APPENDIX A

BIKE AND PEDESTRIAN COUNTS & INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS - CALTRANS

TRANSPORTATION STUDIES, INC.

File B1905015
Location MAIN & PCH
Date 4-25-19
City: Huntington Beach

Bike

	NB			SB			EB			WB		
TIME	NR	NT	NL	SR	ST	SL	ER	ET	EL	WR	WT	WL
7:00 AM	0	0	0	0	0	0	0	1	0	0	14	0
7:15 AM	0	0	0	1	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	5	0
7:45 AM	0	0	0	2	0	0	0	4	0	0	1	0
8:00 AM	0	0	0	0	0	1	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	4	0
8:45 AM	0	0	0	0	0	0	0	6	0	0	4	0
4:00 PM	0	0	0	0	0	1	0	0	1	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	1	0	0	0	0	0	0	1	0

TRANSPORTATION STUDIES, INC.

File PB1905016
Location 1ST & PCH
Date 4-25-19
City: Huntington Beach

Bike

	NB			SB			EB			WB		
TIME	NR	NT	NL	SR	ST	SL	ER	ET	EL	WR	WT	WL
7:00 AM	0	0	0	0	1	0	0	2	0	0	2	0
7:15 AM	0	0	0	0	1	0	0	3	0	0	1	0
7:30 AM	0	0	0	0	1	0	0	4	0	0	3	0
7:45 AM	0	0	0	0	1	0	0	2	0	0	3	0
8:00 AM	0	0	0	1	0	0	0	0	0	0	2	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	5	0
8:45 AM	0	0	0	0	1	0	0	0	0	0	3	0
4:00 PM	0	0	0	0	2	0	0	0	0	0	2	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	3	0
4:30 PM	0	0	0	0	0	0	0	0	0	2	1	0
4:45 PM	0	0	0	1	2	0	0	0	0	0	0	0
5:00 PM	0	0	0	1	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	1	0	1	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0

TRANSPORTATION STUDIES, INC.

File B1905017
Location HUNTINGTON & PCH
Date 4-25-19
City: Huntington Beach

Bike

	NB			SB			EB			WB		
TIME	NR	NT	NL	SR	ST	SL	ER	ET	EL	WR	WT	WL
7:00 AM	0	0	2	0	0	0	1	1	0	0	13	0
7:15 AM	0	1	0	0	1	0	0	0	0	0	2	0
7:30 AM	0	0	0	0	1	0	0	4	0	0	3	0
7:45 AM	0	1	0	0	2	0	3	3	0	0	4	0
8:00 AM	0	0	0	0	0	0	0	13	0	0	2	0
8:15 AM	0	0	0	0	1	0	0	5	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	3	0	0	5	0
8:45 AM	0	1	0	0	2	0	0	5	0	0	2	0
4:00 PM	0	1	0	0	3	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	2	0	0	1	0	0	2	0
4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	2	0	0	0	0	0	1	0
5:00 PM	0	2	0	0	1	0	0	2	0	0	2	0
5:15 PM	0	2	0	0	0	0	0	0	0	1	1	0
5:30 PM	0	0	0	0	2	0	0	0	0	0	1	0
5:45 PM	0	2	1	0	1	0	0	1	0	0	2	0

TRANSPORTATION STUDIES, INC.

File B1905018
Location BEACH & PCH
Date 4-25-19
City: Huntington Beach

Bike

	NB			SB			EB			WB		
TIME	NR	NT	NL	SR	ST	SL	ER	ET	EL	WR	WT	WL
7:00 AM	0	0	0	0	0	0	0	1	0	0	14	0
7:15 AM	0	0	0	0	1	0	0	1	0	0	1	0
7:30 AM	0	0	0	0	0	0	2	3	0	0	3	0
7:45 AM	0	0	0	0	1	0	1	0	0	1	5	0
8:00 AM	0	0	0	0	0	0	0	6	0	0	2	0
8:15 AM	0	0	0	0	0	0	1	15	0	0	5	0
8:30 AM	0	0	0	0	1	0	0	3	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	3	0	0	2	0
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0
4:15 PM	0	0	0	0	2	0	0	1	0	0	2	0
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	3	0	0	0	0	0	1	0
5:00 PM	0	1	0	0	1	0	0	0	0	0	3	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0
5:30 PM	0	2	0	0	2	0	0	0	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0

TRANSPORTATION STUDIES, INC.

File B1905019
Location NEWLAND & PCH
Date 4-25-19
City: Huntington Beach

Bike

	NB			SB			EB			WB		
TIME	NR	NT	NL	SR	ST	SL	ER	ET	EL	WR	WT	WL
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	3	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	1	0	0	0	0	0	0	3	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	5	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	2	0	0	0	0	0	0	1	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	1	0	0	0	0	0	0	1	0
5:00 PM	0	0	0	1	0	0	0	0	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0

TRANSPORTATION STUDIES, INC.

File B1905020
Location MAGNOLIA & PCH
Date 4-25-19
City: Huntington Beach

Bike

	NB			SB			EB			WB		
TIME	NR	NT	NL	SR	ST	SL	ER	ET	EL	WR	WT	WL
7:00 AM	0	1	0	0	0	0	0	1	0	0	2	0
7:15 AM	0	1	0	2	0	0	1	2	0	0	1	0
7:30 AM	0	0	0	0	1	0	0	2	0	0	2	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	3	0
8:00 AM	0	0	0	1	0	0	0	6	0	0	0	0
8:15 AM	0	0	0	0	5	0	0	13	0	0	5	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	1	0
8:45 AM	1	2	0	0	0	0	1	8	0	0	3	0
4:00 PM	0	2	0	0	1	0	0	1	0	0	1	0
4:15 PM	0	0	0	0	1	0	0	2	0	0	1	0
4:30 PM	0	0	0	0	3	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	2	0	0	0	0	3	0	1	4	0
5:15 PM	0	0	0	1	2	0	0	2	0	1	0	0
5:30 PM	0	1	0	0	2	0	0	4	0	0	2	0
5:45 PM	0	0	0	3	0	0	0	0	0	0	0	0

TRANSPORTATION STUDIES, INC.

File B1905021
Location brookhurst & pch
Date 04-25-2019
City: Huntington Beach

Bike

	NORTH LEG			SOUTH LEG			EAST LEG			WEST LEG		
TIME	NR	NT	NL	SR	ST	SL	ER	ET	EL	WR	WT	WL
7:00 AM	0	0	0	0	0	0	0	3	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	1	0
8:45 AM	0	0	0	0	0	0	0	6	0	0	2	0
4:00 PM	0	0	0	0	0	0	0	2	0	0	1	0
4:15 PM	0	0	0	0	0	0	2	2	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	0	1	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0

TRANSPORTATION STUDIES, INC.

File B1905022
Location SUPERIOR & PCH
Date 4-25-19
City: Newport Beach

Bike

	NB			SB			EB			WB		
TIME	NR	NT	NL	SR	ST	SL	ER	ET	EL	WR	WT	WL
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	3	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	2	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	12	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	7	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	3	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	2	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	3	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	4	0	0	0	0

TRANSPORTATION STUDIES, INC.

File B1905023
Location NEWPORT & PCH
Date 4-25-19
City: Newport Beach

Bike

	NB			SB			EB			WB		
TIME	NR	NT	NL	SR	ST	SL	ER	ET	EL	WR	WT	WL
7:00 AM	0	0	0	0	0	0	0	2	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	4	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	1	0	0	0	14	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	7	0	0	1	0
8:45 AM	0	0	0	1	0	0	0	3	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	2	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	3	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	5	0	0	1	0
5:30 PM	0	0	0	0	0	1	0	3	0	0	1	0
5:45 PM	0	0	0	0	0	1	0	5	0	0	4	0

TRANSPORTATION STUDIES, INC.

File P1905015
Location MAIN & PCH
Date 4-25-19
City: Huntington Beach

PEDS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	6	0	0	29	6	11	13
7:15 AM	1	17	0	0	15	8	8	14
7:30 AM	1	2	0	0	12	8	8	7
7:45 AM	0	1	0	0	9	7	15	6
8:00 AM	2	4	0	0	10	13	8	9
8:15 AM	1	0	0	0	14	12	6	1
8:30 AM	3	1	0	0	11	21	19	21
8:45 AM	6	3	0	0	22	16	17	14
4:00 PM	20	23	0	0	86	62	63	81
4:15 PM	8	21	0	0	64	43	44	68
4:30 PM	32	21	0	0	96	35	75	44
4:45 PM	19	29	0	0	53	52	50	47
5:00 PM	36	17	0	0	61	51	77	55
5:15 PM	13	17	0	0	86	88	67	61
5:30 PM	30	20	0	0	75	90	82	45
5:45 PM	22	13	0	0	70	89	64	57

TRANSPORTATION STUDIES, INC.

File P1905016
Location 1ST & PCH
Date 4-25-19
City: Huntington Beach

PEDS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	14	5	0	0	0	0	4	5
7:15 AM	4	13	1	1	0	0	3	4
7:30 AM	6	3	1	0	0	0	8	1
7:45 AM	4	2	1	0	0	0	4	1
8:00 AM	0	11	3	0	0	0	0	4
8:15 AM	8	4	1	2	0	0	8	2
8:30 AM	3	6	0	2	0	0	0	3
8:45 AM	8	7	0	1	0	0	6	6
4:00 PM	38	30	3	0	0	0	17	16
4:15 PM	27	33	0	0	0	0	10	13
4:30 PM	25	20	1	1	0	0	14	25
4:45 PM	37	35	2	5	3	2	12	30
5:00 PM	36	51	5	2	0	0	15	6
5:15 PM	25	23	2	1	0	0	7	14
5:30 PM	36	21	1	2	0	0	10	12
5:45 PM	48	30	0	2	0	0	9	21

TRANSPORTATION STUDIES, INC.

File P1905017
Location HUNTINGTON & PCH
Date 4-25-19
City: Huntington Beach

PEDS

	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
TIME	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	2	0	2	3
7:15 AM	1	3	0	0	1	0	1	4
7:30 AM	2	2	1	0	2	3	1	2
7:45 AM	2	2	0	1	0	2	1	1
8:00 AM	0	3	0	1	1	3	3	4
8:15 AM	0	4	2	0	5	4	2	8
8:30 AM	4	6	0	0	4	0	2	8
8:45 AM	4	6	0	0	0	6	1	3
4:00 PM	3	3	0	3	5	3	4	23
4:15 PM	8	4	1	1	5	0	11	9
4:30 PM	3	2	0	9	2	9	17	5
4:45 PM	4	7	2	3	0	1	21	15
5:00 PM	1	17	6	0	0	11	6	8
5:15 PM	3	12	7	3	0	4	22	8
5:30 PM	0	18	0	4	3	5	2	15
5:45 PM	2	15	0	2	1	5	7	5

TRANSPORTATION STUDIES, INC.

File P1905018
Location BEACH & PCH
Date 4-25-19
City: Huntington Beach

PEDS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	1	2	1	1
7:15 AM	0	0	0	0	0	2	1	1
7:30 AM	0	0	0	0	4	0	0	1
7:45 AM	0	0	0	0	1	0	1	0
8:00 AM	0	0	1	1	3	3	1	2
8:15 AM	0	0	0	0	1	0	0	2
8:30 AM	0	0	1	0	1	2	0	1
8:45 AM	0	0	0	0	0	0	1	4
4:00 PM	0	0	0	0	2	0	2	1
4:15 PM	3	0	0	0	0	7	0	2
4:30 PM	0	0	1	0	8	2	4	0
4:45 PM	1	0	0	1	2	4	1	2
5:00 PM	0	1	0	1	0	4	0	1
5:15 PM	0	0	1	0	3	3	0	0
5:30 PM	0	0	0	0	2	6	2	0
5:45 PM	1	0	2	0	4	5	0	0

TRANSPORTATION STUDIES, INC.

File P1905019
Location NEWLAND & PCH
Date 4-25-19
City: Huntington Beach

PEDS

	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
TIME	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	1	0	0	5	1
7:15 AM	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	1	0	0	4
7:45 AM	0	1	0	0	2	0	0	3
8:00 AM	0	0	1	0	0	1	0	3
8:15 AM	0	0	0	0	0	0	1	1
8:30 AM	0	0	1	0	0	0	0	1
8:45 AM	0	0	1	0	1	0	3	1
4:00 PM	0	1	0	0	0	0	0	1
4:15 PM	0	1	0	0	1	0	1	1
4:30 PM	0	0	0	0	0	1	0	0
4:45 PM	0	0	1	0	0	0	0	1
5:00 PM	0	0	0	0	0	1	0	0
5:15 PM	0	0	0	1	0	1	0	0
5:30 PM	1	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	1

TRANSPORTATION STUDIES, INC.

File P1905020
Location MAGNOLIA & PCH
Date 04-25-19
City: Huntington Beach

PEDS

	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
TIME	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	1	2
7:15 AM	1	0	0	0	0	0	1	5
7:30 AM	0	0	0	1	0	0	3	0
7:45 AM	2	0	0	0	0	0	5	2
8:00 AM	0	0	0	0	0	0	2	3
8:15 AM	0	0	0	0	0	0	0	6
8:30 AM	0	2	0	0	0	0	0	4
8:45 AM	0	0	0	0	0	0	4	1
4:00 PM	0	1	0	0	0	0	2	3
4:15 PM	1	0	0	0	0	0	4	1
4:30 PM	0	0	0	0	0	0	1	2
4:45 PM	0	0	0	0	0	0	2	0
5:00 PM	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	7
5:45 PM	0	0	0	0	0	0	2	0

TRANSPORTATION STUDIES, INC.

File P1905021
Location brookhurst & pch
Date 04-25-2019
City: Huntington Beach

PEDS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	1	0	0	1	1
7:15 AM	1	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	3	1
7:45 AM	0	0	0	0	0	0	2	1
8:00 AM	0	0	0	0	0	0	2	0
8:15 AM	0	0	1	0	0	0	1	3
8:30 AM	0	0	0	0	0	0	2	1
8:45 AM	0	0	0	0	0	0	3	1
4:00 PM	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	5	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	4	1
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	3	0

TRANSPORTATION STUDIES, INC.

File P1905022
Location SUPERIOR & PCH
Date 4-25-19
City: Newport Beach

PEDS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	6	0	0	7	2	0	0
7:15 AM	0	0	0	0	1	2	0	0
7:30 AM	0	1	0	0	5	0	0	0
7:45 AM	1	2	2	0	3	4	0	0
8:00 AM	1	4	0	0	5	1	0	0
8:15 AM	3	1	0	0	1	1	0	1
8:30 AM	0	1	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	2	0	0
4:00 PM	1	2	0	2	3	1	0	0
4:15 PM	1	1	0	0	1	2	0	0
4:30 PM	0	1	0	0	4	4	0	0
4:45 PM	1	0	1	8	1	0	0	0
5:00 PM	0	1	0	0	6	3	0	0
5:15 PM	0	6	0	0	5	3	0	0
5:30 PM	4	1	0	0	9	8	0	0
5:45 PM	6	7	1	3	9	11	0	0

TRANSPORTATION STUDIES, INC.

File P1905023
Location NEWPORT & PCH
Date 4-25-19
City: Newport Beach

PEDS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0
7:45 AM	0	1	0	0	0	1	1	0
8:00 AM	0	0	0	0	2	2	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0
4:00 PM	0	3	0	0	0	3	0	1
4:15 PM	0	1	0	0	0	2	0	0
4:30 PM	0	2	0	0	0	3	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	1	1	0	0	1	2	0	1
5:15 PM	1	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1

APPENDIX A-I

EXISTING TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	16.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.421

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	37	43	35	1728	4	826	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	43	35	1728	4	826	24
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	11	9	441	1	211	6
Total Analysis Volume [veh/h]	38	44	36	1763	4	843	24
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	45		50		62		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	50		45		0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	12		0		8		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	8		62		12		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	4		5		21		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	34	0	10	36	10	36	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	4	69	1	65	65
g / C, Green / Cycle	0.05	0.05	0.04	0.60	0.01	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.02	0.35	0.00	0.17	0.02
s, saturation flow rate [veh/h]	1781	1542	1781	5094	1781	5094	1536
c, Capacity [veh/h]	88	76	64	3037	11	2888	871
d1, Uniform Delay [s]	53.11	53.46	54.57	14.33	56.89	12.92	10.95
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.35	6.83	7.67	0.82	17.17	0.26	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.58	0.57	0.58	0.35	0.29	0.03
d, Delay for Lane Group [s/veh]	56.47	60.29	62.24	15.15	74.06	13.17	11.00
Lane Group LOS	E	E	E	B	E	B	B
Critical Lane Group	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.16	1.40	1.14	8.60	0.17	3.52	0.26
50th-Percentile Queue Length [ft/ln]	28.96	34.97	28.41	214.94	4.19	87.99	6.60
95th-Percentile Queue Length [veh/ln]	2.08	2.52	2.05	13.41	0.30	6.34	0.48
95th-Percentile Queue Length [ft/ln]	52.12	62.94	51.14	335.16	7.54	158.38	11.88

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.47	60.29	62.24	15.15	74.06	13.17	11.00
Movement LOS	E	E	E	B	E	B	B
d_A, Approach Delay [s/veh]	58.52		16.09		13.39		
Approach LOS	E		B		B		
d_I, Intersection Delay [s/veh]	16.50						
Intersection LOS	B						
Intersection V/C	0.421						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	337.19	82.97	137.10
d_p, Pedestrian Delay [s]	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersection	1.990	3.167	3.226
Crosswalk LOS	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	57.50	57.50	57.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.122	4.611
Bicycle LOS	D	F	E

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	16.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.476

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	15	19	22	73	31	106	106	1676	4	25	723	52
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	19	22	73	31	106	106	1676	4	25	723	52
Peak Hour Factor	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	5	6	19	8	27	27	433	1	6	187	13
Total Analysis Volume [veh/h]	16	20	23	75	32	110	110	1733	4	26	748	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			15			14			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			14			15			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	5			19			4			28		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	4			28			5			19		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			4			11			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	13	35	0	10	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	14	14	14	7	53	53	3	48	48
g / C, Green / Cycle	0.05	0.05	0.05	0.15	0.15	0.15	0.08	0.59	0.59	0.03	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.03	0.03	0.04	0.06	0.32	0.32	0.01	0.15	0.15
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1833	2609	1781	3560	1867	1781	3560	1777
c, Capacity [veh/h]	92	96	82	274	282	401	142	2082	1092	57	1913	955
d1, Uniform Delay [s]	40.85	40.92	41.08	33.21	33.20	33.53	40.63	11.41	11.41	42.78	11.32	11.37
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.89	1.05	1.84	0.34	0.33	0.37	8.76	1.04	1.98	5.53	0.36	0.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.21	0.28	0.19	0.19	0.27	0.78	0.55	0.55	0.45	0.28	0.28
d, Delay for Lane Group [s/veh]	41.74	41.97	42.92	33.55	33.53	33.90	49.40	12.45	13.39	48.31	11.68	12.11
Lane Group LOS	D	D	D	C	C	C	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.36	0.45	0.53	1.01	1.03	1.05	2.62	5.99	6.57	0.63	2.59	2.75
50th-Percentile Queue Length [ft/ln]	9.07	11.35	13.33	25.30	25.78	26.36	65.62	149.78	164.27	15.81	64.65	68.78
95th-Percentile Queue Length [veh/ln]	0.65	0.82	0.96	1.82	1.86	1.90	4.72	10.01	10.77	1.14	4.65	4.95
95th-Percentile Queue Length [ft/ln]	16.32	20.42	24.00	45.53	46.41	47.44	118.12	250.13	269.37	28.46	116.36	123.80

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.74	41.97	42.92	33.54	33.53	33.90	49.40	12.77	13.39	48.31	11.81	12.11
Movement LOS	D	D	D	C	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	42.28			33.72			14.96			12.97		
Approach LOS	D			C			B			B		
d_I, Intersection Delay [s/veh]	16.33											
Intersection LOS	B											
Intersection V/C	0.476											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1099.75	201.39	329.18	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.155	2.391	3.162	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	133	689	689	622
d_b, Bicycle Delay [s]	39.20	19.38	19.45	21.45
l_b,int, Bicycle LOS Score for Intersection	1.657	1.918	2.575	2.015
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	10.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.597

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	3	0	10	36	2	61	44	1702	10	4	768	46
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	10	36	2	61	44	1702	10	4	768	46
Peak Hour Factor	0.942	0.942	0.942	0.942	0.942	0.942	0.942	0.942	0.942	0.942	0.942	0.942
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	1	0	3	10	1	16	12	452	3	1	204	12
Total Analysis Volume [veh/h]	3	0	11	38	2	65	47	1807	11	4	815	49
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	10			23			8			13		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	13			8			23			10		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			8			2			19		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			19			1			8		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			3			27			11		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	51	70	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	5	87	87	1	83	83
g / C, Green / Cycle	0.13	0.13	0.13	0.13	0.13	0.04	0.76	0.76	0.01	0.73	0.73
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.01	0.02	0.04	0.03	0.49	0.49	0.00	0.23	0.03
s, saturation flow rate [veh/h]	823	1349	1292	1112	1452	1781	1870	1865	1781	3560	1548
c, Capacity [veh/h]	170	175	200	204	188	73	1420	1416	11	2580	1121
d1, Uniform Delay [s]	48.76	43.90	46.54	46.14	45.40	54.28	6.47	6.49	56.90	5.66	4.50
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.15	0.18	0.24	1.08	8.90	2.22	2.24	17.75	0.32	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.06	0.09	0.11	0.34	0.64	0.64	0.64	0.35	0.32	0.04
d, Delay for Lane Group [s/veh]	48.80	44.05	46.72	46.38	46.48	63.18	8.70	8.73	74.65	5.98	4.57
Lane Group LOS	D	D	D	D	D	E	A	A	E	A	A
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.08	0.29	0.46	0.61	1.76	1.49	8.16	8.17	0.17	2.87	0.29
50th-Percentile Queue Length [ft/ln]	2.06	7.15	11.49	15.37	44.02	37.21	203.89	204.36	4.22	71.83	7.17
95th-Percentile Queue Length [veh/ln]	0.15	0.51	0.83	1.11	3.17	2.68	12.84	12.86	0.30	5.17	0.52
95th-Percentile Queue Length [ft/ln]	3.70	12.87	20.67	27.66	79.23	66.99	320.97	321.58	7.59	129.30	12.90

Movement, Approach, & Intersection Results

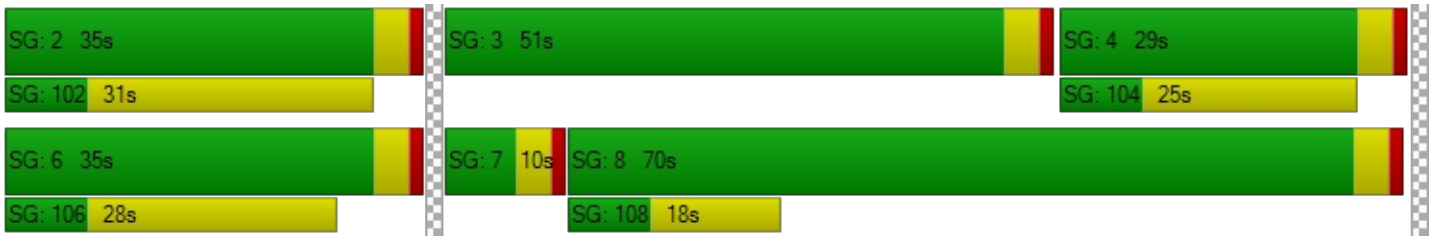
d_M, Delay for Movement [s/veh]	48.80	48.80	44.05	46.54	46.38	46.48	63.18	8.71	8.73	74.65	5.98	4.57
Movement LOS	D	D	D	D	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	45.07			46.50			10.09			6.22		
Approach LOS	D			D			B			A		
d_I, Intersection Delay [s/veh]	10.42											
Intersection LOS	B											
Intersection V/C	0.597											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2362.01	270.75	225.94	331.14
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersection	1.960	2.344	3.120	3.187
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	539	539	1148	435
d_b, Bicycle Delay [s]	30.71	30.72	10.58	35.41
l_b,int, Bicycle LOS Score for Intersection	1.571	1.733	3.098	2.276
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	26.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.612

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	10	20	28	576	47	126	76	1592	17	32	705	256
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	20	28	576	47	126	76	1592	17	32	705	256
Peak Hour Factor	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	5	7	153	12	33	20	422	5	8	187	68
Total Analysis Volume [veh/h]	11	21	30	610	50	133	81	1686	18	34	747	271
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	5			9			2			5		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	5			2			9			5		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			0			2			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			0			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			28			16		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	43	39	0	39	35	0	10	32	0	10	32	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	10	10	24	32	6	66	66	4	65	65
g / C, Green / Cycle	0.02	0.08	0.08	0.20	0.27	0.05	0.55	0.55	0.03	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.18	0.03	0.02	0.31	0.31	0.02	0.21	0.17
s, saturation flow rate [veh/h]	1781	3560	1531	3459	1870	3459	3560	1857	1781	3560	1560
c, Capacity [veh/h]	29	288	124	694	496	161	1962	1023	60	1917	840
d1, Uniform Delay [s]	58.39	50.99	51.66	46.54	33.30	55.84	17.63	17.65	57.08	16.18	15.41
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.64	0.11	1.00	3.80	0.09	2.40	1.21	2.32	7.93	0.60	1.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.07	0.24	0.88	0.10	0.50	0.57	0.57	0.56	0.39	0.32
d, Delay for Lane Group [s/veh]	66.03	51.09	52.66	50.34	33.39	58.24	18.84	19.96	65.02	16.78	16.43
Lane Group LOS	E	D	D	D	C	E	B	B	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.40	0.30	0.89	8.83	1.08	1.21	9.25	9.99	1.11	5.52	3.95
50th-Percentile Queue Length [ft/ln]	9.91	7.50	22.26	220.72	26.89	30.13	231.18	249.64	27.75	138.10	98.64
95th-Percentile Queue Length [veh/ln]	0.71	0.54	1.60	13.70	1.94	2.17	14.23	15.17	2.00	9.38	7.10
95th-Percentile Queue Length [ft/ln]	17.83	13.50	40.07	342.54	48.40	54.23	355.86	379.20	49.96	234.47	177.55

Movement, Approach, & Intersection Results

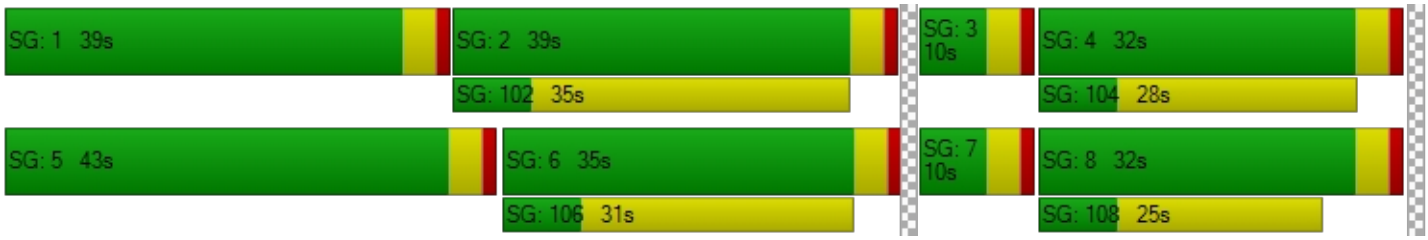
d_M, Delay for Movement [s/veh]	66.03	51.09	52.66	50.34	33.39	0.00	58.24	19.22	19.96	65.02	16.78	16.43
Movement LOS	E	D	D	D	C		E	B	B	E	B	B
d_A, Approach Delay [s/veh]	54.50			49.06			21.00			18.25		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	25.97											
Intersection LOS	C											
Intersection V/C	0.612											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2499.45	0.00	739.46	778.83
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.340	2.746	3.257	3.470
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	467	467
d_b, Bicycle Delay [s]	30.10	33.02	35.77	35.55
l_b,int, Bicycle LOS Score for Intersection	1.611	2.649	2.541	2.428
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.675

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	9	3	3	228	0	169	101	2049	3	2	701	54
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	3	3	228	0	169	101	2049	3	2	701	54
Peak Hour Factor	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	2	1	1	59	0	44	26	530	1	1	181	14
Total Analysis Volume [veh/h]	9	3	3	236	0	175	104	2119	3	2	725	56
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	3			9			5			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			5			9			3		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			0			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			1			10		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	39	0	26	41	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	22	22	22	22	7	56	56	0	49	49
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.08	0.62	0.62	0.00	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.01	0.00	0.17	0.00	0.11	0.06	0.42	0.00	0.00	0.14	0.04
s, saturation flow rate [veh/h]	1394	1715	1405	1870	1542	1781	5094	1555	1781	5094	1546
c, Capacity [veh/h]	387	419	386	457	377	135	3152	962	6	2783	844
d1, Uniform Delay [s]	27.55	25.77	33.12	0.00	28.86	40.82	11.20	6.55	44.75	10.80	9.60
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.01	1.58	0.00	0.89	8.87	1.16	0.01	29.38	0.23	0.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.01	0.61	0.00	0.46	0.77	0.67	0.00	0.33	0.26	0.07
d, Delay for Lane Group [s/veh]	27.57	25.79	34.70	0.00	29.75	49.69	12.36	6.56	74.13	11.03	9.75
Lane Group LOS	C	C	C	A	C	D	B	A	E	B	A
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.15	0.10	4.83	0.00	3.19	2.44	7.02	0.02	0.09	2.12	0.46
50th-Percentile Queue Length [ft/ln]	3.87	2.48	120.79	0.00	79.82	61.02	175.46	0.45	2.27	53.12	11.53
95th-Percentile Queue Length [veh/ln]	0.28	0.18	8.44	0.00	5.75	4.39	11.36	0.03	0.16	3.82	0.83
95th-Percentile Queue Length [ft/ln]	6.97	4.46	210.91	0.00	143.68	109.84	284.08	0.82	4.09	95.62	20.75

Movement, Approach, & Intersection Results

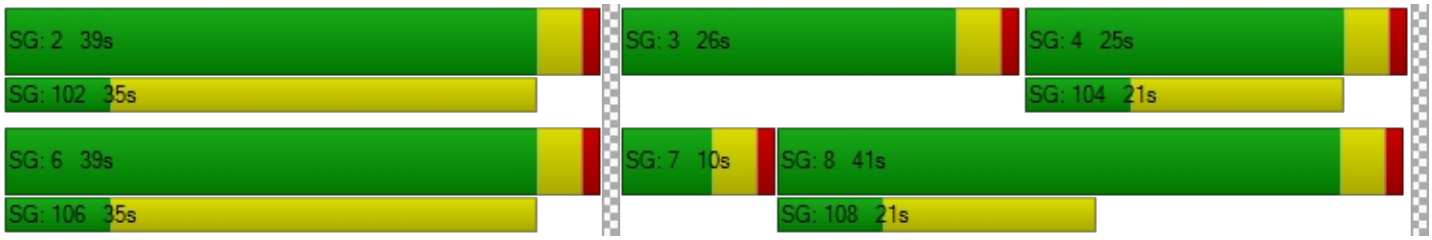
d_M, Delay for Movement [s/veh]	27.57	25.79	25.79	34.70	0.00	29.75	49.69	12.36	6.56	74.13	11.03	9.75
Movement LOS	C	C	C	C	A	C	D	B	A	E	B	A
d_A, Approach Delay [s/veh]	26.86			32.59			14.10			11.10		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	15.68											
Intersection LOS	B											
Intersection V/C	0.675											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	9321.33	8926.60	649.79	2843.62
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	1.945	2.294	3.438	3.762
Crosswalk LOS	A	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	778	778	822	467
d_b, Bicycle Delay [s]	16.81	16.81	15.61	26.58
l_b,int, Bicycle LOS Score for Intersection	1.584	2.238	2.784	1.990
Bicycle LOS	A	B	C	A

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	19.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.651

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	14	18	3	149	47	105	81	2164	39	54	697	53
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	18	3	149	47	105	81	2164	39	54	697	53
Peak Hour Factor	0.932	0.932	0.932	0.932	0.932	0.932	0.932	0.932	0.932	0.932	0.932	0.932
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	5	1	40	13	28	22	580	10	14	187	14
Total Analysis Volume [veh/h]	15	19	3	160	50	113	87	2322	42	58	748	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			15			7			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			7			15			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			2			0			2		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			2			0			2		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			29			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	25	46	0	10	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	17	17	17	7	63	63	5	62	62
g / C, Green / Cycle	0.04	0.04	0.16	0.16	0.16	0.06	0.60	0.60	0.05	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.06	0.06	0.08	0.05	0.46	0.03	0.03	0.15	0.04
s, saturation flow rate [veh/h]	1781	1817	1781	1822	1493	1781	5094	1529	1781	5094	1543
c, Capacity [veh/h]	67	69	284	290	238	114	3075	923	83	2987	905
d1, Uniform Delay [s]	49.01	49.19	39.40	39.40	39.94	48.35	15.15	8.47	49.32	10.53	9.32
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.64	2.63	0.79	0.77	1.47	10.01	1.78	0.09	10.04	0.20	0.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.22	0.32	0.37	0.37	0.47	0.76	0.76	0.05	0.70	0.25	0.06
d, Delay for Lane Group [s/veh]	50.65	51.83	40.19	40.17	41.41	58.36	16.93	8.56	59.35	10.73	9.45
Lane Group LOS	D	D	D	D	D	E	B	A	E	B	A
Critical Lane Group	No	Yes	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.42	0.62	2.38	2.42	2.65	2.45	11.20	0.35	1.66	2.40	0.51
50th-Percentile Queue Length [ft/ln]	10.38	15.40	59.42	60.59	66.20	61.18	280.04	8.71	41.45	59.96	12.69
95th-Percentile Queue Length [veh/ln]	0.75	1.11	4.28	4.36	4.77	4.41	16.69	0.63	2.98	4.32	0.91
95th-Percentile Queue Length [ft/ln]	18.68	27.72	106.96	109.06	119.16	110.13	417.26	15.67	74.60	107.92	22.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.65	51.83	51.83	40.18	40.17	41.41	58.36	16.93	8.56	59.35	10.73	9.45
Movement LOS	D	D	D	D	D	D	E	B	A	E	B	A
d_A, Approach Delay [s/veh]	51.35			40.61			18.25			13.91		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	19.53											
Intersection LOS	B											
Intersection V/C	0.651											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1869.39	375.11	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.998	2.316	3.476	0.000
Crosswalk LOS	A	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	114	667	800	514
d_b, Bicycle Delay [s]	46.74	23.40	19.18	29.10
l_b,int, Bicycle LOS Score for Intersection	1.621	2.093	2.908	2.034
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	23.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.729

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	33	32	20	551	9	153	210	2120	9	4	614	211
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	32	20	551	9	153	210	2120	9	4	614	211
Peak Hour Factor	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	9	8	5	144	2	40	55	556	2	1	161	55
Total Analysis Volume [veh/h]	35	34	21	578	9	160	220	2222	9	4	644	221
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			5			8			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			8			5			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			1			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			4		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	11	36	0	10	35	35
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	5	5	20	20	20	14	53	53	1	40	73
g / C, Green / Cycle	0.06	0.06	0.21	0.21	0.21	0.14	0.56	0.56	0.01	0.42	0.77
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.17	0.00	0.10	0.12	0.44	0.01	0.00	0.13	0.14
s, saturation flow rate [veh/h]	1781	1752	3459	1870	1560	1781	5094	1549	1781	5094	1565
c, Capacity [veh/h]	102	100	721	390	325	256	2849	866	11	2150	1208
d1, Uniform Delay [s]	43.06	43.58	35.72	29.89	33.08	39.74	16.37	9.28	47.00	18.16	2.86
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.98	4.59	2.12	0.02	1.15	8.25	2.19	0.02	17.17	0.36	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.34	0.55	0.80	0.02	0.49	0.86	0.78	0.01	0.35	0.30	0.18
d, Delay for Lane Group [s/veh]	45.04	48.17	37.84	29.92	34.23	47.99	18.56	9.30	64.16	18.52	2.94
Lane Group LOS	D	D	D	C	C	D	B	A	E	B	A
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.85	1.39	6.14	0.16	3.14	5.25	10.57	0.07	0.14	2.89	0.60
50th-Percentile Queue Length [ft/ln]	21.23	34.74	153.59	3.93	78.62	131.15	264.32	1.85	3.61	72.25	14.94
95th-Percentile Queue Length [veh/ln]	1.53	2.50	10.21	0.28	5.66	9.00	15.91	0.13	0.26	5.20	1.08
95th-Percentile Queue Length [ft/ln]	38.22	62.54	255.21	7.07	141.52	225.05	397.63	3.33	6.51	130.06	26.89

Movement, Approach, & Intersection Results

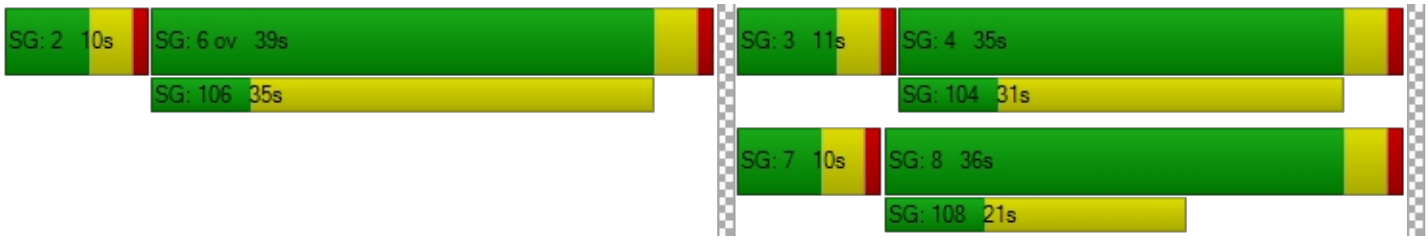
d_M, Delay for Movement [s/veh]	45.04	48.17	48.17	37.84	29.92	34.23	47.99	18.56	9.30	64.16	18.52	2.94
Movement LOS	D	D	D	D	C	C	D	B	A	E	B	A
d_A, Approach Delay [s/veh]	46.95			36.97			21.17			14.77		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	23.23											
Intersection LOS	C											
Intersection V/C	0.729											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	8684.44	0.00	674.47	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	37.14	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.973	2.699	3.463	0.000
Crosswalk LOS	A	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	126	737	674	653
d_b, Bicycle Delay [s]	41.69	18.95	20.96	21.60
l_b,int, Bicycle LOS Score for Intersection	1.708	2.792	2.908	2.038
Bicycle LOS	A	C	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	51.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.898

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	188	319	95	166	133	253	876	1945	304	75	544	202
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	188	319	95	166	133	253	876	1945	304	75	544	202
Peak Hour Factor	0.931	0.931	0.931	0.931	0.931	0.931	0.931	0.931	0.931	0.931	0.931	0.931
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	50	86	26	45	36	68	235	522	82	20	146	54
Total Analysis Volume [veh/h]	202	343	102	178	143	272	941	2089	327	81	584	217
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	16			0			0			8		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	8			0			0			16		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			2			9		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			9			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			24			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	10	10	36	61	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	26	26	26	11	11	11	51	36	59	59	8	31	31
g / C, Green / Cycle	0.22	0.22	0.22	0.09	0.09	0.09	0.43	0.30	0.49	0.49	0.07	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.13	0.16	0.15	0.07	0.07	0.07	0.11	0.32	0.49	0.25	0.05	0.14	0.16
s, saturation flow rate [veh/h]	1500	1575	1286	1500	1526	1433	2369	2912	4290	1306	1500	4290	1323
c, Capacity [veh/h]	323	339	277	140	142	134	1012	876	2108	642	100	1103	340
d1, Uniform Delay [s]	42.67	43.91	43.50	53.17	53.16	53.14	22.24	41.96	30.26	20.54	55.26	38.32	39.60
k, delay calibration	0.11	0.12	0.11	0.11	0.11	0.11	0.11	0.12	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.98	3.51	3.21	8.79	8.56	8.92	0.14	39.47	17.63	2.88	14.35	1.82	8.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.74	0.70	0.77	0.77	0.77	0.27	1.07	0.99	0.51	0.81	0.53	0.64
d, Delay for Lane Group [s/veh]	44.65	47.42	46.71	61.96	61.72	62.06	22.38	81.43	47.89	23.42	69.62	40.14	48.42
Lane Group LOS	D	D	D	E	E	E	C	F	D	C	E	D	D
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.61	7.26	5.58	3.48	3.52	3.31	2.44	17.03	21.31	6.21	2.76	4.96	6.33
50th-Percentile Queue Length [ft/ln]	140.23	181.60	139.40	86.99	88.09	82.65	61.06	425.76	532.83	155.25	68.92	123.96	158.31
95th-Percentile Queue Length [veh/ln]	9.49	11.68	9.45	6.26	6.34	5.95	4.40	24.87	28.88	10.30	4.96	8.61	10.46
95th-Percentile Queue Length [ft/ln]	237.33	292.10	236.22	156.5	158.5	148.7	109.9	621.79	722.12	257.42	124.06	215.26	261.48

Movement, Approach, & Intersection Results

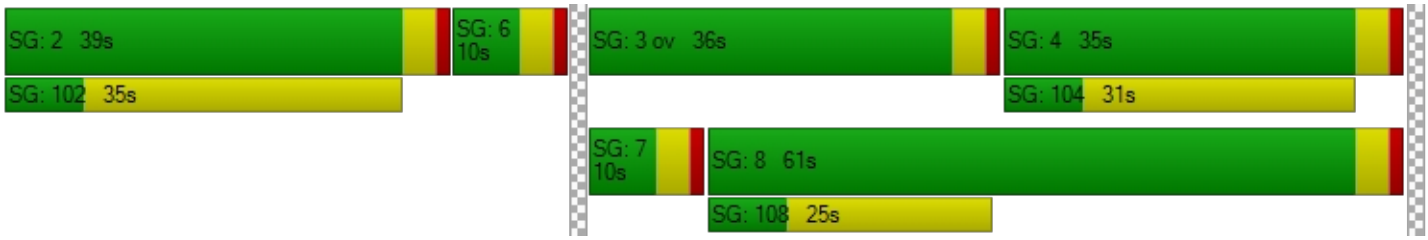
d_M, Delay for Movement [s/veh]	44.65	47.23	46.71	61.86	61.96	22.38	81.43	47.89	23.42	69.62	40.14	48.42
Movement LOS	D	D	D	E	E	C	F	D	C	E	D	D
d_A, Approach Delay [s/veh]	46.34			43.78			54.91			44.88		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	51.08											
Intersection LOS	D											
Intersection V/C	0.898											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1320.29	558.62	0.00	299.31
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.547	2.997	0.000	3.334
Crosswalk LOS	B	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	100	950	517
d_b, Bicycle Delay [s]	30.10	54.15	16.74	33.00
l_b,int, Bicycle LOS Score for Intersection	2.093	2.049	3.406	1.923
Bicycle LOS	B	B	C	A

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	22.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.906

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name	Newport Boulevard			Newport Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	0	0	0	433	0	214	0	1938	183	0	818	384
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	433	0	214	0	1938	183	0	818	384
Peak Hour Factor	1.000	1.000	1.000	0.957	1.000	0.957	1.000	0.957	0.957	1.000	0.957	0.957
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	113	0	56	0	506	48	0	214	100
Total Analysis Volume [veh/h]	0	0	0	452	0	224	0	2025	191	0	855	401
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			2			24			1		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	29	0	0	0	91	0	0	91	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		22	22	90	90
g / C, Green / Cycle		0.19	0.19	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate		0.16	0.17	0.68	0.20
s, saturation flow rate [veh/h]		2912	1319	2998	4290
c, Capacity [veh/h]		546	247	2236	3199
d1, Uniform Delay [s]		46.88	47.56	11.95	4.84
k, delay calibration		0.11	0.22	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		3.27	20.25	6.68	0.21
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.83	0.91	0.91	0.27
d, Delay for Lane Group [s/veh]		50.15	67.81	18.63	5.05
Lane Group LOS		D	E	B	A
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		6.79	7.97	17.35	1.80
50th-Percentile Queue Length [ft/ln]		169.63	199.14	433.74	45.10
95th-Percentile Queue Length [veh/ln]		11.06	12.59	24.18	3.25
95th-Percentile Queue Length [ft/ln]		276.42	314.86	604.52	81.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	50.15	0.00	67.81	0.00	18.63	0.00	0.00	5.05	0.00
Movement LOS				D		E		B			A	
d_A, Approach Delay [s/veh]	0.00			56.00			18.63			5.05		
Approach LOS	A			E			B			A		
d_I, Intersection Delay [s/veh]	22.47											
Intersection LOS	C											
Intersection V/C	0.906											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	3744.14	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.282	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1450	1450
d_b, Bicycle Delay [s]	60.00	60.00	4.59	4.54
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	3.230	2.030
Bicycle LOS	D	D	C	B

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	22.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.446

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	48	49	72	1070	31	1478	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	49	72	1070	31	1478	85
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	13	19	286	8	395	23
Total Analysis Volume [veh/h]	51	52	77	1143	33	1579	91
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	218		290		318		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	290		218		0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	101		0		67		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	67		318		101		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	1		0		5		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	14	35	10	31	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	5	41	3	39	39
g / C, Green / Cycle	0.06	0.06	0.06	0.46	0.04	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.04	0.22	0.02	0.31	0.06
s, saturation flow rate [veh/h]	1781	1565	1781	5094	1781	5094	1551
c, Capacity [veh/h]	110	96	103	2316	68	2215	674
d1, Uniform Delay [s]	40.79	40.96	41.75	17.25	42.44	20.83	15.24
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.03	4.61	10.29	0.75	5.38	1.99	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.54	0.75	0.49	0.49	0.71	0.13
d, Delay for Lane Group [s/veh]	43.82	45.57	52.05	18.00	47.82	22.81	15.66
Lane Group LOS	D	D	D	B	D	C	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.18	1.24	1.90	5.10	0.79	8.44	1.09
50th-Percentile Queue Length [ft/ln]	29.62	31.04	47.60	127.39	19.75	211.10	27.37
95th-Percentile Queue Length [veh/ln]	2.13	2.24	3.43	8.80	1.42	13.21	1.97
95th-Percentile Queue Length [ft/ln]	53.31	55.88	85.68	219.94	35.55	330.24	49.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.82	45.57	52.05	18.00	47.82	22.81	15.66
Movement LOS	D	D	D	B	D	C	B
d_A, Approach Delay [s/veh]	44.70		20.15		22.92		
Approach LOS	D		C		C		
d_I, Intersection Delay [s/veh]	22.54						
Intersection LOS	C						
Intersection V/C	0.446						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	41.49	19.12	32.68
d_p, Pedestrian Delay [s]	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.013	3.189	3.255
Crosswalk LOS	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	45.00	45.00	45.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.803	5.069
Bicycle LOS	D	E	F

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	27.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.580

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	35	23	35	96	22	84	148	944	5	24	1457	128
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	23	35	96	22	84	148	944	5	24	1457	128
Peak Hour Factor	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	9	6	9	25	6	22	38	244	1	6	377	33
Total Analysis Volume [veh/h]	36	24	36	99	23	87	153	976	5	25	1507	132
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			74			51			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			51			74			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	8			125			8			139		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	8			139			8			125		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			5			1			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	28	50	0	10	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	27	27	27	11	53	53	3	45	45
g / C, Green / Cycle	0.05	0.05	0.05	0.26	0.26	0.26	0.11	0.51	0.51	0.03	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.03	0.03	0.04	0.09	0.18	0.18	0.01	0.31	0.35
s, saturation flow rate [veh/h]	1781	1851	1589	1781	1813	2371	1781	3560	1864	1781	3560	1586
c, Capacity [veh/h]	96	99	85	461	469	613	188	1799	942	53	1529	681
d1, Uniform Delay [s]	47.81	47.79	48.10	29.87	29.86	29.77	45.94	15.69	15.69	50.10	24.62	26.14
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.83	1.70	3.28	0.13	0.12	0.10	8.20	0.56	1.06	6.23	2.85	9.89
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.30	0.42	0.13	0.13	0.14	0.81	0.36	0.36	0.47	0.71	0.81
d, Delay for Lane Group [s/veh]	49.64	49.49	51.38	29.99	29.98	29.87	54.14	16.25	16.76	56.33	27.47	36.03
Lane Group LOS	D	D	D	C	C	C	D	B	B	E	C	D
Critical Lane Group	No	No	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.80	0.81	1.00	1.18	1.19	0.84	4.20	4.40	4.75	0.72	10.85	12.84
50th-Percentile Queue Length [ft/ln]	20.11	20.32	24.91	29.47	29.82	21.00	105.02	110.07	118.66	17.99	271.21	320.98
95th-Percentile Queue Length [veh/ln]	1.45	1.46	1.79	2.12	2.15	1.51	7.56	7.84	8.32	1.30	16.25	18.72
95th-Percentile Queue Length [ft/ln]	36.19	36.58	44.84	53.04	53.67	37.81	189.04	196.10	207.98	32.38	406.25	467.89

Movement, Approach, & Intersection Results

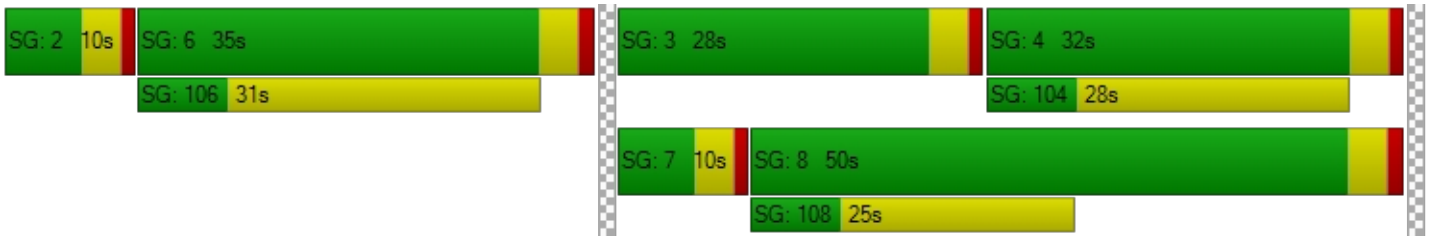
d_M, Delay for Movement [s/veh]	49.61	49.49	51.38	29.99	29.98	29.87	54.14	16.42	16.76	56.33	29.84	36.03
Movement LOS	D	D	D	C	C	C	D	B	B	E	C	D
d_A, Approach Delay [s/veh]	50.24			29.94			21.51			30.73		
Approach LOS	D			C			C			C		
d_I, Intersection Delay [s/veh]	27.91											
Intersection LOS	C											
Intersection V/C	0.580											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	527.46	24.71	65.26	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.169	2.425	3.179	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	114	590	876	533
d_b, Bicycle Delay [s]	46.67	26.14	16.58	28.35
l_b,int, Bicycle LOS Score for Intersection	1.718	1.904	2.183	2.475
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	17.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.637

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	15	5	26	45	2	74	77	1011	9	15	1550	43
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	5	26	45	2	74	77	1011	9	15	1550	43
Peak Hour Factor	0.941	0.941	0.941	0.941	0.941	0.941	0.941	0.941	0.941	0.941	0.941	0.941
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	1	7	12	1	20	20	269	2	4	412	11
Total Analysis Volume [veh/h]	16	5	28	48	2	79	82	1074	10	16	1647	46
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	2			36			66			25		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	25			66			36			2		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	15			11			15			38		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	15			38			15			11		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	7			4			3			7		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	24	65	0	10	51	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	24	24	24	7	72	72	2	68	68
g / C, Green / Cycle	0.22	0.22	0.22	0.22	0.22	0.06	0.65	0.65	0.02	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.02	0.06	0.05	0.29	0.29	0.01	0.46	0.03
s, saturation flow rate [veh/h]	1055	1366	1301	1150	1345	1781	1870	1862	1781	3560	1529
c, Capacity [veh/h]	286	296	306	312	291	108	1221	1216	38	2185	938
d1, Uniform Delay [s]	35.89	34.48	37.18	36.80	35.54	50.84	9.34	9.34	53.13	15.28	8.46
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	0.14	0.10	0.12	0.50	10.16	1.17	1.18	7.00	2.47	0.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.09	0.07	0.09	0.27	0.76	0.44	0.45	0.42	0.75	0.05
d, Delay for Lane Group [s/veh]	36.00	34.62	37.28	36.92	36.04	61.01	10.51	10.52	60.12	17.75	8.56
Lane Group LOS	D	C	D	D	D	E	B	B	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.49	0.62	0.52	0.63	1.81	2.47	5.78	5.76	0.50	13.34	0.41
50th-Percentile Queue Length [ft/ln]	12.34	15.50	13.02	15.76	45.25	61.71	144.38	144.05	12.50	333.44	10.37
95th-Percentile Queue Length [veh/ln]	0.89	1.12	0.94	1.13	3.26	4.44	9.72	9.70	0.90	19.33	0.75
95th-Percentile Queue Length [ft/ln]	22.21	27.89	23.44	28.37	81.45	111.07	242.91	242.46	22.50	483.17	18.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.00	36.00	34.62	37.09	36.92	36.04	61.01	10.52	10.52	60.12	17.75	8.56
Movement LOS	D	D	C	D	D	D	E	B	B	E	B	A
d_A, Approach Delay [s/veh]	35.21			36.44			14.07			17.90		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	17.50											
Intersection LOS	B											
Intersection V/C	0.637											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	246.33	156.76	67.27	281.95
d_p, Pedestrian Delay [s]	44.55	44.55	44.55	44.55
l_p,int, Pedestrian LOS Score for Intersection	1.971	2.352	3.183	3.231
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	564	564	1109	855
d_b, Bicycle Delay [s]	28.47	28.43	10.93	18.10
l_b,int, Bicycle LOS Score for Intersection	1.600	1.772	2.522	2.970
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	26.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.720

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	13	38	18	294	30	193	166	935	11	15	1372	717
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	38	18	294	30	193	166	935	11	15	1372	717
Peak Hour Factor	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	10	5	76	8	50	43	241	3	4	354	185
Total Analysis Volume [veh/h]	13	39	19	303	31	199	171	965	11	15	1416	740
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	10			5			5			17		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	17			5			5			10		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	2			4			1			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			1			2			4		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			1			6		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	42	0	18	39	0	10	50	0	10	50	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	16	16	12	27	8	73	73	2	67	67
g / C, Green / Cycle	0.02	0.13	0.13	0.10	0.22	0.07	0.61	0.61	0.02	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.09	0.02	0.05	0.18	0.18	0.01	0.40	0.47
s, saturation flow rate [veh/h]	1781	3560	1470	3459	1870	3459	3560	1858	1781	3560	1562
c, Capacity [veh/h]	32	481	199	360	413	236	2164	1129	35	1992	874
d1, Uniform Delay [s]	58.28	45.38	45.43	52.79	37.02	54.81	11.26	11.26	58.14	19.34	21.80
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.96	0.07	0.21	5.36	0.08	4.22	0.35	0.67	7.93	2.19	9.94
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.40	0.08	0.10	0.84	0.07	0.73	0.30	0.30	0.43	0.71	0.85
d, Delay for Lane Group [s/veh]	66.23	45.45	45.63	58.15	37.09	59.03	11.61	11.93	66.07	21.53	31.74
Lane Group LOS	E	D	D	E	D	E	B	B	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.47	0.52	0.51	4.60	0.71	2.57	3.64	3.90	0.51	13.13	17.17
50th-Percentile Queue Length [ft/ln]	11.63	13.03	12.87	114.93	17.69	64.25	90.99	97.59	12.78	328.29	429.22
95th-Percentile Queue Length [veh/ln]	0.84	0.94	0.93	8.11	1.27	4.63	6.55	7.03	0.92	19.07	23.96
95th-Percentile Queue Length [ft/ln]	20.93	23.45	23.17	202.84	31.85	115.65	163.78	175.66	23.00	476.86	599.10

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	66.23	45.45	45.63	58.15	37.09	0.00	59.03	11.72	11.93	66.07	21.53	31.74
Movement LOS	E	D	D	E	D		E	B	B	E	C	C
d_A, Approach Delay [s/veh]	49.31			56.19			18.77			25.32		
Approach LOS	D			E			B			C		
d_I, Intersection Delay [s/veh]	26.53											
Intersection LOS	C											
Intersection V/C	0.720											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2536.13	0.00	814.07	292.42
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.334	2.814	3.265	3.491
Crosswalk LOS	B	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	583	767	767
d_b, Bicycle Delay [s]	28.06	30.19	22.83	22.89
l_b,int, Bicycle LOS Score for Intersection	1.618	2.111	2.190	3.351
Bicycle LOS	A	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	13.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.659

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	7	9	8	85	5	191	116	1114	7	4	1861	220
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	9	8	85	5	191	116	1114	7	4	1861	220
Peak Hour Factor	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	2	2	2	22	1	49	30	287	2	1	480	57
Total Analysis Volume [veh/h]	7	9	8	88	5	197	120	1150	7	4	1921	227
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	1			3			1			1		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	1			1			3			1		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			1			2		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			2			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			2			1			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	41	0	0	41	0	11	39	0	10	38	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	8	63	63	1	56	56
g / C, Green / Cycle	0.16	0.16	0.16	0.16	0.16	0.09	0.70	0.70	0.01	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.06	0.00	0.13	0.07	0.23	0.00	0.00	0.38	0.15
s, saturation flow rate [veh/h]	1401	1710	1391	1870	1555	1781	5094	1556	1781	5094	1552
c, Capacity [veh/h]	277	276	268	302	251	153	3557	1086	12	3154	961
d1, Uniform Delay [s]	33.38	31.95	35.94	31.72	36.11	40.31	5.29	4.11	44.49	10.48	7.62
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.09	0.71	0.02	5.34	8.45	0.24	0.01	15.00	0.88	0.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.06	0.33	0.02	0.78	0.78	0.32	0.01	0.33	0.61	0.24
d, Delay for Lane Group [s/veh]	33.41	32.05	36.65	31.74	41.46	48.76	5.53	4.12	59.49	11.37	8.19
Lane Group LOS	C	C	D	C	D	D	A	A	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.14	0.32	1.79	0.09	4.39	2.78	1.82	0.03	0.13	5.90	1.61
50th-Percentile Queue Length [ft/ln]	3.38	8.04	44.82	2.28	109.73	69.55	45.38	0.70	3.35	147.62	40.22
95th-Percentile Queue Length [veh/ln]	0.24	0.58	3.23	0.16	7.83	5.01	3.27	0.05	0.24	9.89	2.90
95th-Percentile Queue Length [ft/ln]	6.09	14.47	80.67	4.11	195.63	125.20	81.68	1.25	6.03	247.24	72.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.41	32.05	32.05	36.65	31.74	41.46	48.76	5.53	4.12	59.49	11.37	8.19
Movement LOS	C	C	C	D	C	D	D	A	A	E	B	A
d_A, Approach Delay [s/veh]	32.44			39.83			9.59			11.12		
Approach LOS	C			D			A			B		
d_I, Intersection Delay [s/veh]	12.96											
Intersection LOS	B											
Intersection V/C	0.659											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	9226.46	2845.30	2224.30	5013.96
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	1.951	2.314	3.495	3.609
Crosswalk LOS	A	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	822	822	778	756
d_b, Bicycle Delay [s]	15.62	15.62	16.81	17.45
l_b,int, Bicycle LOS Score for Intersection	1.599	2.038	2.262	2.743
Bicycle LOS	A	B	B	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	16.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.654

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	5	20	14	72	21	74	100	1030	28	39	2075	198
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	20	14	72	21	74	100	1030	28	39	2075	198
Peak Hour Factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	1	5	4	19	6	20	27	274	7	10	552	53
Total Analysis Volume [veh/h]	5	21	15	77	22	79	106	1096	30	41	2207	211
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			6			9			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			9			6			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			8			9			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	12	31	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	11	11	11	7	55	55	4	52	52
g / C, Green / Cycle	0.04	0.04	0.13	0.13	0.13	0.08	0.61	0.61	0.04	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.03	0.03	0.05	0.06	0.22	0.02	0.02	0.43	0.14
s, saturation flow rate [veh/h]	1781	1720	1781	1819	1495	1781	5094	1549	1781	5094	1547
c, Capacity [veh/h]	76	74	229	234	192	137	3097	942	76	2923	888
d1, Uniform Delay [s]	41.33	42.10	35.16	35.15	35.97	40.76	8.81	7.05	42.19	14.42	9.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.36	4.91	0.47	0.45	1.41	8.88	0.32	0.06	5.72	1.87	0.63
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.49	0.22	0.21	0.41	0.77	0.35	0.03	0.54	0.75	0.24
d, Delay for Lane Group [s/veh]	41.69	47.01	35.62	35.60	37.38	49.65	9.13	7.11	47.91	16.28	10.05
Lane Group LOS	D	D	D	D	D	D	A	A	D	B	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.11	0.88	0.95	0.96	1.59	2.49	2.77	0.19	0.96	9.08	1.76
50th-Percentile Queue Length [ft/ln]	2.86	22.07	23.81	24.09	39.80	62.15	69.26	4.81	23.93	227.11	44.09
95th-Percentile Queue Length [veh/ln]	0.21	1.59	1.71	1.73	2.87	4.47	4.99	0.35	1.72	14.03	3.17
95th-Percentile Queue Length [ft/ln]	5.14	39.73	42.86	43.37	71.63	111.87	124.67	8.66	43.07	350.69	79.36

Movement, Approach, & Intersection Results

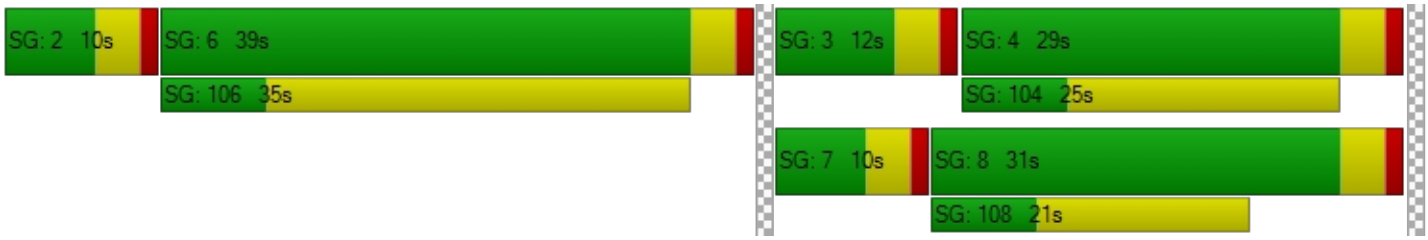
d_M, Delay for Movement [s/veh]	41.69	47.01	47.01	35.61	35.60	37.38	49.65	9.13	7.11	47.91	16.28	10.05
Movement LOS	D	D	D	D	D	D	D	A	A	D	B	B
d_A, Approach Delay [s/veh]	46.36			36.40			12.57			16.28		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	16.34											
Intersection LOS	B											
Intersection V/C	0.654											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	2997.60	679.47	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.976	2.319	3.512	0.000
Crosswalk LOS	A	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	133	778	600	556
d_b, Bicycle Delay [s]	39.26	16.87	22.15	23.57
l_b,int, Bicycle LOS Score for Intersection	1.627	1.853	2.237	2.912
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	28.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.842

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	37	41	19	352	22	211	191	925	7	27	2086	842
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	41	19	352	22	211	191	925	7	27	2086	842
Peak Hour Factor	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	10	11	5	95	6	57	51	249	2	7	562	227
Total Analysis Volume [veh/h]	40	44	20	379	24	227	206	997	8	29	2248	907
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			4			9			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			9			4			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	10	61	0	10	61	61
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	23	23	23	16	71	71	4	59	96
g / C, Green / Cycle	0.05	0.05	0.19	0.19	0.19	0.13	0.59	0.59	0.03	0.49	0.80
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.11	0.01	0.15	0.12	0.20	0.01	0.02	0.44	0.58
s, saturation flow rate [veh/h]	1781	1772	3459	1870	1558	1781	5094	1551	1781	5094	1564
c, Capacity [veh/h]	89	89	671	363	302	232	3014	918	55	2509	1256
d1, Uniform Delay [s]	55.39	56.18	43.78	39.49	45.48	51.33	12.44	10.05	57.27	27.66	5.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.51	10.53	0.75	0.08	3.76	10.97	0.29	0.02	7.54	5.53	3.62
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.72	0.56	0.07	0.75	0.89	0.33	0.01	0.53	0.90	0.72
d, Delay for Lane Group [s/veh]	58.91	66.70	44.53	39.56	49.24	62.30	12.73	10.07	64.81	33.19	9.04
Lane Group LOS	E	E	D	D	D	E	B	B	E	C	A
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.27	2.19	4.98	0.57	6.43	6.52	4.04	0.08	0.96	18.91	7.14
50th-Percentile Queue Length [ft/ln]	31.85	54.63	124.52	14.22	160.67	163.00	101.11	2.04	23.90	472.64	178.59
95th-Percentile Queue Length [veh/ln]	2.29	3.93	8.64	1.02	10.58	10.71	7.28	0.15	1.72	26.04	11.53
95th-Percentile Queue Length [ft/ln]	57.32	98.33	216.02	25.59	264.61	267.70	181.99	3.67	43.02	650.92	288.17

Movement, Approach, & Intersection Results

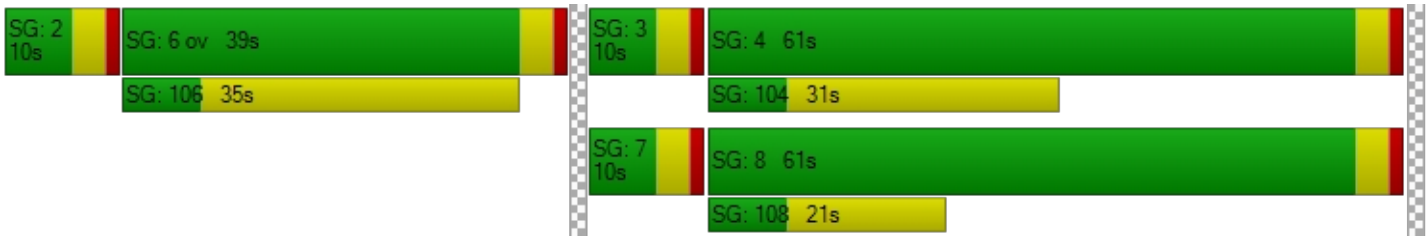
d_M, Delay for Movement [s/veh]	58.91	66.70	66.70	44.53	39.56	49.24	62.30	12.73	10.07	64.81	33.19	9.04
Movement LOS	E	E	E	D	D	D	E	B	B	E	C	A
d_A, Approach Delay [s/veh]	63.71			46.04			21.14			26.60		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	28.45											
Intersection LOS	C											
Intersection V/C	0.842											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	453.17	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.999	2.894	3.572	0.000
Crosswalk LOS	A	C	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	950
d_b, Bicycle Delay [s]	54.15	30.10	16.60	16.56
l_b,int, Bicycle LOS Score for Intersection	1.731	2.599	2.226	3.311
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	104.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.911

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	308	202	82	155	195	806	255	842	183	148	2278	106
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	308	202	82	155	195	806	255	842	183	148	2278	106
Peak Hour Factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	83	54	22	42	52	217	69	226	49	40	612	28
Total Analysis Volume [veh/h]	331	217	88	167	210	867	274	905	197	159	2449	114
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	29			0			0			25		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	25			0			0			29		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	3			10			1			15		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			15			3			10		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			1			10			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	22	22	12	49	0	10	47	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	19	19	19	36	13	41	41	15	43	43
g / C, Green / Cycle	0.24	0.24	0.24	0.16	0.16	0.16	0.30	0.11	0.34	0.34	0.12	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.15	0.15	0.15	0.08	0.08	0.08	0.37	0.09	0.21	0.15	0.11	0.44	0.44
s, saturation flow rate [veh/h]	1500	1536	1273	1500	1551	1433	2351	2912	4290	1309	1500	4290	1523
c, Capacity [veh/h]	362	371	307	240	248	229	702	308	1472	449	184	1543	548
d1, Uniform Delay [s]	40.44	40.42	40.75	46.26	46.25	46.25	41.92	52.95	32.80	30.34	51.69	38.41	38.41
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.26	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.63	1.58	2.14	1.80	1.73	1.87	112.0	8.59	1.93	3.09	11.49	106.23	120.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.60	0.60	0.63	0.53	0.53	0.53	1.23	0.89	0.61	0.44	0.87	1.22	1.23
d, Delay for Lane Group [s/veh]	42.06	42.00	42.90	48.06	47.98	48.11	153.9	61.54	34.73	33.43	63.18	144.64	158.58
Lane Group LOS	D	D	D	D	D	D	F	E	C	C	E	F	F
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.90	6.02	5.31	3.53	3.63	3.36	20.92	4.30	7.18	4.57	5.15	29.48	33.52
50th-Percentile Queue Length [ft/ln]	147.47	150.44	132.83	88.14	90.77	84.00	522.9	107.45	179.58	114.17	128.82	736.99	838.02
95th-Percentile Queue Length [veh/ln]	9.88	10.04	9.09	6.35	6.54	6.05	31.97	7.70	11.58	8.07	8.88	43.49	49.04
95th-Percentile Queue Length [ft/ln]	247.05	251.02	227.34	158.6	163.3	151.1	799.3	192.44	289.47	201.78	221.89	1087.25	1226.03

Movement, Approach, & Intersection Results

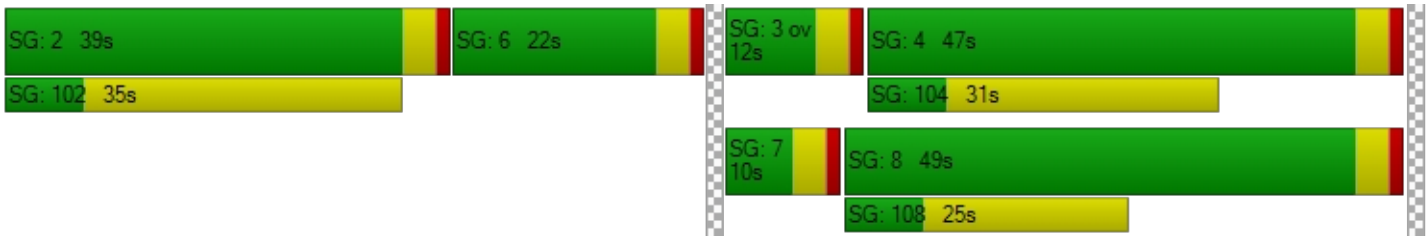
d_M, Delay for Movement [s/veh]	42.04	42.44	42.90	48.06	48.06	153.94	61.54	34.73	33.43	63.18	147.84	158.58
Movement LOS	D	D	D	D	D	F	E	C	C	E	F	F
d_A, Approach Delay [s/veh]	42.30			121.85			39.88			143.35		
Approach LOS	D			F			D			F		
d_I, Intersection Delay [s/veh]	104.31											
Intersection LOS	F											
Intersection V/C	0.911											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1170.73	271.41	0.00	135.23
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.548	2.951	0.000	3.449
Crosswalk LOS	B	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	300	750	717
d_b, Bicycle Delay [s]	30.12	43.37	23.56	24.70
l_b,int, Bicycle LOS Score for Intersection	2.084	2.586	2.316	2.682
Bicycle LOS	B	B	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	23.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.912

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name	Newport Boulevard			Newport Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	0	0	0	365	0	377	0	1114	126	0	2228	615
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	365	0	377	0	1114	126	0	2228	615
Peak Hour Factor	1.000	1.000	1.000	0.960	1.000	0.960	1.000	0.960	0.960	1.000	0.960	0.960
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	95	0	98	0	290	33	0	580	160
Total Analysis Volume [veh/h]	0	0	0	380	0	393	0	1160	131	0	2321	641
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			6		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			6			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			2			16			6		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	55	0	0	0	45	0	0	45	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		100	100	100	100
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		32	32	60	60
g / C, Green / Cycle		0.32	0.32	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate		0.13	0.30	0.39	0.54
s, saturation flow rate [veh/h]		2912	1321	2998	4290
c, Capacity [veh/h]		949	430	1781	2548
d1, Uniform Delay [s]		26.13	32.16	13.44	17.96
k, delay calibration		0.11	0.16	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.27	10.75	1.87	6.25
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.40	0.91	0.65	0.91
d, Delay for Lane Group [s/veh]		26.40	42.91	15.31	24.20
Lane Group LOS		C	D	B	C
Critical Lane Group		No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		3.55	10.24	7.73	14.43
50th-Percentile Queue Length [ft/ln]		88.81	255.97	193.26	360.69
95th-Percentile Queue Length [veh/ln]		6.39	15.49	12.29	20.66
95th-Percentile Queue Length [ft/ln]		159.86	387.16	307.26	516.42

Movement, Approach, & Intersection Results

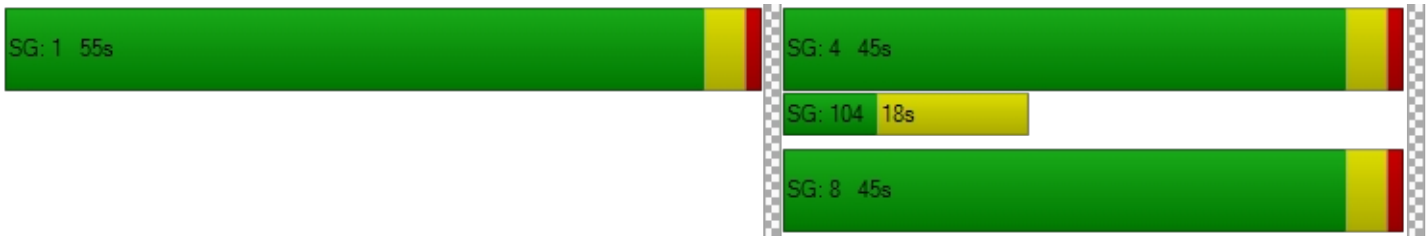
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	26.40	0.00	42.91	0.00	15.31	0.00	0.00	24.20	0.00
Movement LOS				C		D		B			C	
d_A, Approach Delay [s/veh]	0.00			34.79			15.31			24.20		
Approach LOS	A			C			B			C		
d_I, Intersection Delay [s/veh]	23.70											
Intersection LOS	C											
Intersection V/C	0.912											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1494.84	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	39.61	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.293	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	820	820
d_b, Bicycle Delay [s]	50.00	50.00	17.55	17.46
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	2.517	2.836
Bicycle LOS	D	D	B	C

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX A-II

EXISTING PLUS PROJECT TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	16.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.425

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	37	43	35	1748	4	856	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	43	35	1748	4	856	24
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	11	9	446	1	218	6
Total Analysis Volume [veh/h]	38	44	36	1784	4	873	24
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	45		50		62		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	50		45		0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	12		0		8		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	8		62		12		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	4		5		21		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	18	0	19	52	10	43	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	4	69	1	65	65
g / C, Green / Cycle	0.05	0.05	0.04	0.60	0.01	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.02	0.35	0.00	0.17	0.02
s, saturation flow rate [veh/h]	1781	1541	1781	5094	1781	5094	1536
c, Capacity [veh/h]	87	75	64	3040	11	2889	871
d1, Uniform Delay [s]	53.17	53.52	54.53	14.38	56.89	13.00	10.93
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.46	7.09	7.47	0.84	17.17	0.27	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.59	0.56	0.59	0.35	0.30	0.03
d, Delay for Lane Group [s/veh]	56.63	60.61	62.00	15.22	74.06	13.26	10.99
Lane Group LOS	E	E	E	B	E	B	B
Critical Lane Group	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.16	1.40	1.13	8.75	0.17	3.67	0.26
50th-Percentile Queue Length [ft/ln]	29.00	35.07	28.34	218.73	4.19	91.75	6.59
95th-Percentile Queue Length [veh/ln]	2.09	2.53	2.04	13.60	0.30	6.61	0.47
95th-Percentile Queue Length [ft/ln]	52.21	63.13	51.02	340.00	7.54	165.14	11.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.63	60.61	62.00	15.22	74.06	13.26	10.99
Movement LOS	E	E	E	B	E	B	B
d_A, Approach Delay [s/veh]	58.77		16.15		13.47		
Approach LOS	E		B		B		
d_I, Intersection Delay [s/veh]	16.53						
Intersection LOS	B						
Intersection V/C	0.425						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	337.19	82.97	137.10
d_p, Pedestrian Delay [s]	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersection	1.990	3.177	3.235
Crosswalk LOS	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	57.50	57.50	57.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.133	4.628
Bicycle LOS	D	F	E

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	16.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.481

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	15	19	22	73	31	106	106	1696	4	25	753	52
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	19	22	73	31	106	106	1696	4	25	753	52
Peak Hour Factor	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	5	6	19	8	27	27	438	1	6	195	13
Total Analysis Volume [veh/h]	16	20	23	75	32	110	110	1754	4	26	779	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			15			14			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			14			15			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	5			19			4			28		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	4			28			5			19		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			4			11			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	13	35	0	10	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	14	14	14	7	53	53	3	48	48
g / C, Green / Cycle	0.05	0.05	0.05	0.15	0.15	0.15	0.08	0.59	0.59	0.03	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.03	0.03	0.04	0.06	0.32	0.32	0.01	0.15	0.16
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1833	2609	1781	3560	1867	1781	3560	1780
c, Capacity [veh/h]	92	96	82	274	282	401	142	2082	1092	57	1913	956
d1, Uniform Delay [s]	40.85	40.92	41.08	33.21	33.20	33.53	40.63	11.48	11.48	42.78	11.40	11.44
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.89	1.05	1.84	0.34	0.33	0.37	8.76	1.07	2.03	5.53	0.38	0.78
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.21	0.28	0.19	0.19	0.27	0.78	0.55	0.55	0.45	0.29	0.29
d, Delay for Lane Group [s/veh]	41.74	41.97	42.92	33.55	33.53	33.90	49.40	12.54	13.51	48.31	11.78	12.23
Lane Group LOS	D	D	D	C	C	C	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.36	0.45	0.53	1.01	1.03	1.05	2.62	6.10	6.69	0.63	2.70	2.88
50th-Percentile Queue Length [ft/ln]	9.07	11.35	13.33	25.30	25.78	26.36	65.62	152.52	167.34	15.81	67.61	71.97
95th-Percentile Queue Length [veh/ln]	0.65	0.82	0.96	1.82	1.86	1.90	4.72	10.15	10.94	1.14	4.87	5.18
95th-Percentile Queue Length [ft/ln]	16.32	20.42	24.00	45.53	46.41	47.44	118.12	253.79	273.42	28.46	121.70	129.54

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.74	41.97	42.92	33.54	33.53	33.90	49.40	12.87	13.51	48.31	11.91	12.23
Movement LOS	D	D	D	C	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	42.28			33.72			15.03			13.03		
Approach LOS	D			C			B			B		
d_I, Intersection Delay [s/veh]	16.34											
Intersection LOS	B											
Intersection V/C	0.481											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1099.75	201.39	329.18	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.155	2.391	3.173	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	133	689	689	622
d_b, Bicycle Delay [s]	39.20	19.38	19.45	21.45
l_b,int, Bicycle LOS Score for Intersection	1.657	1.918	2.587	2.032
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	10.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.600

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	3	0	10	36	2	61	44	1722	10	4	798	46
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	10	36	2	61	44	1722	10	4	798	46
Peak Hour Factor	0.942	0.942	0.942	0.942	0.942	0.942	0.942	0.942	0.942	0.942	0.942	0.942
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	1	0	3	10	1	16	12	457	3	1	212	12
Total Analysis Volume [veh/h]	3	0	11	38	2	65	47	1828	11	4	847	49
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	10			23			8			13		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	13			8			23			10		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			8			2			19		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			19			1			8		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			3			27			11		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	47	75	0	10	38	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	5	92	92	1	88	88
g / C, Green / Cycle	0.13	0.13	0.13	0.13	0.13	0.04	0.77	0.77	0.01	0.73	0.73
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.01	0.02	0.04	0.03	0.49	0.49	0.00	0.24	0.03
s, saturation flow rate [veh/h]	858	1348	1290	1121	1450	1781	1870	1865	1781	3560	1548
c, Capacity [veh/h]	170	173	197	201	186	73	1432	1428	11	2603	1132
d1, Uniform Delay [s]	50.61	45.99	48.60	48.23	47.56	56.70	6.49	6.51	59.37	5.69	4.48
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.15	0.19	0.25	1.12	9.26	2.23	2.25	17.33	0.33	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.06	0.09	0.11	0.35	0.65	0.64	0.64	0.35	0.33	0.04
d, Delay for Lane Group [s/veh]	50.65	46.14	48.79	48.47	48.68	65.96	8.72	8.75	76.70	6.02	4.55
Lane Group LOS	D	D	D	D	D	E	A	A	E	A	A
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.09	0.30	0.48	0.64	1.85	1.56	8.56	8.58	0.17	3.10	0.29
50th-Percentile Queue Length [ft/ln]	2.15	7.51	12.10	16.03	46.20	38.98	214.00	214.54	4.34	77.61	7.35
95th-Percentile Queue Length [veh/ln]	0.15	0.54	0.87	1.15	3.33	2.81	13.36	13.39	0.31	5.59	0.53
95th-Percentile Queue Length [ft/ln]	3.87	13.51	21.78	28.86	83.16	70.17	333.96	334.65	7.81	139.70	13.23

Movement, Approach, & Intersection Results

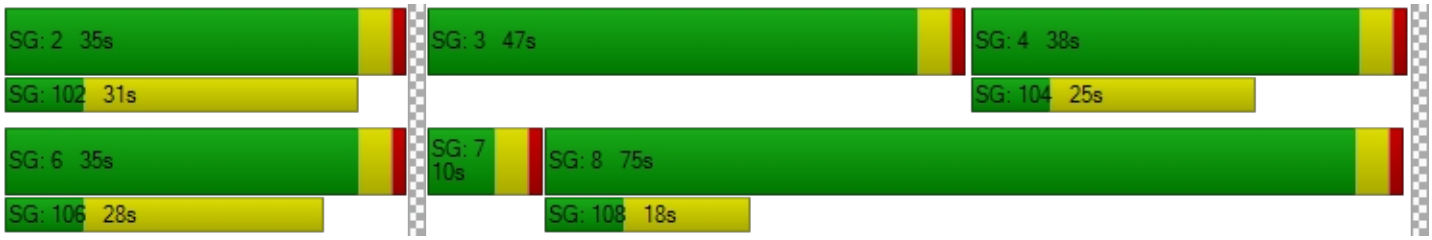
d_M, Delay for Movement [s/veh]	50.65	50.65	46.14	48.62	48.47	48.68	65.96	8.74	8.75	76.70	6.02	4.55
Movement LOS	D	D	D	D	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	47.11			48.66			10.16			6.26		
Approach LOS	D			D			B			A		
d_I, Intersection Delay [s/veh]	10.52											
Intersection LOS	B											
Intersection V/C	0.600											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2259.86	258.21	215.02	316.08
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.962	2.346	3.137	3.202
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	517	517	1183	567
d_b, Bicycle Delay [s]	33.04	33.05	10.14	30.99
l_b,int, Bicycle LOS Score for Intersection	1.571	1.733	3.116	2.302
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	26.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.616

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	10	20	28	576	47	126	76	1612	17	32	735	256
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	20	28	576	47	126	76	1612	17	32	735	256
Peak Hour Factor	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	5	7	153	12	33	20	427	5	8	195	68
Total Analysis Volume [veh/h]	11	21	30	610	50	133	81	1708	18	34	779	271
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	5			9			2			5		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	5			2			9			5		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			0			2			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			0			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			28			16		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	43	39	0	39	35	0	10	32	0	10	32	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	10	10	24	32	6	66	66	4	65	65
g / C, Green / Cycle	0.02	0.08	0.08	0.20	0.27	0.05	0.55	0.55	0.03	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.18	0.03	0.02	0.32	0.32	0.02	0.22	0.17
s, saturation flow rate [veh/h]	1781	3560	1531	3459	1870	3459	3560	1857	1781	3560	1560
c, Capacity [veh/h]	29	288	124	694	496	161	1962	1023	60	1917	840
d1, Uniform Delay [s]	58.39	50.99	51.66	46.54	33.30	55.84	17.74	17.75	57.08	16.36	15.41
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.64	0.11	1.00	3.80	0.09	2.40	1.25	2.39	7.93	0.64	1.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.07	0.24	0.88	0.10	0.50	0.58	0.58	0.56	0.41	0.32
d, Delay for Lane Group [s/veh]	66.03	51.09	52.66	50.34	33.39	58.24	18.98	20.14	65.02	17.00	16.43
Lane Group LOS	E	D	D	D	C	E	B	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.40	0.30	0.89	8.83	1.08	1.21	9.43	10.18	1.11	5.83	3.95
50th-Percentile Queue Length [ft/ln]	9.91	7.50	22.26	220.72	26.89	30.13	235.64	254.57	27.75	145.74	98.64
95th-Percentile Queue Length [veh/ln]	0.71	0.54	1.60	13.70	1.94	2.17	14.46	15.42	2.00	9.79	7.10
95th-Percentile Queue Length [ft/ln]	17.83	13.50	40.07	342.54	48.40	54.23	361.52	385.40	49.96	244.74	177.55

Movement, Approach, & Intersection Results

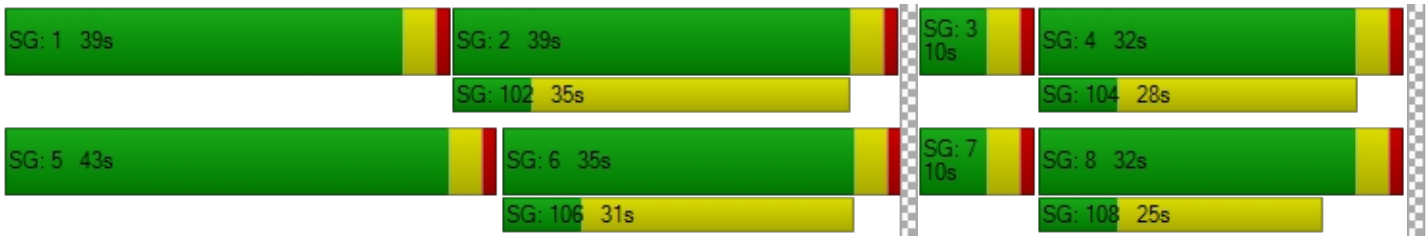
d_M, Delay for Movement [s/veh]	66.03	51.09	52.66	50.34	33.39	0.00	58.24	19.37	20.14	65.02	17.00	16.43
Movement LOS	E	D	D	D	C		E	B	C	E	B	B
d_A, Approach Delay [s/veh]	54.50			49.06			21.12			18.37		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	25.97											
Intersection LOS	C											
Intersection V/C	0.616											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2499.45	0.00	739.46	778.83
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.340	2.746	3.271	3.484
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	467	467
d_b, Bicycle Delay [s]	30.10	33.02	35.77	35.55
l_b,int, Bicycle LOS Score for Intersection	1.611	2.649	2.553	2.454
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.680

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	9	3	3	228	0	169	101	2069	3	2	731	54
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	3	3	228	0	169	101	2069	3	2	731	54
Peak Hour Factor	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	2	1	1	59	0	44	26	535	1	1	189	14
Total Analysis Volume [veh/h]	9	3	3	236	0	175	104	2140	3	2	756	56
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	3			9			5			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			5			9			3		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			0			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			1			10		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	39	0	26	41	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	22	22	22	22	7	56	56	0	49	49
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.08	0.62	0.62	0.00	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.01	0.00	0.17	0.00	0.11	0.06	0.42	0.00	0.00	0.15	0.04
s, saturation flow rate [veh/h]	1394	1715	1405	1870	1542	1781	5094	1555	1781	5094	1546
c, Capacity [veh/h]	387	419	386	457	377	135	3152	962	6	2783	844
d1, Uniform Delay [s]	27.55	25.77	33.12	0.00	28.86	40.82	11.28	6.55	44.75	10.88	9.60
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.01	1.58	0.00	0.89	8.87	1.20	0.01	29.38	0.24	0.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.01	0.61	0.00	0.46	0.77	0.68	0.00	0.33	0.27	0.07
d, Delay for Lane Group [s/veh]	27.57	25.79	34.70	0.00	29.75	49.69	12.48	6.56	74.13	11.12	9.75
Lane Group LOS	C	C	C	A	C	D	B	A	E	B	A
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.15	0.10	4.83	0.00	3.19	2.44	7.14	0.02	0.09	2.23	0.46
50th-Percentile Queue Length [ft/ln]	3.87	2.48	120.79	0.00	79.82	61.02	178.57	0.45	2.27	55.80	11.53
95th-Percentile Queue Length [veh/ln]	0.28	0.18	8.44	0.00	5.75	4.39	11.53	0.03	0.16	4.02	0.83
95th-Percentile Queue Length [ft/ln]	6.97	4.46	210.91	0.00	143.68	109.84	288.15	0.82	4.09	100.45	20.75

Movement, Approach, & Intersection Results

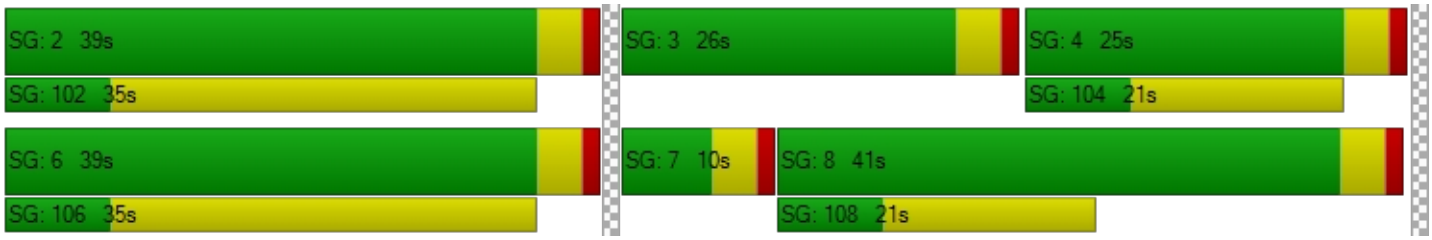
d_M, Delay for Movement [s/veh]	27.57	25.79	25.79	34.70	0.00	29.75	49.69	12.48	6.56	74.13	11.12	9.75
Movement LOS	C	C	C	C	A	C	D	B	A	E	B	A
d_A, Approach Delay [s/veh]	26.86			32.59			14.19			11.18		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	15.71											
Intersection LOS	B											
Intersection V/C	0.680											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	9321.33	8926.60	649.79	2843.62
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	1.945	2.294	3.450	3.774
Crosswalk LOS	A	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	778	778	822	467
d_b, Bicycle Delay [s]	16.81	16.81	15.61	26.58
l_b,int, Bicycle LOS Score for Intersection	1.584	2.238	2.795	2.007
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	21.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.674

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	14	18	3	170	47	135	101	2164	39	54	697	68
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	18	3	170	47	135	101	2164	39	54	697	68
Peak Hour Factor	0.932	0.932	0.932	0.932	0.932	0.932	0.932	0.932	0.932	0.932	0.932	0.932
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	5	1	46	13	36	27	580	10	14	187	18
Total Analysis Volume [veh/h]	15	19	3	182	50	145	108	2322	42	58	748	73
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			15			7			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			7			15			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			2			0			2		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			2			0			2		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			29			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	27	46	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	18	18	18	8	62	62	5	59	59
g / C, Green / Cycle	0.04	0.04	0.17	0.17	0.17	0.08	0.59	0.59	0.05	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.06	0.06	0.10	0.06	0.46	0.03	0.03	0.15	0.05
s, saturation flow rate [veh/h]	1781	1817	1781	1818	1500	1781	5094	1529	1781	5094	1543
c, Capacity [veh/h]	67	69	309	315	260	139	3003	901	83	2844	861
d1, Uniform Delay [s]	49.01	49.19	38.33	38.33	39.46	47.52	16.26	9.09	49.32	12.01	10.74
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.64	2.63	0.74	0.73	1.86	9.03	2.00	0.10	10.04	0.23	0.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.22	0.32	0.37	0.37	0.56	0.78	0.77	0.05	0.70	0.26	0.08
d, Delay for Lane Group [s/veh]	50.65	51.83	39.08	39.06	41.32	56.55	18.26	9.18	59.35	12.23	10.93
Lane Group LOS	D	D	D	D	D	E	B	A	E	B	B
Critical Lane Group	No	Yes	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.42	0.62	2.59	2.64	3.41	2.98	11.85	0.37	1.66	2.64	0.72
50th-Percentile Queue Length [ft/ln]	10.38	15.40	64.68	65.92	85.35	74.48	296.16	9.17	41.45	66.05	18.06
95th-Percentile Queue Length [veh/ln]	0.75	1.11	4.66	4.75	6.14	5.36	17.49	0.66	2.98	4.76	1.30
95th-Percentile Queue Length [ft/ln]	18.68	27.72	116.43	118.65	153.62	134.06	437.28	16.51	74.60	118.90	32.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.65	51.83	51.83	39.07	39.06	41.32	56.55	18.26	9.18	59.35	12.23	10.93
Movement LOS	D	D	D	D	D	D	E	B	A	E	B	B
d_A, Approach Delay [s/veh]	51.35			39.93			19.78			15.23		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	21.05											
Intersection LOS	C											
Intersection V/C	0.674											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1793.78	359.96	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.998	2.349	3.488	0.000
Crosswalk LOS	A	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	114	667	800	476
d_b, Bicycle Delay [s]	46.74	23.40	19.18	30.61
l_b,int, Bicycle LOS Score for Intersection	1.621	2.182	2.919	2.043
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	23.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.734

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	33	32	20	551	9	153	210	2141	9	4	629	211
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	32	20	551	9	153	210	2141	9	4	629	211
Peak Hour Factor	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	9	8	5	144	2	40	55	561	2	1	165	55
Total Analysis Volume [veh/h]	35	34	21	578	9	160	220	2244	9	4	659	221
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			5			8			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			8			5			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			1			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			4		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	11	36	0	10	35	35
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	5	5	20	20	20	14	53	53	1	40	73
g / C, Green / Cycle	0.06	0.06	0.21	0.21	0.21	0.14	0.56	0.56	0.01	0.42	0.77
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.17	0.00	0.10	0.12	0.44	0.01	0.00	0.13	0.14
s, saturation flow rate [veh/h]	1781	1752	3459	1870	1560	1781	5094	1549	1781	5094	1565
c, Capacity [veh/h]	102	100	721	390	325	256	2849	866	11	2150	1208
d1, Uniform Delay [s]	43.06	43.58	35.72	29.89	33.08	39.74	16.49	9.28	47.00	18.23	2.86
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.98	4.59	2.12	0.02	1.15	8.25	2.29	0.02	17.17	0.37	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.34	0.55	0.80	0.02	0.49	0.86	0.79	0.01	0.35	0.31	0.18
d, Delay for Lane Group [s/veh]	45.04	48.17	37.84	29.92	34.23	47.99	18.78	9.30	64.16	18.60	2.94
Lane Group LOS	D	D	D	C	C	D	B	A	E	B	A
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.85	1.39	6.14	0.16	3.14	5.25	10.78	0.07	0.14	2.97	0.60
50th-Percentile Queue Length [ft/ln]	21.23	34.74	153.59	3.93	78.62	131.15	269.39	1.85	3.61	74.20	14.94
95th-Percentile Queue Length [veh/ln]	1.53	2.50	10.21	0.28	5.66	9.00	16.16	0.13	0.26	5.34	1.08
95th-Percentile Queue Length [ft/ln]	38.22	62.54	255.21	7.07	141.52	225.05	403.97	3.33	6.51	133.56	26.89

Movement, Approach, & Intersection Results

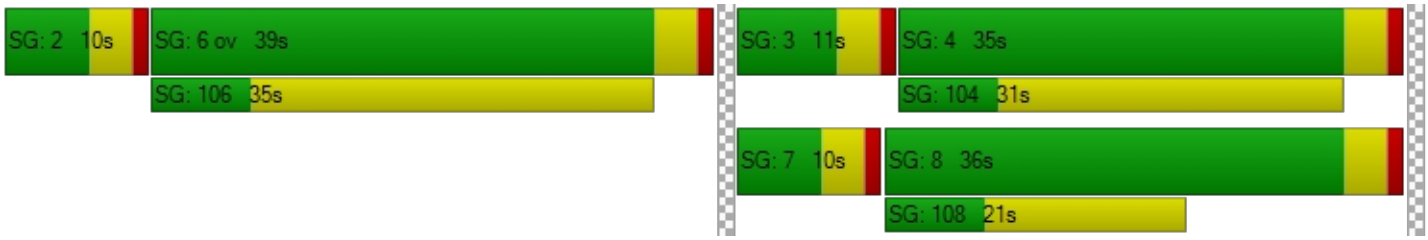
d_M, Delay for Movement [s/veh]	45.04	48.17	48.17	37.84	29.92	34.23	47.99	18.78	9.30	64.16	18.60	2.94
Movement LOS	D	D	D	D	C	C	D	B	A	E	B	A
d_A, Approach Delay [s/veh]	46.95			36.97			21.35			14.89		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	23.32											
Intersection LOS	C											
Intersection V/C	0.734											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	8684.44	0.00	674.47	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	37.14	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.973	2.699	3.471	0.000
Crosswalk LOS	A	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	126	737	674	653
d_b, Bicycle Delay [s]	41.69	18.95	20.96	21.60
l_b,int, Bicycle LOS Score for Intersection	1.708	2.792	2.920	2.046
Bicycle LOS	A	C	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	52.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.905

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	188	319	95	166	133	253	876	1966	304	75	559	202
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	188	319	95	166	133	253	876	1966	304	75	559	202
Peak Hour Factor	0.931	0.931	0.931	0.931	0.931	0.931	0.931	0.931	0.931	0.931	0.931	0.931
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	50	86	26	45	36	68	235	528	82	20	150	54
Total Analysis Volume [veh/h]	202	343	102	178	143	272	941	2112	327	81	600	217
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	16			0			0			8		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	8			0			0			16		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			2			9		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			9			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			24			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	10	10	36	61	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	26	26	26	11	11	11	51	36	59	59	8	31	31
g / C, Green / Cycle	0.22	0.22	0.22	0.09	0.09	0.09	0.43	0.30	0.49	0.49	0.07	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.13	0.16	0.15	0.07	0.07	0.07	0.11	0.32	0.49	0.25	0.05	0.14	0.16
s, saturation flow rate [veh/h]	1500	1575	1286	1500	1526	1433	2369	2912	4290	1306	1500	4290	1323
c, Capacity [veh/h]	323	339	277	140	142	134	1012	876	2108	642	100	1103	340
d1, Uniform Delay [s]	42.67	43.91	43.50	53.17	53.16	53.14	22.24	41.96	30.52	20.54	55.26	38.48	39.60
k, delay calibration	0.11	0.12	0.11	0.11	0.11	0.11	0.11	0.12	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.98	3.51	3.21	8.79	8.56	8.92	0.14	39.47	20.10	2.88	14.35	1.93	8.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.74	0.70	0.77	0.77	0.77	0.27	1.07	1.00	0.51	0.81	0.54	0.64
d, Delay for Lane Group [s/veh]	44.65	47.42	46.71	61.96	61.72	62.06	22.38	81.43	50.62	23.42	69.62	40.41	48.42
Lane Group LOS	D	D	D	E	E	E	C	F	F	C	E	D	D
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.61	7.26	5.58	3.48	3.52	3.31	2.44	17.03	22.11	6.21	2.76	5.12	6.33
50th-Percentile Queue Length [ft/ln]	140.23	181.60	139.40	86.99	88.09	82.65	61.06	425.76	552.69	155.25	68.92	128.03	158.31
95th-Percentile Queue Length [veh/ln]	9.49	11.68	9.45	6.26	6.34	5.95	4.40	24.87	29.87	10.30	4.96	8.83	10.46
95th-Percentile Queue Length [ft/ln]	237.33	292.10	236.22	156.5	158.5	148.7	109.9	621.79	746.70	257.42	124.06	220.82	261.48

Movement, Approach, & Intersection Results

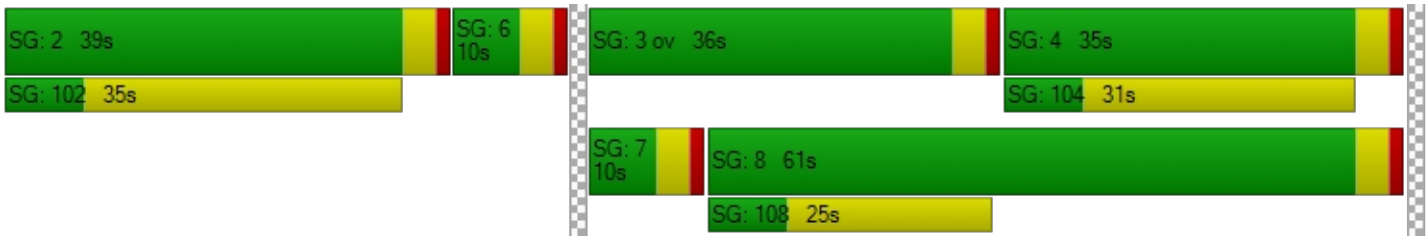
d_M, Delay for Movement [s/veh]	44.65	47.23	46.71	61.86	61.96	22.38	81.43	50.62	23.42	69.62	40.41	48.42
Movement LOS	D	D	D	E	E	C	F	F	C	E	D	D
d_A, Approach Delay [s/veh]	46.34			43.78			56.57			44.98		
Approach LOS	D			D			E			D		
d_I, Intersection Delay [s/veh]	52.11											
Intersection LOS	D											
Intersection V/C	0.905											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1320.29	558.62	0.00	299.31
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.547	2.997	0.000	3.341
Crosswalk LOS	B	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	100	950	517
d_b, Bicycle Delay [s]	30.10	54.15	16.74	33.00
l_b,int, Bicycle LOS Score for Intersection	2.093	2.049	3.419	1.930
Bicycle LOS	B	B	C	A

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	22.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.913

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name	Newport Boulevard			Newport Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	0	0	0	433	0	214	0	1959	183	0	833	384
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	433	0	214	0	1959	183	0	833	384
Peak Hour Factor	1.000	1.000	1.000	0.957	1.000	0.957	1.000	0.957	0.957	1.000	0.957	0.957
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	113	0	56	0	512	48	0	218	100
Total Analysis Volume [veh/h]	0	0	0	452	0	224	0	2047	191	0	870	401
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			2			24			1		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	28	0	0	0	92	0	0	92	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		22	22	90	90
g / C, Green / Cycle		0.19	0.19	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate		0.16	0.17	0.68	0.20
s, saturation flow rate [veh/h]		2912	1319	2998	4290
c, Capacity [veh/h]		543	246	2239	3203
d1, Uniform Delay [s]		46.99	47.68	12.13	4.83
k, delay calibration		0.11	0.22	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		3.39	20.98	7.22	0.21
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.83	0.91	0.91	0.27
d, Delay for Lane Group [s/veh]		50.38	68.66	19.35	5.04
Lane Group LOS		D	E	B	A
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		6.80	8.02	17.91	1.83
50th-Percentile Queue Length [ft/ln]		170.10	200.49	447.68	45.71
95th-Percentile Queue Length [veh/ln]		11.08	12.66	24.85	3.29
95th-Percentile Queue Length [ft/ln]		277.04	316.59	621.18	82.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	50.38	0.00	68.66	0.00	19.35	0.00	0.00	5.04	0.00
Movement LOS				D		E		B			A	
d_A, Approach Delay [s/veh]	0.00			56.44			19.35			5.04		
Approach LOS	A			E			B			A		
d_I, Intersection Delay [s/veh]	22.86											
Intersection LOS	C											
Intersection V/C	0.913											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	3744.14	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.282	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1467	1467
d_b, Bicycle Delay [s]	60.00	60.00	4.32	4.27
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	3.248	2.038
Bicycle LOS	D	D	C	B

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	22.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.452

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	48	49	72	1104	31	1504	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	49	72	1104	31	1504	85
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	13	19	295	8	402	23
Total Analysis Volume [veh/h]	51	52	77	1179	33	1607	91
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	218		290		318		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	290		218		0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	101		0		67		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	67		318		101		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	1		0		5		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	14	35	10	31	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	5	41	3	39	39
g / C, Green / Cycle	0.06	0.06	0.06	0.46	0.04	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.04	0.23	0.02	0.32	0.06
s, saturation flow rate [veh/h]	1781	1565	1781	5094	1781	5094	1551
c, Capacity [veh/h]	110	96	103	2316	68	2215	674
d1, Uniform Delay [s]	40.79	40.96	41.75	17.41	42.44	20.99	15.24
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.03	4.61	10.29	0.80	5.38	2.11	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.54	0.75	0.51	0.49	0.73	0.13
d, Delay for Lane Group [s/veh]	43.82	45.57	52.05	18.21	47.82	23.11	15.66
Lane Group LOS	D	D	D	B	D	C	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.18	1.24	1.90	5.31	0.79	8.68	1.09
50th-Percentile Queue Length [ft/ln]	29.62	31.04	47.60	132.70	19.75	216.95	27.37
95th-Percentile Queue Length [veh/ln]	2.13	2.24	3.43	9.09	1.42	13.51	1.97
95th-Percentile Queue Length [ft/ln]	53.31	55.88	85.68	227.17	35.55	337.73	49.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.82	45.57	52.05	18.21	47.82	23.11	15.66
Movement LOS	D	D	D	B	D	C	B
d_A, Approach Delay [s/veh]	44.70		20.28		23.18		
Approach LOS	D		C		C		
d_I, Intersection Delay [s/veh]	22.72						
Intersection LOS	C						
Intersection V/C	0.452						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	41.49	19.12	32.68
d_p, Pedestrian Delay [s]	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.013	3.202	3.266
Crosswalk LOS	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	45.00	45.00	45.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.823	5.084
Bicycle LOS	D	E	F

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	28.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.586

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	35	23	35	96	22	84	148	978	5	24	1483	128
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	23	35	96	22	84	148	978	5	24	1483	128
Peak Hour Factor	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	9	6	9	25	6	22	38	253	1	6	383	33
Total Analysis Volume [veh/h]	36	24	36	99	23	87	153	1011	5	25	1534	132
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			74			51			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			51			74			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	8			125			8			139		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	8			139			8			125		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			5			1			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	25	50	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	27	27	27	11	53	53	3	45	45
g / C, Green / Cycle	0.05	0.05	0.05	0.26	0.26	0.26	0.10	0.51	0.51	0.03	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.03	0.03	0.04	0.09	0.19	0.19	0.01	0.31	0.35
s, saturation flow rate [veh/h]	1781	1851	1589	1781	1813	2371	1781	3560	1864	1781	3560	1590
c, Capacity [veh/h]	96	99	85	461	469	613	187	1799	942	53	1531	684
d1, Uniform Delay [s]	47.81	47.79	48.10	29.87	29.86	29.77	45.99	15.82	15.82	50.10	24.76	26.30
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.83	1.70	3.28	0.13	0.12	0.10	8.39	0.59	1.12	6.23	3.00	10.44
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.30	0.42	0.13	0.13	0.14	0.82	0.37	0.37	0.47	0.72	0.82
d, Delay for Lane Group [s/veh]	49.64	49.49	51.38	29.99	29.98	29.87	54.38	16.40	16.94	56.33	27.76	36.74
Lane Group LOS	D	D	D	C	C	C	D	B	B	E	C	D
Critical Lane Group	No	No	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.80	0.81	1.00	1.18	1.19	0.84	4.21	4.60	4.96	0.72	11.11	13.22
50th-Percentile Queue Length [ft/ln]	20.11	20.32	24.91	29.47	29.82	21.00	105.26	114.94	123.96	17.99	277.83	330.41
95th-Percentile Queue Length [veh/ln]	1.45	1.46	1.79	2.12	2.15	1.51	7.58	8.11	8.61	1.30	16.58	19.18
95th-Percentile Queue Length [ft/ln]	36.19	36.58	44.84	53.04	53.67	37.81	189.39	202.86	215.26	32.38	414.51	479.46

Movement, Approach, & Intersection Results

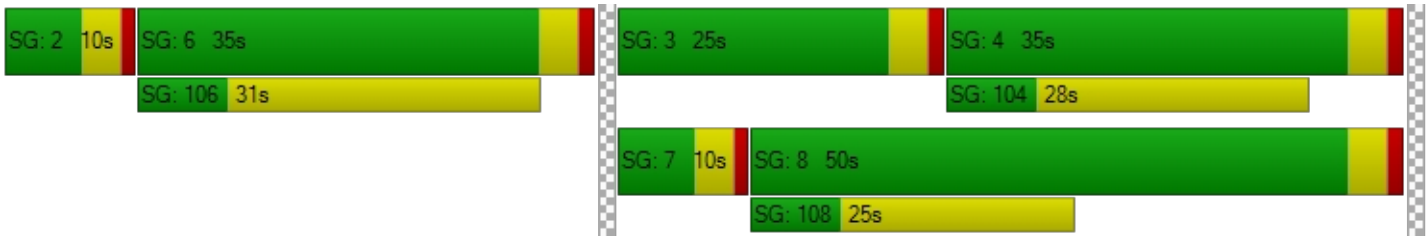
d_M, Delay for Movement [s/veh]	49.61	49.49	51.38	29.99	29.98	29.87	54.38	16.59	16.94	56.33	30.26	36.74
Movement LOS	D	D	D	C	C	C	D	B	B	E	C	D
d_A, Approach Delay [s/veh]	50.24			29.94			21.53			31.15		
Approach LOS	D			C			C			C		
d_I, Intersection Delay [s/veh]	28.10											
Intersection LOS	C											
Intersection V/C	0.586											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	527.46	24.71	65.26	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.169	2.425	3.192	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	114	590	876	590
d_b, Bicycle Delay [s]	46.67	26.14	16.58	26.18
l_b,int, Bicycle LOS Score for Intersection	1.718	1.904	2.203	2.490
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	17.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.643

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	15	5	26	45	2	74	77	1045	9	15	1576	43
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	5	26	45	2	74	77	1045	9	15	1576	43
Peak Hour Factor	0.941	0.941	0.941	0.941	0.941	0.941	0.941	0.941	0.941	0.941	0.941	0.941
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	1	7	12	1	20	20	278	2	4	419	11
Total Analysis Volume [veh/h]	16	5	28	48	2	79	82	1111	10	16	1675	46
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	2			36			66			25		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	25			66			36			2		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	15			11			15			38		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	15			38			15			11		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	7			4			3			7		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	24	70	0	10	56	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	24	24	24	7	76	76	2	72	72
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.06	0.66	0.66	0.02	0.63	0.63
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.02	0.06	0.05	0.30	0.30	0.01	0.47	0.03
s, saturation flow rate [veh/h]	1042	1364	1299	1144	1338	1781	1870	1862	1781	3560	1530
c, Capacity [veh/h]	274	286	295	301	281	108	1242	1237	38	2226	956
d1, Uniform Delay [s]	38.28	36.64	39.45	39.08	37.76	53.19	9.26	9.26	55.57	15.26	8.32
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.12	0.15	0.11	0.13	0.54	10.40	1.19	1.20	7.21	2.41	0.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.10	0.08	0.09	0.28	0.76	0.45	0.45	0.42	0.75	0.05
d, Delay for Lane Group [s/veh]	38.40	36.79	39.56	39.21	38.31	63.59	10.45	10.46	62.78	17.67	8.42
Lane Group LOS	D	D	D	D	D	E	B	B	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.52	0.66	0.55	0.67	1.92	2.59	6.14	6.13	0.52	14.01	0.42
50th-Percentile Queue Length [ft/ln]	13.08	16.43	13.81	16.69	47.99	64.67	153.57	153.23	13.09	350.15	10.56
95th-Percentile Queue Length [veh/ln]	0.94	1.18	0.99	1.20	3.46	4.66	10.21	10.19	0.94	20.14	0.76
95th-Percentile Queue Length [ft/ln]	23.54	29.58	24.86	30.03	86.38	116.40	255.18	254.74	23.56	503.59	19.01

Movement, Approach, & Intersection Results

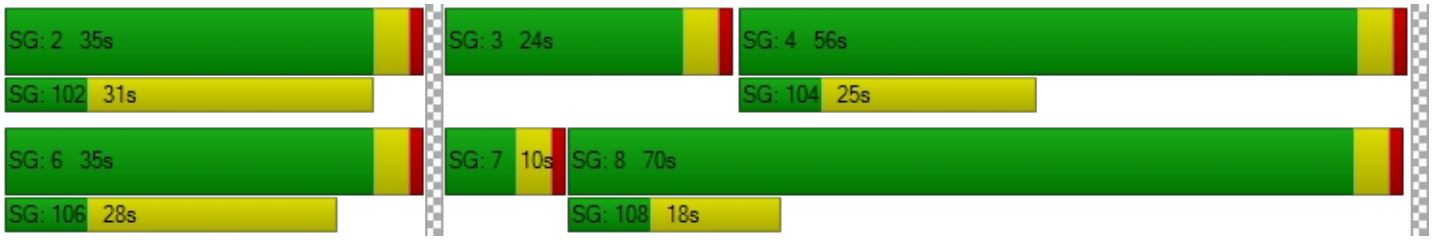
d_M, Delay for Movement [s/veh]	38.40	38.40	36.79	39.37	39.21	38.31	63.59	10.45	10.46	62.78	17.67	8.42
Movement LOS	D	D	D	D	D	D	E	B	B	E	B	A
d_A, Approach Delay [s/veh]	37.48			38.72			14.08			17.84		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	17.56											
Intersection LOS	B											
Intersection V/C	0.643											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	235.18	149.22	63.65	267.92
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersection	1.973	2.354	3.204	3.249
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	539	539	1148	904
d_b, Bicycle Delay [s]	30.79	30.74	10.45	17.32
l_b,int, Bicycle LOS Score for Intersection	1.600	1.772	2.552	2.993
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	26.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.720

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	13	38	18	294	30	193	166	969	11	15	1398	717
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	38	18	294	30	193	166	969	11	15	1398	717
Peak Hour Factor	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	10	5	76	8	50	43	250	3	4	361	185
Total Analysis Volume [veh/h]	13	39	19	303	31	199	171	1000	11	15	1443	740
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	10			5			5			17		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	17			5			5			10		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	2			4			1			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			1			2			4		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			1			6		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	42	0	18	39	0	10	50	0	10	50	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	16	16	12	27	8	73	73	2	67	67
g / C, Green / Cycle	0.02	0.13	0.13	0.10	0.22	0.07	0.61	0.61	0.02	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.09	0.02	0.05	0.19	0.19	0.01	0.41	0.47
s, saturation flow rate [veh/h]	1781	3560	1470	3459	1870	3459	3560	1858	1781	3560	1562
c, Capacity [veh/h]	32	481	199	360	413	236	2164	1129	35	1992	874
d1, Uniform Delay [s]	58.28	45.38	45.43	52.79	37.02	54.81	11.35	11.35	58.14	19.59	21.80
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.96	0.07	0.21	5.36	0.08	4.22	0.37	0.71	7.93	2.33	9.94
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.40	0.08	0.10	0.84	0.07	0.73	0.31	0.31	0.43	0.72	0.85
d, Delay for Lane Group [s/veh]	66.23	45.45	45.63	58.15	37.09	59.03	11.72	12.06	66.07	21.92	31.74
Lane Group LOS	E	D	D	E	D	E	B	B	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.47	0.52	0.51	4.60	0.71	2.57	3.80	4.08	0.51	13.57	17.17
50th-Percentile Queue Length [ft/ln]	11.63	13.03	12.87	114.93	17.69	64.25	95.01	101.94	12.78	339.34	429.22
95th-Percentile Queue Length [veh/ln]	0.84	0.94	0.93	8.11	1.27	4.63	6.84	7.34	0.92	19.62	23.96
95th-Percentile Queue Length [ft/ln]	20.93	23.45	23.17	202.84	31.85	115.65	171.03	183.49	23.00	490.40	599.10

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	66.23	45.45	45.63	58.15	37.09	0.00	59.03	11.83	12.06	66.07	21.92	31.74
Movement LOS	E	D	D	E	D		E	B	B	E	C	C
d_A, Approach Delay [s/veh]	49.31			56.19			18.66			25.53		
Approach LOS	D			E			B			C		
d_I, Intersection Delay [s/veh]	26.53											
Intersection LOS	C											
Intersection V/C	0.720											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2536.13	0.00	814.07	292.42
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.334	2.814	3.281	3.507
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	583	767	767
d_b, Bicycle Delay [s]	28.06	30.19	22.83	22.89
l_b,int, Bicycle LOS Score for Intersection	1.618	2.111	2.210	3.373
Bicycle LOS	A	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	13.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.665

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	7	9	8	85	5	191	116	1148	7	4	1887	220
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	9	8	85	5	191	116	1148	7	4	1887	220
Peak Hour Factor	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	2	2	2	22	1	49	30	296	2	1	487	57
Total Analysis Volume [veh/h]	7	9	8	88	5	197	120	1185	7	4	1947	227
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	1			3			1			1		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	1			1			3			1		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			1			2		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			2			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			2			1			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	54	0	0	54	0	11	26	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	8	63	63	1	56	56
g / C, Green / Cycle	0.16	0.16	0.16	0.16	0.16	0.09	0.70	0.70	0.01	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.06	0.00	0.13	0.07	0.23	0.00	0.00	0.38	0.15
s, saturation flow rate [veh/h]	1401	1710	1391	1870	1555	1781	5094	1556	1781	5094	1552
c, Capacity [veh/h]	280	277	271	303	252	154	3554	1085	12	3149	960
d1, Uniform Delay [s]	33.22	31.90	35.76	31.67	36.05	40.28	5.36	4.13	44.49	10.62	7.66
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.09	0.69	0.02	5.23	8.31	0.25	0.01	15.00	0.92	0.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.06	0.32	0.02	0.78	0.78	0.33	0.01	0.33	0.62	0.24
d, Delay for Lane Group [s/veh]	33.25	31.99	36.45	31.69	41.28	48.59	5.61	4.14	59.49	11.54	8.24
Lane Group LOS	C	C	D	C	D	D	A	A	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.13	0.32	1.79	0.09	4.38	2.78	1.89	0.03	0.13	6.06	1.61
50th-Percentile Queue Length [ft/ln]	3.37	8.03	44.68	2.28	109.50	69.41	47.34	0.70	3.35	151.46	40.35
95th-Percentile Queue Length [veh/ln]	0.24	0.58	3.22	0.16	7.81	5.00	3.41	0.05	0.24	10.10	2.91
95th-Percentile Queue Length [ft/ln]	6.07	14.46	80.43	4.11	195.31	124.94	85.21	1.26	6.03	252.38	72.64

Movement, Approach, & Intersection Results

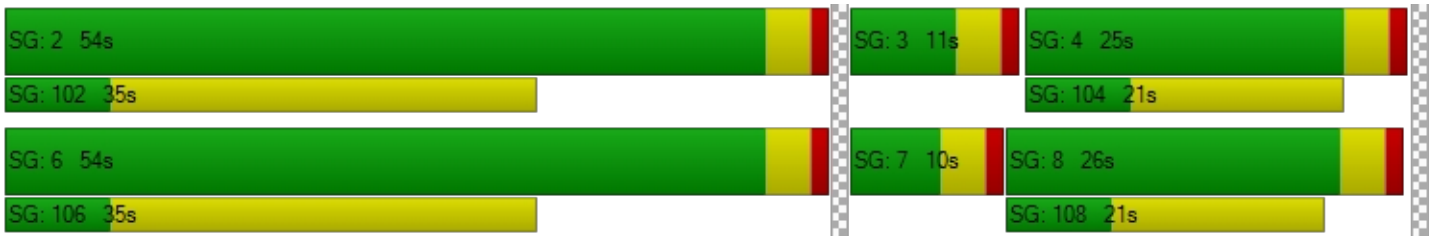
d_M, Delay for Movement [s/veh]	33.25	31.99	31.99	36.45	31.69	41.28	48.59	5.61	4.14	59.49	11.54	8.24
Movement LOS	C	C	C	D	C	D	D	A	A	E	B	A
d_A, Approach Delay [s/veh]	32.36			39.65			9.54			11.29		
Approach LOS	C			D			A			B		
d_I, Intersection Delay [s/veh]	12.98											
Intersection LOS	B											
Intersection V/C	0.665											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	9226.46	2845.30	2224.30	5013.96
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	1.951	2.314	3.509	3.623
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1111	1111	489	467
d_b, Bicycle Delay [s]	8.90	8.90	25.70	26.49
l_b,int, Bicycle LOS Score for Intersection	1.599	2.038	2.281	2.758
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	19.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.693

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	5	20	14	90	21	100	134	1030	28	39	2075	222
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	20	14	90	21	100	134	1030	28	39	2075	222
Peak Hour Factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	1	5	4	24	6	27	36	274	7	10	552	59
Total Analysis Volume [veh/h]	5	21	15	96	22	106	143	1096	30	41	2207	236
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			6			9			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			9			6			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			8			9			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	17	36	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	13	13	13	10	58	58	4	52	52
g / C, Green / Cycle	0.04	0.04	0.14	0.14	0.14	0.10	0.61	0.61	0.04	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.03	0.03	0.07	0.08	0.22	0.02	0.02	0.43	0.15
s, saturation flow rate [veh/h]	1781	1719	1781	1813	1501	1781	5094	1549	1781	5094	1546
c, Capacity [veh/h]	75	72	250	254	211	179	3094	941	75	2796	849
d1, Uniform Delay [s]	43.72	44.53	36.30	36.29	37.61	41.80	9.33	7.46	44.63	17.05	11.35
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.37	5.26	0.48	0.46	1.85	7.99	0.32	0.06	6.16	2.35	0.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.50	0.23	0.23	0.50	0.80	0.35	0.03	0.55	0.79	0.28
d, Delay for Lane Group [s/veh]	44.10	49.80	36.77	36.76	39.46	49.79	9.65	7.53	50.79	19.41	12.16
Lane Group LOS	D	D	D	D	D	D	A	A	D	B	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.12	0.94	1.19	1.21	2.28	3.46	3.03	0.21	1.02	10.81	2.37
50th-Percentile Queue Length [ft/ln]	3.03	23.43	29.83	30.19	57.05	86.58	75.82	5.24	25.50	270.37	59.27
95th-Percentile Queue Length [veh/ln]	0.22	1.69	2.15	2.17	4.11	6.23	5.46	0.38	1.84	16.21	4.27
95th-Percentile Queue Length [ft/ln]	5.45	42.18	53.69	54.34	102.68	155.85	136.48	9.44	45.90	405.20	106.69

Movement, Approach, & Intersection Results

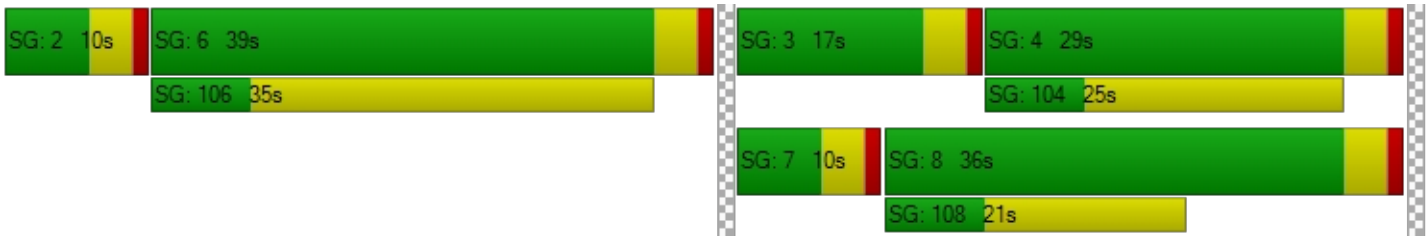
d_M, Delay for Movement [s/veh]	44.10	49.80	49.80	36.77	36.76	39.46	49.79	9.65	7.53	50.79	19.41	12.16
Movement LOS	D	D	D	D	D	D	D	A	A	D	B	B
d_A, Approach Delay [s/veh]	49.10			38.04			14.12			19.24		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	18.97											
Intersection LOS	B											
Intersection V/C	0.693											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	2498.36	621.98	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	37.14	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.979	2.361	3.529	0.000
Crosswalk LOS	A	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	126	737	674	526
d_b, Bicycle Delay [s]	41.75	19.02	20.98	25.89
l_b,int, Bicycle LOS Score for Intersection	1.627	1.929	2.258	2.926
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	28.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.842

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	37	41	19	352	22	211	191	943	7	27	2110	842
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	41	19	352	22	211	191	943	7	27	2110	842
Peak Hour Factor	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	10	11	5	95	6	57	51	254	2	7	568	227
Total Analysis Volume [veh/h]	40	44	20	379	24	227	206	1016	8	29	2274	907
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			4			9			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			9			4			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	10	61	0	10	61	61
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	23	23	23	16	71	71	4	59	96
g / C, Green / Cycle	0.05	0.05	0.19	0.19	0.19	0.13	0.59	0.59	0.03	0.49	0.80
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.11	0.01	0.15	0.12	0.20	0.01	0.02	0.45	0.58
s, saturation flow rate [veh/h]	1781	1772	3459	1870	1558	1781	5094	1551	1781	5094	1564
c, Capacity [veh/h]	89	89	671	363	302	232	3014	918	55	2509	1256
d1, Uniform Delay [s]	55.39	56.18	43.78	39.49	45.48	51.33	12.49	10.05	57.27	27.91	5.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.51	10.53	0.75	0.08	3.76	10.97	0.30	0.02	7.54	6.07	3.62
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.72	0.56	0.07	0.75	0.89	0.34	0.01	0.53	0.91	0.72
d, Delay for Lane Group [s/veh]	58.91	66.70	44.53	39.56	49.24	62.30	12.80	10.07	64.81	33.99	9.04
Lane Group LOS	E	E	D	D	D	E	B	B	E	C	A
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.27	2.19	4.98	0.57	6.43	6.52	4.14	0.08	0.96	19.40	7.14
50th-Percentile Queue Length [ft/ln]	31.85	54.63	124.52	14.22	160.67	163.00	103.52	2.04	23.90	485.00	178.59
95th-Percentile Queue Length [veh/ln]	2.29	3.93	8.64	1.02	10.58	10.71	7.45	0.15	1.72	26.62	11.53
95th-Percentile Queue Length [ft/ln]	57.32	98.33	216.02	25.59	264.61	267.70	186.34	3.67	43.02	665.58	288.17

Movement, Approach, & Intersection Results

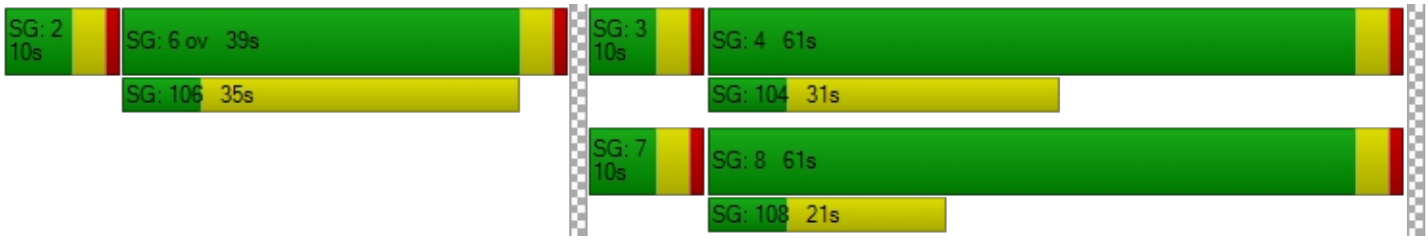
d_M, Delay for Movement [s/veh]	58.91	66.70	66.70	44.53	39.56	49.24	62.30	12.80	10.07	64.81	33.99	9.04
Movement LOS	E	E	E	D	D	D	E	B	B	E	C	A
d_A, Approach Delay [s/veh]	63.71			46.04			21.07			27.21		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	28.78											
Intersection LOS	C											
Intersection V/C	0.842											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	453.17	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.999	2.894	3.582	0.000
Crosswalk LOS	A	C	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	950
d_b, Bicycle Delay [s]	54.15	30.10	16.60	16.56
l_b,int, Bicycle LOS Score for Intersection	1.731	2.599	2.236	3.325
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	106.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.917

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	308	202	82	155	195	806	255	860	183	148	2302	106
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	308	202	82	155	195	806	255	860	183	148	2302	106
Peak Hour Factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	83	54	22	42	52	217	69	231	49	40	619	28
Total Analysis Volume [veh/h]	331	217	88	167	210	867	274	925	197	159	2475	114
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	29			0			0			25		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	25			0			0			29		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	3			10			1			15		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			15			3			10		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			1			10			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	23	23	11	46	0	12	47	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	19	19	19	36	13	41	41	15	43	43
g / C, Green / Cycle	0.24	0.24	0.24	0.16	0.16	0.16	0.30	0.11	0.34	0.34	0.12	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.15	0.15	0.15	0.08	0.08	0.08	0.37	0.09	0.22	0.15	0.11	0.44	0.45
s, saturation flow rate [veh/h]	1500	1536	1273	1500	1551	1433	2351	2912	4290	1309	1500	4290	1523
c, Capacity [veh/h]	362	371	307	241	249	230	702	305	1466	448	184	1544	548
d1, Uniform Delay [s]	40.44	40.42	40.75	46.16	46.15	46.14	41.93	53.08	33.13	30.47	51.63	38.40	38.40
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.26	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.63	1.58	2.14	1.77	1.70	1.83	112.3	9.33	2.07	3.12	11.23	111.24	125.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.60	0.60	0.63	0.52	0.52	0.52	1.24	0.90	0.63	0.44	0.86	1.23	1.25
d, Delay for Lane Group [s/veh]	42.06	42.00	42.90	47.92	47.85	47.98	154.2	62.41	35.20	33.60	62.86	149.64	163.50
Lane Group LOS	D	D	D	D	D	D	F	E	D	C	E	F	F
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.90	6.02	5.31	3.52	3.63	3.35	20.94	4.33	7.41	4.58	5.14	30.21	34.30
50th-Percentile Queue Length [ft/ln]	147.47	150.44	132.83	88.00	90.63	83.87	523.4	108.26	185.25	114.44	128.50	755.22	857.46
95th-Percentile Queue Length [veh/ln]	9.88	10.04	9.09	6.34	6.53	6.04	32.01	7.74	11.87	8.09	8.86	44.67	50.31
95th-Percentile Queue Length [ft/ln]	247.05	251.02	227.34	158.4	163.1	150.9	800.2	193.58	296.86	202.16	221.46	1116.76	1257.87

Movement, Approach, & Intersection Results

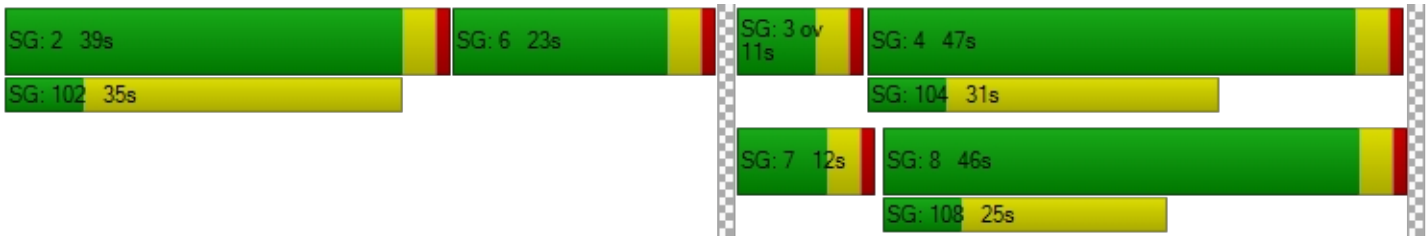
d_M, Delay for Movement [s/veh]	42.04	42.44	42.90	47.92	47.92	154.29	62.41	35.20	33.60	62.86	152.83	163.50
Movement LOS	D	D	D	D	D	F	E	D	C	E	F	F
d_A, Approach Delay [s/veh]	42.30			122.05			40.32			148.06		
Approach LOS	D			F			D			F		
d_I, Intersection Delay [s/veh]	106.56											
Intersection LOS	F											
Intersection V/C	0.917											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1170.73	271.41	0.00	135.23
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.548	2.951	0.000	3.457
Crosswalk LOS	B	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	317	700	717
d_b, Bicycle Delay [s]	30.12	42.53	25.48	24.70
l_b,int, Bicycle LOS Score for Intersection	2.084	2.586	2.327	2.693
Bicycle LOS	B	B	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	24.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.914

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name	Newport Boulevard			Newport Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	0	0	0	365	0	377	0	1132	126	0	2252	615
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	365	0	377	0	1132	126	0	2252	615
Peak Hour Factor	1.000	1.000	1.000	0.960	1.000	0.960	1.000	0.960	0.960	1.000	0.960	0.960
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	95	0	98	0	295	33	0	586	160
Total Analysis Volume [veh/h]	0	0	0	380	0	393	0	1179	131	0	2346	641
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			6		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			6			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			2			16			6		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	56	0	0	0	49	0	0	49	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		105	105	105	105
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		34	34	63	63
g / C, Green / Cycle		0.32	0.32	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate		0.13	0.30	0.39	0.55
s, saturation flow rate [veh/h]		2912	1321	2998	4290
c, Capacity [veh/h]		945	428	1797	2571
d1, Uniform Delay [s]		27.56	33.93	13.88	18.59
k, delay calibration		0.11	0.17	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.28	11.99	1.89	6.28
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.40	0.92	0.66	0.91
d, Delay for Lane Group [s/veh]		27.84	45.92	15.77	24.87
Lane Group LOS		C	D	B	C
Critical Lane Group		No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		3.77	10.93	8.33	15.46
50th-Percentile Queue Length [ft/ln]		94.19	273.18	208.26	386.46
95th-Percentile Queue Length [veh/ln]		6.78	16.35	13.06	21.91
95th-Percentile Queue Length [ft/ln]		169.54	408.71	326.60	547.66

Movement, Approach, & Intersection Results

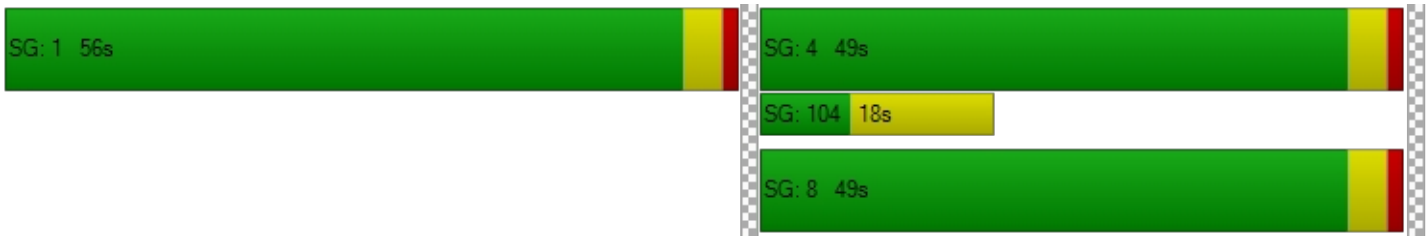
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	27.84	0.00	45.92	0.00	15.77	0.00	0.00	24.87	0.00
Movement LOS				C		D		B			C	
d_A, Approach Delay [s/veh]	0.00			37.03			15.77			24.87		
Approach LOS	A			D			B			C		
d_I, Intersection Delay [s/veh]	24.56											
Intersection LOS	C											
Intersection V/C	0.914											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1423.47	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	42.08	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.295	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	857	857
d_b, Bicycle Delay [s]	52.50	52.50	17.28	17.19
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	2.532	2.850
Bicycle LOS	D	D	B	C

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX A-III

EXISTING PLUS PROJECT WITH MITIGATION TRAFFIC CONDITIONS

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APPENDIX A-IV

YEAR 2026 CUMULATIVE TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	17.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.483

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	41	50	42	1982	4	1008	28
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	50	42	1982	4	1008	28
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	13	11	506	1	257	7
Total Analysis Volume [veh/h]	42	51	43	2022	4	1029	29
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	45		50		62		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	50		45		0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	12		0		8		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	8		62		12		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	4		5		21		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	14	0	23	56	10	43	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	5	69	1	65	65
g / C, Green / Cycle	0.05	0.05	0.04	0.60	0.01	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.02	0.40	0.00	0.20	0.02
s, saturation flow rate [veh/h]	1781	1542	1781	5094	1781	5094	1536
c, Capacity [veh/h]	88	77	70	3035	11	2867	864
d1, Uniform Delay [s]	53.19	53.65	54.36	15.57	56.89	13.77	11.19
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.92	9.54	8.33	1.17	17.17	0.35	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.67	0.61	0.67	0.35	0.36	0.03
d, Delay for Lane Group [s/veh]	57.10	63.19	62.69	16.75	74.06	14.12	11.27
Lane Group LOS	E	E	E	B	E	B	B
Critical Lane Group	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.29	1.66	1.36	10.76	0.17	4.56	0.32
50th-Percentile Queue Length [ft/ln]	32.19	41.56	33.95	269.12	4.19	113.93	8.10
95th-Percentile Queue Length [veh/ln]	2.32	2.99	2.44	16.15	0.30	8.06	0.58
95th-Percentile Queue Length [ft/ln]	57.95	74.81	61.11	403.64	7.54	201.46	14.59

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.10	63.19	62.69	16.75	74.06	14.12	11.27
Movement LOS	E	E	E	B	E	B	B
d_A, Approach Delay [s/veh]	60.44		17.70		14.27		
Approach LOS	E		B		B		
d_I, Intersection Delay [s/veh]	17.81						
Intersection LOS	B						
Intersection V/C	0.483						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	331.29	82.11	137.10
d_p, Pedestrian Delay [s]	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersection	1.997	3.263	3.309
Crosswalk LOS	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	57.50	57.50	57.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.268	4.717
Bicycle LOS	D	F	E

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	17.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.552

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	16	21	24	80	34	141	121	1921	4	27	873	58
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	21	24	80	34	141	121	1921	4	27	873	58
Peak Hour Factor	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	5	6	21	9	36	31	497	1	7	226	15
Total Analysis Volume [veh/h]	17	22	25	83	35	146	125	1987	4	28	903	60
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			15			14			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			14			15			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	5			19			4			28		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	4			28			5			19		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			4			11			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	13	35	0	10	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	14	14	14	8	52	52	3	47	47
g / C, Green / Cycle	0.05	0.05	0.05	0.16	0.16	0.16	0.09	0.58	0.58	0.03	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.03	0.03	0.06	0.07	0.37	0.37	0.02	0.18	0.18
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1832	2615	1781	3560	1868	1781	3560	1783
c, Capacity [veh/h]	95	100	85	284	292	417	159	2049	1075	60	1852	927
d1, Uniform Delay [s]	40.72	40.81	40.97	32.86	32.86	33.53	40.14	12.80	12.80	42.68	12.62	12.68
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.89	1.10	1.91	0.35	0.34	0.50	8.28	1.53	2.89	5.48	0.51	1.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.18	0.22	0.30	0.21	0.20	0.35	0.79	0.64	0.64	0.46	0.34	0.35
d, Delay for Lane Group [s/veh]	41.61	41.91	42.88	33.22	33.20	34.03	48.42	14.33	15.70	48.16	13.13	13.72
Lane Group LOS	D	D	D	C	C	C	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.38	0.50	0.58	1.11	1.13	1.41	2.95	7.68	8.47	0.68	3.40	3.62
50th-Percentile Queue Length [ft/ln]	9.60	12.46	14.46	27.71	28.32	35.21	73.68	191.98	211.73	16.94	84.99	90.48
95th-Percentile Queue Length [veh/ln]	0.69	0.90	1.04	2.00	2.04	2.54	5.30	12.22	13.24	1.22	6.12	6.51
95th-Percentile Queue Length [ft/ln]	17.29	22.42	26.04	49.88	50.97	63.38	132.62	305.60	331.05	30.49	152.98	162.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.61	41.91	42.88	33.21	33.20	34.03	48.42	14.80	15.70	48.16	13.31	13.72
Movement LOS	D	D	D	C	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	42.21			33.66			16.79			14.32		
Approach LOS	D			C			B			B		
d_I, Intersection Delay [s/veh]	17.84											
Intersection LOS	B											
Intersection V/C	0.552											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1099.75	199.40	314.62	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.157	2.407	3.258	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	133	689	689	622
d_b, Bicycle Delay [s]	39.20	19.38	19.45	21.45
l_b,int, Bicycle LOS Score for Intersection	1.665	1.995	2.723	2.105
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	12.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.670

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	3	0	11	78	2	66	48	1949	11	4	923	58
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	11	78	2	66	48	1949	11	4	923	58
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	1	0	3	21	1	17	13	513	3	1	243	15
Total Analysis Volume [veh/h]	3	0	12	82	2	69	51	2052	12	4	972	61
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	10			23			8			13		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	13			8			23			10		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			8			2			19		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			19			1			8		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			3			27			11		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	54	73	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	17	17	17	17	5	90	90	1	86	86
g / C, Green / Cycle	0.14	0.14	0.14	0.14	0.14	0.04	0.75	0.75	0.01	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.03	0.04	0.05	0.03	0.55	0.55	0.00	0.27	0.04
s, saturation flow rate [veh/h]	659	1355	1299	1089	1460	1781	1870	1865	1781	3560	1548
c, Capacity [veh/h]	152	189	209	211	204	74	1410	1407	11	2560	1113
d1, Uniform Delay [s]	52.21	44.83	48.40	48.64	46.45	56.74	8.09	8.11	59.38	6.52	4.93
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.05	0.14	0.39	0.54	0.98	10.77	3.39	3.43	17.89	0.43	0.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.06	0.17	0.23	0.34	0.69	0.73	0.73	0.35	0.38	0.05
d, Delay for Lane Group [s/veh]	52.26	44.97	48.79	49.19	47.43	67.51	11.47	11.54	77.27	6.95	5.02
Lane Group LOS	D	D	D	D	D	E	B	B	E	A	A
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.09	0.32	1.02	1.37	1.93	1.71	12.04	12.09	0.17	4.04	0.40
50th-Percentile Queue Length [ft/ln]	2.19	8.05	25.44	34.13	48.26	42.81	301.08	302.23	4.36	101.06	9.95
95th-Percentile Queue Length [veh/ln]	0.16	0.58	1.83	2.46	3.48	3.08	17.73	17.79	0.31	7.28	0.72
95th-Percentile Queue Length [ft/ln]	3.94	14.49	45.80	61.44	86.88	77.06	443.37	444.78	7.85	181.91	17.91

Movement, Approach, & Intersection Results

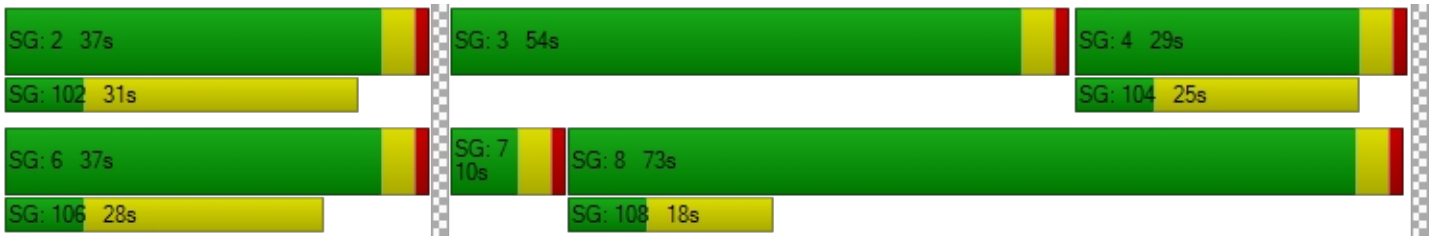
d_M, Delay for Movement [s/veh]	52.26	52.26	44.97	49.01	49.19	47.43	67.51	11.51	11.54	77.27	6.95	5.02
Movement LOS	D	D	D	D	D	D	E	B	B	E	A	A
d_A, Approach Delay [s/veh]	46.43			48.30			12.86			7.11		
Approach LOS	D			D			B			A		
d_I, Intersection Delay [s/veh]	12.85											
Intersection LOS	B											
Intersection V/C	0.670											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2251.96	251.26	213.01	288.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.963	2.357	3.242	3.368
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	550	550	1150	417
d_b, Bicycle Delay [s]	31.57	31.58	10.99	37.81
l_b,int, Bicycle LOS Score for Intersection	1.572	1.812	3.304	2.415
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	28.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.693

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	11	22	31	631	51	137	83	1864	19	35	866	280
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	22	31	631	51	137	83	1864	19	35	866	280
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	6	8	166	13	36	22	491	5	9	228	74
Total Analysis Volume [veh/h]	12	23	33	664	54	144	87	1962	20	37	912	295
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	5			9			2			5		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	5			2			9			5		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			0			2			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			0			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			28			16		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	43	39	0	39	35	0	10	32	0	10	32	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	10	10	26	34	6	64	64	4	63	63
g / C, Green / Cycle	0.02	0.08	0.08	0.22	0.28	0.05	0.53	0.53	0.04	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.19	0.03	0.03	0.37	0.37	0.02	0.26	0.19
s, saturation flow rate [veh/h]	1781	3560	1531	3459	1870	3459	3560	1858	1781	3560	1560
c, Capacity [veh/h]	32	292	126	748	525	163	1897	990	63	1855	813
d1, Uniform Delay [s]	58.29	50.88	51.63	45.61	31.97	55.87	20.64	20.67	57.00	18.50	16.90
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.40	0.11	1.10	3.83	0.08	2.67	2.04	3.90	8.32	0.93	1.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.08	0.26	0.89	0.10	0.53	0.69	0.69	0.59	0.49	0.36
d, Delay for Lane Group [s/veh]	65.69	51.00	52.72	49.44	32.06	58.54	22.68	24.56	65.32	19.43	18.15
Lane Group LOS	E	D	D	D	C	E	C	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.43	0.33	0.98	9.57	1.13	1.30	12.37	13.46	1.21	7.55	4.60
50th-Percentile Queue Length [ft/ln]	10.71	8.20	24.51	239.34	28.36	32.46	309.22	336.55	30.22	188.83	115.11
95th-Percentile Queue Length [veh/ln]	0.77	0.59	1.76	14.65	2.04	2.34	18.14	19.48	2.18	12.06	8.12
95th-Percentile Queue Length [ft/ln]	19.28	14.77	44.12	366.20	51.05	58.43	453.41	486.98	54.40	301.51	203.09

Movement, Approach, & Intersection Results

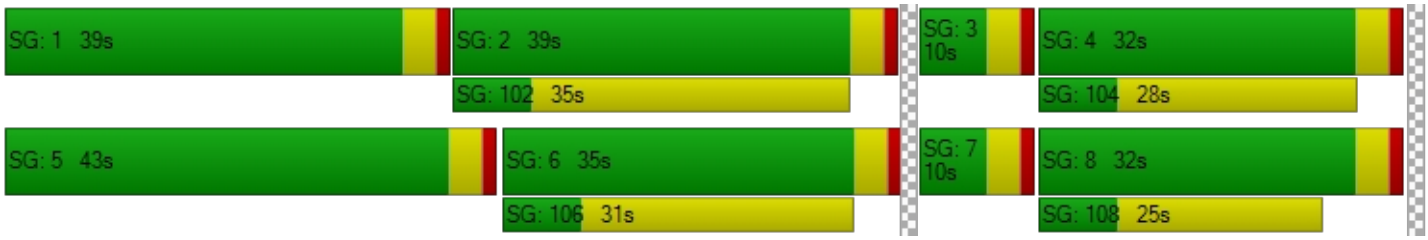
d_M, Delay for Movement [s/veh]	65.69	51.00	52.72	49.44	32.06	0.00	58.54	23.31	24.56	65.32	19.43	18.15
Movement LOS	E	D	D	D	C		E	C	C	E	B	B
d_A, Approach Delay [s/veh]	54.43			48.13			24.81			20.50		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	28.08											
Intersection LOS	C											
Intersection V/C	0.693											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2488.97	0.00	739.46	775.31
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.343	2.771	3.372	3.604
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	467	467
d_b, Bicycle Delay [s]	30.10	33.02	35.77	35.55
l_b,int, Bicycle LOS Score for Intersection	1.616	2.744	2.698	2.586
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	18.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.763

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	10	3	3	252	0	184	111	2364	3	2	863	60
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	3	3	252	0	184	111	2364	3	2	863	60
Peak Hour Factor	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	1	1	65	0	48	29	611	1	1	223	16
Total Analysis Volume [veh/h]	10	3	3	261	0	190	115	2445	3	2	892	62
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	3			9			5			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			5			9			3		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			0			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			1			10		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	39	0	31	46	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	24	24	24	8	58	58	0	51	51
g / C, Green / Cycle	0.26	0.26	0.26	0.26	0.26	0.08	0.61	0.61	0.00	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.01	0.00	0.19	0.00	0.12	0.06	0.48	0.00	0.00	0.18	0.04
s, saturation flow rate [veh/h]	1395	1715	1405	1870	1543	1781	5094	1555	1781	5094	1545
c, Capacity [veh/h]	400	438	399	478	394	147	3132	956	6	2727	827
d1, Uniform Delay [s]	28.18	26.42	34.59	0.00	29.91	42.72	13.55	7.06	47.23	12.43	10.67
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.01	1.82	0.00	0.91	8.60	2.00	0.01	29.61	0.32	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.01	0.65	0.00	0.48	0.78	0.78	0.00	0.33	0.33	0.07
d, Delay for Lane Group [s/veh]	28.20	26.44	36.42	0.00	30.82	51.32	15.55	7.06	76.84	12.75	10.84
Lane Group LOS	C	C	D	A	C	D	B	A	E	B	B
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.18	0.10	5.72	0.00	3.67	2.83	10.22	0.02	0.09	3.05	0.57
50th-Percentile Queue Length [ft/ln]	4.50	2.59	142.91	0.00	91.68	70.85	255.45	0.50	2.35	76.31	14.31
95th-Percentile Queue Length [veh/ln]	0.32	0.19	9.64	0.00	6.60	5.10	15.46	0.04	0.17	5.49	1.03
95th-Percentile Queue Length [ft/ln]	8.10	4.67	240.94	0.00	165.02	127.53	386.51	0.90	4.22	137.35	25.75

Movement, Approach, & Intersection Results

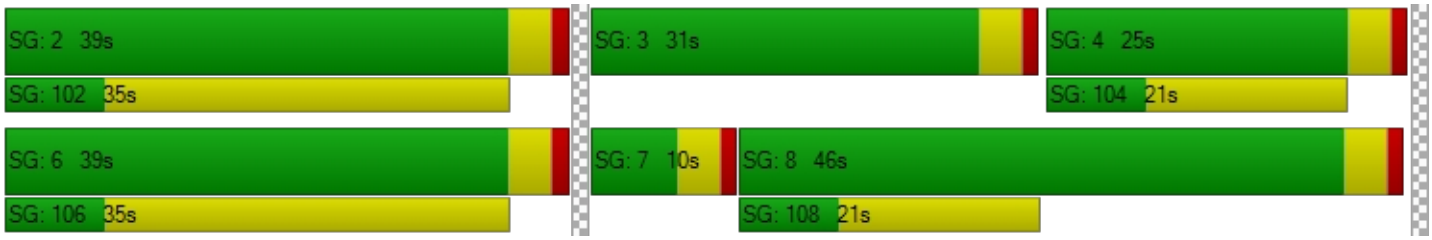
d_M, Delay for Movement [s/veh]	28.20	26.44	26.44	36.42	0.00	30.82	51.32	15.55	7.06	76.84	12.75	10.84
Movement LOS	C	C	C	D	A	C	D	B	A	E	B	B
d_A, Approach Delay [s/veh]	27.54			34.06			17.15			12.76		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	18.05											
Intersection LOS	B											
Intersection V/C	0.763											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	8826.74	8287.38	596.40	2563.07
d_p, Pedestrian Delay [s]	37.14	37.14	37.14	37.14
l_p,int, Pedestrian LOS Score for Intersection	1.948	2.313	3.559	3.918
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	737	737	884	442
d_b, Bicycle Delay [s]	18.95	18.96	14.79	28.97
l_b,int, Bicycle LOS Score for Intersection	1.586	2.304	2.969	2.085
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.715

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	15	20	3	165	51	114	88	2492	43	59	860	59
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	20	3	165	51	114	88	2492	43	59	860	59
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	5	1	43	13	30	23	656	11	16	226	16
Total Analysis Volume [veh/h]	16	21	3	174	54	120	93	2623	45	62	905	62
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			15			7			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			7			15			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			2			0			2		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			2			0			2		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			29			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	36	61	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	19	19	19	8	76	76	5	73	73
g / C, Green / Cycle	0.04	0.04	0.15	0.15	0.15	0.07	0.63	0.63	0.05	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.06	0.06	0.08	0.05	0.51	0.03	0.03	0.18	0.04
s, saturation flow rate [veh/h]	1781	1821	1781	1822	1491	1781	5094	1531	1781	5094	1544
c, Capacity [veh/h]	66	67	276	282	231	119	3205	963	81	3096	938
d1, Uniform Delay [s]	56.16	56.40	45.74	45.74	46.34	55.10	17.00	8.49	56.63	11.22	9.60
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.90	3.18	0.97	0.95	1.80	10.39	2.46	0.09	13.79	0.24	0.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.24	0.36	0.41	0.41	0.52	0.78	0.82	0.05	0.76	0.29	0.07
d, Delay for Lane Group [s/veh]	58.06	59.58	46.71	46.68	48.14	65.50	19.45	8.58	70.42	11.46	9.74
Lane Group LOS	E	E	D	D	D	E	B	A	E	B	A
Critical Lane Group	No	Yes	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.51	0.78	3.04	3.10	3.31	3.00	15.74	0.41	2.10	3.38	0.62
50th-Percentile Queue Length [ft/ln]	12.75	19.39	75.96	77.50	82.75	75.06	393.56	10.26	52.40	84.60	15.46
95th-Percentile Queue Length [veh/ln]	0.92	1.40	5.47	5.58	5.96	5.40	22.25	0.74	3.77	6.09	1.11
95th-Percentile Queue Length [ft/ln]	22.95	34.90	136.72	139.50	148.94	135.12	556.24	18.46	94.32	152.29	27.83

Movement, Approach, & Intersection Results

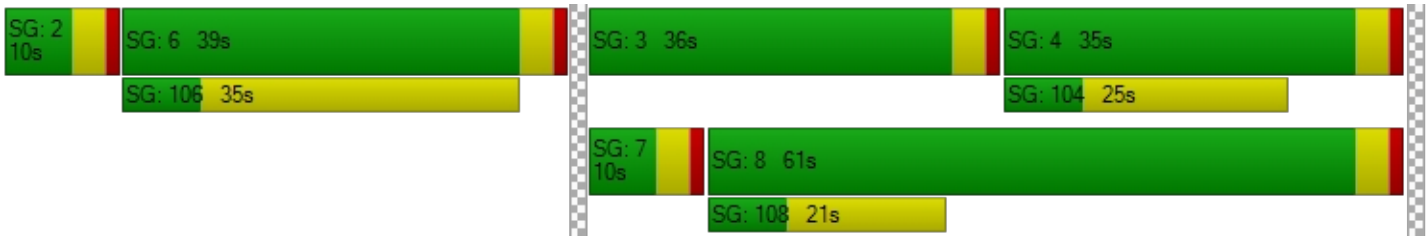
d_M, Delay for Movement [s/veh]	58.06	59.58	59.58	46.70	46.68	48.14	65.50	19.45	8.58	70.42	11.46	9.74
Movement LOS	E	E	E	D	D	D	E	B	A	E	B	A
d_A, Approach Delay [s/veh]	58.97			47.20			20.83			14.91		
Approach LOS	E			D			C			B		
d_I, Intersection Delay [s/veh]	21.93											
Intersection LOS	C											
Intersection V/C	0.715											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1578.20	318.07	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.008	2.336	3.589	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	517
d_b, Bicycle Delay [s]	54.23	30.19	16.78	33.15
l_b,int, Bicycle LOS Score for Intersection	1.626	2.134	3.078	2.126
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	27.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.810

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	36	35	22	602	10	168	235	2441	10	4	769	231
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	35	22	602	10	168	235	2441	10	4	769	231
Peak Hour Factor	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	9	9	6	158	3	44	62	640	3	1	202	61
Total Analysis Volume [veh/h]	38	37	23	631	10	176	246	2559	10	4	806	242
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			5			8			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			8			5			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			1			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			4		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	26	51	0	10	35	35
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	24	24	24	17	64	64	1	47	85
g / C, Green / Cycle	0.05	0.05	0.22	0.22	0.22	0.16	0.58	0.58	0.01	0.43	0.77
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.18	0.01	0.11	0.14	0.50	0.01	0.00	0.16	0.15
s, saturation flow rate [veh/h]	1781	1751	3459	1870	1561	1781	5094	1549	1781	5094	1565
c, Capacity [veh/h]	92	91	756	409	341	281	2939	894	13	2172	1204
d1, Uniform Delay [s]	50.52	51.20	41.06	33.75	37.75	45.28	19.78	9.91	54.35	21.50	3.44
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.91	7.92	2.50	0.02	1.20	8.51	3.87	0.02	13.95	0.49	0.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.66	0.83	0.02	0.52	0.88	0.87	0.01	0.32	0.37	0.20
d, Delay for Lane Group [s/veh]	53.43	59.12	43.56	33.78	38.96	53.79	23.65	9.93	68.30	21.99	3.52
Lane Group LOS	D	E	D	C	D	D	C	A	E	C	A
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.10	1.83	8.01	0.20	4.09	6.86	16.29	0.10	0.15	4.48	0.95
50th-Percentile Queue Length [ft/ln]	27.41	45.87	200.36	5.12	102.24	171.59	407.17	2.38	3.87	111.97	23.82
95th-Percentile Queue Length [veh/ln]	1.97	3.30	12.66	0.37	7.36	11.16	22.91	0.17	0.28	7.95	1.71
95th-Percentile Queue Length [ft/ln]	49.34	82.56	316.43	9.21	184.03	279.01	572.63	4.28	6.97	198.74	42.87

Movement, Approach, & Intersection Results

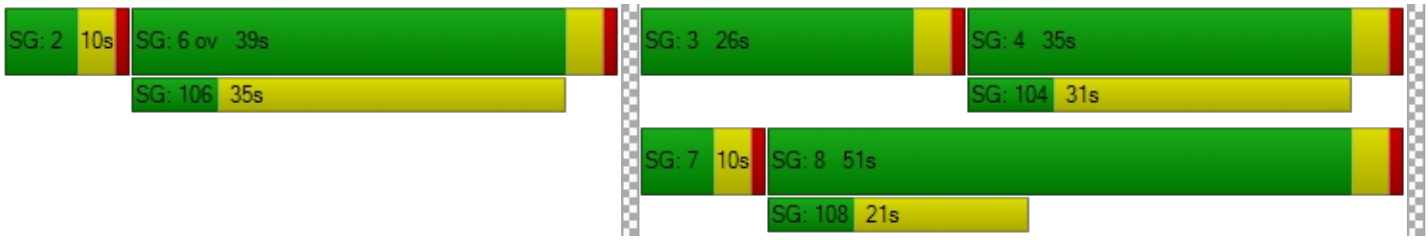
d_M, Delay for Movement [s/veh]	53.43	59.12	59.12	43.56	33.78	38.96	53.79	23.65	9.93	68.30	21.99	3.52
Movement LOS	D	E	E	D	C	D	D	C	A	E	C	A
d_A, Approach Delay [s/veh]	56.92			42.45			26.24			17.92		
Approach LOS	E			D			C			B		
d_I, Intersection Delay [s/veh]	27.81											
Intersection LOS	C											
Intersection V/C	0.810											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	7446.75	0.00	552.01	0.00
d_p, Pedestrian Delay [s]	44.55	44.55	44.55	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.983	2.746	3.592	0.000
Crosswalk LOS	A	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	109	636	855	564
d_b, Bicycle Delay [s]	49.16	25.57	18.10	28.43
l_b,int, Bicycle LOS Score for Intersection	1.721	2.908	3.108	2.138
Bicycle LOS	A	C	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	98.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.018

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	206	357	107	216	168	296	973	2261	331	83	686	232
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	206	357	107	216	168	296	973	2261	331	83	686	232
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	54	94	28	57	44	78	256	595	87	22	181	61
Total Analysis Volume [veh/h]	217	376	113	227	177	312	1024	2380	348	87	722	244
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	16			0			0			8		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	8			0			0			16		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			2			9		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			9			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			24			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	10	10	36	61	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	27	13	13	13	50	33	55	55	9	31	31
g / C, Green / Cycle	0.23	0.23	0.23	0.11	0.11	0.11	0.42	0.27	0.46	0.46	0.07	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.14	0.18	0.16	0.09	0.09	0.09	0.13	0.35	0.55	0.27	0.06	0.17	0.18
s, saturation flow rate [veh/h]	1500	1575	1285	1500	1525	1433	2369	2912	4290	1305	1500	4290	1323
c, Capacity [veh/h]	341	358	292	162	164	155	985	800	1975	601	107	1102	340
d1, Uniform Delay [s]	41.90	43.50	42.90	52.52	52.52	52.50	23.58	43.52	32.38	23.61	54.94	39.83	40.62
k, delay calibration	0.11	0.16	0.13	0.11	0.11	0.11	0.11	0.19	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.98	5.41	4.22	11.05	10.83	11.32	0.18	129.81	97.39	4.04	13.72	3.04	12.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	0.78	0.72	0.84	0.84	0.84	0.32	1.28	1.21	0.58	0.81	0.66	0.72
d, Delay for Lane Group [s/veh]	43.88	48.91	47.12	63.57	63.35	63.82	23.76	173.33	129.77	27.64	68.66	42.87	52.90
Lane Group LOS	D	D	D	E	E	E	C	F	F	C	E	D	D
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.99	8.24	6.14	4.45	4.51	4.25	2.93	25.68	35.13	7.35	2.94	6.44	7.50
50th-Percentile Queue Length [ft/ln]	149.78	206.01	153.42	111.2	112.6	106.2	73.18	641.95	878.20	183.75	73.43	161.01	187.44
95th-Percentile Queue Length [veh/ln]	10.01	12.95	10.20	7.91	7.99	7.63	5.27	38.84	51.03	11.80	5.29	10.60	11.99
95th-Percentile Queue Length [ft/ln]	250.14	323.71	254.99	197.6	199.7	190.7	131.7	971.02	1275.78	294.90	132.17	265.05	299.70

Movement, Approach, & Intersection Results

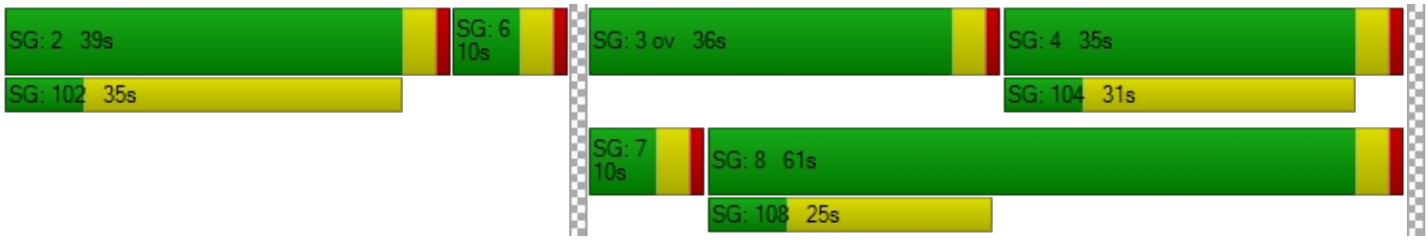
d_M, Delay for Movement [s/veh]	43.88	48.44	47.12	63.48	63.69	23.76	173.33	129.77	27.64	68.66	42.87	52.90
Movement LOS	D	D	D	E	E	C	F	F	C	E	D	D
d_A, Approach Delay [s/veh]	46.82			46.22			132.18			47.33		
Approach LOS	D			D			F			D		
d_I, Intersection Delay [s/veh]	98.27											
Intersection LOS	F											
Intersection V/C	1.018											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1155.25	526.94	0.00	294.54
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.571	3.046	0.000	3.429
Crosswalk LOS	B	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	100	950	517
d_b, Bicycle Delay [s]	30.10	54.15	16.74	33.00
l_b,int, Bicycle LOS Score for Intersection	2.142	2.150	3.623	1.994
Bicycle LOS	B	B	D	A

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	53.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.088

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name	Newport Boulevard			Newport Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	0	0	0	495	0	291	0	2254	210	0	1040	429
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	495	0	291	0	2254	210	0	1040	429
Peak Hour Factor	1.000	1.000	1.000	0.957	1.000	0.957	1.000	0.957	0.957	1.000	0.957	0.957
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	129	0	76	0	589	55	0	272	112
Total Analysis Volume [veh/h]	0	0	0	517	0	304	0	2355	219	0	1087	448
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			2			24			1		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	30	0	0	0	90	0	0	90	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		26	26	86	86
g / C, Green / Cycle		0.22	0.22	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate		0.18	0.23	0.79	0.25
s, saturation flow rate [veh/h]		2912	1320	2998	4290
c, Capacity [veh/h]		631	286	2149	3074
d1, Uniform Delay [s]		44.76	46.82	17.00	6.45
k, delay calibration		0.11	0.39	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		2.70	64.92	51.25	0.32
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.82	1.06	1.10	0.35
d, Delay for Lane Group [s/veh]		47.47	111.74	68.25	6.77
Lane Group LOS		D	F	F	A
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		7.61	13.68	37.59	2.94
50th-Percentile Queue Length [ft/ln]		190.20	342.10	939.75	73.61
95th-Percentile Queue Length [veh/ln]		12.13	20.41	51.62	5.30
95th-Percentile Queue Length [ft/ln]		303.29	510.33	1290.47	132.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	47.47	0.00	111.74	0.00	68.25	0.00	0.00	6.77	0.00
Movement LOS				D		F		F			A	
d_A, Approach Delay [s/veh]	0.00			71.26			68.25			6.77		
Approach LOS	A			E			E			A		
d_I, Intersection Delay [s/veh]	53.16											
Intersection LOS	D											
Intersection V/C	1.088											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	3744.14	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.312	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1433	1433
d_b, Bicycle Delay [s]	60.00	60.00	4.88	4.82
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	3.502	2.157
Bicycle LOS	D	D	D	B

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	23.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.514

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	56	61	85	1279	34	1747	97
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	56	61	85	1279	34	1747	97
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	16	22	337	9	460	26
Total Analysis Volume [veh/h]	59	64	89	1346	36	1839	102
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	218		290		318		
v_di, Inbound Pedestrian Volume crossing m	290		218		0		
v_co, Outbound Pedestrian Volume crossing	101		0		67		
v_ci, Inbound Pedestrian Volume crossing mi	67		318		101		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	1		0		5		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	17	45	10	38	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	50	4	48	48
g / C, Green / Cycle	0.06	0.06	0.06	0.50	0.04	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.05	0.26	0.02	0.36	0.07
s, saturation flow rate [veh/h]	1781	1564	1781	5094	1781	5094	1552
c, Capacity [veh/h]	103	91	115	2560	68	2425	739
d1, Uniform Delay [s]	45.88	46.22	46.03	16.81	47.20	21.48	14.67
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.87	9.53	10.35	0.78	6.21	2.28	0.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.70	0.77	0.53	0.53	0.76	0.14
d, Delay for Lane Group [s/veh]	50.76	55.76	56.38	17.59	53.41	23.76	15.06
Lane Group LOS	D	E	E	B	D	C	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.57	1.81	2.43	6.42	0.97	11.03	1.27
50th-Percentile Queue Length [ft/ln]	39.36	45.20	60.81	160.59	24.21	275.71	31.87
95th-Percentile Queue Length [veh/ln]	2.83	3.25	4.38	10.58	1.74	16.47	2.29
95th-Percentile Queue Length [ft/ln]	70.85	81.36	109.45	264.50	43.57	411.86	57.37

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.76	55.76	56.38	17.59	53.41	23.76	15.06
Movement LOS	D	E	E	B	D	C	B
d_A, Approach Delay [s/veh]	53.36		20.00		23.85		
Approach LOS	D		B		C		
d_I, Intersection Delay [s/veh]	23.31						
Intersection LOS	C						
Intersection V/C	0.514						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	34.44	16.71	29.20
d_p, Pedestrian Delay [s]	39.61	39.61	39.61
l_p,int, Pedestrian LOS Score for Intersection	2.030	3.296	3.349
Crosswalk LOS	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	50.00	50.00	50.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.922	5.220
Bicycle LOS	D	E	F

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	31.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.661

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	38	25	38	106	24	103	184	1123	5	26	1717	141
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	25	38	106	24	103	184	1123	5	26	1717	141
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	6	10	27	6	27	48	290	1	7	444	36
Total Analysis Volume [veh/h]	39	26	39	110	25	107	190	1161	5	27	1776	146
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			74			51			0		
v_di, Inbound Pedestrian Volume crossing m	0			51			74			0		
v_co, Outbound Pedestrian Volume crossing	8			125			8			139		
v_ci, Inbound Pedestrian Volume crossing mi	8			139			8			125		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			5			1			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	24	65	0	10	51	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	28	28	28	15	66	66	4	55	55
g / C, Green / Cycle	0.05	0.05	0.05	0.23	0.23	0.23	0.12	0.55	0.55	0.03	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.04	0.04	0.05	0.11	0.21	0.21	0.02	0.36	0.40
s, saturation flow rate [veh/h]	1781	1851	1589	1781	1813	2329	1781	3560	1865	1781	3560	1636
c, Capacity [veh/h]	86	90	77	418	425	546	221	1970	1032	54	1637	752
d1, Uniform Delay [s]	55.32	55.30	55.69	36.54	36.53	36.56	51.55	15.24	15.24	57.29	27.28	28.96
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.66	2.47	5.05	0.18	0.17	0.17	9.47	0.58	1.10	6.99	3.73	12.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.36	0.51	0.16	0.16	0.20	0.86	0.39	0.39	0.50	0.78	0.86
d, Delay for Lane Group [s/veh]	57.98	57.77	60.74	36.72	36.71	36.73	61.02	15.82	16.35	64.28	31.01	41.25
Lane Group LOS	E	E	E	D	D	D	E	B	B	E	C	D
Critical Lane Group	No	No	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.02	1.03	1.27	1.58	1.60	1.26	6.04	5.66	6.09	0.89	15.17	17.99
50th-Percentile Queue Length [ft/ln]	25.46	25.75	31.75	39.57	40.08	31.50	150.91	141.56	152.15	22.34	379.19	449.78
95th-Percentile Queue Length [veh/ln]	1.83	1.85	2.29	2.85	2.89	2.27	10.07	9.56	10.13	1.61	21.55	24.95
95th-Percentile Queue Length [ft/ln]	45.83	46.36	57.15	71.22	72.15	56.70	251.64	239.12	253.30	40.21	538.87	623.69

Movement, Approach, & Intersection Results

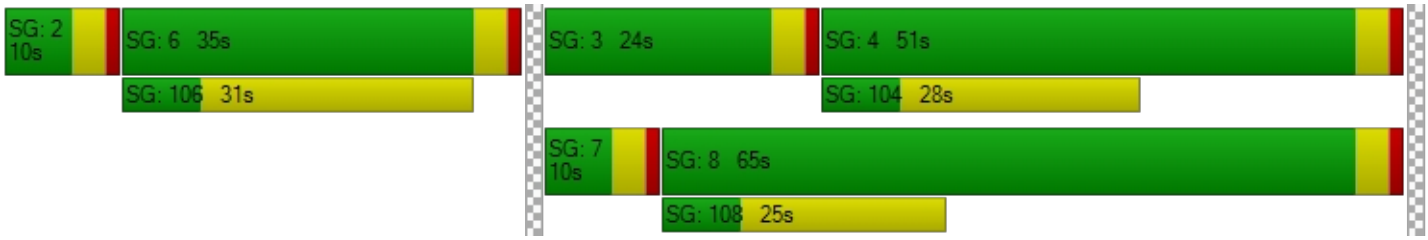
d_M, Delay for Movement [s/veh]	57.95	57.77	60.74	36.71	36.71	36.73	61.02	16.00	16.35	64.28	33.90	41.25
Movement LOS	E	E	E	D	D	D	E	B	B	E	C	D
d_A, Approach Delay [s/veh]	58.95			36.72			22.31			34.87		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	31.01											
Intersection LOS	C											
Intersection V/C	0.661											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	460.55	19.74	54.10	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.178	2.451	3.293	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	517	1017	783
d_b, Bicycle Delay [s]	54.15	33.09	14.51	22.29
l_b,int, Bicycle LOS Score for Intersection	1.731	1.959	2.305	2.632
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	20.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.724

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	16	5	28	66	2	81	84	1197	10	16	1820	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	5	28	66	2	81	84	1197	10	16	1820	83
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	7	17	1	21	22	315	3	4	479	22
Total Analysis Volume [veh/h]	17	5	29	69	2	85	88	1260	11	17	1916	87
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	2			36			66			25		
v_di, Inbound Pedestrian Volume crossing m	25			66			36			2		
v_co, Outbound Pedestrian Volume crossing	15			11			15			38		
v_ci, Inbound Pedestrian Volume crossing mi	15			38			15			11		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	7			4			3			7		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	10	74	0	11	75	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	25	25	25	25	7	81	81	3	76	76
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.06	0.67	0.67	0.02	0.63	0.63
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.03	0.06	0.05	0.34	0.34	0.01	0.54	0.06
s, saturation flow rate [veh/h]	969	1363	1296	1123	1333	1781	1870	1863	1781	3560	1530
c, Capacity [veh/h]	252	280	285	289	274	110	1257	1252	40	2252	968
d1, Uniform Delay [s]	41.36	38.71	41.99	41.91	40.02	55.54	9.76	9.77	57.92	17.54	8.57
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.15	0.16	0.17	0.21	0.64	12.20	1.46	1.47	7.21	4.28	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.10	0.11	0.13	0.31	0.80	0.51	0.51	0.43	0.85	0.09
d, Delay for Lane Group [s/veh]	41.51	38.87	42.16	42.12	40.66	67.74	11.22	11.24	65.13	21.82	8.75
Lane Group LOS	D	D	D	D	D	E	B	B	E	C	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.59	0.72	0.83	1.01	2.19	2.94	7.59	7.58	0.58	19.36	0.85
50th-Percentile Queue Length [ft/ln]	14.65	17.96	20.78	25.34	54.71	73.45	189.86	189.57	14.44	483.98	21.22
95th-Percentile Queue Length [veh/ln]	1.05	1.29	1.50	1.82	3.94	5.29	12.11	12.10	1.04	26.57	1.53
95th-Percentile Queue Length [ft/ln]	26.37	32.33	37.40	45.62	98.47	132.22	302.85	302.47	25.99	664.37	38.20

Movement, Approach, & Intersection Results

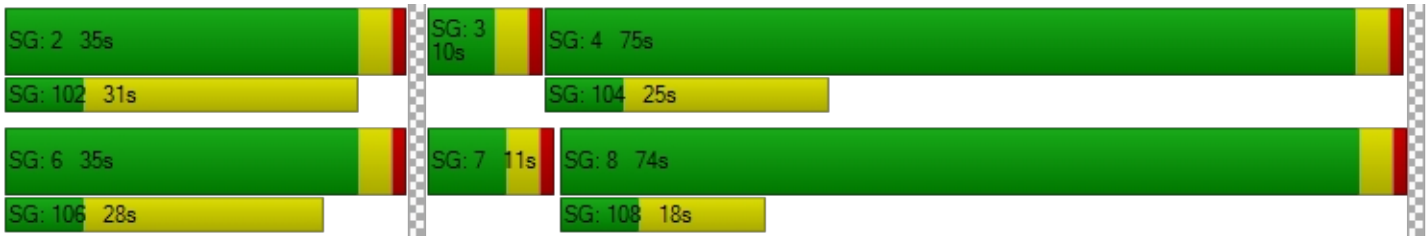
d_M, Delay for Movement [s/veh]	41.51	41.51	38.87	42.14	42.12	40.66	67.74	11.23	11.24	65.13	21.82	8.75
Movement LOS	D	D	D	D	D	D	E	B	B	E	C	A
d_A, Approach Delay [s/veh]	40.01			41.33			14.89			21.62		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	20.19											
Intersection LOS	C											
Intersection V/C	0.724											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	224.18	129.32	59.29	243.62
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.976	2.368	3.326	3.393
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	517	517	1167	1183
d_b, Bicycle Delay [s]	33.12	33.07	10.43	10.04
l_b,int, Bicycle LOS Score for Intersection	1.602	1.817	2.681	3.226
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	31.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.788

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	14	41	20	321	33	211	181	1131	12	16	1660	785
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	41	20	321	33	211	181	1131	12	16	1660	785
Peak Hour Factor	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	11	5	83	9	54	47	292	3	4	428	203
Total Analysis Volume [veh/h]	14	42	21	331	34	218	187	1167	12	17	1713	810
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	10			5			5			17		
v_di, Inbound Pedestrian Volume crossing m	17			5			5			10		
v_co, Outbound Pedestrian Volume crossing	2			4			1			1		
v_ci, Inbound Pedestrian Volume crossing mi	1			1			2			4		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			1			6		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	43	0	17	39	0	10	50	0	10	50	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	16	16	13	27	9	72	72	3	66	66
g / C, Green / Cycle	0.02	0.14	0.14	0.11	0.22	0.07	0.60	0.60	0.02	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.10	0.02	0.05	0.22	0.22	0.01	0.48	0.52
s, saturation flow rate [veh/h]	1781	3560	1470	3459	1870	3459	3560	1859	1781	3560	1562
c, Capacity [veh/h]	34	484	200	375	421	253	2139	1117	39	1956	858
d1, Uniform Delay [s]	58.18	45.34	45.41	52.75	36.70	54.50	12.22	12.22	57.97	23.47	24.83
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.74	0.08	0.23	6.95	0.08	4.24	0.48	0.91	7.63	5.86	19.72
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.09	0.11	0.88	0.08	0.74	0.36	0.36	0.44	0.88	0.94
d, Delay for Lane Group [s/veh]	65.93	45.42	45.64	59.70	36.78	58.74	12.70	13.14	65.60	29.33	44.56
Lane Group LOS	E	D	D	E	D	E	B	B	E	C	D
Critical Lane Group	No	No	Yes	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.50	0.56	0.57	5.11	0.77	2.81	4.73	5.08	0.57	19.73	22.85
50th-Percentile Queue Length [ft/ln]	12.43	14.03	14.23	127.67	19.32	70.13	118.25	126.98	14.32	493.22	571.28
95th-Percentile Queue Length [veh/ln]	0.89	1.01	1.02	8.81	1.39	5.05	8.30	8.78	1.03	27.01	30.69
95th-Percentile Queue Length [ft/ln]	22.37	25.25	25.62	220.33	34.78	126.23	207.42	219.38	25.78	675.32	767.27

Movement, Approach, & Intersection Results

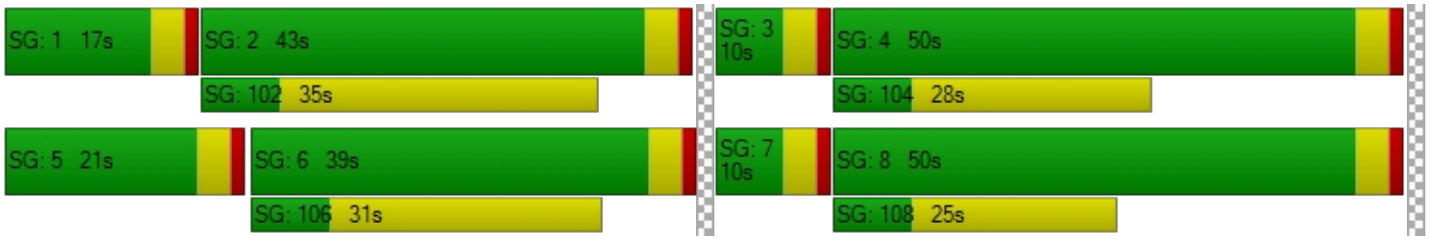
d_M, Delay for Movement [s/veh]	65.93	45.42	45.64	59.70	36.78	0.00	58.74	12.85	13.14	65.60	29.33	44.56
Movement LOS	E	D	D	E	D		E	B	B	E	C	D
d_A, Approach Delay [s/veh]	49.21			57.56			19.13			34.43		
Approach LOS	D			E			B			C		
d_I, Intersection Delay [s/veh]	31.83											
Intersection LOS	C											
Intersection V/C	0.788											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2530.89	0.00	814.07	291.55
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.336	2.847	3.398	3.644
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	650	583	767	767
d_b, Bicycle Delay [s]	27.38	30.19	22.83	22.89
l_b,int, Bicycle LOS Score for Intersection	1.623	2.162	2.311	3.655
Bicycle LOS	A	B	B	D

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.758

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	8	10	9	94	5	209	127	1328	8	4	2195	243
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	10	9	94	5	209	127	1328	8	4	2195	243
Peak Hour Factor	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	3	2	24	1	54	33	343	2	1	566	63
Total Analysis Volume [veh/h]	8	10	9	97	5	216	131	1370	8	4	2265	251
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	1			3			1			1		
v_di, Inbound Pedestrian Volume crossing m	1			1			3			1		
v_co, Outbound Pedestrian Volume crossing	0			0			1			2		
v_ci, Inbound Pedestrian Volume crossing mi	1			2			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			2			1			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	55	0	0	55	0	10	25	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	16	16	16	8	62	62	1	54	54
g / C, Green / Cycle	0.17	0.17	0.17	0.17	0.17	0.09	0.69	0.69	0.01	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.07	0.00	0.14	0.07	0.27	0.01	0.00	0.44	0.16
s, saturation flow rate [veh/h]	1402	1710	1389	1870	1556	1781	5094	1556	1781	5094	1552
c, Capacity [veh/h]	296	297	285	325	270	166	3495	1067	12	3055	931
d1, Uniform Delay [s]	32.36	31.06	35.13	30.80	35.55	39.95	6.07	4.46	44.49	12.98	8.56
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.09	0.70	0.02	5.39	8.11	0.33	0.01	15.00	1.67	0.71
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.06	0.34	0.02	0.80	0.79	0.39	0.01	0.33	0.74	0.27
d, Delay for Lane Group [s/veh]	32.40	31.15	35.84	30.82	40.94	48.06	6.40	4.47	59.49	14.65	9.27
Lane Group LOS	C	C	D	C	D	D	A	A	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.15	0.35	1.95	0.09	4.79	3.01	2.49	0.03	0.13	8.60	1.97
50th-Percentile Queue Length [ft/ln]	3.80	8.84	48.86	2.24	119.85	75.26	62.16	0.86	3.35	214.92	49.14
95th-Percentile Queue Length [veh/ln]	0.27	0.64	3.52	0.16	8.38	5.42	4.48	0.06	0.24	13.41	3.54
95th-Percentile Queue Length [ft/ln]	6.83	15.90	87.95	4.04	209.62	135.46	111.88	1.55	6.03	335.13	88.46

Movement, Approach, & Intersection Results

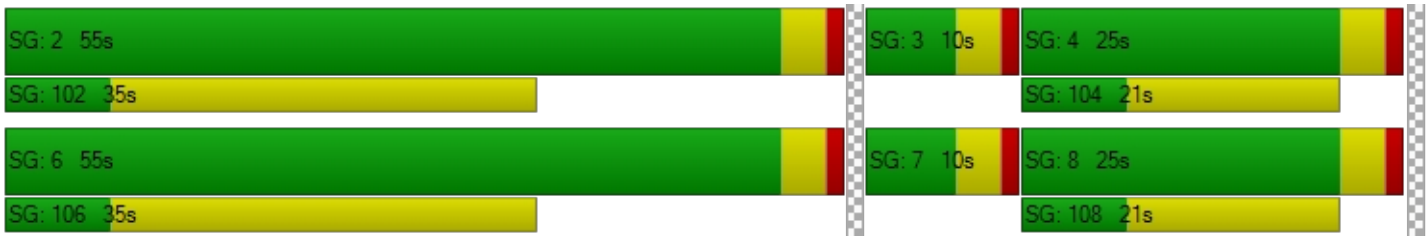
d_M, Delay for Movement [s/veh]	32.40	31.15	31.15	35.84	30.82	40.94	48.06	6.40	4.47	59.49	14.65	9.27
Movement LOS	C	C	C	D	C	D	D	A	A	E	B	A
d_A, Approach Delay [s/veh]	31.52			39.22			10.01			14.19		
Approach LOS	C			D			B			B		
d_I, Intersection Delay [s/veh]	14.67											
Intersection LOS	B											
Intersection V/C	0.758											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	9202.74	2618.44	2172.08	4961.73
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	1.952	2.332	3.630	3.756
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1133	1133	467	467
d_b, Bicycle Delay [s]	8.46	8.46	26.46	26.49
l_b,int, Bicycle LOS Score for Intersection	1.604	2.084	2.390	2.946
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	19.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.719

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	5	22	15	79	23	81	109	1238	31	43	2433	219
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	22	15	79	23	81	109	1238	31	43	2433	219
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	6	4	21	6	21	29	326	8	11	640	58
Total Analysis Volume [veh/h]	5	23	16	83	24	85	115	1303	33	45	2561	231
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			6			9			0		
v_di, Inbound Pedestrian Volume crossing m	0			9			6			0		
v_co, Outbound Pedestrian Volume crossing	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing mi	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			8			9			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	21	61	0	10	50	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	14	14	14	10	80	80	5	75	75
g / C, Green / Cycle	0.04	0.04	0.12	0.12	0.12	0.08	0.67	0.67	0.04	0.63	0.63
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.03	0.03	0.06	0.06	0.26	0.02	0.03	0.50	0.15
s, saturation flow rate [veh/h]	1781	1720	1781	1820	1490	1781	5094	1550	1781	5094	1548
c, Capacity [veh/h]	69	66	215	220	180	143	3404	1036	69	3192	970
d1, Uniform Delay [s]	55.62	56.75	47.80	47.79	48.99	54.23	8.87	6.74	56.86	16.81	9.78
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.44	8.02	0.59	0.57	1.91	9.88	0.33	0.06	9.77	2.23	0.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.59	0.25	0.24	0.47	0.80	0.38	0.03	0.65	0.80	0.24
d, Delay for Lane Group [s/veh]	56.06	64.77	48.39	48.36	50.91	64.11	9.20	6.80	66.63	19.04	10.36
Lane Group LOS	E	E	D	D	D	E	A	A	E	B	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.16	1.32	1.45	1.46	2.41	3.67	4.20	0.25	1.48	15.08	2.43
50th-Percentile Queue Length [ft/ln]	3.90	33.02	36.15	36.62	60.22	91.70	104.93	6.32	37.04	376.93	60.65
95th-Percentile Queue Length [veh/ln]	0.28	2.38	2.60	2.64	4.34	6.60	7.56	0.46	2.67	21.45	4.37
95th-Percentile Queue Length [ft/ln]	7.01	59.43	65.07	65.92	108.40	165.06	188.88	11.38	66.67	536.13	109.16

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.06	64.77	64.77	48.38	48.36	50.91	64.11	9.20	6.80	66.63	19.04	10.36
Movement LOS	E	E	E	D	D	D	E	A	A	E	B	B
d_A, Approach Delay [s/veh]	63.78			49.50			13.49			19.09		
Approach LOS	E			D			B			B		
d_I, Intersection Delay [s/veh]	19.02											
Intersection LOS	B											
Intersection V/C	0.719											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1560.06	491.41	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.994	2.350	3.656	0.000
Crosswalk LOS	A	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	767
d_b, Bicycle Delay [s]	54.23	30.23	16.61	22.91
l_b,int, Bicycle LOS Score for Intersection	1.632	1.876	2.358	3.120
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	44.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.919

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	40	45	21	385	24	236	211	1121	8	29	2442	919
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	45	21	385	24	236	211	1121	8	29	2442	919
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	12	6	101	6	62	56	295	2	8	643	242
Total Analysis Volume [veh/h]	42	47	22	405	25	248	222	1180	8	31	2571	967
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			4			9			0		
v_di, Inbound Pedestrian Volume crossing m	0			9			4			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	10	61	0	10	61	61
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	25	25	25	16	69	69	4	57	96
g / C, Green / Cycle	0.05	0.05	0.21	0.21	0.21	0.13	0.58	0.58	0.03	0.48	0.80
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.12	0.01	0.16	0.12	0.23	0.01	0.02	0.50	0.62
s, saturation flow rate [veh/h]	1781	1770	3459	1870	1560	1781	5094	1551	1781	5094	1565
c, Capacity [veh/h]	89	89	722	390	326	234	2932	893	57	2428	1255
d1, Uniform Delay [s]	55.46	56.35	42.55	38.07	44.51	51.73	14.06	10.86	57.19	31.40	6.00
k, delay calibration	0.11	0.11	0.11	0.11	0.12	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.84	13.65	0.69	0.07	4.09	17.62	0.41	0.02	7.68	36.28	4.62
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.78	0.56	0.06	0.76	0.95	0.40	0.01	0.54	1.06	0.77
d, Delay for Lane Group [s/veh]	59.29	70.00	43.23	38.14	48.60	69.35	14.47	10.88	64.88	67.68	10.62
Lane Group LOS	E	E	D	D	D	E	B	B	E	F	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.34	2.42	5.25	0.58	7.01	7.46	5.29	0.09	1.02	29.31	8.60
50th-Percentile Queue Length [ft/ln]	33.57	60.46	131.20	14.49	175.15	186.55	132.35	2.15	25.51	732.69	215.06
95th-Percentile Queue Length [veh/ln]	2.42	4.35	9.01	1.04	11.35	11.94	9.07	0.15	1.84	39.91	13.41
95th-Percentile Queue Length [ft/ln]	60.42	108.83	225.13	26.08	283.67	298.55	226.69	3.87	45.92	997.75	335.31

Movement, Approach, & Intersection Results

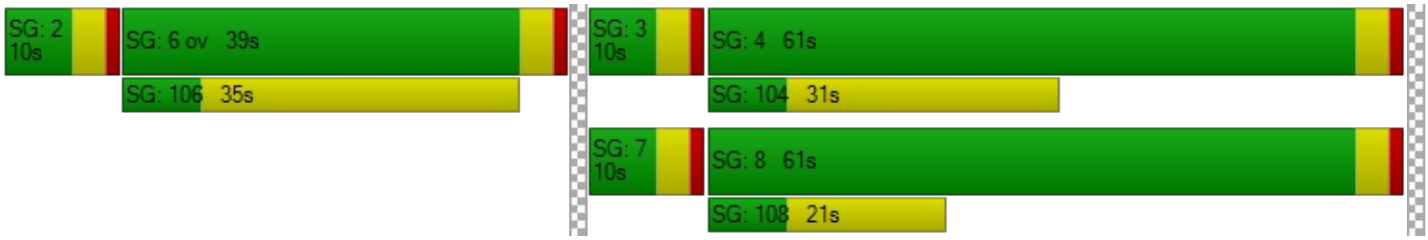
d_M, Delay for Movement [s/veh]	59.29	70.00	70.00	43.23	38.14	48.60	69.35	14.47	10.88	64.88	67.68	10.62
Movement LOS	E	E	E	D	D	D	E	B	B	E	F	B
d_A, Approach Delay [s/veh]	65.95			45.01			23.09			52.19		
Approach LOS	E			D			C			D		
d_I, Intersection Delay [s/veh]	44.50											
Intersection LOS	D											
Intersection V/C	0.919											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	436.33	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.001	2.936	3.694	0.000
Crosswalk LOS	B	C	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	950
d_b, Bicycle Delay [s]	54.15	30.10	16.60	16.56
l_b,int, Bicycle LOS Score for Intersection	1.743	2.678	2.335	3.523
Bicycle LOS	A	B	B	D

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	156.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.014

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	336	244	90	192	231	906	302	1019	203	164	2655	153
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	336	244	90	192	231	906	302	1019	203	164	2655	153
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	88	64	24	51	61	238	79	268	53	43	699	40
Total Analysis Volume [veh/h]	354	257	95	202	243	954	318	1073	214	173	2795	161
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	29			0			0			25		
v_di, Inbound Pedestrian Volume crossing m	25			0			0			29		
v_co, Outbound Pedestrian Volume crossing	3			10			1			15		
v_ci, Inbound Pedestrian Volume crossing mi	1			15			3			10		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			1			10			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	21	21	14	49	0	11	46	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	19	19	19	36	13	39	39	16	42	42
g / C, Green / Cycle	0.25	0.25	0.25	0.16	0.16	0.16	0.30	0.11	0.33	0.33	0.13	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.17	0.10	0.10	0.10	0.41	0.11	0.25	0.16	0.12	0.51	0.52
s, saturation flow rate [veh/h]	1500	1540	1278	1500	1548	1433	2351	2912	4290	1309	1500	4290	1512
c, Capacity [veh/h]	372	382	317	241	249	230	709	313	1401	427	197	1503	530
d1, Uniform Delay [s]	40.47	40.45	40.80	46.95	46.92	46.91	41.76	53.54	36.28	32.38	51.18	38.98	38.98
k, delay calibration	0.13	0.13	0.14	0.11	0.11	0.11	0.31	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.26	2.18	3.38	2.61	2.49	2.66	161.6	27.32	4.05	4.15	11.74	205.17	223.40
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.65	0.65	0.68	0.62	0.62	0.62	1.35	1.01	0.77	0.50	0.88	1.45	1.47
d, Delay for Lane Group [s/veh]	42.73	42.63	44.18	49.56	49.41	49.57	203.4	80.86	40.33	36.53	62.92	244.15	262.38
Lane Group LOS	D	D	D	D	D	D	F	F	D	D	E	F	F
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.65	6.80	6.04	4.27	4.38	4.05	26.00	5.75	9.42	5.24	5.60	42.49	47.60
50th-Percentile Queue Length [ft/ln]	166.15	170.03	150.98	106.8	109.4	101.2	650.0	143.64	235.61	131.12	140.07	1062.22	1190.08
95th-Percentile Queue Length [veh/ln]	10.87	11.08	10.07	7.66	7.81	7.29	40.27	9.73	14.46	9.00	9.48	65.19	72.86
95th-Percentile Queue Length [ft/ln]	271.85	276.95	251.74	191.6	195.1	182.1	1006.	243.26	361.48	225.02	237.12	1629.83	1821.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.70	43.36	44.18	49.56	49.50	203.43	80.86	40.33	36.53	62.92	248.19	262.38
Movement LOS	D	D	D	D	D	F	F	D	D	E	F	F
d_A, Approach Delay [s/veh]	43.14			154.47			47.85			238.68		
Approach LOS	D			F			D			F		
d_I, Intersection Delay [s/veh]	156.48											
Intersection LOS	F											
Intersection V/C	1.014											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1103.95	249.38	0.00	133.88
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.574	3.004	0.000	3.562
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	283	750	700
d_b, Bicycle Delay [s]	30.12	44.23	23.56	25.35
l_b,int, Bicycle LOS Score for Intersection	2.142	2.714	2.442	2.850
Bicycle LOS	B	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	51.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.067

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			25.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	0	0	0	436	0	470	0	1450	151	0	2574	686
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	436	0	470	0	1450	151	0	2574	686
Peak Hour Factor	1.0000	1.0000	1.0000	0.9600	1.0000	0.9600	1.0000	0.9600	0.9600	1.0000	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	114	0	122	0	378	39	0	670	179
Total Analysis Volume [veh/h]	0	0	0	454	0	490	0	1510	157	0	2681	715
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			6	
v_ci, Inbound Pedestrian Volume crossing mi		0			6			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			2			16			6	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	45	0	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		41	41	71	71
g / C, Green / Cycle		0.34	0.34	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate		0.16	0.37	0.50	0.63
s, saturation flow rate [veh/h]		2912	1321	2998	4290
c, Capacity [veh/h]		995	451	1774	2538
d1, Uniform Delay [s]		30.81	39.23	20.15	24.50
k, delay calibration		0.11	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.33	67.52	5.37	34.99
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.46	1.09	0.85	1.06
d, Delay for Lane Group [s/veh]		31.13	106.75	25.53	59.49
Lane Group LOS		C	F	C	F
Critical Lane Group		No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		5.23	21.59	16.60	29.04
50th-Percentile Queue Length [ft/ln]		130.79	539.80	415.10	725.92
95th-Percentile Queue Length [veh/ln]		8.98	30.83	23.29	39.63
95th-Percentile Queue Length [ft/ln]		224.57	770.71	582.17	990.82

Movement, Approach, & Intersection Results

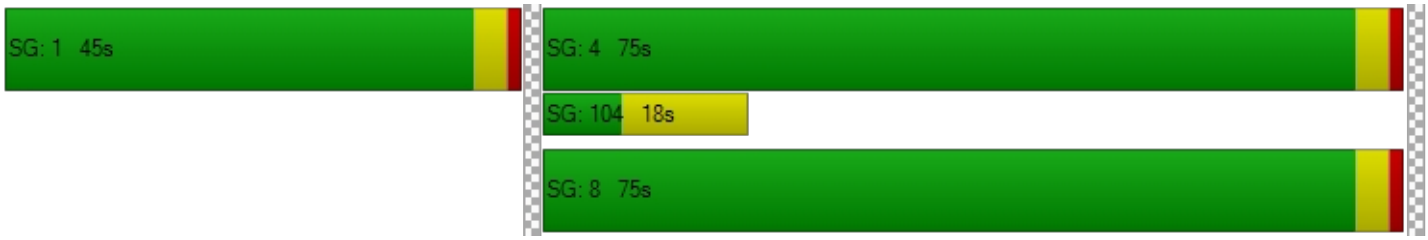
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	31.13	0.00	106.75	0.00	25.53	0.00	0.00	59.49	0.00
Movement LOS				C		F		C			F	
d_A, Approach Delay [s/veh]	0.00			70.38			25.53			59.49		
Approach LOS	A			E			C			E		
d_I, Intersection Delay [s/veh]	51.51											
Intersection LOS	D											
Intersection V/C	1.067											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1245.04	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.337	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1183	1183
d_b, Bicycle Delay [s]	60.00	60.00	10.08	10.03
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	2.805	3.034
Bicycle LOS	D	D	C	C

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX A-V

YEAR 2026 CUMULATIVE PLUS PROJECT TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	17.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.487

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	41	50	42	2002	4	1038	28
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	50	42	2002	4	1038	28
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	13	11	511	1	265	7
Total Analysis Volume [veh/h]	42	51	43	2043	4	1059	29
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	45		50		62		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	50		45		0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	12		0		8		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	8		62		12		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	4		5		21		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	27	60	10	43	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	5	69	1	65	65
g / C, Green / Cycle	0.05	0.05	0.04	0.60	0.01	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.02	0.40	0.00	0.21	0.02
s, saturation flow rate [veh/h]	1781	1542	1781	5094	1781	5094	1536
c, Capacity [veh/h]	88	76	71	3036	11	2867	864
d1, Uniform Delay [s]	53.20	53.67	54.35	15.67	56.89	13.87	11.19
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.95	9.63	8.23	1.21	17.17	0.37	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.67	0.61	0.67	0.35	0.37	0.03
d, Delay for Lane Group [s/veh]	57.15	63.30	62.58	16.88	74.06	14.24	11.27
Lane Group LOS	E	E	E	B	E	B	B
Critical Lane Group	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.29	1.66	1.36	10.95	0.17	4.73	0.32
50th-Percentile Queue Length [ft/ln]	32.21	41.60	33.91	273.83	4.19	118.15	8.10
95th-Percentile Queue Length [veh/ln]	2.32	3.00	2.44	16.38	0.30	8.29	0.58
95th-Percentile Queue Length [ft/ln]	57.98	74.88	61.04	409.52	7.54	207.28	14.59

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.15	63.30	62.58	16.88	74.06	14.24	11.27
Movement LOS	E	E	E	B	E	B	B
d_A, Approach Delay [s/veh]	60.52		17.82		14.38		
Approach LOS	E		B		B		
d_I, Intersection Delay [s/veh]	17.89						
Intersection LOS	B						
Intersection V/C	0.487						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	331.29	82.11	137.10
d_p, Pedestrian Delay [s]	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersection	1.997	3.273	3.318
Crosswalk LOS	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	57.50	57.50	57.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.280	4.733
Bicycle LOS	D	F	E

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	17.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.557

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	16	21	24	80	34	141	121	1941	4	27	903	58
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	21	24	80	34	141	121	1941	4	27	903	58
Peak Hour Factor	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	5	6	21	9	36	31	502	1	7	233	15
Total Analysis Volume [veh/h]	17	22	25	83	35	146	125	2007	4	28	934	60
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			15			14			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			14			15			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	5			19			4			28		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	4			28			5			19		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			4			11			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	13	35	0	10	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	14	14	14	8	52	52	3	47	47
g / C, Green / Cycle	0.05	0.05	0.05	0.16	0.16	0.16	0.09	0.58	0.58	0.03	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.03	0.03	0.06	0.07	0.37	0.37	0.02	0.18	0.19
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1832	2615	1781	3560	1868	1781	3560	1785
c, Capacity [veh/h]	95	100	85	284	292	417	159	2049	1075	60	1852	929
d1, Uniform Delay [s]	40.72	40.81	40.97	32.86	32.86	33.53	40.14	12.88	12.88	42.68	12.71	12.77
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.89	1.10	1.91	0.35	0.34	0.50	8.28	1.57	2.97	5.48	0.53	1.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.18	0.22	0.30	0.21	0.20	0.35	0.79	0.64	0.64	0.46	0.36	0.36
d, Delay for Lane Group [s/veh]	41.61	41.91	42.88	33.22	33.20	34.03	48.42	14.45	15.85	48.16	13.25	13.86
Lane Group LOS	D	D	D	C	C	C	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.38	0.50	0.58	1.11	1.13	1.41	2.95	7.81	8.61	0.68	3.53	3.77
50th-Percentile Queue Length [ft/ln]	9.60	12.46	14.46	27.71	28.32	35.21	73.68	195.17	215.36	16.94	88.36	94.14
95th-Percentile Queue Length [veh/ln]	0.69	0.90	1.04	2.00	2.04	2.54	5.30	12.39	13.43	1.22	6.36	6.78
95th-Percentile Queue Length [ft/ln]	17.29	22.42	26.04	49.88	50.97	63.38	132.62	309.73	335.70	30.49	159.05	169.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.61	41.91	42.88	33.21	33.20	34.03	48.42	14.93	15.85	48.16	13.43	13.86
Movement LOS	D	D	D	C	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	42.21			33.66			16.89			14.41		
Approach LOS	D			C			B			B		
d_I, Intersection Delay [s/veh]	17.90											
Intersection LOS	B											
Intersection V/C	0.557											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1099.75	199.40	314.62	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.157	2.407	3.269	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	133	689	689	622
d_b, Bicycle Delay [s]	39.20	19.38	19.45	21.45
l_b,int, Bicycle LOS Score for Intersection	1.665	1.995	2.734	2.122
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	13.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.676

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	3	0	11	78	2	66	48	1969	11	4	953	58
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	11	78	2	66	48	1969	11	4	953	58
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	1	0	3	21	1	17	13	518	3	1	251	15
Total Analysis Volume [veh/h]	3	0	12	82	2	69	51	2073	12	4	1003	61
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	10			23			8			13		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	13			8			23			10		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			8			2			19		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			19			1			8		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			3			27			11		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	54	73	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	17	17	17	17	5	90	90	1	86	86
g / C, Green / Cycle	0.14	0.14	0.14	0.14	0.14	0.04	0.75	0.75	0.01	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.03	0.04	0.05	0.03	0.56	0.56	0.00	0.28	0.04
s, saturation flow rate [veh/h]	659	1355	1299	1089	1460	1781	1870	1865	1781	3560	1548
c, Capacity [veh/h]	152	189	209	211	204	74	1410	1407	11	2560	1113
d1, Uniform Delay [s]	52.21	44.83	48.40	48.64	46.45	56.74	8.19	8.22	59.38	6.60	4.93
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.05	0.14	0.39	0.54	0.98	10.77	3.51	3.55	17.89	0.45	0.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.06	0.17	0.23	0.34	0.69	0.74	0.74	0.35	0.39	0.05
d, Delay for Lane Group [s/veh]	52.26	44.97	48.79	49.19	47.43	67.51	11.70	11.77	77.27	7.05	5.02
Lane Group LOS	D	D	D	D	D	E	B	B	E	A	A
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.09	0.32	1.02	1.37	1.93	1.71	12.34	12.39	0.17	4.22	0.40
50th-Percentile Queue Length [ft/ln]	2.19	8.05	25.44	34.13	48.26	42.81	308.47	309.67	4.36	105.58	9.95
95th-Percentile Queue Length [veh/ln]	0.16	0.58	1.83	2.46	3.48	3.08	18.10	18.16	0.31	7.59	0.72
95th-Percentile Queue Length [ft/ln]	3.94	14.49	45.80	61.44	86.88	77.06	452.50	453.96	7.85	189.84	17.91

Movement, Approach, & Intersection Results

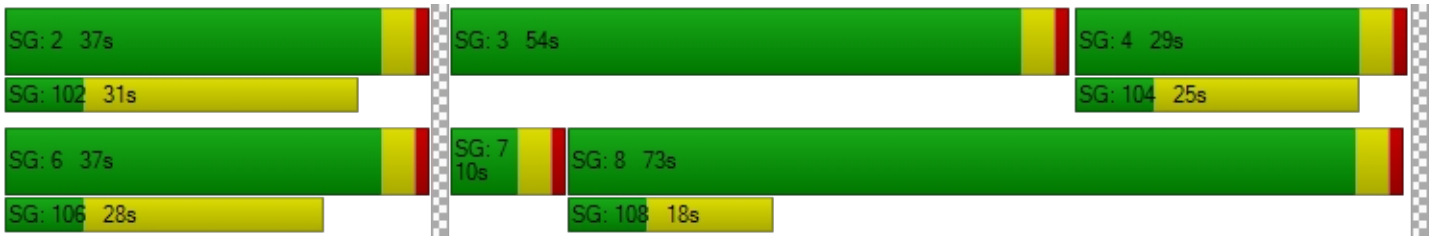
d_M, Delay for Movement [s/veh]	52.26	52.26	44.97	49.01	49.19	47.43	67.51	11.74	11.77	77.27	7.05	5.02
Movement LOS	D	D	D	D	D	D	E	B	B	E	A	A
d_A, Approach Delay [s/veh]	46.43			48.30			13.07			7.20		
Approach LOS	D			D			B			A		
d_I, Intersection Delay [s/veh]	12.95											
Intersection LOS	B											
Intersection V/C	0.676											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2251.96	251.26	213.01	288.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.963	2.357	3.257	3.380
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	550	550	1150	417
d_b, Bicycle Delay [s]	31.57	31.58	10.99	37.81
l_b,int, Bicycle LOS Score for Intersection	1.572	1.812	3.322	2.441
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	28.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.698

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	11	22	31	631	51	137	83	1884	19	35	896	280
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	22	31	631	51	137	83	1884	19	35	896	280
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	6	8	166	13	36	22	496	5	9	236	74
Total Analysis Volume [veh/h]	12	23	33	664	54	144	87	1983	20	37	943	295
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	5			9			2			5		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	5			2			9			5		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			0			2			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			0			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			28			16		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	43	39	0	39	35	0	10	32	0	10	32	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	10	10	26	34	6	64	64	4	63	63
g / C, Green / Cycle	0.02	0.08	0.08	0.22	0.28	0.05	0.53	0.53	0.04	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.19	0.03	0.03	0.37	0.37	0.02	0.26	0.19
s, saturation flow rate [veh/h]	1781	3560	1531	3459	1870	3459	3560	1858	1781	3560	1560
c, Capacity [veh/h]	32	292	126	748	525	163	1897	990	63	1855	813
d1, Uniform Delay [s]	58.29	50.88	51.63	45.61	31.97	55.87	20.76	20.79	57.00	18.72	16.90
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.40	0.11	1.10	3.83	0.08	2.67	2.11	4.02	8.32	1.00	1.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.08	0.26	0.89	0.10	0.53	0.69	0.69	0.59	0.51	0.36
d, Delay for Lane Group [s/veh]	65.69	51.00	52.72	49.44	32.06	58.54	22.87	24.82	65.32	19.72	18.15
Lane Group LOS	E	D	D	D	C	E	C	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.43	0.33	0.98	9.57	1.13	1.30	12.58	13.71	1.21	7.91	4.60
50th-Percentile Queue Length [ft/ln]	10.71	8.20	24.51	239.34	28.36	32.46	314.62	342.67	30.22	197.70	115.11
95th-Percentile Queue Length [veh/ln]	0.77	0.59	1.76	14.65	2.04	2.34	18.40	19.78	2.18	12.52	8.12
95th-Percentile Queue Length [ft/ln]	19.28	14.77	44.12	366.20	51.05	58.43	460.07	494.47	54.40	312.99	203.09

Movement, Approach, & Intersection Results

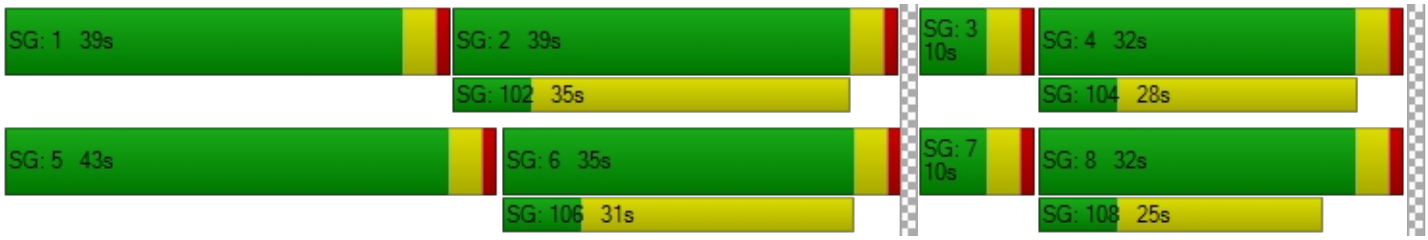
d_M, Delay for Movement [s/veh]	65.69	51.00	52.72	49.44	32.06	0.00	58.54	23.53	24.82	65.32	19.72	18.15
Movement LOS	E	D	D	D	C		E	C	C	E	B	B
d_A, Approach Delay [s/veh]	54.43			48.13			25.00			20.68		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	28.16											
Intersection LOS	C											
Intersection V/C	0.698											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2488.97	0.00	739.46	775.31
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.343	2.771	3.385	3.618
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	467	467
d_b, Bicycle Delay [s]	30.10	33.02	35.77	35.55
l_b,int, Bicycle LOS Score for Intersection	1.616	2.744	2.709	2.611
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	18.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.762

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	10	3	3	252	0	184	111	2384	3	2	893	60
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	3	3	252	0	184	111	2384	3	2	893	60
Peak Hour Factor	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	1	1	65	0	48	29	616	1	1	231	16
Total Analysis Volume [veh/h]	10	3	3	261	0	190	115	2465	3	2	923	62
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	3			9			5			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			5			9			3		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			0			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			1			10		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	39	0	36	51	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	25	25	25	25	8	63	63	0	55	55
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.08	0.63	0.63	0.00	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.01	0.00	0.19	0.00	0.12	0.06	0.48	0.00	0.00	0.18	0.04
s, saturation flow rate [veh/h]	1394	1715	1405	1870	1543	1781	5094	1556	1781	5094	1545
c, Capacity [veh/h]	392	431	391	470	388	147	3185	973	6	2782	844
d1, Uniform Delay [s]	29.88	28.12	36.68	0.00	31.82	45.00	13.61	7.04	49.72	12.58	10.72
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.03	0.01	2.00	0.00	0.96	8.80	1.90	0.01	29.82	0.32	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.01	0.67	0.00	0.49	0.78	0.77	0.00	0.33	0.33	0.07
d, Delay for Lane Group [s/veh]	29.91	28.13	38.68	0.00	32.78	53.80	15.51	7.04	79.54	12.90	10.89
Lane Group LOS	C	C	D	A	C	D	B	A	E	B	B
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.19	0.11	6.10	0.00	3.92	3.00	10.74	0.02	0.10	3.31	0.59
50th-Percentile Queue Length [ft/ln]	4.79	2.77	152.50	0.00	97.94	74.96	268.56	0.52	2.42	82.75	14.84
95th-Percentile Queue Length [veh/ln]	0.34	0.20	10.15	0.00	7.05	5.40	16.12	0.04	0.17	5.96	1.07
95th-Percentile Queue Length [ft/ln]	8.62	4.98	253.76	0.00	176.29	134.93	402.93	0.93	4.36	148.95	26.72

Movement, Approach, & Intersection Results

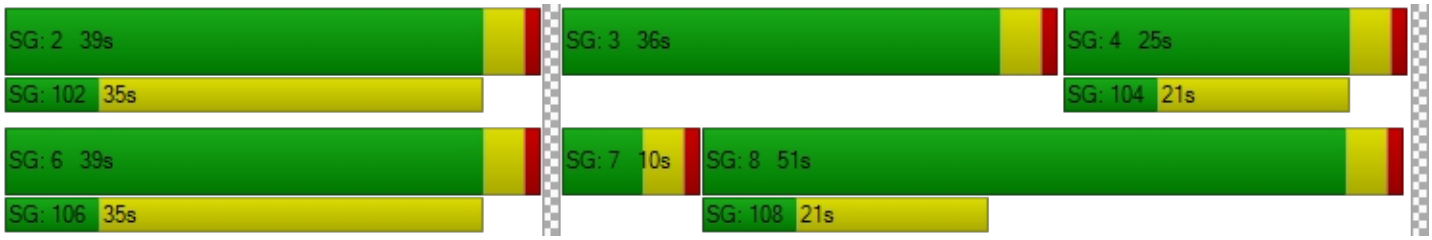
d_M, Delay for Movement [s/veh]	29.91	28.13	28.13	38.68	0.00	32.78	53.80	15.51	7.04	79.54	12.90	10.89
Movement LOS	C	C	C	D	A	C	D	B	A	E	B	B
d_A, Approach Delay [s/veh]	29.24			36.20			17.20			12.91		
Approach LOS	C			D			B			B		
d_I, Intersection Delay [s/veh]	18.32											
Intersection LOS	B											
Intersection V/C	0.762											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	8381.62	7814.21	559.08	2388.89
d_p, Pedestrian Delay [s]	39.61	39.61	39.61	39.61
l_p,int, Pedestrian LOS Score for Intersection	1.951	2.315	3.573	3.932
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	700	700	940	420
d_b, Bicycle Delay [s]	21.13	21.14	14.05	31.36
l_b,int, Bicycle LOS Score for Intersection	1.586	2.304	2.980	2.102
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	23.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.738

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	15	20	3	186	51	144	108	2492	43	59	860	74
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	20	3	186	51	144	108	2492	43	59	860	74
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	5	1	49	13	38	28	656	11	16	226	19
Total Analysis Volume [veh/h]	16	21	3	196	54	152	114	2623	45	62	905	78
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			15			7			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			7			15			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			2			0			2		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			2			0			2		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			29			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	39	0	35	60	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	20	20	20	10	74	74	5	70	70
g / C, Green / Cycle	0.04	0.04	0.17	0.17	0.17	0.08	0.62	0.62	0.05	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.07	0.07	0.10	0.06	0.51	0.03	0.03	0.18	0.05
s, saturation flow rate [veh/h]	1781	1821	1781	1818	1498	1781	5094	1530	1781	5094	1543
c, Capacity [veh/h]	66	67	300	307	253	143	3135	942	81	2959	896
d1, Uniform Delay [s]	56.16	56.40	44.56	44.56	45.85	54.24	18.29	9.13	56.63	12.81	11.08
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.89	3.18	0.90	0.88	2.29	9.77	2.83	0.10	13.78	0.27	0.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.24	0.36	0.41	0.41	0.60	0.80	0.84	0.05	0.76	0.31	0.09
d, Delay for Lane Group [s/veh]	58.05	59.57	45.46	45.44	48.14	64.01	21.12	9.22	70.42	13.08	11.27
Lane Group LOS	E	E	D	D	D	E	C	A	E	B	B
Critical Lane Group	No	Yes	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.51	0.78	3.29	3.35	4.22	3.63	16.66	0.43	2.10	3.72	0.86
50th-Percentile Queue Length [ft/ln]	12.75	19.39	82.18	83.79	105.50	90.82	416.60	10.80	52.40	92.95	21.56
95th-Percentile Queue Length [veh/ln]	0.92	1.40	5.92	6.03	7.59	6.54	23.36	0.78	3.77	6.69	1.55
95th-Percentile Queue Length [ft/ln]	22.95	34.90	147.92	150.82	189.72	163.48	583.97	19.45	94.32	167.32	38.82

Movement, Approach, & Intersection Results

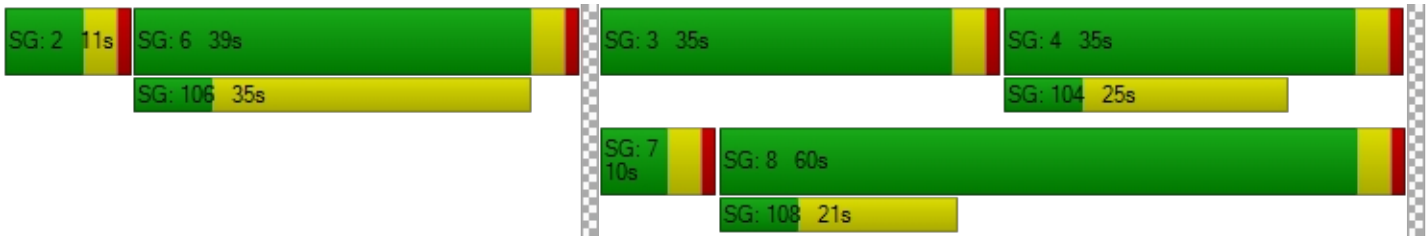
d_M, Delay for Movement [s/veh]	58.05	59.57	59.57	45.45	45.44	48.14	64.01	21.12	9.22	70.42	13.08	11.27
Movement LOS	E	E	E	D	D	D	E	C	A	E	B	B
d_A, Approach Delay [s/veh]	58.96			46.47			22.68			16.35		
Approach LOS	E			D			C			B		
d_I, Intersection Delay [s/veh]	23.71											
Intersection LOS	C											
Intersection V/C	0.738											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1502.60	302.93	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.008	2.370	3.601	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	117	583	933	517
d_b, Bicycle Delay [s]	53.28	30.19	17.32	33.15
l_b,int, Bicycle LOS Score for Intersection	1.626	2.223	3.090	2.134
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	28.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.814

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	36	35	22	602	10	168	235	2462	10	4	784	231
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	35	22	602	10	168	235	2462	10	4	784	231
Peak Hour Factor	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	9	9	6	158	3	44	62	645	3	1	205	61
Total Analysis Volume [veh/h]	38	37	23	631	10	176	246	2581	10	4	822	242
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			5			8			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			8			5			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			1			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			4		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	24	51	0	10	37	37
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	24	24	24	17	64	64	1	47	85
g / C, Green / Cycle	0.05	0.05	0.22	0.22	0.22	0.16	0.58	0.58	0.01	0.43	0.77
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.18	0.01	0.11	0.14	0.51	0.01	0.00	0.16	0.15
s, saturation flow rate [veh/h]	1781	1751	3459	1870	1561	1781	5094	1549	1781	5094	1565
c, Capacity [veh/h]	92	91	756	409	341	280	2939	894	13	2173	1205
d1, Uniform Delay [s]	50.52	51.20	41.06	33.75	37.75	45.31	19.96	9.91	54.35	21.56	3.43
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.91	7.92	2.50	0.02	1.20	8.62	4.11	0.02	13.95	0.50	0.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.66	0.83	0.02	0.52	0.88	0.88	0.01	0.32	0.38	0.20
d, Delay for Lane Group [s/veh]	53.43	59.12	43.56	33.78	38.96	53.93	24.07	9.93	68.30	22.07	3.52
Lane Group LOS	D	E	D	C	D	D	C	A	E	C	A
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.10	1.83	8.01	0.20	4.09	6.87	16.62	0.10	0.15	4.58	0.95
50th-Percentile Queue Length [ft/ln]	27.41	45.87	200.36	5.12	102.24	171.82	415.44	2.38	3.87	114.58	23.77
95th-Percentile Queue Length [veh/ln]	1.97	3.30	12.66	0.37	7.36	11.17	23.30	0.17	0.28	8.09	1.71
95th-Percentile Queue Length [ft/ln]	49.34	82.56	316.43	9.21	184.03	279.31	582.58	4.28	6.97	202.36	42.79

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.43	59.12	59.12	43.56	33.78	38.96	53.93	24.07	9.93	68.30	22.07	3.52
Movement LOS	D	E	E	D	C	D	D	C	A	E	C	A
d_A, Approach Delay [s/veh]	56.92			42.45			26.61			18.04		
Approach LOS	E			D			C			B		
d_I, Intersection Delay [s/veh]	28.01											
Intersection LOS	C											
Intersection V/C	0.814											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	7446.75	0.00	552.01	0.00
d_p, Pedestrian Delay [s]	44.55	44.55	44.55	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.983	2.746	3.600	0.000
Crosswalk LOS	A	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	109	636	855	600
d_b, Bicycle Delay [s]	49.16	25.57	18.10	27.00
l_b,int, Bicycle LOS Score for Intersection	1.721	2.908	3.120	2.147
Bicycle LOS	A	C	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	100.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.024

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	206	357	107	216	168	296	973	2282	331	83	701	232
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	206	357	107	216	168	296	973	2282	331	83	701	232
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	54	94	28	57	44	78	256	601	87	22	184	61
Total Analysis Volume [veh/h]	217	376	113	227	177	312	1024	2402	348	87	738	244
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	16			0			0			8		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	8			0			0			16		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			2			9		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			9			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			24			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	10	10	36	61	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	27	13	13	13	50	33	55	55	9	31	31
g / C, Green / Cycle	0.23	0.23	0.23	0.11	0.11	0.11	0.42	0.27	0.46	0.46	0.07	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.14	0.18	0.16	0.09	0.09	0.09	0.13	0.35	0.56	0.27	0.06	0.17	0.18
s, saturation flow rate [veh/h]	1500	1575	1285	1500	1525	1433	2369	2912	4290	1305	1500	4290	1323
c, Capacity [veh/h]	341	358	292	162	164	155	985	800	1975	601	107	1102	340
d1, Uniform Delay [s]	41.90	43.50	42.90	52.52	52.52	52.50	23.58	43.52	32.38	23.61	54.94	40.01	40.62
k, delay calibration	0.11	0.16	0.13	0.11	0.11	0.11	0.11	0.19	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.98	5.41	4.22	11.05	10.83	11.32	0.18	129.81	102.21	4.04	13.72	3.24	12.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	0.78	0.72	0.84	0.84	0.84	0.32	1.28	1.22	0.58	0.81	0.67	0.72
d, Delay for Lane Group [s/veh]	43.88	48.91	47.12	63.57	63.35	63.82	23.76	173.33	134.58	27.64	68.66	43.25	52.90
Lane Group LOS	D	D	D	E	E	E	C	F	F	C	E	D	D
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.99	8.24	6.14	4.45	4.51	4.25	2.93	25.68	36.01	7.35	2.94	6.62	7.50
50th-Percentile Queue Length [ft/ln]	149.78	206.01	153.42	111.2	112.6	106.2	73.18	641.95	900.23	183.75	73.43	165.61	187.44
95th-Percentile Queue Length [veh/ln]	10.01	12.95	10.20	7.91	7.99	7.63	5.27	38.84	52.46	11.80	5.29	10.85	11.99
95th-Percentile Queue Length [ft/ln]	250.14	323.71	254.99	197.6	199.7	190.7	131.7	971.02	1311.60	294.90	132.17	271.14	299.70

Movement, Approach, & Intersection Results

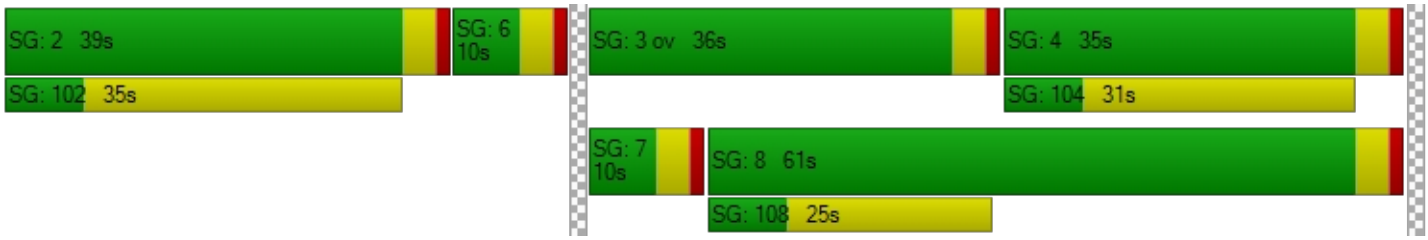
d_M, Delay for Movement [s/veh]	43.88	48.44	47.12	63.48	63.69	23.76	173.33	134.58	27.64	68.66	43.25	52.90
Movement LOS	D	D	D	E	E	C	F	F	C	E	D	D
d_A, Approach Delay [s/veh]	46.82			46.22			135.24			47.52		
Approach LOS	D			D			F			D		
d_I, Intersection Delay [s/veh]	100.13											
Intersection LOS	F											
Intersection V/C	1.024											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1155.25	526.94	0.00	294.54
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.571	3.046	0.000	3.436
Crosswalk LOS	B	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	100	950	517
d_b, Bicycle Delay [s]	30.10	54.15	16.74	33.00
l_b,int, Bicycle LOS Score for Intersection	2.142	2.150	3.635	2.001
Bicycle LOS	B	B	D	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	53.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.100

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name	Newport Boulevard			Newport Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	0	0	0	495	0	291	0	2275	210	0	1055	429
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	495	0	291	0	2275	210	0	1055	429
Peak Hour Factor	1.000	1.000	1.000	0.957	1.000	0.957	1.000	0.957	0.957	1.000	0.957	0.957
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	129	0	76	0	594	55	0	276	112
Total Analysis Volume [veh/h]	0	0	0	517	0	304	0	2377	219	0	1102	448
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			2			24			1		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	28	0	0	0	87	0	0	87	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		115	115	115	115
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		24	24	83	83
g / C, Green / Cycle		0.21	0.21	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate		0.18	0.23	0.79	0.26
s, saturation flow rate [veh/h]		2912	1320	2998	4290
c, Capacity [veh/h]		608	275	2164	3096
d1, Uniform Delay [s]		43.77	45.33	16.00	5.99
k, delay calibration		0.11	0.37	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		3.46	77.38	52.18	0.32
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.85	1.10	1.10	0.36
d, Delay for Lane Group [s/veh]		47.24	122.71	68.18	6.31
Lane Group LOS		D	F	F	A
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		7.40	13.76	36.38	2.72
50th-Percentile Queue Length [ft/ln]		185.04	344.06	909.59	68.09
95th-Percentile Queue Length [veh/ln]		11.86	20.89	50.22	4.90
95th-Percentile Queue Length [ft/ln]		296.58	522.16	1255.53	122.57

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	47.24	0.00	122.71	0.00	68.18	0.00	0.00	6.31	0.00
Movement LOS				D		F		F			A	
d_A, Approach Delay [s/veh]	0.00			75.18			68.18			6.31		
Approach LOS	A			E			E			A		
d_I, Intersection Delay [s/veh]	53.66											
Intersection LOS	D											
Intersection V/C	1.100											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	3907.01	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	47.03	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.310	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1443	1443
d_b, Bicycle Delay [s]	57.50	57.50	4.51	4.45
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	3.521	2.166
Bicycle LOS	D	D	D	B

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	23.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.520

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	56	61	85	1313	34	1773	97
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	56	61	85	1313	34	1773	97
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	16	22	346	9	467	26
Total Analysis Volume [veh/h]	59	64	89	1382	36	1866	102
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	218		290		318		
v_di, Inbound Pedestrian Volume crossing m	290		218		0		
v_co, Outbound Pedestrian Volume crossing	101		0		67		
v_ci, Inbound Pedestrian Volume crossing mi	67		318		101		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	1		0		5		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	17	45	10	38	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	50	4	48	48
g / C, Green / Cycle	0.06	0.06	0.06	0.50	0.04	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.05	0.27	0.02	0.37	0.07
s, saturation flow rate [veh/h]	1781	1564	1781	5094	1781	5094	1552
c, Capacity [veh/h]	103	91	115	2560	68	2425	739
d1, Uniform Delay [s]	45.88	46.22	46.03	16.98	47.20	21.66	14.67
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.87	9.53	10.35	0.82	6.21	2.42	0.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.70	0.77	0.54	0.53	0.77	0.14
d, Delay for Lane Group [s/veh]	50.76	55.76	56.38	17.80	53.41	24.08	15.06
Lane Group LOS	D	E	E	B	D	C	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.57	1.81	2.43	6.66	0.97	11.30	1.27
50th-Percentile Queue Length [ft/ln]	39.36	45.20	60.81	166.58	24.21	282.58	31.87
95th-Percentile Queue Length [veh/ln]	2.83	3.25	4.38	10.90	1.74	16.82	2.29
95th-Percentile Queue Length [ft/ln]	70.85	81.36	109.45	272.41	43.57	420.43	57.37

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.76	55.76	56.38	17.80	53.41	24.08	15.06
Movement LOS	D	E	E	B	D	C	B
d_A, Approach Delay [s/veh]	53.36		20.13		24.15		
Approach LOS	D		C		C		
d_I, Intersection Delay [s/veh]	23.51						
Intersection LOS	C						
Intersection V/C	0.520						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	34.44	16.71	29.20
d_p, Pedestrian Delay [s]	39.61	39.61	39.61
l_p,int, Pedestrian LOS Score for Intersection	2.030	3.309	3.360
Crosswalk LOS	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	50.00	50.00	50.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.941	5.235
Bicycle LOS	D	E	F

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	31.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.666

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	38	25	38	106	24	103	184	1157	5	26	1743	141
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	25	38	106	24	103	184	1157	5	26	1743	141
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	6	10	27	6	27	48	299	1	7	451	36
Total Analysis Volume [veh/h]	39	26	39	110	25	107	190	1196	5	27	1802	146
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			74			51			0		
v_di, Inbound Pedestrian Volume crossing m	0			51			74			0		
v_co, Outbound Pedestrian Volume crossing	8			125			8			139		
v_ci, Inbound Pedestrian Volume crossing mi	8			139			8			125		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			5			1			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	21	64	0	11	54	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	28	28	28	15	67	67	4	55	55
g / C, Green / Cycle	0.05	0.05	0.05	0.23	0.23	0.23	0.12	0.55	0.55	0.03	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.04	0.04	0.05	0.11	0.22	0.22	0.02	0.36	0.40
s, saturation flow rate [veh/h]	1781	1851	1589	1781	1813	2328	1781	3560	1865	1781	3560	1639
c, Capacity [veh/h]	86	90	77	417	424	545	219	1973	1033	54	1642	756
d1, Uniform Delay [s]	55.33	55.30	55.69	36.58	36.57	36.59	51.67	15.33	15.33	57.31	27.33	29.03
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.66	2.47	5.06	0.18	0.17	0.17	10.02	0.61	1.15	7.12	3.88	12.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.37	0.51	0.16	0.16	0.20	0.87	0.40	0.40	0.50	0.79	0.87
d, Delay for Lane Group [s/veh]	57.99	57.77	60.75	36.76	36.75	36.77	61.69	15.93	16.48	64.43	31.22	41.86
Lane Group LOS	E	E	E	D	D	D	E	B	B	E	C	D
Critical Lane Group	No	No	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.02	1.03	1.27	1.58	1.60	1.26	6.07	5.88	6.32	0.89	15.47	18.43
50th-Percentile Queue Length [ft/ln]	25.46	25.76	31.75	39.58	40.10	31.51	151.74	146.92	157.96	22.37	386.76	460.64
95th-Percentile Queue Length [veh/ln]	1.83	1.85	2.29	2.85	2.89	2.27	10.11	9.85	10.44	1.61	21.92	25.47
95th-Percentile Queue Length [ft/ln]	45.83	46.36	57.16	71.25	72.17	56.72	252.76	246.32	261.03	40.27	548.02	636.63

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.95	57.77	60.75	36.75	36.75	36.77	61.69	16.12	16.48	64.43	34.23	41.86
Movement LOS	E	E	E	D	D	D	E	B	B	E	C	D
d_A, Approach Delay [s/veh]	58.96			36.76			22.35			35.21		
Approach LOS	E			D			C			D		
d_I, Intersection Delay [s/veh]	31.15											
Intersection LOS	C											
Intersection V/C	0.666											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	460.55	19.74	54.10	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.178	2.451	3.305	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	517	1000	833
d_b, Bicycle Delay [s]	54.15	33.09	15.01	20.50
l_b,int, Bicycle LOS Score for Intersection	1.731	1.959	2.325	2.646
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	20.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.732

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	16	5	28	66	2	81	84	1231	10	16	1846	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	5	28	66	2	81	84	1231	10	16	1846	83
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	7	17	1	21	22	324	3	4	486	22
Total Analysis Volume [veh/h]	17	5	29	69	2	85	88	1296	11	17	1943	87
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	2			36			66			25		
v_di, Inbound Pedestrian Volume crossing m	25			66			36			2		
v_co, Outbound Pedestrian Volume crossing	15			11			15			38		
v_ci, Inbound Pedestrian Volume crossing mi	15			38			15			11		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	7			4			3			7		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	10	74	0	11	75	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	25	25	25	25	7	81	81	3	76	76
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.06	0.67	0.67	0.02	0.63	0.63
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.03	0.06	0.05	0.35	0.35	0.01	0.55	0.06
s, saturation flow rate [veh/h]	969	1363	1296	1123	1333	1781	1870	1863	1781	3560	1530
c, Capacity [veh/h]	252	280	285	289	274	110	1257	1252	40	2252	968
d1, Uniform Delay [s]	41.36	38.71	41.99	41.91	40.02	55.54	9.91	9.91	57.92	17.83	8.57
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.15	0.16	0.17	0.21	0.64	12.20	1.54	1.55	7.21	4.67	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.10	0.11	0.13	0.31	0.80	0.52	0.52	0.43	0.86	0.09
d, Delay for Lane Group [s/veh]	41.51	38.87	42.16	42.12	40.66	67.74	11.45	11.47	65.13	22.50	8.75
Lane Group LOS	D	D	D	D	D	E	B	B	E	C	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.59	0.72	0.83	1.01	2.19	2.94	7.93	7.92	0.58	20.04	0.85
50th-Percentile Queue Length [ft/ln]	14.65	17.96	20.78	25.34	54.71	73.45	198.30	198.04	14.44	500.98	21.22
95th-Percentile Queue Length [veh/ln]	1.05	1.29	1.50	1.82	3.94	5.29	12.55	12.54	1.04	27.38	1.53
95th-Percentile Queue Length [ft/ln]	26.37	32.33	37.40	45.62	98.47	132.22	313.77	313.43	25.99	684.52	38.20

Movement, Approach, & Intersection Results

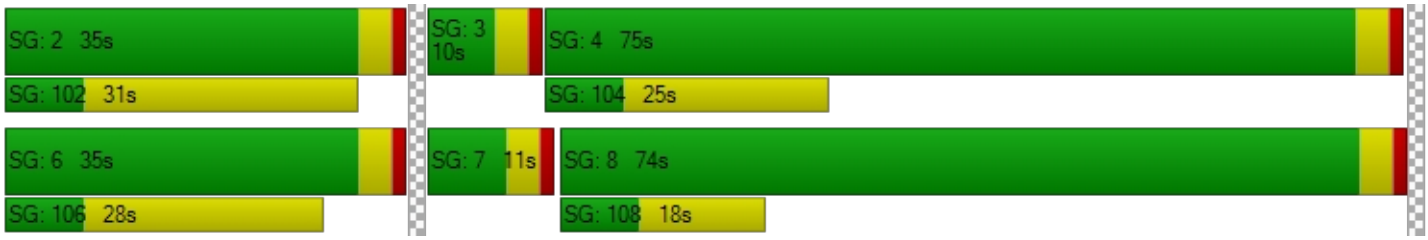
d_M, Delay for Movement [s/veh]	41.51	41.51	38.87	42.14	42.12	40.66	67.74	11.46	11.47	65.13	22.50	8.75
Movement LOS	D	D	D	D	D	D	E	B	B	E	C	A
d_A, Approach Delay [s/veh]	40.01			41.33			15.01			22.27		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	20.55											
Intersection LOS	C											
Intersection V/C	0.732											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	224.18	129.32	59.29	243.62
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.976	2.368	3.344	3.408
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	517	517	1167	1183
d_b, Bicycle Delay [s]	33.12	33.07	10.43	10.04
l_b,int, Bicycle LOS Score for Intersection	1.602	1.817	2.710	3.248
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	32.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.788

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	14	41	20	321	33	211	181	1165	12	16	1686	785
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	41	20	321	33	211	181	1165	12	16	1686	785
Peak Hour Factor	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	11	5	83	9	54	47	301	3	4	435	203
Total Analysis Volume [veh/h]	14	42	21	331	34	218	187	1202	12	17	1740	810
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	10			5			5			17		
v_di, Inbound Pedestrian Volume crossing m	17			5			5			10		
v_co, Outbound Pedestrian Volume crossing	2			4			1			1		
v_ci, Inbound Pedestrian Volume crossing mi	1			1			2			4		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			1			6		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	39	0	17	35	0	10	50	0	14	54	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	16	16	13	27	9	72	72	3	66	66
g / C, Green / Cycle	0.02	0.14	0.14	0.11	0.22	0.07	0.60	0.60	0.02	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.10	0.02	0.05	0.22	0.22	0.01	0.49	0.52
s, saturation flow rate [veh/h]	1781	3560	1470	3459	1870	3459	3560	1859	1781	3560	1562
c, Capacity [veh/h]	34	483	200	375	421	252	2139	1117	39	1958	859
d1, Uniform Delay [s]	58.18	45.36	45.42	52.75	36.71	54.54	12.32	12.33	57.96	23.78	24.79
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.74	0.08	0.23	6.95	0.08	4.31	0.50	0.96	7.51	6.50	19.61
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.09	0.11	0.88	0.08	0.74	0.37	0.37	0.44	0.89	0.94
d, Delay for Lane Group [s/veh]	65.93	45.43	45.65	59.70	36.80	58.85	12.82	13.28	65.47	30.28	44.40
Lane Group LOS	E	D	D	E	D	E	B	B	E	C	D
Critical Lane Group	No	No	Yes	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.50	0.56	0.57	5.11	0.77	2.81	4.91	5.28	0.57	20.44	22.81
50th-Percentile Queue Length [ft/ln]	12.43	14.03	14.24	127.67	19.32	70.20	122.80	131.90	14.30	511.10	570.24
95th-Percentile Queue Length [veh/ln]	0.89	1.01	1.03	8.81	1.39	5.05	8.55	9.04	1.03	27.86	30.64
95th-Percentile Queue Length [ft/ln]	22.37	25.25	25.63	220.33	34.78	126.36	213.66	226.08	25.74	696.48	766.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	65.93	45.43	45.65	59.70	36.80	0.00	58.85	12.98	13.28	65.47	30.28	44.40
Movement LOS	E	D	D	E	D		E	B	B	E	C	D
d_A, Approach Delay [s/veh]	49.22			57.57			19.10			34.97		
Approach LOS	D			E			B			C		
d_I, Intersection Delay [s/veh]	32.05											
Intersection LOS	C											
Intersection V/C	0.788											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2530.89	0.00	814.07	291.55
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.336	2.847	3.413	3.660
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	767	833
d_b, Bicycle Delay [s]	30.15	33.10	22.83	20.48
l_b,int, Bicycle LOS Score for Intersection	1.623	2.162	2.330	3.677
Bicycle LOS	A	B	B	D

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.764

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	8	10	9	94	5	209	127	1362	8	4	2221	243
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	10	9	94	5	209	127	1362	8	4	2221	243
Peak Hour Factor	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	3	2	24	1	54	33	351	2	1	573	63
Total Analysis Volume [veh/h]	8	10	9	97	5	216	131	1406	8	4	2292	251
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	1			3			1			1		
v_di, Inbound Pedestrian Volume crossing m	1			1			3			1		
v_co, Outbound Pedestrian Volume crossing	0			0			1			2		
v_ci, Inbound Pedestrian Volume crossing mi	1			2			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			2			1			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	55	0	0	55	0	10	25	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	16	16	16	8	62	62	1	54	54
g / C, Green / Cycle	0.17	0.17	0.17	0.17	0.17	0.09	0.69	0.69	0.01	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.07	0.00	0.14	0.07	0.28	0.01	0.00	0.45	0.16
s, saturation flow rate [veh/h]	1402	1710	1389	1870	1556	1781	5094	1556	1781	5094	1552
c, Capacity [veh/h]	296	297	285	325	270	166	3495	1067	12	3055	931
d1, Uniform Delay [s]	32.36	31.06	35.13	30.80	35.55	39.95	6.13	4.46	44.49	13.11	8.56
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.09	0.70	0.02	5.39	8.11	0.35	0.01	15.00	1.74	0.71
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.06	0.34	0.02	0.80	0.79	0.40	0.01	0.33	0.75	0.27
d, Delay for Lane Group [s/veh]	32.40	31.15	35.84	30.82	40.94	48.06	6.47	4.47	59.49	14.85	9.27
Lane Group LOS	C	C	D	C	D	D	A	A	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.15	0.35	1.95	0.09	4.79	3.01	2.58	0.03	0.13	8.79	1.97
50th-Percentile Queue Length [ft/ln]	3.80	8.84	48.86	2.24	119.85	75.26	64.43	0.86	3.35	219.87	49.14
95th-Percentile Queue Length [veh/ln]	0.27	0.64	3.52	0.16	8.38	5.42	4.64	0.06	0.24	13.66	3.54
95th-Percentile Queue Length [ft/ln]	6.83	15.90	87.95	4.04	209.62	135.46	115.98	1.55	6.03	341.46	88.46

Movement, Approach, & Intersection Results

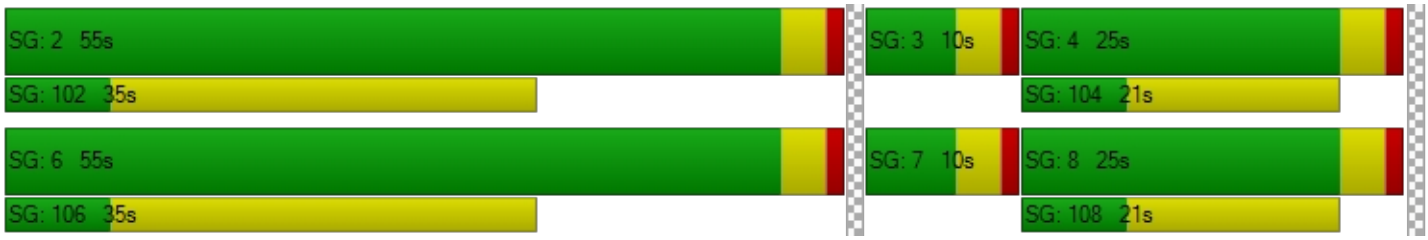
d_M, Delay for Movement [s/veh]	32.40	31.15	31.15	35.84	30.82	40.94	48.06	6.47	4.47	59.49	14.85	9.27
Movement LOS	C	C	C	D	C	D	D	A	A	E	B	A
d_A, Approach Delay [s/veh]	31.52			39.22			9.99			14.37		
Approach LOS	C			D			A			B		
d_I, Intersection Delay [s/veh]	14.73											
Intersection LOS	B											
Intersection V/C	0.764											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	9202.74	2618.44	2172.08	4961.73
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	1.952	2.332	3.644	3.770
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1133	1133	467	467
d_b, Bicycle Delay [s]	8.46	8.46	26.46	26.49
l_b,int, Bicycle LOS Score for Intersection	1.604	2.084	2.409	2.960
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	22.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.762

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	5	22	15	97	23	107	143	1238	31	43	2433	243
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	22	15	97	23	107	143	1238	31	43	2433	243
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	6	4	26	6	28	38	326	8	11	640	64
Total Analysis Volume [veh/h]	5	23	16	102	24	113	151	1303	33	45	2561	256
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			6			9			0		
v_di, Inbound Pedestrian Volume crossing m	0			9			6			0		
v_co, Outbound Pedestrian Volume crossing	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing mi	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			8			9			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	11	61	0	10	60	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	16	16	16	12	79	79	5	71	71
g / C, Green / Cycle	0.04	0.04	0.13	0.13	0.13	0.10	0.66	0.66	0.04	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.04	0.03	0.08	0.08	0.26	0.02	0.03	0.50	0.17
s, saturation flow rate [veh/h]	1781	1720	1781	1814	1498	1781	5094	1550	1781	5094	1547
c, Capacity [veh/h]	69	66	239	243	201	179	3338	1016	69	3024	918
d1, Uniform Delay [s]	55.62	56.75	46.64	46.64	48.45	53.03	9.58	7.28	56.86	19.93	11.81
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.45	8.05	0.58	0.56	2.47	10.15	0.34	0.06	9.81	3.15	0.76
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.59	0.26	0.26	0.56	0.84	0.39	0.03	0.65	0.85	0.28
d, Delay for Lane Group [s/veh]	56.07	64.81	47.22	47.20	50.92	63.18	9.92	7.34	66.67	23.08	12.57
Lane Group LOS	E	E	D	D	D	E	A	A	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.16	1.32	1.68	1.70	3.22	4.79	4.46	0.27	1.48	17.25	3.10
50th-Percentile Queue Length [ft/ln]	3.90	33.03	41.99	42.54	80.41	119.65	111.51	6.70	37.05	431.16	77.53
95th-Percentile Queue Length [veh/ln]	0.28	2.38	3.02	3.06	5.79	8.37	7.92	0.48	2.67	24.06	5.58
95th-Percentile Queue Length [ft/ln]	7.01	59.45	75.59	76.58	144.74	209.35	198.10	12.07	66.70	601.43	139.56

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.07	64.81	64.81	47.21	47.20	50.92	63.18	9.92	7.34	66.67	23.08	12.57
Movement LOS	E	E	E	D	D	D	E	A	A	E	C	B
d_A, Approach Delay [s/veh]	63.81			48.96			15.27			22.83		
Approach LOS	E			D			B			C		
d_I, Intersection Delay [s/veh]	22.14											
Intersection LOS	C											
Intersection V/C	0.762											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1323.68	471.95	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.994	2.389	3.670	0.000
Crosswalk LOS	A	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	933
d_b, Bicycle Delay [s]	54.23	30.23	16.61	17.14
l_b,int, Bicycle LOS Score for Intersection	1.632	1.954	2.377	3.134
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	46.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.925

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	40	45	21	385	24	236	211	1139	8	29	2466	919
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	45	21	385	24	236	211	1139	8	29	2466	919
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	12	6	101	6	62	56	300	2	8	649	242
Total Analysis Volume [veh/h]	42	47	22	405	25	248	222	1199	8	31	2596	967
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			4			9			0		
v_di, Inbound Pedestrian Volume crossing m	0			9			4			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	10	61	0	10	61	61
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	25	25	25	16	69	69	4	57	96
g / C, Green / Cycle	0.05	0.05	0.21	0.21	0.21	0.13	0.58	0.58	0.03	0.48	0.80
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.12	0.01	0.16	0.12	0.24	0.01	0.02	0.51	0.62
s, saturation flow rate [veh/h]	1781	1770	3459	1870	1560	1781	5094	1551	1781	5094	1565
c, Capacity [veh/h]	89	89	722	390	326	234	2932	893	57	2428	1255
d1, Uniform Delay [s]	55.46	56.35	42.55	38.07	44.51	51.73	14.13	10.86	57.19	31.40	6.00
k, delay calibration	0.11	0.11	0.11	0.11	0.12	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.84	13.65	0.69	0.07	4.09	17.62	0.42	0.02	7.68	40.07	4.62
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.78	0.56	0.06	0.76	0.95	0.41	0.01	0.54	1.07	0.77
d, Delay for Lane Group [s/veh]	59.29	70.00	43.23	38.14	48.60	69.35	14.55	10.88	64.88	71.48	10.62
Lane Group LOS	E	E	D	D	D	E	B	B	E	F	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.34	2.42	5.25	0.58	7.01	7.46	5.41	0.09	1.02	30.16	8.60
50th-Percentile Queue Length [ft/ln]	33.57	60.46	131.20	14.49	175.15	186.55	135.16	2.15	25.51	754.03	215.06
95th-Percentile Queue Length [veh/ln]	2.42	4.35	9.01	1.04	11.35	11.94	9.22	0.15	1.84	41.23	13.41
95th-Percentile Queue Length [ft/ln]	60.42	108.83	225.13	26.08	283.67	298.55	230.49	3.87	45.92	1030.78	335.31

Movement, Approach, & Intersection Results

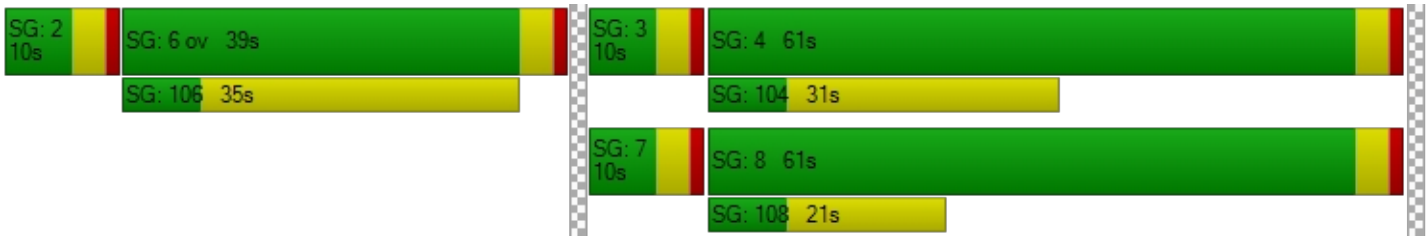
d_M, Delay for Movement [s/veh]	59.29	70.00	70.00	43.23	38.14	48.60	69.35	14.55	10.88	64.88	71.48	10.62
Movement LOS	E	E	E	D	D	D	E	B	B	E	F	B
d_A, Approach Delay [s/veh]	65.95			45.01			23.04			55.04		
Approach LOS	E			D			C			E		
d_I, Intersection Delay [s/veh]	46.21											
Intersection LOS	D											
Intersection V/C	0.925											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	436.33	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.001	2.936	3.703	0.000
Crosswalk LOS	B	C	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	950
d_b, Bicycle Delay [s]	54.15	30.10	16.60	16.56
l_b,int, Bicycle LOS Score for Intersection	1.743	2.678	2.346	3.536
Bicycle LOS	A	B	B	D

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	158.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.019

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	336	244	90	192	231	906	302	1037	203	164	2679	153
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	336	244	90	192	231	906	302	1037	203	164	2679	153
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	88	64	24	51	61	238	79	273	53	43	705	40
Total Analysis Volume [veh/h]	354	257	95	202	243	954	318	1092	214	173	2820	161
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	29			0			0			25		
v_di, Inbound Pedestrian Volume crossing m	25			0			0			29		
v_co, Outbound Pedestrian Volume crossing	3			10			1			15		
v_ci, Inbound Pedestrian Volume crossing mi	1			15			3			10		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			1			10			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	21	21	14	49	0	11	46	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	19	19	19	36	13	39	39	16	42	42
g / C, Green / Cycle	0.25	0.25	0.25	0.16	0.16	0.16	0.30	0.11	0.33	0.33	0.13	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.17	0.10	0.10	0.10	0.41	0.11	0.25	0.16	0.12	0.51	0.52
s, saturation flow rate [veh/h]	1500	1540	1278	1500	1548	1433	2351	2912	4290	1309	1500	4290	1512
c, Capacity [veh/h]	372	382	317	241	249	230	709	313	1401	427	197	1503	530
d1, Uniform Delay [s]	40.47	40.45	40.80	46.95	46.92	46.91	41.76	53.54	36.50	32.38	51.18	38.98	38.98
k, delay calibration	0.13	0.13	0.14	0.11	0.11	0.11	0.31	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.26	2.18	3.38	2.61	2.49	2.66	161.6	27.32	4.35	4.15	11.74	210.48	228.98
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.65	0.65	0.68	0.62	0.62	0.62	1.35	1.01	0.78	0.50	0.88	1.46	1.49
d, Delay for Lane Group [s/veh]	42.73	42.63	44.18	49.56	49.41	49.57	203.4	80.86	40.84	36.53	62.92	249.46	267.96
Lane Group LOS	D	D	D	D	D	D	F	F	D	D	E	F	F
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.65	6.80	6.04	4.27	4.38	4.05	26.00	5.75	9.68	5.24	5.60	43.23	48.44
50th-Percentile Queue Length [ft/ln]	166.15	170.03	150.98	106.8	109.4	101.2	650.0	143.64	241.88	131.12	140.07	1080.70	1211.03
95th-Percentile Queue Length [veh/ln]	10.87	11.08	10.07	7.66	7.81	7.29	40.27	9.73	14.78	9.00	9.48	66.43	74.27
95th-Percentile Queue Length [ft/ln]	271.85	276.95	251.74	191.6	195.1	182.1	1006.	243.26	369.41	225.02	237.12	1660.84	1856.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.70	43.36	44.18	49.56	49.50	203.43	80.86	40.84	36.53	62.92	253.57	267.96
Movement LOS	D	D	D	D	D	F	F	D	D	E	F	F
d_A, Approach Delay [s/veh]	43.14			154.47			48.11			243.85		
Approach LOS	D			F			D			F		
d_I, Intersection Delay [s/veh]	158.91											
Intersection LOS	F											
Intersection V/C	1.019											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1103.95	249.38	0.00	133.88
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.574	3.004	0.000	3.570
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	283	750	700
d_b, Bicycle Delay [s]	30.12	44.23	23.56	25.35
l_b,int, Bicycle LOS Score for Intersection	2.142	2.714	2.453	2.861
Bicycle LOS	B	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	53.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.073

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			25.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	0	0	0	436	0	470	0	1468	151	0	2598	686
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	436	0	470	0	1468	151	0	2598	686
Peak Hour Factor	1.0000	1.0000	1.0000	0.9600	1.0000	0.9600	1.0000	0.9600	0.9600	1.0000	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	114	0	122	0	382	39	0	677	179
Total Analysis Volume [veh/h]	0	0	0	454	0	490	0	1529	157	0	2706	715
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			6	
v_ci, Inbound Pedestrian Volume crossing mi		0			6			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			2			16			6	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	45	0	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		41	41	71	71
g / C, Green / Cycle		0.34	0.34	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate		0.16	0.37	0.51	0.63
s, saturation flow rate [veh/h]		2912	1321	2998	4290
c, Capacity [veh/h]		995	451	1774	2538
d1, Uniform Delay [s]		30.81	39.23	20.42	24.50
k, delay calibration		0.11	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.33	67.52	5.79	38.61
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.46	1.09	0.86	1.07
d, Delay for Lane Group [s/veh]		31.13	106.75	26.21	63.11
Lane Group LOS		C	F	C	F
Critical Lane Group		No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		5.23	21.59	17.10	29.89
50th-Percentile Queue Length [ft/ln]		130.79	539.80	427.50	747.15
95th-Percentile Queue Length [veh/ln]		8.98	30.83	23.88	40.96
95th-Percentile Queue Length [ft/ln]		224.57	770.71	597.04	1023.93

Movement, Approach, & Intersection Results

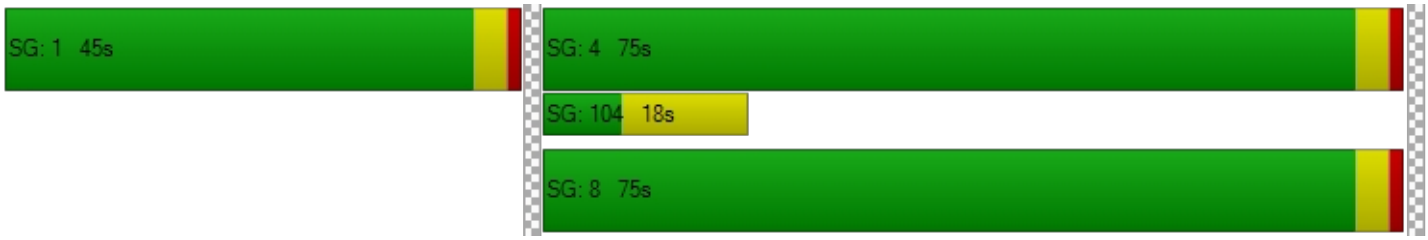
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	31.13	0.00	106.75	0.00	26.21	0.00	0.00	63.11	0.00
Movement LOS				C		F		C			F	
d_A, Approach Delay [s/veh]	0.00			70.38			26.21			63.11		
Approach LOS	A			E			C			E		
d_I, Intersection Delay [s/veh]	53.54											
Intersection LOS	D											
Intersection V/C	1.073											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1245.04	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.337	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1183	1183
d_b, Bicycle Delay [s]	60.00	60.00	10.08	10.03
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	2.821	3.048
Bicycle LOS	D	D	C	C

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX A-VI

YEAR 2026 CUMULATIVE PLUS PROJECT WITH MITIGATION TRAFFIC CONDITIONS

Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	97.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.993

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	100.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	206	357	107	216	168	296	973	2282	331	83	701	232
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	206	357	107	216	168	296	973	2282	331	83	701	232
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	94	28	57	44	78	256	601	87	22	184	61
Total Analysis Volume [veh/h]	217	376	113	227	177	312	1024	2402	348	87	738	244
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	16			0			0			8		
v_di, Inbound Pedestrian Volume crossing m	8			0			0			16		
v_co, Outbound Pedestrian Volume crossing	0			1			2			9		
v_ci, Inbound Pedestrian Volume crossing mi	2			9			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			24			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	42	0	0	10	10	33	58	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	31	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	28	28	28	13	13	13	49	32	57	57	6	31	31
g / C, Green / Cycle	0.23	0.23	0.23	0.11	0.11	0.11	0.41	0.26	0.47	0.47	0.05	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.14	0.18	0.16	0.09	0.09	0.09	0.13	0.35	0.56	0.27	0.03	0.17	0.18
s, saturation flow rate [veh/h]	1500	1575	1286	1500	1525	1433	2369	2912	4290	1306	2912	4290	1323
c, Capacity [veh/h]	352	370	302	167	169	159	967	767	2030	618	138	1103	340
d1, Uniform Delay [s]	41.06	42.63	42.04	52.13	52.13	52.12	24.22	44.19	31.60	22.49	56.14	40.00	40.60
k, delay calibration	0.11	0.13	0.11	0.11	0.11	0.11	0.11	0.21	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.75	3.68	2.94	9.33	9.14	9.58	0.19	154.28	87.73	3.68	4.72	3.23	12.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.75	0.70	0.82	0.82	0.81	0.32	1.33	1.18	0.56	0.63	0.67	0.72
d, Delay for Lane Group [s/veh]	42.82	46.32	44.98	61.46	61.27	61.69	24.41	198.47	119.33	26.17	60.86	43.23	52.86
Lane Group LOS	D	D	D	E	E	E	C	F	F	C	E	D	D
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.91	7.99	5.98	4.37	4.43	4.17	2.97	27.27	34.18	7.11	1.35	6.62	7.49
50th-Percentile Queue Length [ft/ln]	147.75	199.87	149.39	109.1	110.6	104.2	74.37	681.73	854.56	177.64	33.86	165.57	187.36
95th-Percentile Queue Length [veh/ln]	9.90	12.63	9.98	7.80	7.88	7.51	5.35	41.61	49.30	11.48	2.44	10.84	11.98
95th-Percentile Queue Length [ft/ln]	247.43	315.80	249.61	194.8	196.9	187.6	133.8	1040.35	1232.53	286.93	60.95	271.09	299.60

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.82	45.97	44.98	61.38	61.58	24.41	198.47	119.33	26.17	60.86	43.23	52.86
Movement LOS	D	D	D	E	E	C	F	F	C	E	D	D
d_A, Approach Delay [s/veh]	44.84			45.32			132.21			46.86		
Approach LOS	D			D			F			D		
d_I, Intersection Delay [s/veh]	97.87											
Intersection LOS	F											
Intersection V/C	0.993											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1155.25	526.94	0.00	303.61
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.571	3.046	0.000	3.482
Crosswalk LOS	B	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	100	900	517
d_b, Bicycle Delay [s]	28.02	54.15	18.37	33.00
l_b,int, Bicycle LOS Score for Intersection	2.142	2.150	3.635	2.001
Bicycle LOS	B	B	D	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	153.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.973

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	100.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	336	244	90	192	231	906	302	1037	203	164	2679	153
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	336	244	90	192	231	906	302	1037	203	164	2679	153
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	88	64	24	51	61	238	79	273	53	43	705	40
Total Analysis Volume [veh/h]	354	257	95	202	243	954	318	1092	214	173	2820	161
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	29			0			0			25		
v_di, Inbound Pedestrian Volume crossing m	25			0			0			29		
v_co, Outbound Pedestrian Volume crossing	3			10			1			15		
v_ci, Inbound Pedestrian Volume crossing mi	1			15			3			10		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			1			10			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	42	0	0	12	12	18	56	0	10	48	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	31	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	15	15	15	33	14	49	49	9	44	44
g / C, Green / Cycle	0.26	0.26	0.26	0.12	0.12	0.12	0.27	0.12	0.40	0.40	0.08	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.17	0.10	0.10	0.10	0.41	0.11	0.25	0.16	0.06	0.51	0.52
s, saturation flow rate [veh/h]	1500	1540	1281	1500	1548	1433	2354	2912	4290	1311	2912	4290	1513
c, Capacity [veh/h]	393	404	336	181	187	173	642	346	1738	531	229	1566	552
d1, Uniform Delay [s]	38.98	38.96	39.28	51.50	51.47	51.45	43.51	52.32	28.48	25.27	54.15	38.10	38.10
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.31	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.58	1.53	2.11	9.08	8.57	9.06	223.9	10.11	1.73	2.27	5.02	184.21	202.30
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.62	0.64	0.83	0.82	0.82	1.49	0.92	0.63	0.40	0.76	1.40	1.43
d, Delay for Lane Group [s/veh]	40.56	40.49	41.39	60.58	60.04	60.52	267.4	62.43	30.22	27.54	59.18	222.31	240.40
Lane Group LOS	D	D	D	E	E	E	F	E	C	C	E	F	F
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.45	6.60	5.82	4.77	4.87	4.52	29.18	5.06	8.11	4.42	2.66	41.16	46.32
50th-Percentile Queue Length [ft/ln]	161.25	165.08	145.38	119.3	121.8	112.9	729.4	126.42	202.82	110.53	66.41	1029.03	1157.92
95th-Percentile Queue Length [veh/ln]	10.61	10.82	9.77	8.36	8.49	8.00	46.01	8.74	12.78	7.87	4.78	62.68	70.36
95th-Percentile Queue Length [ft/ln]	265.37	270.44	244.25	208.9	212.3	200.1	1150.	218.62	319.60	196.73	119.53	1567.05	1759.11

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.54	40.91	41.39	60.58	60.32	267.45	62.43	30.22	27.54	59.18	226.33	240.40
Movement LOS	D	D	D	E	E	F	E	C	C	E	F	F
d_A, Approach Delay [s/veh]	40.79			201.58			36.17			217.88		
Approach LOS	D			F			D			F		
d_I, Intersection Delay [s/veh]	153.53											
Intersection LOS	F											
Intersection V/C	0.973											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1103.95	249.38	0.00	137.61
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.574	3.004	0.000	3.601
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	133	867	733
d_b, Bicycle Delay [s]	28.03	52.29	19.36	24.07
l_b,int, Bicycle LOS Score for Intersection	2.142	2.714	2.453	2.861
Bicycle LOS	B	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX A-VII

BUILDOUT TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	21.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.493

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	50	60	70	1982	10	1008	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	60	70	1982	10	1008	50
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	15	18	496	3	252	13
Total Analysis Volume [veh/h]	50	60	70	1982	10	1008	50
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	45		50		62		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	50		45		0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	12		0		8		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	8		62		12		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	4		5		21		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	45	45	10	10	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	5	53	1	49	49
g / C, Green / Cycle	0.06	0.06	0.05	0.53	0.01	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.04	0.39	0.01	0.20	0.03
s, saturation flow rate [veh/h]	1781	1546	1781	5094	1781	5094	1532
c, Capacity [veh/h]	102	88	94	2689	26	2495	750
d1, Uniform Delay [s]	45.73	46.19	46.69	18.25	48.81	16.23	13.44
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.63	8.77	10.97	1.85	8.85	0.49	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.68	0.74	0.74	0.38	0.40	0.07
d, Delay for Lane Group [s/veh]	49.35	54.96	57.67	20.10	57.66	16.72	13.61
Lane Group LOS	D	D	E	C	E	B	B
Critical Lane Group	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.31	1.68	1.95	10.78	0.30	4.55	0.58
50th-Percentile Queue Length [ft/ln]	32.83	42.06	48.64	269.57	7.60	113.69	14.56
95th-Percentile Queue Length [veh/ln]	2.36	3.03	3.50	16.17	0.55	8.04	1.05
95th-Percentile Queue Length [ft/ln]	59.09	75.71	87.54	404.20	13.68	201.12	26.20

Movement, Approach, & Intersection Results

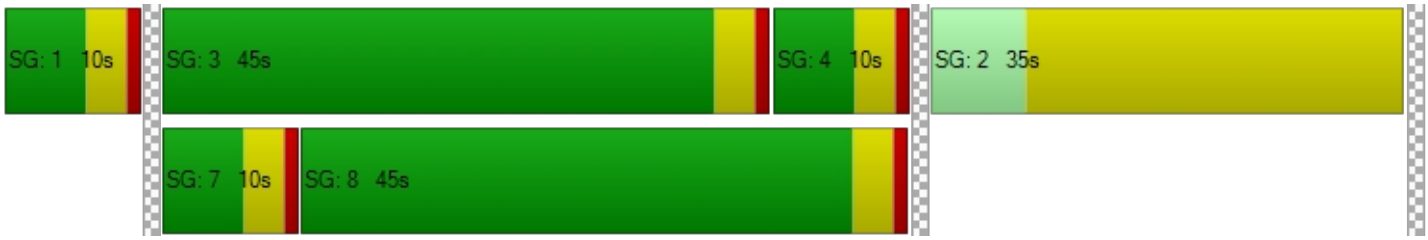
d_M, Delay for Movement [s/veh]	49.35	54.96	57.67	20.10	57.66	16.72	13.61
Movement LOS	D	D	E	C	E	B	B
d_A, Approach Delay [s/veh]	52.41		21.38		16.96		
Approach LOS	D		C		B		
d_I, Intersection Delay [s/veh]	20.97						
Intersection LOS	C						
Intersection V/C	0.493						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	361.66	94.45	158.02
d_p, Pedestrian Delay [s]	39.61	39.61	39.61
l_p,int, Pedestrian LOS Score for Intersection	2.007	3.251	3.297
Crosswalk LOS	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	50.00	50.00	50.00
l_b,int, Bicycle LOS Score for Intersection	4.132	5.261	4.720
Bicycle LOS	D	F	E

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	19.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.561

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	20	21	24	240	34	141	121	1921	4	27	873	140
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	21	24	240	34	141	121	1921	4	27	873	140
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	5	5	6	60	9	35	30	480	1	7	218	35
Total Analysis Volume [veh/h]	20	21	24	240	34	141	121	1921	4	27	873	140
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			15			14			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			14			15			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	5			19			4			28		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	4			28			5			19		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			4			11			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	13	35	0	10	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	16	16	16	8	50	50	3	45	45
g / C, Green / Cycle	0.05	0.05	0.05	0.18	0.18	0.18	0.09	0.56	0.56	0.03	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.08	0.08	0.05	0.07	0.35	0.35	0.02	0.19	0.20
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1802	2631	1781	3560	1868	1781	3560	1681
c, Capacity [veh/h]	96	100	85	316	319	467	154	1988	1043	59	1797	848
d1, Uniform Delay [s]	40.76	40.76	40.92	32.98	32.98	32.07	40.28	13.60	13.61	42.73	13.64	13.78
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.07	1.02	1.78	0.93	0.92	0.36	8.43	1.56	2.96	5.50	0.61	1.37
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.21	0.21	0.28	0.43	0.43	0.30	0.78	0.64	0.64	0.46	0.38	0.39
d, Delay for Lane Group [s/veh]	41.83	41.78	42.70	33.91	33.90	32.43	48.71	15.16	16.56	48.23	14.25	15.15
Lane Group LOS	D	D	D	C	C	C	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.45	0.47	0.55	2.66	2.69	1.32	2.86	7.73	8.52	0.65	3.85	3.99
50th-Percentile Queue Length [ft/ln]	11.33	11.86	13.85	66.45	67.20	33.00	71.57	193.22	212.91	16.37	96.14	99.81
95th-Percentile Queue Length [veh/ln]	0.82	0.85	1.00	4.78	4.84	2.38	5.15	12.29	13.30	1.18	6.92	7.19
95th-Percentile Queue Length [ft/ln]	20.40	21.36	24.92	119.61	120.96	59.39	128.83	307.20	332.56	29.47	173.05	179.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.83	41.78	42.70	33.91	33.90	32.43	48.71	15.64	16.56	48.23	14.45	15.15
Movement LOS	D	D	D	C	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	42.14			33.40			17.60			15.42		
Approach LOS	D			C			B			B		
d_I, Intersection Delay [s/veh]	19.25											
Intersection LOS	B											
Intersection V/C	0.561											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1099.75	172.81	316.65	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.157	2.458	3.237	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	133	689	689	622
d_b, Bicycle Delay [s]	39.20	19.38	19.45	21.45
l_b,int, Bicycle LOS Score for Intersection	1.667	2.244	2.685	2.132
Bicycle LOS	A	B	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	12.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.640

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	10	0	11	78	10	66	48	1949	11	10	923	58
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	0	11	78	10	66	48	1949	11	10	923	58
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	0	3	20	3	17	12	487	3	3	231	15
Total Analysis Volume [veh/h]	10	0	11	78	10	66	48	1949	11	10	923	58
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	10			23			8			13		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	13			8			23			10		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			8			2			19		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			19			1			8		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			3			27			11		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	54	73	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	16	16	16	5	90	90	2	87	87
g / C, Green / Cycle	0.14	0.14	0.14	0.14	0.14	0.04	0.75	0.75	0.01	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.03	0.04	0.05	0.03	0.52	0.53	0.01	0.26	0.04
s, saturation flow rate [veh/h]	701	1353	1298	1195	1457	1781	1870	1865	1781	3560	1548
c, Capacity [veh/h]	155	184	205	216	198	72	1403	1399	25	2577	1120
d1, Uniform Delay [s]	52.14	45.19	48.80	48.13	46.76	56.75	7.87	7.90	58.63	6.18	4.75
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.17	0.14	0.44	0.53	0.98	9.93	2.91	2.94	9.64	0.39	0.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.06	0.19	0.23	0.33	0.66	0.70	0.70	0.39	0.36	0.05
d, Delay for Lane Group [s/veh]	52.32	45.33	49.24	48.66	47.75	66.68	10.79	10.84	68.27	6.57	4.84
Lane Group LOS	D	D	D	D	D	E	B	B	E	A	A
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.29	0.30	1.09	1.41	1.85	1.60	11.00	11.04	0.36	3.67	0.37
50th-Percentile Queue Length [ft/ln]	7.31	7.42	27.28	35.17	46.32	40.05	275.06	275.96	9.06	91.65	9.20
95th-Percentile Queue Length [veh/ln]	0.53	0.53	1.96	2.53	3.34	2.88	16.44	16.49	0.65	6.60	0.66
95th-Percentile Queue Length [ft/ln]	13.15	13.35	49.11	63.31	83.38	72.08	411.06	412.18	16.31	164.98	16.56

Movement, Approach, & Intersection Results

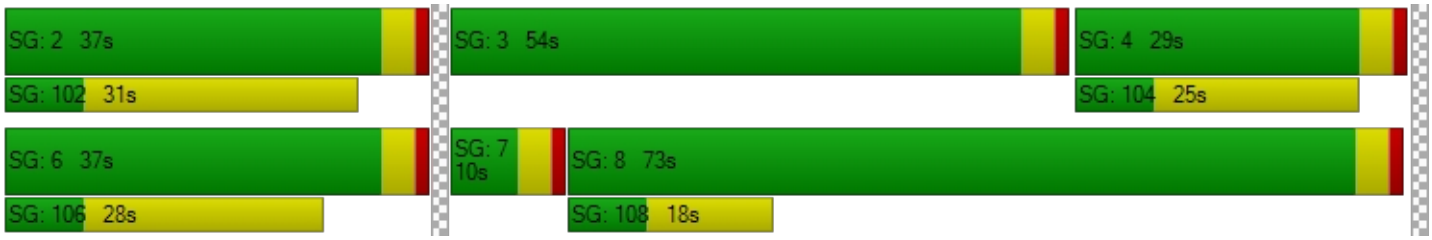
d_M, Delay for Movement [s/veh]	52.32	48.82	45.33	48.95	48.66	47.75	66.68	10.81	10.84	68.27	6.57	4.84
Movement LOS	D	D	D	D	D	D	E	B	B	E	A	A
d_A, Approach Delay [s/veh]	48.65			48.41			12.15			7.10		
Approach LOS	D			D			B			A		
d_I, Intersection Delay [s/veh]	12.57											
Intersection LOS	B											
Intersection V/C	0.640											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2259.86	253.00	210.99	291.14
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.968	2.356	3.207	3.324
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	550	550	1150	417
d_b, Bicycle Delay [s]	31.57	31.58	10.99	37.81
l_b,int, Bicycle LOS Score for Intersection	1.577	1.814	3.216	2.377
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	26.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.658

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	11	22	31	631	51	137	90	1864	19	35	866	280
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	22	31	631	51	137	90	1864	19	35	866	280
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	6	8	158	13	34	23	466	5	9	217	70
Total Analysis Volume [veh/h]	11	22	31	631	51	137	90	1864	19	35	866	280
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	5			9			2			5		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	5			2			9			5		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			0			2			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			0			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			28			16		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	43	39	0	39	35	0	10	32	0	10	32	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	10	10	25	33	6	65	65	4	64	64
g / C, Green / Cycle	0.02	0.08	0.08	0.21	0.27	0.05	0.54	0.54	0.03	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.18	0.03	0.03	0.35	0.35	0.02	0.24	0.18
s, saturation flow rate [veh/h]	1781	3560	1531	3459	1870	3459	3560	1858	1781	3560	1560
c, Capacity [veh/h]	29	290	125	715	508	164	1937	1011	61	1891	828
d1, Uniform Delay [s]	58.39	50.94	51.64	46.18	32.73	55.89	19.11	19.14	57.05	17.44	16.02
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.64	0.11	1.03	3.80	0.09	2.83	1.62	3.10	8.05	0.80	1.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.08	0.25	0.88	0.10	0.55	0.64	0.64	0.57	0.46	0.34
d, Delay for Lane Group [s/veh]	66.03	51.05	52.67	49.98	32.81	58.71	20.74	22.24	65.10	18.24	17.13
Lane Group LOS	E	D	D	D	C	E	C	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.40	0.31	0.92	9.12	1.09	1.35	11.01	11.94	1.14	6.85	4.20
50th-Percentile Queue Length [ft/ln]	9.91	7.85	23.00	227.96	27.15	33.64	275.27	298.52	28.57	171.17	104.91
95th-Percentile Queue Length [veh/ln]	0.71	0.57	1.66	14.07	1.95	2.42	16.45	17.61	2.06	11.14	7.55
95th-Percentile Queue Length [ft/ln]	17.83	14.13	41.41	351.77	48.87	60.55	411.32	440.20	51.43	278.45	188.84

Movement, Approach, & Intersection Results

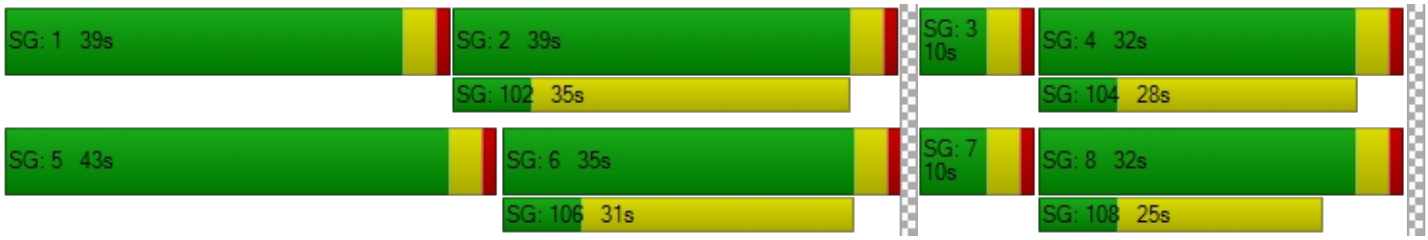
d_M, Delay for Movement [s/veh]	66.03	51.05	52.67	49.98	32.81	0.00	58.71	21.24	22.24	65.10	18.24	17.13
Movement LOS	E	D	D	D	C		E	C	C	E	B	B
d_A, Approach Delay [s/veh]	54.41			48.70			22.96			19.37		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	26.89											
Intersection LOS	C											
Intersection V/C	0.658											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2494.21	0.00	739.46	777.66
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.341	2.758	3.335	3.554
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	467	467
d_b, Bicycle Delay [s]	30.10	33.02	35.77	35.55
l_b,int, Bicycle LOS Score for Intersection	1.612	2.685	2.645	2.534
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	22.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.782

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	10	10	10	320	10	200	120	2364	10	10	863	90
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	10	10	320	10	200	120	2364	10	10	863	90
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	3	3	80	3	50	30	591	3	3	216	23
Total Analysis Volume [veh/h]	10	10	10	320	10	200	120	2364	10	10	863	90
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	3			9			5			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			5			9			3		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			0			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			1			10		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	39	0	51	66	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	10	69	69	2	61	61
g / C, Green / Cycle	0.28	0.28	0.28	0.28	0.28	0.08	0.60	0.60	0.01	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.23	0.01	0.13	0.07	0.46	0.01	0.01	0.17	0.06
s, saturation flow rate [veh/h]	1384	1715	1388	1870	1546	1781	5094	1555	1781	5094	1545
c, Capacity [veh/h]	418	478	412	521	431	152	3069	937	26	2708	821
d1, Uniform Delay [s]	32.02	30.27	41.83	30.08	34.22	51.57	16.96	9.15	56.15	15.19	13.37
k, delay calibration	0.11	0.11	0.28	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.04	7.82	0.01	0.78	8.75	1.93	0.02	9.11	0.31	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.04	0.78	0.02	0.46	0.79	0.77	0.01	0.39	0.32	0.11
d, Delay for Lane Group [s/veh]	32.04	30.31	49.65	30.09	35.00	60.32	18.89	9.17	65.26	15.50	13.64
Lane Group LOS	C	C	D	C	D	E	B	A	E	B	B
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.21	0.42	9.53	0.20	4.65	3.61	13.34	0.09	0.34	3.87	1.11
50th-Percentile Queue Length [ft/ln]	5.37	10.42	238.28	5.06	116.20	90.37	333.48	2.32	8.55	96.68	27.63
95th-Percentile Queue Length [veh/ln]	0.39	0.75	14.59	0.36	8.18	6.51	19.33	0.17	0.62	6.96	1.99
95th-Percentile Queue Length [ft/ln]	9.67	18.75	364.86	9.10	204.60	162.67	483.22	4.18	15.38	174.02	49.74

Movement, Approach, & Intersection Results

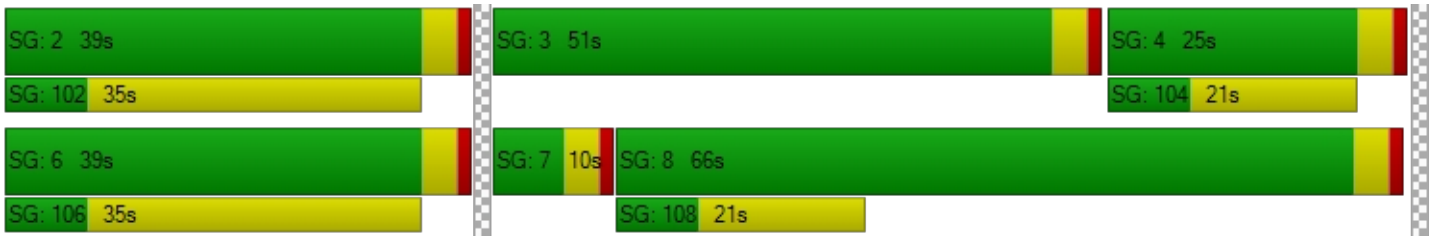
d_M, Delay for Movement [s/veh]	32.04	30.31	30.31	49.65	30.09	35.00	60.32	18.89	9.17	65.26	15.50	13.64
Movement LOS	C	C	C	D	C	D	E	B	A	E	B	B
d_A, Approach Delay [s/veh]	30.88			43.75			20.85			15.85		
Approach LOS	C			D			C			B		
d_I, Intersection Delay [s/veh]	22.74											
Intersection LOS	C											
Intersection V/C	0.782											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	7112.47	6112.11	459.14	1727.56
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersection	1.968	2.356	3.548	4.009
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	609	609	1078	365
d_b, Bicycle Delay [s]	27.83	27.84	12.22	38.61
l_b,int, Bicycle LOS Score for Intersection	1.609	2.434	2.931	2.089
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	21.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.688

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	15	20	10	165	51	114	110	2492	43	59	860	59
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	20	10	165	51	114	110	2492	43	59	860	59
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	5	3	41	13	29	28	623	11	15	215	15
Total Analysis Volume [veh/h]	15	20	10	165	51	114	110	2492	43	59	860	59
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			15			7			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			7			15			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			2			0			2		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			2			0			2		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			29			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	30	56	0	10	36	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	18	18	18	9	72	72	5	68	68
g / C, Green / Cycle	0.04	0.04	0.15	0.15	0.15	0.08	0.62	0.62	0.04	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.06	0.06	0.08	0.06	0.49	0.03	0.03	0.17	0.04
s, saturation flow rate [veh/h]	1781	1747	1781	1821	1491	1781	5094	1530	1781	5094	1543
c, Capacity [veh/h]	71	70	276	282	231	140	3167	951	79	2993	907
d1, Uniform Delay [s]	53.46	53.93	43.68	43.67	44.23	52.05	16.11	8.46	54.32	11.76	10.15
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.46	4.15	0.89	0.87	1.63	9.43	2.05	0.09	13.09	0.24	0.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.21	0.43	0.39	0.39	0.49	0.79	0.79	0.05	0.75	0.29	0.07
d, Delay for Lane Group [s/veh]	54.92	58.09	44.57	44.54	45.86	61.48	18.17	8.55	67.41	12.01	10.29
Lane Group LOS	D	E	D	D	D	E	B	A	E	B	B
Critical Lane Group	No	Yes	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.45	0.94	2.73	2.79	2.98	3.35	13.69	0.38	1.90	3.21	0.59
50th-Percentile Queue Length [ft/ln]	11.31	23.39	68.36	69.70	74.58	83.68	342.27	9.48	47.61	80.36	14.85
95th-Percentile Queue Length [veh/ln]	0.81	1.68	4.92	5.02	5.37	6.02	19.76	0.68	3.43	5.79	1.07
95th-Percentile Queue Length [ft/ln]	20.37	42.10	123.04	125.47	134.25	150.62	493.97	17.07	85.71	144.64	26.73

Movement, Approach, & Intersection Results

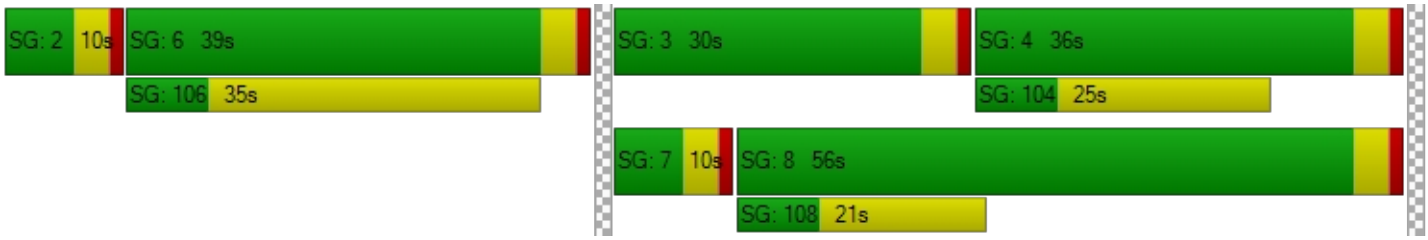
d_M, Delay for Movement [s/veh]	54.92	58.09	58.09	44.56	44.54	45.86	61.48	18.17	8.55	67.41	12.01	10.29
Movement LOS	D	E	E	D	D	D	E	B	A	E	B	B
d_A, Approach Delay [s/veh]	57.03			45.00			19.81			15.24		
Approach LOS	E			D			B			B		
d_I, Intersection Delay [s/veh]	21.19											
Intersection LOS	C											
Intersection V/C	0.688											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1673.81	337.26	0.00
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.006	2.333	3.549	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	104	609	904	557
d_b, Bicycle Delay [s]	51.73	27.91	17.51	30.09
l_b,int, Bicycle LOS Score for Intersection	1.634	2.104	3.014	2.098
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	26.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.781

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	36	35	22	602	10	168	235	2441	10	10	769	320
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	35	22	602	10	168	235	2441	10	10	769	320
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	9	9	6	151	3	42	59	610	3	3	192	80
Total Analysis Volume [veh/h]	36	35	22	602	10	168	235	2441	10	10	769	320
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			5			8			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			8			5			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			1			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			4		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	21	46	0	10	35	35
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	22	22	22	16	59	59	2	45	81
g / C, Green / Cycle	0.05	0.05	0.21	0.21	0.21	0.15	0.57	0.57	0.01	0.43	0.77
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.17	0.01	0.11	0.13	0.48	0.01	0.01	0.15	0.20
s, saturation flow rate [veh/h]	1781	1751	3459	1870	1561	1781	5094	1549	1781	5094	1565
c, Capacity [veh/h]	95	94	741	401	335	270	2877	875	27	2180	1208
d1, Uniform Delay [s]	48.01	48.62	39.23	32.58	36.23	43.51	19.10	10.01	51.21	20.23	3.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.17
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.47	6.27	2.21	0.02	1.17	8.35	3.34	0.02	8.28	0.45	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.61	0.81	0.02	0.50	0.87	0.85	0.01	0.37	0.35	0.26
d, Delay for Lane Group [s/veh]	50.48	54.90	41.44	32.60	37.40	51.85	22.44	10.03	59.50	20.68	3.60
Lane Group LOS	D	D	D	C	D	D	C	B	E	C	A
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.98	1.63	7.20	0.20	3.70	6.24	14.41	0.09	0.31	3.98	1.21
50th-Percentile Queue Length [ft/ln]	24.55	40.82	179.98	4.88	92.55	155.89	360.34	2.32	7.82	99.50	30.13
95th-Percentile Queue Length [veh/ln]	1.77	2.94	11.60	0.35	6.66	10.33	20.64	0.17	0.56	7.16	2.17
95th-Percentile Queue Length [ft/ln]	44.19	73.48	289.98	8.78	166.60	258.27	515.99	4.18	14.08	179.09	54.24

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.48	54.90	54.90	41.44	32.60	37.40	51.85	22.44	10.03	59.50	20.68	3.60
Movement LOS	D	D	D	D	C	D	D	C	B	E	C	A
d_A, Approach Delay [s/veh]	53.19			40.46			24.97			16.06		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	26.02											
Intersection LOS	C											
Intersection V/C	0.781											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	7812.87	0.00	591.49	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.981	2.752	3.550	0.000
Crosswalk LOS	A	C	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	114	667	800	590
d_b, Bicycle Delay [s]	46.67	23.33	18.97	26.13
l_b,int, Bicycle LOS Score for Intersection	1.713	2.847	3.037	2.164
Bicycle LOS	A	C	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	240.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.447

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	243	512	336	246	188	133	737	3078	173	170	884	291
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	243	512	336	246	188	133	737	3078	173	170	884	291
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	61	128	84	62	47	33	184	770	43	43	221	73
Total Analysis Volume [veh/h]	243	512	336	246	188	133	737	3078	173	170	884	291
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	16			0			0			8		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	8			0			0			16		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			2			9		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			9			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			24			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	11	11	35	57	0	13	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	35	35	35	7	7	7	42	31	46	46	16	31	31
g / C, Green / Cycle	0.29	0.29	0.29	0.06	0.06	0.06	0.35	0.26	0.39	0.39	0.13	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.16	0.33	0.28	0.10	0.10	0.10	0.06	0.25	0.72	0.13	0.11	0.21	0.22
s, saturation flow rate [veh/h]	1500	1575	1188	1500	1524	1433	2369	2912	4290	1302	1500	4290	1323
c, Capacity [veh/h]	437	459	346	87	89	84	829	752	1662	505	194	1108	342
d1, Uniform Delay [s]	35.93	42.50	41.98	56.50	56.50	56.50	26.86	44.19	36.75	25.85	51.32	41.57	42.31
k, delay calibration	0.13	0.50	0.44	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.31	77.13	38.12	314.6	312.4	308.9	0.09	11.18	385.61	1.85	11.85	6.01	22.57
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	1.11	0.97	1.68	1.67	1.66	0.16	0.98	1.85	0.34	0.88	0.80	0.85
d, Delay for Lane Group [s/veh]	37.23	119.63	80.10	371.1	368.9	365.4	26.95	55.36	422.36	27.70	63.17	47.58	64.88
Lane Group LOS	D	F	F	F	F	F	C	E	F	C	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.17	23.28	13.38	10.25	10.36	9.66	1.30	11.49	74.41	3.57	5.51	8.47	10.04
50th-Percentile Queue Length [ft/ln]	154.24	582.00	334.50	256.2	259.0	241.6	32.54	287.33	1860.29	89.18	137.87	211.73	250.89
95th-Percentile Queue Length [veh/ln]	10.24	33.34	19.38	17.51	17.67	16.64	2.34	17.05	118.61	6.42	9.37	13.24	15.23
95th-Percentile Queue Length [ft/ln]	256.07	833.52	484.48	437.8	441.6	415.9	58.58	426.33	2965.35	160.52	234.15	331.05	380.77

Movement, Approach, & Intersection Results

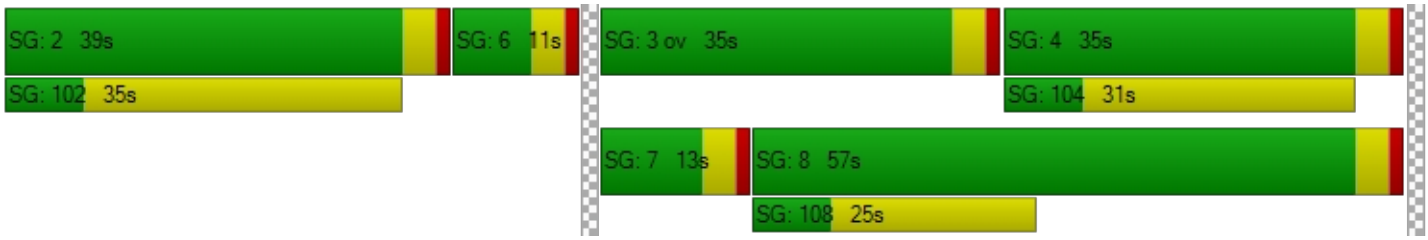
d_M, Delay for Movement [s/veh]	37.23	119.63	80.10	370.05	366.39	26.95	55.36	422.36	27.70	63.17	47.58	64.88
Movement LOS	D	F	F	F	F	C	E	F	C	E	D	E
d_A, Approach Delay [s/veh]	89.10			288.45			337.42			53.29		
Approach LOS	F			F			F			D		
d_I, Intersection Delay [s/veh]	240.03											
Intersection LOS	F											
Intersection V/C	1.447											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2530.55	471.78	0.00	197.80
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.630	2.999	0.000	3.654
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	117	883	517
d_b, Bicycle Delay [s]	30.10	53.20	18.93	33.00
l_b,int, Bicycle LOS Score for Intersection	2.460	2.027	3.753	2.114
Bicycle LOS	B	B	D	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	157.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.442

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name	Newport Boulevard			Newport Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	0	0	0	439	0	543	0	2791	140	0	1247	450
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	439	0	543	0	2791	140	0	1247	450
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	110	0	136	0	698	35	0	312	113
Total Analysis Volume [veh/h]	0	0	0	439	0	543	0	2791	140	0	1247	450
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			2			24			1		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	37	0	0	0	78	0	0	78	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		115	115	115	115
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		33	33	74	74
g / C, Green / Cycle		0.29	0.29	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate		0.15	0.41	0.93	0.29
s, saturation flow rate [veh/h]		2912	1320	2998	4290
c, Capacity [veh/h]		836	379	1929	2760
d1, Uniform Delay [s]		34.42	40.78	20.50	10.30
k, delay calibration		0.11	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.51	209.53	203.96	0.54
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.53	1.43	1.45	0.45
d, Delay for Lane Group [s/veh]		34.94	250.31	224.46	10.84
Lane Group LOS		C	F	F	B
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		5.26	32.69	75.82	4.72
50th-Percentile Queue Length [ft/ln]		131.49	817.14	1895.56	118.05
95th-Percentile Queue Length [veh/ln]		9.02	50.54	116.26	8.29
95th-Percentile Queue Length [ft/ln]		225.52	1263.44	2906.62	207.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	34.94	0.00	250.31	0.00	224.46	0.00	0.00	10.84	0.00
Movement LOS				C		F		F			B	
d_A, Approach Delay [s/veh]	0.00			154.03			224.46			10.84		
Approach LOS	A			F			F			B		
d_I, Intersection Delay [s/veh]	157.62											
Intersection LOS	F											
Intersection V/C	1.442											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	3907.01	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	47.03	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.342	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1287	1287
d_b, Bicycle Delay [s]	57.50	57.50	7.40	7.31
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	3.862	2.245
Bicycle LOS	D	D	D	B

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	23.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.492

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	56	61	85	1279	34	1747	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	56	61	85	1279	34	1747	100
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	15	21	320	9	437	25
Total Analysis Volume [veh/h]	56	61	85	1279	34	1747	100
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	218		290		318		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	290		218		0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	101		0		67		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	67		318		101		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	1		0		5		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	16	40	10	34	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	46	4	43	43
g / C, Green / Cycle	0.06	0.06	0.06	0.48	0.04	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.05	0.25	0.02	0.34	0.06
s, saturation flow rate [veh/h]	1781	1565	1781	5094	1781	5094	1551
c, Capacity [veh/h]	107	94	111	2443	67	2319	706
d1, Uniform Delay [s]	43.30	43.62	43.87	17.17	44.83	21.45	15.04
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.87	7.21	10.53	0.81	5.74	2.32	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.52	0.65	0.77	0.52	0.50	0.75	0.14
d, Delay for Lane Group [s/veh]	47.18	50.82	54.40	17.98	50.57	23.77	15.46
Lane Group LOS	D	D	D	B	D	C	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.40	1.59	2.22	5.96	0.86	10.06	1.23
50th-Percentile Queue Length [ft/ln]	34.89	39.83	55.39	148.94	21.60	251.38	30.83
95th-Percentile Queue Length [veh/ln]	2.51	2.87	3.99	9.96	1.56	15.26	2.22
95th-Percentile Queue Length [ft/ln]	62.80	71.70	99.71	249.01	38.89	381.40	55.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.18	50.82	54.40	17.98	50.57	23.77	15.46
Movement LOS	D	D	D	B	D	C	B
d_A, Approach Delay [s/veh]	49.08		20.25		23.81		
Approach LOS	D		C		C		
d_I, Intersection Delay [s/veh]	23.25						
Intersection LOS	C						
Intersection V/C	0.492						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	37.34	17.79	30.85
d_p, Pedestrian Delay [s]	37.14	37.14	37.14
l_p,int, Pedestrian LOS Score for Intersection	2.024	3.259	3.316
Crosswalk LOS	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	47.50	47.50	47.50
l_b,int, Bicycle LOS Score for Intersection	4.132	4.883	5.167
Bicycle LOS	D	E	F

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	31.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.665

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	38	25	38	106	24	103	200	1123	10	26	1717	170
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	25	38	106	24	103	200	1123	10	26	1717	170
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	10	6	10	27	6	26	50	281	3	7	429	43
Total Analysis Volume [veh/h]	38	25	38	106	24	103	200	1123	10	26	1717	170
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			74			51			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			51			74			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	8			125			8			139		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	8			139			8			125		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			5			1			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	36	0	23	64	0	10	51	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	28	28	28	15	67	67	3	55	55
g / C, Green / Cycle	0.05	0.05	0.05	0.23	0.23	0.23	0.13	0.56	0.56	0.03	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.04	0.04	0.04	0.11	0.21	0.21	0.01	0.35	0.40
s, saturation flow rate [veh/h]	1781	1850	1589	1781	1813	2328	1781	3560	1860	1781	3560	1595
c, Capacity [veh/h]	86	89	77	417	424	545	230	1976	1032	52	1621	726
d1, Uniform Delay [s]	55.32	55.29	55.67	36.53	36.52	36.54	51.27	15.02	15.02	57.37	27.49	29.48
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.56	2.38	4.86	0.17	0.17	0.17	9.74	0.55	1.05	7.17	3.67	13.48
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.35	0.49	0.15	0.15	0.19	0.87	0.38	0.38	0.50	0.77	0.87
d, Delay for Lane Group [s/veh]	57.87	57.67	60.54	36.70	36.69	36.71	61.02	15.57	16.07	64.54	31.16	42.96
Lane Group LOS	E	E	E	D	D	D	E	B	B	E	C	D
Critical Lane Group	No	No	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.99	1.00	1.24	1.52	1.54	1.21	6.36	5.44	5.84	0.86	14.96	17.98
50th-Percentile Queue Length [ft/ln]	24.66	24.93	30.88	38.07	38.55	30.29	159.01	136.07	145.92	21.59	373.88	449.48
95th-Percentile Queue Length [veh/ln]	1.78	1.80	2.22	2.74	2.78	2.18	10.50	9.27	9.80	1.55	21.30	24.93
95th-Percentile Queue Length [ft/ln]	44.38	44.88	55.58	68.53	69.39	54.52	262.41	231.72	244.98	38.87	532.43	623.33

Movement, Approach, & Intersection Results

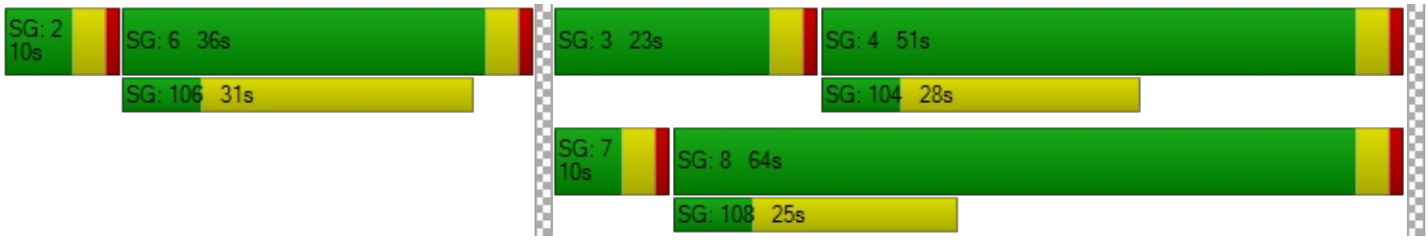
d_M, Delay for Movement [s/veh]	57.84	57.67	60.54	36.69	36.69	36.71	61.02	15.74	16.07	64.54	34.34	42.96
Movement LOS	E	E	E	D	D	D	E	B	B	E	C	D
d_A, Approach Delay [s/veh]	58.81			36.70			22.53			35.51		
Approach LOS	E			D			C			D		
d_I, Intersection Delay [s/veh]	31.42											
Intersection LOS	C											
Intersection V/C	0.665											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	454.66	18.39	54.47	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.178	2.457	3.274	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	533	1000	783
d_b, Bicycle Delay [s]	54.15	32.35	15.01	22.29
l_b,int, Bicycle LOS Score for Intersection	1.726	1.944	2.293	2.612
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	18.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.688

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	16	10	28	66	10	81	84	1197	10	16	1820	83
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	10	28	66	10	81	84	1197	10	16	1820	83
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	3	7	17	3	20	21	299	3	4	455	21
Total Analysis Volume [veh/h]	16	10	28	66	10	81	84	1197	10	16	1820	83
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	2			36			66			25		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	25			66			36			2		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	15			11			15			38		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	15			38			15			11		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	7			4			3			7		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	10	74	0	11	75	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	25	25	25	25	7	81	81	3	76	76
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.06	0.67	0.67	0.02	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.03	0.03	0.06	0.05	0.32	0.32	0.01	0.51	0.05
s, saturation flow rate [veh/h]	1113	1364	1292	1235	1333	1781	1870	1863	1781	3560	1531
c, Capacity [veh/h]	277	280	285	306	273	106	1260	1255	38	2262	973
d1, Uniform Delay [s]	38.89	38.71	42.05	40.71	39.94	55.70	9.44	9.45	58.00	16.32	8.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.14	0.16	0.19	0.20	0.60	12.40	1.31	1.32	7.31	3.16	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.10	0.12	0.13	0.30	0.79	0.48	0.48	0.42	0.80	0.09
d, Delay for Lane Group [s/veh]	39.03	38.86	42.24	40.91	40.54	68.10	10.75	10.77	65.31	19.48	8.59
Lane Group LOS	D	D	D	D	D	E	B	B	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.64	0.70	0.91	1.06	2.08	2.81	6.98	6.97	0.55	16.99	0.80
50th-Percentile Queue Length [ft/ln]	15.94	17.39	22.64	26.53	52.00	70.35	174.50	174.19	13.66	424.76	19.98
95th-Percentile Queue Length [veh/ln]	1.15	1.25	1.63	1.91	3.74	5.07	11.31	11.30	0.98	23.75	1.44
95th-Percentile Queue Length [ft/ln]	28.69	31.31	40.75	47.76	93.60	126.64	282.82	282.42	24.58	593.76	35.96

Movement, Approach, & Intersection Results

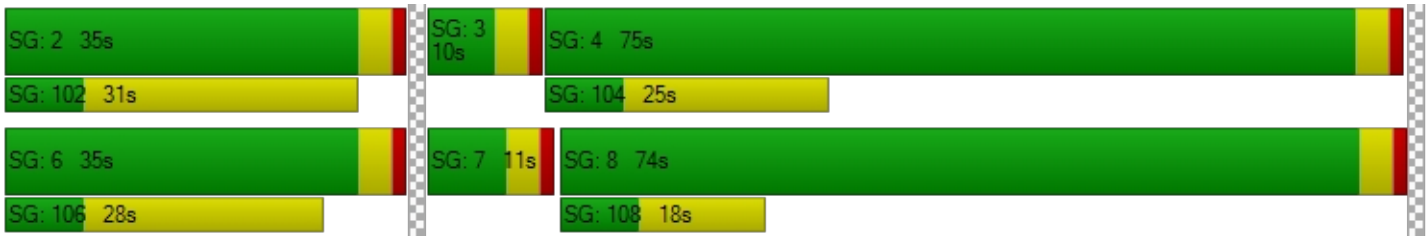
d_M, Delay for Movement [s/veh]	39.03	39.03	38.86	41.62	40.91	40.54	68.10	10.76	10.77	65.31	19.48	8.59
Movement LOS	D	D	D	D	D	D	E	B	B	E	B	A
d_A, Approach Delay [s/veh]	38.94			41.02			14.49			19.39		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	18.84											
Intersection LOS	B											
Intersection V/C	0.688											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	224.96	130.59	60.04	245.74
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.978	2.368	3.275	3.347
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	517	517	1167	1183
d_b, Bicycle Delay [s]	33.12	33.07	10.43	10.04
l_b,int, Bicycle LOS Score for Intersection	1.604	1.819	2.625	3.143
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	29.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.763

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	14	41	20	321	33	211	181	1131	12	16	1660	785
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	41	20	321	33	211	181	1131	12	16	1660	785
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	10	5	80	8	53	45	283	3	4	415	196
Total Analysis Volume [veh/h]	14	41	20	321	33	211	181	1131	12	16	1660	785
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	10			5			5			17		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	17			5			5			10		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	2			4			1			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			1			2			4		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			1			6		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	39	0	17	35	0	10	54	0	10	54	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	16	16	13	27	9	72	72	2	66	66
g / C, Green / Cycle	0.02	0.14	0.14	0.11	0.22	0.07	0.60	0.60	0.02	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.09	0.02	0.05	0.21	0.21	0.01	0.47	0.50
s, saturation flow rate [veh/h]	1781	3560	1471	3459	1870	3459	3560	1858	1781	3560	1562
c, Capacity [veh/h]	35	484	200	373	420	245	2143	1118	37	1965	862
d1, Uniform Delay [s]	58.13	45.31	45.36	52.63	36.74	54.67	12.06	12.06	58.04	22.57	23.81
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.26	0.07	0.22	5.84	0.08	4.35	0.45	0.87	7.65	4.67	15.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.40	0.08	0.10	0.86	0.08	0.74	0.35	0.35	0.43	0.84	0.91
d, Delay for Lane Group [s/veh]	65.39	45.38	45.57	58.46	36.82	59.02	12.51	12.93	65.69	27.25	39.17
Lane Group LOS	E	D	D	E	D	E	B	B	E	C	D
Critical Lane Group	No	No	Yes	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.49	0.55	0.54	4.89	0.75	2.72	4.53	4.86	0.54	18.23	20.59
50th-Percentile Queue Length [ft/ln]	12.36	13.69	13.55	122.31	18.76	68.03	113.13	121.45	13.53	455.69	514.71
95th-Percentile Queue Length [veh/ln]	0.89	0.99	0.98	8.52	1.35	4.90	8.01	8.47	0.97	25.23	28.03
95th-Percentile Queue Length [ft/ln]	22.24	24.64	24.38	212.99	33.77	122.46	200.35	211.81	24.35	630.74	700.74

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	65.39	45.38	45.57	58.46	36.82	0.00	59.02	12.65	12.93	65.69	27.25	39.17
Movement LOS	E	D	D	E	D		E	B	B	E	C	D
d_A, Approach Delay [s/veh]	49.17			56.45			18.99			31.30		
Approach LOS	D			E			B			C		
d_I, Intersection Delay [s/veh]	29.86											
Intersection LOS	C											
Intersection V/C	0.763											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2530.89	0.00	814.07	291.98
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.336	2.835	3.373	3.612
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	833	833
d_b, Bicycle Delay [s]	30.15	33.10	20.43	20.48
l_b,int, Bicycle LOS Score for Intersection	1.621	2.144	2.288	3.590
Bicycle LOS	A	B	B	D

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	14.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.735

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	10	10	10	100	10	209	127	1328	10	4	2195	280
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	10	10	100	10	209	127	1328	10	4	2195	280
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	3	3	25	3	52	32	332	3	1	549	70
Total Analysis Volume [veh/h]	10	10	10	100	10	209	127	1328	10	4	2195	280
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	1			3			1			1		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	1			1			3			1		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			1			2		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			2			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			2			1			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	55	0	0	55	0	10	25	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	8	62	62	1	55	55
g / C, Green / Cycle	0.17	0.17	0.17	0.17	0.17	0.09	0.69	0.69	0.01	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.07	0.01	0.13	0.07	0.26	0.01	0.00	0.43	0.18
s, saturation flow rate [veh/h]	1395	1701	1387	1870	1555	1781	5094	1556	1781	5094	1552
c, Capacity [veh/h]	287	289	279	318	264	161	3515	1074	12	3088	941
d1, Uniform Delay [s]	32.87	31.38	35.59	31.18	35.71	40.07	5.85	4.35	44.49	12.26	8.47
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.05	0.10	0.78	0.04	5.29	8.20	0.31	0.02	15.00	1.42	0.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.07	0.36	0.03	0.79	0.79	0.38	0.01	0.33	0.71	0.30
d, Delay for Lane Group [s/veh]	32.92	31.48	36.36	31.22	41.00	48.27	6.16	4.37	59.49	13.68	9.28
Lane Group LOS	C	C	D	C	D	D	A	A	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.19	0.37	2.03	0.18	4.64	2.93	2.32	0.04	0.13	7.88	2.19
50th-Percentile Queue Length [ft/ln]	4.79	9.36	50.86	4.53	115.93	73.15	58.02	1.05	3.35	196.96	54.67
95th-Percentile Queue Length [veh/ln]	0.35	0.67	3.66	0.33	8.17	5.27	4.18	0.08	0.24	12.48	3.94
95th-Percentile Queue Length [ft/ln]	8.63	16.86	91.55	8.15	204.23	131.67	104.44	1.89	6.03	312.05	98.41

Movement, Approach, & Intersection Results

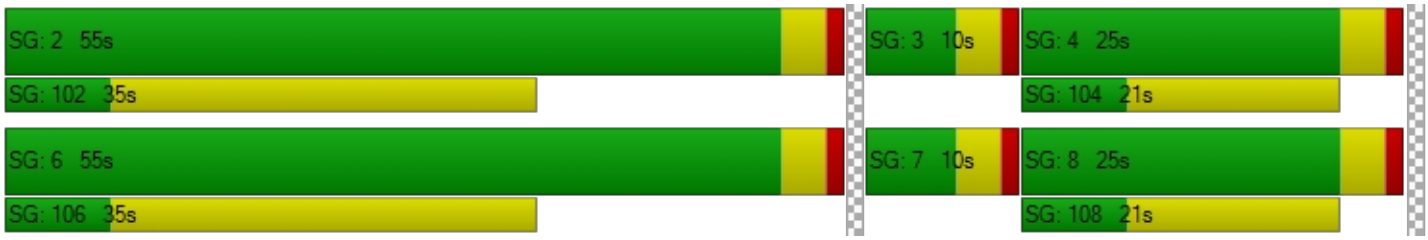
d_M, Delay for Movement [s/veh]	32.92	31.48	31.48	36.36	31.22	41.00	48.27	6.16	4.37	59.49	13.68	9.28
Movement LOS	C	C	C	D	C	D	D	A	A	E	B	A
d_A, Approach Delay [s/veh]	31.96			39.24			9.80			13.26		
Approach LOS	C			D			A			B		
d_I, Intersection Delay [s/veh]	14.14											
Intersection LOS	B											
Intersection V/C	0.735											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	9155.30	2344.30	2185.14	4940.84
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	1.954	2.340	3.606	3.742
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1133	1133	467	467
d_b, Bicycle Delay [s]	8.46	8.46	26.46	26.49
l_b,int, Bicycle LOS Score for Intersection	1.609	2.086	2.365	2.923
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	19.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.709

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	10	22	15	79	23	81	140	1238	31	43	2433	219
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	22	15	79	23	81	140	1238	31	43	2433	219
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	6	4	20	6	20	35	310	8	11	608	55
Total Analysis Volume [veh/h]	10	22	15	79	23	81	140	1238	31	43	2433	219
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			6			9			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			9			6			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			8			9			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	27	51	0	10	34	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	13	13	13	11	72	72	4	65	65
g / C, Green / Cycle	0.04	0.04	0.12	0.12	0.12	0.10	0.65	0.65	0.04	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.03	0.03	0.05	0.08	0.24	0.02	0.02	0.48	0.14
s, saturation flow rate [veh/h]	1781	1723	1781	1820	1491	1781	5094	1550	1781	5094	1547
c, Capacity [veh/h]	74	72	217	222	182	173	3315	1008	71	3025	919
d1, Uniform Delay [s]	50.80	51.62	43.64	43.62	44.67	48.67	8.86	6.84	51.94	17.37	10.52
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.81	5.61	0.54	0.53	1.70	8.72	0.32	0.06	7.96	2.38	0.61
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.13	0.52	0.23	0.23	0.45	0.81	0.37	0.03	0.60	0.80	0.24
d, Delay for Lane Group [s/veh]	51.61	57.23	44.18	44.15	46.37	57.39	9.18	6.90	59.90	19.75	11.14
Lane Group LOS	D	E	D	D	D	E	A	A	E	B	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.28	1.12	1.25	1.26	2.07	4.00	3.71	0.23	1.27	13.65	2.28
50th-Percentile Queue Length [ft/ln]	7.11	27.97	31.17	31.56	51.82	100.03	92.80	5.63	31.82	341.30	57.01
95th-Percentile Queue Length [veh/ln]	0.51	2.01	2.24	2.27	3.73	7.20	6.68	0.41	2.29	19.71	4.10
95th-Percentile Queue Length [ft/ln]	12.80	50.34	56.10	56.80	93.28	180.05	167.04	10.14	57.28	492.79	102.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	51.61	57.23	57.23	44.17	44.15	46.37	57.39	9.18	6.90	59.90	19.75	11.14
Movement LOS	D	E	E	D	D	D	E	A	A	E	B	B
d_A, Approach Delay [s/veh]	56.04			45.14			13.92			19.69		
Approach LOS	E			D			B			B		
d_I, Intersection Delay [s/veh]	19.29											
Intersection LOS	B											
Intersection V/C	0.709											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	2013.98	544.34	0.00
d_p, Pedestrian Delay [s]	44.55	44.55	44.55	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.989	2.347	3.614	0.000
Crosswalk LOS	A	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	109	636	855	545
d_b, Bicycle Delay [s]	49.24	25.67	18.12	29.21
l_b,int, Bicycle LOS Score for Intersection	1.637	1.862	2.335	3.042
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	34.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.874

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	40	45	21	420	24	236	211	1121	8	29	2442	919
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	45	21	420	24	236	211	1121	8	29	2442	919
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	10	11	5	105	6	59	53	280	2	7	611	230
Total Analysis Volume [veh/h]	40	45	21	420	24	236	211	1121	8	29	2442	919
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			4			9			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			9			4			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	10	61	0	10	61	61
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	24	24	24	16	70	70	4	58	96
g / C, Green / Cycle	0.05	0.05	0.20	0.20	0.20	0.13	0.59	0.59	0.03	0.48	0.80
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.12	0.01	0.15	0.12	0.22	0.01	0.02	0.48	0.59
s, saturation flow rate [veh/h]	1781	1771	3459	1870	1559	1781	5094	1551	1781	5094	1565
c, Capacity [veh/h]	89	89	693	375	313	236	2981	907	55	2464	1253
d1, Uniform Delay [s]	55.39	56.25	43.65	38.85	45.04	51.23	13.24	10.38	57.27	30.71	5.64
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.51	11.68	0.86	0.07	3.71	11.33	0.36	0.02	7.54	16.13	3.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.75	0.61	0.06	0.76	0.89	0.38	0.01	0.53	0.99	0.73
d, Delay for Lane Group [s/veh]	58.91	67.93	44.51	38.92	48.75	62.56	13.60	10.39	64.81	46.85	9.47
Lane Group LOS	E	E	D	D	D	E	B	B	E	D	A
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.27	2.28	5.55	0.56	6.66	6.70	4.80	0.08	0.96	24.69	7.57
50th-Percentile Queue Length [ft/ln]	31.85	56.90	138.65	14.08	166.43	167.43	119.97	2.08	23.90	617.16	189.22
95th-Percentile Queue Length [veh/ln]	2.29	4.10	9.41	1.01	10.89	10.94	8.39	0.15	1.72	32.83	12.08
95th-Percentile Queue Length [ft/ln]	57.32	102.42	235.21	25.34	272.22	273.54	209.78	3.75	43.02	820.87	302.02

Movement, Approach, & Intersection Results

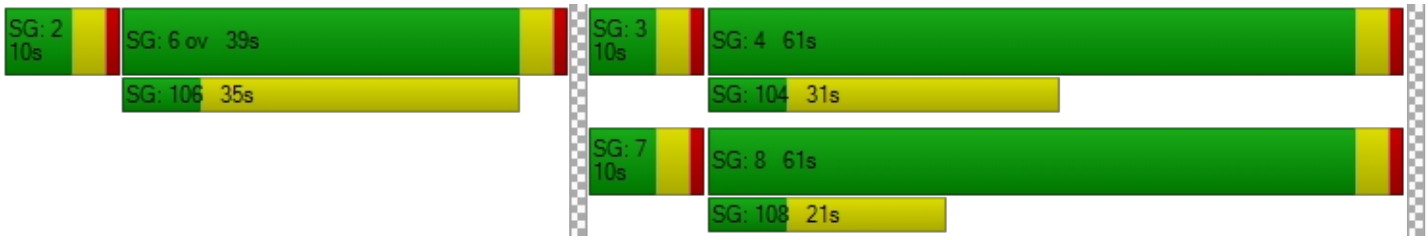
d_M, Delay for Movement [s/veh]	58.91	67.93	67.93	44.51	38.92	48.75	62.56	13.60	10.39	64.81	46.85	9.47
Movement LOS	E	E	E	D	D	D	E	B	B	E	D	A
d_A, Approach Delay [s/veh]	64.52			45.78			21.29			36.87		
Approach LOS	E			D			C			D		
d_I, Intersection Delay [s/veh]	34.72											
Intersection LOS	C											
Intersection V/C	0.874											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	445.95	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.999	2.917	3.646	0.000
Crosswalk LOS	A	C	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	950
d_b, Bicycle Delay [s]	54.15	30.10	16.60	16.56
l_b,int, Bicycle LOS Score for Intersection	1.735	2.682	2.297	3.424
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	177.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.013

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	242	279	171	309	454	667	225	1051	214	431	2718	162
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	242	279	171	309	454	667	225	1051	214	431	2718	162
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	61	70	43	77	114	167	56	263	54	108	680	41
Total Analysis Volume [veh/h]	242	279	171	309	454	667	225	1051	214	431	2718	162
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	29			0			0			25		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	25			0			0			29		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	3			10			1			15		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			15			3			10		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			1			10			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	19	19	15	34	0	28	47	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	20	20	20	35	11	17	17	37	43	43
g / C, Green / Cycle	0.25	0.25	0.25	0.17	0.17	0.17	0.29	0.09	0.14	0.14	0.31	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.17	0.17	0.17	0.17	0.28	0.08	0.25	0.17	0.29	0.49	0.51
s, saturation flow rate [veh/h]	1500	1574	1162	1500	1559	1433	2350	2912	4290	1291	1500	4290	1510
c, Capacity [veh/h]	375	393	290	250	260	239	689	272	623	187	458	1531	539
d1, Uniform Delay [s]	40.20	40.17	40.82	50.01	50.01	50.01	41.71	53.45	51.29	50.99	40.65	38.58	38.58
k, delay calibration	0.12	0.12	0.16	0.22	0.21	0.21	0.13	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.08	1.94	4.20	44.51	41.10	41.99	11.71	6.33	316.59	109.03	9.95	176.43	197.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	0.64	0.69	1.03	1.02	1.02	0.97	0.83	1.69	1.14	0.94	1.38	1.42
d, Delay for Lane Group [s/veh]	42.29	42.12	45.02	94.52	91.10	92.00	53.42	59.78	367.88	160.02	50.60	215.02	236.17
Lane Group LOS	D	D	D	F	F	F	D	E	F	F	D	F	F
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.54	6.82	5.71	10.41	10.58	9.78	10.51	3.46	24.25	11.06	13.11	39.18	44.54
50th-Percentile Queue Length [ft/ln]	163.54	170.48	142.77	260.3	264.4	244.5	262.8	86.60	606.28	276.60	327.77	979.50	1113.61
95th-Percentile Queue Length [veh/ln]	10.74	11.10	9.63	15.90	16.05	15.02	15.83	6.24	38.80	17.49	19.05	59.53	67.58
95th-Percentile Queue Length [ft/ln]	268.40	277.54	240.75	397.6	401.2	375.5	395.8	155.89	969.96	437.36	476.23	1488.28	1689.51

Movement, Approach, & Intersection Results

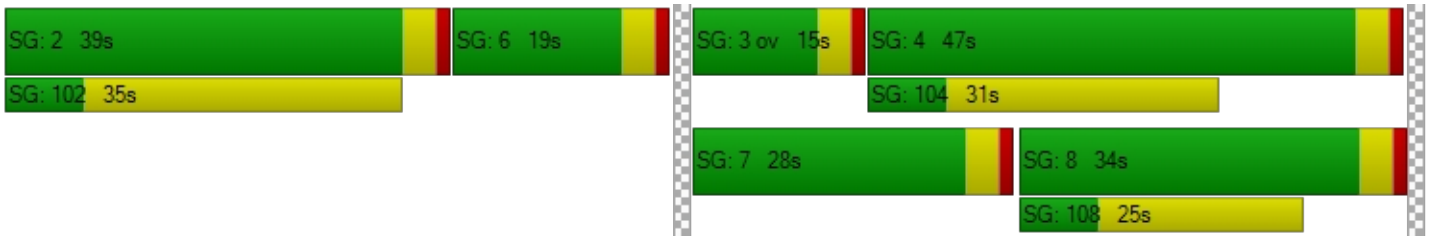
d_M, Delay for Movement [s/veh]	42.28	42.43	45.02	93.90	91.58	53.42	59.78	367.88	160.02	50.60	219.69	236.17
Movement LOS	D	D	D	F	F	D	E	F	F	D	F	F
d_A, Approach Delay [s/veh]	43.02			74.29			291.50			198.49		
Approach LOS	D			E			F			F		
d_I, Intersection Delay [s/veh]	177.31											
Intersection LOS	F											
Intersection V/C	1.013											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1103.95	248.91	0.00	119.28
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.663	2.997	0.000	3.624
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	250	500	717
d_b, Bicycle Delay [s]	30.12	45.96	33.92	24.70
l_b,int, Bicycle LOS Score for Intersection	2.131	2.739	2.379	2.925
Bicycle LOS	B	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	47.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.033

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name	Newport Boulevard			Newport Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	0	0	0	557	0	501	0	1753	90	0	2329	680
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	557	0	501	0	1753	90	0	2329	680
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	139	0	125	0	438	23	0	582	170
Total Analysis Volume [veh/h]	0	0	0	557	0	501	0	1753	90	0	2329	680
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			6		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			6			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			2			16			6		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	48	0	0	0	72	0	0	72	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		44	44	68	68
g / C, Green / Cycle		0.37	0.37	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate		0.19	0.38	0.58	0.54
s, saturation flow rate [veh/h]		2912	1321	2998	4290
c, Capacity [veh/h]		1068	484	1699	2431
d1, Uniform Delay [s]		29.76	37.71	26.00	24.65
k, delay calibration		0.11	0.49	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.40	49.73	30.45	10.78
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.52	1.03	1.03	0.96
d, Delay for Lane Group [s/veh]		30.15	87.44	56.45	35.43
Lane Group LOS		C	F	F	D
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		6.41	20.69	28.51	20.91
50th-Percentile Queue Length [ft/ln]		160.33	517.35	712.84	522.65
95th-Percentile Queue Length [veh/ln]		10.57	28.82	38.25	28.40
95th-Percentile Queue Length [ft/ln]		264.16	720.58	956.36	710.11

Movement, Approach, & Intersection Results

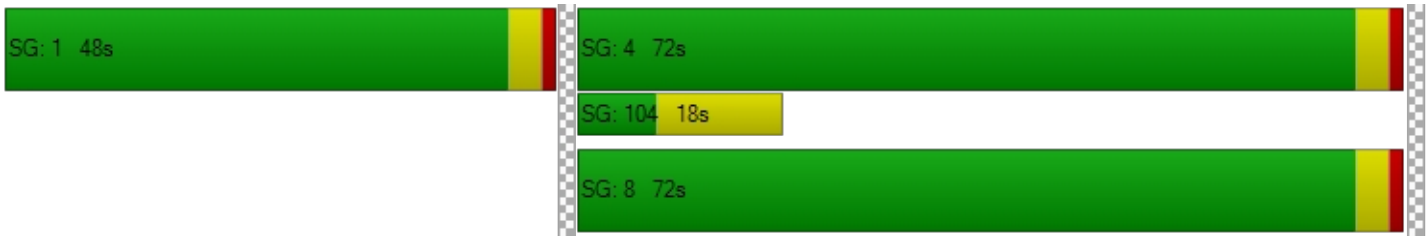
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	30.15	0.00	87.44	0.00	56.45	0.00	0.00	35.43	0.00
Movement LOS				C		F		F			D	
d_A, Approach Delay [s/veh]	0.00			57.28			56.45			35.43		
Approach LOS	A			E			E			D		
d_I, Intersection Delay [s/veh]	47.10											
Intersection LOS	D											
Intersection V/C	1.033											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1245.04	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.360	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1133	1133
d_b, Bicycle Delay [s]	60.00	60.00	11.36	11.30
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	3.006	2.841
Bicycle LOS	D	D	C	C

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX A-VIII

BUILDOUT PLUS PROJECT TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	21.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.497

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	50	60	70	2002	10	1038	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	60	70	2002	10	1038	50
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	15	18	501	3	260	13
Total Analysis Volume [veh/h]	50	60	70	2002	10	1038	50
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	45		50		62		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	50		45		0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	12		0		8		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	8		62		12		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	4		5		21		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	45	45	10	10	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	5	53	1	49	49
g / C, Green / Cycle	0.06	0.06	0.05	0.53	0.01	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.04	0.39	0.01	0.20	0.03
s, saturation flow rate [veh/h]	1781	1546	1781	5094	1781	5094	1532
c, Capacity [veh/h]	102	88	94	2689	26	2495	750
d1, Uniform Delay [s]	45.73	46.19	46.69	18.37	48.81	16.35	13.44
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.63	8.77	10.97	1.92	8.85	0.51	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.68	0.74	0.74	0.38	0.42	0.07
d, Delay for Lane Group [s/veh]	49.35	54.96	57.67	20.29	57.66	16.86	13.61
Lane Group LOS	D	D	E	C	E	B	B
Critical Lane Group	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.31	1.68	1.95	10.97	0.30	4.72	0.58
50th-Percentile Queue Length [ft/ln]	32.83	42.06	48.64	274.30	7.60	117.98	14.56
95th-Percentile Queue Length [veh/ln]	2.36	3.03	3.50	16.40	0.55	8.28	1.05
95th-Percentile Queue Length [ft/ln]	59.09	75.71	87.54	410.11	13.68	207.04	26.20

Movement, Approach, & Intersection Results

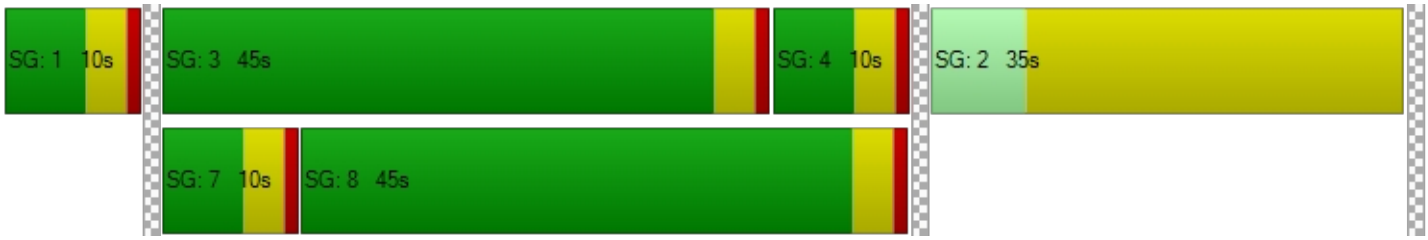
d_M, Delay for Movement [s/veh]	49.35	54.96	57.67	20.29	57.66	16.86	13.61
Movement LOS	D	D	E	C	E	B	B
d_A, Approach Delay [s/veh]	52.41		21.55		17.09		
Approach LOS	D		C		B		
d_I, Intersection Delay [s/veh]	21.09						
Intersection LOS	C						
Intersection V/C	0.497						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	361.66	94.45	158.02
d_p, Pedestrian Delay [s]	39.61	39.61	39.61
l_p,int, Pedestrian LOS Score for Intersection	2.007	3.261	3.306
Crosswalk LOS	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	50.00	50.00	50.00
l_b,int, Bicycle LOS Score for Intersection	4.132	5.272	4.736
Bicycle LOS	D	F	E

Sequence

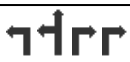
Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	19.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.566

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	20	21	24	240	34	141	121	1941	4	27	903	140
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	21	24	240	34	141	121	1941	4	27	903	140
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	5	5	6	60	9	35	30	485	1	7	226	35
Total Analysis Volume [veh/h]	20	21	24	240	34	141	121	1941	4	27	903	140
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			15			14			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			14			15			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	5			19			4			28		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	4			28			5			19		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			4			11			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	13	35	0	10	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	16	16	16	8	50	50	3	45	45
g / C, Green / Cycle	0.05	0.05	0.05	0.18	0.18	0.18	0.09	0.56	0.56	0.03	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.08	0.08	0.05	0.07	0.36	0.36	0.02	0.20	0.20
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1802	2631	1781	3560	1868	1781	3560	1686
c, Capacity [veh/h]	96	100	85	316	319	467	154	1988	1043	59	1797	851
d1, Uniform Delay [s]	40.76	40.76	40.92	32.98	32.98	32.07	40.28	13.68	13.68	42.73	13.74	13.87
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.07	1.02	1.78	0.93	0.92	0.36	8.43	1.61	3.04	5.50	0.64	1.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.21	0.21	0.28	0.43	0.43	0.30	0.78	0.64	0.64	0.46	0.39	0.40
d, Delay for Lane Group [s/veh]	41.83	41.78	42.70	33.91	33.90	32.43	48.71	15.29	16.72	48.23	14.37	15.30
Lane Group LOS	D	D	D	C	C	C	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.45	0.47	0.55	2.66	2.69	1.32	2.86	7.86	8.66	0.65	3.99	4.14
50th-Percentile Queue Length [ft/ln]	11.33	11.86	13.85	66.45	67.20	33.00	71.57	196.48	216.62	16.37	99.68	103.61
95th-Percentile Queue Length [veh/ln]	0.82	0.85	1.00	4.78	4.84	2.38	5.15	12.46	13.49	1.18	7.18	7.46
95th-Percentile Queue Length [ft/ln]	20.40	21.36	24.92	119.61	120.96	59.39	128.83	311.42	337.31	29.47	179.43	186.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.83	41.78	42.70	33.91	33.90	32.43	48.71	15.78	16.72	48.23	14.58	15.30
Movement LOS	D	D	D	C	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	42.14			33.40			17.71			15.53		
Approach LOS	D			C			B			B		
d_I, Intersection Delay [s/veh]	19.30											
Intersection LOS	B											
Intersection V/C	0.566											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1099.75	172.81	316.65	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.157	2.458	3.247	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	133	689	689	622
d_b, Bicycle Delay [s]	39.20	19.38	19.45	21.45
l_b,int, Bicycle LOS Score for Intersection	1.667	2.244	2.696	2.148
Bicycle LOS	A	B	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	12.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.646

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	10	0	11	78	10	66	48	1969	11	10	953	58
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	0	11	78	10	66	48	1969	11	10	953	58
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	0	3	20	3	17	12	492	3	3	238	15
Total Analysis Volume [veh/h]	10	0	11	78	10	66	48	1969	11	10	953	58
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	10			23			8			13		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	13			8			23			10		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			8			2			19		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			19			1			8		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			3			27			11		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	54	73	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	16	16	16	5	90	90	2	87	87
g / C, Green / Cycle	0.14	0.14	0.14	0.14	0.14	0.04	0.75	0.75	0.01	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.03	0.04	0.05	0.03	0.53	0.53	0.01	0.27	0.04
s, saturation flow rate [veh/h]	701	1353	1298	1195	1457	1781	1870	1865	1781	3560	1548
c, Capacity [veh/h]	155	184	205	216	198	72	1403	1399	25	2577	1120
d1, Uniform Delay [s]	52.14	45.19	48.80	48.13	46.76	56.75	7.96	7.99	58.63	6.26	4.75
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.17	0.14	0.44	0.53	0.98	9.93	3.01	3.04	9.64	0.41	0.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.06	0.19	0.23	0.33	0.66	0.71	0.71	0.39	0.37	0.05
d, Delay for Lane Group [s/veh]	52.32	45.33	49.24	48.66	47.75	66.68	10.97	11.03	68.27	6.66	4.84
Lane Group LOS	D	D	D	D	D	E	B	B	E	A	A
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.29	0.30	1.09	1.41	1.85	1.60	11.25	11.29	0.36	3.83	0.37
50th-Percentile Queue Length [ft/ln]	7.31	7.42	27.28	35.17	46.32	40.05	281.36	282.29	9.06	95.75	9.20
95th-Percentile Queue Length [veh/ln]	0.53	0.53	1.96	2.53	3.34	2.88	16.76	16.80	0.65	6.89	0.66
95th-Percentile Queue Length [ft/ln]	13.15	13.35	49.11	63.31	83.38	72.08	418.91	420.06	16.31	172.34	16.56

Movement, Approach, & Intersection Results

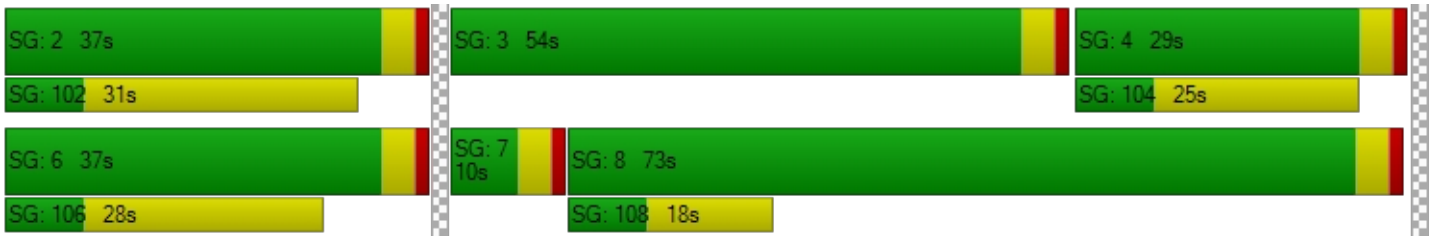
d_M, Delay for Movement [s/veh]	52.32	48.82	45.33	48.95	48.66	47.75	66.68	11.00	11.03	68.27	6.66	4.84
Movement LOS	D	D	D	D	D	D	E	B	B	E	A	A
d_A, Approach Delay [s/veh]	48.65			48.41			12.32			7.16		
Approach LOS	D			D			B			A		
d_I, Intersection Delay [s/veh]	12.65											
Intersection LOS	B											
Intersection V/C	0.646											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2259.86	253.00	210.99	291.14
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.968	2.356	3.222	3.336
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	550	550	1150	417
d_b, Bicycle Delay [s]	31.57	31.58	10.99	37.81
l_b,int, Bicycle LOS Score for Intersection	1.577	1.814	3.233	2.402
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	26.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.662

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	11	22	31	631	51	137	90	1884	19	35	896	280
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	22	31	631	51	137	90	1884	19	35	896	280
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	6	8	158	13	34	23	471	5	9	224	70
Total Analysis Volume [veh/h]	11	22	31	631	51	137	90	1884	19	35	896	280
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	5			9			2			5		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	5			2			9			5		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			0			2			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			0			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			28			16		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	43	39	0	39	35	0	10	32	0	10	32	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	10	10	25	33	6	65	65	4	64	64
g / C, Green / Cycle	0.02	0.08	0.08	0.21	0.27	0.05	0.54	0.54	0.03	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.18	0.03	0.03	0.35	0.35	0.02	0.25	0.18
s, saturation flow rate [veh/h]	1781	3560	1531	3459	1870	3459	3560	1858	1781	3560	1560
c, Capacity [veh/h]	29	290	125	715	508	164	1937	1011	61	1891	828
d1, Uniform Delay [s]	58.39	50.94	51.64	46.18	32.73	55.89	19.22	19.24	57.05	17.64	16.02
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.64	0.11	1.03	3.80	0.09	2.83	1.67	3.19	8.05	0.85	1.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.08	0.25	0.88	0.10	0.55	0.65	0.65	0.57	0.47	0.34
d, Delay for Lane Group [s/veh]	66.03	51.05	52.67	49.98	32.81	58.71	20.89	22.44	65.10	18.49	17.13
Lane Group LOS	E	D	D	D	C	E	C	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.40	0.31	0.92	9.12	1.09	1.35	11.20	12.15	1.14	7.17	4.20
50th-Percentile Queue Length [ft/ln]	9.91	7.85	23.00	227.96	27.15	33.64	279.91	303.70	28.57	179.20	104.91
95th-Percentile Queue Length [veh/ln]	0.71	0.57	1.66	14.07	1.95	2.42	16.68	17.86	2.06	11.56	7.55
95th-Percentile Queue Length [ft/ln]	17.83	14.13	41.41	351.77	48.87	60.55	417.10	446.61	51.43	288.97	188.84

Movement, Approach, & Intersection Results

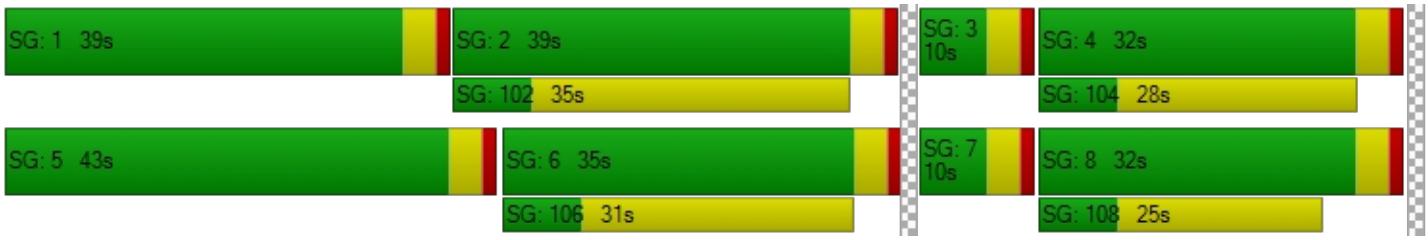
d_M, Delay for Movement [s/veh]	66.03	51.05	52.67	49.98	32.81	0.00	58.71	21.41	22.44	65.10	18.49	17.13
Movement LOS	E	D	D	D	C		E	C	C	E	B	B
d_A, Approach Delay [s/veh]	54.41			48.70			23.11			19.52		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	26.93											
Intersection LOS	C											
Intersection V/C	0.662											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2494.21	0.00	739.46	777.66
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.341	2.758	3.348	3.567
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	467	467
d_b, Bicycle Delay [s]	30.10	33.02	35.77	35.55
l_b,int, Bicycle LOS Score for Intersection	1.612	2.685	2.656	2.559
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	22.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.786

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	10	10	10	320	10	200	120	2384	10	10	893	90
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	10	10	320	10	200	120	2384	10	10	893	90
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	3	3	3	80	3	50	30	596	3	3	223	23
Total Analysis Volume [veh/h]	10	10	10	320	10	200	120	2384	10	10	893	90
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	3			9			5			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			5			9			3		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	1			0			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			1			10		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	39	0	51	66	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	10	69	69	2	61	61
g / C, Green / Cycle	0.28	0.28	0.28	0.28	0.28	0.08	0.60	0.60	0.01	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.23	0.01	0.13	0.07	0.47	0.01	0.01	0.18	0.06
s, saturation flow rate [veh/h]	1384	1715	1388	1870	1546	1781	5094	1555	1781	5094	1545
c, Capacity [veh/h]	418	478	412	521	431	152	3069	937	26	2708	821
d1, Uniform Delay [s]	32.02	30.27	41.83	30.08	34.22	51.57	17.09	9.15	56.15	15.30	13.37
k, delay calibration	0.11	0.11	0.28	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.04	7.82	0.01	0.78	8.75	2.00	0.02	9.11	0.33	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.04	0.78	0.02	0.46	0.79	0.78	0.01	0.39	0.33	0.11
d, Delay for Lane Group [s/veh]	32.04	30.31	49.65	30.09	35.00	60.32	19.09	9.17	65.26	15.63	13.64
Lane Group LOS	C	C	D	C	D	E	B	A	E	B	B
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.21	0.42	9.53	0.20	4.65	3.61	13.56	0.09	0.34	4.03	1.11
50th-Percentile Queue Length [ft/ln]	5.37	10.42	238.28	5.06	116.20	90.37	339.07	2.32	8.55	100.77	27.63
95th-Percentile Queue Length [veh/ln]	0.39	0.75	14.59	0.36	8.18	6.51	19.60	0.17	0.62	7.26	1.99
95th-Percentile Queue Length [ft/ln]	9.67	18.75	364.86	9.10	204.60	162.67	490.06	4.18	15.38	181.39	49.74

Movement, Approach, & Intersection Results

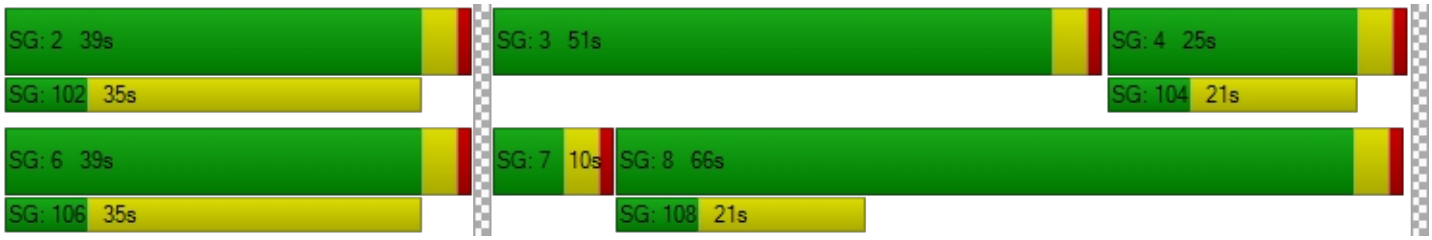
d_M, Delay for Movement [s/veh]	32.04	30.31	30.31	49.65	30.09	35.00	60.32	19.09	9.17	65.26	15.63	13.64
Movement LOS	C	C	C	D	C	D	E	B	A	E	B	B
d_A, Approach Delay [s/veh]	30.88			43.75			21.02			15.95		
Approach LOS	C			D			C			B		
d_I, Intersection Delay [s/veh]	22.81											
Intersection LOS	C											
Intersection V/C	0.786											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	7112.47	6112.11	459.14	1727.56
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersection	1.968	2.356	3.560	4.021
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	609	609	1078	365
d_b, Bicycle Delay [s]	27.83	27.84	12.22	38.61
l_b,int, Bicycle LOS Score for Intersection	1.609	2.434	2.942	2.106
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	22.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.710

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	15	20	10	186	51	144	130	2492	43	59	860	74
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	20	10	186	51	144	130	2492	43	59	860	74
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	4	5	3	47	13	36	33	623	11	15	215	19
Total Analysis Volume [veh/h]	15	20	10	186	51	144	130	2492	43	59	860	74
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			15			7			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			7			15			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			2			0			2		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			2			0			2		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			29			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	37	56	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	19	19	19	10	70	70	5	65	65
g / C, Green / Cycle	0.04	0.04	0.17	0.17	0.17	0.09	0.61	0.61	0.04	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.07	0.07	0.10	0.07	0.49	0.03	0.03	0.17	0.05
s, saturation flow rate [veh/h]	1781	1747	1781	1818	1497	1781	5094	1530	1781	5094	1543
c, Capacity [veh/h]	71	70	299	305	251	162	3101	931	79	2864	867
d1, Uniform Delay [s]	53.46	53.93	42.62	42.62	43.78	51.27	17.23	9.05	54.32	13.26	11.56
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.46	4.15	0.84	0.82	2.05	8.93	2.32	0.09	13.09	0.27	0.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.21	0.43	0.39	0.39	0.57	0.80	0.80	0.05	0.75	0.30	0.09
d, Delay for Lane Group [s/veh]	54.92	58.09	43.46	43.43	45.83	60.19	19.55	9.14	67.41	13.53	11.75
Lane Group LOS	D	E	D	D	D	E	B	A	E	B	B
Critical Lane Group	No	Yes	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.45	0.94	2.96	3.02	3.79	3.91	14.43	0.40	1.90	3.50	0.82
50th-Percentile Queue Length [ft/ln]	11.31	23.39	74.05	75.47	94.73	97.80	360.73	9.96	47.61	87.46	20.45
95th-Percentile Queue Length [veh/ln]	0.81	1.68	5.33	5.43	6.82	7.04	20.66	0.72	3.43	6.30	1.47
95th-Percentile Queue Length [ft/ln]	20.37	42.10	133.29	135.85	170.52	176.05	516.47	17.92	85.71	157.43	36.80

Movement, Approach, & Intersection Results

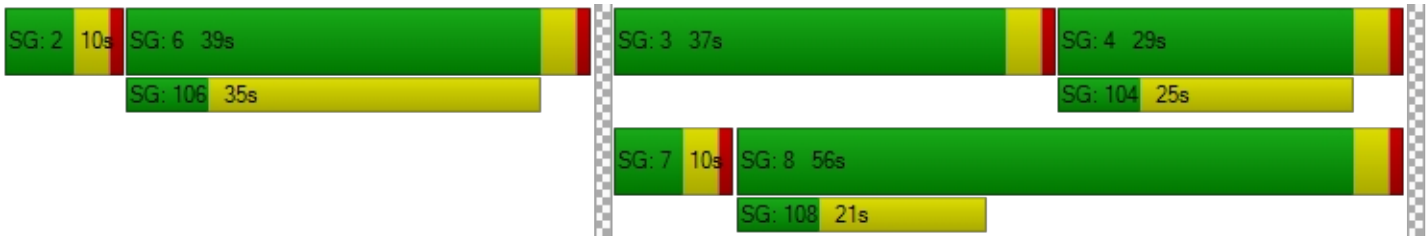
d_M, Delay for Movement [s/veh]	54.92	58.09	58.09	43.45	43.43	45.83	60.19	19.55	9.14	67.41	13.53	11.75
Movement LOS	D	E	E	D	D	D	E	B	A	E	B	B
d_A, Approach Delay [s/veh]	57.03			44.35			21.36			16.60		
Approach LOS	E			D			C			B		
d_I, Intersection Delay [s/veh]	22.74											
Intersection LOS	C											
Intersection V/C	0.710											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1602.93	323.06	0.00
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.006	2.364	3.560	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	104	609	904	435
d_b, Bicycle Delay [s]	51.73	27.91	17.51	35.38
l_b,int, Bicycle LOS Score for Intersection	1.634	2.188	3.025	2.106
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	26.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.785

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pa Co			Pa Co		
Base Volume Input [veh/h]	36	35	22	602	10	168	235	2462	10	10	784	320
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	35	22	602	10	168	235	2462	10	10	784	320
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	9	9	6	151	3	42	59	616	3	3	196	80
Total Analysis Volume [veh/h]	36	35	22	602	10	168	235	2462	10	10	784	320
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			5			8			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			8			5			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			1			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	1			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			4		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	21	46	0	10	35	35
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	22	22	22	16	59	59	2	45	81
g / C, Green / Cycle	0.05	0.05	0.21	0.21	0.21	0.15	0.57	0.57	0.01	0.43	0.77
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.17	0.01	0.11	0.13	0.48	0.01	0.01	0.15	0.20
s, saturation flow rate [veh/h]	1781	1751	3459	1870	1561	1781	5094	1549	1781	5094	1565
c, Capacity [veh/h]	95	94	741	401	335	270	2877	875	27	2180	1208
d1, Uniform Delay [s]	48.01	48.62	39.23	32.58	36.23	43.51	19.25	10.01	51.21	20.30	3.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.17
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.47	6.27	2.21	0.02	1.17	8.35	3.52	0.02	8.28	0.46	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.61	0.81	0.02	0.50	0.87	0.86	0.01	0.37	0.36	0.26
d, Delay for Lane Group [s/veh]	50.48	54.90	41.44	32.60	37.40	51.85	22.78	10.03	59.50	20.77	3.60
Lane Group LOS	D	D	D	C	D	D	C	B	E	C	A
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.98	1.63	7.20	0.20	3.70	6.24	14.69	0.09	0.31	4.07	1.21
50th-Percentile Queue Length [ft/ln]	24.55	40.82	179.98	4.88	92.55	155.89	367.18	2.32	7.82	101.81	30.13
95th-Percentile Queue Length [veh/ln]	1.77	2.94	11.60	0.35	6.66	10.33	20.97	0.17	0.56	7.33	2.17
95th-Percentile Queue Length [ft/ln]	44.19	73.48	289.98	8.78	166.60	258.27	524.30	4.18	14.08	183.25	54.24

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.48	54.90	54.90	41.44	32.60	37.40	51.85	22.78	10.03	59.50	20.77	3.60
Movement LOS	D	D	D	D	C	D	D	C	B	E	C	A
d_A, Approach Delay [s/veh]	53.19			40.46			25.25			16.18		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	26.18											
Intersection LOS	C											
Intersection V/C	0.785											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	7812.87	0.00	591.49	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.981	2.752	3.558	0.000
Crosswalk LOS	A	C	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	114	667	800	590
d_b, Bicycle Delay [s]	46.67	23.33	18.97	26.13
l_b,int, Bicycle LOS Score for Intersection	1.713	2.847	3.048	2.172
Bicycle LOS	A	C	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	242.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.452

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	243	512	336	246	188	133	737	3099	173	170	899	291
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	243	512	336	246	188	133	737	3099	173	170	899	291
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	61	128	84	62	47	33	184	775	43	43	225	73
Total Analysis Volume [veh/h]	243	512	336	246	188	133	737	3099	173	170	899	291
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	16			0			0			8		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	8			0			0			16		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			2			9		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	2			9			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			24			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	11	11	35	57	0	13	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	35	35	35	7	7	7	42	31	46	46	16	31	31
g / C, Green / Cycle	0.29	0.29	0.29	0.06	0.06	0.06	0.35	0.26	0.39	0.39	0.13	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.16	0.33	0.28	0.10	0.10	0.10	0.06	0.25	0.72	0.13	0.11	0.21	0.22
s, saturation flow rate [veh/h]	1500	1575	1188	1500	1524	1433	2369	2912	4290	1302	1500	4290	1323
c, Capacity [veh/h]	437	459	346	87	89	84	829	752	1662	505	194	1108	342
d1, Uniform Delay [s]	35.93	42.50	41.98	56.50	56.50	56.50	26.86	44.19	36.75	25.85	51.32	41.76	42.31
k, delay calibration	0.13	0.50	0.44	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.31	77.13	38.12	314.6	312.4	308.9	0.09	11.18	391.28	1.85	11.85	6.49	22.57
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	1.11	0.97	1.68	1.67	1.66	0.16	0.98	1.86	0.34	0.88	0.81	0.85
d, Delay for Lane Group [s/veh]	37.23	119.63	80.10	371.1	368.9	365.4	26.95	55.36	428.03	27.70	63.17	48.24	64.88
Lane Group LOS	D	F	F	F	F	F	C	E	F	C	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.17	23.28	13.38	10.25	10.36	9.66	1.30	11.49	75.28	3.57	5.51	8.69	10.04
50th-Percentile Queue Length [ft/ln]	154.24	582.00	334.50	256.2	259.0	241.6	32.54	287.33	1882.09	89.18	137.87	217.17	250.89
95th-Percentile Queue Length [veh/ln]	10.24	33.34	19.38	17.51	17.67	16.64	2.34	17.05	120.09	6.42	9.37	13.52	15.23
95th-Percentile Queue Length [ft/ln]	256.07	833.52	484.48	437.8	441.6	415.9	58.58	426.33	3002.25	160.52	234.15	338.01	380.77

Movement, Approach, & Intersection Results

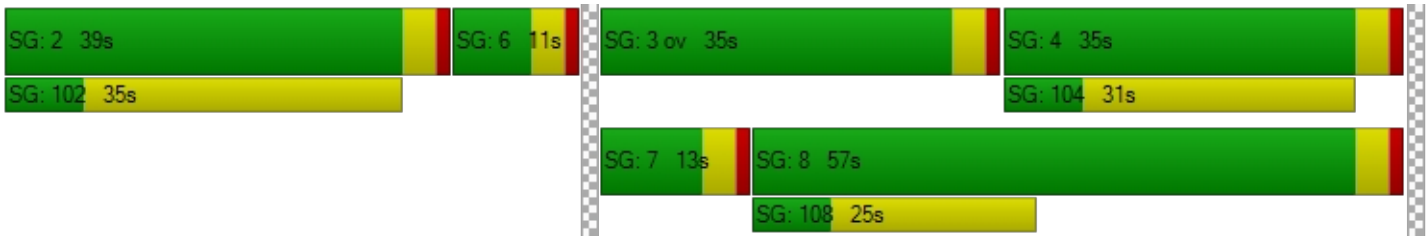
d_M, Delay for Movement [s/veh]	37.23	119.63	80.10	370.05	366.39	26.95	55.36	428.03	27.70	63.17	48.24	64.88
Movement LOS	D	F	F	F	F	C	E	F	C	E	D	E
d_A, Approach Delay [s/veh]	89.10			288.45			342.24			53.67		
Approach LOS	F			F			F			D		
d_I, Intersection Delay [s/veh]	242.75											
Intersection LOS	F											
Intersection V/C	1.452											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2530.55	471.78	0.00	197.80
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.630	2.999	0.000	3.661
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	117	883	517
d_b, Bicycle Delay [s]	30.10	53.20	18.93	33.00
l_b,int, Bicycle LOS Score for Intersection	2.460	2.027	3.765	2.121
Bicycle LOS	B	B	D	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	158.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.445

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name	Newport Boulevard			Newport Boulevard			Pa Co			Pa Co		
Base Volume Input [veh/h]	0	0	0	439	0	543	0	2812	140	0	1262	450
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	439	0	543	0	2812	140	0	1262	450
Peak Hour Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	110	0	136	0	703	35	0	316	113
Total Analysis Volume [veh/h]	0	0	0	439	0	543	0	2812	140	0	1262	450
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			2			24			1		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	38	0	0	0	82	0	0	82	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		34	34	78	78
g / C, Green / Cycle		0.28	0.28	0.65	0.65
(v / s)_i Volume / Saturation Flow Rate		0.15	0.41	0.94	0.29
s, saturation flow rate [veh/h]		2912	1320	2998	4290
c, Capacity [veh/h]		825	374	1949	2788
d1, Uniform Delay [s]		36.29	42.77	21.00	10.41
k, delay calibration		0.11	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.53	217.61	202.26	0.53
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.53	1.45	1.44	0.45
d, Delay for Lane Group [s/veh]		36.82	260.38	223.26	10.95
Lane Group LOS		D	F	F	B
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		5.55	33.64	77.30	4.97
50th-Percentile Queue Length [ft/ln]		138.71	840.92	1932.59	124.16
95th-Percentile Queue Length [veh/ln]		9.41	52.06	118.35	8.62
95th-Percentile Queue Length [ft/ln]		235.29	1301.54	2958.65	215.52

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	36.82	0.00	260.38	0.00	223.26	0.00	0.00	10.95	0.00
Movement LOS				D		F		F			B	
d_A, Approach Delay [s/veh]	0.00			160.44			223.26			10.95		
Approach LOS	A			F			F			B		
d_I, Intersection Delay [s/veh]	158.07											
Intersection LOS	F											
Intersection V/C	1.445											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	3744.14	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.344	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1300	1300
d_b, Bicycle Delay [s]	60.00	60.00	7.44	7.35
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	3.880	2.254
Bicycle LOS	D	D	D	B

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	23.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.498

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	56	61	85	1313	34	1773	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	56	61	85	1313	34	1773	100
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	15	21	328	9	443	25
Total Analysis Volume [veh/h]	56	61	85	1313	34	1773	100
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	218		290		318		
v_di, Inbound Pedestrian Volume crossing m	290		218		0		
v_co, Outbound Pedestrian Volume crossing	101		0		67		
v_ci, Inbound Pedestrian Volume crossing mi	67		318		101		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	1		0		5		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	16	40	10	34	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	46	4	43	43
g / C, Green / Cycle	0.06	0.06	0.06	0.48	0.04	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.05	0.26	0.02	0.35	0.06
s, saturation flow rate [veh/h]	1781	1565	1781	5094	1781	5094	1551
c, Capacity [veh/h]	107	94	111	2443	67	2319	706
d1, Uniform Delay [s]	43.30	43.62	43.87	17.33	44.83	21.62	15.04
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.87	7.21	10.53	0.85	5.74	2.46	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.52	0.65	0.77	0.54	0.50	0.76	0.14
d, Delay for Lane Group [s/veh]	47.18	50.82	54.40	18.18	50.57	24.08	15.46
Lane Group LOS	D	D	D	B	D	C	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.40	1.59	2.22	6.17	0.86	10.30	1.23
50th-Percentile Queue Length [ft/ln]	34.89	39.83	55.39	154.37	21.60	257.60	30.83
95th-Percentile Queue Length [veh/ln]	2.51	2.87	3.99	10.25	1.56	15.57	2.22
95th-Percentile Queue Length [ft/ln]	62.80	71.70	99.71	256.25	38.89	389.20	55.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.18	50.82	54.40	18.18	50.57	24.08	15.46
Movement LOS	D	D	D	B	D	C	B
d_A, Approach Delay [s/veh]	49.08		20.38		24.10		
Approach LOS	D		C		C		
d_I, Intersection Delay [s/veh]	23.44						
Intersection LOS	C						
Intersection V/C	0.498						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	37.34	17.79	30.85
d_p, Pedestrian Delay [s]	37.14	37.14	37.14
l_p,int, Pedestrian LOS Score for Intersection	2.024	3.271	3.327
Crosswalk LOS	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	47.50	47.50	47.50
l_b,int, Bicycle LOS Score for Intersection	4.132	4.901	5.181
Bicycle LOS	D	E	F

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	31.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.671

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	38	25	38	106	24	103	200	1157	10	26	1743	170
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	25	38	106	24	103	200	1157	10	26	1743	170
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	6	10	27	6	26	50	289	3	7	436	43
Total Analysis Volume [veh/h]	38	25	38	106	24	103	200	1157	10	26	1743	170
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			74			51			0		
v_di, Inbound Pedestrian Volume crossing m	0			51			74			0		
v_co, Outbound Pedestrian Volume crossing	8			125			8			139		
v_ci, Inbound Pedestrian Volume crossing mi	8			139			8			125		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			5			1			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	20	64	0	11	55	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	28	28	28	15	67	67	4	55	55
g / C, Green / Cycle	0.05	0.05	0.05	0.23	0.23	0.23	0.13	0.56	0.56	0.03	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.04	0.04	0.04	0.11	0.22	0.22	0.01	0.36	0.40
s, saturation flow rate [veh/h]	1781	1850	1589	1781	1813	2328	1781	3560	1860	1781	3560	1599
c, Capacity [veh/h]	86	89	77	417	424	544	228	1976	1032	52	1625	730
d1, Uniform Delay [s]	55.32	55.29	55.67	36.54	36.53	36.55	51.39	15.14	15.14	57.36	27.58	29.60
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.56	2.38	4.86	0.17	0.17	0.17	10.24	0.58	1.10	7.08	3.84	14.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.35	0.49	0.16	0.15	0.19	0.88	0.39	0.39	0.50	0.78	0.88
d, Delay for Lane Group [s/veh]	57.87	57.67	60.54	36.71	36.70	36.72	61.63	15.71	16.25	64.43	31.42	43.76
Lane Group LOS	E	E	E	D	D	D	E	B	B	E	C	D
Critical Lane Group	No	No	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.99	1.00	1.24	1.52	1.54	1.21	6.39	5.65	6.06	0.86	15.26	18.44
50th-Percentile Queue Length [ft/ln]	24.66	24.93	30.88	38.07	38.56	30.29	159.85	141.30	151.59	21.57	381.48	461.06
95th-Percentile Queue Length [veh/ln]	1.78	1.80	2.22	2.74	2.78	2.18	10.54	9.55	10.10	1.55	21.67	25.49
95th-Percentile Queue Length [ft/ln]	44.38	44.88	55.58	68.53	69.40	54.53	263.52	238.78	252.55	38.83	541.63	637.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.84	57.67	60.54	36.71	36.70	36.72	61.63	15.89	16.25	64.43	34.76	43.76
Movement LOS	E	E	E	D	D	D	E	B	B	E	C	D
d_A, Approach Delay [s/veh]	58.81			36.71			22.59			35.94		
Approach LOS	E			D			C			D		
d_I, Intersection Delay [s/veh]	31.61											
Intersection LOS	C											
Intersection V/C	0.671											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	454.66	18.39	54.47	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.178	2.457	3.287	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	517	1000	850
d_b, Bicycle Delay [s]	54.15	33.09	15.01	19.92
l_b,int, Bicycle LOS Score for Intersection	1.726	1.944	2.311	2.626
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	19.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.696

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	16	10	28	66	10	81	84	1231	10	16	1846	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	10	28	66	10	81	84	1231	10	16	1846	83
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	7	17	3	20	21	308	3	4	462	21
Total Analysis Volume [veh/h]	16	10	28	66	10	81	84	1231	10	16	1846	83
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	2			36			66			25		
v_di, Inbound Pedestrian Volume crossing m	25			66			36			2		
v_co, Outbound Pedestrian Volume crossing	15			11			15			38		
v_ci, Inbound Pedestrian Volume crossing mi	15			38			15			11		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	7			4			3			7		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	10	74	0	11	75	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	25	25	25	25	7	81	81	3	76	76
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.06	0.67	0.67	0.02	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.03	0.03	0.06	0.05	0.33	0.33	0.01	0.52	0.05
s, saturation flow rate [veh/h]	1113	1364	1292	1235	1333	1781	1870	1863	1781	3560	1531
c, Capacity [veh/h]	277	280	285	306	273	106	1260	1255	38	2262	973
d1, Uniform Delay [s]	38.89	38.71	42.05	40.71	39.94	55.70	9.57	9.58	58.00	16.57	8.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.14	0.16	0.19	0.20	0.60	12.40	1.38	1.39	7.31	3.39	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.10	0.12	0.13	0.30	0.79	0.49	0.49	0.42	0.82	0.09
d, Delay for Lane Group [s/veh]	39.03	38.86	42.24	40.91	40.54	68.10	10.95	10.97	65.31	19.96	8.59
Lane Group LOS	D	D	D	D	D	E	B	B	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.64	0.70	0.91	1.06	2.08	2.81	7.28	7.27	0.55	17.54	0.80
50th-Percentile Queue Length [ft/ln]	15.94	17.39	22.64	26.53	52.00	70.35	181.99	181.70	13.66	438.42	19.98
95th-Percentile Queue Length [veh/ln]	1.15	1.25	1.63	1.91	3.74	5.07	11.70	11.69	0.98	24.40	1.44
95th-Percentile Queue Length [ft/ln]	28.69	31.31	40.75	47.76	93.60	126.64	292.61	292.24	24.58	610.12	35.96

Movement, Approach, & Intersection Results

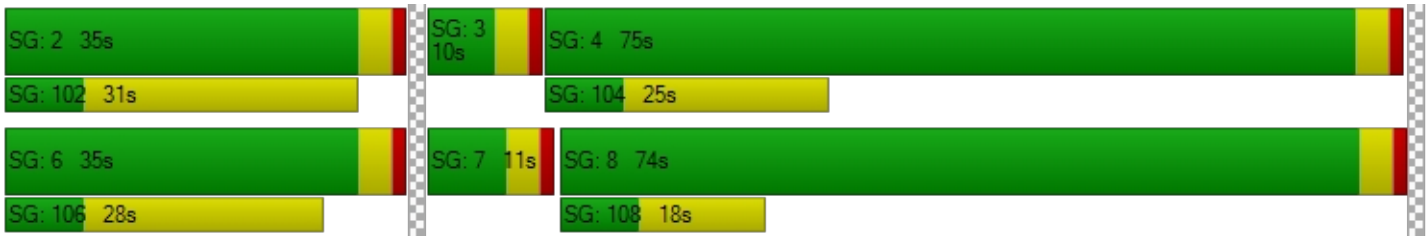
d_M, Delay for Movement [s/veh]	39.03	39.03	38.86	41.62	40.91	40.54	68.10	10.96	10.97	65.31	19.96	8.59
Movement LOS	D	D	D	D	D	D	E	B	B	E	B	A
d_A, Approach Delay [s/veh]	38.94			41.02			14.58			19.84		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	19.09											
Intersection LOS	B											
Intersection V/C	0.696											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	224.96	130.59	60.04	245.74
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.978	2.368	3.292	3.362
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	517	517	1167	1183
d_b, Bicycle Delay [s]	33.12	33.07	10.43	10.04
l_b,int, Bicycle LOS Score for Intersection	1.604	1.819	2.653	3.164
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	30.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.763

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	14	41	20	321	33	211	181	1165	12	16	1686	785
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	41	20	321	33	211	181	1165	12	16	1686	785
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	10	5	80	8	53	45	291	3	4	422	196
Total Analysis Volume [veh/h]	14	41	20	321	33	211	181	1165	12	16	1686	785
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	10			5			5			17		
v_di, Inbound Pedestrian Volume crossing m	17			5			5			10		
v_co, Outbound Pedestrian Volume crossing	2			4			1			1		
v_ci, Inbound Pedestrian Volume crossing mi	1			1			2			4		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			1			6		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	39	0	17	35	0	10	50	0	14	54	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	16	16	13	27	9	72	72	2	66	66
g / C, Green / Cycle	0.02	0.14	0.14	0.11	0.22	0.07	0.60	0.60	0.02	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.09	0.02	0.05	0.22	0.22	0.01	0.47	0.50
s, saturation flow rate [veh/h]	1781	3560	1470	3459	1870	3459	3560	1859	1781	3560	1562
c, Capacity [veh/h]	34	482	199	373	419	245	2145	1120	37	1967	863
d1, Uniform Delay [s]	58.18	45.37	45.42	52.63	36.75	54.65	12.12	12.12	58.04	22.84	23.76
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.74	0.07	0.22	5.84	0.08	4.30	0.47	0.90	7.64	5.10	15.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.09	0.10	0.86	0.08	0.74	0.36	0.36	0.43	0.86	0.91
d, Delay for Lane Group [s/veh]	65.93	45.45	45.64	58.46	36.83	58.95	12.59	13.03	65.68	27.94	39.03
Lane Group LOS	E	D	D	E	D	E	B	B	E	C	D
Critical Lane Group	No	No	Yes	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.50	0.55	0.54	4.89	0.75	2.72	4.69	5.04	0.54	18.84	20.56
50th-Percentile Queue Length [ft/ln]	12.43	13.69	13.55	122.31	18.76	67.99	117.32	125.99	13.53	470.92	513.95
95th-Percentile Queue Length [veh/ln]	0.89	0.99	0.98	8.52	1.35	4.90	8.25	8.72	0.97	25.95	27.99
95th-Percentile Queue Length [ft/ln]	22.37	24.65	24.40	212.99	33.77	122.39	206.14	218.03	24.35	648.86	699.85

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	65.93	45.45	45.64	58.46	36.83	0.00	58.95	12.74	13.03	65.68	27.94	39.03
Movement LOS	E	D	D	E	D		E	B	B	E	C	D
d_A, Approach Delay [s/veh]	49.32			56.45			18.90			31.68		
Approach LOS	D			E			B			C		
d_I, Intersection Delay [s/veh]	29.98											
Intersection LOS	C											
Intersection V/C	0.763											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2530.89	0.00	814.07	291.98
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.336	2.835	3.389	3.627
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	767	833
d_b, Bicycle Delay [s]	30.15	33.10	22.83	20.48
l_b,int, Bicycle LOS Score for Intersection	1.621	2.144	2.307	3.611
Bicycle LOS	A	B	B	D

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	14.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.740

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	10	10	10	100	10	209	127	1362	10	4	2221	280
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	10	10	100	10	209	127	1362	10	4	2221	280
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	3	25	3	52	32	341	3	1	555	70
Total Analysis Volume [veh/h]	10	10	10	100	10	209	127	1362	10	4	2221	280
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	1			3			1			1		
v_di, Inbound Pedestrian Volume crossing m	1			1			3			1		
v_co, Outbound Pedestrian Volume crossing	0			0			1			2		
v_ci, Inbound Pedestrian Volume crossing mi	1			2			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			2			1			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	55	0	0	55	0	10	25	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	8	62	62	1	55	55
g / C, Green / Cycle	0.17	0.17	0.17	0.17	0.17	0.09	0.69	0.69	0.01	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.07	0.01	0.13	0.07	0.27	0.01	0.00	0.44	0.18
s, saturation flow rate [veh/h]	1395	1701	1387	1870	1555	1781	5094	1556	1781	5094	1552
c, Capacity [veh/h]	287	289	279	318	264	161	3515	1074	12	3088	941
d1, Uniform Delay [s]	32.87	31.38	35.59	31.18	35.71	40.07	5.90	4.35	44.49	12.37	8.47
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.05	0.10	0.78	0.04	5.29	8.20	0.32	0.02	15.00	1.48	0.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.07	0.36	0.03	0.79	0.79	0.39	0.01	0.33	0.72	0.30
d, Delay for Lane Group [s/veh]	32.92	31.48	36.36	31.22	41.00	48.27	6.22	4.37	59.49	13.85	9.28
Lane Group LOS	C	C	D	C	D	D	A	A	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.19	0.37	2.03	0.18	4.64	2.93	2.40	0.04	0.13	8.05	2.19
50th-Percentile Queue Length [ft/ln]	4.79	9.36	50.86	4.53	115.93	73.15	60.07	1.05	3.35	201.31	54.67
95th-Percentile Queue Length [veh/ln]	0.35	0.67	3.66	0.33	8.17	5.27	4.33	0.08	0.24	12.71	3.94
95th-Percentile Queue Length [ft/ln]	8.63	16.86	91.55	8.15	204.23	131.67	108.13	1.89	6.03	317.65	98.41

Movement, Approach, & Intersection Results

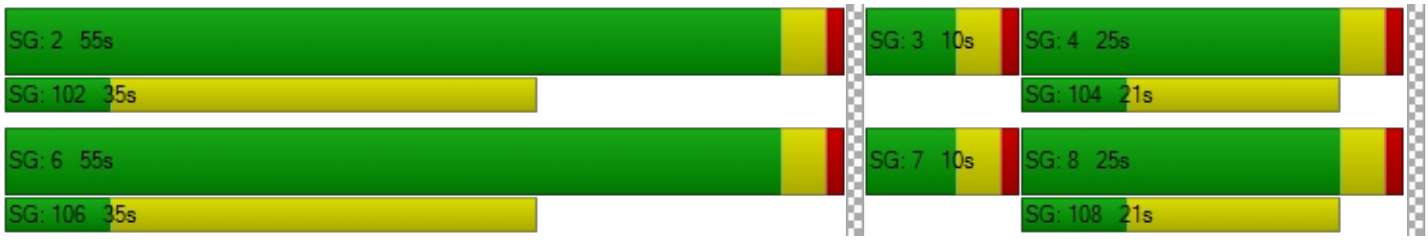
d_M, Delay for Movement [s/veh]	32.92	31.48	31.48	36.36	31.22	41.00	48.27	6.22	4.37	59.49	13.85	9.28
Movement LOS	C	C	C	D	C	D	D	A	A	E	B	A
d_A, Approach Delay [s/veh]	31.96			39.24			9.77			13.41		
Approach LOS	C			D			A			B		
d_I, Intersection Delay [s/veh]	14.18											
Intersection LOS	B											
Intersection V/C	0.740											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	9155.30	2344.30	2185.14	4940.84
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	1.954	2.340	3.619	3.756
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1133	1133	467	467
d_b, Bicycle Delay [s]	8.46	8.46	26.46	26.49
l_b,int, Bicycle LOS Score for Intersection	1.609	2.086	2.384	2.937
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	22.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.746

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	10	22	15	97	23	107	174	1238	31	43	2433	243
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	22	15	97	23	107	174	1238	31	43	2433	243
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	6	4	24	6	27	44	310	8	11	608	61
Total Analysis Volume [veh/h]	10	22	15	97	23	107	174	1238	31	43	2433	243
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			6			9			0		
v_di, Inbound Pedestrian Volume crossing m	0			9			6			0		
v_co, Outbound Pedestrian Volume crossing	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing mi	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			8			9			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	37	56	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	15	15	15	13	75	75	4	66	66
g / C, Green / Cycle	0.04	0.04	0.13	0.13	0.13	0.12	0.65	0.65	0.04	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.03	0.03	0.07	0.10	0.24	0.02	0.02	0.48	0.16
s, saturation flow rate [veh/h]	1781	1723	1781	1814	1498	1781	5094	1550	1781	5094	1547
c, Capacity [veh/h]	72	70	237	241	199	208	3301	1004	70	2906	883
d1, Uniform Delay [s]	53.22	54.08	44.70	44.70	46.33	49.74	9.41	7.26	54.41	20.30	12.52
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.86	6.05	0.55	0.54	2.23	8.68	0.33	0.06	8.61	3.06	0.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	0.53	0.25	0.25	0.54	0.84	0.38	0.03	0.62	0.84	0.28
d, Delay for Lane Group [s/veh]	54.08	60.14	45.25	45.23	48.56	58.42	9.74	7.32	63.02	23.36	13.29
Lane Group LOS	D	E	D	D	D	E	A	A	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.30	1.18	1.52	1.54	2.89	5.17	4.03	0.24	1.34	15.84	2.96
50th-Percentile Queue Length [ft/ln]	7.47	29.40	38.12	38.61	72.33	129.24	100.69	6.09	33.55	395.90	74.09
95th-Percentile Queue Length [veh/ln]	0.54	2.12	2.74	2.78	5.21	8.90	7.25	0.44	2.42	22.36	5.33
95th-Percentile Queue Length [ft/ln]	13.44	52.92	68.62	69.49	130.20	222.46	181.24	10.97	60.39	559.06	133.36

Movement, Approach, & Intersection Results

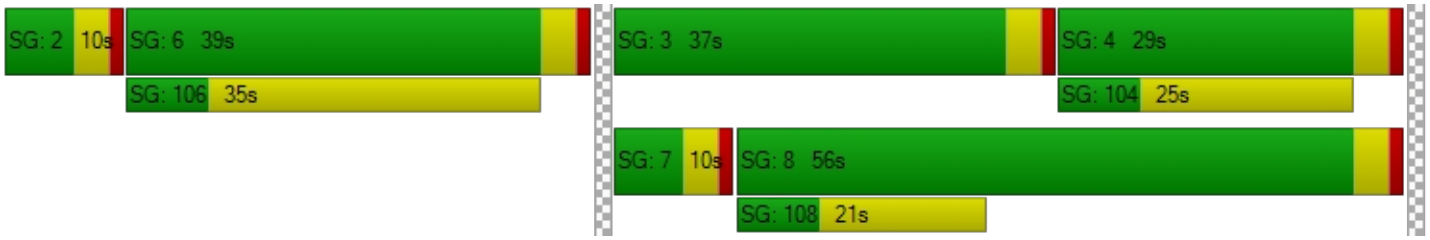
d_M, Delay for Movement [s/veh]	54.08	60.14	60.14	45.25	45.23	48.56	58.42	9.74	7.32	63.02	23.36	13.29
Movement LOS	D	E	E	D	D	D	E	A	A	E	C	B
d_A, Approach Delay [s/veh]	58.85			46.81			15.56			23.08		
Approach LOS	E			D			B			C		
d_I, Intersection Delay [s/veh]	22.23											
Intersection LOS	C											
Intersection V/C	0.746											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1609.42	500.11	0.00
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	0.00
I_p,int, Pedestrian LOS Score for Intersection	1.991	2.386	3.629	0.000
Crosswalk LOS	A	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	104	609	904	435
d_b, Bicycle Delay [s]	51.73	27.94	17.33	35.36
I_b,int, Bicycle LOS Score for Intersection	1.637	1.934	2.353	3.055
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	35.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.879

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	40	45	21	420	24	236	211	1139	8	29	2466	919
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	45	21	420	24	236	211	1139	8	29	2466	919
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	11	5	105	6	59	53	285	2	7	617	230
Total Analysis Volume [veh/h]	40	45	21	420	24	236	211	1139	8	29	2466	919
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			4			9			0		
v_di, Inbound Pedestrian Volume crossing m	0			9			4			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	10	61	0	10	61	61
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	24	24	24	16	70	70	4	58	96
g / C, Green / Cycle	0.05	0.05	0.20	0.20	0.20	0.13	0.59	0.59	0.03	0.48	0.80
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.12	0.01	0.15	0.12	0.22	0.01	0.02	0.48	0.59
s, saturation flow rate [veh/h]	1781	1771	3459	1870	1559	1781	5094	1551	1781	5094	1565
c, Capacity [veh/h]	89	89	693	375	313	236	2981	907	55	2464	1253
d1, Uniform Delay [s]	55.39	56.25	43.65	38.85	45.04	51.23	13.30	10.38	57.27	30.97	5.64
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.51	11.68	0.86	0.07	3.71	11.33	0.37	0.02	7.54	18.30	3.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.75	0.61	0.06	0.76	0.89	0.38	0.01	0.53	1.00	0.73
d, Delay for Lane Group [s/veh]	58.91	67.93	44.51	38.92	48.75	62.56	13.67	10.39	64.81	49.27	9.47
Lane Group LOS	E	E	D	D	D	E	B	B	E	F	A
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.27	2.28	5.55	0.56	6.66	6.70	4.90	0.08	0.96	25.55	7.57
50th-Percentile Queue Length [ft/ln]	31.85	56.90	138.65	14.08	166.43	167.43	122.46	2.08	23.90	638.78	189.22
95th-Percentile Queue Length [veh/ln]	2.29	4.10	9.41	1.01	10.89	10.94	8.53	0.15	1.72	33.86	12.08
95th-Percentile Queue Length [ft/ln]	57.32	102.42	235.21	25.34	272.22	273.54	213.21	3.75	43.02	846.51	302.02

Movement, Approach, & Intersection Results

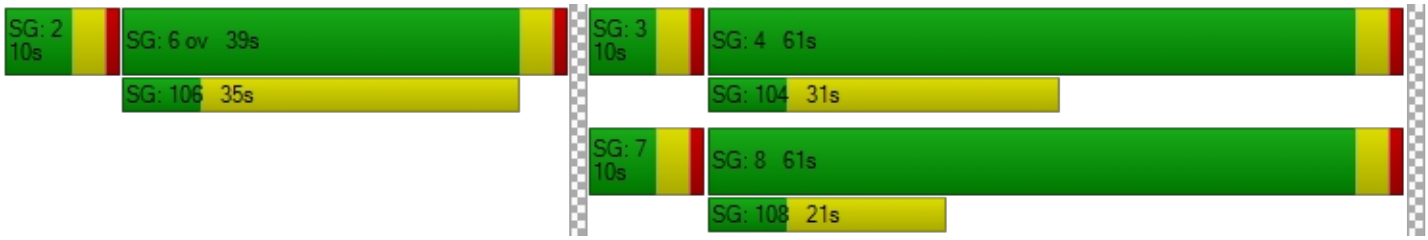
d_M, Delay for Movement [s/veh]	58.91	67.93	67.93	44.51	38.92	48.75	62.56	13.67	10.39	64.81	49.27	9.47
Movement LOS	E	E	E	D	D	D	E	B	B	E	F	A
d_A, Approach Delay [s/veh]	64.52			45.78			21.25			38.69		
Approach LOS	E			D			C			D		
d_I, Intersection Delay [s/veh]	35.79											
Intersection LOS	D											
Intersection V/C	0.879											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	445.95	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.999	2.917	3.655	0.000
Crosswalk LOS	A	C	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	950
d_b, Bicycle Delay [s]	54.15	30.10	16.60	16.56
l_b,int, Bicycle LOS Score for Intersection	1.735	2.682	2.307	3.437
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	182.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.018

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	242	279	171	309	454	667	225	1069	214	431	2742	162
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	242	279	171	309	454	667	225	1069	214	431	2742	162
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	70	43	77	114	167	56	267	54	108	686	41
Total Analysis Volume [veh/h]	242	279	171	309	454	667	225	1069	214	431	2742	162
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	29			0			0			25		
v_di, Inbound Pedestrian Volume crossing m	25			0			0			29		
v_co, Outbound Pedestrian Volume crossing	3			10			1			15		
v_ci, Inbound Pedestrian Volume crossing mi	1			15			3			10		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			1			10			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	19	19	15	34	0	28	47	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	20	20	20	35	11	17	17	37	43	43
g / C, Green / Cycle	0.25	0.25	0.25	0.17	0.17	0.17	0.29	0.09	0.14	0.14	0.31	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.17	0.17	0.17	0.17	0.28	0.08	0.25	0.17	0.29	0.50	0.51
s, saturation flow rate [veh/h]	1500	1574	1162	1500	1559	1433	2350	2912	4290	1291	1500	4290	1511
c, Capacity [veh/h]	375	393	290	250	260	239	689	272	623	187	458	1531	539
d1, Uniform Delay [s]	40.20	40.17	40.82	50.01	50.01	50.01	41.71	53.45	51.29	50.99	40.65	38.58	38.58
k, delay calibration	0.12	0.12	0.16	0.22	0.21	0.21	0.13	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.08	1.94	4.20	44.51	41.10	41.99	11.71	6.33	329.45	109.03	9.95	181.40	202.85
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	0.64	0.69	1.03	1.02	1.02	0.97	0.83	1.72	1.14	0.94	1.39	1.43
d, Delay for Lane Group [s/veh]	42.29	42.12	45.02	94.52	91.10	92.00	53.42	59.78	380.74	160.02	50.60	219.99	241.43
Lane Group LOS	D	D	D	F	F	F	D	E	F	F	D	F	F
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.54	6.82	5.71	10.41	10.58	9.78	10.51	3.46	24.99	11.06	13.11	39.88	45.35
50th-Percentile Queue Length [ft/ln]	163.54	170.48	142.77	260.3	264.4	244.5	262.8	86.60	624.80	276.60	327.77	997.12	1133.71
95th-Percentile Queue Length [veh/ln]	10.74	11.10	9.63	15.90	16.05	15.02	15.83	6.24	39.99	17.49	19.05	60.71	68.93
95th-Percentile Queue Length [ft/ln]	268.40	277.54	240.75	397.6	401.2	375.5	395.8	155.89	999.66	437.36	476.23	1517.69	1723.21

Movement, Approach, & Intersection Results

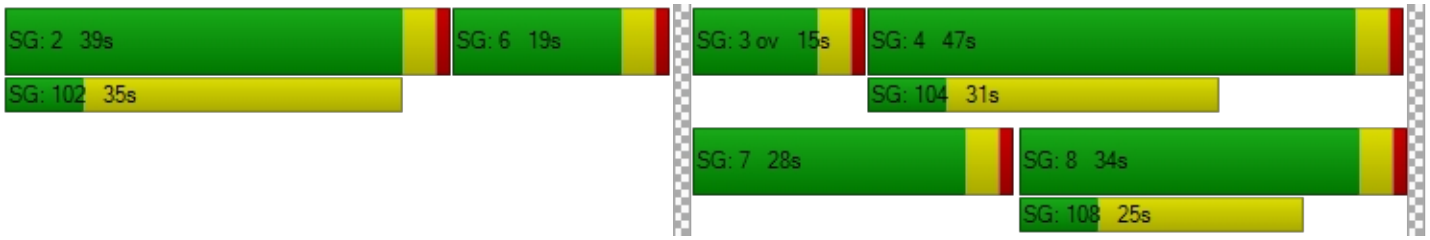
d_M, Delay for Movement [s/veh]	42.28	42.43	45.02	93.90	91.58	53.42	59.78	380.74	160.02	50.60	224.74	241.43
Movement LOS	D	D	D	F	F	D	E	F	F	D	F	F
d_A, Approach Delay [s/veh]	43.02			74.29			301.53			203.05		
Approach LOS	D			E			F			F		
d_I, Intersection Delay [s/veh]	182.03											
Intersection LOS	F											
Intersection V/C	1.018											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1103.95	248.91	0.00	119.28
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.663	2.997	0.000	3.632
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	250	500	717
d_b, Bicycle Delay [s]	30.12	45.96	33.92	24.70
l_b,int, Bicycle LOS Score for Intersection	2.131	2.739	2.389	2.935
Bicycle LOS	B	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	49.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.039

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			25.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	0	0	0	557	0	501	0	1771	90	0	2353	680
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	557	0	501	0	1771	90	0	2353	680
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	139	0	125	0	443	23	0	588	170
Total Analysis Volume [veh/h]	0	0	0	557	0	501	0	1771	90	0	2353	680
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			6	
v_ci, Inbound Pedestrian Volume crossing mi		0			6			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			2			16			6	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	48	0	0	0	72	0	0	72	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		44	44	68	68
g / C, Green / Cycle		0.37	0.37	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate		0.19	0.38	0.59	0.55
s, saturation flow rate [veh/h]		2912	1321	2998	4290
c, Capacity [veh/h]		1068	484	1699	2431
d1, Uniform Delay [s]		29.76	37.71	26.00	24.96
k, delay calibration		0.11	0.49	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.40	49.73	33.78	12.15
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.52	1.03	1.04	0.97
d, Delay for Lane Group [s/veh]		30.15	87.44	59.78	37.11
Lane Group LOS		C	F	F	D
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		6.41	20.69	29.30	21.64
50th-Percentile Queue Length [ft/ln]		160.33	517.35	732.46	540.91
95th-Percentile Queue Length [veh/ln]		10.57	28.82	39.51	29.26
95th-Percentile Queue Length [ft/ln]		264.16	720.58	987.72	731.62

Movement, Approach, & Intersection Results

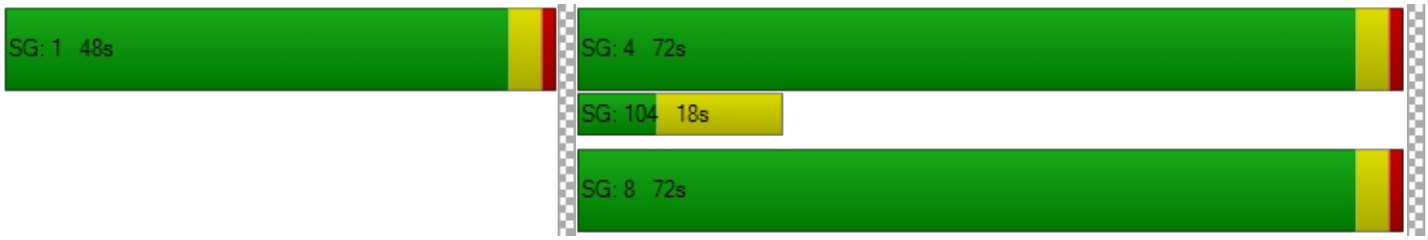
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	30.15	0.00	87.44	0.00	59.78	0.00	0.00	37.11	0.00
Movement LOS				C		F		F			D	
d_A, Approach Delay [s/veh]	0.00			57.28			59.78			37.11		
Approach LOS	A			E			E			D		
d_I, Intersection Delay [s/veh]	48.97											
Intersection LOS	D											
Intersection V/C	1.039											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1245.04	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.360	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1133	1133
d_b, Bicycle Delay [s]	60.00	60.00	11.36	11.30
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	3.021	2.854
Bicycle LOS	D	D	C	C

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX A-IX

BUILDOUT PLUS PROJECT WITH MITIGATION TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	217.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.389

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	100.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	243	512	336	246	188	133	737	3099	173	170	899	291
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	243	512	336	246	188	133	737	3099	173	170	899	291
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	128	84	62	47	33	184	775	43	43	225	73
Total Analysis Volume [veh/h]	243	512	336	246	188	133	737	3099	173	170	899	291
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	16			0			0			8		
v_di, Inbound Pedestrian Volume crossing m	8			0			0			16		
v_co, Outbound Pedestrian Volume crossing	0			1			2			9		
v_ci, Inbound Pedestrian Volume crossing mi	2			9			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			24			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	42	0	0	11	11	32	57	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	31	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	38	38	38	7	7	7	39	28	50	50	9	31	31
g / C, Green / Cycle	0.32	0.32	0.32	0.06	0.06	0.06	0.33	0.23	0.41	0.41	0.08	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.16	0.33	0.28	0.10	0.10	0.10	0.06	0.25	0.72	0.13	0.06	0.21	0.22
s, saturation flow rate [veh/h]	1500	1575	1190	1500	1524	1433	2369	2912	4290	1303	2912	4290	1323
c, Capacity [veh/h]	475	499	377	87	89	84	770	680	1780	541	223	1108	342
d1, Uniform Delay [s]	33.43	41.00	39.04	56.50	56.50	56.50	28.96	46.00	35.10	23.58	54.32	41.76	42.31
k, delay calibration	0.11	0.48	0.38	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.85	46.51	20.87	314.6	312.4	308.9	0.11	44.32	335.78	1.56	5.29	6.49	22.57
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.51	1.03	0.89	1.68	1.67	1.66	0.17	1.08	1.74	0.32	0.76	0.81	0.85
d, Delay for Lane Group [s/veh]	34.29	87.51	59.90	371.1	368.9	365.4	29.07	90.32	370.88	25.14	59.61	48.24	64.88
Lane Group LOS	C	F	E	F	F	F	C	F	F	C	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.88	20.96	11.50	10.25	10.36	9.66	1.36	13.83	71.29	3.36	2.62	8.69	10.04
50th-Percentile Queue Length [ft/ln]	147.04	524.00	287.45	256.2	259.0	241.6	34.03	345.72	1782.27	83.94	65.48	217.17	250.89
95th-Percentile Queue Length [veh/ln]	9.86	28.97	17.06	17.51	17.67	16.64	2.45	20.83	112.97	6.04	4.71	13.52	15.23
95th-Percentile Queue Length [ft/ln]	246.47	724.33	426.47	437.8	441.6	415.9	61.26	520.66	2824.35	151.10	117.86	338.01	380.77

Movement, Approach, & Intersection Results

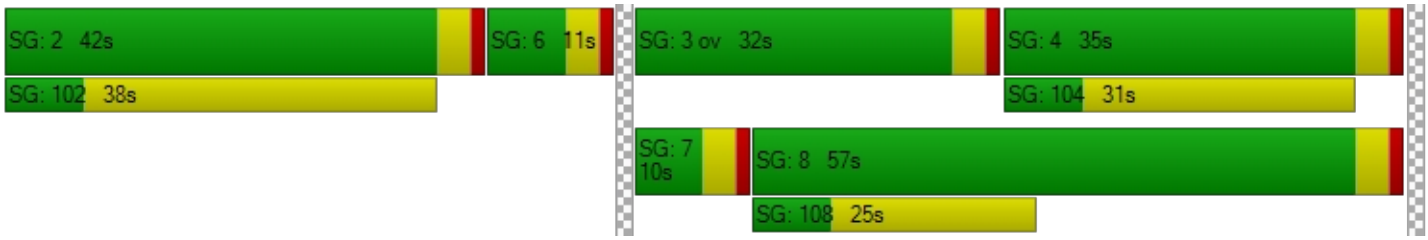
d_M, Delay for Movement [s/veh]	34.29	87.51	59.90	370.05	366.39	29.07	90.32	370.88	25.14	59.61	48.24	64.88
Movement LOS	C	F	E	F	F	C	F	F	C	E	D	E
d_A, Approach Delay [s/veh]	67.15			288.94			304.39			53.22		
Approach LOS	E			F			F			D		
d_I, Intersection Delay [s/veh]	217.70											
Intersection LOS	F											
Intersection V/C	1.389											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2530.55	471.78	0.00	216.59
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.630	2.999	0.000	3.682
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	117	883	517
d_b, Bicycle Delay [s]	28.02	53.20	18.93	33.00
l_b,int, Bicycle LOS Score for Intersection	2.460	2.027	3.765	2.121
Bicycle LOS	B	B	D	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	111.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.271

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			25.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	0	0	0	439	0	543	0	2812	140	0	1262	450
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	439	0	543	0	2812	140	0	1262	450
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	110	0	136	0	703	35	0	316	113
Total Analysis Volume [veh/h]	0	0	0	439	0	543	0	2812	140	0	1262	450
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			1			0			1	
v_ci, Inbound Pedestrian Volume crossing mi		0			1			0			1	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			2			24			1	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	28	0	0	0	92	0	0	92	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		24	24	24	88	88
g / C, Green / Cycle		0.20	0.20	0.20	0.73	0.73
(v / s)_i Volume / Saturation Flow Rate		0.22	0.24	0.25	0.94	0.29
s, saturation flow rate [veh/h]		1500	1389	1319	2998	4290
c, Capacity [veh/h]		300	278	264	2199	3146
d1, Uniform Delay [s]		48.00	48.00	47.83	16.00	6.05
k, delay calibration		0.36	0.41	0.45	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		70.85	106.42	133.57	129.16	0.38
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		1.09	1.18	1.24	1.28	0.40
d, Delay for Lane Group [s/veh]		118.85	154.42	181.40	145.16	6.43
Lane Group LOS		F	F	F	F	A
Critical Lane Group		No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		14.90	16.55	17.68	61.39	3.28
50th-Percentile Queue Length [ft/ln]		372.61	413.87	442.06	1534.78	82.11
95th-Percentile Queue Length [veh/ln]		22.22	25.20	27.26	90.25	5.91
95th-Percentile Queue Length [ft/ln]		555.60	629.92	681.50	2256.25	147.81

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	127.90	0.00	170.68	0.00	145.16	0.00	0.00	6.43	0.00
Movement LOS				F		F		F			A	
d_A, Approach Delay [s/veh]	0.00			151.56			145.16			6.43		
Approach LOS	A			F			F			A		
d_I, Intersection Delay [s/veh]	111.78											
Intersection LOS	F											
Intersection V/C	1.271											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	3744.14	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.344	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1467	1467
d_b, Bicycle Delay [s]	60.00	60.00	4.32	4.27
l_b,int, Bicycle LOS Score for Intersection	4.132	5.753	3.880	2.254
Bicycle LOS	D	F	D	B

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	123.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.993

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	100.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	242	279	171	309	454	667	225	1069	214	431	2742	162
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	242	279	171	309	454	667	225	1069	214	431	2742	162
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	70	43	77	114	167	56	267	54	108	686	41
Total Analysis Volume [veh/h]	242	279	171	309	454	667	225	1069	214	431	2742	162
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	29			0			0			25		
v_di, Inbound Pedestrian Volume crossing m	25			0			0			29		
v_co, Outbound Pedestrian Volume crossing	3			10			1			15		
v_ci, Inbound Pedestrian Volume crossing mi	1			15			3			10		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			1			10			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	42	0	0	13	13	11	49	0	11	49	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	31	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	16	16	16	27	7	32	32	20	45	45
g / C, Green / Cycle	0.27	0.27	0.27	0.14	0.14	0.14	0.24	0.06	0.28	0.28	0.17	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.17	0.17	0.17	0.17	0.28	0.08	0.25	0.16	0.15	0.50	0.51
s, saturation flow rate [veh/h]	1500	1574	1167	1500	1559	1433	2349	2912	4290	1306	2912	4290	1511
c, Capacity [veh/h]	404	424	315	208	216	199	554	182	1204	367	500	1672	589
d1, Uniform Delay [s]	36.52	36.49	37.04	49.52	49.52	49.52	43.79	53.90	39.64	35.42	46.29	35.08	35.08
k, delay calibration	0.11	0.11	0.11	0.20	0.19	0.19	0.12	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.39	1.32	2.15	120.0	115.0	115.0	95.91	115.63	9.92	6.65	4.50	129.15	149.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.59	0.59	0.64	1.23	1.22	1.22	1.20	1.23	0.89	0.58	0.86	1.28	1.31
d, Delay for Lane Group [s/veh]	37.91	37.81	39.19	169.6	164.5	164.6	139.7	169.53	49.55	42.07	50.78	164.23	184.86
Lane Group LOS	D	D	D	F	F	F	F	F	D	D	D	F	F
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.00	6.26	5.15	12.78	12.99	11.94	15.01	5.47	10.22	5.57	6.10	34.53	39.87
50th-Percentile Queue Length [ft/ln]	150.05	156.54	128.70	319.5	324.6	298.4	375.1	136.83	255.43	139.19	152.51	863.26	996.77
95th-Percentile Queue Length [veh/ln]	10.02	10.37	8.87	20.32	20.53	19.09	23.46	9.85	15.46	9.44	10.15	51.43	59.27
95th-Percentile Queue Length [ft/ln]	250.50	259.14	221.73	507.8	513.3	477.3	586.6	246.29	386.48	235.94	253.78	1285.76	1481.76

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.91	37.95	39.19	168.69	164.60	139.70	169.53	49.55	42.07	50.78	168.80	184.86
Movement LOS	D	D	D	F	F	F	F	D	D	D	F	F
d_A, Approach Delay [s/veh]	38.25			153.88			66.39			154.33		
Approach LOS	D			F			E			F		
d_I, Intersection Delay [s/veh]	123.66											
Intersection LOS	F											
Intersection V/C	0.993											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1188.55	263.08	0.00	131.20
d_p, Pedestrian Delay [s]	47.03	47.03	0.00	47.03
l_p,int, Pedestrian LOS Score for Intersection	2.661	2.995	0.000	3.655
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	661	157	783	783
d_b, Bicycle Delay [s]	25.79	48.88	21.41	21.30
l_b,int, Bicycle LOS Score for Intersection	2.131	2.739	2.389	2.935
Bicycle LOS	B	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	29.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.919

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			25.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	0	0	0	557	0	501	0	1771	90	0	2353	680
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	557	0	501	0	1771	90	0	2353	680
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	139	0	125	0	443	23	0	588	170
Total Analysis Volume [veh/h]	0	0	0	557	0	501	0	1771	90	0	2353	680
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			6	
v_ci, Inbound Pedestrian Volume crossing mi		0			6			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			2			16			6	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	45	0	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		35	35	35	77	77
g / C, Green / Cycle		0.29	0.29	0.29	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate		0.24	0.25	0.27	0.59	0.55
s, saturation flow rate [veh/h]		1500	1427	1320	2998	4290
c, Capacity [veh/h]		436	415	383	1928	2758
d1, Uniform Delay [s]		39.50	40.12	41.02	18.69	16.95
k, delay calibration		0.23	0.26	0.30	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		7.46	10.92	20.57	8.56	3.60
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.81	0.85	0.92	0.92	0.85
d, Delay for Lane Group [s/veh]		46.95	51.04	61.59	27.25	20.55
Lane Group LOS		D	D	E	C	C
Critical Lane Group		No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		10.59	11.10	12.25	20.29	15.38
50th-Percentile Queue Length [ft/ln]		264.75	277.46	306.29	507.36	384.43
95th-Percentile Queue Length [veh/ln]		15.93	16.56	17.99	27.68	21.81
95th-Percentile Queue Length [ft/ln]		398.17	414.05	449.80	692.06	545.20

Movement, Approach, & Intersection Results

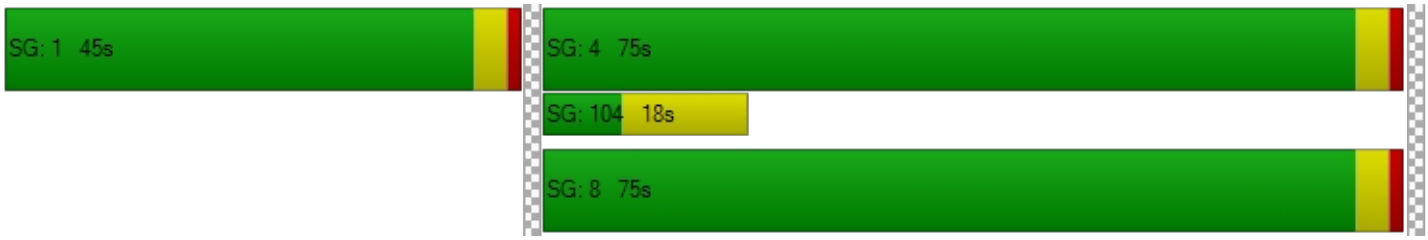
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	48.45	0.00	58.47	0.00	27.25	0.00	0.00	20.55	0.00
Movement LOS				D		E		C			C	
d_A, Approach Delay [s/veh]	0.00			53.20			27.25			20.55		
Approach LOS	A			D			C			C		
d_I, Intersection Delay [s/veh]	29.50											
Intersection LOS	C											
Intersection V/C	0.919											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1245.04	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.360	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1183	1183
d_b, Bicycle Delay [s]	60.00	60.00	10.08	10.03
l_b,int, Bicycle LOS Score for Intersection	4.132	5.878	3.021	2.854
Bicycle LOS	D	F	C	C

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX A-X

EXISTING PLUS PROJECT ALTERNATIVE TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	16.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.422

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	37	43	35	1735	4	847	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	43	35	1735	4	847	24
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	11	9	443	1	216	6
Total Analysis Volume [veh/h]	38	44	36	1770	4	864	24
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	45		50		62		
v_di, Inbound Pedestrian Volume crossing m	50		45		0		
v_co, Outbound Pedestrian Volume crossing	12		0		8		
v_ci, Inbound Pedestrian Volume crossing mi	8		62		12		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	4		5		21		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	28	0	10	42	10	42	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	4	69	1	65	65
g / C, Green / Cycle	0.05	0.05	0.04	0.60	0.01	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.02	0.35	0.00	0.17	0.02
s, saturation flow rate [veh/h]	1781	1542	1781	5094	1781	5094	1536
c, Capacity [veh/h]	87	76	64	3038	11	2889	871
d1, Uniform Delay [s]	53.14	53.48	54.57	14.35	56.89	12.97	10.93
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.39	6.93	7.67	0.82	17.17	0.27	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.58	0.57	0.58	0.35	0.30	0.03
d, Delay for Lane Group [s/veh]	56.53	60.41	62.24	15.17	74.06	13.24	10.99
Lane Group LOS	E	E	E	B	E	B	B
Critical Lane Group	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.16	1.40	1.14	8.65	0.17	3.62	0.26
50th-Percentile Queue Length [ft/ln]	28.97	35.01	28.41	216.19	4.19	90.61	6.60
95th-Percentile Queue Length [veh/ln]	2.09	2.52	2.05	13.47	0.30	6.52	0.47
95th-Percentile Queue Length [ft/ln]	52.15	63.01	51.14	336.76	7.54	163.09	11.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.53	60.41	62.24	15.17	74.06	13.24	10.99
Movement LOS	E	E	E	B	E	B	B
d_A, Approach Delay [s/veh]	58.61		16.11		13.45		
Approach LOS	E		B		B		
d_I, Intersection Delay [s/veh]	16.51						
Intersection LOS	B						
Intersection V/C	0.422						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	337.19	82.97	137.10
d_p, Pedestrian Delay [s]	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersection	1.990	3.173	3.231
Crosswalk LOS	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	57.50	57.50	57.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.126	4.623
Bicycle LOS	D	F	E

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	16.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.478

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	15	19	22	73	31	106	106	1683	4	25	744	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	19	22	73	31	106	106	1683	4	25	744	52
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	5	6	19	8	27	27	435	1	6	192	13
Total Analysis Volume [veh/h]	16	20	23	75	32	110	110	1740	4	26	769	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			15			14			0		
v_di, Inbound Pedestrian Volume crossing m	0			14			15			0		
v_co, Outbound Pedestrian Volume crossing	5			19			4			28		
v_ci, Inbound Pedestrian Volume crossing mi	4			28			5			19		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			4			11			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	13	35	0	10	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	14	14	14	7	53	53	3	48	48
g / C, Green / Cycle	0.05	0.05	0.05	0.15	0.15	0.15	0.08	0.59	0.59	0.03	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.03	0.03	0.04	0.06	0.32	0.32	0.01	0.15	0.16
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1833	2609	1781	3560	1867	1781	3560	1779
c, Capacity [veh/h]	92	96	82	274	282	401	142	2082	1092	57	1913	956
d1, Uniform Delay [s]	40.85	40.92	41.08	33.21	33.20	33.53	40.63	11.43	11.44	42.78	11.37	11.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.89	1.05	1.84	0.34	0.33	0.37	8.76	1.05	1.99	5.53	0.37	0.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.21	0.28	0.19	0.19	0.27	0.78	0.55	0.55	0.45	0.28	0.29
d, Delay for Lane Group [s/veh]	41.74	41.97	42.92	33.55	33.53	33.90	49.40	12.48	13.43	48.31	11.75	12.19
Lane Group LOS	D	D	D	C	C	C	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.36	0.45	0.53	1.01	1.03	1.05	2.62	6.03	6.61	0.63	2.67	2.84
50th-Percentile Queue Length [ft/ln]	9.07	11.35	13.33	25.30	25.78	26.36	65.62	150.69	165.29	15.81	66.65	70.93
95th-Percentile Queue Length [veh/ln]	0.65	0.82	0.96	1.82	1.86	1.90	4.72	10.05	10.83	1.14	4.80	5.11
95th-Percentile Queue Length [ft/ln]	16.32	20.42	24.00	45.53	46.41	47.44	118.12	251.35	270.72	28.46	119.97	127.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.74	41.97	42.92	33.54	33.53	33.90	49.40	12.81	13.43	48.31	11.88	12.19
Movement LOS	D	D	D	C	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	42.28			33.72			14.98			13.01		
Approach LOS	D			C			B			B		
d_I, Intersection Delay [s/veh]	16.32											
Intersection LOS	B											
Intersection V/C	0.478											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1099.75	201.39	329.18	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.155	2.391	3.168	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	133	689	689	622
d_b, Bicycle Delay [s]	39.20	19.38	19.45	21.45
l_b,int, Bicycle LOS Score for Intersection	1.657	1.918	2.579	2.027
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	10.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.599

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	3	0	10	36	2	61	44	1709	10	4	789	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	10	36	2	61	44	1709	10	4	789	46
Peak Hour Factor	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420	0.9420
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	3	10	1	16	12	454	3	1	209	12
Total Analysis Volume [veh/h]	3	0	11	38	2	65	47	1814	11	4	838	49
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	10			23			8			13		
v_di, Inbound Pedestrian Volume crossing m	13			8			23			10		
v_co, Outbound Pedestrian Volume crossing	1			8			2			19		
v_ci, Inbound Pedestrian Volume crossing mi	2			19			1			8		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			3			27			11		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	51	70	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	5	87	87	1	83	83
g / C, Green / Cycle	0.13	0.13	0.13	0.13	0.13	0.04	0.76	0.76	0.01	0.73	0.73
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.01	0.02	0.04	0.03	0.49	0.49	0.00	0.24	0.03
s, saturation flow rate [veh/h]	823	1349	1292	1112	1452	1781	1870	1865	1781	3560	1548
c, Capacity [veh/h]	170	175	200	204	188	73	1420	1416	11	2580	1121
d1, Uniform Delay [s]	48.76	43.90	46.54	46.14	45.40	54.28	6.50	6.51	56.90	5.70	4.50
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.15	0.18	0.24	1.08	8.90	2.25	2.27	17.75	0.34	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.06	0.09	0.11	0.34	0.64	0.64	0.64	0.35	0.32	0.04
d, Delay for Lane Group [s/veh]	48.80	44.05	46.72	46.38	46.48	63.18	8.74	8.78	74.65	6.04	4.57
Lane Group LOS	D	D	D	D	D	E	A	A	E	A	A
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.08	0.29	0.46	0.61	1.76	1.49	8.22	8.24	0.17	2.98	0.29
50th-Percentile Queue Length [ft/ln]	2.06	7.15	11.49	15.37	44.02	37.21	205.48	205.97	4.22	74.50	7.17
95th-Percentile Queue Length [veh/ln]	0.15	0.51	0.83	1.11	3.17	2.68	12.92	12.95	0.30	5.36	0.52
95th-Percentile Queue Length [ft/ln]	3.70	12.87	20.67	27.66	79.23	66.99	323.02	323.66	7.59	134.09	12.90

Movement, Approach, & Intersection Results

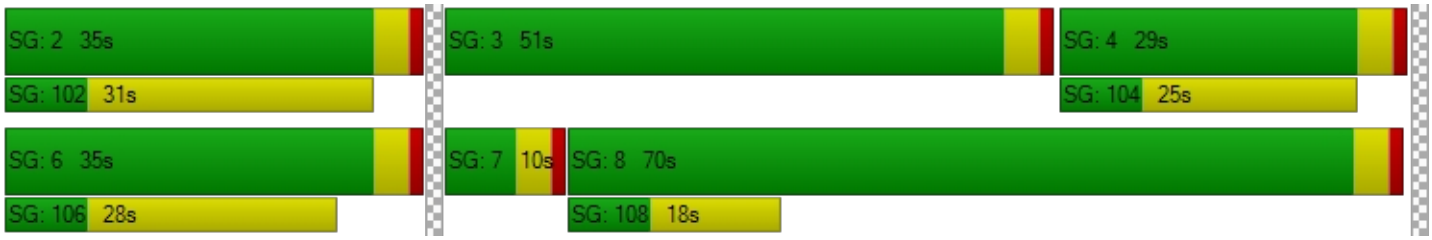
d_M, Delay for Movement [s/veh]	48.80	48.80	44.05	46.54	46.38	46.48	63.18	8.76	8.78	74.65	6.04	4.57
Movement LOS	D	D	D	D	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	45.07			46.50			10.13			6.27		
Approach LOS	D			D			B			A		
d_I, Intersection Delay [s/veh]	10.43											
Intersection LOS	B											
Intersection V/C	0.599											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2362.01	270.75	225.94	331.14
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersection	1.960	2.344	3.128	3.194
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	539	539	1148	435
d_b, Bicycle Delay [s]	30.71	30.72	10.58	35.41
l_b,int, Bicycle LOS Score for Intersection	1.571	1.733	3.104	2.295
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	26.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.613

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	10	20	28	576	47	126	76	1599	17	32	726	256
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	20	28	576	47	126	76	1599	17	32	726	256
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	5	7	153	12	33	20	423	5	8	192	68
Total Analysis Volume [veh/h]	11	21	30	610	50	133	81	1694	18	34	769	271
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	5			9			2			5		
v_di, Inbound Pedestrian Volume crossing m	5			2			9			5		
v_co, Outbound Pedestrian Volume crossing	1			0			2			0		
v_ci, Inbound Pedestrian Volume crossing mi	2			0			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			28			16		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	43	39	0	39	35	0	10	32	0	10	32	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	10	10	24	32	6	66	66	4	65	65
g / C, Green / Cycle	0.02	0.08	0.08	0.20	0.27	0.05	0.55	0.55	0.03	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.18	0.03	0.02	0.32	0.32	0.02	0.22	0.17
s, saturation flow rate [veh/h]	1781	3560	1531	3459	1870	3459	3560	1857	1781	3560	1560
c, Capacity [veh/h]	29	288	124	694	496	161	1962	1023	60	1917	840
d1, Uniform Delay [s]	58.39	50.99	51.66	46.54	33.30	55.84	17.67	17.69	57.08	16.30	15.41
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.64	0.11	1.00	3.80	0.09	2.40	1.22	2.34	7.93	0.63	1.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.07	0.24	0.88	0.10	0.50	0.57	0.57	0.56	0.40	0.32
d, Delay for Lane Group [s/veh]	66.03	51.09	52.66	50.34	33.39	58.24	18.89	20.03	65.02	16.93	16.43
Lane Group LOS	E	D	D	D	C	E	B	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.40	0.30	0.89	8.83	1.08	1.21	9.31	10.06	1.11	5.73	3.95
50th-Percentile Queue Length [ft/ln]	9.91	7.50	22.26	220.72	26.89	30.13	232.80	251.42	27.75	143.33	98.64
95th-Percentile Queue Length [veh/ln]	0.71	0.54	1.60	13.70	1.94	2.17	14.32	15.26	2.00	9.66	7.10
95th-Percentile Queue Length [ft/ln]	17.83	13.50	40.07	342.54	48.40	54.23	357.91	381.45	49.96	241.51	177.55

Movement, Approach, & Intersection Results

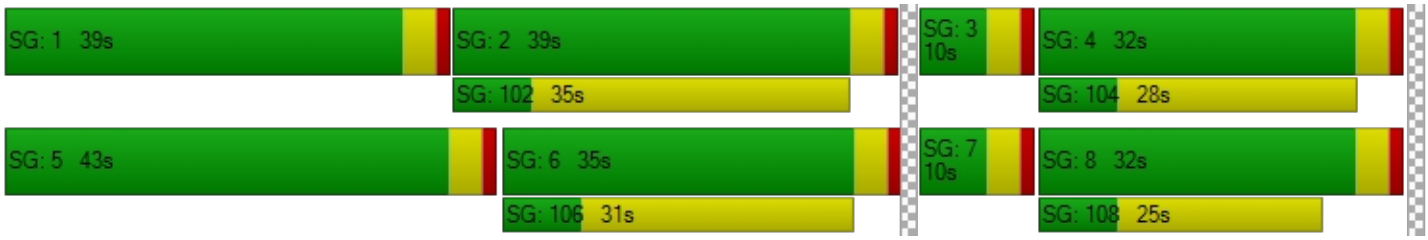
d_M, Delay for Movement [s/veh]	66.03	51.09	52.66	50.34	33.39	0.00	58.24	19.28	20.03	65.02	16.93	16.43
Movement LOS	E	D	D	D	C		E	B	C	E	B	B
d_A, Approach Delay [s/veh]	54.50			49.06			21.04			18.33		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	25.96											
Intersection LOS	C											
Intersection V/C	0.613											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2499.45	0.00	739.46	778.83
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.340	2.746	3.265	3.478
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	467	467
d_b, Bicycle Delay [s]	30.10	33.02	35.77	35.55
l_b,int, Bicycle LOS Score for Intersection	1.611	2.649	2.546	2.446
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.677

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	9	3	3	228	0	169	101	2056	3	2	722	54
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	3	3	228	0	169	101	2056	3	2	722	54
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	1	1	59	0	44	26	532	1	1	187	14
Total Analysis Volume [veh/h]	9	3	3	236	0	175	104	2126	3	2	747	56
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	3			9			5			0		
v_di, Inbound Pedestrian Volume crossing m	0			5			9			3		
v_co, Outbound Pedestrian Volume crossing	1			0			0			1		
v_ci, Inbound Pedestrian Volume crossing mi	0			1			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			1			10		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	39	0	26	41	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	22	22	22	22	7	56	56	0	49	49
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.08	0.62	0.62	0.00	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.01	0.00	0.17	0.00	0.11	0.06	0.42	0.00	0.00	0.15	0.04
s, saturation flow rate [veh/h]	1394	1715	1405	1870	1542	1781	5094	1555	1781	5094	1546
c, Capacity [veh/h]	387	419	386	457	377	135	3152	962	6	2783	844
d1, Uniform Delay [s]	27.55	25.77	33.12	0.00	28.86	40.82	11.23	6.55	44.75	10.86	9.60
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.01	1.58	0.00	0.89	8.87	1.17	0.01	29.38	0.24	0.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.01	0.61	0.00	0.46	0.77	0.67	0.00	0.33	0.27	0.07
d, Delay for Lane Group [s/veh]	27.57	25.79	34.70	0.00	29.75	49.69	12.40	6.56	74.13	11.09	9.75
Lane Group LOS	C	C	C	A	C	D	B	A	E	B	A
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.15	0.10	4.83	0.00	3.19	2.44	7.06	0.02	0.09	2.20	0.46
50th-Percentile Queue Length [ft/ln]	3.87	2.48	120.79	0.00	79.82	61.02	176.49	0.45	2.27	55.02	11.53
95th-Percentile Queue Length [veh/ln]	0.28	0.18	8.44	0.00	5.75	4.39	11.42	0.03	0.16	3.96	0.83
95th-Percentile Queue Length [ft/ln]	6.97	4.46	210.91	0.00	143.68	109.84	285.43	0.82	4.09	99.04	20.75

Movement, Approach, & Intersection Results

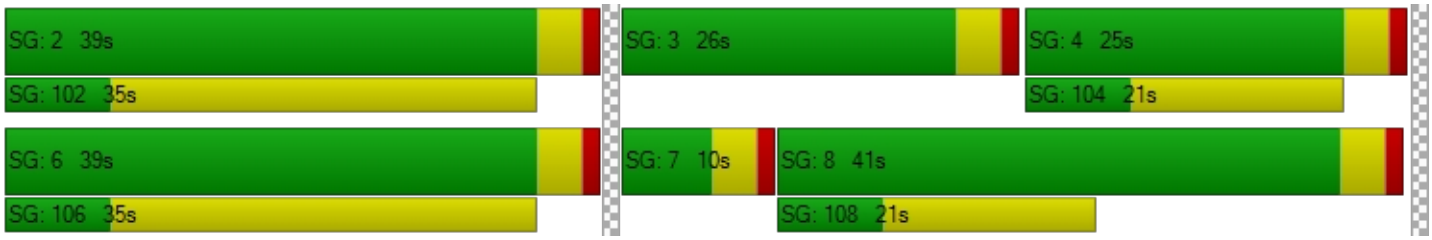
d_M, Delay for Movement [s/veh]	27.57	25.79	25.79	34.70	0.00	29.75	49.69	12.40	6.56	74.13	11.09	9.75
Movement LOS	C	C	C	C	A	C	D	B	A	E	B	A
d_A, Approach Delay [s/veh]	26.86			32.59			14.13			11.16		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	15.68											
Intersection LOS	B											
Intersection V/C	0.677											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	9321.33	8926.60	649.79	2843.62
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	1.945	2.294	3.445	3.769
Crosswalk LOS	A	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	778	778	822	467
d_b, Bicycle Delay [s]	16.81	16.81	15.61	26.58
l_b,int, Bicycle LOS Score for Intersection	1.584	2.238	2.788	2.002
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	20.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.667

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	14	18	3	163	47	126	88	2164	39	54	697	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	18	3	163	47	126	88	2164	39	54	697	58
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	5	1	44	13	34	24	580	10	14	187	16
Total Analysis Volume [veh/h]	15	19	3	175	50	135	94	2322	42	58	748	62
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			15			7			0		
v_di, Inbound Pedestrian Volume crossing m	0			7			15			0		
v_co, Outbound Pedestrian Volume crossing	0			2			0			2		
v_ci, Inbound Pedestrian Volume crossing mi	0			2			0			2		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			29			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	27	46	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	18	18	18	7	62	62	5	60	60
g / C, Green / Cycle	0.04	0.04	0.17	0.17	0.17	0.07	0.59	0.59	0.05	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.06	0.06	0.09	0.05	0.46	0.03	0.03	0.15	0.04
s, saturation flow rate [veh/h]	1781	1817	1781	1819	1498	1781	5094	1529	1781	5094	1543
c, Capacity [veh/h]	67	69	301	308	253	123	3026	908	83	2913	882
d1, Uniform Delay [s]	49.01	49.19	38.67	38.66	39.61	48.06	15.91	8.89	49.32	11.28	10.02
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.64	2.63	0.76	0.74	1.74	9.55	1.93	0.10	10.04	0.21	0.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.22	0.32	0.37	0.37	0.53	0.77	0.77	0.05	0.70	0.26	0.07
d, Delay for Lane Group [s/veh]	50.65	51.83	39.42	39.40	41.35	57.61	17.83	8.99	59.35	11.49	10.17
Lane Group LOS	D	D	D	D	D	E	B	A	E	B	B
Critical Lane Group	No	Yes	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.42	0.62	2.52	2.57	3.17	2.62	11.64	0.36	1.66	2.52	0.58
50th-Percentile Queue Length [ft/ln]	10.38	15.40	63.02	64.24	79.34	65.57	291.08	9.02	41.45	63.11	14.56
95th-Percentile Queue Length [veh/ln]	0.75	1.11	4.54	4.63	5.71	4.72	17.24	0.65	2.98	4.54	1.05
95th-Percentile Queue Length [ft/ln]	18.68	27.72	113.43	115.63	142.81	118.02	430.98	16.24	74.60	113.59	26.21

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.65	51.83	51.83	39.42	39.40	41.35	57.61	17.83	8.99	59.35	11.49	10.17
Movement LOS	D	D	D	D	D	D	E	B	A	E	B	B
d_A, Approach Delay [s/veh]	51.35			40.14			19.20			14.60		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	20.47											
Intersection LOS	C											
Intersection V/C	0.667											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1845.76	364.69	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.998	2.334	3.483	0.000
Crosswalk LOS	A	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	114	667	800	476
d_b, Bicycle Delay [s]	46.74	23.40	19.18	30.61
l_b,int, Bicycle LOS Score for Intersection	1.621	2.154	2.912	2.037
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	23.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.732

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	33	32	20	551	9	153	210	2134	9	4	619	211
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	32	20	551	9	153	210	2134	9	4	619	211
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	8	5	144	2	40	55	559	2	1	162	55
Total Analysis Volume [veh/h]	35	34	21	578	9	160	220	2237	9	4	649	221
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			5			8			0		
v_di, Inbound Pedestrian Volume crossing m	0			8			5			0		
v_co, Outbound Pedestrian Volume crossing	0			0			1			0		
v_ci, Inbound Pedestrian Volume crossing mi	1			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			4		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	11	36	0	10	35	35
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	5	5	20	20	20	14	53	53	1	40	73
g / C, Green / Cycle	0.06	0.06	0.21	0.21	0.21	0.14	0.56	0.56	0.01	0.42	0.77
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.17	0.00	0.10	0.12	0.44	0.01	0.00	0.13	0.14
s, saturation flow rate [veh/h]	1781	1752	3459	1870	1560	1781	5094	1549	1781	5094	1565
c, Capacity [veh/h]	102	100	721	390	325	256	2849	866	11	2150	1208
d1, Uniform Delay [s]	43.06	43.58	35.72	29.89	33.08	39.74	16.45	9.28	47.00	18.18	2.86
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.98	4.59	2.12	0.02	1.15	8.25	2.26	0.02	17.17	0.36	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.34	0.55	0.80	0.02	0.49	0.86	0.79	0.01	0.35	0.30	0.18
d, Delay for Lane Group [s/veh]	45.04	48.17	37.84	29.92	34.23	47.99	18.71	9.30	64.16	18.55	2.94
Lane Group LOS	D	D	D	C	C	D	B	A	E	B	A
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.85	1.39	6.14	0.16	3.14	5.25	10.71	0.07	0.14	2.92	0.60
50th-Percentile Queue Length [ft/ln]	21.23	34.74	153.59	3.93	78.62	131.15	267.76	1.85	3.61	72.90	14.94
95th-Percentile Queue Length [veh/ln]	1.53	2.50	10.21	0.28	5.66	9.00	16.08	0.13	0.26	5.25	1.08
95th-Percentile Queue Length [ft/ln]	38.22	62.54	255.21	7.07	141.52	225.05	401.94	3.33	6.51	131.22	26.89

Movement, Approach, & Intersection Results

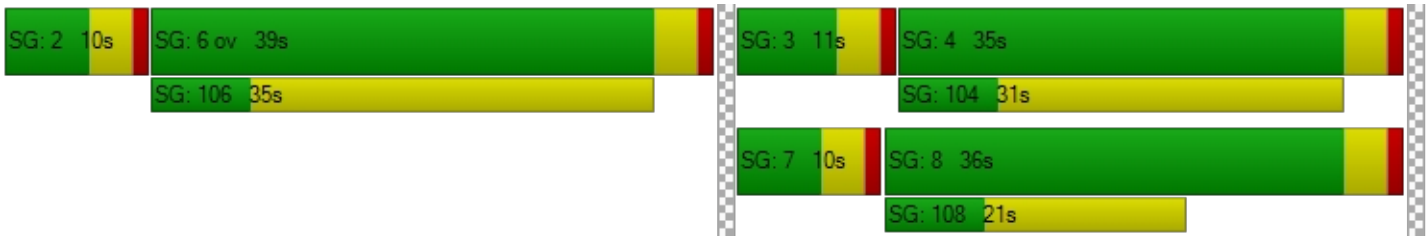
d_M, Delay for Movement [s/veh]	45.04	48.17	48.17	37.84	29.92	34.23	47.99	18.71	9.30	64.16	18.55	2.94
Movement LOS	D	D	D	D	C	C	D	B	A	E	B	A
d_A, Approach Delay [s/veh]	46.95			36.97			21.29			14.81		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	23.29											
Intersection LOS	C											
Intersection V/C	0.732											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	8684.44	0.00	674.47	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	37.14	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.973	2.699	3.467	0.000
Crosswalk LOS	A	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	126	737	674	653
d_b, Bicycle Delay [s]	41.69	18.95	20.96	21.60
l_b,int, Bicycle LOS Score for Intersection	1.708	2.792	2.916	2.040
Bicycle LOS	A	C	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	51.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.902

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	188	319	95	166	133	253	876	1959	304	75	549	202
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	188	319	95	166	133	253	876	1959	304	75	549	202
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	50	86	26	45	36	68	235	526	82	20	147	54
Total Analysis Volume [veh/h]	202	343	102	178	143	272	941	2104	327	81	590	217
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	16			0			0			8		
v_di, Inbound Pedestrian Volume crossing m	8			0			0			16		
v_co, Outbound Pedestrian Volume crossing	0			1			2			9		
v_ci, Inbound Pedestrian Volume crossing mi	2			9			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			24			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	10	10	36	61	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	26	26	26	11	11	11	51	36	59	59	8	31	31
g / C, Green / Cycle	0.22	0.22	0.22	0.09	0.09	0.09	0.43	0.30	0.49	0.49	0.07	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.13	0.16	0.15	0.07	0.07	0.07	0.11	0.32	0.49	0.25	0.05	0.14	0.16
s, saturation flow rate [veh/h]	1500	1575	1286	1500	1526	1433	2369	2912	4290	1306	1500	4290	1323
c, Capacity [veh/h]	323	339	277	140	142	134	1012	876	2108	642	100	1103	340
d1, Uniform Delay [s]	42.67	43.91	43.50	53.17	53.16	53.14	22.24	41.96	30.47	20.54	55.26	38.38	39.60
k, delay calibration	0.11	0.12	0.11	0.11	0.11	0.11	0.11	0.12	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.98	3.51	3.21	8.79	8.56	8.92	0.14	39.47	19.21	2.88	14.35	1.86	8.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.74	0.70	0.77	0.77	0.77	0.27	1.07	1.00	0.51	0.81	0.53	0.64
d, Delay for Lane Group [s/veh]	44.65	47.42	46.71	61.96	61.72	62.06	22.38	81.43	49.68	23.42	69.62	40.24	48.42
Lane Group LOS	D	D	D	E	E	E	C	F	D	C	E	D	D
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.61	7.26	5.58	3.48	3.52	3.31	2.44	17.03	21.87	6.21	2.76	5.02	6.33
50th-Percentile Queue Length [ft/ln]	140.23	181.60	139.40	86.99	88.09	82.65	61.06	425.76	546.81	155.25	68.92	125.48	158.31
95th-Percentile Queue Length [veh/ln]	9.49	11.68	9.45	6.26	6.34	5.95	4.40	24.87	29.54	10.30	4.96	8.69	10.46
95th-Percentile Queue Length [ft/ln]	237.33	292.10	236.22	156.5	158.5	148.7	109.9	621.79	738.56	257.42	124.06	217.34	261.48

Movement, Approach, & Intersection Results

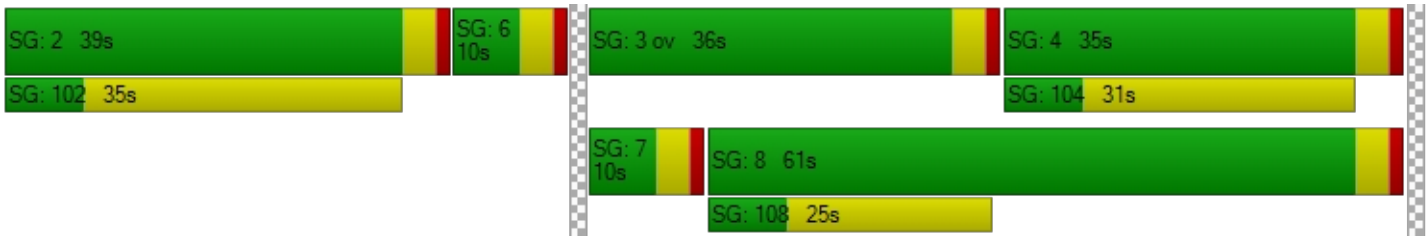
d_M, Delay for Movement [s/veh]	44.65	47.23	46.71	61.86	61.96	22.38	81.43	49.68	23.42	69.62	40.24	48.42
Movement LOS	D	D	D	E	E	C	F	D	C	E	D	D
d_A, Approach Delay [s/veh]	46.34			43.78			55.99			44.92		
Approach LOS	D			D			E			D		
d_I, Intersection Delay [s/veh]	51.75											
Intersection LOS	D											
Intersection V/C	0.902											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1320.29	558.62	0.00	299.31
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.547	2.997	0.000	3.337
Crosswalk LOS	B	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	100	950	517
d_b, Bicycle Delay [s]	30.10	54.15	16.74	33.00
l_b,int, Bicycle LOS Score for Intersection	2.093	2.049	3.414	1.926
Bicycle LOS	B	B	C	A

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	22.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.911

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			25.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	0	0	0	433	0	214	0	1952	183	0	823	384
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	433	0	214	0	1952	183	0	823	384
Peak Hour Factor	1.0000	1.0000	1.0000	0.9570	1.0000	0.9570	1.0000	0.9570	0.9570	1.0000	0.9570	0.9570
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	113	0	56	0	510	48	0	215	100
Total Analysis Volume [veh/h]	0	0	0	452	0	224	0	2040	191	0	860	401
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			1			0			1	
v_ci, Inbound Pedestrian Volume crossing mi		0			1			0			1	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			2			24			1	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	28	0	0	0	92	0	0	92	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		22	22	90	90
g / C, Green / Cycle		0.19	0.19	0.75	0.75
(v / s)_i Volume / Saturation Flow Rate		0.16	0.17	0.68	0.20
s, saturation flow rate [veh/h]		2912	1319	2998	4290
c, Capacity [veh/h]		543	246	2239	3203
d1, Uniform Delay [s]		46.99	47.68	12.04	4.81
k, delay calibration		0.11	0.22	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		3.39	20.98	7.01	0.21
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.83	0.91	0.91	0.27
d, Delay for Lane Group [s/veh]		50.38	68.66	19.05	5.02
Lane Group LOS		D	E	B	A
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		6.80	8.02	17.67	1.80
50th-Percentile Queue Length [ft/ln]		170.10	200.49	441.87	45.05
95th-Percentile Queue Length [veh/ln]		11.08	12.66	24.57	3.24
95th-Percentile Queue Length [ft/ln]		277.04	316.59	614.25	81.09

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	50.38	0.00	68.66	0.00	19.05	0.00	0.00	5.02	0.00
Movement LOS				D		E		B			A	
d_A, Approach Delay [s/veh]	0.00			56.44			19.05			5.02		
Approach LOS	A			E			B			A		
d_I, Intersection Delay [s/veh]	22.74											
Intersection LOS	C											
Intersection V/C	0.911											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	3744.14	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.282	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1467	1467
d_b, Bicycle Delay [s]	60.00	60.00	4.32	4.27
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	3.243	2.033
Bicycle LOS	D	D	C	B

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	22.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.449

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	48	49	72	1094	31	1492	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	49	72	1094	31	1492	85
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	13	19	292	8	399	23
Total Analysis Volume [veh/h]	51	52	77	1169	33	1594	91
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	218		290		318		
v_di, Inbound Pedestrian Volume crossing m	290		218		0		
v_co, Outbound Pedestrian Volume crossing	101		0		67		
v_ci, Inbound Pedestrian Volume crossing mi	67		318		101		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	1		0		5		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	14	35	10	31	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	5	41	3	39	39
g / C, Green / Cycle	0.06	0.06	0.06	0.46	0.04	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.03	0.03	0.04	0.23	0.02	0.31	0.06
s, saturation flow rate [veh/h]	1781	1565	1781	5094	1781	5094	1551
c, Capacity [veh/h]	110	96	103	2316	68	2215	674
d1, Uniform Delay [s]	40.79	40.96	41.75	17.36	42.44	20.92	15.24
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.03	4.61	10.29	0.79	5.38	2.05	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.54	0.75	0.50	0.49	0.72	0.13
d, Delay for Lane Group [s/veh]	43.82	45.57	52.05	18.15	47.82	22.97	15.66
Lane Group LOS	D	D	D	B	D	C	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.18	1.24	1.90	5.25	0.79	8.57	1.09
50th-Percentile Queue Length [ft/ln]	29.62	31.04	47.60	131.22	19.75	214.22	27.37
95th-Percentile Queue Length [veh/ln]	2.13	2.24	3.43	9.01	1.42	13.37	1.97
95th-Percentile Queue Length [ft/ln]	53.31	55.88	85.68	225.15	35.55	334.23	49.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.82	45.57	52.05	18.15	47.82	22.97	15.66
Movement LOS	D	D	D	B	D	C	B
d_A, Approach Delay [s/veh]	44.70		20.25		23.06		
Approach LOS	D		C		C		
d_I, Intersection Delay [s/veh]	22.64						
Intersection LOS	C						
Intersection V/C	0.449						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	41.49	19.12	32.68
d_p, Pedestrian Delay [s]	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	2.013	3.198	3.262
Crosswalk LOS	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	45.00	45.00	45.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.818	5.077
Bicycle LOS	D	E	F

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	28.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.583

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	35	23	35	96	22	84	148	968	5	24	1471	128
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	23	35	96	22	84	148	968	5	24	1471	128
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	6	9	25	6	22	38	250	1	6	380	33
Total Analysis Volume [veh/h]	36	24	36	99	23	87	153	1001	5	25	1521	132
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			74			51			0		
v_di, Inbound Pedestrian Volume crossing m	0			51			74			0		
v_co, Outbound Pedestrian Volume crossing	8			125			8			139		
v_ci, Inbound Pedestrian Volume crossing mi	8			139			8			125		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			5			1			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	28	50	0	10	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	27	27	27	11	53	53	3	45	45
g / C, Green / Cycle	0.05	0.05	0.05	0.26	0.26	0.26	0.11	0.51	0.51	0.03	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.03	0.03	0.04	0.09	0.19	0.19	0.01	0.31	0.35
s, saturation flow rate [veh/h]	1781	1851	1589	1781	1813	2371	1781	3560	1864	1781	3560	1588
c, Capacity [veh/h]	96	99	85	461	469	613	188	1799	942	53	1529	682
d1, Uniform Delay [s]	47.81	47.79	48.10	29.87	29.86	29.77	45.94	15.78	15.78	50.10	24.71	26.24
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.83	1.70	3.28	0.13	0.12	0.10	8.20	0.58	1.11	6.23	2.93	10.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.30	0.42	0.13	0.13	0.14	0.81	0.37	0.37	0.47	0.72	0.81
d, Delay for Lane Group [s/veh]	49.64	49.49	51.38	29.99	29.98	29.87	54.14	16.36	16.89	56.33	27.64	36.45
Lane Group LOS	D	D	D	C	C	C	D	B	B	E	C	D
Critical Lane Group	No	No	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.80	0.81	1.00	1.18	1.19	0.84	4.20	4.54	4.90	0.72	10.99	13.04
50th-Percentile Queue Length [ft/ln]	20.11	20.32	24.91	29.47	29.82	21.00	105.02	113.54	122.44	17.99	274.74	326.06
95th-Percentile Queue Length [veh/ln]	1.45	1.46	1.79	2.12	2.15	1.51	7.56	8.04	8.53	1.30	16.43	18.97
95th-Percentile Queue Length [ft/ln]	36.19	36.58	44.84	53.04	53.67	37.81	189.04	200.92	213.17	32.38	410.66	474.13

Movement, Approach, & Intersection Results

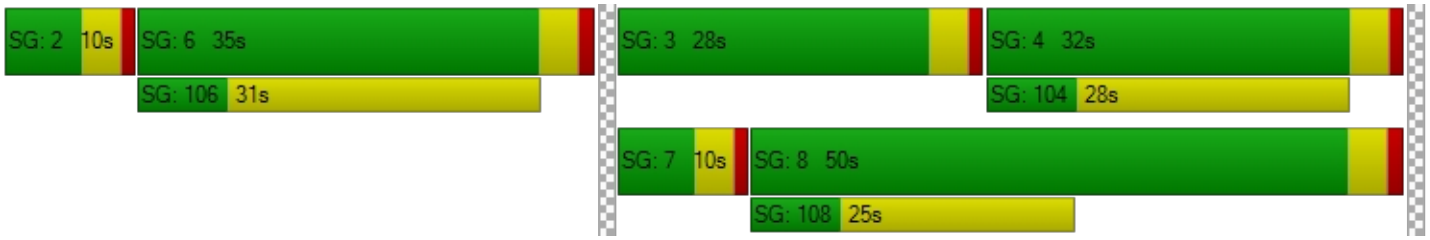
d_M, Delay for Movement [s/veh]	49.61	49.49	51.38	29.99	29.98	29.87	54.14	16.54	16.89	56.33	30.09	36.45
Movement LOS	D	D	D	C	C	C	D	B	B	E	C	D
d_A, Approach Delay [s/veh]	50.24			29.94			21.50			30.98		
Approach LOS	D			C			C			C		
d_I, Intersection Delay [s/veh]	28.00											
Intersection LOS	C											
Intersection V/C	0.583											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	527.46	24.71	65.26	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.169	2.425	3.187	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	114	590	876	533
d_b, Bicycle Delay [s]	46.67	26.14	16.58	28.35
l_b,int, Bicycle LOS Score for Intersection	1.718	1.904	2.197	2.483
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	17.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.638

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	15	5	26	45	2	74	77	1035	9	15	1564	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	5	26	45	2	74	77	1035	9	15	1564	43
Peak Hour Factor	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410	0.9410
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	7	12	1	20	20	275	2	4	416	11
Total Analysis Volume [veh/h]	16	5	28	48	2	79	82	1100	10	16	1662	46
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	2			36			66			25		
v_di, Inbound Pedestrian Volume crossing m	25			66			36			2		
v_co, Outbound Pedestrian Volume crossing	15			11			15			38		
v_ci, Inbound Pedestrian Volume crossing mi	15			38			15			11		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	7			4			3			7		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	24	70	0	10	56	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	24	24	24	7	76	76	2	72	72
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.06	0.66	0.66	0.02	0.63	0.63
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.02	0.06	0.05	0.30	0.30	0.01	0.47	0.03
s, saturation flow rate [veh/h]	1042	1364	1299	1144	1338	1781	1870	1862	1781	3560	1530
c, Capacity [veh/h]	274	286	295	301	281	108	1242	1237	38	2226	956
d1, Uniform Delay [s]	38.28	36.64	39.45	39.08	37.76	53.19	9.22	9.22	55.57	15.16	8.32
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.12	0.15	0.11	0.13	0.54	10.40	1.17	1.18	7.21	2.34	0.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.10	0.08	0.09	0.28	0.76	0.45	0.45	0.42	0.75	0.05
d, Delay for Lane Group [s/veh]	38.40	36.79	39.56	39.21	38.31	63.59	10.39	10.40	62.78	17.50	8.42
Lane Group LOS	D	D	D	D	D	E	B	B	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.52	0.66	0.55	0.67	1.92	2.59	6.06	6.04	0.52	13.79	0.42
50th-Percentile Queue Length [ft/ln]	13.08	16.43	13.81	16.69	47.99	64.67	151.39	151.05	13.09	344.77	10.56
95th-Percentile Queue Length [veh/ln]	0.94	1.18	0.99	1.20	3.46	4.66	10.09	10.07	0.94	19.88	0.76
95th-Percentile Queue Length [ft/ln]	23.54	29.58	24.86	30.03	86.38	116.40	252.28	251.83	23.56	497.03	19.01

Movement, Approach, & Intersection Results

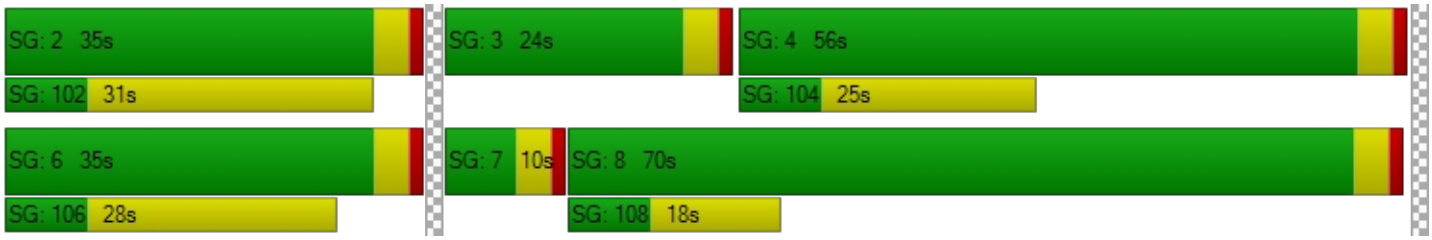
d_M, Delay for Movement [s/veh]	38.40	38.40	36.79	39.37	39.21	38.31	63.59	10.39	10.40	62.78	17.50	8.42
Movement LOS	D	D	D	D	D	D	E	B	B	E	B	A
d_A, Approach Delay [s/veh]	37.48			38.72			14.05			17.67		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	17.47											
Intersection LOS	B											
Intersection V/C	0.638											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	235.18	149.22	63.65	267.92
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersection	1.973	2.354	3.197	3.243
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	539	539	1148	904
d_b, Bicycle Delay [s]	30.79	30.74	10.45	17.32
l_b,int, Bicycle LOS Score for Intersection	1.600	1.772	2.543	2.982
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	26.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.720

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	13	38	18	294	30	193	166	959	11	15	1386	717
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	38	18	294	30	193	166	959	11	15	1386	717
Peak Hour Factor	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	10	5	76	8	50	43	247	3	4	358	185
Total Analysis Volume [veh/h]	13	39	19	303	31	199	171	990	11	15	1430	740
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	10			5			5			17		
v_di, Inbound Pedestrian Volume crossing m	17			5			5			10		
v_co, Outbound Pedestrian Volume crossing	2			4			1			1		
v_ci, Inbound Pedestrian Volume crossing mi	1			1			2			4		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			1			6		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	42	0	18	39	0	10	50	0	10	50	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	16	16	12	27	8	73	73	2	67	67
g / C, Green / Cycle	0.02	0.13	0.13	0.10	0.22	0.07	0.61	0.61	0.02	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.09	0.02	0.05	0.18	0.18	0.01	0.40	0.47
s, saturation flow rate [veh/h]	1781	3560	1470	3459	1870	3459	3560	1858	1781	3560	1562
c, Capacity [veh/h]	32	481	199	360	413	236	2164	1129	35	1992	874
d1, Uniform Delay [s]	58.28	45.38	45.43	52.79	37.02	54.81	11.32	11.33	58.14	19.47	21.80
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.96	0.07	0.21	5.36	0.08	4.22	0.36	0.70	7.93	2.26	9.94
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.40	0.08	0.10	0.84	0.07	0.73	0.30	0.30	0.43	0.72	0.85
d, Delay for Lane Group [s/veh]	66.23	45.45	45.63	58.15	37.09	59.03	11.69	12.02	66.07	21.73	31.74
Lane Group LOS	E	D	D	E	D	E	B	B	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.47	0.52	0.51	4.60	0.71	2.57	3.75	4.03	0.51	13.36	17.17
50th-Percentile Queue Length [ft/ln]	11.63	13.03	12.87	114.93	17.69	64.25	93.86	100.69	12.78	333.98	429.22
95th-Percentile Queue Length [veh/ln]	0.84	0.94	0.93	8.11	1.27	4.63	6.76	7.25	0.92	19.35	23.96
95th-Percentile Queue Length [ft/ln]	20.93	23.45	23.17	202.84	31.85	115.65	168.94	181.24	23.00	483.83	599.10

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	66.23	45.45	45.63	58.15	37.09	0.00	59.03	11.80	12.02	66.07	21.73	31.74
Movement LOS	E	D	D	E	D		E	B	B	E	C	C
d_A, Approach Delay [s/veh]	49.31			56.19			18.69			25.42		
Approach LOS	D			E			B			C		
d_I, Intersection Delay [s/veh]	26.51											
Intersection LOS	C											
Intersection V/C	0.720											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2536.13	0.00	814.07	292.42
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.334	2.814	3.275	3.501
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	583	767	767
d_b, Bicycle Delay [s]	28.06	30.19	22.83	22.89
l_b,int, Bicycle LOS Score for Intersection	1.618	2.111	2.204	3.362
Bicycle LOS	A	B	B	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	12.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.662

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	7	9	8	85	5	191	116	1138	7	4	1875	220
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	9	8	85	5	191	116	1138	7	4	1875	220
Peak Hour Factor	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	2	2	22	1	49	30	294	2	1	484	57
Total Analysis Volume [veh/h]	7	9	8	88	5	197	120	1174	7	4	1935	227
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	1			3			1			1		
v_di, Inbound Pedestrian Volume crossing m	1			1			3			1		
v_co, Outbound Pedestrian Volume crossing	0			0			1			2		
v_ci, Inbound Pedestrian Volume crossing mi	1			2			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			2			1			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	41	0	0	41	0	11	39	0	10	38	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	8	63	63	1	56	56
g / C, Green / Cycle	0.16	0.16	0.16	0.16	0.16	0.09	0.70	0.70	0.01	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.06	0.00	0.13	0.07	0.23	0.00	0.00	0.38	0.15
s, saturation flow rate [veh/h]	1401	1710	1391	1870	1555	1781	5094	1556	1781	5094	1552
c, Capacity [veh/h]	277	276	268	302	251	153	3557	1086	12	3154	961
d1, Uniform Delay [s]	33.38	31.95	35.94	31.72	36.11	40.31	5.32	4.11	44.49	10.53	7.62
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.09	0.71	0.02	5.34	8.45	0.25	0.01	15.00	0.90	0.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.06	0.33	0.02	0.78	0.78	0.33	0.01	0.33	0.61	0.24
d, Delay for Lane Group [s/veh]	33.41	32.05	36.65	31.74	41.46	48.76	5.57	4.12	59.49	11.43	8.19
Lane Group LOS	C	C	D	C	D	D	A	A	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.14	0.32	1.79	0.09	4.39	2.78	1.86	0.03	0.13	5.98	1.61
50th-Percentile Queue Length [ft/ln]	3.38	8.04	44.82	2.28	109.73	69.55	46.61	0.70	3.35	149.40	40.22
95th-Percentile Queue Length [veh/ln]	0.24	0.58	3.23	0.16	7.83	5.01	3.36	0.05	0.24	9.98	2.90
95th-Percentile Queue Length [ft/ln]	6.09	14.47	80.67	4.11	195.63	125.20	83.91	1.25	6.03	249.62	72.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.41	32.05	32.05	36.65	31.74	41.46	48.76	5.57	4.12	59.49	11.43	8.19
Movement LOS	C	C	C	D	C	D	D	A	A	E	B	A
d_A, Approach Delay [s/veh]	32.44			39.83			9.55			11.18		
Approach LOS	C			D			A			B		
d_I, Intersection Delay [s/veh]	12.95											
Intersection LOS	B											
Intersection V/C	0.662											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	9226.46	2845.30	2224.30	5013.96
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	1.951	2.314	3.504	3.618
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	822	822	778	756
d_b, Bicycle Delay [s]	15.62	15.62	16.81	17.45
l_b,int, Bicycle LOS Score for Intersection	1.599	2.038	2.275	2.751
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	18.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.682

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	5	20	14	82	21	88	124	1030	28	39	2075	214
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	20	14	82	21	88	124	1030	28	39	2075	214
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	5	4	22	6	23	33	274	7	10	552	57
Total Analysis Volume [veh/h]	5	21	15	87	22	94	132	1096	30	41	2207	228
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			6			9			0		
v_di, Inbound Pedestrian Volume crossing m	0			9			6			0		
v_co, Outbound Pedestrian Volume crossing	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing mi	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			8			9			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	12	31	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	12	12	12	8	54	54	4	49	49
g / C, Green / Cycle	0.04	0.04	0.14	0.14	0.14	0.09	0.60	0.60	0.04	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.03	0.03	0.06	0.07	0.22	0.02	0.02	0.43	0.15
s, saturation flow rate [veh/h]	1781	1720	1781	1816	1499	1781	5094	1549	1781	5094	1546
c, Capacity [veh/h]	76	74	243	247	204	167	3057	929	76	2797	849
d1, Uniform Delay [s]	41.33	42.10	34.62	34.62	35.68	39.91	9.17	7.34	42.19	16.14	10.68
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.36	4.91	0.46	0.45	1.61	8.05	0.33	0.06	5.72	2.35	0.78
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.49	0.22	0.22	0.46	0.79	0.36	0.03	0.54	0.79	0.27
d, Delay for Lane Group [s/veh]	41.69	47.01	35.08	35.06	37.29	47.95	9.50	7.40	47.91	18.49	11.46
Lane Group LOS	D	D	D	D	D	D	A	A	D	B	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.11	0.88	1.04	1.05	1.89	3.03	2.86	0.20	0.96	10.00	2.11
50th-Percentile Queue Length [ft/ln]	2.86	22.07	25.97	26.29	47.36	75.75	71.62	4.97	23.93	249.88	52.70
95th-Percentile Queue Length [veh/ln]	0.21	1.59	1.87	1.89	3.41	5.45	5.16	0.36	1.72	15.18	3.79
95th-Percentile Queue Length [ft/ln]	5.14	39.73	46.74	47.31	85.25	136.35	128.92	8.94	43.07	379.51	94.86

Movement, Approach, & Intersection Results

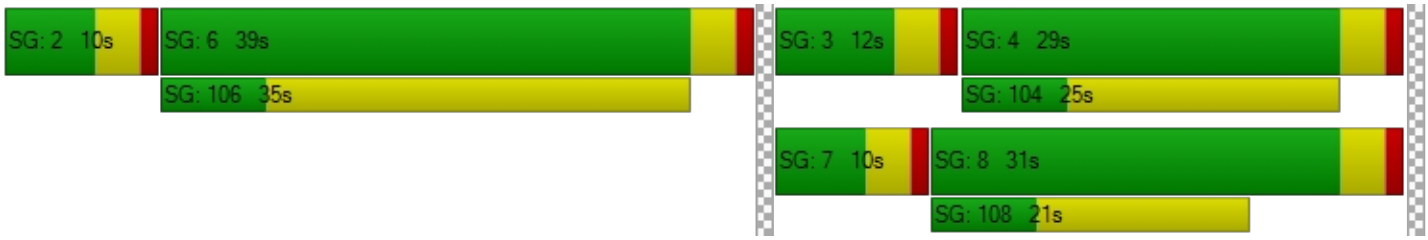
d_M, Delay for Movement [s/veh]	41.69	47.01	47.01	35.08	35.06	37.29	47.95	9.50	7.40	47.91	18.49	11.46
Movement LOS	D	D	D	D	D	D	D	A	A	D	B	B
d_A, Approach Delay [s/veh]	46.36			36.10			13.48			18.33		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	17.99											
Intersection LOS	B											
Intersection V/C	0.682											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	2836.84	669.04	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.976	2.344	3.521	0.000
Crosswalk LOS	A	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	133	778	600	556
d_b, Bicycle Delay [s]	39.26	16.87	22.15	23.57
l_b,int, Bicycle LOS Score for Intersection	1.627	1.895	2.252	2.921
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	28.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.842

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	37	41	19	352	22	211	191	935	7	27	2102	842
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	41	19	352	22	211	191	935	7	27	2102	842
Peak Hour Factor	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	11	5	95	6	57	51	252	2	7	566	227
Total Analysis Volume [veh/h]	40	44	20	379	24	227	206	1008	8	29	2265	907
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			4			9			0		
v_di, Inbound Pedestrian Volume crossing m	0			9			4			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	10	61	0	10	61	61
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	23	23	23	16	71	71	4	59	96
g / C, Green / Cycle	0.05	0.05	0.19	0.19	0.19	0.13	0.59	0.59	0.03	0.49	0.80
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.11	0.01	0.15	0.12	0.20	0.01	0.02	0.44	0.58
s, saturation flow rate [veh/h]	1781	1772	3459	1870	1558	1781	5094	1551	1781	5094	1564
c, Capacity [veh/h]	89	89	671	363	302	232	3014	918	55	2509	1256
d1, Uniform Delay [s]	55.39	56.18	43.78	39.49	45.48	51.33	12.47	10.05	57.27	27.82	5.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.51	10.53	0.75	0.08	3.76	10.97	0.30	0.02	7.54	5.88	3.62
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.72	0.56	0.07	0.75	0.89	0.33	0.01	0.53	0.90	0.72
d, Delay for Lane Group [s/veh]	58.91	66.70	44.53	39.56	49.24	62.30	12.77	10.07	64.81	33.70	9.04
Lane Group LOS	E	E	D	D	D	E	B	B	E	C	A
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.27	2.19	4.98	0.57	6.43	6.52	4.10	0.08	0.96	19.23	7.14
50th-Percentile Queue Length [ft/ln]	31.85	54.63	124.52	14.22	160.67	163.00	102.50	2.04	23.90	480.65	178.59
95th-Percentile Queue Length [veh/ln]	2.29	3.93	8.64	1.02	10.58	10.71	7.38	0.15	1.72	26.42	11.53
95th-Percentile Queue Length [ft/ln]	57.32	98.33	216.02	25.59	264.61	267.70	184.51	3.67	43.02	660.42	288.17

Movement, Approach, & Intersection Results

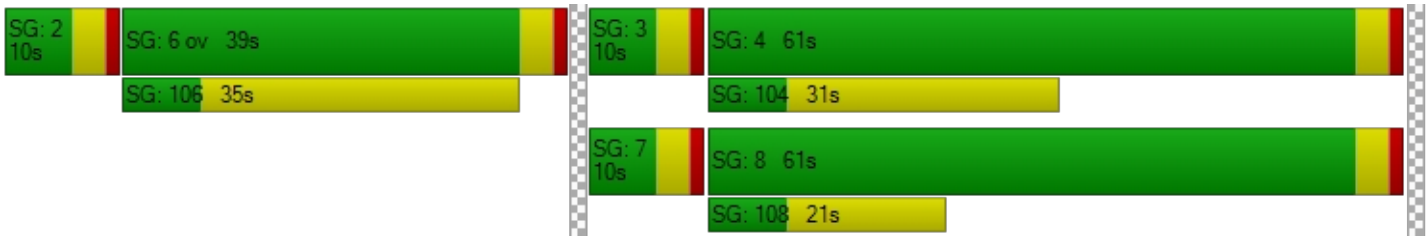
d_M, Delay for Movement [s/veh]	58.91	66.70	66.70	44.53	39.56	49.24	62.30	12.77	10.07	64.81	33.70	9.04
Movement LOS	E	E	E	D	D	D	E	B	B	E	C	A
d_A, Approach Delay [s/veh]	63.71			46.04			21.10			26.99		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	28.66											
Intersection LOS	C											
Intersection V/C	0.842											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	453.17	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.999	2.894	3.578	0.000
Crosswalk LOS	A	C	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	950
d_b, Bicycle Delay [s]	54.15	30.10	16.60	16.56
l_b,int, Bicycle LOS Score for Intersection	1.731	2.599	2.232	3.320
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	105.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.915

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	308	202	82	155	195	806	255	852	183	148	2294	106
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	308	202	82	155	195	806	255	852	183	148	2294	106
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	83	54	22	42	52	217	69	229	49	40	617	28
Total Analysis Volume [veh/h]	331	217	88	167	210	867	274	916	197	159	2467	114
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	29			0			0			25		
v_di, Inbound Pedestrian Volume crossing m	25			0			0			29		
v_co, Outbound Pedestrian Volume crossing	3			10			1			15		
v_ci, Inbound Pedestrian Volume crossing mi	1			15			3			10		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			1			10			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	23	23	11	46	0	12	47	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	19	19	19	36	13	41	41	15	43	43
g / C, Green / Cycle	0.24	0.24	0.24	0.16	0.16	0.16	0.30	0.11	0.34	0.34	0.12	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.15	0.15	0.15	0.08	0.08	0.08	0.37	0.09	0.21	0.15	0.11	0.44	0.45
s, saturation flow rate [veh/h]	1500	1536	1273	1500	1551	1433	2351	2912	4290	1309	1500	4290	1523
c, Capacity [veh/h]	362	371	307	241	249	230	702	305	1466	448	184	1544	548
d1, Uniform Delay [s]	40.44	40.42	40.75	46.16	46.15	46.14	41.93	53.08	33.04	30.47	51.63	38.40	38.40
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.26	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.63	1.58	2.14	1.77	1.70	1.83	112.3	9.33	2.02	3.12	11.23	109.62	123.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.60	0.60	0.63	0.52	0.52	0.52	1.24	0.90	0.62	0.44	0.86	1.23	1.24
d, Delay for Lane Group [s/veh]	42.06	42.00	42.90	47.92	47.85	47.98	154.2	62.41	35.06	33.60	62.86	148.02	161.90
Lane Group LOS	D	D	D	D	D	D	F	E	D	C	E	F	F
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.90	6.02	5.31	3.52	3.63	3.35	20.94	4.33	7.31	4.58	5.14	29.98	34.05
50th-Percentile Queue Length [ft/ln]	147.47	150.44	132.83	88.00	90.63	83.87	523.4	108.26	182.87	114.44	128.50	749.42	851.28
95th-Percentile Queue Length [veh/ln]	9.88	10.04	9.09	6.34	6.53	6.04	32.01	7.74	11.75	8.09	8.86	44.29	49.91
95th-Percentile Queue Length [ft/ln]	247.05	251.02	227.34	158.4	163.1	150.9	800.2	193.58	293.76	202.16	221.46	1107.34	1247.71

Movement, Approach, & Intersection Results

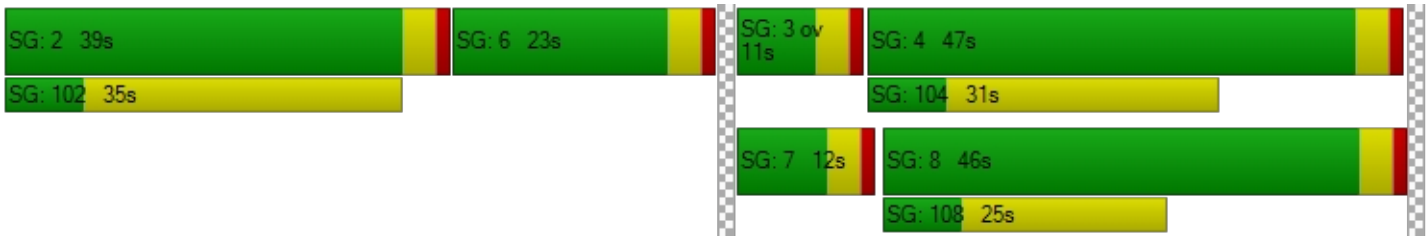
d_M, Delay for Movement [s/veh]	42.04	42.44	42.90	47.92	47.92	154.29	62.41	35.06	33.60	62.86	151.21	161.90
Movement LOS	D	D	D	D	D	F	E	D	C	E	F	F
d_A, Approach Delay [s/veh]	42.30			122.05			40.26			146.53		
Approach LOS	D			F			D			F		
d_I, Intersection Delay [s/veh]	105.88											
Intersection LOS	F											
Intersection V/C	0.915											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1170.73	271.41	0.00	135.23
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.548	2.951	0.000	3.454
Crosswalk LOS	B	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	317	700	717
d_b, Bicycle Delay [s]	30.12	42.53	25.48	24.70
l_b,int, Bicycle LOS Score for Intersection	2.084	2.586	2.322	2.690
Bicycle LOS	B	B	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	24.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.916

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			25.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	0	0	0	365	0	377	0	1124	126	0	2244	615
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	365	0	377	0	1124	126	0	2244	615
Peak Hour Factor	1.0000	1.0000	1.0000	0.9600	1.0000	0.9600	1.0000	0.9600	0.9600	1.0000	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	95	0	98	0	293	33	0	584	160
Total Analysis Volume [veh/h]	0	0	0	380	0	393	0	1171	131	0	2338	641
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			6	
v_ci, Inbound Pedestrian Volume crossing mi		0			6			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			2			16			6	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	51	0	0	0	49	0	0	49	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		100	100	100	100
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		32	32	60	60
g / C, Green / Cycle		0.32	0.32	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate		0.13	0.30	0.39	0.55
s, saturation flow rate [veh/h]		2912	1321	2998	4290
c, Capacity [veh/h]		947	429	1784	2552
d1, Uniform Delay [s]		26.20	32.25	13.46	18.03
k, delay calibration		0.11	0.19	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.28	13.02	1.90	6.56
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.40	0.92	0.66	0.92
d, Delay for Lane Group [s/veh]		26.47	45.27	15.36	24.59
Lane Group LOS		C	D	B	C
Critical Lane Group		No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		3.56	10.52	7.83	14.68
50th-Percentile Queue Length [ft/ln]		88.93	262.94	195.84	366.91
95th-Percentile Queue Length [veh/ln]		6.40	15.84	12.42	20.96
95th-Percentile Queue Length [ft/ln]		160.07	395.90	310.60	523.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	26.47	0.00	45.27	0.00	15.36	0.00	0.00	24.59	0.00
Movement LOS				C		D		B			C	
d_A, Approach Delay [s/veh]	0.00			36.03			15.36			24.59		
Approach LOS	A			D			B			C		
d_I, Intersection Delay [s/veh]	24.13											
Intersection LOS	C											
Intersection V/C	0.916											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1494.84	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	39.61	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.293	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	900	900
d_b, Bicycle Delay [s]	50.00	50.00	15.25	15.17
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	2.526	2.846
Bicycle LOS	D	D	B	C

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX A-XI

EXISTING PLUS PROJECT ALTERNATIVE WITH MITIGATION TRAFFIC CONDITIONS

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APPENDIX A-XII

YEAR 2026 CUMULATIVE PLUS PROJECT ALTERNATIVE TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	17.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.484

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	41	50	42	1989	4	1029	28
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	50	42	1989	4	1029	28
Peak Hour Factor	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	13	11	507	1	263	7
Total Analysis Volume [veh/h]	42	51	43	2030	4	1050	29
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	45		50		62		
v_di, Inbound Pedestrian Volume crossing m	50		45		0		
v_co, Outbound Pedestrian Volume crossing	12		0		8		
v_ci, Inbound Pedestrian Volume crossing mi	8		62		12		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	4		5		21		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	27	60	10	43	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	5	69	1	65	65
g / C, Green / Cycle	0.05	0.05	0.04	0.60	0.01	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.02	0.40	0.00	0.21	0.02
s, saturation flow rate [veh/h]	1781	1542	1781	5094	1781	5094	1536
c, Capacity [veh/h]	88	76	71	3036	11	2867	864
d1, Uniform Delay [s]	53.20	53.67	54.35	15.60	56.89	13.84	11.19
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.95	9.63	8.23	1.19	17.17	0.36	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.67	0.61	0.67	0.35	0.37	0.03
d, Delay for Lane Group [s/veh]	57.15	63.30	62.58	16.79	74.06	14.20	11.27
Lane Group LOS	E	E	E	B	E	B	B
Critical Lane Group	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.29	1.66	1.36	10.83	0.17	4.68	0.32
50th-Percentile Queue Length [ft/ln]	32.21	41.60	33.91	270.86	4.19	116.88	8.10
95th-Percentile Queue Length [veh/ln]	2.32	3.00	2.44	16.23	0.30	8.22	0.58
95th-Percentile Queue Length [ft/ln]	57.98	74.88	61.04	405.82	7.54	205.53	14.59

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.15	63.30	62.58	16.79	74.06	14.20	11.27
Movement LOS	E	E	E	B	E	B	B
d_A, Approach Delay [s/veh]	60.52		17.74		14.35		
Approach LOS	E		B		B		
d_I, Intersection Delay [s/veh]	17.83						
Intersection LOS	B						
Intersection V/C	0.484						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	331.29	82.11	137.10
d_p, Pedestrian Delay [s]	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersection	1.997	3.269	3.314
Crosswalk LOS	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	57.50	57.50	57.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.273	4.728
Bicycle LOS	D	F	E

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	17.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.554

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	16	21	24	80	34	141	121	1928	4	27	894	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	21	24	80	34	141	121	1928	4	27	894	58
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	5	6	21	9	36	31	498	1	7	231	15
Total Analysis Volume [veh/h]	17	22	25	83	35	146	125	1994	4	28	925	60
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			15			14			0		
v_di, Inbound Pedestrian Volume crossing m	0			14			15			0		
v_co, Outbound Pedestrian Volume crossing	5			19			4			28		
v_ci, Inbound Pedestrian Volume crossing mi	4			28			5			19		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			4			11			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	13	35	0	10	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	14	14	14	8	52	52	3	47	47
g / C, Green / Cycle	0.05	0.05	0.05	0.16	0.16	0.16	0.09	0.58	0.58	0.03	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.03	0.03	0.06	0.07	0.37	0.37	0.02	0.18	0.19
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1832	2615	1781	3560	1868	1781	3560	1785
c, Capacity [veh/h]	95	100	85	284	292	417	159	2049	1075	60	1852	928
d1, Uniform Delay [s]	40.72	40.81	40.97	32.86	32.86	33.53	40.14	12.83	12.83	42.68	12.69	12.74
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.89	1.10	1.91	0.35	0.34	0.50	8.28	1.54	2.92	5.48	0.53	1.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.18	0.22	0.30	0.21	0.20	0.35	0.79	0.64	0.64	0.46	0.35	0.36
d, Delay for Lane Group [s/veh]	41.61	41.91	42.88	33.22	33.20	34.03	48.42	14.37	15.75	48.16	13.21	13.82
Lane Group LOS	D	D	D	C	C	C	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.38	0.50	0.58	1.11	1.13	1.41	2.95	7.72	8.52	0.68	3.50	3.72
50th-Percentile Queue Length [ft/ln]	9.60	12.46	14.46	27.71	28.32	35.21	73.68	193.10	213.00	16.94	87.38	93.07
95th-Percentile Queue Length [veh/ln]	0.69	0.90	1.04	2.00	2.04	2.54	5.30	12.28	13.31	1.22	6.29	6.70
95th-Percentile Queue Length [ft/ln]	17.29	22.42	26.04	49.88	50.97	63.38	132.62	307.04	332.67	30.49	157.28	167.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.61	41.91	42.88	33.21	33.20	34.03	48.42	14.84	15.75	48.16	13.39	13.82
Movement LOS	D	D	D	C	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	42.21			33.66			16.82			14.38		
Approach LOS	D			C			B			B		
d_I, Intersection Delay [s/veh]	17.86											
Intersection LOS	B											
Intersection V/C	0.554											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1099.75	199.40	314.62	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.157	2.407	3.264	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	133	689	689	622
d_b, Bicycle Delay [s]	39.20	19.38	19.45	21.45
l_b,int, Bicycle LOS Score for Intersection	1.665	1.995	2.727	2.117
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	12.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.672

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	3	0	11	78	2	66	48	1956	11	4	944	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	11	78	2	66	48	1956	11	4	944	58
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	3	21	1	17	13	515	3	1	248	15
Total Analysis Volume [veh/h]	3	0	12	82	2	69	51	2059	12	4	994	61
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	10			23			8			13		
v_di, Inbound Pedestrian Volume crossing m	13			8			23			10		
v_co, Outbound Pedestrian Volume crossing	1			8			2			19		
v_ci, Inbound Pedestrian Volume crossing mi	2			19			1			8		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			3			27			11		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	54	73	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	17	17	17	17	5	90	90	1	86	86
g / C, Green / Cycle	0.14	0.14	0.14	0.14	0.14	0.04	0.75	0.75	0.01	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.03	0.04	0.05	0.03	0.55	0.56	0.00	0.28	0.04
s, saturation flow rate [veh/h]	659	1355	1299	1089	1460	1781	1870	1865	1781	3560	1548
c, Capacity [veh/h]	152	189	209	211	204	74	1410	1407	11	2560	1113
d1, Uniform Delay [s]	52.21	44.83	48.40	48.64	46.45	56.74	8.12	8.15	59.38	6.57	4.93
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.05	0.14	0.39	0.54	0.98	10.77	3.43	3.47	17.89	0.45	0.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.06	0.17	0.23	0.34	0.69	0.73	0.74	0.35	0.39	0.05
d, Delay for Lane Group [s/veh]	52.26	44.97	48.79	49.19	47.43	67.51	11.55	11.61	77.27	7.02	5.02
Lane Group LOS	D	D	D	D	D	E	B	B	E	A	A
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.09	0.32	1.02	1.37	1.93	1.71	12.14	12.19	0.17	4.17	0.40
50th-Percentile Queue Length [ft/ln]	2.19	8.05	25.44	34.13	48.26	42.81	303.52	304.68	4.36	104.26	9.95
95th-Percentile Queue Length [veh/ln]	0.16	0.58	1.83	2.46	3.48	3.08	17.86	17.91	0.31	7.51	0.72
95th-Percentile Queue Length [ft/ln]	3.94	14.49	45.80	61.44	86.88	77.06	446.38	447.82	7.85	187.66	17.91

Movement, Approach, & Intersection Results

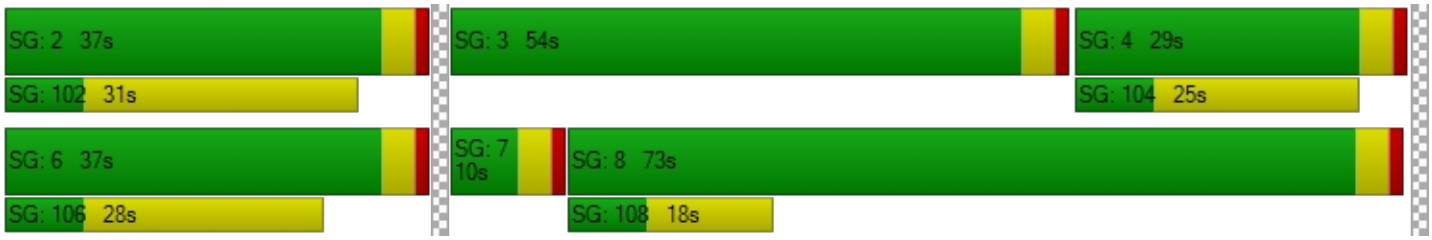
d_M, Delay for Movement [s/veh]	52.26	52.26	44.97	49.01	49.19	47.43	67.51	11.58	11.61	77.27	7.02	5.02
Movement LOS	D	D	D	D	D	D	E	B	B	E	A	A
d_A, Approach Delay [s/veh]	46.43			48.30			12.93			7.17		
Approach LOS	D			D			B			A		
d_I, Intersection Delay [s/veh]	12.87											
Intersection LOS	B											
Intersection V/C	0.672											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2251.96	251.26	213.01	288.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.963	2.357	3.250	3.375
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	550	550	1150	417
d_b, Bicycle Delay [s]	31.57	31.58	10.99	37.81
l_b,int, Bicycle LOS Score for Intersection	1.572	1.812	3.310	2.433
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	28.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.695

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	11	22	31	631	51	137	83	1871	19	35	887	280
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	22	31	631	51	137	83	1871	19	35	887	280
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	6	8	166	13	36	22	492	5	9	233	74
Total Analysis Volume [veh/h]	12	23	33	664	54	144	87	1969	20	37	934	295
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	5			9			2			5		
v_di, Inbound Pedestrian Volume crossing m	5			2			9			5		
v_co, Outbound Pedestrian Volume crossing	1			0			2			0		
v_ci, Inbound Pedestrian Volume crossing mi	2			0			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			28			16		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	43	39	0	39	35	0	10	32	0	10	32	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	10	10	26	34	6	64	64	4	63	63
g / C, Green / Cycle	0.02	0.08	0.08	0.22	0.28	0.05	0.53	0.53	0.04	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.19	0.03	0.03	0.37	0.37	0.02	0.26	0.19
s, saturation flow rate [veh/h]	1781	3560	1531	3459	1870	3459	3560	1858	1781	3560	1560
c, Capacity [veh/h]	32	292	126	748	525	163	1897	990	63	1855	813
d1, Uniform Delay [s]	58.29	50.88	51.63	45.61	31.97	55.87	20.68	20.71	57.00	18.66	16.90
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.40	0.11	1.10	3.83	0.08	2.67	2.07	3.94	8.32	0.98	1.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.08	0.26	0.89	0.10	0.53	0.69	0.69	0.59	0.50	0.36
d, Delay for Lane Group [s/veh]	65.69	51.00	52.72	49.44	32.06	58.54	22.74	24.65	65.32	19.63	18.15
Lane Group LOS	E	D	D	D	C	E	C	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.43	0.33	0.98	9.57	1.13	1.30	12.44	13.54	1.21	7.80	4.60
50th-Percentile Queue Length [ft/ln]	10.71	8.20	24.51	239.34	28.36	32.46	311.01	338.58	30.22	195.10	115.11
95th-Percentile Queue Length [veh/ln]	0.77	0.59	1.76	14.65	2.04	2.34	18.22	19.58	2.18	12.39	8.12
95th-Percentile Queue Length [ft/ln]	19.28	14.77	44.12	366.20	51.05	58.43	455.62	489.46	54.40	309.63	203.09

Movement, Approach, & Intersection Results

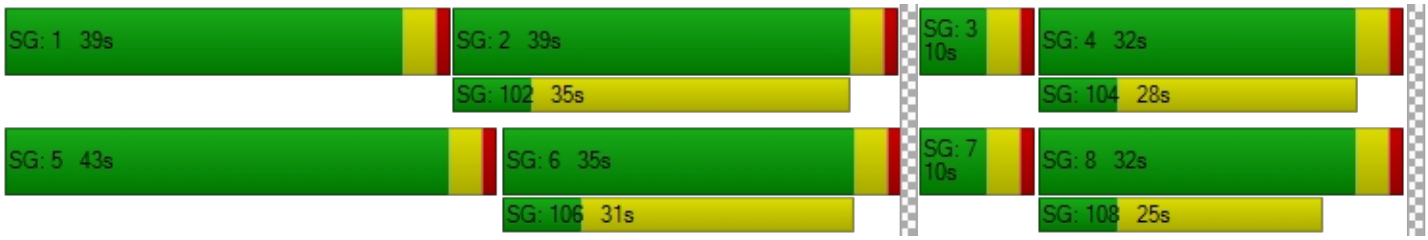
d_M, Delay for Movement [s/veh]	65.69	51.00	52.72	49.44	32.06	0.00	58.54	23.38	24.65	65.32	19.63	18.15
Movement LOS	E	D	D	D	C		E	C	C	E	B	B
d_A, Approach Delay [s/veh]	54.43			48.13			24.87			20.63		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	28.10											
Intersection LOS	C											
Intersection V/C	0.695											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2488.97	0.00	739.46	775.31
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.343	2.771	3.379	3.612
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	467	467
d_b, Bicycle Delay [s]	30.10	33.02	35.77	35.55
l_b,int, Bicycle LOS Score for Intersection	1.616	2.744	2.701	2.604
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	18.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.765

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	10	3	3	252	0	184	111	2371	3	2	884	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	3	3	252	0	184	111	2371	3	2	884	60
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	1	65	0	48	29	613	1	1	229	16
Total Analysis Volume [veh/h]	10	3	3	261	0	190	115	2452	3	2	914	62
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	3			9			5			0		
v_di, Inbound Pedestrian Volume crossing m	0			5			9			3		
v_co, Outbound Pedestrian Volume crossing	1			0			0			1		
v_ci, Inbound Pedestrian Volume crossing mi	0			1			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			1			10		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	39	0	31	46	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	24	24	24	8	58	58	0	51	51
g / C, Green / Cycle	0.26	0.26	0.26	0.26	0.26	0.08	0.61	0.61	0.00	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.01	0.00	0.19	0.00	0.12	0.06	0.48	0.00	0.00	0.18	0.04
s, saturation flow rate [veh/h]	1395	1715	1405	1870	1543	1781	5094	1555	1781	5094	1545
c, Capacity [veh/h]	400	438	399	478	394	147	3132	956	6	2727	827
d1, Uniform Delay [s]	28.18	26.42	34.59	0.00	29.91	42.72	13.58	7.06	47.23	12.49	10.67
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.01	1.82	0.00	0.91	8.60	2.03	0.01	29.61	0.33	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.01	0.65	0.00	0.48	0.78	0.78	0.00	0.33	0.34	0.07
d, Delay for Lane Group [s/veh]	28.20	26.44	36.42	0.00	30.82	51.32	15.62	7.06	76.84	12.83	10.84
Lane Group LOS	C	C	D	A	C	D	B	A	E	B	B
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.18	0.10	5.72	0.00	3.67	2.83	10.28	0.02	0.09	3.14	0.57
50th-Percentile Queue Length [ft/ln]	4.50	2.59	142.91	0.00	91.68	70.85	256.97	0.50	2.35	78.61	14.31
95th-Percentile Queue Length [veh/ln]	0.32	0.19	9.64	0.00	6.60	5.10	15.54	0.04	0.17	5.66	1.03
95th-Percentile Queue Length [ft/ln]	8.10	4.67	240.94	0.00	165.02	127.53	388.41	0.90	4.22	141.50	25.75

Movement, Approach, & Intersection Results

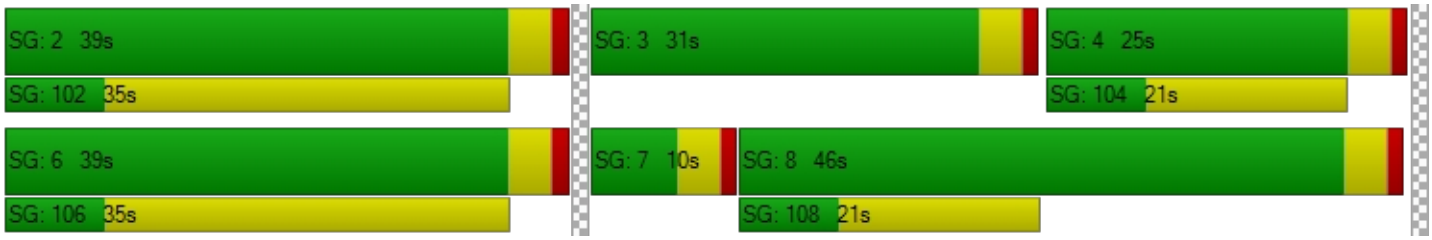
d_M, Delay for Movement [s/veh]	28.20	26.44	26.44	36.42	0.00	30.82	51.32	15.62	7.06	76.84	12.83	10.84
Movement LOS	C	C	C	D	A	C	D	B	A	E	B	B
d_A, Approach Delay [s/veh]	27.54			34.06			17.20			12.83		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	18.07											
Intersection LOS	B											
Intersection V/C	0.765											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	8826.74	8287.38	596.40	2563.07
d_p, Pedestrian Delay [s]	37.14	37.14	37.14	37.14
l_p,int, Pedestrian LOS Score for Intersection	1.948	2.313	3.565	3.924
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	737	737	884	442
d_b, Bicycle Delay [s]	18.95	18.96	14.79	28.97
l_b,int, Bicycle LOS Score for Intersection	1.586	2.304	2.973	2.098
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	23.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.731

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	15	20	3	179	51	135	95	2492	43	59	860	64
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	20	3	179	51	135	95	2492	43	59	860	64
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	5	1	47	13	36	25	656	11	16	226	17
Total Analysis Volume [veh/h]	16	21	3	188	54	142	100	2623	45	62	905	67
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			15			7			0		
v_di, Inbound Pedestrian Volume crossing m	0			7			15			0		
v_co, Outbound Pedestrian Volume crossing	0			2			0			2		
v_ci, Inbound Pedestrian Volume crossing mi	0			2			0			2		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			29			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	11	0	0	39	0	35	60	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	4	20	20	20	9	74	74	5	71	71
g / C, Green / Cycle	0.04	0.04	0.16	0.16	0.16	0.07	0.62	0.62	0.05	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.07	0.07	0.09	0.06	0.51	0.03	0.03	0.18	0.04
s, saturation flow rate [veh/h]	1781	1821	1781	1819	1496	1781	5094	1530	1781	5094	1544
c, Capacity [veh/h]	66	67	293	299	246	127	3157	948	81	3025	917
d1, Uniform Delay [s]	56.16	56.40	44.91	44.91	46.00	54.81	17.88	8.92	56.63	12.03	10.33
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.89	3.18	0.92	0.90	2.14	10.14	2.70	0.09	13.78	0.25	0.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.24	0.36	0.41	0.41	0.58	0.79	0.83	0.05	0.76	0.30	0.07
d, Delay for Lane Group [s/veh]	58.05	59.57	45.83	45.81	48.14	64.95	20.58	9.02	70.42	12.29	10.48
Lane Group LOS	E	E	D	D	D	E	C	A	E	B	B
Critical Lane Group	No	Yes	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.51	0.78	3.19	3.26	3.93	3.21	16.37	0.43	2.10	3.56	0.70
50th-Percentile Queue Length [ft/ln]	12.75	19.39	79.85	81.44	98.35	80.32	409.31	10.63	52.40	88.91	17.60
95th-Percentile Queue Length [veh/ln]	0.92	1.40	5.75	5.86	7.08	5.78	23.01	0.77	3.77	6.40	1.27
95th-Percentile Queue Length [ft/ln]	22.95	34.90	143.73	146.60	177.03	144.57	575.21	19.14	94.32	160.04	31.68

Movement, Approach, & Intersection Results

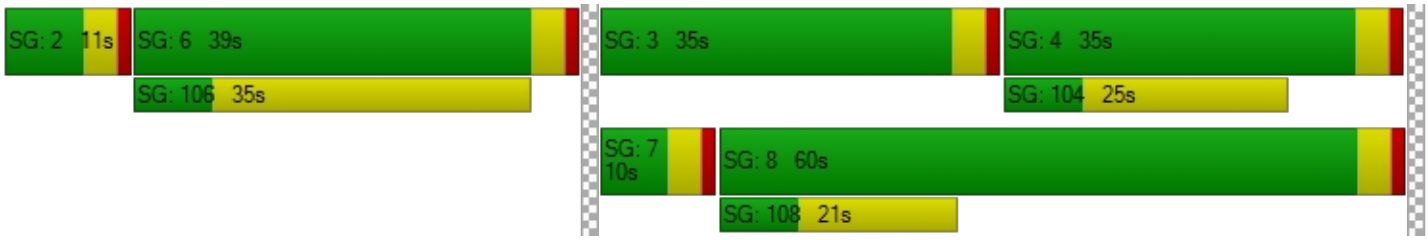
d_M, Delay for Movement [s/veh]	58.05	59.57	59.57	45.82	45.81	48.14	64.95	20.58	9.02	70.42	12.29	10.48
Movement LOS	E	E	E	D	D	D	E	C	A	E	B	B
d_A, Approach Delay [s/veh]	58.96			46.68			22.00			15.65		
Approach LOS	E			D			C			B		
d_I, Intersection Delay [s/veh]	23.04											
Intersection LOS	C											
Intersection V/C	0.731											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1554.58	307.66	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.008	2.354	3.595	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	117	583	933	517
d_b, Bicycle Delay [s]	53.28	30.19	17.32	33.15
l_b,int, Bicycle LOS Score for Intersection	1.626	2.193	3.082	2.128
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	27.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.813

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	36	35	22	602	10	168	235	2455	10	4	774	231
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	35	22	602	10	168	235	2455	10	4	774	231
Peak Hour Factor	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540	0.9540
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	9	6	158	3	44	62	643	3	1	203	61
Total Analysis Volume [veh/h]	38	37	23	631	10	176	246	2573	10	4	811	242
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			5			8			0		
v_di, Inbound Pedestrian Volume crossing m	0			8			5			0		
v_co, Outbound Pedestrian Volume crossing	0			0			1			0		
v_ci, Inbound Pedestrian Volume crossing mi	1			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			4		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	26	51	0	10	35	35
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	24	24	24	17	64	64	1	47	85
g / C, Green / Cycle	0.05	0.05	0.22	0.22	0.22	0.16	0.58	0.58	0.01	0.43	0.77
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.18	0.01	0.11	0.14	0.51	0.01	0.00	0.16	0.15
s, saturation flow rate [veh/h]	1781	1751	3459	1870	1561	1781	5094	1549	1781	5094	1565
c, Capacity [veh/h]	92	91	756	409	341	281	2939	894	13	2172	1204
d1, Uniform Delay [s]	50.52	51.20	41.06	33.75	37.75	45.28	19.89	9.91	54.35	21.53	3.44
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.91	7.92	2.50	0.02	1.20	8.51	4.02	0.02	13.95	0.49	0.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.66	0.83	0.02	0.52	0.88	0.88	0.01	0.32	0.37	0.20
d, Delay for Lane Group [s/veh]	53.43	59.12	43.56	33.78	38.96	53.79	23.91	9.93	68.30	22.02	3.52
Lane Group LOS	D	E	D	C	D	D	C	A	E	C	A
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.10	1.83	8.01	0.20	4.09	6.86	16.50	0.10	0.15	4.51	0.95
50th-Percentile Queue Length [ft/ln]	27.41	45.87	200.36	5.12	102.24	171.59	412.40	2.38	3.87	112.80	23.82
95th-Percentile Queue Length [veh/ln]	1.97	3.30	12.66	0.37	7.36	11.16	23.16	0.17	0.28	8.00	1.71
95th-Percentile Queue Length [ft/ln]	49.34	82.56	316.43	9.21	184.03	279.01	578.93	4.28	6.97	199.89	42.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.43	59.12	59.12	43.56	33.78	38.96	53.79	23.91	9.93	68.30	22.02	3.52
Movement LOS	D	E	E	D	C	D	D	C	A	E	C	A
d_A, Approach Delay [s/veh]	56.92			42.45			26.46			17.96		
Approach LOS	E			D			C			B		
d_I, Intersection Delay [s/veh]	27.93											
Intersection LOS	C											
Intersection V/C	0.813											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	7446.75	0.00	552.01	0.00
d_p, Pedestrian Delay [s]	44.55	44.55	44.55	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.983	2.746	3.596	0.000
Crosswalk LOS	A	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	109	636	855	564
d_b, Bicycle Delay [s]	49.16	25.57	18.10	28.43
l_b,int, Bicycle LOS Score for Intersection	1.721	2.908	3.116	2.141
Bicycle LOS	A	C	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	99.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.022

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	206	357	107	216	168	296	973	2275	331	83	691	232
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	206	357	107	216	168	296	973	2275	331	83	691	232
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	94	28	57	44	78	256	599	87	22	182	61
Total Analysis Volume [veh/h]	217	376	113	227	177	312	1024	2395	348	87	727	244
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	16			0			0			8		
v_di, Inbound Pedestrian Volume crossing m	8			0			0			16		
v_co, Outbound Pedestrian Volume crossing	0			1			2			9		
v_ci, Inbound Pedestrian Volume crossing mi	2			9			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			24			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	10	10	36	61	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	27	27	27	13	13	13	50	33	55	55	9	31	31
g / C, Green / Cycle	0.23	0.23	0.23	0.11	0.11	0.11	0.42	0.27	0.46	0.46	0.07	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.14	0.18	0.16	0.09	0.09	0.09	0.13	0.35	0.56	0.27	0.06	0.17	0.18
s, saturation flow rate [veh/h]	1500	1575	1285	1500	1525	1433	2369	2912	4290	1305	1500	4290	1323
c, Capacity [veh/h]	341	358	292	162	164	155	985	800	1975	601	107	1102	340
d1, Uniform Delay [s]	41.90	43.50	42.90	52.52	52.52	52.50	23.58	43.52	32.38	23.61	54.94	39.89	40.62
k, delay calibration	0.11	0.16	0.13	0.11	0.11	0.11	0.11	0.19	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.98	5.41	4.22	11.05	10.83	11.32	0.18	129.81	100.67	4.04	13.72	3.10	12.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	0.78	0.72	0.84	0.84	0.84	0.32	1.28	1.21	0.58	0.81	0.66	0.72
d, Delay for Lane Group [s/veh]	43.88	48.91	47.12	63.57	63.35	63.82	23.76	173.33	133.05	27.64	68.66	42.99	52.90
Lane Group LOS	D	D	D	E	E	E	C	F	F	C	E	D	D
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.99	8.24	6.14	4.45	4.51	4.25	2.93	25.68	35.73	7.35	2.94	6.50	7.50
50th-Percentile Queue Length [ft/ln]	149.78	206.01	153.42	111.2	112.6	106.2	73.18	641.95	893.21	183.75	73.43	162.44	187.44
95th-Percentile Queue Length [veh/ln]	10.01	12.95	10.20	7.91	7.99	7.63	5.27	38.84	52.01	11.80	5.29	10.68	11.99
95th-Percentile Queue Length [ft/ln]	250.14	323.71	254.99	197.6	199.7	190.7	131.7	971.02	1300.17	294.90	132.17	266.95	299.70

Movement, Approach, & Intersection Results

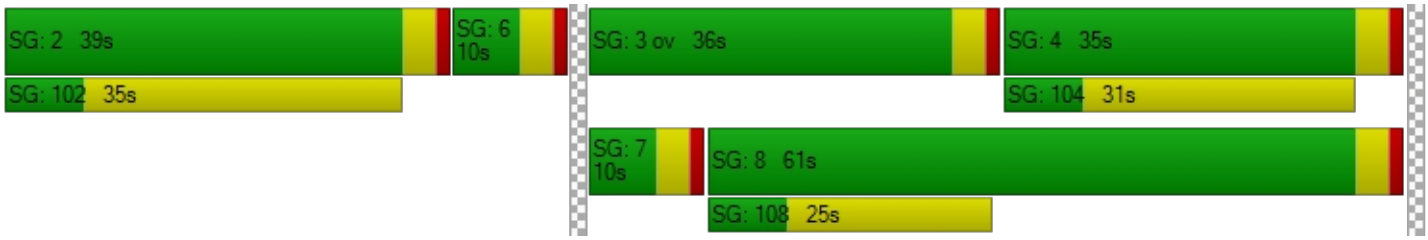
d_M, Delay for Movement [s/veh]	43.88	48.44	47.12	63.48	63.69	23.76	173.33	133.05	27.64	68.66	42.99	52.90
Movement LOS	D	D	D	E	E	C	F	F	C	E	D	D
d_A, Approach Delay [s/veh]	46.82			46.22			134.26			47.39		
Approach LOS	D			D			F			D		
d_I, Intersection Delay [s/veh]	99.58											
Intersection LOS	F											
Intersection V/C	1.022											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1155.25	526.94	0.00	294.54
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.571	3.046	0.000	3.433
Crosswalk LOS	B	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	100	950	517
d_b, Bicycle Delay [s]	30.10	54.15	16.74	33.00
l_b,int, Bicycle LOS Score for Intersection	2.142	2.150	3.631	1.996
Bicycle LOS	B	B	D	A

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	53.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.101

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			25.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	0	0	0	495	0	291	0	2268	210	0	1045	429
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	495	0	291	0	2268	210	0	1045	429
Peak Hour Factor	1.0000	1.0000	1.0000	0.9570	1.0000	0.9570	1.0000	0.9570	0.9570	1.0000	0.9570	0.9570
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	129	0	76	0	592	55	0	273	112
Total Analysis Volume [veh/h]	0	0	0	517	0	304	0	2370	219	0	1092	448
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			1			0			1	
v_ci, Inbound Pedestrian Volume crossing mi		0			1			0			1	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			2			24			1	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	27	0	0	0	83	0	0	83	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		110	110	110	110
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		23	23	79	79
g / C, Green / Cycle		0.21	0.21	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate		0.18	0.23	0.79	0.25
s, saturation flow rate [veh/h]		2912	1320	2998	4290
c, Capacity [veh/h]		609	276	2153	3081
d1, Uniform Delay [s]		41.83	43.34	15.50	5.86
k, delay calibration		0.11	0.34	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		3.42	74.90	53.09	0.32
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.85	1.10	1.10	0.35
d, Delay for Lane Group [s/veh]		45.25	118.23	68.59	6.18
Lane Group LOS		D	F	F	A
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		7.05	13.22	35.15	2.56
50th-Percentile Queue Length [ft/ln]		176.22	330.40	878.85	63.89
95th-Percentile Queue Length [veh/ln]		11.40	20.16	48.76	4.60
95th-Percentile Queue Length [ft/ln]		285.08	503.98	1218.99	114.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	45.25	0.00	118.23	0.00	68.59	0.00	0.00	6.18	0.00
Movement LOS				D		F		F			A	
d_A, Approach Delay [s/veh]	0.00			72.27			68.59			6.18		
Approach LOS	A			E			E			A		
d_I, Intersection Delay [s/veh]	53.38											
Intersection LOS	D											
Intersection V/C	1.101											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	4084.69	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	44.55	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.307	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1436	1436
d_b, Bicycle Delay [s]	55.00	55.00	4.42	4.37
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	3.515	2.160
Bicycle LOS	D	D	D	B

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	23.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.517

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	56	61	85	1303	34	1761	97
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	56	61	85	1303	34	1761	97
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	16	22	343	9	463	26
Total Analysis Volume [veh/h]	59	64	89	1372	36	1854	102
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	218		290		318		
v_di, Inbound Pedestrian Volume crossing m	290		218		0		
v_co, Outbound Pedestrian Volume crossing	101		0		67		
v_ci, Inbound Pedestrian Volume crossing mi	67		318		101		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	1		0		5		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	17	45	10	38	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	50	4	48	48
g / C, Green / Cycle	0.06	0.06	0.06	0.50	0.04	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.05	0.27	0.02	0.36	0.07
s, saturation flow rate [veh/h]	1781	1564	1781	5094	1781	5094	1552
c, Capacity [veh/h]	103	91	115	2560	68	2425	739
d1, Uniform Delay [s]	45.88	46.22	46.03	16.93	47.20	21.58	14.67
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.87	9.53	10.35	0.81	6.21	2.36	0.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.70	0.77	0.54	0.53	0.76	0.14
d, Delay for Lane Group [s/veh]	50.76	55.76	56.38	17.74	53.41	23.94	15.06
Lane Group LOS	D	E	E	B	D	C	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.57	1.81	2.43	6.60	0.97	11.18	1.27
50th-Percentile Queue Length [ft/ln]	39.36	45.20	60.81	164.90	24.21	279.51	31.87
95th-Percentile Queue Length [veh/ln]	2.83	3.25	4.38	10.81	1.74	16.66	2.29
95th-Percentile Queue Length [ft/ln]	70.85	81.36	109.45	270.20	43.57	416.60	57.37

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.76	55.76	56.38	17.74	53.41	23.94	15.06
Movement LOS	D	E	E	B	D	C	B
d_A, Approach Delay [s/veh]	53.36		20.09		24.01		
Approach LOS	D		C		C		
d_I, Intersection Delay [s/veh]	23.42						
Intersection LOS	C						
Intersection V/C	0.517						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	34.44	16.71	29.20
d_p, Pedestrian Delay [s]	39.61	39.61	39.61
l_p,int, Pedestrian LOS Score for Intersection	2.030	3.305	3.356
Crosswalk LOS	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	50.00	50.00	50.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.936	5.228
Bicycle LOS	D	E	F

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	31.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.664

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	38	25	38	106	24	103	184	1147	5	26	1731	141
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	25	38	106	24	103	184	1147	5	26	1731	141
Peak Hour Factor	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670	0.9670
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	6	10	27	6	27	48	297	1	7	448	36
Total Analysis Volume [veh/h]	39	26	39	110	25	107	190	1186	5	27	1790	146
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			74			51			0		
v_di, Inbound Pedestrian Volume crossing m	0			51			74			0		
v_co, Outbound Pedestrian Volume crossing	8			125			8			139		
v_ci, Inbound Pedestrian Volume crossing mi	8			139			8			125		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			5			1			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	22	65	0	10	53	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	28	28	28	15	66	66	4	55	55
g / C, Green / Cycle	0.05	0.05	0.05	0.23	0.23	0.23	0.12	0.55	0.55	0.03	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.04	0.04	0.05	0.11	0.22	0.22	0.02	0.36	0.40
s, saturation flow rate [veh/h]	1781	1851	1589	1781	1813	2329	1781	3560	1865	1781	3560	1638
c, Capacity [veh/h]	86	90	77	418	425	546	220	1970	1032	54	1639	754
d1, Uniform Delay [s]	55.32	55.30	55.69	36.54	36.53	36.56	51.62	15.33	15.33	57.29	27.33	29.02
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.66	2.47	5.05	0.18	0.17	0.17	9.77	0.60	1.14	6.99	3.82	12.61
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.36	0.51	0.16	0.16	0.20	0.87	0.40	0.40	0.50	0.78	0.86
d, Delay for Lane Group [s/veh]	57.98	57.77	60.74	36.72	36.71	36.73	61.39	15.93	16.47	64.28	31.15	41.63
Lane Group LOS	E	E	E	D	D	D	E	B	B	E	C	D
Critical Lane Group	No	No	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.02	1.03	1.27	1.58	1.60	1.26	6.05	5.82	6.26	0.89	15.33	18.23
50th-Percentile Queue Length [ft/ln]	25.46	25.75	31.75	39.57	40.08	31.50	151.37	145.47	156.40	22.34	383.35	455.83
95th-Percentile Queue Length [veh/ln]	1.83	1.85	2.29	2.85	2.89	2.27	10.09	9.78	10.36	1.61	21.76	25.24
95th-Percentile Queue Length [ft/ln]	45.83	46.36	57.15	71.22	72.15	56.70	252.26	244.38	258.94	40.21	543.90	630.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.95	57.77	60.74	36.71	36.71	36.73	61.39	16.12	16.47	64.28	34.11	41.63
Movement LOS	E	E	E	D	D	D	E	B	B	E	C	D
d_A, Approach Delay [s/veh]	58.95			36.72			22.35			35.08		
Approach LOS	E			D			C			D		
d_I, Intersection Delay [s/veh]	31.10											
Intersection LOS	C											
Intersection V/C	0.664											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	460.55	19.74	54.10	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.178	2.451	3.301	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	517	1017	817
d_b, Bicycle Delay [s]	54.15	33.09	14.51	21.09
l_b,int, Bicycle LOS Score for Intersection	1.731	1.959	2.319	2.639
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	20.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.728

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	16	5	28	66	2	81	84	1221	10	16	1834	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	5	28	66	2	81	84	1221	10	16	1834	83
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	7	17	1	21	22	321	3	4	483	22
Total Analysis Volume [veh/h]	17	5	29	69	2	85	88	1285	11	17	1931	87
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	2			36			66			25		
v_di, Inbound Pedestrian Volume crossing m	25			66			36			2		
v_co, Outbound Pedestrian Volume crossing	15			11			15			38		
v_ci, Inbound Pedestrian Volume crossing mi	15			38			15			11		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	7			4			3			7		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	10	74	0	11	75	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	25	25	25	25	7	81	81	3	76	76
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.06	0.67	0.67	0.02	0.63	0.63
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.03	0.06	0.05	0.35	0.35	0.01	0.54	0.06
s, saturation flow rate [veh/h]	969	1363	1296	1123	1333	1781	1870	1863	1781	3560	1530
c, Capacity [veh/h]	252	280	285	289	274	110	1257	1252	40	2252	968
d1, Uniform Delay [s]	41.36	38.71	41.99	41.91	40.02	55.54	9.86	9.87	57.92	17.70	8.57
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.15	0.16	0.17	0.21	0.64	12.20	1.52	1.53	7.21	4.49	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.10	0.11	0.13	0.31	0.80	0.52	0.52	0.43	0.86	0.09
d, Delay for Lane Group [s/veh]	41.51	38.87	42.16	42.12	40.66	67.74	11.38	11.40	65.13	22.19	8.75
Lane Group LOS	D	D	D	D	D	E	B	B	E	C	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.59	0.72	0.83	1.01	2.19	2.94	7.83	7.82	0.58	19.73	0.85
50th-Percentile Queue Length [ft/ln]	14.65	17.96	20.78	25.34	54.71	73.45	195.69	195.42	14.44	493.32	21.22
95th-Percentile Queue Length [veh/ln]	1.05	1.29	1.50	1.82	3.94	5.29	12.42	12.40	1.04	27.02	1.53
95th-Percentile Queue Length [ft/ln]	26.37	32.33	37.40	45.62	98.47	132.22	310.40	310.05	25.99	675.44	38.20

Movement, Approach, & Intersection Results

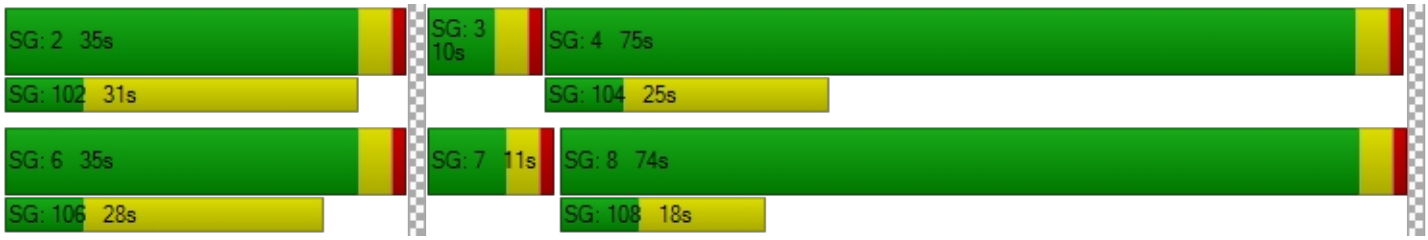
d_M, Delay for Movement [s/veh]	41.51	41.51	38.87	42.14	42.12	40.66	67.74	11.39	11.40	65.13	22.19	8.75
Movement LOS	D	D	D	D	D	D	E	B	B	E	C	A
d_A, Approach Delay [s/veh]	40.01			41.33			14.97			21.97		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	20.39											
Intersection LOS	C											
Intersection V/C	0.728											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	224.18	129.32	59.29	243.62
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.976	2.368	3.337	3.403
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	517	517	1167	1183
d_b, Bicycle Delay [s]	33.12	33.07	10.43	10.04
l_b,int, Bicycle LOS Score for Intersection	1.602	1.817	2.701	3.238
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	31.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.788

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	14	41	20	321	33	211	181	1155	12	16	1674	785
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	41	20	321	33	211	181	1155	12	16	1674	785
Peak Hour Factor	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	11	5	83	9	54	47	298	3	4	432	203
Total Analysis Volume [veh/h]	14	42	21	331	34	218	187	1192	12	17	1728	810
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	10			5			5			17		
v_di, Inbound Pedestrian Volume crossing m	17			5			5			10		
v_co, Outbound Pedestrian Volume crossing	2			4			1			1		
v_ci, Inbound Pedestrian Volume crossing mi	1			1			2			4		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			1			6		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	39	0	17	35	0	10	50	0	14	54	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	16	16	13	27	9	72	72	3	66	66
g / C, Green / Cycle	0.02	0.14	0.14	0.11	0.22	0.07	0.60	0.60	0.02	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.10	0.02	0.05	0.22	0.22	0.01	0.49	0.52
s, saturation flow rate [veh/h]	1781	3560	1470	3459	1870	3459	3560	1859	1781	3560	1562
c, Capacity [veh/h]	34	483	200	375	421	252	2139	1117	39	1958	859
d1, Uniform Delay [s]	58.18	45.36	45.42	52.75	36.71	54.54	12.29	12.30	57.96	23.62	24.79
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.74	0.08	0.23	6.95	0.08	4.31	0.49	0.94	7.51	6.19	19.61
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.09	0.11	0.88	0.08	0.74	0.37	0.37	0.44	0.88	0.94
d, Delay for Lane Group [s/veh]	65.93	45.43	45.65	59.70	36.80	58.85	12.79	13.24	65.47	29.81	44.40
Lane Group LOS	E	D	D	E	D	E	B	B	E	C	D
Critical Lane Group	No	No	Yes	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.50	0.56	0.57	5.11	0.77	2.81	4.86	5.22	0.57	20.11	22.81
50th-Percentile Queue Length [ft/ln]	12.43	14.03	14.24	127.67	19.32	70.20	121.49	130.49	14.30	502.72	570.24
95th-Percentile Queue Length [veh/ln]	0.89	1.01	1.03	8.81	1.39	5.05	8.47	8.97	1.03	27.46	30.64
95th-Percentile Queue Length [ft/ln]	22.37	25.25	25.63	220.33	34.78	126.36	211.87	224.16	25.74	686.57	766.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	65.93	45.43	45.65	59.70	36.80	0.00	58.85	12.94	13.24	65.47	29.81	44.40
Movement LOS	E	D	D	E	D		E	B	B	E	C	D
d_A, Approach Delay [s/veh]	49.22			57.57			19.11			34.67		
Approach LOS	D			E			B			C		
d_I, Intersection Delay [s/veh]	31.90											
Intersection LOS	C											
Intersection V/C	0.788											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2530.89	0.00	814.07	291.55
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.336	2.847	3.408	3.654
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	767	833
d_b, Bicycle Delay [s]	30.15	33.10	22.83	20.48
l_b,int, Bicycle LOS Score for Intersection	1.623	2.162	2.325	3.667
Bicycle LOS	A	B	B	D

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.762

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	8	10	9	94	5	209	127	1352	8	4	2209	243
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	10	9	94	5	209	127	1352	8	4	2209	243
Peak Hour Factor	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	3	2	24	1	54	33	349	2	1	570	63
Total Analysis Volume [veh/h]	8	10	9	97	5	216	131	1395	8	4	2280	251
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	1			3			1			1		
v_di, Inbound Pedestrian Volume crossing m	1			1			3			1		
v_co, Outbound Pedestrian Volume crossing	0			0			1			2		
v_ci, Inbound Pedestrian Volume crossing mi	1			2			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			2			1			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	55	0	0	55	0	10	25	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	16	16	16	8	62	62	1	54	54
g / C, Green / Cycle	0.17	0.17	0.17	0.17	0.17	0.09	0.69	0.69	0.01	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.07	0.00	0.14	0.07	0.27	0.01	0.00	0.45	0.16
s, saturation flow rate [veh/h]	1402	1710	1389	1870	1556	1781	5094	1556	1781	5094	1552
c, Capacity [veh/h]	296	297	285	325	270	166	3495	1067	12	3055	931
d1, Uniform Delay [s]	32.36	31.06	35.13	30.80	35.55	39.95	6.11	4.46	44.49	13.05	8.56
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.09	0.70	0.02	5.39	8.11	0.34	0.01	15.00	1.71	0.71
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.06	0.34	0.02	0.80	0.79	0.40	0.01	0.33	0.75	0.27
d, Delay for Lane Group [s/veh]	32.40	31.15	35.84	30.82	40.94	48.06	6.45	4.47	59.49	14.76	9.27
Lane Group LOS	C	C	D	C	D	D	A	A	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.15	0.35	1.95	0.09	4.79	3.01	2.55	0.03	0.13	8.71	1.97
50th-Percentile Queue Length [ft/ln]	3.80	8.84	48.86	2.24	119.85	75.26	63.73	0.86	3.35	217.66	49.14
95th-Percentile Queue Length [veh/ln]	0.27	0.64	3.52	0.16	8.38	5.42	4.59	0.06	0.24	13.55	3.54
95th-Percentile Queue Length [ft/ln]	6.83	15.90	87.95	4.04	209.62	135.46	114.72	1.55	6.03	338.63	88.46

Movement, Approach, & Intersection Results

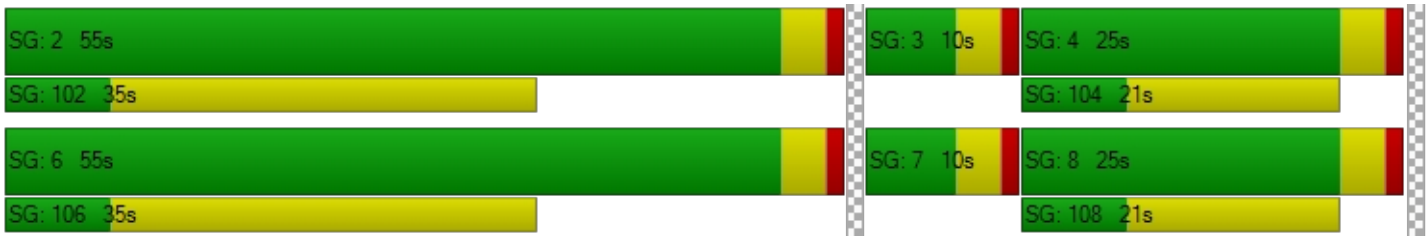
d_M, Delay for Movement [s/veh]	32.40	31.15	31.15	35.84	30.82	40.94	48.06	6.45	4.47	59.49	14.76	9.27
Movement LOS	C	C	C	D	C	D	D	A	A	E	B	A
d_A, Approach Delay [s/veh]	31.52			39.22			9.99			14.29		
Approach LOS	C			D			A			B		
d_I, Intersection Delay [s/veh]	14.70											
Intersection LOS	B											
Intersection V/C	0.762											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	9202.74	2618.44	2172.08	4961.73
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	1.952	2.332	3.639	3.765
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1133	1133	467	467
d_b, Bicycle Delay [s]	8.46	8.46	26.46	26.49
l_b,int, Bicycle LOS Score for Intersection	1.604	2.084	2.403	2.954
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	21.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.745

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	5	22	15	89	23	95	133	1238	31	43	2433	235
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	22	15	89	23	95	133	1238	31	43	2433	235
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	6	4	23	6	25	35	326	8	11	640	62
Total Analysis Volume [veh/h]	5	23	16	94	24	100	140	1303	33	45	2561	247
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			6			9			0		
v_di, Inbound Pedestrian Volume crossing m	0			9			6			0		
v_co, Outbound Pedestrian Volume crossing	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing mi	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			8			9			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	13	61	0	10	58	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	15	15	15	11	79	79	5	73	73
g / C, Green / Cycle	0.04	0.04	0.13	0.13	0.13	0.09	0.66	0.66	0.04	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.03	0.03	0.07	0.08	0.26	0.02	0.03	0.50	0.16
s, saturation flow rate [veh/h]	1781	1720	1781	1816	1495	1781	5094	1550	1781	5094	1547
c, Capacity [veh/h]	69	66	228	233	191	169	3367	1024	69	3083	937
d1, Uniform Delay [s]	55.62	56.75	47.16	47.16	48.68	53.36	9.26	7.04	56.86	18.80	11.07
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.44	8.02	0.59	0.57	2.20	9.92	0.34	0.06	9.77	2.76	0.69
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.59	0.26	0.26	0.52	0.83	0.39	0.03	0.65	0.83	0.26
d, Delay for Lane Group [s/veh]	56.06	64.77	47.75	47.73	50.87	63.28	9.60	7.10	66.63	21.57	11.76
Lane Group LOS	E	E	D	D	D	E	A	A	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.16	1.32	1.58	1.60	2.84	4.44	4.34	0.26	1.48	16.46	2.85
50th-Percentile Queue Length [ft/ln]	3.90	33.02	39.58	40.10	70.99	110.96	108.53	6.53	37.04	411.41	71.19
95th-Percentile Queue Length [veh/ln]	0.28	2.38	2.85	2.89	5.11	7.89	7.76	0.47	2.67	23.11	5.13
95th-Percentile Queue Length [ft/ln]	7.01	59.43	71.24	72.17	127.78	197.34	193.95	11.76	66.67	577.73	128.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.06	64.77	64.77	47.74	47.73	50.87	63.28	9.60	7.10	66.63	21.57	11.76
Movement LOS	E	E	E	D	D	D	E	A	A	E	C	B
d_A, Approach Delay [s/veh]	63.78			49.18			14.63			21.43		
Approach LOS	E			D			B			C		
d_I, Intersection Delay [s/veh]	20.97											
Intersection LOS	C											
Intersection V/C	0.745											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1408.78	480.99	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.994	2.374	3.665	0.000
Crosswalk LOS	A	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	900
d_b, Bicycle Delay [s]	54.23	30.23	16.61	18.22
l_b,int, Bicycle LOS Score for Intersection	1.632	1.919	2.371	3.129
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	45.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.923

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	40	45	21	385	24	236	211	1131	8	29	2458	919
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	45	21	385	24	236	211	1131	8	29	2458	919
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	12	6	101	6	62	56	298	2	8	647	242
Total Analysis Volume [veh/h]	42	47	22	405	25	248	222	1191	8	31	2587	967
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			4			9			0		
v_di, Inbound Pedestrian Volume crossing m	0			9			4			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	10	61	0	10	61	61
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	25	25	25	16	69	69	4	57	96
g / C, Green / Cycle	0.05	0.05	0.21	0.21	0.21	0.13	0.58	0.58	0.03	0.48	0.80
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.12	0.01	0.16	0.12	0.23	0.01	0.02	0.51	0.62
s, saturation flow rate [veh/h]	1781	1770	3459	1870	1560	1781	5094	1551	1781	5094	1565
c, Capacity [veh/h]	89	89	722	390	326	234	2932	893	57	2428	1255
d1, Uniform Delay [s]	55.46	56.35	42.55	38.07	44.51	51.73	14.10	10.86	57.19	31.40	6.00
k, delay calibration	0.11	0.11	0.11	0.11	0.12	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.84	13.65	0.69	0.07	4.09	17.62	0.42	0.02	7.68	38.69	4.62
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.78	0.56	0.06	0.76	0.95	0.41	0.01	0.54	1.07	0.77
d, Delay for Lane Group [s/veh]	59.29	70.00	43.23	38.14	48.60	69.35	14.52	10.88	64.88	70.09	10.62
Lane Group LOS	E	E	D	D	D	E	B	B	E	F	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.34	2.42	5.25	0.58	7.01	7.46	5.36	0.09	1.02	29.85	8.60
50th-Percentile Queue Length [ft/ln]	33.57	60.46	131.20	14.49	175.15	186.55	133.97	2.15	25.51	746.26	215.06
95th-Percentile Queue Length [veh/ln]	2.42	4.35	9.01	1.04	11.35	11.94	9.16	0.15	1.84	40.75	13.41
95th-Percentile Queue Length [ft/ln]	60.42	108.83	225.13	26.08	283.67	298.55	228.89	3.87	45.92	1018.76	335.31

Movement, Approach, & Intersection Results

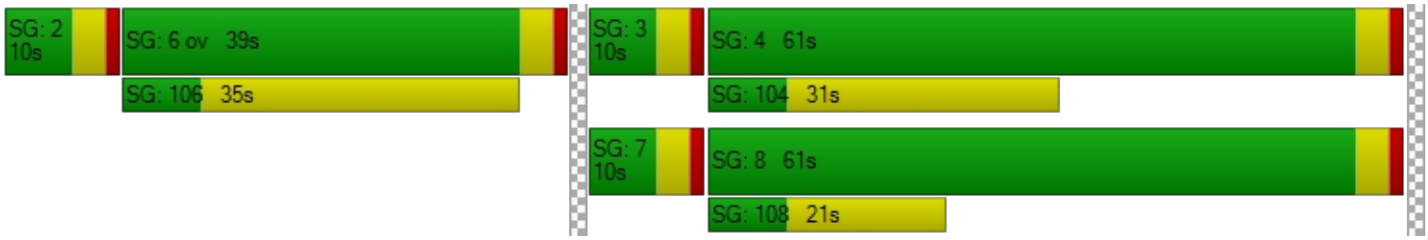
d_M, Delay for Movement [s/veh]	59.29	70.00	70.00	43.23	38.14	48.60	69.35	14.52	10.88	64.88	70.09	10.62
Movement LOS	E	E	E	D	D	D	E	B	B	E	F	B
d_A, Approach Delay [s/veh]	65.95			45.01			23.06			54.01		
Approach LOS	E			D			C			D		
d_I, Intersection Delay [s/veh]	45.59											
Intersection LOS	D											
Intersection V/C	0.923											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	436.33	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.001	2.936	3.700	0.000
Crosswalk LOS	B	C	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	950
d_b, Bicycle Delay [s]	54.15	30.10	16.60	16.56
l_b,int, Bicycle LOS Score for Intersection	1.743	2.678	2.341	3.531
Bicycle LOS	A	B	B	D

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	158.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.018

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	336	244	90	192	231	906	302	1029	203	164	2671	153
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	336	244	90	192	231	906	302	1029	203	164	2671	153
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	88	64	24	51	61	238	79	271	53	43	703	40
Total Analysis Volume [veh/h]	354	257	95	202	243	954	318	1083	214	173	2812	161
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	29			0			0			25		
v_di, Inbound Pedestrian Volume crossing m	25			0			0			29		
v_co, Outbound Pedestrian Volume crossing	3			10			1			15		
v_ci, Inbound Pedestrian Volume crossing mi	1			15			3			10		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			1			10			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	21	21	14	49	0	11	46	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	19	19	19	36	13	39	39	16	42	42
g / C, Green / Cycle	0.25	0.25	0.25	0.16	0.16	0.16	0.30	0.11	0.33	0.33	0.13	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.17	0.10	0.10	0.10	0.41	0.11	0.25	0.16	0.12	0.51	0.52
s, saturation flow rate [veh/h]	1500	1540	1278	1500	1548	1433	2351	2912	4290	1309	1500	4290	1512
c, Capacity [veh/h]	372	382	317	241	249	230	709	313	1401	427	197	1503	530
d1, Uniform Delay [s]	40.47	40.45	40.80	46.95	46.92	46.91	41.76	53.54	36.39	32.38	51.18	38.98	38.98
k, delay calibration	0.13	0.13	0.14	0.11	0.11	0.11	0.31	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.26	2.18	3.38	2.61	2.49	2.66	161.6	27.32	4.20	4.15	11.74	208.78	227.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.65	0.65	0.68	0.62	0.62	0.62	1.35	1.01	0.77	0.50	0.88	1.46	1.48
d, Delay for Lane Group [s/veh]	42.73	42.63	44.18	49.56	49.41	49.57	203.4	80.86	40.59	36.53	62.92	247.76	266.17
Lane Group LOS	D	D	D	D	D	D	F	F	D	D	E	F	F
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.65	6.80	6.04	4.27	4.38	4.05	26.00	5.75	9.56	5.24	5.60	42.99	48.17
50th-Percentile Queue Length [ft/ln]	166.15	170.03	150.98	106.8	109.4	101.2	650.0	143.64	238.89	131.12	140.07	1074.79	1204.32
95th-Percentile Queue Length [veh/ln]	10.87	11.08	10.07	7.66	7.81	7.29	40.27	9.73	14.63	9.00	9.48	66.04	73.82
95th-Percentile Queue Length [ft/ln]	271.85	276.95	251.74	191.6	195.1	182.1	1006.	243.26	365.63	225.02	237.12	1650.91	1845.43

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.70	43.36	44.18	49.56	49.50	203.43	80.86	40.59	36.53	62.92	251.85	266.17
Movement LOS	D	D	D	D	D	F	F	D	D	E	F	F
d_A, Approach Delay [s/veh]	43.14			154.47			47.98			242.19		
Approach LOS	D			F			D			F		
d_I, Intersection Delay [s/veh]	158.17											
Intersection LOS	F											
Intersection V/C	1.018											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1103.95	249.38	0.00	133.88
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.574	3.004	0.000	3.567
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	283	750	700
d_b, Bicycle Delay [s]	30.12	44.23	23.56	25.35
l_b,int, Bicycle LOS Score for Intersection	2.142	2.714	2.448	2.857
Bicycle LOS	B	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	52.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.071

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			25.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	0	0	0	436	0	470	0	1460	151	0	2590	686
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	436	0	470	0	1460	151	0	2590	686
Peak Hour Factor	1.0000	1.0000	1.0000	0.9600	1.0000	0.9600	1.0000	0.9600	0.9600	1.0000	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	114	0	122	0	380	39	0	674	179
Total Analysis Volume [veh/h]	0	0	0	454	0	490	0	1521	157	0	2698	715
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			6	
v_ci, Inbound Pedestrian Volume crossing mi		0			6			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			2			16			6	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	45	0	0	0	75	0	0	75	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		41	41	71	71
g / C, Green / Cycle		0.34	0.34	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate		0.16	0.37	0.51	0.63
s, saturation flow rate [veh/h]		2912	1321	2998	4290
c, Capacity [veh/h]		995	451	1774	2538
d1, Uniform Delay [s]		30.81	39.23	20.30	24.50
k, delay calibration		0.11	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.33	67.52	5.61	37.44
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.46	1.09	0.86	1.06
d, Delay for Lane Group [s/veh]		31.13	106.75	25.91	61.94
Lane Group LOS		C	F	C	F
Critical Lane Group		No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		5.23	21.59	16.89	29.61
50th-Percentile Queue Length [ft/ln]		130.79	539.80	422.21	740.27
95th-Percentile Queue Length [veh/ln]		8.98	30.83	23.63	40.53
95th-Percentile Queue Length [ft/ln]		224.57	770.71	590.70	1013.21

Movement, Approach, & Intersection Results

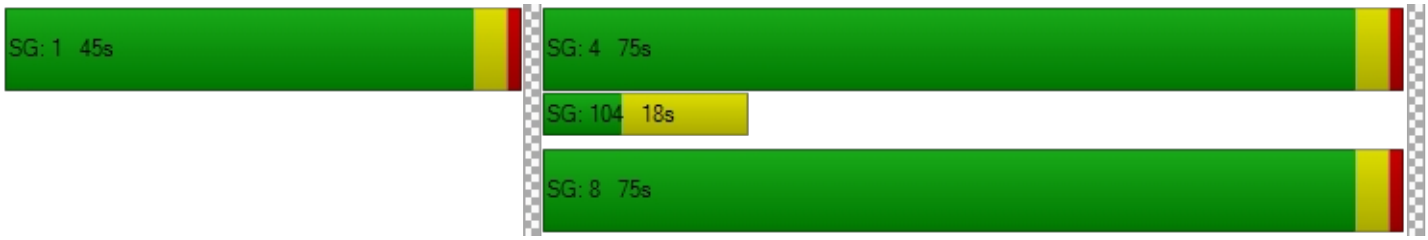
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	31.13	0.00	106.75	0.00	25.91	0.00	0.00	61.94	0.00
Movement LOS				C		F		C			F	
d_A, Approach Delay [s/veh]	0.00			70.38			25.91			61.94		
Approach LOS	A			E			C			E		
d_I, Intersection Delay [s/veh]	52.87											
Intersection LOS	D											
Intersection V/C	1.071											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1245.04	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.337	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1183	1183
d_b, Bicycle Delay [s]	60.00	60.00	10.08	10.03
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	2.814	3.044
Bicycle LOS	D	D	C	C

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX A-XIII

YEAR 2026 CUMULATIVE PLUS PROJECT ALTERNATIVE WITH MITIGATION TRAFFIC CONDITIONS

Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	97.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.991

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	100.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	206	357	107	216	168	296	973	2275	331	83	691	232
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	206	357	107	216	168	296	973	2275	331	83	691	232
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	94	28	57	44	78	256	599	87	22	182	61
Total Analysis Volume [veh/h]	217	376	113	227	177	312	1024	2395	348	87	727	244
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	16			0			0			8		
v_di, Inbound Pedestrian Volume crossing m	8			0			0			16		
v_co, Outbound Pedestrian Volume crossing	0			1			2			9		
v_ci, Inbound Pedestrian Volume crossing mi	2			9			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			24			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	42	0	0	10	10	33	58	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	31	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	28	28	28	13	13	13	49	32	57	57	6	31	31
g / C, Green / Cycle	0.23	0.23	0.23	0.11	0.11	0.11	0.41	0.26	0.47	0.47	0.05	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.14	0.18	0.16	0.09	0.09	0.09	0.13	0.35	0.56	0.27	0.03	0.17	0.18
s, saturation flow rate [veh/h]	1500	1575	1286	1500	1525	1433	2369	2912	4290	1306	2912	4290	1323
c, Capacity [veh/h]	352	370	302	167	169	159	967	767	2030	618	138	1103	340
d1, Uniform Delay [s]	41.06	42.63	42.04	52.13	52.13	52.12	24.22	44.19	31.60	22.49	56.14	39.87	40.60
k, delay calibration	0.11	0.13	0.11	0.11	0.11	0.11	0.11	0.21	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.75	3.68	2.94	9.33	9.14	9.58	0.19	154.28	86.25	3.68	4.72	3.09	12.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.75	0.70	0.82	0.82	0.81	0.32	1.33	1.18	0.56	0.63	0.66	0.72
d, Delay for Lane Group [s/veh]	42.82	46.32	44.98	61.46	61.27	61.69	24.41	198.47	117.85	26.17	60.86	42.97	52.86
Lane Group LOS	D	D	D	E	E	E	C	F	F	C	E	D	D
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.91	7.99	5.98	4.37	4.43	4.17	2.97	27.27	33.91	7.11	1.35	6.50	7.49
50th-Percentile Queue Length [ft/ln]	147.75	199.87	149.39	109.1	110.6	104.2	74.37	681.73	847.63	177.64	33.86	162.40	187.36
95th-Percentile Queue Length [veh/ln]	9.90	12.63	9.98	7.80	7.88	7.51	5.35	41.61	48.85	11.48	2.44	10.68	11.98
95th-Percentile Queue Length [ft/ln]	247.43	315.80	249.61	194.8	196.9	187.6	133.8	1040.35	1221.35	286.93	60.95	266.90	299.60

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.82	45.97	44.98	61.38	61.58	24.41	198.47	117.85	26.17	60.86	42.97	52.86
Movement LOS	D	D	D	E	E	C	F	F	C	E	D	D
d_A, Approach Delay [s/veh]	44.84			45.32			131.30			46.72		
Approach LOS	D			D			F			D		
d_I, Intersection Delay [s/veh]	97.35											
Intersection LOS	F											
Intersection V/C	0.991											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1155.25	526.94	0.00	303.61
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.571	3.046	0.000	3.479
Crosswalk LOS	B	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	100	900	517
d_b, Bicycle Delay [s]	28.02	54.15	18.37	33.00
l_b,int, Bicycle LOS Score for Intersection	2.142	2.150	3.631	1.996
Bicycle LOS	B	B	D	A

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	152.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.971

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	100.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	336	244	90	192	231	906	302	1029	203	164	2671	153
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	336	244	90	192	231	906	302	1029	203	164	2671	153
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	88	64	24	51	61	238	79	271	53	43	703	40
Total Analysis Volume [veh/h]	354	257	95	202	243	954	318	1083	214	173	2812	161
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	29			0			0			25		
v_di, Inbound Pedestrian Volume crossing m	25			0			0			29		
v_co, Outbound Pedestrian Volume crossing	3			10			1			15		
v_ci, Inbound Pedestrian Volume crossing mi	1			15			3			10		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			1			10			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	42	0	0	12	12	18	56	0	10	48	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	31	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	15	15	15	33	14	49	49	9	44	44
g / C, Green / Cycle	0.26	0.26	0.26	0.12	0.12	0.12	0.27	0.12	0.40	0.40	0.08	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.17	0.10	0.10	0.10	0.41	0.11	0.25	0.16	0.06	0.51	0.52
s, saturation flow rate [veh/h]	1500	1540	1281	1500	1548	1433	2354	2912	4290	1311	2912	4290	1512
c, Capacity [veh/h]	393	404	336	181	187	173	642	346	1738	531	229	1566	552
d1, Uniform Delay [s]	38.98	38.96	39.28	51.50	51.47	51.45	43.51	52.32	28.40	25.27	54.15	38.10	38.10
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.31	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.58	1.53	2.11	9.08	8.57	9.06	223.9	10.11	1.70	2.27	5.02	182.58	200.60
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.62	0.64	0.83	0.82	0.82	1.49	0.92	0.62	0.40	0.76	1.40	1.42
d, Delay for Lane Group [s/veh]	40.56	40.49	41.39	60.58	60.04	60.52	267.4	62.43	30.10	27.54	59.18	220.68	238.70
Lane Group LOS	D	D	D	E	E	E	F	E	C	C	E	F	F
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.45	6.60	5.82	4.77	4.87	4.52	29.18	5.06	8.02	4.42	2.66	40.93	46.05
50th-Percentile Queue Length [ft/ln]	161.25	165.08	145.38	119.3	121.8	112.9	729.4	126.42	200.51	110.53	66.41	1023.14	1151.26
95th-Percentile Queue Length [veh/ln]	10.61	10.82	9.77	8.36	8.49	8.00	46.01	8.74	12.67	7.87	4.78	62.29	69.92
95th-Percentile Queue Length [ft/ln]	265.37	270.44	244.25	208.9	212.3	200.1	1150.	218.62	316.63	196.73	119.53	1557.19	1747.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.54	40.91	41.39	60.58	60.32	267.45	62.43	30.10	27.54	59.18	224.68	238.70
Movement LOS	D	D	D	E	E	F	E	C	C	E	F	F
d_A, Approach Delay [s/veh]	40.79			201.58			36.13			216.30		
Approach LOS	D			F			D			F		
d_I, Intersection Delay [s/veh]	152.87											
Intersection LOS	F											
Intersection V/C	0.971											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1103.95	249.38	0.00	137.61
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.574	3.004	0.000	3.598
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	133	867	733
d_b, Bicycle Delay [s]	28.03	52.29	19.36	24.07
l_b,int, Bicycle LOS Score for Intersection	2.142	2.714	2.448	2.857
Bicycle LOS	B	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX A-XIV

BUILDOUT PLUS PROJECT ALTERNATIVE TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	21.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.494

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	50	60	70	1989	10	1029	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	60	70	1989	10	1029	50
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	15	18	497	3	257	13
Total Analysis Volume [veh/h]	50	60	70	1989	10	1029	50
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	45		50		62		
v_di, Inbound Pedestrian Volume crossing m	50		45		0		
v_co, Outbound Pedestrian Volume crossing	12		0		8		
v_ci, Inbound Pedestrian Volume crossing mi	8		62		12		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	4		5		21		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	45	45	10	10	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	5	53	1	49	49
g / C, Green / Cycle	0.06	0.06	0.05	0.53	0.01	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.04	0.39	0.01	0.20	0.03
s, saturation flow rate [veh/h]	1781	1546	1781	5094	1781	5094	1532
c, Capacity [veh/h]	102	88	94	2689	26	2495	750
d1, Uniform Delay [s]	45.73	46.19	46.69	18.29	48.81	16.32	13.44
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.63	8.77	10.97	1.87	8.85	0.51	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.68	0.74	0.74	0.38	0.41	0.07
d, Delay for Lane Group [s/veh]	49.35	54.96	57.67	20.16	57.66	16.82	13.61
Lane Group LOS	D	D	E	C	E	B	B
Critical Lane Group	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.31	1.68	1.95	10.85	0.30	4.67	0.58
50th-Percentile Queue Length [ft/ln]	32.83	42.06	48.64	271.21	7.60	116.68	14.56
95th-Percentile Queue Length [veh/ln]	2.36	3.03	3.50	16.25	0.55	8.21	1.05
95th-Percentile Queue Length [ft/ln]	59.09	75.71	87.54	406.26	13.68	205.26	26.20

Movement, Approach, & Intersection Results

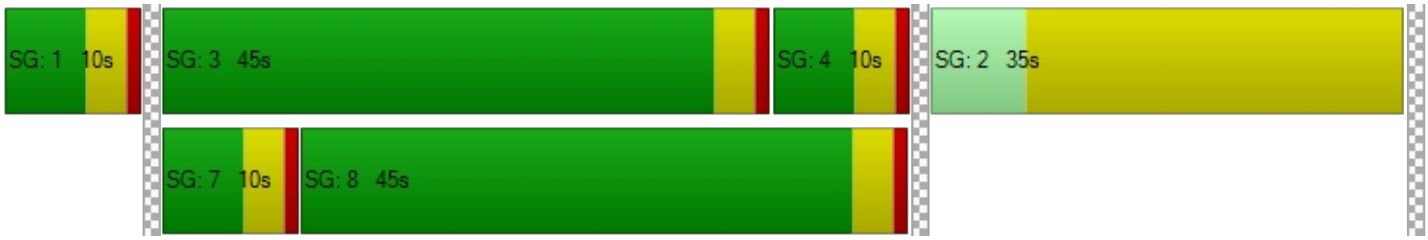
d_M, Delay for Movement [s/veh]	49.35	54.96	57.67	20.16	57.66	16.82	13.61
Movement LOS	D	D	E	C	E	B	B
d_A, Approach Delay [s/veh]	52.41		21.44		17.05		
Approach LOS	D		C		B		
d_I, Intersection Delay [s/veh]	21.02						
Intersection LOS	C						
Intersection V/C	0.494						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	361.66	94.45	158.02
d_p, Pedestrian Delay [s]	39.61	39.61	39.61
I_p,int, Pedestrian LOS Score for Intersection	2.007	3.256	3.302
Crosswalk LOS	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	50.00	50.00	50.00
I_b,int, Bicycle LOS Score for Intersection	4.132	5.265	4.731
Bicycle LOS	D	F	E

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	19.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.563

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	20	21	24	240	34	141	121	1928	4	27	894	140
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	21	24	240	34	141	121	1928	4	27	894	140
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	5	6	60	9	35	30	482	1	7	224	35
Total Analysis Volume [veh/h]	20	21	24	240	34	141	121	1928	4	27	894	140
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			15			14			0		
v_di, Inbound Pedestrian Volume crossing m	0			14			15			0		
v_co, Outbound Pedestrian Volume crossing	5			19			4			28		
v_ci, Inbound Pedestrian Volume crossing mi	4			28			5			19		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			4			11			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	13	35	0	10	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	5	16	16	16	8	50	50	3	45	45
g / C, Green / Cycle	0.05	0.05	0.05	0.18	0.18	0.18	0.09	0.56	0.56	0.03	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.08	0.08	0.05	0.07	0.36	0.36	0.02	0.19	0.20
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1802	2631	1781	3560	1868	1781	3560	1685
c, Capacity [veh/h]	96	100	85	316	319	467	154	1988	1043	59	1797	850
d1, Uniform Delay [s]	40.76	40.76	40.92	32.98	32.98	32.07	40.28	13.63	13.63	42.73	13.71	13.84
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.07	1.02	1.78	0.93	0.92	0.36	8.43	1.58	2.98	5.50	0.63	1.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.21	0.21	0.28	0.43	0.43	0.30	0.78	0.64	0.64	0.46	0.39	0.40
d, Delay for Lane Group [s/veh]	41.83	41.78	42.70	33.91	33.90	32.43	48.71	15.21	16.62	48.23	14.34	15.25
Lane Group LOS	D	D	D	C	C	C	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.45	0.47	0.55	2.66	2.69	1.32	2.86	7.77	8.57	0.65	3.94	4.10
50th-Percentile Queue Length [ft/ln]	11.33	11.86	13.85	66.45	67.20	33.00	71.57	194.35	214.20	16.37	98.61	102.47
95th-Percentile Queue Length [veh/ln]	0.82	0.85	1.00	4.78	4.84	2.38	5.15	12.35	13.37	1.18	7.10	7.38
95th-Percentile Queue Length [ft/ln]	20.40	21.36	24.92	119.61	120.96	59.39	128.83	308.67	334.22	29.47	177.51	184.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.83	41.78	42.70	33.91	33.90	32.43	48.71	15.69	16.62	48.23	14.54	15.25
Movement LOS	D	D	D	C	C	C	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	42.14			33.40			17.64			15.49		
Approach LOS	D			C			B			B		
d_I, Intersection Delay [s/veh]	19.27											
Intersection LOS	B											
Intersection V/C	0.563											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1099.75	172.81	316.65	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.157	2.458	3.243	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	133	689	689	622
d_b, Bicycle Delay [s]	39.20	19.38	19.45	21.45
l_b,int, Bicycle LOS Score for Intersection	1.667	2.244	2.689	2.143
Bicycle LOS	A	B	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	12.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.642

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	10	0	11	78	10	66	48	1956	11	10	944	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	0	11	78	10	66	48	1956	11	10	944	58
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	3	20	3	17	12	489	3	3	236	15
Total Analysis Volume [veh/h]	10	0	11	78	10	66	48	1956	11	10	944	58
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	10			23			8			13		
v_di, Inbound Pedestrian Volume crossing m	13			8			23			10		
v_co, Outbound Pedestrian Volume crossing	1			8			2			19		
v_ci, Inbound Pedestrian Volume crossing mi	2			19			1			8		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			3			27			11		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	54	73	0	10	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	16	16	16	5	90	90	2	87	87
g / C, Green / Cycle	0.14	0.14	0.14	0.14	0.14	0.04	0.75	0.75	0.01	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.03	0.04	0.05	0.03	0.53	0.53	0.01	0.27	0.04
s, saturation flow rate [veh/h]	701	1353	1298	1195	1457	1781	1870	1865	1781	3560	1548
c, Capacity [veh/h]	155	184	205	216	198	72	1403	1399	25	2577	1120
d1, Uniform Delay [s]	52.14	45.19	48.80	48.13	46.76	56.75	7.91	7.93	58.63	6.23	4.75
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.17	0.14	0.44	0.53	0.98	9.93	2.95	2.98	9.64	0.40	0.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.06	0.19	0.23	0.33	0.66	0.70	0.70	0.39	0.37	0.05
d, Delay for Lane Group [s/veh]	52.32	45.33	49.24	48.66	47.75	66.68	10.85	10.90	68.27	6.64	4.84
Lane Group LOS	D	D	D	D	D	E	B	B	E	A	A
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.29	0.30	1.09	1.41	1.85	1.60	11.09	11.13	0.36	3.78	0.37
50th-Percentile Queue Length [ft/ln]	7.31	7.42	27.28	35.17	46.32	40.05	277.25	278.15	9.06	94.51	9.20
95th-Percentile Queue Length [veh/ln]	0.53	0.53	1.96	2.53	3.34	2.88	16.55	16.60	0.65	6.80	0.66
95th-Percentile Queue Length [ft/ln]	13.15	13.35	49.11	63.31	83.38	72.08	413.79	414.91	16.31	170.11	16.56

Movement, Approach, & Intersection Results

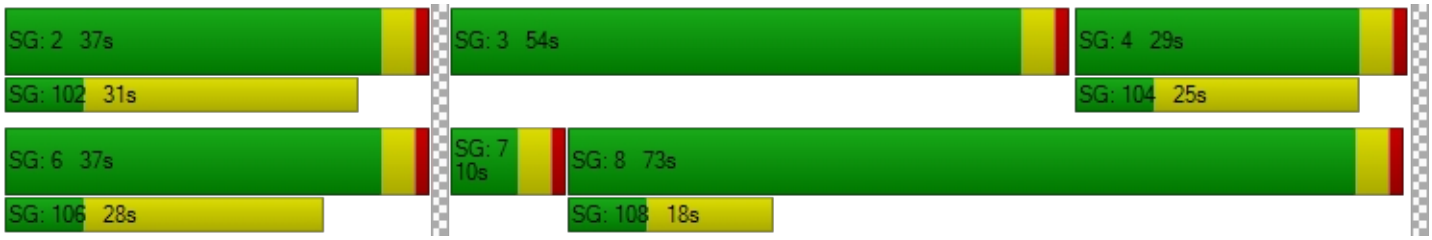
d_M, Delay for Movement [s/veh]	52.32	48.82	45.33	48.95	48.66	47.75	66.68	10.88	10.90	68.27	6.64	4.84
Movement LOS	D	D	D	D	D	D	E	B	B	E	A	A
d_A, Approach Delay [s/veh]	48.65			48.41			12.21			7.14		
Approach LOS	D			D			B			A		
d_I, Intersection Delay [s/veh]	12.59											
Intersection LOS	B											
Intersection V/C	0.642											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2259.86	253.00	210.99	291.14
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.968	2.356	3.216	3.331
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	550	550	1150	417
d_b, Bicycle Delay [s]	31.57	31.58	10.99	37.81
l_b,int, Bicycle LOS Score for Intersection	1.577	1.814	3.222	2.395
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	26.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.660

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	11	22	31	631	51	137	90	1871	19	35	887	280
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	22	31	631	51	137	90	1871	19	35	887	280
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	6	8	158	13	34	23	468	5	9	222	70
Total Analysis Volume [veh/h]	11	22	31	631	51	137	90	1871	19	35	887	280
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	5			9			2			5		
v_di, Inbound Pedestrian Volume crossing m	5			2			9			5		
v_co, Outbound Pedestrian Volume crossing	1			0			2			0		
v_ci, Inbound Pedestrian Volume crossing mi	2			0			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			28			16		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	43	39	0	39	35	0	10	32	0	10	32	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	10	10	25	33	6	65	65	4	64	64
g / C, Green / Cycle	0.02	0.08	0.08	0.21	0.27	0.05	0.54	0.54	0.03	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.02	0.18	0.03	0.03	0.35	0.35	0.02	0.25	0.18
s, saturation flow rate [veh/h]	1781	3560	1531	3459	1870	3459	3560	1858	1781	3560	1560
c, Capacity [veh/h]	29	290	125	715	508	164	1937	1011	61	1891	828
d1, Uniform Delay [s]	58.39	50.94	51.64	46.18	32.73	55.89	19.15	19.17	57.05	17.58	16.02
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.64	0.11	1.03	3.80	0.09	2.83	1.64	3.14	8.05	0.84	1.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.08	0.25	0.88	0.10	0.55	0.64	0.64	0.57	0.47	0.34
d, Delay for Lane Group [s/veh]	66.03	51.05	52.67	49.98	32.81	58.71	20.79	22.31	65.10	18.42	17.13
Lane Group LOS	E	D	D	D	C	E	C	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.40	0.31	0.92	9.12	1.09	1.35	11.08	12.01	1.14	7.07	4.20
50th-Percentile Queue Length [ft/ln]	9.91	7.85	23.00	227.96	27.15	33.64	276.89	300.33	28.57	176.77	104.91
95th-Percentile Queue Length [veh/ln]	0.71	0.57	1.66	14.07	1.95	2.42	16.53	17.70	2.06	11.43	7.55
95th-Percentile Queue Length [ft/ln]	17.83	14.13	41.41	351.77	48.87	60.55	413.34	442.43	51.43	285.79	188.84

Movement, Approach, & Intersection Results

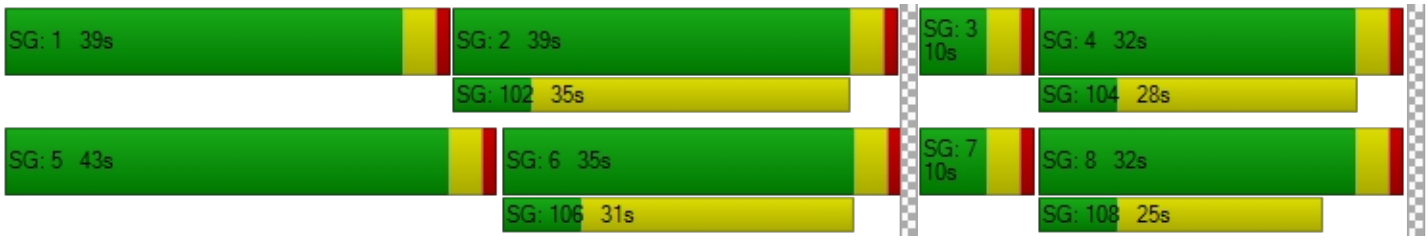
d_M, Delay for Movement [s/veh]	66.03	51.05	52.67	49.98	32.81	0.00	58.71	21.30	22.31	65.10	18.42	17.13
Movement LOS	E	D	D	D	C		E	C	C	E	B	B
d_A, Approach Delay [s/veh]	54.41			48.70			23.01			19.48		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	26.90											
Intersection LOS	C											
Intersection V/C	0.660											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2494.21	0.00	739.46	777.66
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.341	2.758	3.343	3.561
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	467	467
d_b, Bicycle Delay [s]	30.10	33.02	35.77	35.55
l_b,int, Bicycle LOS Score for Intersection	1.612	2.685	2.649	2.551
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	22.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.783

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	10	10	10	320	10	200	120	2371	10	10	884	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	10	10	320	10	200	120	2371	10	10	884	90
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	3	80	3	50	30	593	3	3	221	23
Total Analysis Volume [veh/h]	10	10	10	320	10	200	120	2371	10	10	884	90
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	3			9			5			0		
v_di, Inbound Pedestrian Volume crossing m	0			5			9			3		
v_co, Outbound Pedestrian Volume crossing	1			0			0			1		
v_ci, Inbound Pedestrian Volume crossing mi	0			1			1			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			1			1			10		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	39	0	51	66	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	32	32	32	32	32	10	69	69	2	61	61
g / C, Green / Cycle	0.28	0.28	0.28	0.28	0.28	0.08	0.60	0.60	0.01	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.23	0.01	0.13	0.07	0.47	0.01	0.01	0.17	0.06
s, saturation flow rate [veh/h]	1384	1715	1388	1870	1546	1781	5094	1555	1781	5094	1545
c, Capacity [veh/h]	418	478	412	521	431	152	3069	937	26	2708	821
d1, Uniform Delay [s]	32.02	30.27	41.83	30.08	34.22	51.57	17.00	9.15	56.15	15.27	13.37
k, delay calibration	0.11	0.11	0.28	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.04	7.82	0.01	0.78	8.75	1.96	0.02	9.11	0.32	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.04	0.78	0.02	0.46	0.79	0.77	0.01	0.39	0.33	0.11
d, Delay for Lane Group [s/veh]	32.04	30.31	49.65	30.09	35.00	60.32	18.96	9.17	65.26	15.59	13.64
Lane Group LOS	C	C	D	C	D	E	B	A	E	B	B
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.21	0.42	9.53	0.20	4.65	3.61	13.42	0.09	0.34	3.98	1.11
50th-Percentile Queue Length [ft/ln]	5.37	10.42	238.28	5.06	116.20	90.37	335.42	2.32	8.55	99.54	27.63
95th-Percentile Queue Length [veh/ln]	0.39	0.75	14.59	0.36	8.18	6.51	19.42	0.17	0.62	7.17	1.99
95th-Percentile Queue Length [ft/ln]	9.67	18.75	364.86	9.10	204.60	162.67	485.60	4.18	15.38	179.17	49.74

Movement, Approach, & Intersection Results

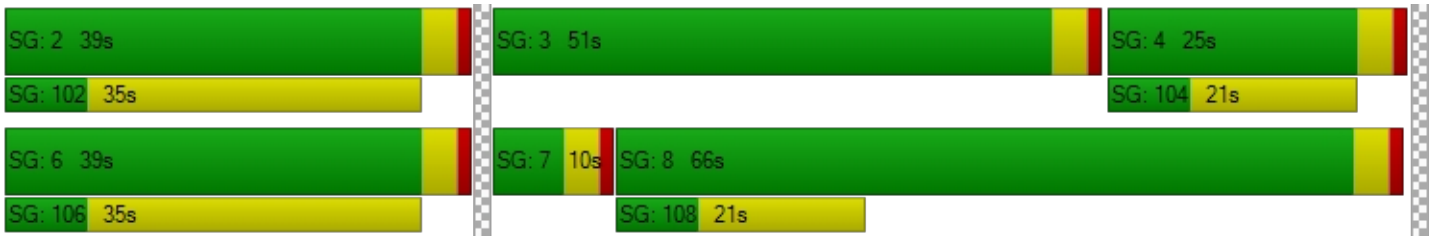
d_M, Delay for Movement [s/veh]	32.04	30.31	30.31	49.65	30.09	35.00	60.32	18.96	9.17	65.26	15.59	13.64
Movement LOS	C	C	C	D	C	D	E	B	A	E	B	B
d_A, Approach Delay [s/veh]	30.88			43.75			20.91			15.92		
Approach LOS	C			D			C			B		
d_I, Intersection Delay [s/veh]	22.76											
Intersection LOS	C											
Intersection V/C	0.783											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	7112.47	6112.11	459.14	1727.56
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersection	1.968	2.356	3.555	4.016
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	609	609	1078	365
d_b, Bicycle Delay [s]	27.83	27.84	12.22	38.61
l_b,int, Bicycle LOS Score for Intersection	1.609	2.434	2.935	2.101
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	22.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.700

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	15	20	10	179	51	135	117	2492	43	59	860	64
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	20	10	179	51	135	117	2492	43	59	860	64
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	5	3	45	13	34	29	623	11	15	215	16
Total Analysis Volume [veh/h]	15	20	10	179	51	135	117	2492	43	59	860	64
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			15			7			0		
v_di, Inbound Pedestrian Volume crossing m	0			7			15			0		
v_co, Outbound Pedestrian Volume crossing	0			2			0			2		
v_ci, Inbound Pedestrian Volume crossing mi	0			2			0			2		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			29			9		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	35	61	0	10	36	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	19	19	19	10	75	75	5	70	70
g / C, Green / Cycle	0.04	0.04	0.16	0.16	0.16	0.08	0.62	0.62	0.04	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.06	0.06	0.09	0.07	0.49	0.03	0.03	0.17	0.04
s, saturation flow rate [veh/h]	1781	1747	1781	1819	1495	1781	5094	1530	1781	5094	1543
c, Capacity [veh/h]	69	68	288	294	242	147	3172	953	77	2973	901
d1, Uniform Delay [s]	55.89	56.39	45.05	45.05	46.09	54.07	16.72	8.78	56.79	12.51	10.83
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.54	4.44	0.88	0.86	2.02	9.44	2.04	0.09	14.31	0.25	0.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.22	0.44	0.40	0.40	0.56	0.80	0.79	0.05	0.76	0.29	0.07
d, Delay for Lane Group [s/veh]	57.43	60.82	45.93	45.91	48.11	63.52	18.76	8.87	71.10	12.76	10.99
Lane Group LOS	E	E	D	D	D	E	B	A	E	B	B
Critical Lane Group	No	Yes	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.47	0.98	3.04	3.10	3.73	3.71	14.49	0.40	2.01	3.46	0.69
50th-Percentile Queue Length [ft/ln]	11.85	24.51	75.93	77.41	93.35	92.84	362.24	10.03	50.19	86.43	17.34
95th-Percentile Queue Length [veh/ln]	0.85	1.77	5.47	5.57	6.72	6.68	20.73	0.72	3.61	6.22	1.25
95th-Percentile Queue Length [ft/ln]	21.34	44.13	136.68	139.34	168.03	167.11	518.30	18.05	90.35	155.58	31.21

Movement, Approach, & Intersection Results

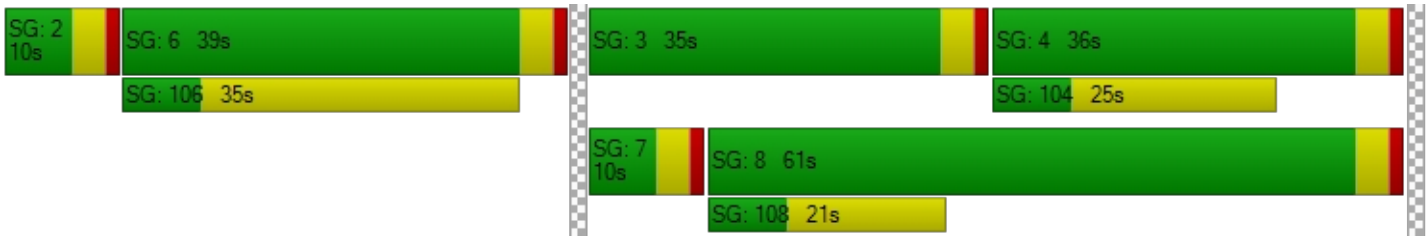
d_M, Delay for Movement [s/veh]	57.43	60.82	60.82	45.93	45.91	48.11	63.52	18.76	8.87	71.10	12.76	10.99
Movement LOS	E	E	E	D	D	D	E	B	A	E	B	B
d_A, Approach Delay [s/veh]	59.69			46.73			20.57			16.14		
Approach LOS	E			D			C			B		
d_I, Intersection Delay [s/veh]	22.29											
Intersection LOS	C											
Intersection V/C	0.700											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1568.75	310.97	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.008	2.352	3.557	0.000
Crosswalk LOS	B	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	533
d_b, Bicycle Delay [s]	54.23	30.19	16.78	32.41
l_b,int, Bicycle LOS Score for Intersection	1.634	2.162	3.018	2.100
Bicycle LOS	A	B	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	26.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.784

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	36	35	22	602	10	168	235	2455	10	10	774	320
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	35	22	602	10	168	235	2455	10	10	774	320
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	9	6	151	3	42	59	614	3	3	194	80
Total Analysis Volume [veh/h]	36	35	22	602	10	168	235	2455	10	10	774	320
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			5			8			0		
v_di, Inbound Pedestrian Volume crossing m	0			8			5			0		
v_co, Outbound Pedestrian Volume crossing	0			0			1			0		
v_ci, Inbound Pedestrian Volume crossing mi	1			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			4		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	21	46	0	10	35	35
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	22	22	22	16	59	59	2	45	81
g / C, Green / Cycle	0.05	0.05	0.21	0.21	0.21	0.15	0.57	0.57	0.01	0.43	0.77
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.17	0.01	0.11	0.13	0.48	0.01	0.01	0.15	0.20
s, saturation flow rate [veh/h]	1781	1751	3459	1870	1561	1781	5094	1549	1781	5094	1565
c, Capacity [veh/h]	95	94	741	401	335	270	2877	875	27	2180	1208
d1, Uniform Delay [s]	48.01	48.62	39.23	32.58	36.23	43.51	19.20	10.01	51.21	20.26	3.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.17
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.47	6.27	2.21	0.02	1.17	8.35	3.46	0.02	8.28	0.45	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.61	0.81	0.02	0.50	0.87	0.85	0.01	0.37	0.36	0.26
d, Delay for Lane Group [s/veh]	50.48	54.90	41.44	32.60	37.40	51.85	22.66	10.03	59.50	20.71	3.60
Lane Group LOS	D	D	D	C	D	D	C	B	E	C	A
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.98	1.63	7.20	0.20	3.70	6.24	14.60	0.09	0.31	4.01	1.21
50th-Percentile Queue Length [ft/ln]	24.55	40.82	179.98	4.88	92.55	155.89	364.88	2.32	7.82	100.27	30.13
95th-Percentile Queue Length [veh/ln]	1.77	2.94	11.60	0.35	6.66	10.33	20.86	0.17	0.56	7.22	2.17
95th-Percentile Queue Length [ft/ln]	44.19	73.48	289.98	8.78	166.60	258.27	521.51	4.18	14.08	180.48	54.24

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.48	54.90	54.90	41.44	32.60	37.40	51.85	22.66	10.03	59.50	20.71	3.60
Movement LOS	D	D	D	D	C	D	D	C	B	E	C	A
d_A, Approach Delay [s/veh]	53.19			40.46			25.16			16.10		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	26.13											
Intersection LOS	C											
Intersection V/C	0.784											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	7812.87	0.00	591.49	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.981	2.752	3.555	0.000
Crosswalk LOS	A	C	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	114	667	800	590
d_b, Bicycle Delay [s]	46.67	23.33	18.97	26.13
l_b,int, Bicycle LOS Score for Intersection	1.713	2.847	3.045	2.167
Bicycle LOS	A	C	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	242.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.450

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	243	512	336	246	188	133	737	3092	173	170	889	291
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	243	512	336	246	188	133	737	3092	173	170	889	291
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	128	84	62	47	33	184	773	43	43	222	73
Total Analysis Volume [veh/h]	243	512	336	246	188	133	737	3092	173	170	889	291
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	16			0			0			8		
v_di, Inbound Pedestrian Volume crossing m	8			0			0			16		
v_co, Outbound Pedestrian Volume crossing	0			1			2			9		
v_ci, Inbound Pedestrian Volume crossing mi	2			9			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			24			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	11	11	35	57	0	13	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	35	35	35	7	7	7	42	31	46	46	16	31	31
g / C, Green / Cycle	0.29	0.29	0.29	0.06	0.06	0.06	0.35	0.26	0.39	0.39	0.13	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.16	0.33	0.28	0.10	0.10	0.10	0.06	0.25	0.72	0.13	0.11	0.21	0.22
s, saturation flow rate [veh/h]	1500	1575	1188	1500	1524	1433	2369	2912	4290	1302	1500	4290	1323
c, Capacity [veh/h]	437	459	346	87	89	84	829	752	1662	505	194	1108	342
d1, Uniform Delay [s]	35.93	42.50	41.98	56.50	56.50	56.50	26.86	44.19	36.75	25.85	51.32	41.63	42.31
k, delay calibration	0.13	0.50	0.44	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.31	77.13	38.12	314.6	312.4	308.9	0.09	11.18	389.39	1.85	11.85	6.16	22.57
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	1.11	0.97	1.68	1.67	1.66	0.16	0.98	1.86	0.34	0.88	0.80	0.85
d, Delay for Lane Group [s/veh]	37.23	119.63	80.10	371.1	368.9	365.4	26.95	55.36	426.14	27.70	63.17	47.80	64.88
Lane Group LOS	D	F	F	F	F	F	C	E	F	C	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.17	23.28	13.38	10.25	10.36	9.66	1.30	11.49	74.99	3.57	5.51	8.54	10.04
50th-Percentile Queue Length [ft/ln]	154.24	582.00	334.50	256.2	259.0	241.6	32.54	287.33	1874.83	89.18	137.87	213.52	250.89
95th-Percentile Queue Length [veh/ln]	10.24	33.34	19.38	17.51	17.67	16.64	2.34	17.05	119.60	6.42	9.37	13.33	15.23
95th-Percentile Queue Length [ft/ln]	256.07	833.52	484.48	437.8	441.6	415.9	58.58	426.33	2989.95	160.52	234.15	333.35	380.77

Movement, Approach, & Intersection Results

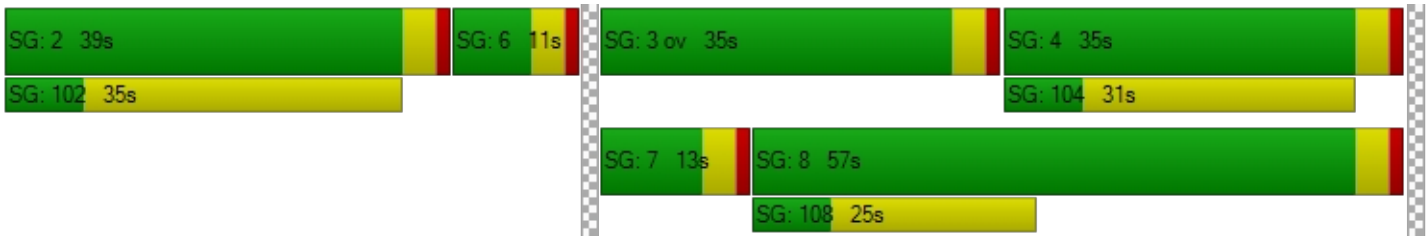
d_M, Delay for Movement [s/veh]	37.23	119.63	80.10	370.05	366.39	26.95	55.36	426.14	27.70	63.17	47.80	64.88
Movement LOS	D	F	F	F	F	C	E	F	C	E	D	E
d_A, Approach Delay [s/veh]	89.10			288.45			340.63			53.41		
Approach LOS	F			F			F			D		
d_I, Intersection Delay [s/veh]	241.95											
Intersection LOS	F											
Intersection V/C	1.450											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2530.55	471.78	0.00	197.80
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.630	2.999	0.000	3.658
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	117	883	517
d_b, Bicycle Delay [s]	30.10	53.20	18.93	33.00
l_b,int, Bicycle LOS Score for Intersection	2.460	2.027	3.761	2.116
Bicycle LOS	B	B	D	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	160.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.443

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			25.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	0	0	0	439	0	543	0	2805	140	0	1252	450
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	439	0	543	0	2805	140	0	1252	450
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	110	0	136	0	701	35	0	313	113
Total Analysis Volume [veh/h]	0	0	0	439	0	543	0	2805	140	0	1252	450
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			1			0			1	
v_ci, Inbound Pedestrian Volume crossing mi		0			1			0			1	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			2			24			1	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	39	0	0	0	81	0	0	81	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		35	35	77	77
g / C, Green / Cycle		0.29	0.29	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate		0.15	0.41	0.94	0.29
s, saturation flow rate [veh/h]		2912	1320	2998	4290
c, Capacity [veh/h]		849	385	1924	2752
d1, Uniform Delay [s]		35.45	42.26	21.50	10.88
k, delay calibration		0.11	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.49	199.35	209.03	0.54
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.52	1.41	1.46	0.45
d, Delay for Lane Group [s/veh]		35.94	241.62	230.53	11.42
Lane Group LOS		D	F	F	B
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		5.47	32.66	78.35	5.08
50th-Percentile Queue Length [ft/ln]		136.83	816.38	1958.71	126.93
95th-Percentile Queue Length [veh/ln]		9.31	50.25	120.29	8.77
95th-Percentile Queue Length [ft/ln]		232.74	1256.19	3007.36	219.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	35.94	0.00	241.62	0.00	230.53	0.00	0.00	11.42	0.00
Movement LOS				D		F		F			B	
d_A, Approach Delay [s/veh]	0.00			149.67			230.53			11.42		
Approach LOS	A			F			F			B		
d_I, Intersection Delay [s/veh]	160.33											
Intersection LOS	F											
Intersection V/C	1.443											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	3744.14	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.344	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1283	1283
d_b, Bicycle Delay [s]	60.00	60.00	7.80	7.71
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	3.874	2.248
Bicycle LOS	D	D	D	B

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: Main Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	23.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.495

Intersection Setup

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	1	0	1
Pocket Length [ft]	100.00	70.00	145.00	100.00	240.00	100.00	120.00
Speed [mph]	25.00		45.00		45.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		Yes		Yes		

Volumes

Name	Main Street		Pacific Coast Highway		Pacific Coast Highway		
Base Volume Input [veh/h]	56	61	85	1303	34	1761	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	56	61	85	1303	34	1761	100
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	15	21	326	9	440	25
Total Analysis Volume [veh/h]	56	61	85	1303	34	1761	100
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	218		290		318		
v_di, Inbound Pedestrian Volume crossing m	290		218		0		
v_co, Outbound Pedestrian Volume crossing	101		0		67		
v_ci, Inbound Pedestrian Volume crossing mi	67		318		101		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	1		0		5		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Protected	Permissive	Permissive
Signal group	1	0	3	8	7	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	Lead	-	-
Minimum Green [s]	6	0	6	6	6	6	0
Maximum Green [s]	30	0	30	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0	0.0
Split [s]	10	0	16	40	10	34	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0
Rest In Walk							
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	No	
Maximum Recall	No		No	No	No	No	
Pedestrian Recall	No		No	No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	2
Pedestrian Walk [s]	7
Pedestrian Clearance [s]	28

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	46	4	43	43
g / C, Green / Cycle	0.06	0.06	0.06	0.48	0.04	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.03	0.04	0.05	0.26	0.02	0.35	0.06
s, saturation flow rate [veh/h]	1781	1565	1781	5094	1781	5094	1551
c, Capacity [veh/h]	107	94	111	2443	67	2319	706
d1, Uniform Delay [s]	43.30	43.62	43.87	17.28	44.83	21.54	15.04
k, delay calibration	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.87	7.21	10.53	0.84	5.74	2.40	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.52	0.65	0.77	0.53	0.50	0.76	0.14
d, Delay for Lane Group [s/veh]	47.18	50.82	54.40	18.12	50.57	23.94	15.46
Lane Group LOS	D	D	D	B	D	C	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.40	1.59	2.22	6.11	0.86	10.19	1.23
50th-Percentile Queue Length [ft/ln]	34.89	39.83	55.39	152.76	21.60	254.71	30.83
95th-Percentile Queue Length [veh/ln]	2.51	2.87	3.99	10.16	1.56	15.42	2.22
95th-Percentile Queue Length [ft/ln]	62.80	71.70	99.71	254.11	38.89	385.58	55.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.18	50.82	54.40	18.12	50.57	23.94	15.46
Movement LOS	D	D	D	B	D	C	B
d_A, Approach Delay [s/veh]	49.08		20.34		23.97		
Approach LOS	D		C		C		
d_I, Intersection Delay [s/veh]	23.35						
Intersection LOS	C						
Intersection V/C	0.495						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	37.34	17.79	30.85
d_p, Pedestrian Delay [s]	37.14	37.14	37.14
l_p,int, Pedestrian LOS Score for Intersection	2.024	3.267	3.323
Crosswalk LOS	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	47.50	47.50	47.50
l_b,int, Bicycle LOS Score for Intersection	4.132	4.896	5.175
Bicycle LOS	D	E	F

Sequence

Ring 1	1	3	4	2	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Intersection Level Of Service Report
Intersection 15: 1st Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	31.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.668

Intersection Setup

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	230.00	100.00	100.00	290.00	100.00	100.00
Speed [mph]	25.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	1st Street			1st Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	38	25	38	106	24	103	200	1147	10	26	1731	170
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	25	38	106	24	103	200	1147	10	26	1731	170
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	6	10	27	6	26	50	287	3	7	433	43
Total Analysis Volume [veh/h]	38	25	38	106	24	103	200	1147	10	26	1731	170
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			74			51			0		
v_di, Inbound Pedestrian Volume crossing m	0			51			74			0		
v_co, Outbound Pedestrian Volume crossing	8			125			8			139		
v_ci, Inbound Pedestrian Volume crossing mi	8			139			8			125		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			5			1			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	35	0	21	64	0	11	54	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	28	28	28	15	67	67	4	55	55
g / C, Green / Cycle	0.05	0.05	0.05	0.23	0.23	0.23	0.13	0.56	0.56	0.03	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.02	0.04	0.04	0.04	0.11	0.21	0.21	0.01	0.36	0.40
s, saturation flow rate [veh/h]	1781	1850	1589	1781	1813	2328	1781	3560	1860	1781	3560	1598
c, Capacity [veh/h]	86	89	77	417	424	544	229	1976	1032	52	1624	729
d1, Uniform Delay [s]	55.32	55.29	55.67	36.54	36.53	36.55	51.35	15.10	15.11	57.36	27.52	29.52
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.56	2.38	4.86	0.17	0.17	0.17	10.09	0.57	1.09	7.08	3.75	13.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.35	0.49	0.16	0.15	0.19	0.87	0.38	0.38	0.50	0.78	0.87
d, Delay for Lane Group [s/veh]	57.87	57.67	60.54	36.71	36.70	36.72	61.44	15.67	16.19	64.43	31.27	43.31
Lane Group LOS	E	E	E	D	D	D	E	B	B	E	C	D
Critical Lane Group	No	No	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.99	1.00	1.24	1.52	1.54	1.21	6.38	5.59	6.00	0.86	15.11	18.21
50th-Percentile Queue Length [ft/ln]	24.66	24.93	30.88	38.07	38.56	30.29	159.59	139.75	149.91	21.57	377.77	455.31
95th-Percentile Queue Length [veh/ln]	1.78	1.80	2.22	2.74	2.78	2.18	10.53	9.47	10.01	1.55	21.49	25.21
95th-Percentile Queue Length [ft/ln]	44.38	44.88	55.58	68.53	69.40	54.53	263.18	236.69	250.31	38.83	537.15	630.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.84	57.67	60.54	36.71	36.70	36.72	61.44	15.85	16.19	64.43	34.52	43.31
Movement LOS	E	E	E	D	D	D	E	B	B	E	C	D
d_A, Approach Delay [s/veh]	58.81			36.71			22.57			35.70		
Approach LOS	E			D			C			D		
d_I, Intersection Delay [s/veh]	31.49											
Intersection LOS	C											
Intersection V/C	0.668											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	454.66	18.39	54.47	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.178	2.457	3.282	0.000
Crosswalk LOS	B	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	517	1000	833
d_b, Bicycle Delay [s]	54.15	33.09	15.01	20.50
l_b,int, Bicycle LOS Score for Intersection	1.726	1.944	2.306	2.619
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 16: Huntington Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	19.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.692

Intersection Setup

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	95.00	100.00	100.00	320.00	100.00	100.00	340.00	100.00	185.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Huntington Street			Huntington Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	16	10	28	66	10	81	84	1221	10	16	1834	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	10	28	66	10	81	84	1221	10	16	1834	83
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	7	17	3	20	21	305	3	4	459	21
Total Analysis Volume [veh/h]	16	10	28	66	10	81	84	1221	10	16	1834	83
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	2			36			66			25		
v_di, Inbound Pedestrian Volume crossing m	25			66			36			2		
v_co, Outbound Pedestrian Volume crossing	15			11			15			38		
v_ci, Inbound Pedestrian Volume crossing mi	15			38			15			11		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	7			4			3			7		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	35	0	0	35	0	10	74	0	11	75	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	0	0	21	0	0	11	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	25	25	25	25	7	81	81	3	76	76
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.06	0.67	0.67	0.02	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.03	0.03	0.06	0.05	0.33	0.33	0.01	0.52	0.05
s, saturation flow rate [veh/h]	1113	1364	1292	1235	1333	1781	1870	1863	1781	3560	1531
c, Capacity [veh/h]	277	280	285	306	273	106	1260	1255	38	2262	973
d1, Uniform Delay [s]	38.89	38.71	42.05	40.71	39.94	55.70	9.53	9.54	58.00	16.45	8.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.14	0.16	0.19	0.20	0.60	12.40	1.36	1.37	7.31	3.28	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.10	0.12	0.13	0.30	0.79	0.49	0.49	0.42	0.81	0.09
d, Delay for Lane Group [s/veh]	39.03	38.86	42.24	40.91	40.54	68.10	10.89	10.91	65.31	19.73	8.59
Lane Group LOS	D	D	D	D	D	E	B	B	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.64	0.70	0.91	1.06	2.08	2.81	7.19	7.18	0.55	17.28	0.80
50th-Percentile Queue Length [ft/ln]	15.94	17.39	22.64	26.53	52.00	70.35	179.76	179.47	13.66	432.05	19.98
95th-Percentile Queue Length [veh/ln]	1.15	1.25	1.63	1.91	3.74	5.07	11.59	11.57	0.98	24.10	1.44
95th-Percentile Queue Length [ft/ln]	28.69	31.31	40.75	47.76	93.60	126.64	289.71	289.32	24.58	602.49	35.96

Movement, Approach, & Intersection Results

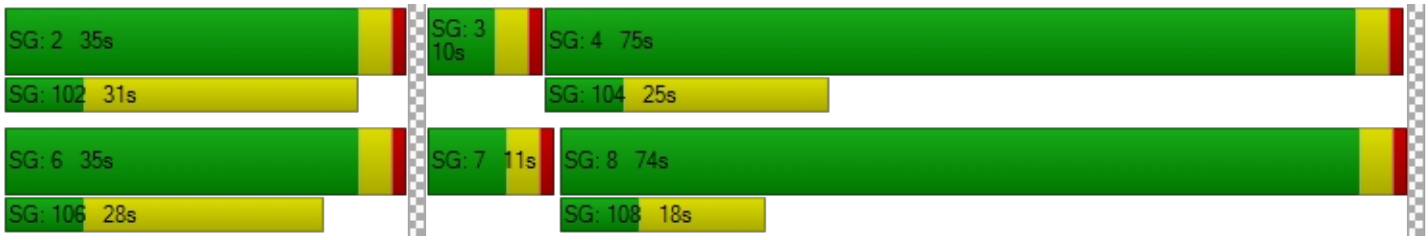
d_M, Delay for Movement [s/veh]	39.03	39.03	38.86	41.62	40.91	40.54	68.10	10.90	10.91	65.31	19.73	8.59
Movement LOS	D	D	D	D	D	D	E	B	B	E	B	A
d_A, Approach Delay [s/veh]	38.94			41.02			14.56			19.63		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	18.97											
Intersection LOS	B											
Intersection V/C	0.692											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	224.96	130.59	60.04	245.74
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.978	2.368	3.286	3.357
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	517	517	1167	1183
d_b, Bicycle Delay [s]	33.12	33.07	10.43	10.04
l_b,int, Bicycle LOS Score for Intersection	1.604	1.819	2.644	3.154
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: Beach Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	29.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.763

Intersection Setup

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	440.00	100.00	100.00	285.00	100.00	100.00	300.00	100.00	800.00
Speed [mph]	25.00			50.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beach Boulevard			Beach Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	14	41	20	321	33	211	181	1155	12	16	1674	785
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	41	20	321	33	211	181	1155	12	16	1674	785
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	10	5	80	8	53	45	289	3	4	419	196
Total Analysis Volume [veh/h]	14	41	20	321	33	211	181	1155	12	16	1674	785
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	10			5			5			17		
v_di, Inbound Pedestrian Volume crossing m	17			5			5			10		
v_co, Outbound Pedestrian Volume crossing	2			4			1			1		
v_ci, Inbound Pedestrian Volume crossing mi	1			1			2			4		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			6			1			6		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Unsigna	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	39	0	17	35	0	10	50	0	14	54	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	24	0	0	18	0	0	21	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	16	16	13	27	9	72	72	2	66	66
g / C, Green / Cycle	0.02	0.14	0.14	0.11	0.22	0.07	0.60	0.60	0.02	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.01	0.09	0.02	0.05	0.22	0.22	0.01	0.47	0.50
s, saturation flow rate [veh/h]	1781	3560	1470	3459	1870	3459	3560	1859	1781	3560	1562
c, Capacity [veh/h]	34	482	199	373	419	245	2145	1120	37	1967	863
d1, Uniform Delay [s]	58.18	45.37	45.42	52.63	36.75	54.65	12.09	12.09	58.04	22.70	23.76
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.74	0.07	0.22	5.84	0.08	4.30	0.47	0.89	7.64	4.88	15.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.09	0.10	0.86	0.08	0.74	0.36	0.36	0.43	0.85	0.91
d, Delay for Lane Group [s/veh]	65.93	45.45	45.64	58.46	36.83	58.95	12.56	12.99	65.68	27.58	39.03
Lane Group LOS	E	D	D	E	D	E	B	B	E	C	D
Critical Lane Group	No	No	Yes	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.50	0.55	0.54	4.89	0.75	2.72	4.64	4.98	0.54	18.54	20.56
50th-Percentile Queue Length [ft/ln]	12.43	13.69	13.55	122.31	18.76	67.99	116.05	124.60	13.53	463.59	513.95
95th-Percentile Queue Length [veh/ln]	0.89	0.99	0.98	8.52	1.35	4.90	8.18	8.65	0.97	25.61	27.99
95th-Percentile Queue Length [ft/ln]	22.37	24.65	24.40	212.99	33.77	122.39	204.38	216.14	24.35	640.15	699.85

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	65.93	45.45	45.64	58.46	36.83	0.00	58.95	12.70	12.99	65.68	27.58	39.03
Movement LOS	E	D	D	E	D		E	B	B	E	C	D
d_A, Approach Delay [s/veh]	49.32			56.45			18.91			31.46		
Approach LOS	D			E			B			C		
d_I, Intersection Delay [s/veh]	29.88											
Intersection LOS	C											
Intersection V/C	0.763											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2530.89	0.00	814.07	291.98
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.336	2.835	3.383	3.622
Crosswalk LOS	B	C	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	517	767	833
d_b, Bicycle Delay [s]	30.15	33.10	22.83	20.48
l_b,int, Bicycle LOS Score for Intersection	1.621	2.144	2.301	3.601
Bicycle LOS	A	B	B	D

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 22: Newland Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	14.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.738

Intersection Setup

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	205.00	100.00	100.00	330.00	100.00	295.00	300.00	100.00	300.00
Speed [mph]	25.00			35.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Newland Street			Newland Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	10	10	10	100	10	209	127	1352	10	4	2209	280
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	10	10	100	10	209	127	1352	10	4	2209	280
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	3	25	3	52	32	338	3	1	552	70
Total Analysis Volume [veh/h]	10	10	10	100	10	209	127	1352	10	4	2209	280
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	1			3			1			1		
v_di, Inbound Pedestrian Volume crossing m	1			1			3			1		
v_co, Outbound Pedestrian Volume crossing	0			0			1			2		
v_ci, Inbound Pedestrian Volume crossing mi	1			2			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	2			2			1			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	55	0	0	55	0	10	25	0	10	25	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	14	0	0	14	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	8	62	62	1	55	55
g / C, Green / Cycle	0.17	0.17	0.17	0.17	0.17	0.09	0.69	0.69	0.01	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.07	0.01	0.13	0.07	0.27	0.01	0.00	0.43	0.18
s, saturation flow rate [veh/h]	1395	1701	1387	1870	1555	1781	5094	1556	1781	5094	1552
c, Capacity [veh/h]	287	289	279	318	264	161	3515	1074	12	3088	941
d1, Uniform Delay [s]	32.87	31.38	35.59	31.18	35.71	40.07	5.89	4.35	44.49	12.32	8.47
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.05	0.10	0.78	0.04	5.29	8.20	0.32	0.02	15.00	1.45	0.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.07	0.36	0.03	0.79	0.79	0.38	0.01	0.33	0.72	0.30
d, Delay for Lane Group [s/veh]	32.92	31.48	36.36	31.22	41.00	48.27	6.21	4.37	59.49	13.77	9.28
Lane Group LOS	C	C	D	C	D	D	A	A	E	B	A
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.19	0.37	2.03	0.18	4.64	2.93	2.38	0.04	0.13	7.97	2.19
50th-Percentile Queue Length [ft/ln]	4.79	9.36	50.86	4.53	115.93	73.15	59.46	1.05	3.35	199.29	54.67
95th-Percentile Queue Length [veh/ln]	0.35	0.67	3.66	0.33	8.17	5.27	4.28	0.08	0.24	12.60	3.94
95th-Percentile Queue Length [ft/ln]	8.63	16.86	91.55	8.15	204.23	131.67	107.04	1.89	6.03	315.05	98.41

Movement, Approach, & Intersection Results

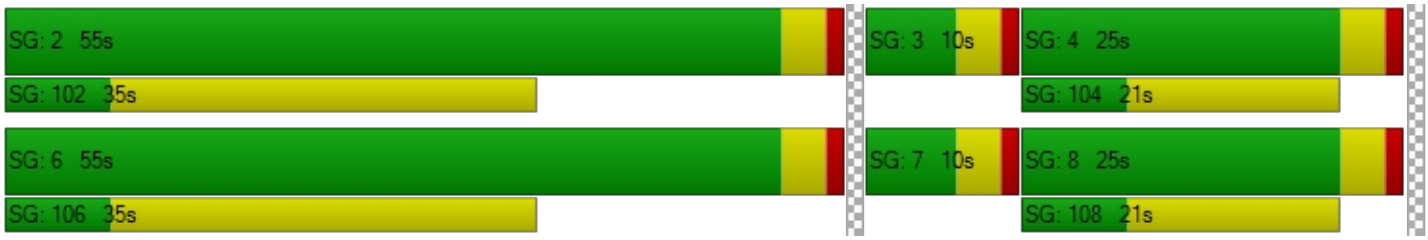
d_M, Delay for Movement [s/veh]	32.92	31.48	31.48	36.36	31.22	41.00	48.27	6.21	4.37	59.49	13.77	9.28
Movement LOS	C	C	C	D	C	D	D	A	A	E	B	A
d_A, Approach Delay [s/veh]	31.96			39.24			9.78			13.34		
Approach LOS	C			D			A			B		
d_I, Intersection Delay [s/veh]	14.15											
Intersection LOS	B											
Intersection V/C	0.738											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	9155.30	2344.30	2185.14	4940.84
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	1.954	2.340	3.614	3.751
Crosswalk LOS	A	B	D	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1133	1133	467	467
d_b, Bicycle Delay [s]	8.46	8.46	26.46	26.49
l_b,int, Bicycle LOS Score for Intersection	1.609	2.086	2.379	2.931
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 26: Magnolia Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	21.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.731

Intersection Setup

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	125.00	415.00	100.00	295.00	335.00	100.00	320.00
Speed [mph]	25.00			45.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Magnolia Street			Magnolia Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	10	22	15	89	23	95	164	1238	31	43	2433	235
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	22	15	89	23	95	164	1238	31	43	2433	235
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	6	4	22	6	24	41	310	8	11	608	59
Total Analysis Volume [veh/h]	10	22	15	89	23	95	164	1238	31	43	2433	235
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			6			9			0		
v_di, Inbound Pedestrian Volume crossing m	0			9			6			0		
v_co, Outbound Pedestrian Volume crossing	0			1			0			1		
v_ci, Inbound Pedestrian Volume crossing mi	0			1			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			8			9			8		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	10	0	0	39	0	34	56	0	10	32	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	18	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	5	15	15	15	13	75	75	4	67	67
g / C, Green / Cycle	0.04	0.04	0.13	0.13	0.13	0.11	0.65	0.65	0.04	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.03	0.03	0.06	0.09	0.24	0.02	0.02	0.48	0.15
s, saturation flow rate [veh/h]	1781	1723	1781	1816	1494	1781	5094	1550	1781	5094	1547
c, Capacity [veh/h]	72	70	227	231	190	197	3331	1013	70	2966	901
d1, Uniform Delay [s]	53.22	54.08	45.21	45.20	46.58	50.09	9.10	7.03	54.41	19.21	11.77
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.86	6.05	0.56	0.54	2.02	8.76	0.32	0.06	8.61	2.68	0.70
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	0.53	0.25	0.24	0.50	0.83	0.37	0.03	0.62	0.82	0.26
d, Delay for Lane Group [s/veh]	54.08	60.14	45.76	45.74	48.60	58.85	9.42	7.08	63.02	21.89	12.48
Lane Group LOS	D	E	D	D	D	E	A	A	E	C	B
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.30	1.18	1.43	1.45	2.57	4.89	3.92	0.24	1.34	15.17	2.74
50th-Percentile Queue Length [ft/ln]	7.47	29.40	35.80	36.26	64.13	122.17	98.09	5.94	33.55	379.20	68.49
95th-Percentile Queue Length [veh/ln]	0.54	2.12	2.58	2.61	4.62	8.51	7.06	0.43	2.42	21.56	4.93
95th-Percentile Queue Length [ft/ln]	13.44	52.92	64.44	65.26	115.43	212.81	176.56	10.69	60.39	538.88	123.28

Movement, Approach, & Intersection Results

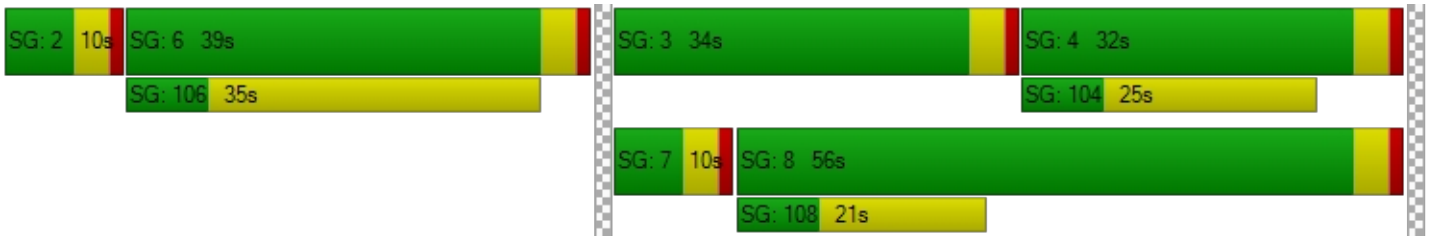
d_M, Delay for Movement [s/veh]	54.08	60.14	60.14	45.75	45.74	48.60	58.85	9.42	7.08	63.02	21.89	12.48
Movement LOS	D	E	E	D	D	D	E	A	A	E	C	B
d_A, Approach Delay [s/veh]	58.85			47.06			15.03			21.72		
Approach LOS	E			D			B			C		
d_I, Intersection Delay [s/veh]	21.13											
Intersection LOS	C											
Intersection V/C	0.731											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1685.06	508.45	0.00
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.991	2.372	3.624	0.000
Crosswalk LOS	A	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	104	609	904	487
d_b, Bicycle Delay [s]	51.73	27.94	17.33	33.04
l_b,int, Bicycle LOS Score for Intersection	1.637	1.901	2.348	3.051
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 27: Brookhurst Street at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	35.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.877

Intersection Setup

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	2	0	1	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	300.00	100.00	255.00	410.00	100.00	315.00	330.00	100.00	255.00
Speed [mph]	25.00			50.00			55.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	Brookhurst Street			Brookhurst Street			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	40	45	21	420	24	236	211	1131	8	29	2458	919
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	45	21	420	24	236	211	1131	8	29	2458	919
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	11	5	105	6	59	53	283	2	7	615	230
Total Analysis Volume [veh/h]	40	45	21	420	24	236	211	1131	8	29	2458	919
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			4			9			0		
v_di, Inbound Pedestrian Volume crossing m	0			9			4			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			7			3		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap
Signal group	0	2	0	0	6	0	3	8	0	7	4	4
Auxiliary Signal Groups												4,6
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	6
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	1.0
Split [s]	0	10	0	0	39	0	10	61	0	10	61	61
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0
Walk [s]	0	0	0	0	7	0	0	7	0	0	7	7
Pedestrian Clearance [s]	0	0	0	0	28	0	0	14	0	0	24	24
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0
Minimum Recall		No			No		No	No		No	No	No
Maximum Recall		No			No		No	No		No	No	No
Pedestrian Recall		No			No		No	No		No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	6	6	24	24	24	16	70	70	4	58	96
g / C, Green / Cycle	0.05	0.05	0.20	0.20	0.20	0.13	0.59	0.59	0.03	0.48	0.80
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.12	0.01	0.15	0.12	0.22	0.01	0.02	0.48	0.59
s, saturation flow rate [veh/h]	1781	1771	3459	1870	1559	1781	5094	1551	1781	5094	1565
c, Capacity [veh/h]	89	89	693	375	313	236	2981	907	55	2464	1253
d1, Uniform Delay [s]	55.39	56.25	43.65	38.85	45.04	51.23	13.27	10.38	57.27	30.90	5.64
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.51	11.68	0.86	0.07	3.71	11.33	0.37	0.02	7.54	17.55	3.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.75	0.61	0.06	0.76	0.89	0.38	0.01	0.53	1.00	0.73
d, Delay for Lane Group [s/veh]	58.91	67.93	44.51	38.92	48.75	62.56	13.64	10.39	64.81	48.45	9.47
Lane Group LOS	E	E	D	D	D	E	B	B	E	D	A
Critical Lane Group	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.27	2.28	5.55	0.56	6.66	6.70	4.85	0.08	0.96	25.28	7.57
50th-Percentile Queue Length [ft/ln]	31.85	56.90	138.65	14.08	166.43	167.43	121.35	2.08	23.90	631.88	189.22
95th-Percentile Queue Length [veh/ln]	2.29	4.10	9.41	1.01	10.89	10.94	8.47	0.15	1.72	33.52	12.08
95th-Percentile Queue Length [ft/ln]	57.32	102.42	235.21	25.34	272.22	273.54	211.68	3.75	43.02	838.01	302.02

Movement, Approach, & Intersection Results

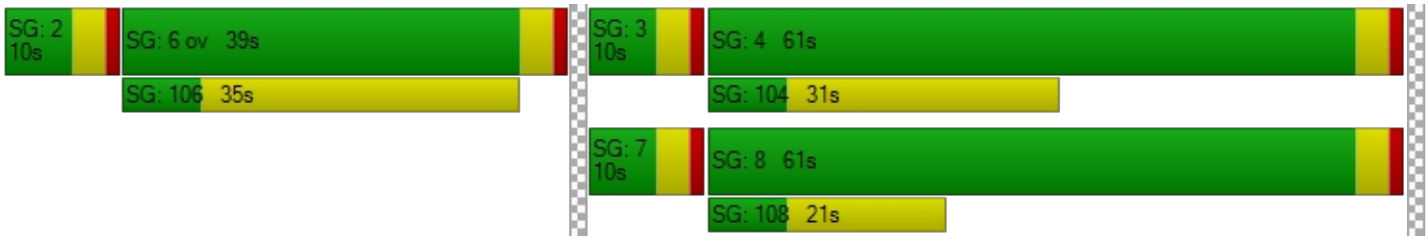
d_M, Delay for Movement [s/veh]	58.91	67.93	67.93	44.51	38.92	48.75	62.56	13.64	10.39	64.81	48.45	9.47
Movement LOS	E	E	E	D	D	D	E	B	B	E	D	A
d_A, Approach Delay [s/veh]	64.52			45.78			21.27			38.07		
Approach LOS	E			D			C			D		
d_I, Intersection Delay [s/veh]	35.43											
Intersection LOS	D											
Intersection V/C	0.877											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	445.95	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.999	2.917	3.652	0.000
Crosswalk LOS	A	C	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	100	583	950	950
d_b, Bicycle Delay [s]	54.15	30.10	16.60	16.56
l_b,int, Bicycle LOS Score for Intersection	1.735	2.682	2.302	3.433
Bicycle LOS	A	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	180.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.016

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	560.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	242	279	171	309	454	667	225	1061	214	431	2734	162
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	242	279	171	309	454	667	225	1061	214	431	2734	162
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	70	43	77	114	167	56	265	54	108	684	41
Total Analysis Volume [veh/h]	242	279	171	309	454	667	225	1061	214	431	2734	162
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	29			0			0			25		
v_di, Inbound Pedestrian Volume crossing m	25			0			0			29		
v_co, Outbound Pedestrian Volume crossing	3			10			1			15		
v_ci, Inbound Pedestrian Volume crossing mi	1			15			3			10		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			1			10			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	39	0	0	19	19	15	34	0	28	47	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	20	20	20	35	11	17	17	37	43	43
g / C, Green / Cycle	0.25	0.25	0.25	0.17	0.17	0.17	0.29	0.09	0.14	0.14	0.31	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.17	0.17	0.17	0.17	0.28	0.08	0.25	0.17	0.29	0.50	0.51
s, saturation flow rate [veh/h]	1500	1574	1162	1500	1559	1433	2350	2912	4290	1291	1500	4290	1510
c, Capacity [veh/h]	375	393	290	250	260	239	689	272	623	187	458	1531	539
d1, Uniform Delay [s]	40.20	40.17	40.82	50.01	50.01	50.01	41.71	53.45	51.29	50.99	40.65	38.58	38.58
k, delay calibration	0.12	0.12	0.16	0.22	0.21	0.21	0.13	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.08	1.94	4.20	44.51	41.10	41.99	11.71	6.33	323.73	109.03	9.95	179.75	201.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	0.64	0.69	1.03	1.02	1.02	0.97	0.83	1.70	1.14	0.94	1.39	1.42
d, Delay for Lane Group [s/veh]	42.29	42.12	45.02	94.52	91.10	92.00	53.42	59.78	375.02	160.02	50.60	218.33	239.68
Lane Group LOS	D	D	D	F	F	F	D	E	F	F	D	F	F
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.54	6.82	5.71	10.41	10.58	9.78	10.51	3.46	24.66	11.06	13.11	39.65	45.08
50th-Percentile Queue Length [ft/ln]	163.54	170.48	142.77	260.3	264.4	244.5	262.8	86.60	616.57	276.60	327.77	991.25	1127.00
95th-Percentile Queue Length [veh/ln]	10.74	11.10	9.63	15.90	16.05	15.02	15.83	6.24	39.46	17.49	19.05	60.32	68.48
95th-Percentile Queue Length [ft/ln]	268.40	277.54	240.75	397.6	401.2	375.5	395.8	155.89	986.46	437.36	476.23	1507.88	1711.96

Movement, Approach, & Intersection Results

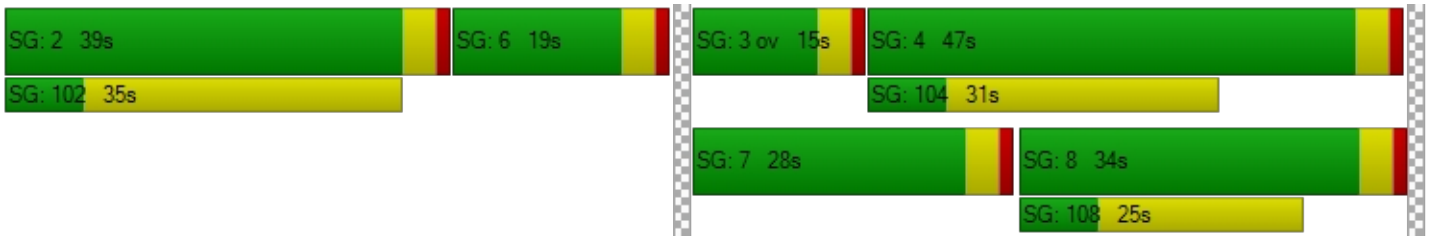
d_M, Delay for Movement [s/veh]	42.28	42.43	45.02	93.90	91.58	53.42	59.78	375.02	160.02	50.60	223.06	239.68
Movement LOS	D	D	D	F	F	D	E	F	F	D	F	F
d_A, Approach Delay [s/veh]	43.02			74.29			297.06			201.52		
Approach LOS	D			E			F			F		
d_I, Intersection Delay [s/veh]	180.18											
Intersection LOS	F											
Intersection V/C	1.016											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1103.95	248.91	0.00	119.28
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.663	2.997	0.000	3.629
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	250	500	717
d_b, Bicycle Delay [s]	30.12	45.96	33.92	24.70
l_b,int, Bicycle LOS Score for Intersection	2.131	2.739	2.385	2.932
Bicycle LOS	B	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	48.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.036

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			25.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	0	0	0	557	0	501	0	1763	90	0	2345	680
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	557	0	501	0	1763	90	0	2345	680
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	139	0	125	0	441	23	0	586	170
Total Analysis Volume [veh/h]	0	0	0	557	0	501	0	1763	90	0	2345	680
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			6	
v_ci, Inbound Pedestrian Volume crossing mi		0			6			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			2			16			6	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	48	0	0	0	72	0	0	72	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	C
C, Cycle Length [s]		120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		44	44	68	68
g / C, Green / Cycle		0.37	0.37	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate		0.19	0.38	0.59	0.55
s, saturation flow rate [veh/h]		2912	1321	2998	4290
c, Capacity [veh/h]		1068	484	1699	2431
d1, Uniform Delay [s]		29.76	37.71	26.00	24.85
k, delay calibration		0.11	0.49	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.40	49.73	32.27	11.67
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.52	1.03	1.04	0.96
d, Delay for Lane Group [s/veh]		30.15	87.44	58.27	36.53
Lane Group LOS		C	F	F	D
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		6.41	20.69	28.94	21.39
50th-Percentile Queue Length [ft/ln]		160.33	517.35	723.60	534.66
95th-Percentile Queue Length [veh/ln]		10.57	28.82	38.94	28.97
95th-Percentile Queue Length [ft/ln]		264.16	720.58	973.58	724.26

Movement, Approach, & Intersection Results

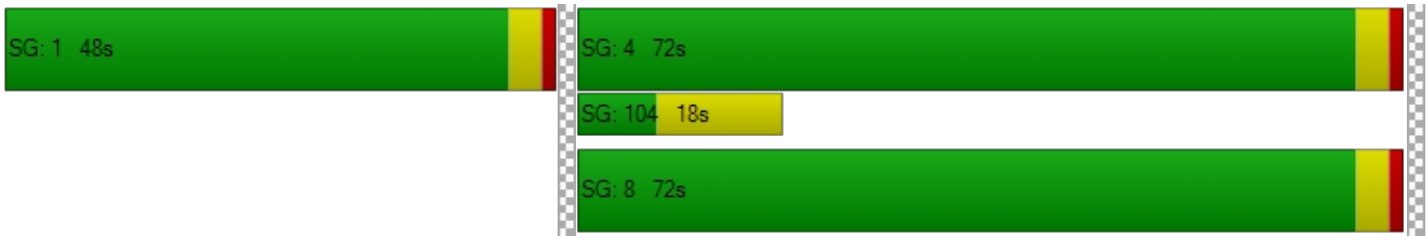
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	30.15	0.00	87.44	0.00	58.27	0.00	0.00	36.53	0.00
Movement LOS				C		F		F			D	
d_A, Approach Delay [s/veh]	0.00			57.28			58.27			36.53		
Approach LOS	A			E			E			D		
d_I, Intersection Delay [s/veh]	48.20											
Intersection LOS	D											
Intersection V/C	1.036											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1245.04	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.360	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1133	1133
d_b, Bicycle Delay [s]	60.00	60.00	11.36	11.30
l_b,int, Bicycle LOS Score for Intersection	4.132	4.132	3.014	2.849
Bicycle LOS	D	D	C	C

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX A-XV

BUILDOUT PLUS PROJECT ALTERNATIVE WITH MITIGATION TRAFFIC CONDITIONS

Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	217.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.387

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	100.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	243	512	336	246	188	133	737	3092	173	170	889	291
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	243	512	336	246	188	133	737	3092	173	170	889	291
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	128	84	62	47	33	184	773	43	43	222	73
Total Analysis Volume [veh/h]	243	512	336	246	188	133	737	3092	173	170	889	291
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	16			0			0			8		
v_di, Inbound Pedestrian Volume crossing m	8			0			0			16		
v_co, Outbound Pedestrian Volume crossing	0			1			2			9		
v_ci, Inbound Pedestrian Volume crossing mi	2			9			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			24			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	42	0	0	11	11	32	57	0	10	35	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	31	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	38	38	38	7	7	7	39	28	50	50	9	31	31
g / C, Green / Cycle	0.32	0.32	0.32	0.06	0.06	0.06	0.33	0.23	0.41	0.41	0.08	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.16	0.33	0.28	0.10	0.10	0.10	0.06	0.25	0.72	0.13	0.06	0.21	0.22
s, saturation flow rate [veh/h]	1500	1575	1190	1500	1524	1433	2369	2912	4290	1303	2912	4290	1323
c, Capacity [veh/h]	475	499	377	87	89	84	770	680	1780	541	223	1108	342
d1, Uniform Delay [s]	33.43	41.00	39.04	56.50	56.50	56.50	28.96	46.00	35.10	23.58	54.32	41.63	42.31
k, delay calibration	0.11	0.48	0.38	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.85	46.51	20.87	314.6	312.4	308.9	0.11	44.32	334.02	1.56	5.29	6.16	22.57
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.51	1.03	0.89	1.68	1.67	1.66	0.17	1.08	1.74	0.32	0.76	0.80	0.85
d, Delay for Lane Group [s/veh]	34.29	87.51	59.90	371.1	368.9	365.4	29.07	90.32	369.12	25.14	59.61	47.80	64.88
Lane Group LOS	C	F	E	F	F	F	C	F	F	C	E	D	E
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.88	20.96	11.50	10.25	10.36	9.66	1.36	13.83	71.00	3.36	2.62	8.54	10.04
50th-Percentile Queue Length [ft/ln]	147.04	524.00	287.45	256.2	259.0	241.6	34.03	345.72	1775.01	83.94	65.48	213.52	250.89
95th-Percentile Queue Length [veh/ln]	9.86	28.97	17.06	17.51	17.67	16.64	2.45	20.83	112.48	6.04	4.71	13.33	15.23
95th-Percentile Queue Length [ft/ln]	246.47	724.33	426.47	437.8	441.6	415.9	61.26	520.66	2811.94	151.10	117.86	333.35	380.77

Movement, Approach, & Intersection Results

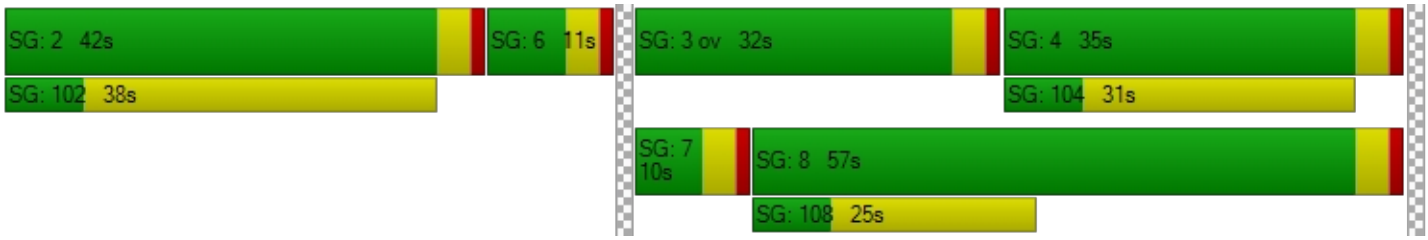
d_M, Delay for Movement [s/veh]	34.29	87.51	59.90	370.05	366.39	29.07	90.32	369.12	25.14	59.61	47.80	64.88
Movement LOS	C	F	E	F	F	C	F	F	C	E	D	E
d_A, Approach Delay [s/veh]	67.15			288.94			302.91			52.97		
Approach LOS	E			F			F			D		
d_I, Intersection Delay [s/veh]	216.95											
Intersection LOS	F											
Intersection V/C	1.387											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2530.55	471.78	0.00	216.59
d_p, Pedestrian Delay [s]	49.50	49.50	0.00	49.50
l_p,int, Pedestrian LOS Score for Intersection	2.630	2.999	0.000	3.679
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	117	883	517
d_b, Bicycle Delay [s]	28.02	53.20	18.93	33.00
l_b,int, Bicycle LOS Score for Intersection	2.460	2.027	3.761	2.116
Bicycle LOS	B	B	D	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	111.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.268

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			25.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	0	0	0	439	0	543	0	2805	140	0	1252	450
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	439	0	543	0	2805	140	0	1252	450
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	110	0	136	0	701	35	0	313	113
Total Analysis Volume [veh/h]	0	0	0	439	0	543	0	2805	140	0	1252	450
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			1			0			1	
v_ci, Inbound Pedestrian Volume crossing mi		0			1			0			1	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			2			24			1	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	28	0	0	0	92	0	0	92	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		24	24	24	88	88
g / C, Green / Cycle		0.20	0.20	0.20	0.73	0.73
(v / s)_i Volume / Saturation Flow Rate		0.22	0.24	0.25	0.94	0.29
s, saturation flow rate [veh/h]		1500	1389	1319	2998	4290
c, Capacity [veh/h]		300	278	264	2199	3146
d1, Uniform Delay [s]		48.00	48.00	47.83	16.00	6.03
k, delay calibration		0.36	0.41	0.45	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		70.85	106.42	133.57	127.76	0.38
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		1.09	1.18	1.24	1.28	0.40
d, Delay for Lane Group [s/veh]		118.85	154.42	181.40	143.76	6.40
Lane Group LOS		F	F	F	F	A
Critical Lane Group		No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		14.90	16.55	17.68	60.96	3.25
50th-Percentile Queue Length [ft/ln]		372.61	413.87	442.06	1524.08	81.19
95th-Percentile Queue Length [veh/ln]		22.22	25.20	27.26	89.53	5.85
95th-Percentile Queue Length [ft/ln]		555.60	629.92	681.50	2238.24	146.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	127.90	0.00	170.68	0.00	143.76	0.00	0.00	6.40	0.00
Movement LOS				F		F		F			A	
d_A, Approach Delay [s/veh]	0.00			151.56			143.76			6.40		
Approach LOS	A			F			F			A		
d_I, Intersection Delay [s/veh]	111.15											
Intersection LOS	F											
Intersection V/C	1.268											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	3744.14	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.344	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1467	1467
d_b, Bicycle Delay [s]	60.00	60.00	4.32	4.27
l_b,int, Bicycle LOS Score for Intersection	4.132	5.753	3.874	2.248
Bicycle LOS	D	F	D	B

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 28: Superior Avenue/Balboa Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	123.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.991

Intersection Setup

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	2	2	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	145.00	100.00	285.00	570.00	100.00	165.00	100.00	100.00	100.00
Speed [mph]	30.00			40.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Superior Avenue			Balboa Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	242	279	171	309	454	667	225	1061	214	431	2734	162
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	242	279	171	309	454	667	225	1061	214	431	2734	162
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	70	43	77	114	167	56	265	54	108	684	41
Total Analysis Volume [veh/h]	242	279	171	309	454	667	225	1061	214	431	2734	162
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	29			0			0			25		
v_di, Inbound Pedestrian Volume crossing m	25			0			0			29		
v_co, Outbound Pedestrian Volume crossing	3			10			1			15		
v_ci, Inbound Pedestrian Volume crossing mi	1			15			3			10		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	1			1			10			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	6	6	6	0	6	6	0
Maximum Green [s]	0	30	0	0	30	30	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	42	0	0	13	13	11	49	0	11	49	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	31	0	0	0	0	0	18	0	0	24	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	R	L	C	R	L	C	C
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	16	16	16	27	7	32	32	20	45	45
g / C, Green / Cycle	0.27	0.27	0.27	0.14	0.14	0.14	0.24	0.06	0.28	0.28	0.17	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.17	0.17	0.17	0.17	0.28	0.08	0.25	0.16	0.15	0.50	0.51
s, saturation flow rate [veh/h]	1500	1574	1167	1500	1559	1433	2349	2912	4290	1306	2912	4290	1511
c, Capacity [veh/h]	404	424	315	208	216	199	554	182	1204	367	500	1672	589
d1, Uniform Delay [s]	36.52	36.49	37.04	49.52	49.52	49.52	43.79	53.90	39.54	35.42	46.29	35.08	35.08
k, delay calibration	0.11	0.11	0.11	0.20	0.19	0.19	0.12	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.39	1.32	2.15	120.0	115.0	115.0	95.91	115.63	9.45	6.65	4.50	127.65	148.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.59	0.59	0.64	1.23	1.22	1.22	1.20	1.23	0.88	0.58	0.86	1.27	1.30
d, Delay for Lane Group [s/veh]	37.91	37.81	39.19	169.6	164.5	164.6	139.7	169.53	48.99	42.07	50.78	162.74	183.28
Lane Group LOS	D	D	D	F	F	F	F	F	D	D	D	F	F
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.00	6.26	5.15	12.78	12.99	11.94	15.01	5.47	10.07	5.57	6.10	34.30	39.61
50th-Percentile Queue Length [ft/ln]	150.05	156.54	128.70	319.5	324.6	298.4	375.1	136.83	251.86	139.19	152.51	857.46	990.22
95th-Percentile Queue Length [veh/ln]	10.02	10.37	8.87	20.32	20.53	19.09	23.46	9.85	15.28	9.44	10.15	51.05	58.84
95th-Percentile Queue Length [ft/ln]	250.50	259.14	221.73	507.8	513.3	477.3	586.6	246.29	381.99	235.94	253.78	1276.25	1470.91

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.91	37.95	39.19	168.69	164.60	139.70	169.53	48.99	42.07	50.78	167.28	183.28
Movement LOS	D	D	D	F	F	F	F	D	D	D	F	F
d_A, Approach Delay [s/veh]	38.25			153.88			66.08			152.97		
Approach LOS	D			F			E			F		
d_I, Intersection Delay [s/veh]	122.98											
Intersection LOS	F											
Intersection V/C	0.991											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1188.55	263.08	0.00	131.20
d_p, Pedestrian Delay [s]	47.03	47.03	0.00	47.03
l_p,int, Pedestrian LOS Score for Intersection	2.661	2.995	0.000	3.652
Crosswalk LOS	B	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	661	157	783	783
d_b, Bicycle Delay [s]	25.79	48.88	21.41	21.30
l_b,int, Bicycle LOS Score for Intersection	2.131	2.739	2.385	2.932
Bicycle LOS	B	B	B	C

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 29: Newport Boulevard at Pacific Coast Highway

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.916

Intersection Setup

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	190.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			25.00			45.00			45.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	Newport Boulevard			Newport Boulevard			Pacific Coast Highway			Pacific Coast Highway		
Base Volume Input [veh/h]	0	0	0	557	0	501	0	1763	90	0	2345	680
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	557	0	501	0	1763	90	0	2345	680
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	139	0	125	0	441	23	0	586	170
Total Analysis Volume [veh/h]	0	0	0	557	0	501	0	1763	90	0	2345	680
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			6	
v_ci, Inbound Pedestrian Volume crossing mi		0			6			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			2			16			6	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Unsigna	Permiss	Permiss	Unsigna
Signal group	0	0	0	1	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	6	0	0	0	6	0	0	6	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	47	0	0	0	73	0	0	73	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	11	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		35	35	35	77	77
g / C, Green / Cycle		0.29	0.29	0.29	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate		0.24	0.25	0.27	0.59	0.55
s, saturation flow rate [veh/h]		1500	1427	1320	2998	4290
c, Capacity [veh/h]		438	417	386	1923	2751
d1, Uniform Delay [s]		39.32	39.94	40.83	18.74	17.03
k, delay calibration		0.21	0.23	0.27	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.56	9.68	18.51	8.43	3.59
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

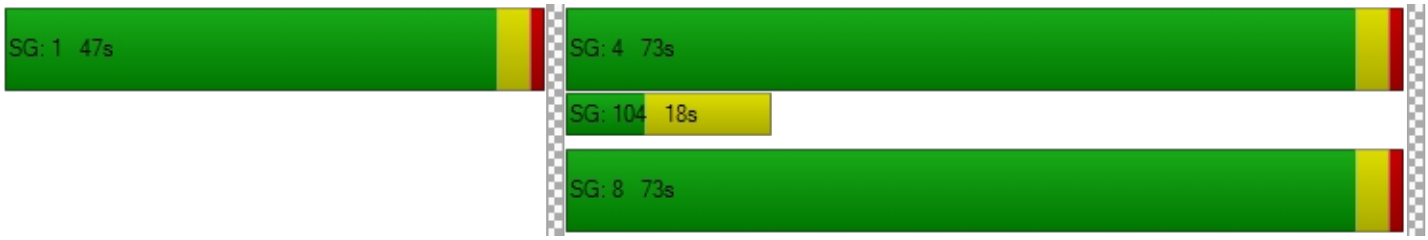
X, volume / capacity		0.81	0.85	0.91	0.92	0.85
d, Delay for Lane Group [s/veh]		45.88	49.62	59.34	27.17	20.62
Lane Group LOS		D	D	E	C	C
Critical Lane Group		No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		10.46	10.94	12.02	20.16	15.35
50th-Percentile Queue Length [ft/ln]		261.58	273.46	300.48	504.12	383.76
95th-Percentile Queue Length [veh/ln]		15.77	16.36	17.70	27.53	21.78
95th-Percentile Queue Length [ft/ln]		394.20	409.06	442.62	688.23	544.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	47.25	0.00	56.46	0.00	27.17	0.00	0.00	20.62	0.00
Movement LOS				D		E		C			C	
d_A, Approach Delay [s/veh]	0.00			51.62			27.17			20.62		
Approach LOS	A			D			C			C		
d_I, Intersection Delay [s/veh]	29.20											
Intersection LOS	C											
Intersection V/C	0.916											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	1245.04	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	49.50	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.360	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1150	1150
d_b, Bicycle Delay [s]	60.00	60.00	10.92	10.87
l_b,int, Bicycle LOS Score for Intersection	4.132	5.878	3.014	2.849
Bicycle LOS	D	F	C	C

Sequence

Ring 1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-