

APPENDIX F

YEAR 2015 AND 2035 INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS (ICU AND HCM) – ALTERNATIVE NO. 1

YEAR 2015
TWO-WAY OPERATIONS

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 PCH & Blue Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.462
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0

Volume Module:

Base Vol: 48 9 18 40 5 9 7 816 11 34 1071 41
Growth Adj: 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06
Initial Bse: 51 10 19 42 5 10 7 861 12 36 1131 43
Added Vol: 2 0 0 3 0 0 0 75 1 0 44 1
Approved Pr: 4 1 5 0 3 5 7 49 0 10 41 0
Initial Fut: 57 11 24 45 8 15 14 985 13 46 1216 44
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 57 11 24 45 8 15 14 985 13 46 1216 44
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 57 11 24 45 8 15 14 985 13 46 1216 44
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 57 11 24 45 8 15 14 985 13 46 1216 44

Saturation Flow Module:

Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.96 0.04 1.00 1.93 0.07
Final Sat.: 1700 1700 1700 1700 1700 1700 1700 5036 64 1700 3280 120

Capacity Analysis Module:

Vol/Sat: 0.03 0.01 0.01 0.03 0.00 0.01 0.01 0.20 0.20 0.03 0.37 0.37
Crit Moves: ****

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 PCH & Ruby Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.485
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0

Volume Module:

Base Vol: 5 5 10 7 6 10 8 642 1 10 1027 3
Growth Adj: 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06
Initial Bse: 5 5 11 7 6 11 8 678 1 11 1084 3
Added Vol: 1 0 6 0 0 0 0 68 0 3 32 0
Approved Pr: 98 0 0 0 0 0 0 38 0 -1 76 0
Initial Fut: 104 5 17 7 6 11 8 784 1 13 1192 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 104 5 17 7 6 11 8 784 1 13 1192 3
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 104 5 17 7 6 11 8 784 1 13 1192 3
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 104 5 17 7 6 11 8 784 1 13 1192 3

Saturation Flow Module:

Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.83 0.04 0.13 0.30 0.26 0.44 1.00 1.99 0.01 1.00 1.99 0.01
Final Sat.: 1406 71 223 517 443 739 1700 3395 5 1700 3391 9

Capacity Analysis Module:

Vol/Sat: 0.06 0.07 0.07 0.00 0.01 0.01 0.00 0.23 0.23 0.01 0.35 0.35
Crit Moves: ****

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 PCH & Amber Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.533
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 1 1 0

Volume Module:

Base Vol: 117 5 20 35 20 25 17 659 17 81 1019 10
Growth Adj: 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06
Initial Bse: 124 5 21 37 21 26 18 696 18 86 1076 11
Added Vol: 11 2 11 7 2 2 3 84 15 17 36 1
Approved Pr: -58 0 0 0 0 0 0 38 0 0 133 0
Initial Fut: 77 7 32 44 23 28 21 818 33 103 1245 12
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 77 7 32 44 23 28 21 818 33 103 1245 12
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 77 7 32 44 23 28 21 818 33 103 1245 12
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 77 7 32 44 23 28 21 818 33 103 1245 12

Saturation Flow Module:

Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.66 0.06 0.28 0.46 0.24 0.30 1.00 1.92 0.08 1.00 1.98 0.02
Final Sat.: 1122 107 471 783 412 506 1700 3268 132 1700 3369 31

Capacity Analysis Module:

Vol/Sat: 0.05 0.07 0.07 0.03 0.06 0.06 0.01 0.25 0.25 0.06 0.37 0.37
Crit Moves: **** **** **** ****

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 PCH & Violet Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.531
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1 0 1 0 0 1 0 1 0

Volume Module:

Base Vol: 136 7 11 13 11 21 17 704 1 58 956 14
Growth Adj: 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06
Initial Bse: 144 7 12 14 12 22 18 743 1 61 1009 15
Added Vol: 6 2 30 2 1 0 0 98 5 22 52 0
Approved Pr: -127 0 0 0 0 0 0 38 0 0 260 0
Initial Fut: 23 9 42 16 13 22 18 879 6 83 1321 15
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 23 9 42 16 13 22 18 879 6 83 1321 15
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 23 9 42 16 13 22 18 879 6 83 1321 15
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 23 9 42 16 13 22 18 879 6 83 1321 15

Saturation Flow Module:

Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.31 0.13 0.56 0.31 0.25 0.44 0.04 1.95 0.01 0.12 1.86 0.02
Final Sat.: 522 217 961 529 425 746 68 3310 23 199 3165 35

Capacity Analysis Module:

Vol/Sat: 0.01 0.04 0.04 0.01 0.03 0.03 0.01 0.27 0.27 0.05 0.42 0.42
Crit Moves: **** **** **** ****

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 PCH & Golden Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.672
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 2 0 1 0 1 1 0 1 1 0

Volume Module:

Base Vol: 26 65 31 331 170 179 51 574 95 68 927 113
Growth Adj: 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06
Initial Bse: 27 69 33 349 179 189 54 606 100 72 979 119
Added Vol: 19 6 3 5 6 12 15 50 7 1 103 0
Approved Pr: 8 8 0 0 8 4 4 26 8 0 248 0
Initial Fut: 54 83 36 354 193 205 73 682 115 73 1330 119
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 54 83 36 354 193 205 73 682 115 73 1330 119
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 54 83 36 354 193 205 73 682 115 73 1330 119
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 54 83 36 354 193 205 73 682 115 73 1330 119

Saturation Flow Module:

Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.40 0.60 2.00 1.00 1.00 1.00 1.71 0.29 1.00 1.84 0.16
Final Sat.: 1700 2374 1026 3400 1700 1700 1700 2908 492 1700 3120 280

Capacity Analysis Module:

Vol/Sat: 0.03 0.03 0.03 0.10 0.11 0.12 0.04 0.23 0.23 0.04 0.43 0.43
Crit Moves: **** **** ****

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 PCH & Del Prado

Cycle (sec): 100 Critical Vol./Cap. (X): 0.525
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with 13 columns representing different volume categories and their values.

Saturation Flow Module: Table with 13 columns representing saturation flow values and adjustments.

Capacity Analysis Module: Table with 13 columns representing capacity analysis metrics.

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 PCH & Crystal Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.599
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1! 0 0 0 1 0 0 1 1 0 1 0 2 0 1

Volume Module:

Base Vol: 4 1 6 105 2 20 16 1060 7 9 1332 62
Growth Adj: 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06 1.06
Initial Bse: 4 1 6 111 2 21 17 1119 7 10 1406 65
Added Vol: 0 0 0 0 0 0 0 91 0 0 152 0
Approved Pr: 1 0 0 0 0 2 2 28 1 0 25 0
Initial Fut: 5 1 6 111 2 23 19 1238 8 10 1583 65
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 5 1 6 111 2 23 19 1238 8 10 1583 65
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 5 1 6 111 2 23 19 1238 8 10 1583 65
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 5 1 6 111 2 23 19 1238 8 10 1583 65

Saturation Flow Module:

Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.41 0.08 0.51 0.98 0.02 1.00 1.00 1.99 0.01 1.00 2.00 1.00
Final Sat.: 704 142 854 1668 32 1700 1700 3377 23 1700 3400 1700

Capacity Analysis Module:

Vol/Sat: 0.00 0.01 0.01 0.07 0.07 0.01 0.01 0.37 0.37 0.01 0.47 0.04
Crit Moves: **** **** **** ****

HCM Unsignalized Intersection Capacity Analysis
 9: Del Prado & Ruby Lantern

Year 2015 - With Project
 AM Peak Hour - Alternative 1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	251	2	11	0	101	0	22	6	23	8	4
Peak Hour 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
Hourly flow rate (vph)	3	251	2	11	0	101	0	22	6	23	8	4

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	256	112	28	35
Volume Left (vph)	3	11	0	23
Volume Right (vph)	2	101	6	4
Hadj (s)	0.10	-0.49	-0.09	0.10
Departure Headway (s)	4.3	3.8	4.6	4.8
Degree Utilization, x	0.30	0.12	0.04	0.05
Capacity (veh/h)	829	910	711	682
Control Delay (s)	9.1	7.3	7.8	8.1
Approach Delay (s)	9.1	7.3	7.8	8.1
Approach LOS	A	A	A	A

Intersection Summary			
Delay		8.5	
HCM Level of Service		A	
Intersection Capacity Utilization	31.2%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 10: Del Prado & Amber Lantern

Year 2015 - With Project
 AM Peak Hour - Alternative 1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	36	254	6	29	97	56	4	36	10	79	19	11
Peak Hour 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
Hourly flow rate (vph)	36	254	6	29	97	56	4	36	10	79	19	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	296	182	50	109
Volume Left (vph)	36	29	4	79
Volume Right (vph)	6	56	10	11
Hadj (s)	0.10	-0.08	-0.07	0.12
Departure Headway (s)	4.7	4.6	5.1	5.2
Degree Utilization, x	0.38	0.23	0.07	0.16
Capacity (veh/h)	738	740	626	624
Control Delay (s)	10.5	9.0	8.5	9.2
Approach Delay (s)	10.5	9.0	8.5	9.2
Approach LOS	B	A	A	A

Intersection Summary			
Delay		9.7	
HCM Level of Service		A	
Intersection Capacity Utilization		39.1%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 11: Del Prado & Violet Lantern

Year 2015 - With Project
 AM Peak Hour - Alternative 1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	9	277	2	22	159	11	7	24	12	47	14	8
Peak Hour 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
Hourly flow rate (vph)	9	277	2	22	159	11	7	24	12	47	14	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	288	192	43	69
Volume Left (vph)	9	22	7	47
Volume Right (vph)	2	11	12	8
Hadj (s)	0.10	0.08	-0.10	0.10
Departure Headway (s)	4.5	4.6	5.0	5.2
Degree Utilization, x	0.36	0.25	0.06	0.10
Capacity (veh/h)	773	747	642	626
Control Delay (s)	10.1	9.1	8.3	8.8
Approach Delay (s)	10.1	9.1	8.3	8.8
Approach LOS	B	A	A	A

Intersection Summary			
Delay		9.5	
HCM Level of Service		A	
Intersection Capacity Utilization		37.0%	ICU Level of Service
Analysis Period (min)		15	A

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Del Prado & Golden Lantern

Cycle (sec): 100 Critical Vol./Cap. (X): 0.378
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 19 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume metrics and 13 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 13 columns for saturation flow metrics and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns for capacity analysis metrics and 2 rows for Vol/Sat and Crit Moves.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↗
Volume (veh/h)	761	0	0	1365	0	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	761	0	0	1365	0	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	358			234		
pX, platoon unblocked			0.92		0.90	0.92
vC, conflicting volume			761		1444	380
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			574		880	161
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			919		257	789

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	380	380	682	682	5
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	5
cSH	1700	1700	1700	1700	789
Volume to Capacity	0.22	0.22	0.40	0.40	0.01
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	9.6
Lane LOS					A
Approach Delay (s)	0.0		0.0		9.6
Approach LOS					A

Intersection Summary					
Average Delay			0.0		
Intersection Capacity Utilization			41.1%	ICU Level of Service	A
Analysis Period (min)			15		

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 PCH & Blue Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.518
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 24 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 13 columns representing different traffic scenarios and 13 rows of volume-related metrics.

Saturation Flow Module table with 13 columns and 5 rows of saturation flow and adjustment factors.

Capacity Analysis Module table with 13 columns and 3 rows of capacity and critical move data.

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 PCH & Ruby Lantern

Cycle (sec): 100 Critical Vol./Cap. (X): 0.534
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 13 columns representing different traffic movements and 13 rows of volume-related metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 13 columns and 5 rows of saturation flow data.

Capacity Analysis Module table with 13 columns and 2 rows of capacity analysis data.

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 PCH & Amber Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.584
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 28 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with 13 columns for different volume metrics and 13 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 13 columns for saturation flow metrics and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 13 columns for capacity metrics and 2 rows for Vol/Sat, Crit Moves.

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 PCH & Violet Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.641
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 13 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, Approved Pr, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 13 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns and 2 rows including Vol/Sat and Crit Moves.

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 PCH & Golden Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.738
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control, Rights, Min. Green, Y+R, Lanes.

-----|-----|-----|-----|

Volume Module:

Table with 13 columns and 13 rows: Base Vol, Growth Adj, Initial Bse, Added Vol, Approved Pr, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

-----|-----|-----|-----|

Saturation Flow Module:

Table with 13 columns and 4 rows: Sat/Lane, Adjustment, Lanes, Final Sat.

-----|-----|-----|-----|

Capacity Analysis Module:

Table with 13 columns and 2 rows: Vol/Sat, Crit Moves.

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 PCH & Del Prado

Cycle (sec): 100 Critical Vol./Cap.(X): 0.651
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, Approved Pr, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume, and OvlAdjVol.

Saturation Flow Module: Table with 13 columns representing saturation flow factors. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 13 columns representing capacity analysis factors. Rows include Vol/Sat, OvlAdjV/S, and Crit Moves.

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 PCH & Crystal Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.687
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 13 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, Approved Pr, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 13 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns and 3 rows including Vol/Sat and Crit Moves.

HCM Unsignalized Intersection Capacity Analysis
 9: Del Prado & Ruby Lantern

Year 2015 - With Project
 PM Peak Hour - Alternative 1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	356	5	16	0	94	0	19	7	37	19	5
Peak Hour 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
Hourly flow rate (vph)	3	356	5	16	0	94	0	19	7	37	19	5

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	364	110	26	61
Volume Left (vph)	3	16	0	37
Volume Right (vph)	5	94	7	5
Hadj (s)	0.09	-0.45	-0.13	0.11
Departure Headway (s)	4.3	4.1	4.9	5.1
Degree Utilization, x	0.44	0.12	0.04	0.09
Capacity (veh/h)	815	840	657	639
Control Delay (s)	10.7	7.6	8.1	8.6
Approach Delay (s)	10.7	7.6	8.1	8.6
Approach LOS	B	A	A	A

Intersection Summary

Delay	9.7
HCM Level of Service	A
Intersection Capacity Utilization	36.8%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis
 10: Del Prado & Amber Lantern

Year 2015 - With Project
 PM Peak Hour - Alternative 1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	28	348	9	27	91	40	5	41	12	86	45	13
Peak Hour 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
Hourly flow rate (vph)	28	348	9	27	91	40	5	41	12	86	45	13

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	385	158	58	144
Volume Left (vph)	28	27	5	86
Volume Right (vph)	9	40	12	13
Hadj (s)	0.10	-0.04	-0.07	0.10
Departure Headway (s)	4.8	4.9	5.4	5.4
Degree Utilization, x	0.51	0.22	0.09	0.22
Capacity (veh/h)	723	683	577	600
Control Delay (s)	12.6	9.3	8.9	9.9
Approach Delay (s)	12.6	9.3	8.9	9.9
Approach LOS	B	A	A	A

Intersection Summary			
Delay		11.1	
HCM Level of Service		B	
Intersection Capacity Utilization	44.3%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 11: Del Prado & Violet Lantern

Year 2015 - With Project
 PM Peak Hour - Alternative 1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	14	391	9	28	132	13	9	22	5	99	26	16
Peak Hour 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
Hourly flow rate (vph)	14	391	9	28	132	13	9	22	5	99	26	16

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	414	173	36	141
Volume Left (vph)	14	28	9	99
Volume Right (vph)	9	13	5	16
Hadj (s)	0.09	0.07	0.00	0.11
Departure Headway (s)	4.7	5.0	5.6	5.5
Degree Utilization, x	0.55	0.24	0.06	0.22
Capacity (veh/h)	733	679	553	591
Control Delay (s)	13.3	9.6	8.9	10.0
Approach Delay (s)	13.3	9.6	8.9	10.0
Approach LOS	B	A	A	B

Intersection Summary			
Delay		11.6	
HCM Level of Service		B	
Intersection Capacity Utilization	44.4%		ICU Level of Service A
Analysis Period (min)		15	

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2015
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Del Prado & Golden Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.527
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 13 columns representing different traffic volumes and adjustment factors.

Saturation Flow Module table with 13 columns representing saturation flow rates and adjustments.

Capacity Analysis Module table with 13 columns representing volume-to-saturation ratios and critical moves.

HCM Unsignalized Intersection Capacity Analysis
 13: PCH &

Year 2015 - With Project
 PM Peak Hour - Alternative 1



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Volume (veh/h)	1058	0	0	1409	0	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1058	0	0	1409	0	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	358			234		
pX, platoon unblocked			0.84		0.92	0.84
vC, conflicting volume			1058		1762	529
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			681		860	49
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			760		271	845

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	529	529	704	704	5
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	5
cSH	1700	1700	1700	1700	845
Volume to Capacity	0.31	0.31	0.41	0.41	0.01
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	9.3
Lane LOS					A
Approach Delay (s)	0.0		0.0		9.3
Approach LOS					A

Intersection Summary					
Average Delay			0.0		
Intersection Capacity Utilization			42.3%	ICU Level of Service	A
Analysis Period (min)			15		

YEAR 2035

TWO-WAY OPERATIONS

Dana Point Town Center - AM Buildout
 2-Way + Approved Projects - Year 2035
 Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 PCH & Blue Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.505

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 24 Level Of Service: A

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 1 0 1	1 0 1 0 1	1 0 2 1 0	1 0 1 1 0

Volume Module:

Base Vol:	48	9	18	40	5	9	7	816	11	34	1071	41
Growth Adj:	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Initial Bse:	56	10	21	46	6	10	8	946	13	39	1241	48
Added Vol:	2	0	0	3	0	0	0	75	1	0	44	1
Approved Pr:	4	1	5	0	3	5	7	49	0	10	41	0
Initial Fut:	62	11	26	49	9	15	15	1070	14	49	1326	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	62	11	26	49	9	15	15	1070	14	49	1326	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	11	26	49	9	15	15	1070	14	49	1326	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	11	26	49	9	15	15	1070	14	49	1326	49

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.96	0.04	1.00	1.93	0.07
Final Sat.:	1700	1700	1700	1700	1700	1700	1700	5035	65	1700	3280	120

Capacity Analysis Module:

Vol/Sat:	0.04	0.01	0.02	0.03	0.01	0.01	0.01	0.21	0.21	0.03	0.40	0.40
Crit Moves:	****				****		****			****		

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 PCH & Ruby Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.521
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0

Volume Module:
Base Vol: 5 5 10 7 6 10 8 642 1 10 1027 3
Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16
Initial Bse: 6 6 12 8 7 12 9 744 1 12 1190 3
Added Vol: 1 0 6 0 0 0 0 68 0 3 32 0
Approved Pr: 106 0 0 0 0 0 0 38 0 -1 79 0
Initial Fut: 113 6 18 8 7 12 9 850 1 14 1301 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 113 6 18 8 7 12 9 850 1 14 1301 3
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 113 6 18 8 7 12 9 850 1 14 1301 3
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 113 6 18 8 7 12 9 850 1 14 1301 3

Saturation Flow Module:
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.83 0.04 0.13 0.30 0.26 0.44 1.00 1.99 0.01 1.00 1.99 0.01
Final Sat.: 1408 72 220 517 443 739 1700 3395 5 1700 3391 9

Capacity Analysis Module:
Vol/Sat: 0.07 0.08 0.08 0.00 0.02 0.02 0.01 0.25 0.25 0.01 0.38 0.38
Crit Moves: ****

Dana Point Town Center - AM Buildout
 2-Way + Approved Projects - Year 2035
 Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 PCH & Amber Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.579
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 28 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	1	0	1 1	0	1	0 1 1

Volume Module:

Base Vol:	117	5	20	35	20	25	17	659	17	81	1019	10
Growth Adj:	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Initial Bse:	136	6	23	41	23	29	20	764	20	94	1181	12
Added Vol:	11	2	11	7	2	2	3	84	15	17	36	1
Approved Pr:	-55	0	0	0	0	0	0	38	0	0	133	0
Initial Fut:	92	8	34	48	25	31	23	886	35	111	1350	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	92	8	34	48	25	31	23	886	35	111	1350	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	8	34	48	25	31	23	886	35	111	1350	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	92	8	34	48	25	31	23	886	35	111	1350	13

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.68	0.06	0.26	0.46	0.24	0.30	1.00	1.92	0.08	1.00	1.98	0.02
Final Sat.:	1166	99	435	780	413	508	1700	3272	128	1700	3369	31

Capacity Analysis Module:

Vol/Sat:	0.05	0.08	0.08	0.03	0.06	0.06	0.01	0.27	0.27	0.07	0.40	0.40
Crit Moves:	****			****			****			****		

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 PCH & Violet Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.573

Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 27 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1 0 1 0 0 1 0 1 0

Volume Module:

Base Vol: 136 7 11 13 11 21 17 704 1 58 956 14

Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16

Initial Bse: 158 8 13 15 13 24 20 816 1 67 1108 16

Added Vol: 6 2 30 2 1 0 0 98 5 22 52 0

Approved Pr: -127 0 0 0 0 0 0 38 0 0 260 0

Initial Fut: 37 10 43 17 14 24 20 952 6 89 1420 16

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 37 10 43 17 14 24 20 952 6 89 1420 16

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 37 10 43 17 14 24 20 952 6 89 1420 16

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 37 10 43 17 14 24 20 952 6 89 1420 16

Saturation Flow Module:

Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.41 0.11 0.48 0.31 0.25 0.44 0.04 1.95 0.01 0.12 1.86 0.02

Final Sat.: 695 192 812 526 424 750 69 3310 21 199 3165 36

Capacity Analysis Module:

Vol/Sat: 0.02 0.05 0.05 0.01 0.03 0.03 0.01 0.29 0.29 0.05 0.45 0.45

Crit Moves: **** **** **** ****

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 PCH & Golden Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.719
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

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Volume Module: Table with 13 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, Approved Pr, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MFL Adj, and Final Volume.

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Saturation Flow Module: Table with 13 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

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Capacity Analysis Module: Table with 13 columns and 2 rows including Vol/Sat and Crit Moves.

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 PCH & Del Prado

Cycle (sec): 100 Critical Vol./Cap.(X): 0.562
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 27 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with 13 columns representing different volume categories and 13 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 13 columns and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 13 columns and 3 rows for Vol/Sat, OvlAdjV/S, Crit Moves.

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 PCH & Crystal Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.648
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, Approved Pr, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module:

Table with 13 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns. Rows include Vol/Sat and Crit Moves.

HCM Unsignalized Intersection Capacity Analysis
 9: Del Prado & Ruby Lantern

Year 2035 - With Project
 AM Peak Hour - Alternative 1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	273	2	11	0	110	0	23	6	25	9	4
Peak Hour 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
Hourly flow rate (vph)	3	273	2	11	0	110	0	23	6	25	9	4

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	278	121	29	38
Volume Left (vph)	3	11	0	25
Volume Right (vph)	2	110	6	4
Hadj (s)	0.10	-0.49	-0.09	0.10
Departure Headway (s)	4.3	3.9	4.7	4.9
Degree Utilization, x	0.33	0.13	0.04	0.05
Capacity (veh/h)	824	901	696	669
Control Delay (s)	9.4	7.4	7.9	8.2
Approach Delay (s)	9.4	7.4	7.9	8.2
Approach LOS	A	A	A	A

Intersection Summary			
Delay		8.7	
HCM Level of Service		A	
Intersection Capacity Utilization	32.0%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 10: Del Prado & Amber Lantern

Year 2035 - With Project
 AM Peak Hour - Alternative 1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	38	277	7	31	106	68	4	40	11	85	21	12
Peak Hour 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
Hourly flow rate (vph)	38	277	7	31	106	68	4	40	11	85	21	12

















Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	322	205	55	118
Volume Left (vph)	38	31	4	85
Volume Right (vph)	7	68	11	12
Hadj (s)	0.10	-0.10	-0.07	0.12
Departure Headway (s)	4.7	4.7	5.3	5.4
Degree Utilization, x	0.42	0.27	0.08	0.18
Capacity (veh/h)	725	727	592	605
Control Delay (s)	11.2	9.4	8.8	9.5
Approach Delay (s)	11.2	9.4	8.8	9.5
Approach LOS	B	A	A	A

Intersection Summary

Delay	10.2
HCM Level of Service	B
Intersection Capacity Utilization	41.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis
 11: Del Prado & Violet Lantern

Year 2035 - With Project
 AM Peak Hour - Alternative 1

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	301	2	24	182	22	7	26	13	51	14	9
Peak Hour 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
Hourly flow rate (vph)	10	301	2	24	182	22	7	26	13	51	14	9
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	313	228	46	74								
Volume Left (vph)	10	24	7	51								
Volume Right (vph)	2	22	13	9								
Hadj (s)	0.10	0.05	-0.11	0.10								
Departure Headway (s)	4.6	4.6	5.2	5.3								
Degree Utilization, x	0.40	0.29	0.07	0.11								
Capacity (veh/h)	760	741	616	603								
Control Delay (s)	10.6	9.6	8.6	9.0								
Approach Delay (s)	10.6	9.6	8.6	9.0								
Approach LOS	B	A	A	A								
Intersection Summary												
Delay			9.9									
HCM Level of Service			A									
Intersection Capacity Utilization			39.9%	ICU Level of Service	A							
Analysis Period (min)			15									

Dana Point Town Center - AM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Del Prado & Golden Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.406
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 20 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 13 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, Approved Pr, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 13 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns and 2 rows including Vol/Sat and Crit Moves.

HCM Unsignalized Intersection Capacity Analysis
13: PCH &

Year 2035 - With Project
AM Peak Hour - Alternative 1



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Volume (veh/h)	828	0	0	1494	0	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	828	0	0	1494	0	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	358			234		
pX, platoon unblocked			0.91		0.88	0.91
vC, conflicting volume			828		1575	414
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			621		928	167
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			873		234	774
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	414	414	747	747	6	
Volume Left	0	0	0	0	0	
Volume Right	0	0	0	0	6	
cSH	1700	1700	1700	1700	774	
Volume to Capacity	0.24	0.24	0.44	0.44	0.01	
Queue Length 95th (ft)	0	0	0	0	1	
Control Delay (s)	0.0	0.0	0.0	0.0	9.7	
Lane LOS					A	
Approach Delay (s)	0.0		0.0		9.7	
Approach LOS					A	

Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			44.6%	ICU Level of Service		A
Analysis Period (min)			15			

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 PCH & Blue Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.567
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 27 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 1 0

Volume Module:
Base Vol: 61 25 52 35 8 4 14 1146 10 72 1024 52
Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16
Initial Bse: 71 29 60 41 9 5 16 1328 12 83 1187 60
Added Vol: 4 0 0 4 0 0 0 90 4 0 121 5
Approved Pr: 13 4 15 0 3 16 10 79 0 12 93 0
Initial Fut: 88 33 75 45 12 21 26 1497 16 95 1401 65
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 88 33 75 45 12 21 26 1497 16 95 1401 65
Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 88 33 75 45 12 21 26 1497 16 95 1401 65
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 88 33 75 45 12 21 26 1497 16 95 1401 65

Saturation Flow Module:
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.97 0.03 1.00 1.91 0.09
Final Sat.: 1700 1700 1700 1700 1700 1700 1700 5047 53 1700 3249 151

Capacity Analysis Module:
Vol/Sat: 0.05 0.02 0.04 0.03 0.01 0.01 0.02 0.30 0.30 0.06 0.43 0.43
Crit Moves: **** **

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 PCH & Ruby Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.573
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 27 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 1 1 0

Volume Module:
Base Vol: 5 2 6 16 13 22 9 914 2 7 1054 5
Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16
Initial Bse: 6 2 7 19 15 25 10 1059 2 8 1221 6
Added Vol: 0 0 11 0 0 0 0 64 0 13 100 0
Approved Pr: 96 0 0 0 0 0 0 67 0 0 109 0
Initial Fut: 102 2 18 19 15 25 10 1190 2 21 1430 6
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 102 2 18 19 15 25 10 1190 2 21 1430 6
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 102 2 18 19 15 25 10 1190 2 21 1430 6
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 102 2 18 19 15 25 10 1190 2 21 1430 6

Saturation Flow Module:
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.83 0.02 0.15 0.31 0.25 0.44 1.00 1.99 0.01 1.00 1.99 0.01
Final Sat.: 1418 32 250 533 433 733 1700 3393 7 1700 3386 14

Capacity Analysis Module:
Vol/Sat: 0.06 0.07 0.07 0.01 0.03 0.03 0.01 0.35 0.35 0.01 0.42 0.42
Crit Moves: **** **** **** ****

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 PCH & Amber Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.630
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 13 columns representing different volume categories and 13 rows of data including Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 13 columns and 5 rows of data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns and 3 rows of data including Vol/Sat, Crit Moves, and Level of Service.

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 PCH & Violet Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.688
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: B

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for movement types and rows for Base Vol, Growth Adj, Initial Bse, Added Vol, Approved Pr, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with columns for movement types and rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for movement types and rows for Vol/Sat, Crit Moves.

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 PCH & Golden Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.742
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: C

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 13 columns representing different volume components and 13 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 13 columns and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 13 columns and 4 rows for Vol/Sat, OvlAdjV/S, Crit Moves, and a final row of asterisks.

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 PCH & Del Prado

Cycle (sec): 100 Critical Vol./Cap.(X): 0.700
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Split Phase, Protected), Rights (Ovl, Include), and various traffic metrics like Min. Green, Y+R, and Lanes.

Volume Module: Table showing traffic volume and adjustment factors for Base Vol, Growth Adj, Initial Bse, Added Vol, Approved Pr, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume, and OvlAdjVol.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for each approach.

Capacity Analysis Module: Table showing Vol/Sat, OvlAdjV/S, and Crit Moves for each approach.

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 PCH & Crystal Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.740
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 13 columns representing different volume categories and 13 rows of data including Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 13 columns and 4 rows of data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns and 2 rows of data including Vol/Sat and Crit Moves.

HCM Unsignalized Intersection Capacity Analysis
 9: Del Prado & Ruby Lantern

Year 2035 - With Project
 PM Peak Hour - Alternative 1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	385	5	17	0	100	0	20	7	40	20	5
Peak Hour 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
Hourly flow rate (vph)	3	385	5	17	0	100	0	20	7	40	20	5

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	393	117	27	65
Volume Left (vph)	3	17	0	40
Volume Right (vph)	5	100	7	5
Hadj (s)	0.09	-0.45	-0.12	0.11
Departure Headway (s)	4.4	4.1	5.0	5.2
Degree Utilization, x	0.48	0.13	0.04	0.09
Capacity (veh/h)	810	829	640	625
Control Delay (s)	11.3	7.8	8.2	8.7
Approach Delay (s)	11.3	7.8	8.2	8.7
Approach LOS	B	A	A	A

Intersection Summary			
Delay		10.2	
HCM Level of Service		B	
Intersection Capacity Utilization		38.5%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 10: Del Prado & Amber Lantern

Year 2035 - With Project
 PM Peak Hour - Alternative 1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	29	377	10	29	98	53	5	46	13	92	49	14
Peak Hour 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
Hourly flow rate (vph)	29	377	10	29	98	53	5	46	13	92	49	14

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	416	180	64	155
Volume Left (vph)	29	29	5	92
Volume Right (vph)	10	53	13	14
Hadj (s)	0.10	-0.07	-0.07	0.10
Departure Headway (s)	4.9	5.0	5.6	5.6
Degree Utilization, x	0.57	0.25	0.10	0.24
Capacity (veh/h)	709	668	550	579
Control Delay (s)	14.0	9.7	9.3	10.4
Approach Delay (s)	14.0	9.7	9.3	10.4
Approach LOS	B	A	A	B

Intersection Summary			
Delay		12.0	
HCM Level of Service		B	
Intersection Capacity Utilization	46.8%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 11: Del Prado & Violet Lantern

Year 2035 - With Project
 PM Peak Hour - Alternative 1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	424	9	30	151	25	9	23	5	105	27	17
Peak Hour 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
Hourly flow rate (vph)	15	424	9	30	151	25	9	23	5	105	27	17

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	448	206	37	149
Volume Left (vph)	15	30	9	105
Volume Right (vph)	9	25	5	17
Hadj (s)	0.09	0.04	0.00	0.11
Departure Headway (s)	4.8	5.1	5.8	5.7
Degree Utilization, x	0.60	0.29	0.06	0.24
Capacity (veh/h)	720	668	523	569
Control Delay (s)	14.9	10.2	9.2	10.5
Approach Delay (s)	14.9	10.2	9.2	10.5
Approach LOS	B	B	A	B

Intersection Summary			
Delay		12.7	
HCM Level of Service		B	
Intersection Capacity Utilization		46.9%	ICU Level of Service A
Analysis Period (min)		15	

Dana Point Town Center - PM Buildout
2-Way + Approved Projects - Year 2035
Alternative 1

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Del Prado & Golden Lantern

Cycle (sec): 100 Critical Vol./Cap.(X): 0.566
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 27 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

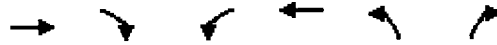
Volume Module table with 13 columns representing different volume categories and 13 rows of data including Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 13 columns and 4 rows of data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns and 2 rows of data including Vol/Sat and Crit Moves.

HCM Unsignalized Intersection Capacity Analysis
13: PCH &

Year 2035 - With Project
PM Peak Hour - Alternative 1



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Volume (veh/h)	1155	0	0	1534	0	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1155	0	0	1534	0	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	358			234		
pX, platoon unblocked			0.81		0.91	0.81
vC, conflicting volume			1155		1922	578
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			728		877	16
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			708		261	859

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	578	578	767	767	6
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	6
cSH	1700	1700	1700	1700	859
Volume to Capacity	0.34	0.34	0.45	0.45	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	0.0	9.2
Lane LOS					A
Approach Delay (s)	0.0		0.0		9.2
Approach LOS					A

Intersection Summary	
Average Delay	0.0
Intersection Capacity Utilization	45.7%
Analysis Period (min)	15
ICU Level of Service	A