	0.410	В	4,100	0.410	В	0.000	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	7,000	0.700	С	7,000	0.700	С	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,200	0.620	С	6,200	0.620	С	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	20,300	0.902	Е	20,300	0.902	E	0.000	NO
29 Centennial Bridge south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	6,500	0.650	С	0.000	NO
30 Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	5,820	0.582	С	0.000	NO
31 Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,470	0.947	E	5,680	0.568	С	-0.379	NO
32 Inspiration Point Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	1,200	0.120	Α	0.000	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane
2 Estimated capacity (3/4 of 4 lane collector)

Tables 112 and 113 show all the weekday and Saturday internal study intersections to operate at LOS C or better, with the exception of:

• Presidents Way/Federal Lot (NB shared left-right, LOS F)

2030

Exhibit 69 and Exhibit 70 show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 114 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods, with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

Table 115 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM and PM peak)
- Park Boulevard/Presidents Way (LOS E, AM peak and LOS F, PM peak)
- Park Boulevard/SR 163 NB on Ramp (LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, AM peak and LOS E, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

Table 116 shows that all study area roadways to operate at LOS D or better on a daily basis with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)
- 6th Avenue between Robinson Avenue and Upas Street (LOS F)
- 6th Avenue between Elm Street and Ash Street (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)
- El Prado between 6th Avenue and Balboa Drive (LOS E)
- El Prado between Balboa Drive and Plaza De Panama (LOS F)
- A Street between 6th and Park Boulevard (LOS F)
- Centennial Bridge south of El Prado (LOS F)

No significant impact was calculated at locations based on the current significance thresholds.

Tables 117 and 118 show all the weekday and Saturday internal study intersections to operate at LOS D or better, with the exception of:

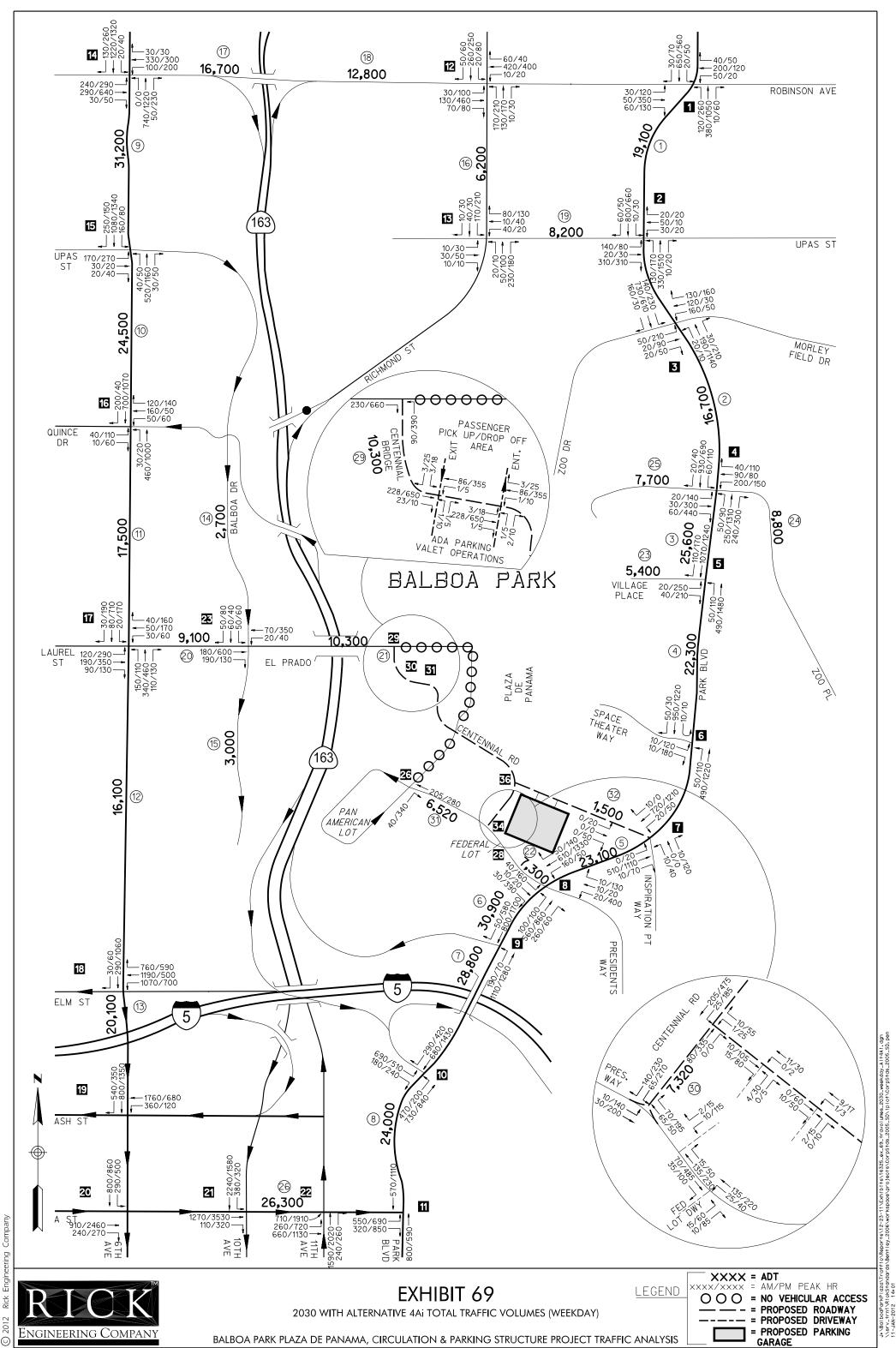
• Presidents Way/Federal Lot (NB shared left-right, LOS F)

TABLE 112 2015 + PROJECT ALTERNATIVE 4Ai INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

			2015 + Al	t 4Ai
	Intersection	Control	Control Delay (sec/veh)	LOS
28	Presidents Way/Federal-Aerospace Lot			
	AM	Stop		
	Northbound Shared Left-Right	Оюр	8.9	Α
	Westbound Left		1.2	Α
29	El Prado/Centennial Bridge	All Way Stop		
	AM	7 til VVay Otop	7.3	Α
30	Centennial Road/ADA Parking & Valet Operations			
	AM			
	Northbound Shared Left-Right	Stop	9.5	Α
	Southbound Shared Left-Right		9.3	Α
	Westbound Left		0.1	Α
31	<u> </u>			
	AM			
	Westbound Left	Stop	0.1	Α
	Northbound Shared Left-Right		10.1	В
	Eastbound Left		0.1	Α
34	Presidents Way/Centennial Road			
	AM			
	Eastbound Left	Stop	7.5	Α
	Southbound Left		9.3	Α
	Eastbound Right		9.3	Α
35	Pan American Road/Inspiration Point Extension			
	AM			
	Westbound Left	Stop	9.8	Α
	Westbound Right		8.6	Α
	Southbound Left		7.3	Α

TABLE 113 2015 + PROJECT ALTERNATIVE 4Ai INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

		2015 + Al	lt 4Ai
Intersection	Control	Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot			
А	M Stop		
Northbound Shared Left-Rig	nt	> 50	F
Westbound Le	eft	4.6	Α
29 El Prado/Centennial Bridge	All Way Stop		
	M All Way Stop	11.4	В
30 Centennial Road/ADA Parking & Valet Operations			
	M		
Northbound Shared Left-Rig		13.1	В
Southbound Shared Left-Rig		12.5	В
Westbound Le	eft	0.1	Α
31 Centennial Road/ADA Parking & Valet Operations			
	M		
Westbound Le		0.3	Α
Northbound Shared Left-Rig		12.0	В
Eastbound Le	eft	0.4	Α
34 Presidents Way/Centennial Road			
	M		
Eastbound Le		8.1	Α
Southbound Le		18.0	С
Southbound Rig	ht	18.0	С
36 Pan American Road/Inspiration Point Extension			
	M		
Westbound Le		18.0	С
Westbound Rig		9.7	Α
Southbound Le	eft	8.0	Α



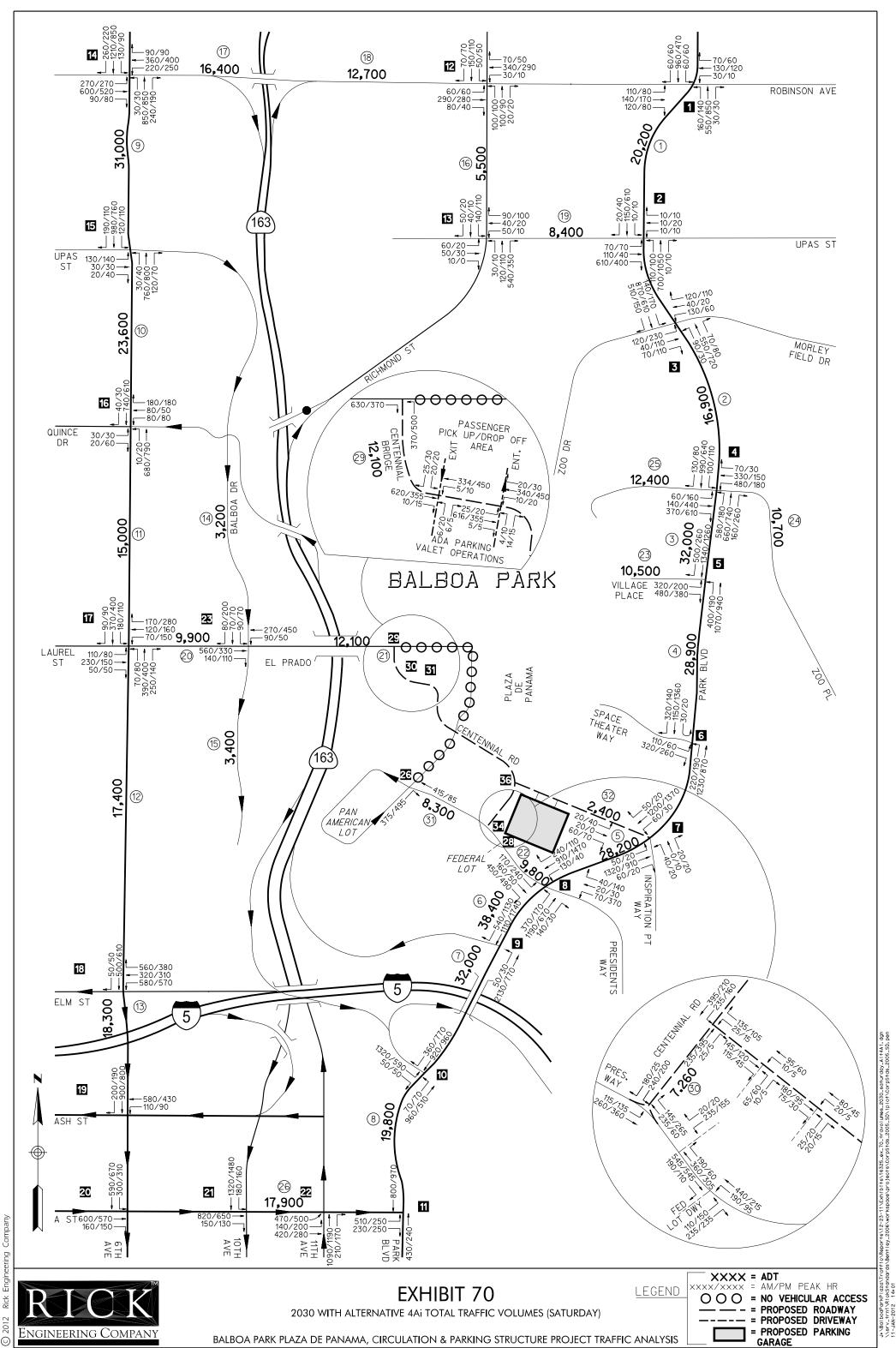


TABLE 114 2030 + PROJECT ALTERNATIVE 4AI INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

2 Pi	Intersection Park Boulevard/Robinson Avenue	Control	Control Delay		Control			
2 Pi	Park Boulevard/Pohinson Avenue		(sec/veh)	LOS	Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
		0: 1						
	AM PM	Signal	17.5 31.0	B	17.5 31.0	B C	0.0	No No
3 P	Park Boulevard/Upas Street		31.0	U	31.0		0.0	NO
3 P	AM	Signal	24.8	С	24.8	С	0.0	No
	PMPark Boulevard/Morley Field Drive		24.1	С	24.1	С	0.0	No
	AM	Signal	19.2	В	19.2	В	0.0	No
	PM		29.3	С	29.3	С	0.0	No
4 P	Park Boulevard/Zoo Place AM	Cianal	16.7	D	16.7	D	0.0	No
	PM	Signal	16.7 29.3	B C	16.7 29.3	B C	0.0	No No
5 P	Park Boulevard/Village Place							
\vdash	AM	Signal	4.6	A	4.6	A	0.0	No
6 P:	PMPark Boulevard/Space Theatre Way		13.1	В	13.1	В	0.0	No
	Northbound Left							
	AM		10.6	В	10.6	В	0.0	No
	PM Eastbound Left	NA	12.9	В	12.9	В	0.0	No
	AM		15.1	С	15.1	С	0.0	No
	PM		112.1	F	112.1	F	0.0	No
7 P:	Park Boulevard/Inspiration Way AM	Signal	3.0	Α	4.4	Α	1.4	No
	PM	Olgilai	4.7	A	13.2	В	8.5	No
8 P	Park Boulevard/Presidents Way							
 	AM PM	Signal	14.7 62.0	В Е	14.0 50.8	B D	-0.7	No
9 Pa	Park Boulevard/SR 163 NB Ramps		62.0		50.6	U	-11.2	No
	Northbound Left	NA						
	AM PM		10.9	В	10.9	В	0.0	No
10 Pa	Park Boulevard/I-5 Ramps		28.4	D	28.4	D	0.0	No
	AM	Signal	38.4	D	38.4	D	0.0	No
44 5	PM		43.6	D	43.6	D	0.0	No
11 Pa	Park Boulevard/A Street AM	Signal	12.5	В	12.5	В	0.0	No
	PM	3	20.1	С	20.1	С	0.0	No
12 R	Richmond Street/Robinson Avenue	0:1	40.7	_	40.7	_	0.0	
 	AM PM	Signal	16.7 17.3	B B	16.7 17.3	B B	0.0	No No
13 R	Richmond Street/Upas Street							
	AM	All Way Stop	9.6	A	9.6	Α	0.0	No
14 6t	PM hth Avenue/Robinson Avenue		10.6	В	10.6	В	0.0	No
	AM	Signal	30.6	С	30.6	С	0.0	No
45 0	PM		103.0	F	103.0	F	0.0	No
15 6t	th Avenue/ Upas Street-Balboa Drive AM	Signal	11.1	В	11.1	В	0.0	No
	PM	3	15.3	В	15.3	В	0.0	No
16 6t	ith Avenue/Quince Drive	Cianci	40.7	-	40 -	1		
 	AM PM	Signal	18.7 16.9	B B	18.7 16.9	B B	0.0	No No
17 6t	oth Avenue/Laurel Street				. 5.0		5.0	140
\vdash	AM	Signal	13.7	В	13.7	В	0.0	No
18 6t	PM hth Avenue/Elm Street-I-5 NB Off Ramp		17.8	В	17.8	В	0.0	No
.5 50	AM	Signal	31.1	С	31.1	С	0.0	No
	PM		17.6	В	17.6	В	0.0	No
19 6t	ith Avenue/Ash Street AM	Signal	14.7	В	14.7	В	0.0	No
	PM		11.7	В	11.7	В	0.0	No
20 6t	ith Avenue/A Street	0:- '	46.1		46 :			
 	AM PM	Signal	13.1 17.6	B B	13.1 17.6	B B	0.0	No No
21 A	A Street/10th Avenue						5.0	
$\perp \equiv$	AM	Signal	15.7	В	15.7	В	0.0	No
22 A	PM A Street/11th Avenue		42.1	D	42.1	D	0.0	No
	AM	Signal	13.0	В	13.0	В	0.0	No
	PM		21.6	С	21.6	С	0.0	No
23 B	Balboa Drive/El Prado AM	All Way Stop	8.9	Α	8.9	Α	0.0	No
 	PM	, at vvay GIUP	27.5	D	27.5	D	0.0	No

TABLE 115 2030 + PROJECT ALTERNATIVE 4AI INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

				2030 No Pro	ject	20	30 + P	roject Alternativ	ternative 4Ai		
	Intersection	d	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No		
1	Park Boulevard/Robinson Avenue										
		AM PM	Signal	16.5	B B	16.5	В	0.0	No		
2	Park Boulevard/Upas Street	FIVI		15.5	В	15.5	В	0.0	No		
		AM	Signal	51.3	D	51.3	D	0.0	No		
		PM		23.3	C	23.3	С	0.0	No		
3	Park Boulevard/Morley Field Drive	AM	Signal	19.3	В	19.3	В	0.0	No		
		PM	Oigilai	20.7	С	20.7	С	0.0	No		
4	Park Boulevard/Zoo Place										
		AM PM	Signal	36.1 27.4	D C	36.1 27.4	D C	0.0	No		
5	Park Boulevard/Village Place	r IVI		21.4	C	21.4	C	0.0	No		
	Ü		Signal	37.7	D	37.7	D	0.0	No		
	Deals Deals word (October 1984)	PM		19.3	В	19.3	В	0.0	No		
6	Park Boulevard/Space Theatre Way Northboun	d Left									
	10.0.00	AM		19.4	С	19.4	С	0.0	No		
		PM	NA	18.5	С	18.5	С	0.0	No		
	Eastboun	d Left AM		460.8	F	460.8	F	0.0	No		
		PM		168.8	F	168.8	F	0.0	No		
7	Park Boulevard/Inspiration Way										
			Signal	4.9	A	10.7	В	5.8	No		
8	Park Boulevard/Presidents Way	PM		4.0	Α	10.1	В	6.1	No		
	Tank Bodievara/Troductio vvay	AM	Signal	56.4	Е	45.1	Е	-11.3	No		
		PM		126.4	F	103.6	F	-22.8	No		
9	Park Boulevard/SR 163 NB Ramps Northboun	d L oft									
	Northbourn	AM	NA	15.5	С	15.5	С	0.0	No		
		PM		40.7	E	40.7	E	0.0	No		
10	Park Boulevard/I-5 Ramps		o: .	00.0		20.0					
		AM PM	Signal	32.6 23.8	С	32.6 23.8	C	0.0	No No		
11	Park Boulevard/A Street			25.0	0	23.0		0.0	NO		
			Signal	14.2	В	14.2	В	0.0	No		
12	Richmond Street/Robinson Avenue	PM		16.4	В	16.4	В	0.0	No		
12	Normana Street Robinson Avenue	AM	Signal	14.6	В	14.6	В	0.0	No		
		PM		14.4	В	14.4	В	0.0	No		
13	Richmond Street/Upas Street	AM All	Way Stop	29.2	D	29.2	D	0.0	NI-		
		PM All	way Stop	11.7	В	11.7	В	0.0	No No		
14	6th Avenue/Robinson Avenue										
			Signal	151.7	F	151.7	F	0.0	No		
15	6th Avenue/ Upas Street-Balboa Drive	PM		75.5	E	75.5	Е	0.0	No		
10		AM	Signal	9.5	Α	9.5	Α	0.0	No		
		PM		12.4	В	12.4	В	0.0	No		
16	6th Avenue/Quince Drive	AM	Signal	21.6	С	21.6	С	0.0	No		
		PM	o.g.iui	20.0	В	20.0	В	0.0	No		
17	6th Avenue/Laurel Street		0								
		AM PM	Signal	15.7 15.4	B	15.7 15.4	B B	0.0	No No		
18	6th Avenue/Elm Street-I-5 NB Off Ramp	F IVI		13.4	٥	13.4	- 0	0.0	INU		
			Signal	11.3	В	11.3	В	0.0	No		
10	6th Avenue/Ash Street	PM		12.5	В	12.5	В	0.0	No		
19	6th Avenue/Ash Street	AM	Signal	11.8	В	11.8	В	0.0	No		
		PM		10.9	В	10.9	В	0.0	No		
20	6th Avenue/A Street			45.1		46 :					
		AM PM	Signal	12.1 11.9	B B	12.1 11.9	B	0.0	No No		
21	A Street/10th Avenue	1 141		11.0	,	11.0	,	0.0	140		
			Signal	12.5	В	12.5	В	0.0	No		
	A Street/11th Avenue	PM		11.4	В	11.4	В	0.0	No		
	A Sueel/ Hill Avenue	0.04	Signal	10.8	В	10.8	В	0.0	No		
22		AM									
		PM	0.9.14.	10.0	В	10.0	В	0.0	No		
22	Balboa Drive/El Prado	PM	Way Stop								

TABLE 116 2030 + PROJECT ALTERNATIVE 4Ai **ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

				2	2030 No Projec	et		203) + Project A	Iternative 4Ai	rnative 4Ai		
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No		
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	19,100	1.273	F	19,100	1.273	F	0.000	NO		
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	16,700	0.418	В	16,700	0.418	В	0.000	NO		
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	25,600	0.640	С	25,600	0.640	С	0.000	NO		
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	22,300	0.558	С	0.000	NO		
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	22,300	0.558	С	0.000	NO		
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	30,900	0.773	D	30,900	0.773	D	0.000	NO		
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	28,800	0.720	С	28,800	0.720	С	0.000	NO		
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	24,000	0.600	С	24,000	0.600	С	0.000	NO		
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	31,200	1.040	F	31,200	1.040	F	0.000	NO		
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	24,500	0.817	D	24,500	0.817	D	0.000	NO		
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	17,500	0.583	С	17,500	0.583	С	0.000	NO		
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	16,100	0.537	С	16,100	0.537	С	0.000	NO		
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	20,100	0.893	E	20,100	0.893	E	0.000	NO		
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	2,700	0.270	Α	2,700	0.270	Α	0.000	NO		
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,000	0.300	Α	3,000	0.300	Α	0.000	NO		
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	6,200	0.620	С	6,200	0.620	С	0.000	NO		
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	16,700	1.670	F	16,700	1.670	F	0.000	NO		
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector1	3 Lane Collector	15,000	12,800	0.853	D	12,800	0.853	D	0.000	NO		
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,200	0.820	D	8,200	0.820	D	0.000	NO		
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,100	0.910	E	9,100	0.910	E	0.000	NO		
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	F	10,300	1.030	F	0.000	NO		
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,800	0.880	D	7,300	0.730	С	-0.150	NO		
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,400	0.540	В	5,400	0.540	В	0.000	NO		
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,800	0.880	D	8,800	0.880	D	0.000	NO		
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,700	0.770	D	7,700	0.770	D	0.000	NO		
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	26,300	1.169	F	26,300	1.169	F	0.000	NO		
29 Centennial Bridge south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	10,300	1.030	F	0.000	NO ³		
30 Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	7,320	0.732	С	0.000	NO		
31 Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,800	0.980	Е	6,520	0.652	С	-0.328	NO		
32 Inspiration Point Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	1,500	0.150	Α	0.000	NO		

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

^{*} Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

3 Not considered significant since no increase in traffic volumes or V/C is expected due to project on this road which will be replacing the traffic on the failing segment of El Prado

TABLE 117 2030 + PROJECT ALTERNATIVE 4Ai INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

		2030 +	Alt 4Ai
Intersection	Control	Control Delay	LOS
		(sec/veh)	LUS
28 Presidents Way/Federal-Aerospace Lot		(000,1011)	
AM			
Northbound Shared Left-Right	Stop	9.8	Α
Westbound Left		1.3	Α
29 El Prado/Centennial Bridge	All May Chara		
AM	All Way Stop	7.9	Α
30 Bypass Road/ADA Parking & Valet Operations			
AM			
Northbound Shared Left-Right	Stop	10.4	В
Southbound Shared Left-Right		9.9	Α
Westbound Left		0.1	Α
31 Bypass Road/ADA Parking & Valet Operations			
AM			
Westbound Left		0.3	Α
Northbound Shared Left-Right		10.9	В
Eastbound Left		0.1	Α
34 Presidents Way/Centennial Road			
AM			
Eastbound Left	<u>,</u>	7.5	Α
Southbound Left	1	9.4	Α
Southbound Right		9.4	Α
36 Pan American Road/Inspiration Point Extension			
AM	04	40.0	
Westbound Left	-	10.8	B
Westbound Right	1	8.7	A
Southbound Left		7.4	Α

TABLE 118 2030 + PROJECT ALTERNATIVE 4Ai INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

		2030 +	Alt 4Ai
Intersection	Control	Control	
intersection	Control	Delay	LOS
		(sec/veh)	
28 Presidents Way/Federal-Aerospace Lot			
AM	Stop		
Northbound Shared Left-Right		>50.0	F
Westbound Left		5.9	Α
29 El Prado/Centennial Bridge	All Way Stop		
AM	7 iii Way Glop	26.1	D
30 Bypass Road/ADA Parking & Valet Operations			
AM			
Northbound Shared Left-Right	•	19.5	С
Southbound Shared Left-Right		18.3	С
Westbound Left		0.2	Α
31 Bypass Road/ADA Parking & Valet Operations			
AM			
Westbound Left		0.4	Α
Northbound Shared Left-Right		17.0	С
Eastbound Left		0.6	Α
34 Presidents Way/Centennial Road			
AM			
Eastbound Left	•	8.5	Α
Southbound Left		33.8	D
Southbound Right		33.8	D
36 Pan American Road/Inspiration Point Extension			
AM			
Westbound Left		31.7	D
Westbound Right		10.8	В
Southbound Left		8.5	Α

- 3) Incremental Delay ≥ 1 second for LOS F

ALTERNATIVE 4Aii – NO PAID PARKING ALTERNATIVE, CABRILLO BRIDGE OPEN WITH CENTENNIAL BRIDGE, OPERATIONS

Exhibit 71 shows the intersection lane geometry and configurations of the study area intersections.

Exhibit 72 shows the percent distribution for this alternative.

Existing

Exhibit 73 and Exhibit 74 show the Existing + 4Aii traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 119 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods. No significant impacts were calculated.

Table 120 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods. No significant impacts were calculated.

Table 121 shows that all study area roadways to operate at LOS D or better on a daily basis. No significant impacts were calculated.

Table 122 shows all the Saturday internal study intersections to operate at LOS D or better, with the exception of:

• Presidents Way/Federal Lot (NB shared left-right, LOS E)

2015

Exhibit 75 and Exhibit 76 show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 123 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods.

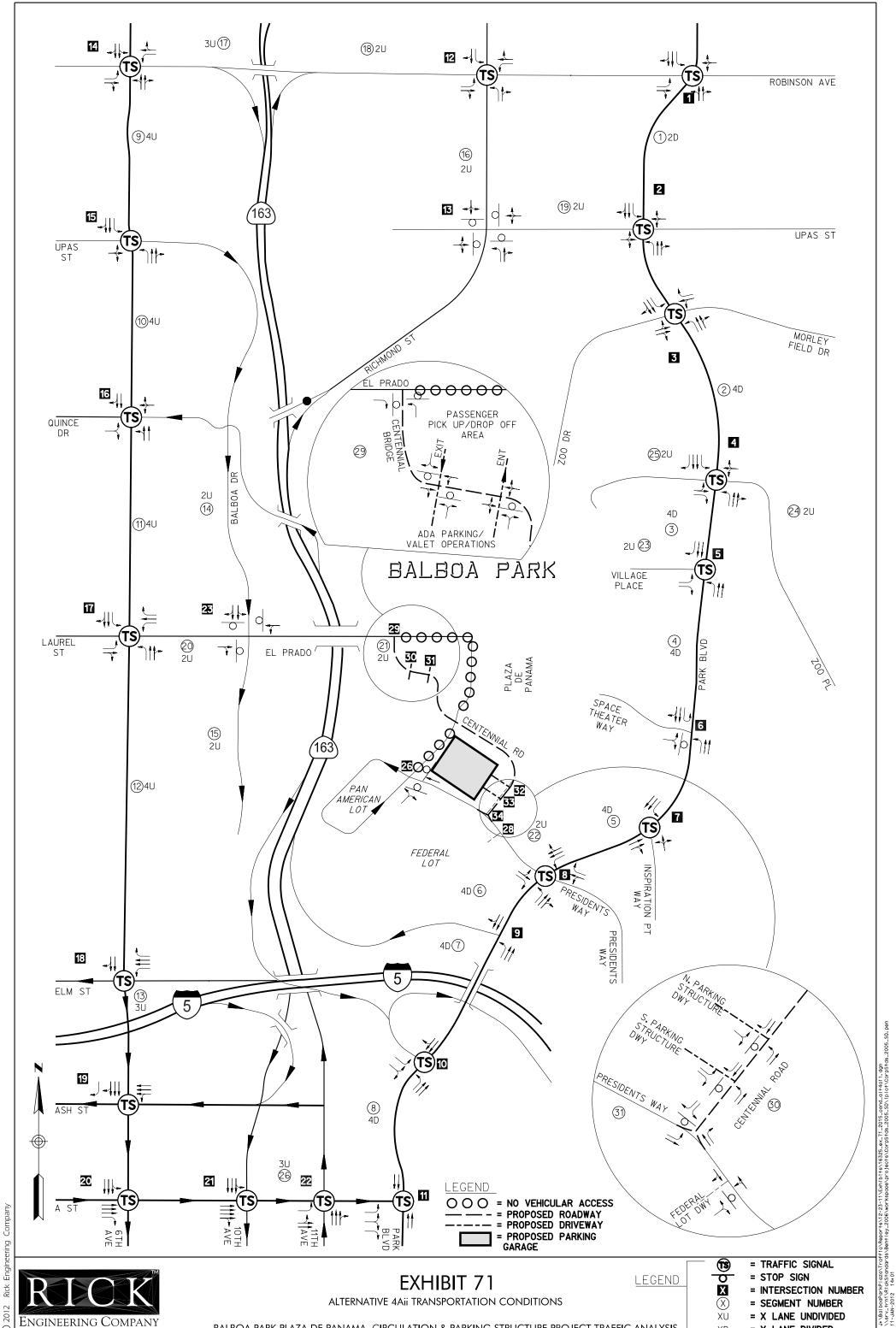
Table 124 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

• Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM peak and LOS E, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

Table 125 shows that all study area roadways to operate at LOS D or better on a daily basis, with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS E)
- A Street between 6th Avenue and Park Boulevard (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F).



2012

Engineering Company

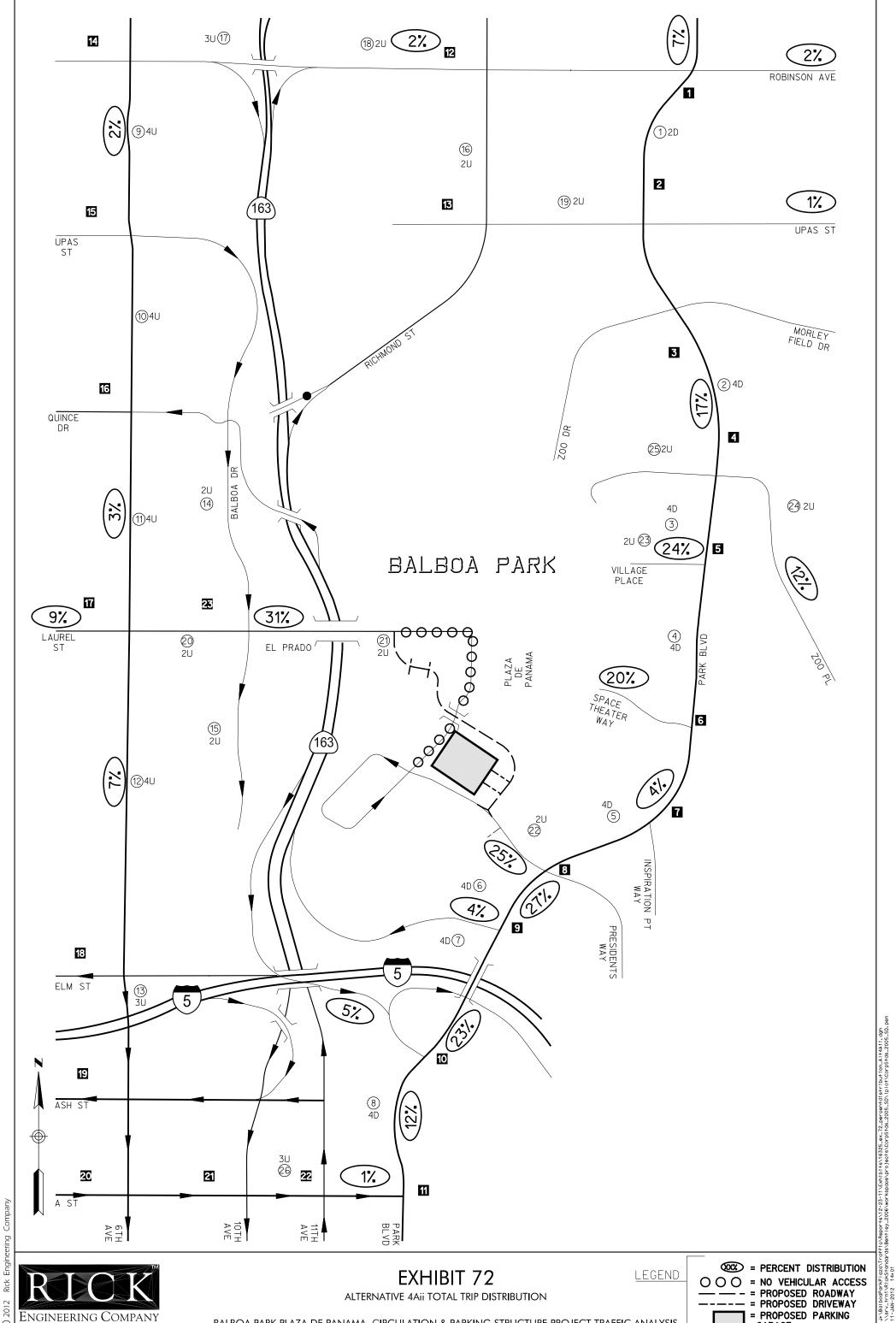
BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS 225

ΧU

XD

= X LANE UNDIVIDED

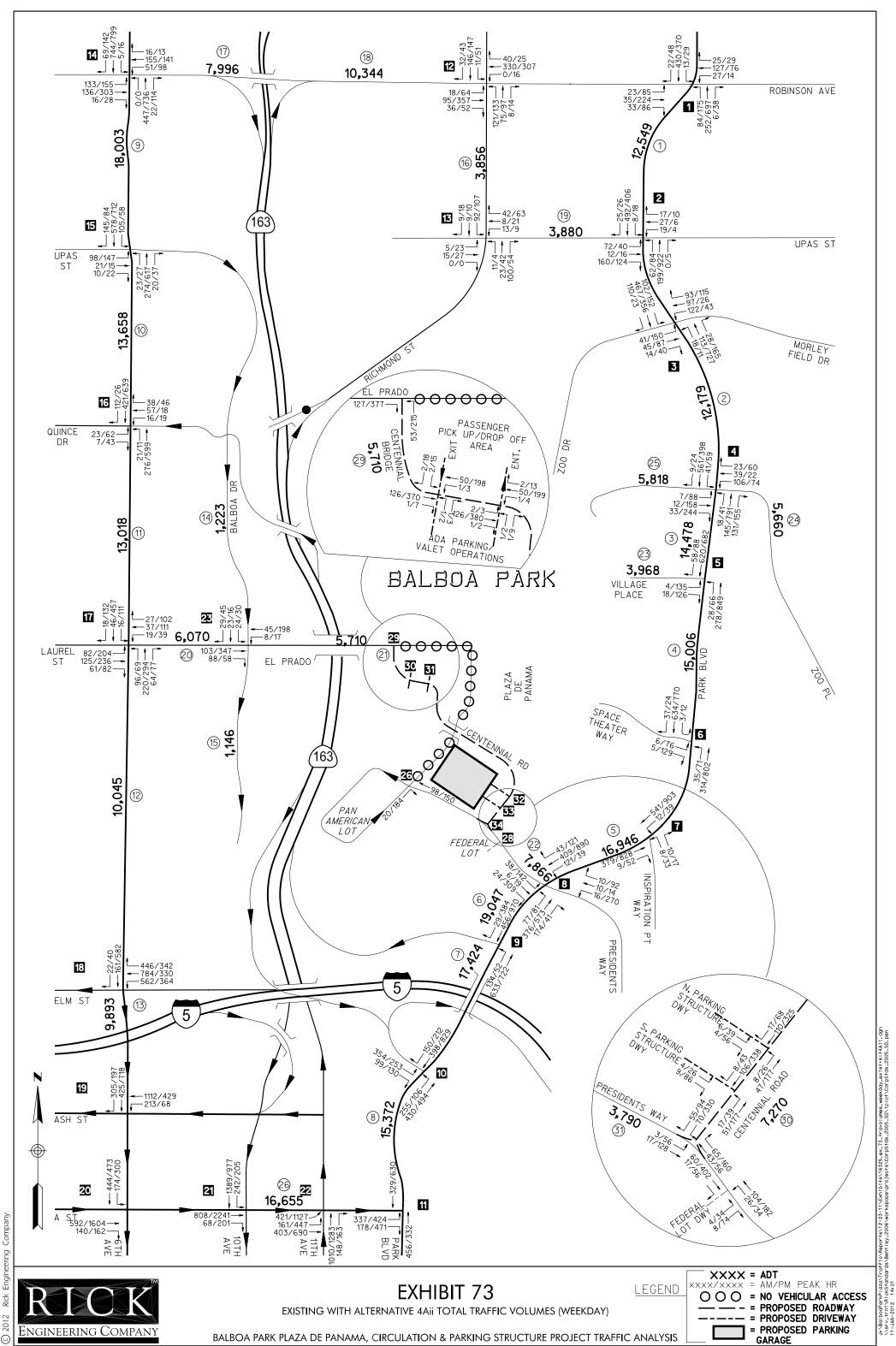
= X LANE DIVIDED



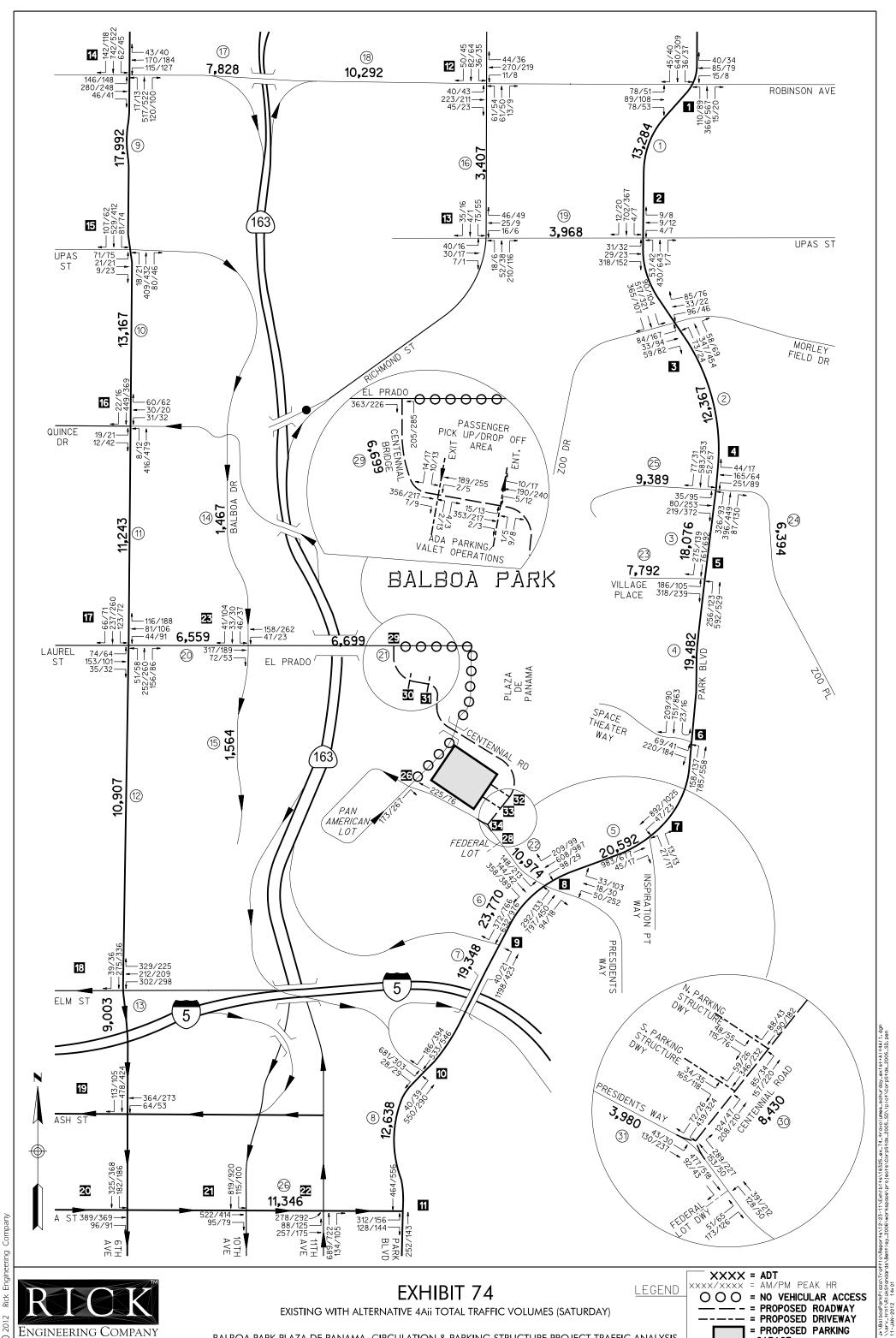
2012

Engineering Company

ALTERNATIVE 4Aii TOTAL TRIP DISTRIBUTION



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2012 \odot

TABLE 119 EXISTING + PROJECT ALTERNATIVE 4AII INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			Existing	3	Exis	sting +	Project Alternat	ive 4Aii
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue AM	Signal	16.3	В	16.3	В	0.0	No
	PM	Olgilai	17.1	В	17.1	В	0.0	No
2	Park Boulevard/Upas Street AM	Cianal	40.0		40.0	-	0.0	N-
	PM	Signal	18.6 14.4	B	18.6 14.4	B B	0.0	No No
3	Park Boulevard/Morley Field Drive							
	AM PM	Signal	18.6 19.2	B	18.6 19.2	B B	0.0	No No
4	Park Boulevard/Zoo Place		19.2	В	19.2	В	0.0	No
	AM	Signal	16.1	В	16.1	В	0.0	No
5	PM Park Boulevard/Village Place		21.5	С	21.5	С	0.0	No
	AM	Signal	3.9	Α	3.9	Α	0.0	No
	PM		11.3	В	11.3	В	0.0	No
6	Park Boulevard/Space Theatre Way Northbound Left							
	AM		9.0	Α	9.0	Α	0.0	No
	PM	NA	9.7	Α	9.7	Α	0.0	No
	Eastbound Left AM		12.1	В	12.1	В	0.0	No
	PM		19.2	С	19.2	C	0.0	No
7	Park Boulevard/Inspiration Way	0: 1						
	AM PM	Signal	3.1 4.5	A	3.1 4.5	A	0.0	No No
8	Park Boulevard/Presidents Way					, ,	0.0	110
	AM PM	Signal	14.7	В	14.7	В	0.0	No
9	Park Boulevard/SR 163 NB Ramps		21.8	С	21.8	С	0.0	No
	Northbound Left	NA						
	AM	INA	8.8	A	8.8	A	0.0	No
10	PM Park Boulevard/I-5 Ramps		12.8	В	12.8	В	0.0	No
	AM	Signal	26.2	С	26.2	С	0.0	No
- 44	PM Park Boulevard/A Street		19.9	В	19.9	В	0.0	No
11	AM	Signal	11.5	В	11.5	В	0.0	No
	PM	- J -	13.3	В	13.3	В	0.0	No
12	Richmond Street/Robinson Avenue AM	Signal	15.0	В	15.0	В	0.0	No
	PM	Signal	14.5	В	14.5	В	0.0	No No
13	Richmond Street/Upas Street							
	AM PM	All Way Stop	7.7 8.0	A	7.7 8.0	A	0.0	No No
14	6th Avenue/Robinson Avenue		0.0		0.0		0.0	INO
	AM	Signal	20.5	С	20.5	С	0.0	No
15	PM 6th Avenue/ Upas Street-Balboa Drive		22.6	С	22.6	С	0.0	No
13	AM	Signal	9.6	Α	9.6	Α	0.0	No
	PM		11.7	В	11.7	В	0.0	No
16	6th Avenue/Quince Drive AM	Signal	12.1	В	12.1	В	0.0	No
	PM	Jigilal	12.1	В	12.1	В	0.0	No
17	6th Avenue/Laurel Street	CiaI	40.0	2	10.0	-	0.0	N.
	AM PM	Signal	13.0 15.0	B	13.0 15.0	B	0.0	No No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM PM	Signal	8.6 12.8	A B	8.6 12.8	A B	0.0	No
19	6th Avenue/Ash Street		12.0	Б	12.0	Ь	0.0	No
	AM	Signal	11.5	В	11.5	В	0.0	No
20	6th Avenue/A Street		10.9	В	10.9	В	0.0	No
20	AM	Signal	11.8	В	11.8	В	0.0	No
	PM		11.5	В	11.5	В	0.0	No
21	A Street/10th Avenue AM	Signal	11.9	В	11.9	В	0.0	No
	PM	Gigilai	14.0	В	14.0	В	0.0	No
22	A Street/11th Avenue							
-	AM PM	Signal	11.0	B	11.0 13.9	B	0.0	No No
23	Balboa Drive/El Prado		13.9	В	13.9	ь	0.0	No
	AM	All Way Stop	7.8	Α	7.8	Α	0.0	No
	PM		10.8	В	10.8	В	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 120 EXISTING + PROJECT ALTERNATIVE 4AII INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

				Existing	9	Exis	ting +	Project Alternat	tive 4Aii
Park Boulevard/Upas Street			Control	Delay	LOS	Delay	LOS		Significant Project Impact Yes/No
2	1		Signal	14 5	B	14.5	B	0.0	No
AM		PM	O.g. a.						
3	2		Signal	19.2	В	19.2	В	0.0	No
April Park Boulevard/Zoo Place April A		PM							
4 Park Boulevard/Zoo Place	3	·	Signal	17.0	D	17.0	D	0.0	No
AM Signal		PM	Olgilai						
S	4		Signal	30.0	C	30.0	C	0.0	No
Signal 18.5 B 18.5 B 0.0 No No No No No No No N		PM	Oigilai						
File	5		Signal	19.5	D	19.5	D	0.0	No
Northbound Left			Signal						
Max	6								
Eastbound Left				11.3	В	11.3	В	0.0	No
AM			NA	11.1	В	11.1	В	0.0	No
PARK Boulevard/Inspiration Way				31.2	D	31.2	D	0.0	No
Signal 4.1				20.3	С	20.3	С	0.0	
Reference	7		Signal	4.1	A	4.1	Α	0.0	No
Max		PM	3 1						
Park Boulevard/SR 163 NB Ramps	8		Signal	25.0	C	25.0	C	0.0	No
Northbound Left			Oigilai						
NA	9								
10			NA	10.5	В	10.5	В	0.0	No
AM	10			15.4	С	15.4	С	0.0	No
11 Park Boulevard/A Street	10		Signal	21.8	С	21.8	С	0.0	No
AM PM PM Signal 12.8 B 12.8 B 0.0 No No No No No No No N				16.2	В	16.2	В	0.0	No
12 Richmond Street/Robinson Avenue	11		Signal	12.8	В	12.8	В	0.0	No
AM				13.8	В	13.8	В	0.0	No
PM	12		Signal	13.0	В	13.0	В	0.0	No
All Way Stop R.8				12.7	В	12.7	В	0.0	No
14 6th Avenue/Robinson Avenue	13		All Way Stop	8.8	A	8.8	Α	0.0	No
AM PM Signal 24.3 C 24.3 C 0.0 No No				7.7	Α	7.7	Α	0.0	No
PM 24.8 C 24.8 C 0.0 No	14		Signal	24.3	С	24.3	С	0.0	No
AM Signal 8.3			3 1			24.8		0.0	
Math	15		Signal	8.3	A	8.3	Α	0.0	No
AM Signal 13.9 B 13.9 B 0.0 No		PM							
Math	16		Signal	13.9	В	13.9	В	0.0	No
AM Signal 14.8 B 14.8 B 0.0 No		PM							
Math	17		Signal	14.8	В	14.8	В	0.0	No
AM Signal 10.9 B 10.9 B 0.0 No		PM							
PM	18		Signal	10.9	В	10.9	В	0.0	No
AM Signal 11.2 B 11.2 B 0.0 No 20 6th Avenue/A Street AM Signal 11.4 B 11.4 B 0.0 No 21 A Street/10th Avenue AM Signal 11.4 B 11.4 B 0.0 No 21 A Street/11th Avenue AM Signal 11.4 B 11.4 B 0.0 No 22 A Street/11th Avenue AM Signal 10.4 B 10.4 B 0.0 No 23 Balboa Drive/El Prado		PM							
PM 10.7 B 10.7 B 0.0 No	19		Signal	11 2	В	11 2	R	0.0	No
AM Signal 11.4 B 11.4 B 0.0 No		PM							
PM 11.3 B 11.3 B 0.0 No	20		Signal	11 4	R	11 4	B	0.0	No
AM Signal 11.4 B 11.4 B 0.0 No PM 10.4 B 10.4 B 0.0 No 22 A Street/11th Avenue AM Signal 9.8 A 9.8 A 0.0 No PM 9.2 A 9.2 A 0.0 No 23 Balboa Drive/El Prado		PM	Signal						
PM 10.4 B 10.4 B 0.0 No 22 A Street/11th Avenue	21		Signal	11.4	D	11 /	D	0.0	No
AM Signal 9.8 A 9.8 A 0.0 No PM 9.2 A 9.2 A 0.0 No 23 Balboa Drive/El Prado			Signal						
PM 9.2 A 9.2 A 0.0 No 23 Balboa Drive/El Prado	22		Signal	0 °	_	0.0	^	0.0	No
		PM	Gigilai						
	23		All Way Ston	10.5	D	10.5	R	0.0	No
PM 10.3 B 10.3 B 0.0 No									

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 121 EXISTING + PROJECT ALTERNATIVE 4Aii ROADWAY SEGMENT ANALYSIS (WEEKDAY)

					Existing			Existi	ng + Project	Alternative 4Aii	
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	12,549	0.837	D	12,549	0.837	D	0.000	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	12,179	0.304	Α	12,179	0.304	Α	0.000	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	14,478	0.362	Α	14,478	0.362	Α	0.000	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	15,006	0.375	В	15,006	0.375	В	0.000	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	16,946	0.424	В	16,946	0.424	В	0.000	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	19,047	0.476	В	19,047	0.476	В	0.000	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	17,424	0.436	В	17,424	0.436	В	0.000	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	15,372	0.384	В	15,372	0.384	В	0.000	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	18,003	0.600	С	18,003	0.600	С	0.000	NO
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	13,658	0.455	В	13,658	0.455	В	0.000	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	13,018	0.434	В	13,018	0.434	В	0.000	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	10,045	0.335	В	10,045	0.335	В	0.000	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	9,893	0.440	В	9,893	0.440	В	0.000	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,223	0.122	Α	1,223	0.122	Α	0.000	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,146	0.115	Α	1,146	0.115	Α	0.000	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	3,856	0.386	А	3,856	0.386	Α	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	7,996	0.800	D	7,996	0.800	D	0.000	NO
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector1	3 Lane Collector	15,000	10,344	0.690	D	10,344	0.690	D	0.000	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	3,880	0.388	А	3,880	0.388	Α	0.000	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,070	0.607	С	6,070	0.607	С	0.000	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	С	5,710	0.571	С	0.000	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,866	0.787	D	7,866	0.787	D	0.000	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,968	0.397	Α	3,968	0.397	Α	0.000	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,660	0.566	С	5,660	0.566	С	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,818	0.582	С	5,818	0.582	С	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	16,655	0.740	D	16,655	0.740	D	0.000	NO
29 Centennial Bridge south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	5,710	0.571	С	0.000	NO
30 Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	7,270	0.727	С	0.000	NO
31 Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,560	0.856	D	3,790	0.379	Α	-0.477	NO

LOS = Level of Service Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)

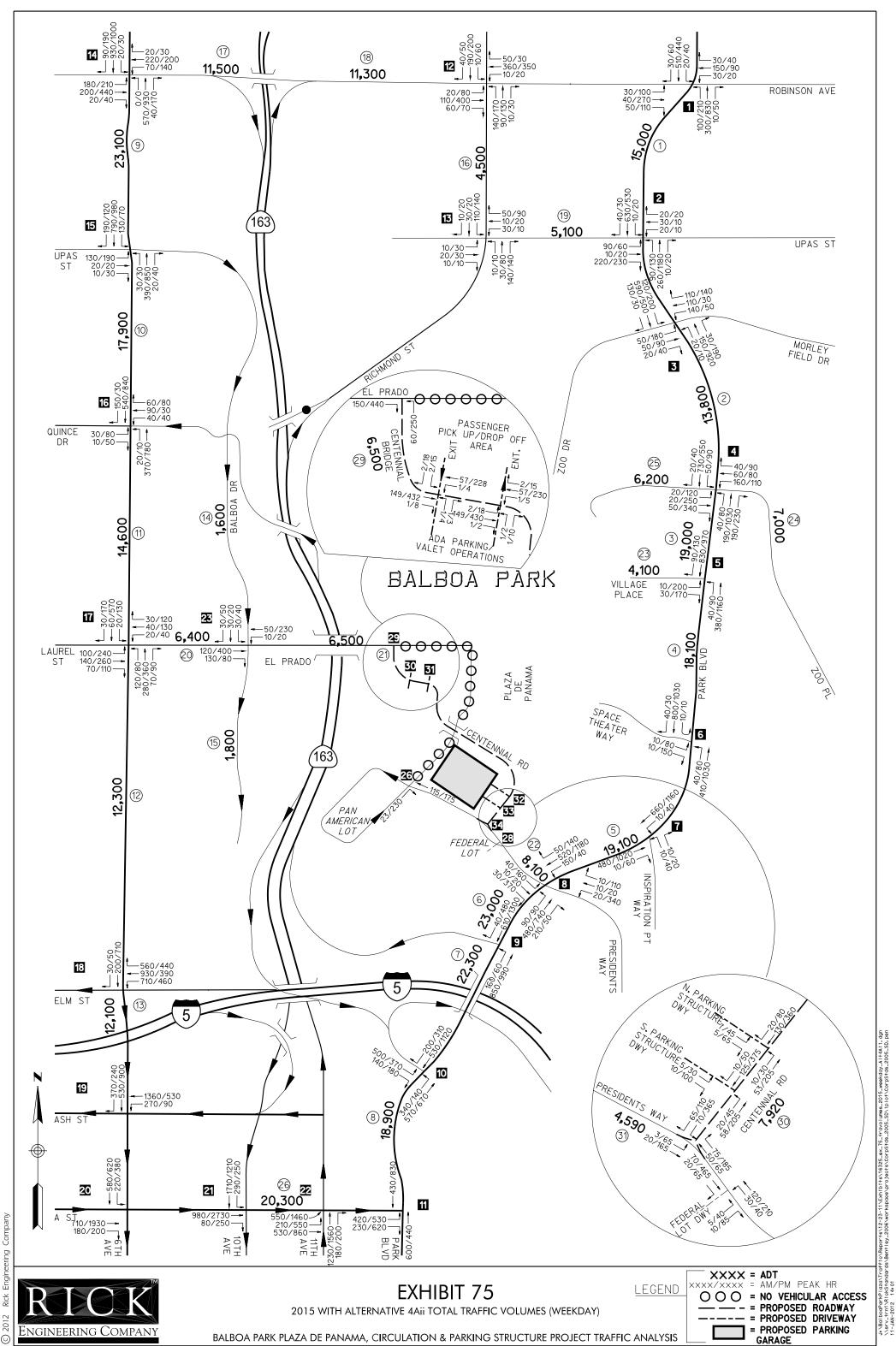
1 with Two-way left turn lane
2 Estimated capacity (3/4 of 4 lane collector)

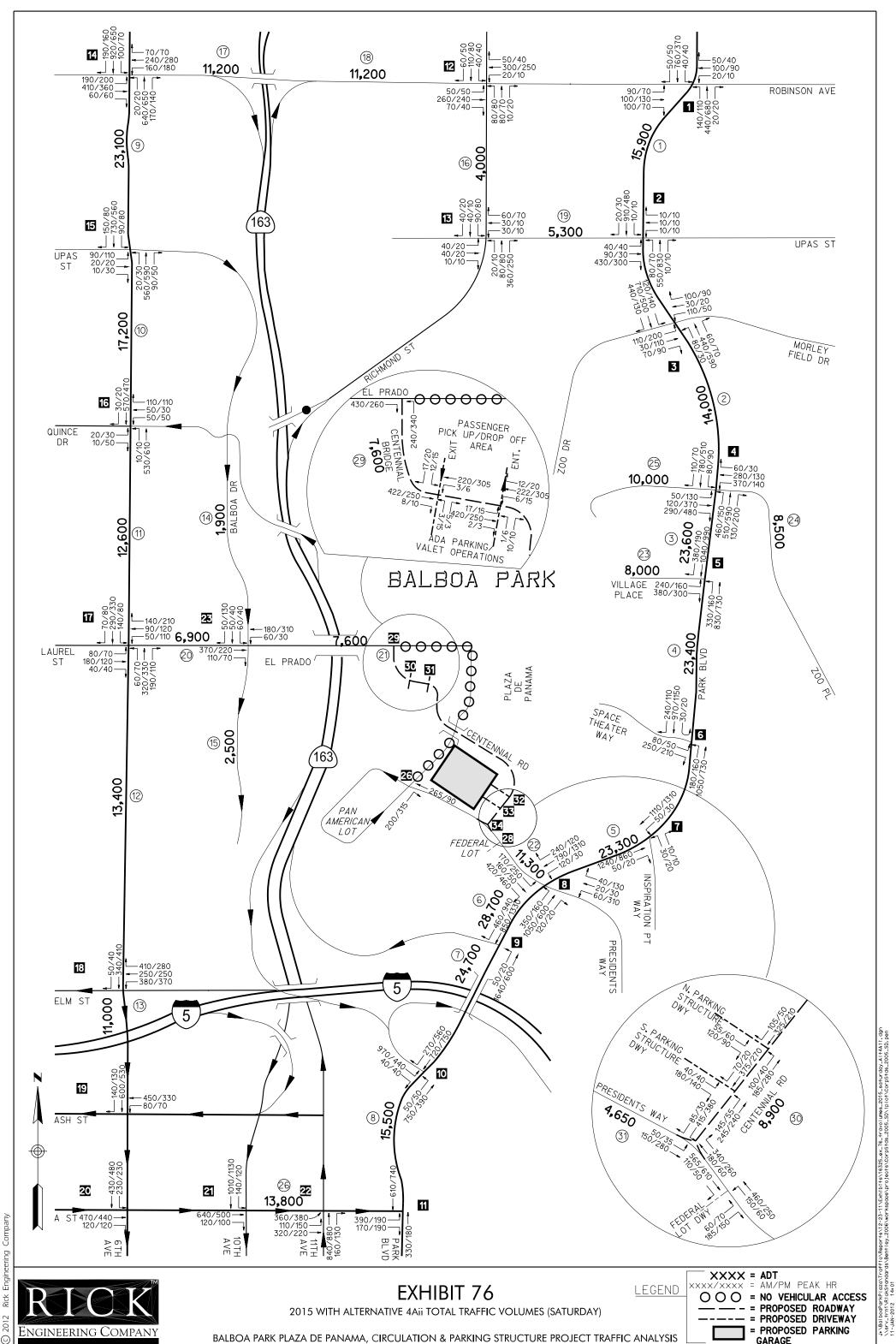
TABLE 122 EXISTING + PROJECT ALTERNATIVE 4Aii INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

		Control Control Delay (sec/veh)	Existing +	Alt 4Aii
	Intersection	Control		LOS
28	Presidents Way/Federal-Aerospace Lot			
	AM	Cton		
	Northbound Shared Left-Right	Stop	37.5	Е
	Westbound Left		3.7	Α
29	El Prado/ Centennial Bridge	All May Stan		
	AM	All Way Stop	10.0	Α
30	Centennial Road/ADA Parking & Valet Operations			
	AM			
	Southbound Shared Left-Right	Stop	11.6	В
	Westbound Left		0.1	Α
	Northbound Shared Left-Right		11.8	В
31	Centennial Road/ADA Parking & Valet Operations		11.8	
	AM			
	Northbound Shared Left-Right	Stop	11.3	В
	Eastbound Left		0.4	Α
	Westbound Left		0.2	Α
32	Centennial Road/Parking Garage North Entrance/Exit			
	AM	Cto		
	Northbound Left	Stop	8.4	Α
	Eastbound Left		12.3	В
33	Centennial Road/Parking Garage South Entrance/Exit			
	AM	Cton		
	Northbound Left	Stop	8.7	Α
	Eastbound Left		14.1	В
	Eastbound Right		12.3	В
34	Presidents Way/Centennial Road			
	AM			
	Eastbound Left	Stop	8.5	Α
	Southbound Left	-	33.9	D
	Southbound Right		9.5	Α

LOS = Level of Service; Minor approach delay reported for unsignalized intersections Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold Significant Impact: 1) LOS D or better to LOS E or worse

- 2) Incremental Delay ≥ 2 seconds for LOS E 3) Incremental Delay ≥ 1 second for LOS F





GARAGE

TABLE 123 2015 + PROJECT ALTERNATIVE 4Aii INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

	2015 No Project 2015 + Project Alternative 4Aii								
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No	
1	Park Boulevard/Robinson Avenue AM	Signal	16.3	В	16.3	В	0.0	No	
	PM	Signal	19.5	В	19.5	В	0.0	No	
2	Park Boulevard/Upas Street AM	Signal	20.3	С	20.3	С	0.0	No	
	PM	Signal	18.6	В	18.6	В	0.0	No	
3	Park Boulevard/Morley Field Drive AM	Cianal	40.0	-	40.0	-	0.0		
	PM	Signal	18.8 20.4	B C	18.8 20.4	B C	0.0	No No	
4	Park Boulevard/Zoo Place	0: 1	40.0	_	40.0	_	0.0		
	AM PM	Signal	16.2 22.5	B C	16.2 22.5	B C	0.0	No No	
5	Park Boulevard/Village Place	0: 1					0.0		
	AM PM	Signal	4.1 11.7	A B	4.1 11.7	A B	0.0	No No	
6	Park Boulevard/Space Theatre Way								
	Northbound Left AM		9.7	A	9.7	Α	0.0	No	
	PM	NA	11.2	В	11.2	В	0.0	No	
	Eastbound Left AM		13.5	В	13.5	В	0.0	No	
	PM		33.1	D	33.1	D	0.0	No	
7	Park Boulevard/Inspiration Way AM	Signal	2.9	Α	2.9	Α	0.0	No	
	PM	Signal	4.7	A	4.7	A	0.0	No No	
8	Park Boulevard/Presidents Way	Cianal	44.7	В	147	D	0.0	N-	
	AM PM	Signal	14.7 28.4	С	14.7 28.4	B C	0.0	No No	
9	Park Boulevard/SR 163 NB Ramps								
	Northbound Left AM	NA	9.5	Α	9.5	Α	0.0	No	
	PM		17.4	С	17.4	С	0.0	No	
10	Park Boulevard/I-5 Ramps AM	Signal	28.9	С	28.9	С	0.0	No	
	PM	O.g.i.a.	23.9	С	23.9	С	0.0	No	
11	Park Boulevard/A Street AM	Signal	11.8	В	11.8	В	0.0	No	
	PM	Olgridi	14.7	В	14.7	В	0.0	No	
12	Richmond Street/Robinson Avenue AM	Signal	15.6	В	15.6	В	0.0	No	
	PM	Signal	15.6	В	15.6	В	0.0	No No	
13	Richmond Street/Upas Street AM	All May Ctan	8.3	A	8.3	Α	0.0	N-	
	PM	All Way Stop	8.9	A	8.9	A	0.0	No No	
14	6th Avenue/Robinson Avenue	0: 1	00.4		00.4		0.0		
	AM PM	Signal	23.4 31.1	C	23.4 31.1	C	0.0	No No	
15	6th Avenue/ Upas Street-Balboa Drive	0: 1	0.0		0.0		0.0		
	AM PM	Signal	9.6 12.6	A B	9.6 12.6	A B	0.0	No No	
16	6th Avenue/Quince Drive								
	AM PM	Signal	15.3 13.9	B B	15.3 13.9	B B	0.0	No No	
17	6th Avenue/Laurel Street								
	AM PM	Signal	13.2 15.7	B	13.2 15.7	B B	0.0	No No	
18	6th Avenue/Elm Street-I-5 NB Off Ramp								
	AM PM	Signal	10.3 13.4	B B	10.3 13.4	B B	0.0	No No	
19	6th Avenue/Ash Street							INU	
	AM PM	Signal	12.1 11.3	B B	12.1 11.3	B B	0.0	No No	
20	6th Avenue/A Street		11.3		11.3	٥	0.0	INU	
	AM PM	Signal	12.3	В	12.3	В	0.0	No	
21	A Street/10th Avenue		13.2	В	13.2	В	0.0	No	
	AM	Signal	12.8	В	12.8	В	0.0	No	
22	A Street/11th Avenue		16.6	В	16.6	В	0.0	No	
	AM	Signal	11.6	В	11.6	В	0.0	No	
23	PM Balboa Drive/El Prado		15.6	В	15.6	В	0.0	No	
	AM	All Way Stop	8.1	Α	8.1	Α	0.0	No	
L	PM		12.0	В	12.0	В	0.0	No	

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 124 2015 + PROJECT ALTERNATIVE 4Aii INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			2015 No Pro	ject	20	15 + Pr	oject Alternativ	re 4Aii
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	A P		15.0	В	15.0	В	0.0	No
2	Park Boulevard/Upas Street	VI	14.5	В	14.5	В	0.0	No
	A	M Signal	24.3	С	24.3	С	0.0	No
	Р	И	19.6	В	19.6	В	0.0	No
3	Park Boulevard/Morley Field Drive A	M Signal	17.5	В	17.5	В	0.0	No
	P		20.2	С	20.2	С	0.0	No
4	Park Boulevard/Zoo Place							
	A P		27.2 24.0	C	27.2 24.0	C	0.0	No
5	Park Boulevard/Village Place	VI	24.0	C	24.0	C	0.0	No
	A		21.3	С	21.3	С	0.0	No
	Ports Possibilization (Conseq Theories West	М	16.6	В	16.6	В	0.0	No
6	Park Boulevard/Space Theatre Way Northbound Le	ft						
	A	_	13.9	В	13.9	В	0.0	No
	Р	_1	13.9	В	13.9	В	0.0	No
	Eastbound Le		112.7	F	112.7	F	0.0	No
	P		44.6	E	44.6	E	0.0	No No
7	Park Boulevard/Inspiration Way							
	A		3.9	Α	3.9	Α	0.0	No
8	Park Boulevard/Presidents Way	VI	3.8	Α	3.8	Α	0.0	No
0	A A	VI Signal	31.3	С	31.3	С	0.0	No
	Р	М	52.4	D	52.4	D	0.0	No
9	Park Boulevard/SR 163 NB Ramps	6						
	Northbound Le	- NA	12.4	В	12.4	В	0.0	No
	P		22.4	С	22.4	С	0.0	No
10	Park Boulevard/I-5 Ramps							
	A P		25.1 18.5	C B	25.1 18.5	В	0.0	No No
11	Park Boulevard/A Street	VI	10.5	В	10.5	В	0.0	INO
	A		13.3	В	13.3	В	0.0	No
40	Richmond Street/Robinson Avenue	М	14.6	В	14.6	В	0.0	No
12	A A	M Signal	13.7	В	13.7	В	0.0	No
	Р		13.6	В	13.6	В	0.0	No
13	Richmond Street/Upas Street	A II			44.5	_		
	A P	_ ` `	11.5 9.3	B A	11.5 9.3	B A	0.0	No No
14	6th Avenue/Robinson Avenue		0.0	- ,	0.0		0.0	110
	A		37.2	D	37.2	D	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive	М	30.5	С	30.5	С	0.0	No
10		M Signal	8.3	Α	8.3	Α	0.0	No
	Р	М	11.6	В	11.6	В	0.0	No
16	6th Avenue/Quince Drive	M Signal	17.6	В	17.6	В	0.0	Na
	P		16.5	В	16.5	В	0.0	No No
17	6th Avenue/Laurel Street							
	A P		15.1	В	15.1	В	0.0	No No
18	6th Avenue/Elm Street-I-5 NB Off Ramp	VI	15.0	В	15.0	В	0.0	No
	A	M Signal	11.6	В	11.6	В	0.0	No
4-	P	М	12.0	В	12.0	В	0.0	No
19	6th Avenue/Ash Street	M Signal	11.4	В	11.4	В	0.0	No
	P		10.9	В	10.9	В	0.0	No
20	6th Avenue/A Street							
	A	M Signal	11.7 11.5	B	11.7 11.5	B	0.0	No No
21	A Street/10th Avenue	VI	11.0	٥	11.0	0	0.0	No
	A		11.8	В	11.8	В	0.0	No
00	A Stroot/11th Avanua	И	10.7	В	10.7	В	0.0	No
22	A Street/11th Avenue	M Signal	10.2	В	10.2	В	0.0	No
		VI O.g.r.a.	9.5	A	9.5	A	0.0	No
		V1						
23	Balboa Drive/El Prado	M All Way Stop	12.2	В	12.2	В	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 125 2015 + PROJECT ALTERNATIVE 4Aii **ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

				2	015 No Projec	et		2015	+ Project A	Iternative 4Aii	
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector1	4 Lane Major	15,000	15,000	1.000	E	15,000	1.000	E	0.000	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	13,800	0.345	Α	13,800	0.345	Α	0.000	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	19,000	0.475	В	19,000	0.475	В	0.000	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	18,100	0.453	В	18,100	0.453	В	0.000	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	19,100	0.478	В	19,100	0.478	В	0.000	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	23,000	0.575	С	23,000	0.575	С	0.000	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	22,300	0.558	С	0.000	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	18,900	0.473	В	18,900	0.473	В	0.000	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	23,100	0.770	D	23,100	0.770	D	0.000	NO
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	17,900	0.597	С	17,900	0.597	С	0.000	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	14,600	0.487	С	14,600	0.487	С	0.000	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	12,300	0.410	В	12,300	0.410	В	0.000	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	12,100	0.538	С	12,100	0.538	С	0.000	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,600	0.160	Α	1,600	0.160	Α	0.000	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,800	0.180	Α	1,800	0.180	Α	0.000	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	4,500	0.450	В	4,500	0.450	В	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	11,500	1.150	F	11,500	1.150	F	0.000	NO
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector ¹	3 Lane Collector	15,000	11,300	0.753	D	11,300	0.753	D	0.000	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,100	0.510	В	5,100	0.510	В	0.000	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,400	0.640	С	6,400	0.640	С	0.000	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	С	6,500	0.650	С	0.000	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,100	0.810	D	8,100	0.810	D	0.000	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	4,100	0.410	В	4,100	0.410	В	0.000	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	7,000	0.700	С	7,000	0.700	С	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,200	0.620	С	6,200	0.620	С	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	20,300	0.902	E	20,300	0.902	E	0.000	NO
29 Centennial Bridge south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	6,500	0.650	С	0.000	NO
30 Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	7,920	0.792	D	0.000	NO
31 Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,470	0.947	Е	4,590	0.459	В	-0.488	NO

LOS = Level of Service Segments with Significant Impacts Shown in Bold

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

No impacts were calculated based on the current significance thresholds.

Table 126 shows all the Saturday internal study intersections to operate at LOS C or better, with the exception of:

- Presidents Way/Federal Lot (NB shared left-right, LOS F)
- Presidents Way/Centennial Road (SB left, LOS E)

2030

Exhibit 77 and Exhibit 78 show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 127 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods, with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, PM peak)
- Park Boulevard/Presidents Way (LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

Table 128 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM and PM peak)
- Park Boulevard/Presidents Way (LOS E, AM peak and LOS F, PM peak)
- Park Boulevard/SR 163 NB Ramps (LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, AM peak, LOS E, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

Table 129 shows that all study area roadways to operate at LOS D or better on a daily basis with the exception of:

- Park Boulevard between Robinson and Avenue and Upas Street (LOS F)
- 6th Avenue between Robinson Avenue and Upas Street (LOS F)
- 6th Avenue between Elm Street and Ash Street (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)
- El Prado between 6th Avenue and Balboa Drive (LOS E)
- El Prado between Balboa Drive and Plaza De Panama (LOS F)
- A Street between 6th and Park Boulevard (LOS F)
- Centennial Bridge south of El Prado (LOS F)

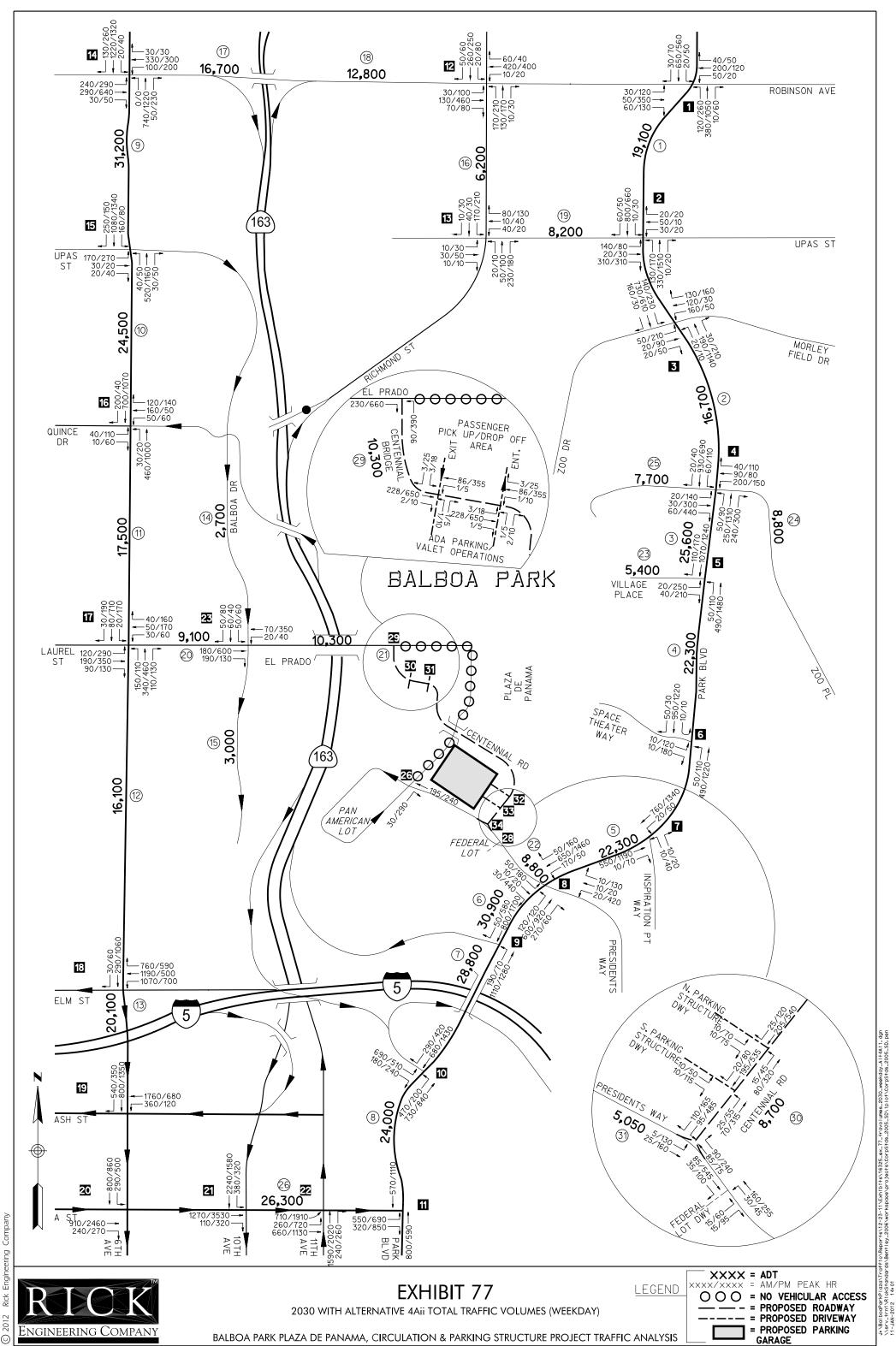
No impacts were calculated at these locations based on the current significance thresholds.

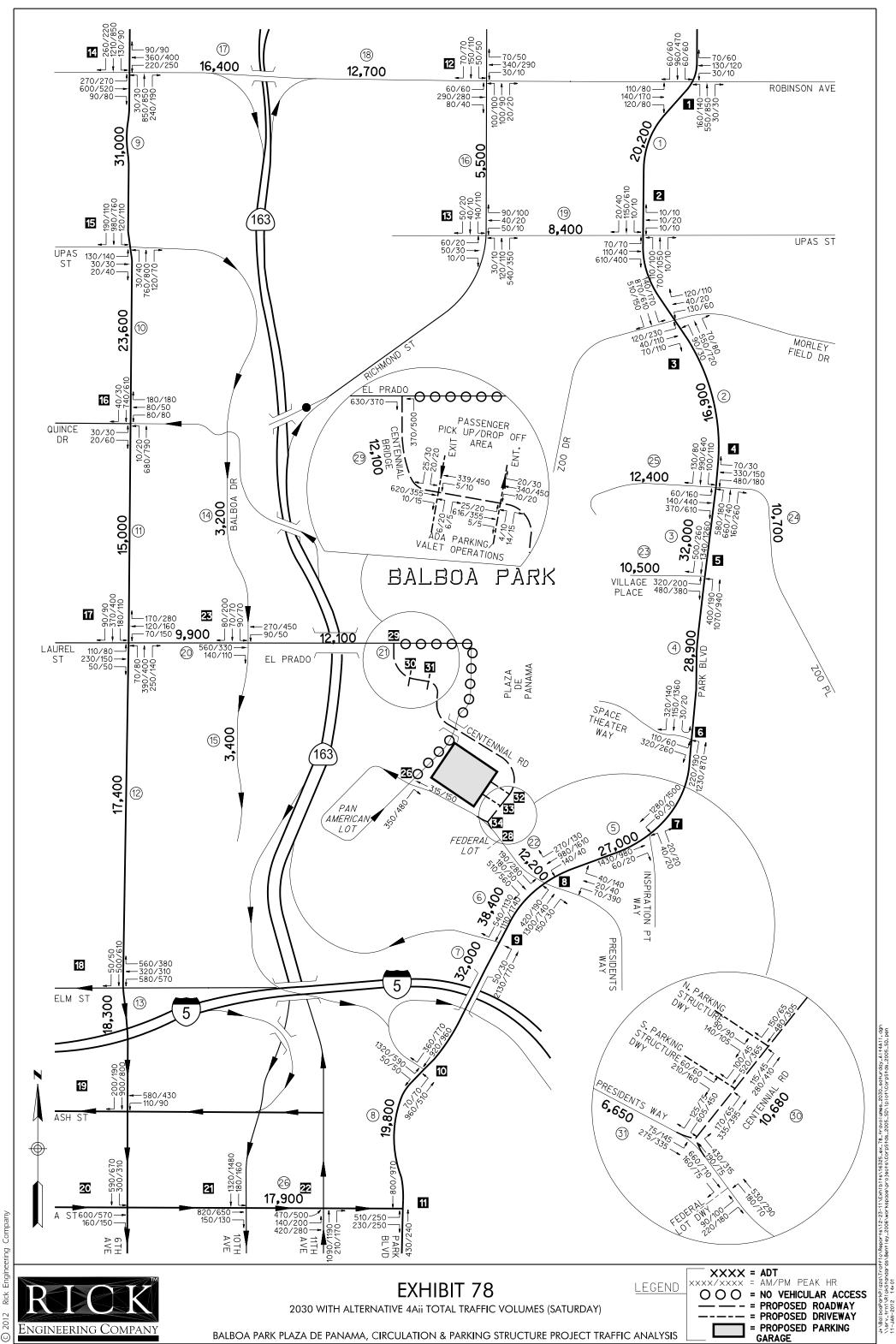
TABLE 126 2015 + PROJECT ALTERNATIVE 4Aii INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

		Control Delay (sec/veh) Stop -50.0 / 4.5 All Way Stop 11.4 Stop 12.5 / 0.1 / 13.1 Stop 12.0 / 0.4 / 0.3 Stop 13.1 / 0.3	2015 + Al	It 4Aii			
	Intersection	Control	Delay	LOS			
28	Presidents Way/Federal-Aerospace Lot						
	AM	Ston					
	Northbound Shared Left-Right	Stop	>50.0	F			
	Westbound Left		4.5	Α			
29	El Prado/ Centennial Bridge	All May Stan					
	AM	All Way Stop	11.4	В			
30	Centennial Road/ADA Parking & Valet Operations		_				
	AM						
	Southbound Shared Left-Right	Stop	12.5	В			
	Westbound Left		0.1	Α			
	Northbound Shared Left-Right		13.1	В			
31	Centennial Road/ADA Parking & Valet Operations						
	AM						
	Northbound Shared Left-Right	Stop	12.0	В			
	Eastbound Left		0.4	Α			
	Westbound Left		0.3	Α			
32	Centennial Road/Parking Garage North Entrance/Exit						
	AM	Cto					
	Northbound Left	Stop	8.7	Α			
	Eastbound Left		13.2	В			
33	Centennial Road/Parking Garage South Entrance/Exit						
	AM	Ston					
	Northbound Left	SiOp	8.9	Α			
	Eastbound Left		13.0	В			
	Eastbound Right		15.7	С			
34	Presidents Way/Centennial Road						
	AM						
	Eastbound Left	Stop	8.8	Α			
	Southbound Left	-	40.9	Е			
	Southbound Right		9.8	Α			

LOS = Level of Service; Minor approach delay reported for unsignalized intersections Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold Significant Impact: 1) LOS D or better to LOS E or worse

- 2) Incremental Delay ≥ 2 seconds for LOS E 3) Incremental Delay ≥ 1 second for LOS F





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TABLE 127 2030 + PROJECT ALTERNATIVE 4Aii INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			2030 No Pro	ject	20	030 + Project Alternative 4Aii					
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No			
1	Park Boulevard/Robinson Avenue										
	AM PM	Signal	17.5 31.0	B C	17.5 31.0	B C	0.0	No No			
2	Park Boulevard/Upas Street		31.0	C	31.0	U	0.0	INU			
	AM	Signal	24.8	С	24.8	С	0.0	No			
	PM		24.1	С	24.1	С	0.0	No			
3	Park Boulevard/Morley Field Drive AM	Signal	19.2	В	19.2	В	0.0	No			
	PM	Olgilai	22.6	С	22.6	С	0.0	No			
4	Park Boulevard/Zoo Place				-						
	AM	Signal	16.7	В	16.7	В	0.0	No			
5	PM Park Boulevard/Village Place		29.3	С	29.3	С	0.0	No			
<u> </u>	AM	Signal	4.6	Α	4.6	Α	0.0	No			
	PM	3 -	13.1	В	13.1	В	0.0	No			
6	Park Boulevard/Space Theatre Way										
	Northbound Left AM		10.6	В	10.6	В	0.0	NI-			
	PM	NA	10.6 12.9	B B	10.6 12.9	B	0.0	No No			
	Eastbound Left		12.5		12.0		0.0	140			
	AM		15.1	С	15.1	С	0.0	No			
	PM		112.1	F	112.1	F	0.0	No			
7	Park Boulevard/Inspiration Way AM	Signal	3.0	Α	3.0	Α	0.0	No			
	PM	Signal	4.7	A	4.7	A	0.0	No			
8	Park Boulevard/Presidents Way										
	AM	Signal	14.7	В	14.7	В	0.0	No			
	PM		62.0	E	62.0	E	0.0	No			
9	Park Boulevard/SR 163 NB Ramps Northbound Left										
	AM	NA	10.9	В	10.9	В	0.0	No			
	PM		28.4	D	28.4	D	0.0	No			
10	Park Boulevard/I-5 Ramps										
	AM PM	Signal	38.4	D D	38.4 43.6	D D	0.0	No			
11	Park Boulevard/A Street		43.6	U	43.0	U	0.0	No			
	AM	Signal	12.5	В	12.5	В	0.0	No			
	PM		20.1	С	20.1	С	0.0	No			
12	Richmond Street/Robinson Avenue	0:	40.7		40.7	_	0.0				
	AM PM	Signal	16.7 17.3	B B	16.7 17.3	B	0.0	No No			
13	Richmond Street/Upas Street		17.0		17.0		0.0	110			
	AM	All Way Stop	9.6	Α	9.6	Α	0.0	No			
	PM		10.6	В	10.6	В	0.0	No			
14	6th Avenue/Robinson Avenue AM	Signal	30.6	С	30.6	С	0.0	No			
	PM	Signal	103.0	F	103.0	F	0.0	No			
15	6th Avenue/ Upas Street-Balboa Drive										
	AM	Signal	11.1	В	11.1	В	0.0	No			
16	PM 6th Avenue/Quince Drive		15.3	В	15.3	В	0.0	No			
16	AM	Signal	18.7	В	18.7	В	0.0	No			
	PM		16.9	В	16.9	В	0.0	No			
17	6th Avenue/Laurel Street										
	AM PM	Signal	13.7	В	13.7	В	0.0	No No			
18	6th Avenue/Elm Street-I-5 NB Off Ramp		17.8	В	17.8	В	0.0	INO			
	AM	Signal	31.1	С	31.1	С	0.0	No			
	PM		17.6	В	17.6	В	0.0	No			
19	6th Avenue/Ash Street	CierI	14.7	_	14.7	-	0.0				
	AM PM	Signal	14.7 11.7	B B	14.7 11.7	B	0.0	No No			
20	6th Avenue/A Street		11.7		11.1		0.0	INU			
	AM	Signal	13.1	В	13.1	В	0.0	No			
0.	PM		17.6	В	17.6	В	0.0	No			
21	A Street/10th Avenue AM	Signal	15.7	В	15.7	В	0.0	No			
	PM	Oigilai	42.1	D	42.1	D	0.0	No No			
22	A Street/11th Avenue						0.0	110			
	AM	Signal	13.0	В	13.0	В	0.0	No			
	PM		21.6	С	21.6	С	0.0	No			
0.5											
23	Balboa Drive/El Prado AM	All Way Stop	8.9	A	8.9	Α	0.0	No			

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 128 2030 + PROJECT ALTERNATIVE 4Aii INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			2030 No Pro	ject	20	30 + Pr	oject Alternativ	/e 4Aii
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	Al Pi	_	16.5	В	16.5	В	0.0	No
2	Park Boulevard/Upas Street	VI .	15.5	В	15.5	В	0.0	No
	Al Al	И Signal	51.3	D	51.3	D	0.0	No
	PI	И	23.3	С	23.3	С	0.0	No
3	Park Boulevard/Morley Field Drive	4 Signal	19.3	В	19.3	В	0.0	No
	PI	_	20.7	С	20.7	С	0.0	No
4	Park Boulevard/Zoo Place							
	Al Pi	_	36.1	D	36.1	D	0.0	No
5	Park Boulevard/Village Place	VI .	27.4	С	27.4	С	0.0	No
	Al	И Signal	37.7	D	37.7	D	0.0	No
	PI	И	19.3	В	19.3	В	0.0	No
6	Park Boulevard/Space Theatre Way Northbound Le	ft						
	Al	_	19.4	С	19.4	С	0.0	No
	PI	И NA	18.5	С	18.5	C	0.0	No
	Eastbound Le	_	400.0	_	400.0	-	0.0	
	AI PI		460.8 168.8	F	460.8 168.8	F	0.0	No No
7	Park Boulevard/Inspiration Way	**	100.0		100.0	· ·	0.0	INU
	Al	_	4.9	Α	4.9	Α	0.0	No
	PI	И	4.0	Α	4.0	Α	0.0	No
8	Park Boulevard/Presidents Way Al	И Signal	56.4	Е	56.4	E	0.0	No
	PI	_	126.4	F	126.4	F	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Le	- NA	15.5	С	15.5	_	0.0	NI-
	PI	_	15.5 40.7	E	15.5 40.7	C E	0.0	No No
10	Park Boulevard/I-5 Ramps					_	0.0	140
	Al		32.6	С	32.6	С	0.0	No
11	PI Park Boulevard/A Street	И	23.8	С	23.8	С	0.0	No
- 11	AI AIR BOGIEVAIGIA GITECT	И Signal	14.2	В	14.2	В	0.0	No
	PI	И	16.4	В	16.4	В	0.0	No
12	Richmond Street/Robinson Avenue	1 Cianal	44.0	_	44.0	_	0.0	
	Al Pi	_	14.6	B	14.6 14.4	B	0.0	No No
13	Richmond Street/Upas Street							
	Al	_ ' '	29.2	D	29.2	D	0.0	No
14	Pt 6th Avenue/Robinson Avenue	И	11.7	В	11.7	В	0.0	No
14	Al	// Signal	151.7	F	151.7	F	0.0	No
	PI		75.5	E	75.5	E	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive	A Cirrari	0.5		0.5			
	Al Pi		9.5 12.4	A B	9.5 12.4	A B	0.0	No No
16	6th Avenue/Quince Drive					Ĺ	5.0	.,,
	Al		21.6	С	21.6	С	0.0	No
17	Pt 6th Avenue/Laurel Street	Л	20.0	В	20.0	В	0.0	No
17	Al	// Signal	15.7	В	15.7	В	0.0	No
	PI		15.4	В	15.4	В	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp Al	И Signal	11.3	В	11.3	В	0.0	No
	Pi	_	11.3	В	11.3	В	0.0	No No
19	6th Avenue/Ash Street						2.0	
	Al		11.8	В	11.8	В	0.0	No
20	Pt 6th Avenue/A Street	/I	10.9	В	10.9	В	0.0	No
20	Al Al	// Signal	12.1	В	12.1	В	0.0	No
	PI	_	11.9	В	11.9	В	0.0	No
21	A Street/10th Avenue	A C:	46.5	_	46.5	_	0.0	ļ
	Al Pi	_	12.5 11.4	B	12.5 11.4	B	0.0	No No
22	A Street/11th Avenue		11.4		11.7		0.0	140
	Al		10.8	В	10.8	В	0.0	No
23	PI Balboa Drive/El Prado	Л	10.0	В	10.0	В	0.0	No
23	Al	All Way Stop	24.7	С	24.7	С	0.0	No
		И	21.9	С	21.9	С	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 129 2030 + PROJECT ALTERNATIVE 4Aii **ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

				2	2030 No Projec	ct		2030) + Project A	Iternative 4Aii	
Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector1	4 Lane Major	15,000	19,100	1.273	F	19,100	1.273	F	0.000	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	16,700	0.418	В	16,700	0.418	В	0.000	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	25,600	0.640	С	25,600	0.640	С	0.000	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	22,300	0.558	С	0.000	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	С	22,300	0.558	С	0.000	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	30,900	0.773	D	30,900	0.773	D	0.000	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	28,800	0.720	С	28,800	0.720	С	0.000	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	24,000	0.600	С	24,000	0.600	С	0.000	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	31,200	1.040	F	31,200	1.040	F	0.000	NO
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	24,500	0.817	D	24,500	0.817	D	0.000	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	17,500	0.583	С	17,500	0.583	С	0.000	NO
12 6th Avenue between El Prado and Elm Street-l-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	16,100	0.537	С	16,100	0.537	С	0.000	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	20,100	0.893	E	20,100	0.893	E	0.000	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	2,700	0.270	Α	2,700	0.270	Α	0.000	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,000	0.300	Α	1,800	0.180	Α	-0.120	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	6,200	0.620	С	3,000	0.300	Α	-0.320	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	16,700	1.670	F	16,700	1.670	F	0.000	NO
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector ¹	3 Lane Collector	15,000	12,800	0.853	D	12,800	0.853	D	0.000	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,200	0.820	D	8,200	0.820	D	0.000	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,100	0.910	E	9,100	0.910	E	0.000	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	F	10,300	1.030	F	0.000	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,800	0.880	D	8,800	0.880	D	0.000	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,400	0.540	В	5,400	0.540	В	0.000	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,800	0.880	D	8,800	0.880	D	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,700	0.770	D	7,700	0.770	D	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	26,300	1.169	F	26,300	1.169	F	0.000	NO
29 Centennial Bridge south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	10,300	1.030	F	0.000	NO ³
30 Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	8,700	0.870	D	0.000	NO
31 Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,800	0.980	E	5,050	0.505	В	-0.475	NO

LOS = Level of Service Segments with Significant Impacts Shown in Bold

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

^{*} Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

3 Not considered significant since no increase in traffic volumes or V/C is expected due to project on this road which will be replacing the traffic on the failing segment of El Prado

Table 130 shows all the Saturday internal study intersections to operate at LOS D or better, with the exception of:

- Presidents Way/Federal Lot (NB shared left-right, LOS F)
- Presidents Way/Centennial Road (SB left, LOS F)

ALTERNATIVE 4Bi – TUNNEL ALTERNATIVE WITH CABRILLO BRIDGE OPEN AND WITHOUT CENTENNIAL BRIDGE, OPERATIONS

Exhibit 79 shows the intersection lane geometry and configurations of the study area intersections.

Exhibit 80 shows the percent distribution for this alternative.

Existing

Exhibit 81 and Exhibit 82 show the Existing + 4Bi traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 131 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods. No significant impacts were calculated.

Table 132 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods. No significant impacts were calculated.

Table 133 shows that all study area roadways to operate at LOS D or better on a daily basis. No significant impacts were calculated.

Table 134 shows all the Saturday internal study intersections to operate acceptably at LOS C or better.

2015

Exhibit 83 and Exhibit 84 show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 135 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods.

Table 136 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

• Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM peak and LOS E, PM peak)

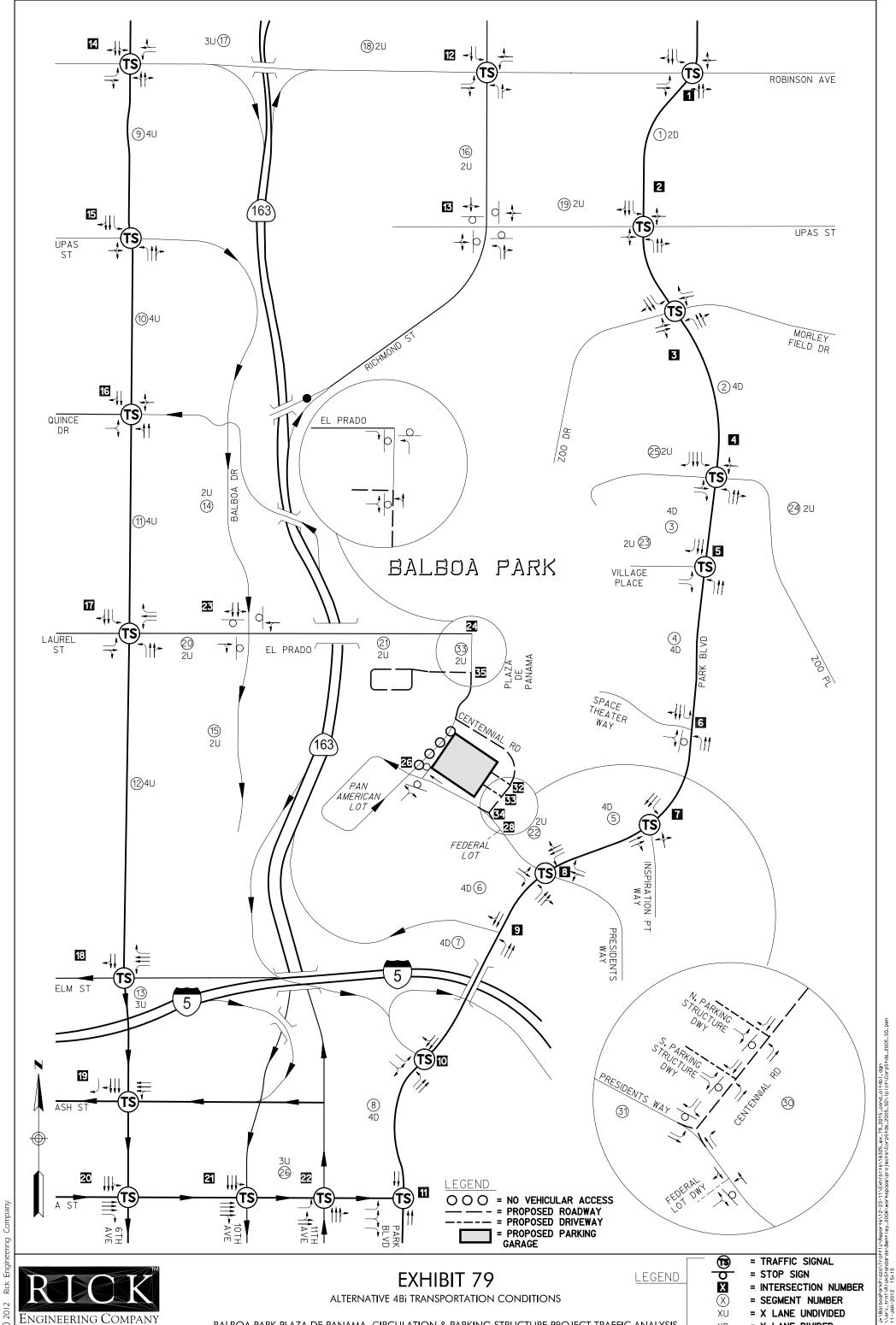
No impacts were calculated at these locations based on the current significance thresholds.

Table 137 shows that all study area roadways to operate at LOS D or better on a daily basis, with the exception of:

TABLE 130 2030 + PROJECT ALTERNATIVE 4Aii INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

	Control Control Delay (sec/veh) Stop >50.0 6.2 6.2 All Way Stop 26.1 Stop 18.5 0.2 19.6 Stop 17.0 0.6 0.4 Stop 9.6 19.7 19.7 Stop 17.1	Alt 4Aii	
Intersection	Control	Delay	LOS
28 Presidents Way/Federal-Aerospace Lot			
AM	Ston		
Northbound Shared Left-Right	Stop	>50.0	F
Westbound Left		6.2	Α
29 El Prado/ Centennial Bridge	All Way Stop		
AM	All Way Stop	26.1	D
30 Centennial Road/ADA Parking & Valet Operations			
AM			
Southbound Shared Left-Right	Stop	18.5	С
Westbound Left	d Left-Right tbound Left		Α
Northbound Shared Left-Right		0.2 19.6	С
31 Centennial Road/ADA Parking & Valet Operations			
AM			
Northbound Shared Left-Right	Stop	17.0	С
Eastbound Left		0.6	Α
Westbound Left		0.4	Α
32 Centennial Road/Parking Garage North Entrance/Exit			
AM	Ston		
Northbound Left	Stop	9.6	Α
Eastbound Left		19.7	С
33 Centennial Road/Parking Garage South Entrance/Exit			
AM	Ston		
Northbound Left	Stop	9.9	Α
Eastbound Left		21.1	С
Eastbound Right			С
34 Presidents Way/Centennial Road			
AM			
Eastbound Left	Stop	9.3	Α
Southbound Left		>50.0	F
Southbound Right		10.2	В

LOS = Level of Service; Minor approach delay reported for unsignalized intersections Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

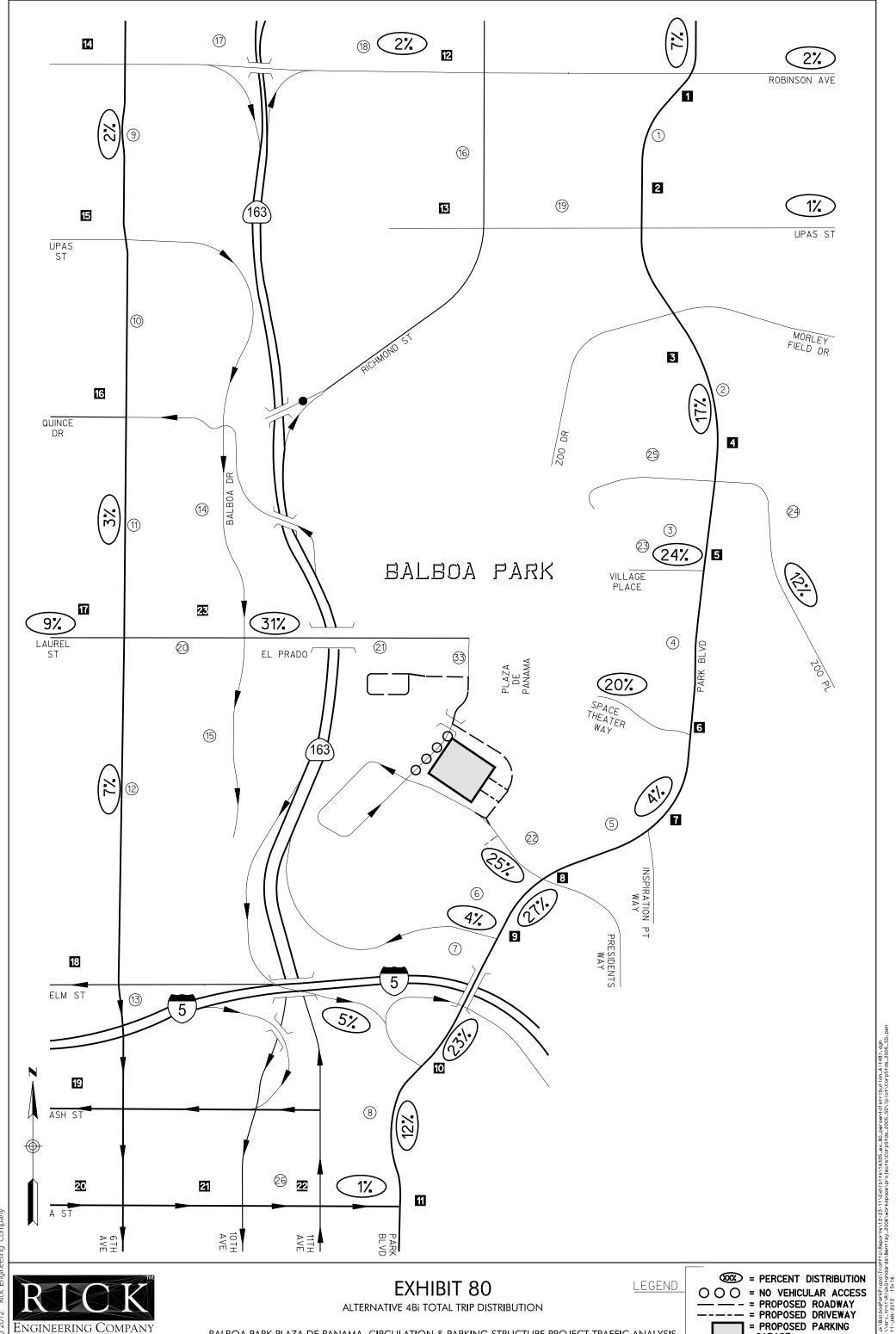


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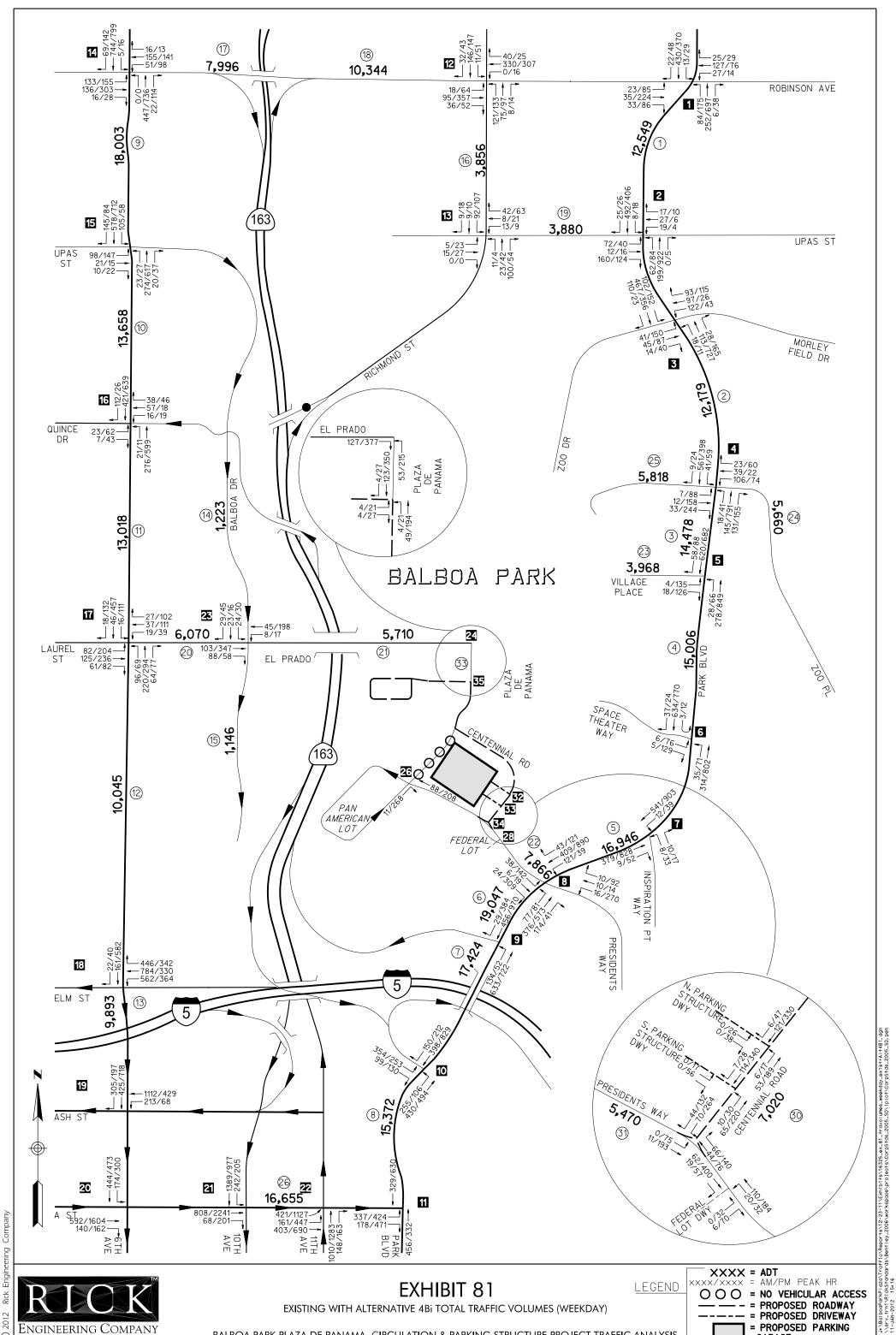
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= X LANE UNDIVIDED = X LANE DIVIDED



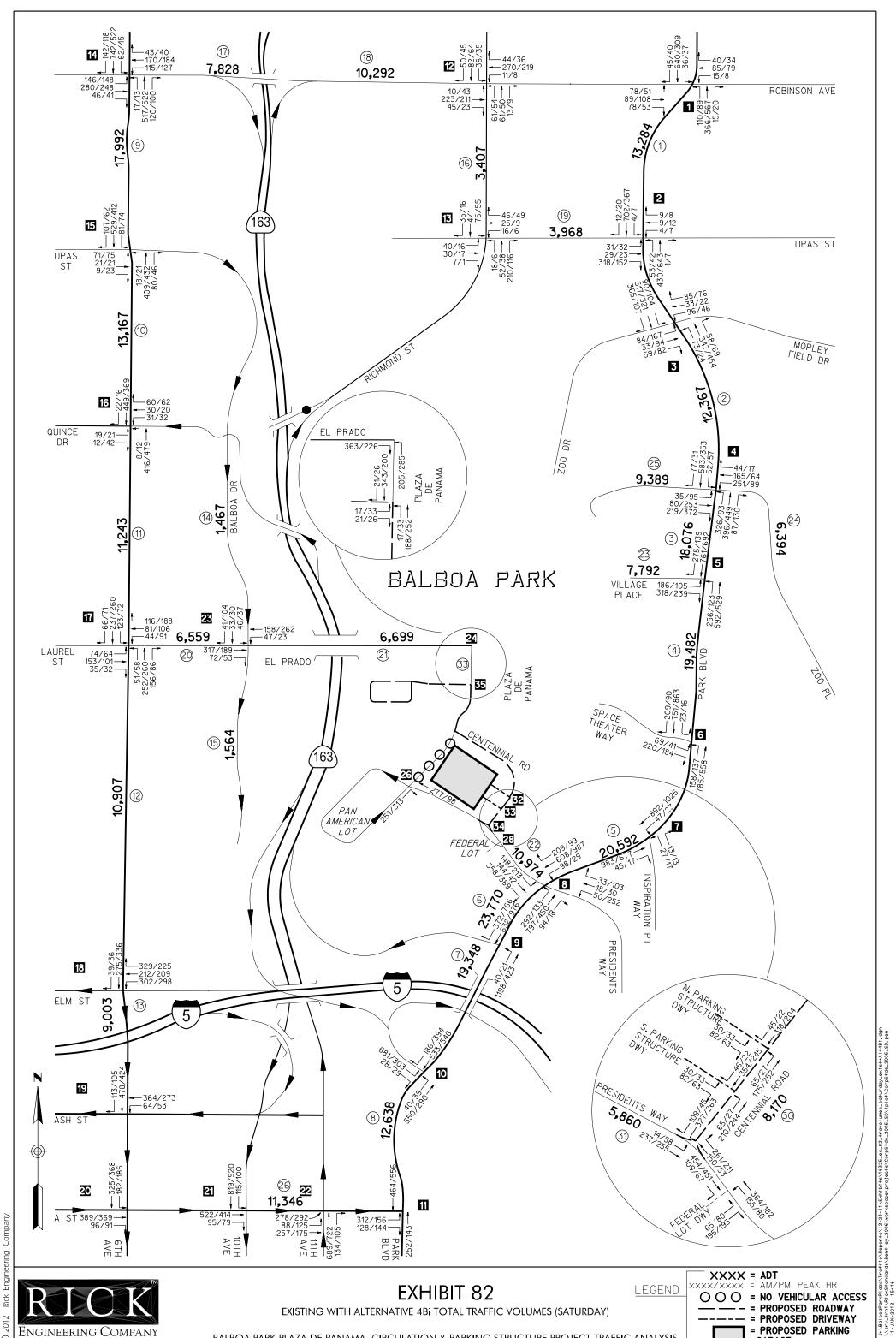
Engineering Company

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2012 \odot

= PROPOSED PARKING GARAGE



2012 \odot

GARAGE

TABLE 131 EXISTING + PROJECT ALTERNATIVE 4BI INTERSECTION LOS ANALYSIS EXTERNAL STREETS (WEEKDAY)

			Existing	9	Exi	sting +	Project Alternat	ive 4Bi	
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No	
1	Park Boulevard/Robinson Avenue AM	Signal	16.3	В	16.3	В	0.0	No	
	PM	Olgilai	17.1	В	17.1	В	0.0	No	
2	Park Boulevard/Upas Street	Cianal	40.0		40.0	-	0.0	N-	
	AM PM	Signal	18.6 14.4	B	18.6 14.4	B B	0.0	No No	
3	Park Boulevard/Morley Field Drive								
	AM PM	Signal	18.6 19.2	B	18.6 19.2	B B	0.0	No No	
4	Park Boulevard/Zoo Place				-		0.0	140	
	AM PM	Signal	16.1 21.5	B	16.1 21.5	B C	0.0	No No	
5	Park Boulevard/Village Place		21.0	J	21.0		0.0	NO	
	AM PM	Signal	3.9 11.3	A B	3.9 11.3	A B	0.0	No	
6	Park Boulevard/Space Theatre Way		11.3	В	11.3	В	0.0	No	
	Northbound Left								
	AM PM	NA	9.0 9.7	A	9.0 9.7	A	0.0	No No	
	Eastbound Left				-				
	AM PM		12.1 19.2	B	12.1 19.2	B C	0.0	No No	
7	Park Boulevard/Inspiration Way		10.2	U	15.2	Ü	0.0	NO	
	AM PM	Signal	3.1 4.5	A	3.1 4.5	A	0.0	No	
8	Park Boulevard/Presidents Way		4.5	A	4.5	A	0.0	No	
	AM	Signal	14.7	В	14.7	В	0.0	No	
9	PM Park Boulevard/SR 163 NB Ramps		21.8	С	21.8	С	0.0	No	
	Northbound Left	NA							
	AM PM	INA	8.8 12.8	A B	8.8 12.8	A B	0.0	No	
10	Park Boulevard/I-5 Ramps		12.0	В	12.0	В	0.0	No	
	AM	Signal	26.2	С	26.2	С	0.0	No	
11	PM Park Boulevard/A Street		19.9	В	19.9	В	0.0	No	
	AM	Signal	11.5	В	11.5	В	0.0	No	
12	PM Richmond Street/Robinson Avenue		13.3	В	13.3	В	0.0	No	
12	AM	Signal	15.0	В	15.0	В	0.0	No	
13	PM Richmond Street/Upas Street		14.5	В	14.5	В	0.0	No	
13	AM	All Way Stop	7.7	Α	7.7	Α	0.0	No	
1.4	PM 6th Avenue/Robinson Avenue		8.0	Α	8.0	Α	0.0	No	
14	AM	Signal	20.5	С	20.5	С	0.0	No	
	PM		22.6	С	22.6	С	0.0	No	
15	6th Avenue/ Upas Street-Balboa Drive AM	Signal	9.6	Α	9.6	Α	0.0	No	
	PM		11.7	В	11.7	В	0.0	No	
16	6th Avenue/Quince Drive AM	Signal	12.1	В	12.1	В	0.0	No	
	PM	 -	12.1	В	12.1	В	0.0	No	
17	6th Avenue/Laurel Street AM	Signal	13.0	В	13.0	В	0.0	No	
	PM	J.31101	15.0	В	15.0	В	0.0	No	
18	6th Avenue/Elm Street-I-5 NB Off Ramp AM	Signal	8.6	A	8.6	Α	0.0	No	
	PM	Gigilai	12.8	В	12.8	В	0.0	No	
19	6th Avenue/Ash Street	Cianci	11.5	D	44 F	D	0.0	NI-	
-	AM PM	Signal	11.5 10.9	B	11.5 10.9	B B	0.0	No No	
20	6th Avenue/A Street								
	AM PM	Signal	11.8 11.5	B	11.8 11.5	B B	0.0	No No	
21	A Street/10th Avenue								
	AM PM	Signal	11.9 14.0	B	11.9 14.0	B B	0.0	No No	
22	A Street/11th Avenue		14.0		14.0	٥	0.0	INO	
	AM	Signal	11.0	В	11.0	В	0.0	No	
23	PM Balboa Drive/El Prado		13.9	В	13.9	В	0.0	No	
	AM	All Way Stop	7.8	A	7.8	Α	0.0	No	
	PM		10.8	В	10.8	В	0.0	No	

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 132 EXISTING + PROJECT ALTERNATIVE 4BI INTERSECTION LOS ANALYSIS EXTERNAL STREETS (SATURDAY)

			Existing	Existing + Project Alternative 4Bi					
	Intersection	Control	Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No	
1	Park Boulevard/Robinson Avenue	0: 1							
	A P	M Signal	14.5 13.8	B	14.5 13.8	B	0.0	No No	
2	Park Boulevard/Upas Street	VI .	13.0	В	13.0	В	0.0	INO	
	A	M Signal	19.2	В	19.2	В	0.0	No	
	Pode Podeward Manday Field Priva	М	15.5	В	15.5	В	0.0	No	
3	Park Boulevard/Morley Field Drive	M Signal	17.0	В	17.0	В	0.0	No	
	P		20.0	С	20.0	С	0.0	No	
4	Park Boulevard/Zoo Place								
		M Signal	30.0 24.0	C	30.0 24.0	C	0.0	No No	
5	Park Boulevard/Village Place	VI	24.0		24.0	C	0.0	INO	
		M Signal	18.5	В	18.5	В	0.0	No	
•		М	15.5	В	15.5	В	0.0	No	
6	Park Boulevard/Space Theatre Way Northbound Le	ft							
	A	-	11.3	В	11.3	В	0.0	No	
		M NA	11.1	В	11.1	В	0.0	No	
	Eastbound Le		31.2	D	31.2	D	0.0	No	
	A P		20.3	С	20.3	С	0.0	No No	
7	Park Boulevard/Inspiration Way						5.0	.10	
		M Signal	4.1	Α	4.1	Α	0.0	No	
8	Park Boulevard/Presidents Way	М	4.1	Α	4.1	Α	0.0	No	
•		M Signal	25.0	С	25.0	С	0.0	No	
	P		26.8	С	26.8	С	0.0	No	
9	Park Boulevard/SR 163 NB Ramps								
	Northbound Le	M NA	10.5	В	10.5	В	0.0	No	
	P	-	15.4	С	15.4	С	0.0	No	
10	Park Boulevard/I-5 Ramps								
		M Signal	21.8	С	21.8	С	0.0	No	
11	Park Boulevard/A Street	M	16.2	В	16.2	В	0.0	No	
- ' '	A	M Signal	12.8	В	12.8	В	0.0	No	
	Р	М	13.8	В	13.8	В	0.0	No	
12	Richmond Street/Robinson Avenue	M Signal	13.0	В	13.0	В	0.0	NI-	
	P		12.7	В	12.7	В	0.0	No No	
13	Richmond Street/Upas Street								
		M All Way Stop	8.8	A	8.8	Α	0.0	No	
14	6th Avenue/Robinson Avenue	M	7.7	Α	7.7	Α	0.0	No	
14		M Signal	24.3	С	24.3	С	0.0	No	
	P		24.8	С	24.8	С	0.0	No	
15	6th Avenue/ Upas Street-Balboa Drive	M Cinnel	0.0						
		M Signal M	8.3 11.1	A B	8.3 11.1	A B	0.0	No No	
16	6th Avenue/Quince Drive					Ĺ	5.0	.,,	
		M Signal	13.9	В	13.9	В	0.0	No	
17	6th Avenue/Laurel Street	М	13.5	В	13.5	В	0.0	No	
17		M Signal	14.8	В	14.8	В	0.0	No	
	P		14.7	В	14.7	В	0.0	No	
18	6th Avenue/Elm Street-I-5 NB Off Ramp	M Signal	10.0		40.0	-	0.0	ļ	
	P A	M Signal	10.9 11.5	B	10.9 11.5	B	0.0	No No	
19	6th Avenue/Ash Street		11.0		11.3	, J	0.0	INU	
		M Signal	11.2	В	11.2	В	0.0	No	
00		М	10.7	В	10.7	В	0.0	No	
20	6th Avenue/A Street	M Signal	11.4	В	11.4	В	0.0	No	
		M Oignai	11.3	В	11.3	В	0.0	No	
21	A Street/10th Avenue								
		M Signal M	11.4	В	11.4	В	0.0	No No	
22	A Street/11th Avenue	VI	10.4	В	10.4	В	0.0	No	
	A	M Signal	9.8	Α	9.8	Α	0.0	No	
23		М	9.2	Α	9.2	Α	0.0	No	
	Balboa Drive/El Prado				40.5	I			
23	A	M All Way Stop	10.5	В	10.5	В	0.0	No	

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 133 EXISTING + PROJECT ALTERNATIVE 4Bi ROADWAY SEGMENT ANALYSIS (WEEKDAY)

			LOS E Capacity	Existing			Existing + Project Alternative 4Bi				
Roadway Segment	Functional	Future Classification/Lanes		ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	12,549	0.837	D	12,549	0.837	D	0.000	NO
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	12,179	0.304	Α	12,179	0.304	Α	0.000	NO
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	14,478	0.362	Α	14,478	0.362	Α	0.000	NO
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	15,006	0.375	В	15,006	0.375	В	0.000	NO
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	16,946	0.424	В	16,946	0.424	В	0.000	NO
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	19,047	0.476	В	19,047	0.476	В	0.000	NO
7 Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	17,424	0.436	В	17,424	0.436	В	0.000	NO
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	15,372	0.384	В	15,372	0.384	В	0.000	NO
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	18,003	0.600	С	18,003	0.600	С	0.000	NO
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	13,658	0.455	В	13,658	0.455	В	0.000	NO
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	13,018	0.434	В	13,018	0.434	В	0.000	NO
12 6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	10,045	0.335	В	10,045	0.335	В	0.000	NO
13 6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way ²	3 Lane One Way ²	22,500	9,893	0.440	В	9,893	0.440	В	0.000	NO
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,223	0.122	Α	1,223	0.122	Α	0.000	NO
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,146	0.115	Α	1,146	0.115	Α	0.000	NO
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	3,856	0.386	Α	3,856	0.386	Α	0.000	NO
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	7,996	0.800	D	7,996	0.800	D	0.000	NO
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector1	3 Lane Collector	15,000	10,344	0.690	D	10,344	0.690	D	0.000	NO
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	3,880	0.388	Α	3,880	0.388	Α	0.000	NO
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,070	0.607	С	6,070	0.607	С	0.000	NO
21 El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	С	5,710	0.571	С	0.000	NO
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,866	0.787	D	7,866	0.787	D	0.000	NO
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,968	0.397	Α	3,968	0.397	Α	0.000	NO
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,660	0.566	С	5,660	0.566	С	0.000	NO
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,818	0.582	С	5,818	0.582	С	0.000	NO
26 A Street between 6th Avenue and Park Boulevard	3 Lane One Way ²	3 Lane One Way ²	22,500	16,655	0.740	D	16,655	0.740	D	0.000	NO
30 Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	7,020	0.702	С	0.000	NO
31 Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,560	0.856	D	5,470	0.547	В	-0.309	NO
33 The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	С	5,710	0.571	С	0.000	NO

LOS = Level of Service Segments with Significant Impacts Shown in Bold

Significant Impact: LOS D or Better to LOS E or Worse Incremental V/C Ratio ≥ 0.02 for LOS E Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)

1 with Two-way left turn lane

2 Estimated capacity (3/4 of 4 lane collector)

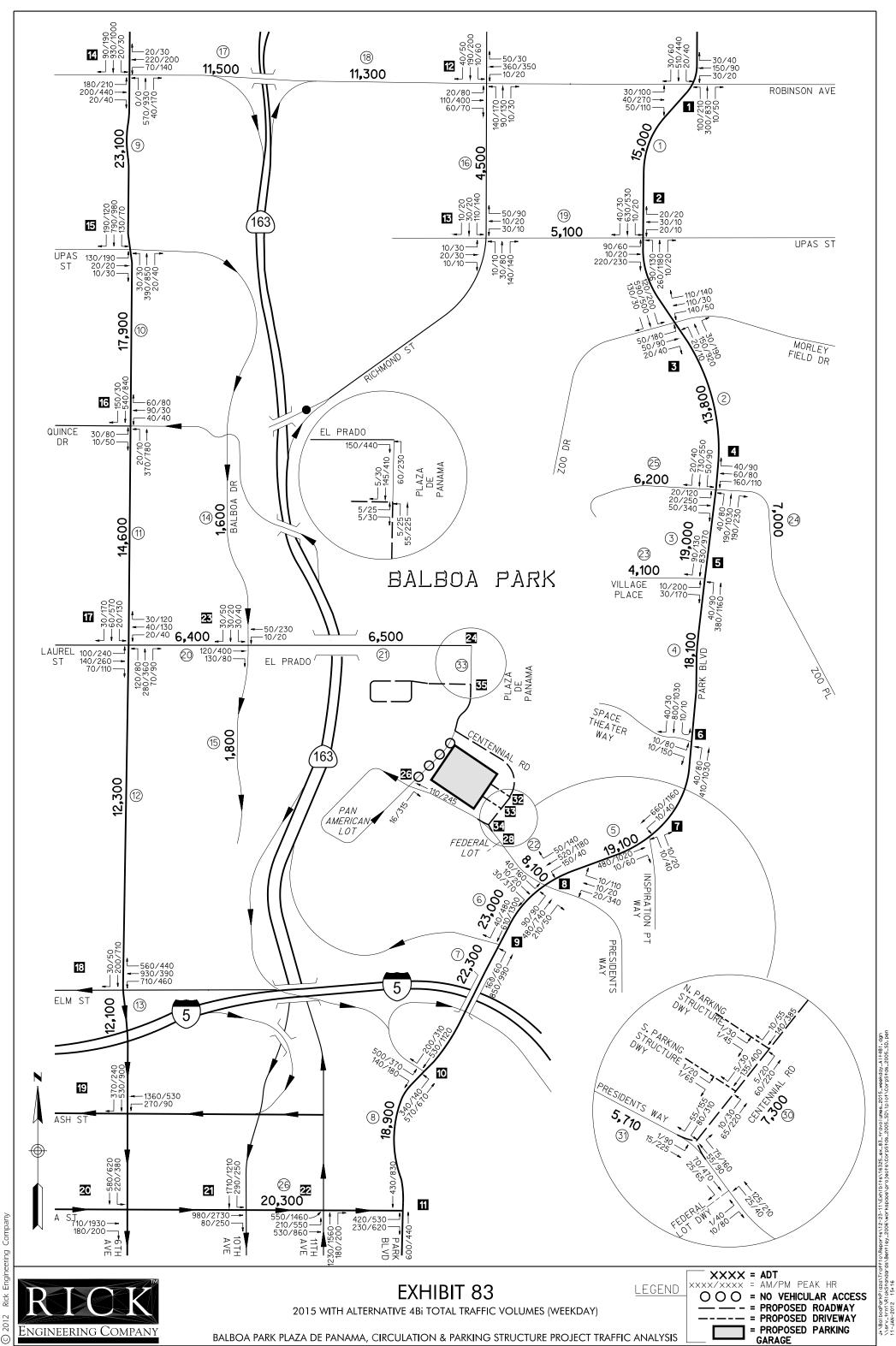
TABLE 134 EXISTING + PROJECT ALTERNATIVE 4Bi INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

			Existing + Alt 4Bi			
	Intersection	Control	Control Delay (sec/veh)	LOS		
28	Presidents Way/Federal-Aerospace Lot					
	AM	Cton				
	Northbound Shared Left-Right	Stop	23.7	С		
	Westbound Left		4.4	Α		
32	Centennial Road/Parking Garage North Entrance/Exit					
	AM	0,				
	Northbound Left	Stop	8.3	Α		
	Eastbound Left		11.7	В		
33	Centennial Road/Parking Garage South Entrance/Exit					
	AM					
	Northbound Left	Stop	8.4	Α		
	Eastbound Left	·	12.6	В		
	Eastbound Right		11.3	В		
34	Presidents Way/Centennial Road					
	AM					
	Eastbound Left	Stop	8.3	Α		
	Southbound Left	·	23.2	С		
	Southbound Right		9.9	Α		

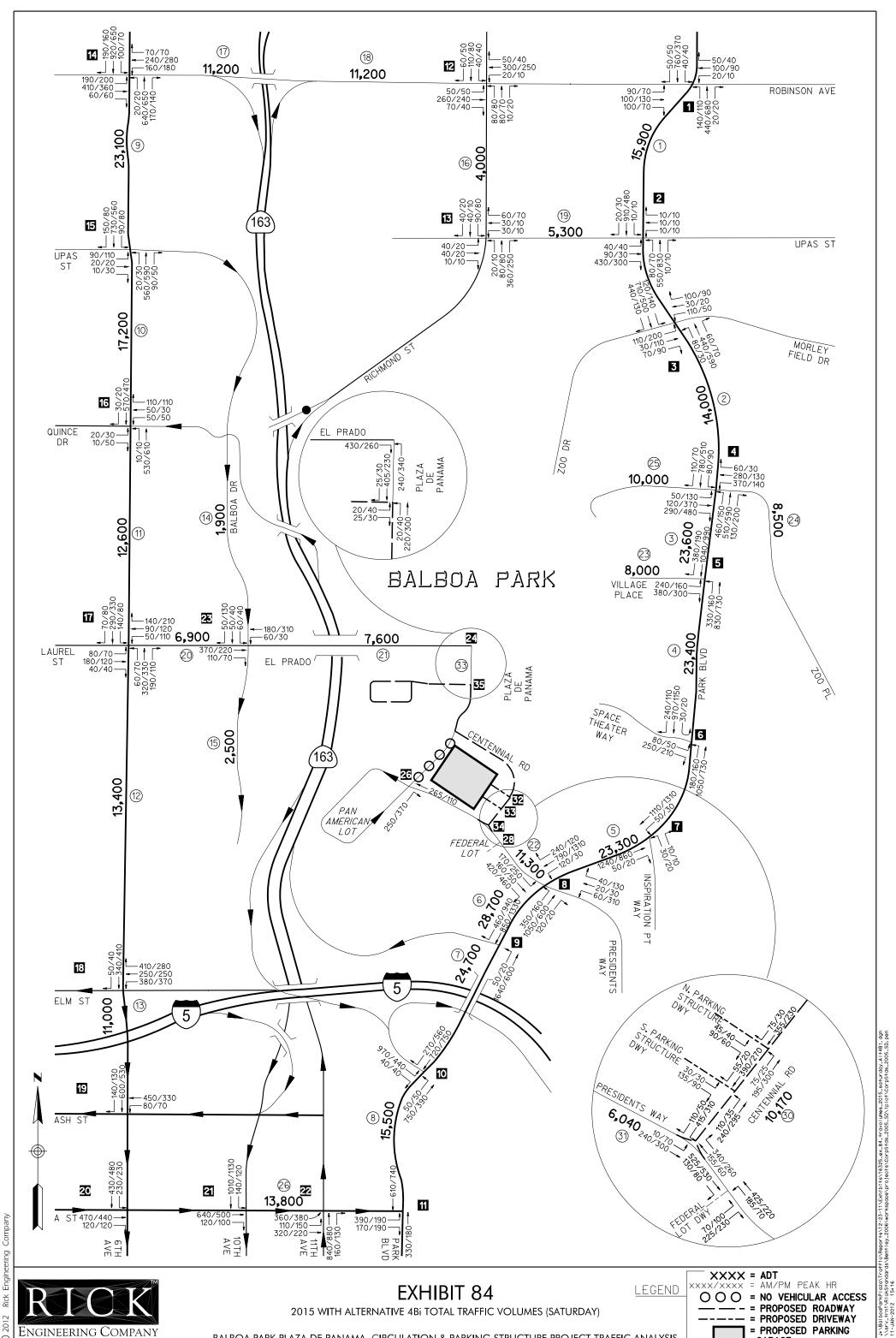
LOS = Level of Service; Minor approach delay reported for unsignalized intersections Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold Significant Impact: 1) LOS D or better to LOS E or worse

2) Incremental Delay ≥ 2 seconds for LOS E

3) Incremental Delay ≥ 1 second for LOS F



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