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Appendix B  
No Build Alternative  
Intersection Analysis Summary

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### Intersection Analysis Summary - 2020 No Build

No.	Intersection	Control Type	Approach Road	Movement	AM PEAK HOUR					PM PEAK HOUR								
					Post-Process Volume (vph)	LOS	Delay (sec)	LOS	Delay (sec)	95th Queue (ft)	Post-Process Volume (vph)	LOS	Delay (sec)	LOS	Delay (sec)	95th Queue (ft)		
																	Approach	Movement
11	I-5 NB Ramps / 41st Division Drive (Main Gate)	Cloverleaf Merge / Diverge		Overall	2,310	Cloverleaf merge/diverge Not Applicable for Synchro Analysis					2,985	Cloverleaf merge/diverge Not Applicable for Synchro Analysis						
			I-5 Off Loop Ramp	EB-R	305						50							
			I-5 Off-Ramp	WB-R	75						25							
			41st Division Drive	NB-T	450						1,400							
			41st Division Drive	NB-R	260						435							
			41st Division Drive	SB-T	920						655							
			41st Division Drive	SB-R	300						420							
12	I-5 SB Ramps / 41st Division Drive (Main Gate)	Cloverleaf Merge / Diverge		Overall	2,050	Cloverleaf merge/diverge Not Applicable for Synchro Analysis					2,960	Cloverleaf merge/diverge Not Applicable for Synchro Analysis						
			I-5 Off Loop Ramp	EB-R	120						50							
			I-5 Off-ramp	WB-R	390						50							
			41st Division Drive	NB-T	320						690							
			41st Division Drive	NB-R	205						735							
			41st Division Drive	SB-T	830						1,025							
			41st Division Drive	SB-R	185						410							
13	I-5 NB Ramps / Berkeley Avenue	Signal		Overall	2,545	C	23.5				2,445	C	20.4					
			I-5 Off-ramp	EB-L	170			F	91.3	#262	85			E	60.0	124		
			I-5 Off-ramp	EB-T	0	C	20.3				5	E	56.9		E	60.0	124	
			I-5 Off-ramp	EB-R	620			A	0.8	0	5			A	0.0	0		
			Berkeley Ave	NB-L	0						0							
			Berkeley Ave	NB-T	235	D	54.7		E	60.0	336	480	B	17.9		D	53.2	#516
			Berkeley Ave	NB-R	450				D	52.0	111	1,195				A	3.6	0
			Berkeley Ave	SB-L	55			A	5.8	104	190					C	21.4	128
			Berkeley Ave	SB-T	1,015	A	5.8		A	5.8	104	485	C	21.4		C	21.4	128
			Berkeley Ave	SB-R	0													
14	I-5 SB Ramps / Berkeley Avenue	Signal		Overall	1,675	D	42.8				1,510	C	33.9					
			I-5 Off-ramp	WB-L	905			D	47.9	578	405			E	65.0	#282		
			I-5 Off-ramp	WB-T	0	D	44.4				5	E	63.7		E	63.0	#274	
			I-5 Off-ramp	WB-R	140			C	29.4	45	5				C	42.6	0	
			Berkeley Ave	NB-L	125			C	30.3	153	300				B	13.8	84	
			Berkeley Ave	NB-T	280	C	30.3		C	30.3	153	265	B	13.8		B	13.8	84
			Berkeley Ave	NB-R	0						0							
			Berkeley Ave	SB-L	0						0							
			Berkeley Ave	SB-T	165	E	57.5		E	59.7	257	270	C	32.1		D	43.8	288
			Berkeley Ave	SB-R	60				D	51.4	35	260				D	35.4	67
15	Berkely Avenue / Union Avenue	All-way Stop Control		Overall	790	B	11.7				860	B	14.4					
			Militia Dr	EB-L	5			A	9.9	2	0							
			Militia Dr	EB-T	5	A	9.9		N	9.5	-	0	A	8.8				
			Militia Dr	EB-R	0							5			A	8.8	0	
			Union Ave	WB-L	115			B	12.0	15	125				B	11.8	20	
			Union Ave	WB-T	5	B	11.1		A	9.0	6	5	B	11.1		A	8.8	4
			Union Ave	WB-R	45				A	9.0	6	30				A	8.8	4
			Berkeley Ave	NB-L	5				B	14.0	60	0						
			Berkeley Ave	NB-T	285	B	12.2		A	9.6	25	90	A	9.2		A	9.3	10
			Berkeley Ave	NB-R	200				A	9.6	25	180				A	9.2	20
			Berkeley Ave	SB-L	10				B	10.9	25	25				C	19.0	102
			Berkeley Ave	SB-T	110	B	10.9		B	10.9	25	400	C	19.0		C	19.0	102
			Berkeley Ave	SB-R	5							0						
17	Berkely Avenue/ Washington Avenue	Two-way Stop Control on Washington Avenue		Overall	470	B	12.6				570	B	12.4					
			Washington Ave	EB-L	0						0							
			Washington Ave	EB-T	0	A	8.8				0	B	10.8					
			Washington Ave	EB-R	5			A	8.8	0	5				B	10.8	0	
			Washington Ave	WB-L	35			B	12.6	10	25				B	12.4	6	
			Washington Ave	WB-T	0	B	12.6				0	B	12.4					
			Washington Ave	WB-R	5				B	12.6	10	15				B	12.4	6
			Berkeley Ave	NB-L	5			A	7.4	0	5				A	8.2	0	
			Berkeley Ave	NB-T	320	A	0.1		A	0.0		90	A	0.3		A	0.0	
			Berkeley Ave	NB-R	10				A	0.0		25					0.0	
			Berkeley Ave	SB-L	5				A	8.0	0	10				A	7.5	0
			Berkeley Ave	SB-T	85	A	0.4		A	0.0		395	A	0.2		A	0.0	
			Berkeley Ave	SB-R	0							0						

### Intersection Analysis Summary - 2020 No Build

No.	Intersection	Control Type	Approach Road	Movement	AM PEAK HOUR					PM PEAK HOUR							
					Post-Process Volume (vph)	LOS	Delay (sec)	LOS	Delay (sec)	95th Queue (ft)	Post-Process Volume (vph)	LOS	Delay (sec)	LOS	Delay (sec)	95th Queue (ft)	
																	Approach
18	I-5 NB Ramps / Thorne Lane	Signal		Overall	1,490	D	35.8				1,930	D	38.4				
			I-5 Off-ramp	EB-L	15	D	44.9	D	44.3	32	10	D	43.7	D	43.3	31	
			I-5 Off-ramp	EB-T	0			D	44.3	32	5			D	43.8	64	
			I-5 Off-ramp	EB-R	215			D	45.0	65	175			D	43.8	64	
			Thorne Ln	NB-L	0	E	56.9				0	D	54.9				
			Thorne Ln	NB-T	355			E	71.1	#482	400			E	74.0	#499	
			Thorne Ln	NB-R	255			D	37.0	61	645			D	43.1	232	
			Thorne Ln	SB-L	230	B	12.7	B	12.7	m115	370	B	12.1	B	12.1	145	
			Thorne Ln	SB-T	420			B	12.7	m115	325			B	12.1	145	
Thorne Ln	SB-R	0						0									
19	I-5 SB Ramps / Thorne Lane	Signal		Overall	1,380	E	55.4				1,705	D	45.4				
			I-5 Off-ramp	WB-L	400	E	58.2	E	77.2	#540	235	D	48.7				
			I-5 Off-ramp	WB-T	5			E	77.2	#540	10			E	59.7	#334	
			I-5 Off-ramp	WB-R	315			C	33.4	61	575			D	44.0	121	
			Thorne Ln	NB-L	245	D	43.8	C	25.9	m155	375	C	26.0	C	26.0	m150	
			Thorne Ln	NB-T	125			C	25.9	m155	35			C	26.0	m150	
			Thorne Ln	NB-R	0						0						
			Thorne Ln	SB-L	0	F	102.9				0	E	56.4				
			Thorne Ln	SB-T	250			F	93.3	#373	460			E	57.2	#915	
Thorne Ln	SB-R	40	D	40.4	0			15	C	30.5	0						
20	Union Ave / Union Avenue Loop	Tee with Stop Sign on Union Avenue		Overall	730	B	10.4				1,090	B	11.6				
			Union Ave	EB-L		B	10.4				B	11.6					
			Union Ave	EB-T													
			Union Ave	EB-R	125			B	10.4	15			190	B	11.6	20	
			Thorne Ln	NB-L	230	-	4.4	A	8.4	15	330	-	4.8	A	8.9	20	
			Thorne Ln	NB-T	210			A	0.0	-	280			A	0.0		
			Thorne Ln	NB-R	0						0						
			Thorne Ln	SB-L	0	-	0.0				0	-	0.0				
Thorne Ln	SB-T	165	-	-	-			285	-	0.0							
Thorne Ln	SB-R	0						5									
22	I-5 NB Ramps / Gravelly Lake Drive	Signal		Overall	1,355	C	27.8				1,695	D	41.6				
			I-5 Off-ramp	EB-L	460	D	48.7	D	53.5	#449	745	E	64.6	E	65.1	#714	
			I-5 Off-ramp	EB-T	0			D	43.8	#309	65			E	64.1	#701	
			I-5 Off-ramp	EB-R	110			D	43.8	#309	65			E	64.1	#701	
			Gravelly Lk Dr	NB-L	0	D	48.6				0	E	67.3				
			Gravelly Lk Dr	NB-T	130			D	48.6	93	205			E	67.3	178	
			Gravelly Lk Dr	NB-R	40			D	48.6	93	45			E	67.3	178	
			Gravelly Lk Dr	SB-L	580	A	2.7	A	2.8	m21	560	A	1.7	A	1.9	m1	
Gravelly Lk Dr	SB-T	35	A	0.1	m0			70	A	0.1	m0						
Gravelly Lk Dr	SB-R	0						0									
23	I-5 SB Ramps / Gravelly Lake Drive	Signal		Overall	2,120	D	39.3				2,480	D	37.2				
			I-5 Off-ramp	WB-L	5	D	48.1	D	46.1	15	10	E	62.7				
			I-5 Off-ramp	WB-T	0			D	48.1	91	340			E	61.0	29	
			I-5 Off-ramp	WB-R	355			D	48.1	91	340			E	62.7	103	
			Gravelly Lk Dr	NB-L	60	A	7.0	A	7.0	44	40	A	8.4				
			Gravelly Lk Dr	NB-T	510			A	7.0	44	910			A	8.4	86	
			Gravelly Lk Dr	NB-R	0						0						
			Gravelly Lk Dr	SB-L	0	D	52.7				0	D	52.8				
Gravelly Lk Dr	SB-T	610	E	56.6	#764			620	E	57.4	#894						
Gravelly Lk Dr	SB-R	580	D	48.5	259			560	D	47.7	408						
25	Gravelly Lake Drive / Pacific Highway	Signal		Overall	2,370	C	33.0				2,840	D	37.1				
			Pacific Hwy	WB-L	90	D	53.2	D	54.1	63	250	E	68.3	E	71.1	175	
			Pacific Hwy	WB-T	0			D	53.2		0			E	68.3		
			Pacific Hwy	WB-R	125			D	52.5	60	150			E	63.5	132	
			Gravelly Lk Dr	NB-L	0	D	47.5				0	B	13.7				
			Gravelly Lk Dr	NB-T	825			D	47.9	361	1,125			B	14.8	174	
			Gravelly Lk Dr	NB-R	40			D	40.1	m19	125			A	4.1	m7	
			Gravelly Lk Dr	SB-L	190	C	19.8	B	14.9	138	260	D	51.2	D	41.0	295	
Gravelly Lk Dr	SB-T	1,100	C	20.7	437			930	D	54.1	542						
Gravelly Lk Dr	SB-R	0															

### Intersection Analysis Summary - 2040 No Build

No.	Intersection	Control Type	Approach Road	Movement	AM PEAK HOUR					PM PEAK HOUR						
					Post-Process Volume (vph)	LOS	Delay (sec)	LOS	Delay (sec)	95th Queue (ft)	Post-Process Volume (vph)	LOS	Delay (sec)	LOS	Delay (sec)	95th Queue (ft)
11	I-5 NB Ramps / 41st Division Drive (Main Gate)	Cloverleaf Merge / Diverge		Overall	2,380						2,880					
			I-5 Off Loop Ramp	EB-R	355						45					
			I-5 Off-Ramp	WB-R	135						50					
			41st Division Drive	NB-T	515						1,270					
			41st Division Drive	NB-R	305						440					
			41st Division Drive	SB-T	855						620					
			41st Division Drive	SB-R	215						455					
12	I-5 SB Ramps / 41st Division Drive (Main Gate)	Cloverleaf Merge / Diverge		Overall	2,000						2,950					
			I-5 Off Loop Ramp	EB-R	290						180					
			I-5 Off-ramp	WB-R	75						100					
			41st Division Drive	NB-T	405						630					
			41st Division Drive	NB-R	245						690					
			41st Division Drive	SB-T	780						895					
			41st Division Drive	SB-R	205						455					
13	I-5 NB Ramps / Berkeley Avenue	Signal		Overall	2,610	B	12.9				2,505	B	16.3			
			I-5 Off-ramp	EB-L	205			E	78.1	#286	115			D	49.3	157
			I-5 Off-ramp	EB-T	0	C	20.1				5	D	38.1			
			I-5 Off-ramp	EB-R	615			A	0.8	0	35			A	0.0	0
			Berkeley Ave	NB-L	0						0					
			Berkeley Ave	NB-T	280	C	20.0	E	56.4	#361	500	B	17.0	D	46.2	#562
			Berkeley Ave	NB-R	525			A	0.6	0	1,185			A	4.7	0
			Berkeley Ave	SB-L	70						235					
			Berkeley Ave	SB-T	915	A	1.0	A	1.0	21	430	A	9.3	A	9.3	80
			Berkeley Ave	SB-R	0											
14	I-5 SB Ramps / Berkeley Avenue	Signal		Overall	1,790	D	38.4				1,605	C	27.6			
			I-5 Off-ramp	WB-L	825			D	52.1	#505	350			D	50.4	#263
			I-5 Off-ramp	WB-T	0	D	47.1				5	D	47.5	D	50.4	#254
			I-5 Off-ramp	WB-R	235			C	29.1	49	80			D	36.9	35
			Berkeley Ave	NB-L	120			B	16.3	105	350			A	6.7	32
			Berkeley Ave	NB-T	365	B	16.3	B	16.3	105	265	A	6.7	A	6.7	32
			Berkeley Ave	NB-R	0						0					
			Berkeley Ave	SB-L	0						0					
			Berkeley Ave	SB-T	160	D	44.8	D	47.7	201	315	D	35.1	D	39.1	#367
			Berkeley Ave	SB-R	85			D	39.4	43	240			C	29.7	66
15	Berkley Avenue / Union Avenue	All-way Stop Control		Overall	920	C	15.2				965	C	19.6			
			Militia Dr	EB-L	5			B	10.3	10	0					
			Militia Dr	EB-T	5	B	10.3				0	A	10.0			
			Militia Dr	EB-R	0						10			A	10.0	0
			Union Ave	WB-L	120			B	12.8	61	200			C	17.4	70
			Union Ave	WB-T	5	B	11.8	A	9.4	17	5	C	16.1	A	9.6	12
			Union Ave	WB-R	45						35			A	9.6	12
			Berkeley Ave	NB-L	5			C	20.9	111	0			B	11.1	38
			Berkeley Ave	NB-T	385	C	17.1	A	9.9	18	110	B	12.3	B	12.9	23
			Berkeley Ave	NB-R	210						235					
			Berkeley Ave	SB-L	10			B	11.7	39	25			D	29.0	127
			Berkeley Ave	SB-T	125	B	11.7				345	D	29.0	D	29.0	127
			Berkeley Ave	SB-R	5						0					
17	Berkley Avenue/ Washington Avenue	Two-way Stop Control on Washington Avenue		Overall	590	B	14.3				520	B	12.2			
			Washington Ave	EB-L												
			Washington Ave	EB-T		A	8.8					B	10.4			
			Washington Ave	EB-R	5			A	8.8	0	5			B	10.4	0
			Washington Ave	WB-L	40			B	14.3	8	25			B	12.2	5
			Washington Ave	WB-T		B	14.3									
			Washington Ave	WB-R	10			B	14.3	8						
			Berkeley Ave	NB-L	5			A	7.4	0	5			A	8.0	
			Berkeley Ave	NB-T	415						340			0.1	0.0	
			Berkeley Ave	NB-R	15											
			Berkeley Ave	SB-L	5			A	8.3	0	5			A	7.5	
			Berkeley Ave	SB-T	95			A	0.0		95			0.3	0.0	
			Berkeley Ave	SB-R							45				0.0	

### Intersection Analysis Summary - 2040 No Build

No.	Intersection	Control Type	Approach Road	Movement	AM PEAK HOUR					PM PEAK HOUR							
					Post-Process Volume (vph)	LOS	Delay (sec)	LOS	Delay (sec)	95th Queue (ft)	Post-Process Volume (vph)	LOS	Delay (sec)	LOS	Delay (sec)	95th Queue (ft)	
																	Approach
18	I-5 NB Ramps / Thorne Lane	Signal		Overall	1,735	C	31.7				1,820	C	34.8				
			I-5 Off-ramp	EB-L	10	D	48.5	D	48.1	25	10	D	48.8	D	48.3	32	
			I-5 Off-ramp	EB-T	0					5	D			48.3	32		
			I-5 Off-ramp	EB-R	225			D	48.5	66	D			48.9	78		
			Thorne Ln	NB-L	0	D	47.0				0	D	52.4				
			Thorne Ln	NB-T	445			E	60.5	#596	E			72.0	#559		
			Thorne Ln	NB-R	345			C	29.7	101	C			33.1	92		
			Thorne Ln	SB-L	275	A	9.1				355	A	7.6				
			Thorne Ln	SB-T	435			A	9.1	m90	A			7.6	m97		
Thorne Ln	SB-R	0															
19	I-5 SB Ramps / Thorne Lane	Signal		Overall	1,555	E	56.0				1,435	D	45.0				
			I-5 Off-ramp	WB-L	395	E	69.7	E	101.0	#594	240	E	60.1	F	86.7	#397	
			I-5 Off-ramp	WB-T	5			E	101.0	#594	10			F	86.7	#397	
			I-5 Off-ramp	WB-R	340			C	32.9	69	C			39.3	76		
			Thorne Ln	NB-L	325	A	4.5	A	4.5	m55	355	A	4.7	A	4.7	m51	
			Thorne Ln	NB-T	130			A	4.5	m55	50			A	4.7	m51	
			Thorne Ln	NB-R	0						0						
			Thorne Ln	SB-L	0	F	92.8				0	E	61.7				
			Thorne Ln	SB-T	315			F	101.2	#489	F			62.5	#612		
Thorne Ln	SB-R	45	C	34.1	4			C	24.5	0							
20	Union Ave / Union Avenue Loop	Tee with Stop Sign on Union Avenue		Overall	830	B	11.2				835	B	12.8				
			Union Ave	EB-L		B	11.2					B	12.8				
			Union Ave	EB-T													
			Union Ave	EB-R	140			B	11.2	20	B			12.8	18		
			Thorne Ln	NB-L	250	-	4.6	A	8.7	20	220	-	5.4	A	9.0	14	
			Thorne Ln	NB-T	220			A	0.0		A			0.0			
			Thorne Ln	NB-R													
			Thorne Ln	SB-L		-	0.0					-	0.0				
Thorne Ln	SB-T	220							300								
Thorne Ln	SB-R								5								
22	I-5 NB Ramps / Gravelly Lake Drive	Signal		Overall	1,490	C	33.0				1,820	D	50.4				
			I-5 Off-ramp	EB-L	505	E	57.8	E	63.2	#544	720	E	56.7	E	57.2	#654	
			I-5 Off-ramp	EB-T	0					5	E			57.2	#654		
			I-5 Off-ramp	EB-R	110			D	52.2	#395	D			56.1	#638		
			Gravelly Lk Dr	NB-L	0	E	58.8				0	F	103.8				
			Gravelly Lk Dr	NB-T	140			E	58.8	120	E			108.3	#344		
			Gravelly Lk Dr	NB-R	45			E	58.8	120	E			108.3	#344		
			Gravelly Lk Dr	SB-L	685	A	4.0	A	4.1	m29	565	A	2.7	A	2.9	m2	
Gravelly Lk Dr	SB-T	5	A	0.0	m0			A	0.1	m0							
Gravelly Lk Dr	SB-R	0															
23	I-5 SB Ramps / Gravelly Lake Drive	Signal		Overall	2,345	D	43.3				2,520	D	41.5				
			I-5 Off-ramp	WB-L	5	E	57.0	E	55.3	17	5	E	58.1	E	56.5	17	
			I-5 Off-ramp	WB-T	0					0	E			56.5	17		
			I-5 Off-ramp	WB-R	305			E	57.1	93	E			58.1	90		
			Gravelly Lk Dr	NB-L	70	A	4.7	A	4.7	36	120	A	9.0				
			Gravelly Lk Dr	NB-T	575			A	4.7	36	A			9.0	m87		
			Gravelly Lk Dr	NB-R	0												
			Gravelly Lk Dr	SB-L	0	E	58.1				0	E	67.4				
Gravelly Lk Dr	SB-T	685	E	72.9	#958			E	88.6	#857							
Gravelly Lk Dr	SB-R	705	D	43.7	477			D	45.1	339							
25	Gravelly Lake Drive / Pacific Highway	Signal		Overall	2,640	D	36.6				2,720	D	47.6				
			Pacific Hwy	WB-L	125	D	43.1	D	44.1	70	210	E	67.7	E	70.5	150	
			Pacific Hwy	WB-T	0					0	E						
			Pacific Hwy	WB-R	145			D	42.3	58	E			64.4	135		
			Gravelly Lk Dr	NB-L	0	E	61.9				0	D	52.4				
			Gravelly Lk Dr	NB-T	830			E	63.9	#425	D			54.6	638		
			Gravelly Lk Dr	NB-R	50			C	28.2	37	C			31.3	86		
			Gravelly Lk Dr	SB-L	225	C	20.4	B	14.1	138	140	C	34.9	C	27.0	158	
Gravelly Lk Dr	SB-T	1,265	C	21.5	448			D	36.0	541							
Gravelly Lk Dr	SB-R	0															

## Intersection Analysis Summary - 2040 No Build

No.	Intersection	Control Type	Approach Road	Movement	AM PEAK HOUR					PM PEAK HOUR				
					Post-Process Volume (vph)	LOS	Delay (sec)	LOS	Delay (sec)	95th Queue (ft)	Post-Process Volume (vph)	LOS	Delay (sec)	LOS
					Approach		Movement			Approach		Movement		

Note: For Two-way Stop Control Intersections - Overall LOS and delay is based on worse approach/movement  
 Signalized and Non-signalized intersections analyzed with Synchro software  
 Roundabout intersections analyzed with Sidra software