

APPENDIX 5 – NOISE

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Name: Pacific Grove Hotel

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
 Source of Traffic Volumes: Hexagon
 Community Noise Descriptor: L_{dn} : x CNEL:

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix		Distance from Centerline of Roadway Distance to Contour				
						Medium Trucks	Heavy Trucks	Ldn at 35 Feet	70 Ldn	65 Ldn	60 Ldn	55 Ldn
Central Avenue												
West of Grand Avenue	2	0	3,830	25	0.5	1.8%	0.7%	58.4	-	-	-	59
Between Grand Avenue and Fountain Avenue	2	0	3,850	25	0.5	1.8%	0.7%	58.4	-	-	-	59
East of Fountain Avenue	2	0	4,380	25	0.5	1.8%	0.7%	59.0	-	-	-	64
Grand Avenue												
North of Central Avenue	1	0	390	25	0.5	1.8%	0.7%	48.4	-	-	-	-
Between Central Avenue and Lighthouse Avenue	1	0	390	25	0.5	1.8%	0.7%	48.4	-	-	-	-
South of Lighthouse Avenue	1	0	1,000	25	0.5	1.8%	0.7%	52.4	-	-	-	-
Fountain Avenue												
North of Central Avenue	2	0	620	25	0.5	1.8%	0.7%	50.5	-	-	-	-
Between Central Avenue and Lighthouse Avenue	2	0	1,630	25	0.5	1.8%	0.7%	54.7	-	-	-	33
South of Lighthouse Avenue	2	0	1,120	25	0.5	1.8%	0.7%	53.0	-	-	-	-
Lighthouse Avenue												
West of Grand Avenue	2	0	5,290	25	0.5	1.8%	0.7%	59.8	-	-	34	73
Between Grand Avenue and Fountain Avenue	2	0	5,150	25	0.5	1.8%	0.7%	59.7	-	-	33	72
East of Fountain Avenue	2	0	4,310	25	0.5	1.8%	0.7%	58.9	-	-	-	64

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						Medium Trucks	Heavy Trucks	Ldn at 35 Feet	70 Ldn	65 Ldn	60 Ldn	55 Ldn
Central Avenue												
West of Grand Avenue	2	0	3,830	25	0.5	1.8%	0.7%	58.4	-	-	-	59
Between Grand Avenue and Fountain Avenue	2	0	3,850	25	0.5	1.8%	0.7%	58.4	-	-	-	59
East of Fountain Avenue	2	0	4,420	25	0.5	1.8%	0.7%	59.0	-	-	-	65
Grand Avenue												
North of Central Avenue	1	0	390	25	0.5	1.8%	0.7%	48.4	-	-	-	-
Between Central Avenue and Lighthouse Avenue	1	0	390	25	0.5	1.8%	0.7%	48.4	-	-	-	-
South of Lighthouse Avenue	1	0	1,000	25	0.5	1.8%	0.7%	52.4	-	-	-	-
Fountain Avenue												
North of Central Avenue	2	0	620	25	0.5	1.8%	0.7%	50.5	-	-	-	-
Between Central Avenue and Lighthouse Avenue	2	0	1,710	25	0.5	1.8%	0.7%	54.9	-	-	-	34
South of Lighthouse Avenue	2	0	1,120	25	0.5	1.8%	0.7%	53.0	-	-	-	-
Lighthouse Avenue												
West of Grand Avenue	2	0	5,350	25	0.5	1.8%	0.7%	59.8	-	-	34	73
Between Grand Avenue and Fountain Avenue	2	0	5,210	25	0.5	1.8%	0.7%	59.7	-	-	33	72
East of Fountain Avenue	2	0	4,330	25	0.5	1.8%	0.7%	58.9	-	-	-	64

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Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix		Distance from Centerline of Roadway Distance to Contour				
						Medium Trucks	Heavy Trucks	Ldn at 35 Feet	70 Ldn	65 Ldn	60 Ldn	55 Ldn
Central Avenue												
West of Grand Avenue	2	0	3,830	25	0.5	1.8%	0.7%	58.4	-	-	-	59
Between Grand Avenue and Fountain Avenue	2	0	3,900	25	0.5	1.8%	0.7%	58.4	-	-	-	59
East of Fountain Avenue	2	0	4,510	25	0.5	1.8%	0.7%	59.1	-	-	-	65
Grand Avenue												
North of Central Avenue	1	0	390	25	0.5	1.8%	0.7%	48.4	-	-	-	-
Between Central Avenue and Lighthouse Avenue	1	0	390	25	0.5	1.8%	0.7%	48.4	-	-	-	-
South of Lighthouse Avenue	1	0	1,000	25	0.5	1.8%	0.7%	52.4	-	-	-	-
Fountain Avenue												
North of Central Avenue	2	0	620	25	0.5	1.8%	0.7%	50.5	-	-	-	-
Between Central Avenue and Lighthouse Avenue	2	0	1,850	25	0.5	1.8%	0.7%	55.2	-	-	-	36
South of Lighthouse Avenue	2	0	1,140	25	0.5	1.8%	0.7%	53.1	-	-	-	-
Lighthouse Avenue												
West of Grand Avenue	2	0	5,790	25	0.5	1.8%	0.7%	60.2	-	-	36	77
Between Grand Avenue and Fountain Avenue	2	0	5,650	25	0.5	1.8%	0.7%	60.1	-	-	35	76
East of Fountain Avenue	2	0	4,710	25	0.5	1.8%	0.7%	59.3	-	-	-	67

EXISTING CONDITIONS

TRAFFIC NOISE LEVELS

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 Analysis Scenario(s): **Project Conditions**
 Source of Traffic Volumes: Hexagon
 Community Noise Descriptor: L_{dn}: x CNEL:

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Traffic Noise Levels

Analysis Condition Roadway Segment	Land Use	Lanes	Median Width	Peak	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor'	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix		Peak Hour	24-Hour
				Hour Volume						Medium Trucks	Heavy Trucks	dB(A) L _{eq}	dB(A) Ldn
Central Avenue													
West of Grand Avenue	Residential	2	0	14	112	25	35	0	0	1.8%	2.0%	47.5	45.5
East of Fountain Avenue	Commercial & Residence	2	0	14	112	25	35	0	0	1.8%	2.0%	47.5	45.5
Forest Avenue													
South of Central Avenue	Commercial	2	0	14	112	25	35	0	0	1.8%	2.0%	47.5	45.5
Lighthouse Avenue													
West of Grand Avenue	Residential	2	0	9	75	25	35	0	0	1.8%	2.0%	45.6	43.7
East of Fountain Avenue	Commercial & Residence	2	0	9	75	25	35	0	0	1.8%	2.0%	45.6	43.7

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Traffic Noise Levels

Analysis Condition	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor'	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Peak Hour dB(A) L _{eq}	24-Hour dB(A) L _{dn}
Central Avenue													
West of Grand Avenue	Residential	2	0	19	118	25	35	0	0	1.8%	2.0%	48.8	45.7
East of Fountain Avenue	Commercial & Residence	2	0	19	118	25	35	0	0	1.8%	2.0%	48.8	45.7
Forest Avenue													
South of Central Avenue	Commercial	2	0	19	118	25	35	0	0	1.8%	2.0%	48.8	45.7
Lighthouse Avenue													
West of Grand Avenue	Residential	2	0	13	79	25	35	0	0	1.8%	2.0%	47.2	43.9
East of Fountain Avenue	Commercial & Residence	2	0	13	79	25	35	0	0	1.8%	2.0%	47.2	43.9