

July 17, 2020

Mr. John Condas  
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**SUBJECT: IDI RIDER 2 AND 4 HIGH CUBE WAREHOUSES AND PERRIS VALLEY STORM DRAIN CHANNEL IMPROVEMENT PROJECT FOCUSED OFF-SITE ANALYSIS NOISE MEMO (WITH I-215 FREEWAY/PLACENTIA AVENUE INTERCHANGE)**

Dear Mr. John Condas:

Urban Crossroads, Inc. is pleased to provide the following Focused Off-Site Analysis Noise Memo for the IDI Rider 2 and 4 High Cube Warehouses and Perris Valley Storm Drain Channel Improvement Project with I-215 Freeway/Placentia Avenue Interchange (Project). Traffic generated by the operation of the proposed Project will influence the traffic noise levels in surrounding off-site areas. To quantify the off-site traffic noise increases on the surrounding off-site areas, the changes in traffic noise levels on 20 roadway segments surrounding the Project site were calculated based on the change in the average daily traffic (ADT) volumes. The traffic noise levels provided in this analysis are based on the traffic forecasts found in the *IDI Rider 2 and 4 High Cube Warehouses and Perris Valley Storm Drain Channel Improvement Project Focused Traffic Assessment (With I-215 Freeway/Placentia Avenue Interchange)* prepared by Urban Crossroads, Inc. (1) To assess the off-site noise level impacts associated with the proposed Project, noise contour boundaries were developed for Existing, Existing with Project, and Existing plus Ambient plus Cumulative (EAC) with Project conditions.

**PVCC SP EIR THRESHOLDS**

As identified in the PVCC SP EIR, sensitive receivers are areas where humans are participating in activities that may be subject to the stress of significant interference from noise and often include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities, and libraries. Other receivers include office and industrial buildings, which are not considered as sensitive as single-family homes, but are still protected by City of Perris land use compatibility standards, as discussed below.

Noise level increases at nearest receiver locations resulting from the Project are evaluated based on the PVCC SP EIR Thresholds described below at nearest sensitive receiver locations. Further, CEQA requires that consideration be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes *that there is no single noise increase that renders the noise impact significant.* (2)

According to the PVCC SP EIR, there is no official “industry standard” of determining significance of noise impacts. However, typically, a jurisdiction will identify either 3 dBA or 5 dBA increase as being the threshold because these levels represent varying levels of perceived noise increases. The PVCC SP EIR indicates that a 5 dBA noise level increase is considered discernable to most people in an exterior environment when the resulting noise levels are below 60 dBA. Further, it identifies a 3 dBA increase threshold when the noise levels already exceed 60 dBA. In addition, according to the PVCC SP EIR, an increase of 5 dBA or more above without Project noise levels is considered a significant impact at all other sensitive land uses. (3)

**OFF-SITE TRAFFIC NOISE SIGNIFICANCE CRITERIA SUMMARY**

Noise impacts shall be considered significant if any of the following conditions shown in Table A occur as a direct result of the proposed development.

**TABLE A: SIGNIFICANCE CRITERIA SUMMARY**

Analysis	Receiving Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site	Noise-Sensitive <sup>1</sup>	if resulting noise level is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
		if resulting noise level is > 60 dBA CNEL	≥ 3 dBA CNEL Project increase	

<sup>1</sup> Source: PVCC SP EIR, Page 4.9-20.

**FHWA TRAFFIC NOISE PREDICTION MODEL**

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model FHWA-RD-77-108. (4) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (5) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (6)

#### **OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS**

Table B presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table B identifies the 20 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications according to the City of Perris *General Plan Circulation Element*, and the posted vehicle speeds. The ADT volumes used in this study are presented on Table C were obtained from the *Focused Traffic Assessment* for the following traffic conditions: Existing, Existing with Project, and Existing plus Ambient plus Cumulative (EAC) with Project.

This noise study relies on the net Project trips to accurately account for the effect of individual passenger cars and truck trips on the study area roadway network. Consistent with the traffic study, the off-site traffic noise analysis maintains a peak hour to average daily traffic (peak-to-daily) relationship of approximately 6.83%. Table D provides the time of day (daytime, evening, and nighttime) vehicle splits.

To quantify the off-site noise levels, the Project related truck trips were added to the heavy truck category in the FHWA noise prediction model. The addition of the Project related truck trips increases the percentage of heavy trucks in the vehicle mix. This approach recognizes that the FHWA noise prediction model is significantly influenced by the number of heavy trucks in the vehicle mix.

The daily Project automobile and truck trip-ends were assigned to the individual off-site study area roadway segments based on the Project automobile and truck trip distribution percentages documented in the *Focused Traffic Assessment*. Using the Project truck trips in combination with the Project trip distribution, Urban Crossroads, Inc. calculated the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments. Table E shows the traffic flow by vehicle type (vehicle mix) used in the without Project traffic scenarios, and Tables F and G show the vehicle mixes used for the with Project traffic scenarios.

**TABLE B: OFF-SITE ROADWAY PARAMETERS**

ID	Roadway	Segment	Adjacent Planned Land Use (Existing if Different) <sup>1</sup>	Distance from Centerline to Nearest Adjacent Land Use (Feet) <sup>2</sup>	Posted Speed Limit (mph)
1	Indian Av.	s/o Morgan St.	LI/T	47'	45
2	Indian Av.	s/o Rider St.	LI/BPO/NCR	47'	45
3	Perris Bl.	n/o Ramona Exwy.	C	64'	45
4	Perris Bl.	s/o Ramona Exwy.	C/LI	64'	45
5	Perris Bl.	s/o Morgan St.	LI/T/PF	64'	45
6	Perris Bl.	s/o Rider St.	LI/C/BPO/R	64'	45
7	Perris Bl.	s/o Placentia Av.	CC/LI/MFR	64'	45
8	Redlands Av.	n/o Morgan St.	LI/BPO	47'	45
9	Redlands Av.	s/o Rider St.	LI	47'	45
10	Redlands Av.	s/o Placentia Av.	R/NC/OS	47'	45
11	Ramona Exwy.	w/o Perris Bl.	C	92'	55
12	Ramona Exwy.	e/o Perris Bl.	C/MFR	92'	55
13	Morgan St.	e/o Indian Av.	LI	47'	45
14	Morgan St.	e/o Perris Bl.	LI	47'	45
15	Rider St.	e/o Perris Bl.	LI/BPO/R	47'	45
16	Rider St.	e/o Redlands Av.	LI/NCR	47'	45
17	Placentia Av.	w/o I-215 Frontage Rd.	BPO	64'	45
18	Placentia Av.	w/o Indian Av.	BPO/NCR	64'	45
19	Placentia Av.	e/o Indian Av.	LI/C	64'	45
20	Placentia Av.	e/o Perris Bl.	LI/R/OS/CC/MFR	64'	45

<sup>1</sup> Sources: Perris Valley Commerce Center Land Use Plan and Nearmap aerial imagery.

<sup>2</sup> Distance to adjacent land use is based upon the right-of-way distances for each functional roadway classification provided in the General Plan Circulation Element.

"LI"= Light Industrial; "T"= Trail; "BPO"= Business Professional Office; "C"= Commercial; "PF"= Public/Semi-Public Facility; "CC"= Community Commercial; "MFR"= Multi-Family Residential; "R"= Residential; "NC"= Neighborhood Commercial; "OS"= Open Space; "NCR"= Non-Conforming Residential

**TABLE C: AVERAGE DAILY TRAFFIC VOLUMES**

ID	Roadway	Segment	Average Daily Traffic Volumes <sup>1</sup>			
			Existing (2019)		EA plus Cumulative (EAC) 2021	
			Without Project	With Project	Without Project	With Project
1	Indian Av.	s/o Morgan St.	9,546	10,168	11,111	11,733
2	Indian Av.	s/o Rider St.	6,166	6,788	9,538	10,160
3	Perris Bl.	n/o Ramona Exwy.	28,620	28,816	32,436	32,632
4	Perris Bl.	s/o Ramona Exwy.	23,801	24,257	28,926	29,382
5	Perris Bl.	s/o Morgan St.	25,211	25,341	30,224	30,354
6	Perris Bl.	s/o Rider St.	26,860	27,055	31,054	31,250
7	Perris Bl.	s/o Placentia Av.	27,269	27,334	41,041	41,106
8	Redlands Av.	n/o Morgan St.	1,134	1,460	4,846	5,172
9	Redlands Av.	s/o Rider St.	3,783	4,109	5,668	5,994
10	Redlands Av.	s/o Placentia Av.	5,779	5,844	11,020	11,085
11	Ramona Exwy.	w/o Perris Bl.	39,737	40,129	49,645	50,037
12	Ramona Exwy.	e/o Perris Bl.	35,380	35,510	44,198	44,328
13	Morgan St.	e/o Indian Av.	1,791	2,413	2,020	2,642
14	Morgan St.	e/o Perris Bl.	1,433	2,381	2,070	3,018
15	Rider St.	e/o Perris Bl.	12,064	12,390	16,372	16,698
16	Rider St.	e/o Redlands Av.	14,944	15,401	16,565	17,021
17	Placentia Av.	w/o I-215 Frontage Rd.	11,455	11,455	45,859	45,859
18	Placentia Av.	w/o Indian Av.	15	1,028	37,339	38,352
19	Placentia Av.	e/o Indian Av.	2,231	2,622	32,879	33,270
20	Placentia Av.	e/o Perris Bl.	5,998	6,259	21,594	21,855

<sup>1</sup> Source: Project Traffic Impact Analysis, Urban Crossroads, Inc.

**TABLE D: TIME OF DAY VEHICLE SPLITS**

Vehicle Type	Time of Day Splits <sup>1</sup>			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	68.17%	12.26%	19.57%	100.00%
Medium Trucks	69.75%	8.81%	21.44%	100.00%
Heavy Trucks	58.32%	5.05%	36.63%	100.00%

<sup>1</sup> Based on existing ADT counts by vehicle type taken on 5/24/2018 on Perris Boulevard north of Rider Street (Project Traffic Impact Analysis, Urban Crossroads, Inc.). All values rounded to the nearest one-hundredth.

"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

**TABLE E: WITHOUT PROJECT CONDITIONS VEHICLE MIX**

Classification	Total Daily % Traffic Flow <sup>1</sup>			Total
	Autos	Medium Trucks	Heavy Trucks	
All Segments	91.21%	6.78%	2.01%	100.00%

<sup>1</sup> Based on existing ADT counts by vehicle type taken on 5/24/2018 on Perris Boulevard north of Rider Street (Project Traffic Impact Analysis, Urban Crossroads, Inc.). All values rounded to the nearest one-hundredth.

**TABLE F: EXISTING WITH PROJECT CONDITIONS VEHICLE MIX**

ID	Roadway	Segment	With Project <sup>1</sup>			
			Autos	Medium Trucks	Heavy Trucks	Total <sup>2</sup>
1	Indian Av.	s/o Morgan St.	85.63%	7.41%	6.96%	100.00%
2	Indian Av.	s/o Rider St.	82.85%	7.72%	9.43%	100.00%
3	Perris Bl.	n/o Ramona Exwy.	91.27%	6.73%	2.00%	100.00%
4	Perris Bl.	s/o Ramona Exwy.	91.37%	6.65%	1.98%	100.00%
5	Perris Bl.	s/o Morgan St.	91.25%	6.75%	2.00%	100.00%
6	Perris Bl.	s/o Rider St.	91.27%	6.73%	2.00%	100.00%
7	Perris Bl.	s/o Placentia Av.	91.23%	6.76%	2.01%	100.00%
8	Redlands Av.	n/o Morgan St.	93.17%	5.27%	1.56%	100.00%
9	Redlands Av.	s/o Rider St.	91.90%	6.24%	1.85%	100.00%
10	Redlands Av.	s/o Placentia Av.	91.30%	6.71%	1.99%	100.00%
11	Ramona Exwy.	w/o Perris Bl.	91.29%	6.71%	1.99%	100.00%
12	Ramona Exwy.	e/o Perris Bl.	91.24%	6.76%	2.01%	100.00%
13	Morgan St.	e/o Indian Av.	67.69%	9.43%	22.88%	100.00%
14	Morgan St.	e/o Perris Bl.	68.58%	8.53%	22.89%	100.00%
15	Rider St.	e/o Perris Bl.	91.44%	6.60%	1.96%	100.00%
16	Rider St.	e/o Redlands Av.	91.47%	6.58%	1.95%	100.00%
17	Placentia Av.	w/o I-215 Frontage Rd.	91.21%	6.78%	2.01%	100.00%
18	Placentia Av.	w/o Indian Av.	39.36%	10.41%	50.23%	100.00%
19	Placentia Av.	e/o Indian Av.	92.52%	5.77%	1.71%	100.00%
20	Placentia Av.	e/o Perris Bl.	91.57%	6.50%	1.93%	100.00%

<sup>1</sup> Source: Project Traffic Impact Analysis, Urban Crossroads, Inc.

<sup>2</sup> Total of vehicle mix percentage values rounded to the nearest one-hundredth.

**TABLE G: EXISTING PLUS AMBIENT PLUS CUMULATIVE WITH PROJECT VEHICLE MIX**

ID	Roadway	Segment	With Project <sup>1</sup>			
			Autos	Medium Trucks	Heavy Trucks	Total <sup>2</sup>
1	Indian Av.	s/o Morgan St.	86.37%	7.32%	6.30%	100.00%
2	Indian Av.	s/o Rider St.	85.62%	7.41%	6.97%	100.00%
3	Perris Bl.	n/o Ramona Exwy.	91.26%	6.74%	2.00%	100.00%
4	Perris Bl.	s/o Ramona Exwy.	91.34%	6.68%	1.98%	100.00%
5	Perris Bl.	s/o Morgan St.	91.24%	6.75%	2.00%	100.00%
6	Perris Bl.	s/o Rider St.	91.26%	6.74%	2.00%	100.00%
7	Perris Bl.	s/o Placentia Av.	91.22%	6.77%	2.01%	100.00%
8	Redlands Av.	n/o Morgan St.	91.76%	6.35%	1.89%	100.00%
9	Redlands Av.	s/o Rider St.	91.68%	6.41%	1.90%	100.00%
10	Redlands Av.	s/o Placentia Av.	91.26%	6.74%	2.00%	100.00%
11	Ramona Exwy.	w/o Perris Bl.	91.27%	6.73%	2.00%	100.00%
12	Ramona Exwy.	e/o Perris Bl.	91.23%	6.76%	2.01%	100.00%
13	Morgan St.	e/o Indian Av.	69.73%	9.20%	21.07%	100.00%
14	Morgan St.	e/o Perris Bl.	73.36%	8.16%	18.48%	100.00%
15	Rider St.	e/o Perris Bl.	91.38%	6.65%	1.97%	100.00%
16	Rider St.	e/o Redlands Av.	91.44%	6.60%	1.96%	100.00%
17	Placentia Av.	w/o I-215 Frontage Rd.	91.21%	6.78%	2.01%	100.00%
18	Placentia Av.	w/o Indian Av.	89.82%	6.88%	3.31%	100.00%
19	Placentia Av.	e/o Indian Av.	91.31%	6.70%	1.99%	100.00%
20	Placentia Av.	e/o Perris Bl.	91.31%	6.70%	1.99%	100.00%

<sup>1</sup> Source: Project Traffic Impact Analysis, Urban Crossroads, Inc.

<sup>2</sup> Total of vehicle mix percentage values rounded to the nearest one-hundredth.

## **OFF-SITE TRANSPORTATION NOISE IMPACTS**

To assess the off-site transportation CNEL noise level impacts associated with the proposed Project, noise contours were developed based on the *IDI Rider 2 and 4 High Cube Warehouses and Perris Valley Storm Drain Channel Improvement Project Focused Traffic Assessment (With I-215 Freeway/Placentia Avenue Interchange)*. (1) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Noise contours were developed for the following traffic scenarios:

- **Existing Without / With Project:** This scenario refers to the existing present-day noise conditions, without and with the proposed Project. This condition is provided solely for analytical purposes and will not occur, since the Project will not be fully developed and occupied under Existing conditions.

- Existing plus Ambient plus Cumulative (EAC) With Project: This scenario refers to the exterior background noise conditions with the proposed Project plus ambient growth. This scenario corresponds to future conditions, and includes all cumulative projects identified in the *Traffic Impact Analysis*.

#### **TRAFFIC NOISE CONTOURS**

Noise contours were used to assess the Project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic based on the PVCC SP EIR significance criteria shown in Table A. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area.

Tables H through J present a summary of the exterior traffic noise levels, without barrier attenuation, for the 20 study area roadway segments analyzed for Existing, Existing with Project, and Existing plus Ambient plus Cumulative (EAC) with Project conditions. Appendix A includes a summary of the traffic noise level contours for each of the traffic scenarios.

#### **EXISTING PROJECT-RELATED TRAFFIC NOISE LEVEL CONTRIBUTIONS AND IMPACTS**

An analysis of existing off-site traffic noise levels has been included in this report based on the traffic volumes identified in the *IDI Rider 2 and 4 High Cube Warehouses and Perris Valley Storm Drain Channel Improvement Project Focused Traffic Assessment (With I-215 Freeway/Placentia Avenue Interchange)* prepared by Urban Crossroads, Inc. Consistent with other environmental reports prepared for the City of Perris, this analysis evaluates the off-site traffic noise impacts by comparing the Existing traffic volumes to the Existing with Project traffic volumes.

Table H presents the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 63.0 to 76.1 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table I shows that the Existing with Project conditions will range from 63.4 to 76.1 dBA CNEL. As shown on Table K the Project is expected to generate existing off-site traffic noise level increases ranging from 0.0 dBA CNEL to up to 9.2 dBA CNEL.



**TABLE H: EXISTING WITHOUT PROJECT NOISE CONTOURS**

ID	Road	Segment	Adjacent Existing Land Use <sup>1</sup>	CNEL at Nearest Adjacent Land Use (dBA) <sup>2</sup>	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Indian Av.	s/o Morgan St.	LI/T	72.2	66	142	306
2	Indian Av.	s/o Rider St.	LI/BPO/NCR	70.3	49	106	229
3	Perris Bl.	n/o Ramona Exwy.	C	75.5	149	321	692
4	Perris Bl.	s/o Ramona Exwy.	C/LI	74.7	132	284	612
5	Perris Bl.	s/o Morgan St.	LI/T/PF	75.0	137	295	636
6	Perris Bl.	s/o Rider St.	LI/C/BPO/R	75.2	143	308	663
7	Perris Bl.	s/o Placentia Av.	CC/LI/MFR	75.3	144	311	670
8	Redlands Av.	n/o Morgan St.	LI/BPO	63.0	RW	RW	74
9	Redlands Av.	s/o Rider St.	LI	68.2	RW	77	165
10	Redlands Av.	s/o Placentia Av.	R/NC/OS	70.0	47	102	219
11	Ramona Exwy.	w/o Perris Bl.	C	76.1	234	504	1086
12	Ramona Exwy.	e/o Perris Bl.	C/MFR	75.6	216	466	1005
13	Morgan St.	e/o Indian Av.	LI	64.9	RW	47	100
14	Morgan St.	e/o Perris Bl.	LI	64.0	RW	RW	86
15	Rider St.	e/o Perris Bl.	LI/BPO/R	73.2	77	166	358
16	Rider St.	e/o Redlands Av.	LI/NCR	74.2	89	192	413
17	Placentia Av.	w/o I-215 Frontage Rd.	BPO	71.5	81	174	376
18	Placentia Av.	w/o Indian Av.	BPO/NCR	_ <sup>3</sup>	_ <sup>3</sup>	_ <sup>3</sup>	_ <sup>3</sup>
19	Placentia Av.	e/o Indian Av.	LI/C	_ <sup>3</sup>	_ <sup>3</sup>	_ <sup>3</sup>	_ <sup>3</sup>
20	Placentia Av.	e/o Perris Bl.	LI/R/OS/CC/MFR	68.7	RW	113	244

<sup>1</sup> Perris Valley Commerce Center Land Use Plan and Nearmap aerial imagery.

<sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

<sup>3</sup> The I-215 Freeway and Placentia Avenue interchange is anticipated to be completed and operational in 2021.

"RW" = Location of the respective noise contour falls within the right-of-way of the road. "LI"= Light Industrial; "T"= Trail; "BPO"= Business Professional Office; "C"= Commercial; "PF"= Public/Semi-Public Facility; "CC"= Community Commercial; "MFR"= Multi-Family Residential; "R"= Residential; "NC"= Neighborhood Commercial; "OS"= Open Space; "NCR"= Non-Conforming Residential

**TABLE I: EXISTING WITH PROJECT NOISE CONTOURS**

ID	Road	Segment	Adjacent Existing Land Use <sup>1</sup>	CNEL at Nearest Adjacent Land Use (dBA) <sup>2</sup>	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Indian Av.	s/o Morgan St.	LI/T	75.4	108	232	499
2	Indian Av.	s/o Rider St.	LI/BPO/NCR	74.6	95	205	441
3	Perris Bl.	n/o Ramona Exwy.	C	75.5	149	322	693
4	Perris Bl.	s/o Ramona Exwy.	C/LI	74.7	132	285	615
5	Perris Bl.	s/o Morgan St.	LI/T/PF	75.0	137	295	637
6	Perris Bl.	s/o Rider St.	LI/C/BPO/R	75.2	143	308	664
7	Perris Bl.	s/o Placentia Av.	CC/LI/MFR	75.3	144	311	670
8	Redlands Av.	n/o Morgan St.	LI/BPO	63.4	RW	RW	79
9	Redlands Av.	s/o Rider St.	LI	68.3	RW	78	168
10	Redlands Av.	s/o Placentia Av.	R/NC/OS	70.0	47	102	220
11	Ramona Exwy.	w/o Perris Bl.	C	76.1	234	505	1088
12	Ramona Exwy.	e/o Perris Bl.	C/MFR	75.6	217	467	1006
13	Morgan St.	e/o Indian Av.	LI	73.2	77	167	359
14	Morgan St.	e/o Perris Bl.	LI	73.2	76	164	354
15	Rider St.	e/o Perris Bl.	LI/BPO/R	73.3	78	167	360
16	Rider St.	e/o Redlands Av.	LI/NCR	74.2	90	193	416
17	Placentia Av.	w/o I-215 Frontage Rd.	BPO	71.5	81	174	376
18	Placentia Av.	w/o Indian Av.	BPO/NCR	<sub>3</sub>	<sub>3</sub>	<sub>3</sub>	<sub>3</sub>
19	Placentia Av.	e/o Indian Av.	LI/C	<sub>3</sub>	<sub>3</sub>	<sub>3</sub>	<sub>3</sub>
20	Placentia Av.	e/o Perris Bl.	LI/R/OS/CC/MFR	68.8	RW	114	247

<sup>1</sup> Perris Valley Commerce Center Land Use Plan and Nearmap aerial imagery.

<sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

<sup>3</sup> The I-215 Freeway and Placentia Avenue interchange is anticipated to be completed and operational in 2021.

"RW" = Location of the respective noise contour falls within the right-of-way of the road. "LI"= Light Industrial; "T"= Trail; "BPO"= Business Professional Office; "C"= Commercial; "PF"= Public/Semi-Public Facility; "CC"= Community Commercial; "MFR"= Multi-Family Residential; "R"= Residential; "NC"= Neighborhood Commercial; "OS"= Open Space; "NCR"= Non-Conforming Residential.

**TABLE J: EXISTING PLUS AMBIENT PLUS CUMULATIVE WITH PROJECT NOISE CONTOURS**

ID	Road	Segment	Adjacent Existing Land Use <sup>1</sup>	CNEL at Nearest Adjacent Land Use (dBA) <sup>2</sup>	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Indian Av.	s/o Morgan St.	LI/T	75.7	113	244	525
2	Indian Av.	s/o Rider St.	LI/BPO/NCR	75.4	108	232	499
3	Perris Bl.	n/o Ramona Exwy.	C	76.1	162	350	753
4	Perris Bl.	s/o Ramona Exwy.	C/LI	75.6	151	325	699
5	Perris Bl.	s/o Morgan St.	LI/T/PF	75.8	155	333	718
6	Perris Bl.	s/o Rider St.	LI/C/BPO/R	75.9	158	340	732
7	Perris Bl.	s/o Placentia Av.	CC/LI/MFR	77.1	190	409	880
8	Redlands Av.	n/o Morgan St.	LI/BPO	69.4	RW	92	198
9	Redlands Av.	s/o Rider St.	LI	70.0	47	102	219
10	Redlands Av.	s/o Placentia Av.	R/NC/OS	72.8	73	157	338
11	Ramona Exwy.	w/o Perris Bl.	C	77.1	272	586	1262
12	Ramona Exwy.	e/o Perris Bl.	C/MFR	76.5	251	541	1166
13	Morgan St.	e/o Indian Av.	LI	73.3	78	169	363
14	Morgan St.	e/o Perris Bl.	LI	73.4	79	170	367
15	Rider St.	e/o Perris Bl.	LI/BPO/R	74.6	95	205	441
16	Rider St.	e/o Redlands Av.	LI/NCR	74.6	96	207	445
17	Placentia Av.	w/o I-215 Frontage Rd.	BPO	77.6	204	440	947
18	Placentia Av.	w/o Indian Av.	BPO/NCR	77.7	210	452	974
19	Placentia Av.	e/o Indian Av.	LI/C	76.1	164	353	761
20	Placentia Av.	e/o Perris Bl.	LI/R/OS/CC/MFR	74.3	124	267	575

<sup>1</sup> Perris Valley Commerce Center Land Use Plan and Nearmap aerial imagery.

<sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road. "LI"= Light Industrial; "T"= Trail; "BPO"= Business Professional Office; "C"= Commercial; "PF"= Public/Semi-Public Facility; "CC"= Community Commercial; "MFR"= Multi-Family Residential; "R"= Residential; "NC"= Neighborhood Commercial; "OS"= Open Space; "NCR"= Non-Conforming Residential.

Based on the 5 dBA CNEL increase significance criteria when noise levels at noise-sensitive land uses are below 60 dBA CNEL or the 3 dBA CNEL increase criteria when the noise levels already exceed 60 dBA CNEL, one of the 20 study area roadway segments are shown to experience *potentially significant* off-site traffic noise level increases due to the proposed Project truck trip distribution under Existing with Project conditions. The existing noise-sensitive land uses on this segment is described below.

- Non-conforming, existing noise-sensitive uses (non-conforming residences) on Indian Avenue south of Rider Street (Segment #2). A review of the Project study area indicates that the seven existing residences adjacent to this segment do not conform to the underlying business professional land use designation of the PVCC SP and City of Perris Zoning Map. Therefore, these residences are considered an existing non-conforming use. Even though these existing non-conforming residences likely will ultimately be developed with land uses that are consistent with the underlying business professional office land use designation of the PVCC SP and City of Perris Zoning Map, for purposes of analysis they are considered sensitive noise receivers until such time they are unoccupied or no longer exist.

The Off-Site Traffic Noise Mitigation Section describes the off-site traffic noise mitigation measures considered in this analysis. All other roadway segments would not experience noise level increases under Existing with Project conditions that would exceed the established thresholds of significance.

**TABLE K: EXISTING CONDITION WITH PROJECT TRAFFIC NOISE IMPACTS**

ID	Road	Segment	CNEL at Adjacent Land Use (dBA) <sup>1</sup>			Noise-Sensitive Land Use? <sup>2</sup>	Incremental Noise Level Increase Threshold <sup>3</sup>	
			Existing Ambient	Existing +Project	Project Increase		Limit	Exceeded?
1	Indian Av.	s/o Morgan St.	72.2	75.4	3.2	No	n/a	No
2	Indian Av.	s/o Rider St.	70.3	74.6	4.3	Yes	3.0	Yes
3	Perris Bl.	n/o Ramona Exwy.	75.5	75.5	0.0	No	n/a	No
4	Perris Bl.	s/o Ramona Exwy.	74.7	74.7	0.0	No	n/a	No
5	Perris Bl.	s/o Morgan St.	75.0	75.0	0.0	No	n/a	No
6	Perris Bl.	s/o Rider St.	75.2	75.2	0.0	Yes	3.0	No
7	Perris Bl.	s/o Placentia Av.	75.3	75.3	0.0	Yes	3.0	No
8	Redlands Av.	n/o Morgan St.	63.0	63.4	0.4	No	n/a	No
9	Redlands Av.	s/o Rider St.	68.2	68.3	0.1	No	n/a	No
10	Redlands Av.	s/o Placentia Av.	70.0	70.0	0.0	Yes	3.0	No
11	Ramona Exwy.	w/o Perris Bl.	76.1	76.1	0.0	No	n/a	No
12	Ramona Exwy.	e/o Perris Bl.	75.6	75.6	0.0	Yes	3.0	No
13	Morgan St.	e/o Indian Av.	64.9	73.2	8.3	No	n/a	No
14	Morgan St.	e/o Perris Bl.	64.0	73.2	9.2	No	n/a	No
15	Rider St.	e/o Perris Bl.	73.2	73.3	0.1	Yes	3.0	No
16	Rider St.	e/o Redlands Av.	74.2	74.2	0.0	Yes	3.0	No

ID	Road	Segment	CNEL at Adjacent Land Use (dBA) <sup>1</sup>			Noise-Sensitive Land Use? <sup>2</sup>	Incremental Noise Level Increase Threshold <sup>3</sup>	
			Existing Ambient	Existing +Project	Project Increase		Limit	Exceeded?
17	Placentia Av.	w/o I-215 Frontage Rd.	71.5	71.5	0.0	No	n/a	No
18	Placentia Av.	w/o Indian Av.	-.4	-.4	-.4	Yes	3.0	No
19	Placentia Av.	e/o Indian Av.	-.4	-.4	-.4	No	n/a	No
20	Placentia Av.	e/o Perris Bl.	68.7	68.8	0.1	Yes	3.0	No

<sup>1</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the nearest adjacent land use.

<sup>2</sup> "Yes" = Existing, noise-sensitive land uses adjacent to the study area roadway segment.

<sup>3</sup> Does the Project create an incremental noise level increase exceeding the significance criteria (Table A)?

<sup>4</sup> The I-215 Freeway and Placentia Avenue interchange is anticipated to be completed and operational in 2021.

"LI"= Light Industrial; "T"= Trail; "BPO"= Business Professional Office; "C"= Commercial; "PF"= Public/Semi-Public Facility; "CC"= Community Commercial; "MFR"= Multi-Family Residential; "R"= Residential; "NC"= Neighborhood Commercial; "OS"= Open Space; "NCR"= Non-Conforming Residential.

### EAC WITH PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS AND IMPACTS

Table L presents a comparison of the Existing and the Existing plus Ambient plus Cumulative (EAC) with Project CNEL noise levels. Table L presents a comparison of the cumulative off-site traffic impact based on the difference between the Existing and the EAC plus Project traffic volumes. This comparison is used by the City of Perris to describe the cumulative off-site traffic noise impacts. Table L shows that the cumulative off-site traffic noise impacts will range from 0.4 dBA CNEL to 9.4 dBA CNEL.

Based on the 5 dBA CNEL increase significance criteria when noise levels at noise-sensitive land uses are below 60 dBA CNEL or the 3 dBA CNEL increase criteria when the noise levels already exceed 60 dBA CNEL, two of the 20 study area roadway segments are shown to experience *potentially significant* off-site traffic noise level increases due to the proposed Project truck trip distribution under EAC with Project conditions. The noise-sensitive land uses on these two segments are described below.

- Non-conforming, existing noise-sensitive uses (non-conforming residences) on Indian Avenue south of Rider Street (Segment #2). A review of the Project study area indicates that the seven existing residences adjacent to this segment do not conform to the underlying business professional land use designation of the PVCC SP and City of Perris Zoning Map. Therefore, these residences are considered an existing non-conforming use. Even though these existing non-conforming residences likely will ultimately be developed with land uses that are consistent with the underlying business professional office land use designation of the PVCC SP and City of Perris Zoning Map, for purposes of analysis they are considered sensitive noise receivers until such time they are unoccupied or no longer exist.
- Residential uses on Placentia Avenue east of Perris Boulevard (Segment #20). This area is largely developed with residential tract homes located north and south of the Placentia Avenue. Consistent with the City of Perris exterior noise requirements, these homes benefit from exterior noise barriers needed to reduce the future long-range General Plan buildout traffic condition on Placentia Avenue. While

exterior noise mitigation is provided for these existing noise sensitive residential land uses adjacent to Placentia Avenue, the residents may perceive a Project related traffic noise level increase exceeding the PVCC SP EIR noise criteria.

The Off-Site Traffic Noise Mitigation Section below describes the off-site traffic noise mitigation measures considered in this analysis. All other roadway segments would not experience noise level increases under EAC with Project conditions that would exceed the established thresholds of significance.

**TABLE L: EAC WITH PROJECT TRAFFIC NOISE IMPACTS**

ID	Road	Segment	CNEL at Adjacent Land Use (dBA) <sup>1</sup>			Noise-Sensitive Land Use? <sup>2</sup>	Incremental Noise Level Increase Threshold <sup>3</sup>	
			Existing Ambient	EAPC	Project Increase		Limit	Exceeded?
1	Indian Av.	s/o Morgan St.	72.2	75.7	3.5	No	n/a	No
2	Indian Av.	s/o Rider St.	70.3	75.4	5.1	Yes	3.0	Yes
3	Perris Bl.	n/o Ramona Exwy.	75.5	76.1	0.6	No	n/a	No
4	Perris Bl.	s/o Ramona Exwy.	74.7	75.6	0.9	No	n/a	No
5	Perris Bl.	s/o Morgan St.	75.0	75.8	0.8	No	n/a	No
6	Perris Bl.	s/o Rider St.	75.2	75.9	0.7	Yes	3.0	No
7	Perris Bl.	s/o Placentia Av.	75.3	77.1	1.8	Yes	3.0	No
8	Redlands Av.	n/o Morgan St.	63.0	69.4	6.4	No	n/a	No
9	Redlands Av.	s/o Rider St.	68.2	70.0	1.8	No	n/a	No
10	Redlands Av.	s/o Placentia Av.	70.0	72.8	2.8	Yes	3.0	No
11	Ramona Exwy.	w/o Perris Bl.	76.1	77.1	1.0	No	n/a	No
12	Ramona Exwy.	e/o Perris Bl.	75.6	76.5	0.9	Yes	3.0	No
13	Morgan St.	e/o Indian Av.	64.9	73.3	8.4	No	n/a	No
14	Morgan St.	e/o Perris Bl.	64.0	73.4	9.4	No	n/a	No
15	Rider St.	e/o Perris Bl.	73.2	74.6	1.4	Yes	3.0	No
16	Rider St.	e/o Redlands Av.	74.2	74.6	0.4	Yes	3.0	No
17	Placentia Av.	w/o I-215 Frontage Rd.	71.5	77.6	6.1	No	n/a	No
18	Placentia Av.	w/o Indian Av.	-.4	-.4	-.4	Yes	3.0	No
19	Placentia Av.	e/o Indian Av.	-.4	-.4	-.4	No	n/a	No
20	Placentia Av.	e/o Perris Bl.	68.7	74.3	5.6	Yes	3.0	Yes

<sup>1</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the nearest adjacent land use.

<sup>2</sup> "Yes" = Existing, noise-sensitive land uses adjacent to the study area roadway segment.

<sup>3</sup> Does the Project create an incremental noise level increase exceeding the significance criteria (Table A)?

<sup>4</sup> The I-215 Freeway and Placentia Avenue interchange is anticipated to be completed and operational in 2021.

"LI"= Light Industrial; "T"= Trail; "BPO"= Business Professional Office; "C"= Commercial; "PF"= Public/Semi-Public Facility; "CC"= Community Commercial; "MFR"= Multi-Family Residential; "R"= Residential; "NC"= Neighborhood Commercial; "OS"= Open Space

## **OFF-SITE TRAFFIC NOISE MITIGATION**

To reduce the *potentially significant* Project traffic noise level increases on study area roadway segments for Existing plus Project and EAC plus Project conditions, potential noise mitigation measures are identified in this analysis. Potential mitigation measures discussed below include rubberized asphalt hot mix pavement and off-site noise barriers for existing non-conforming residential use adjacent to impacted roadway segments.

### **RUBBERIZED ASPHALT**

Due to the potential noise attenuation benefits, rubberized asphalt is considered as a mitigation measure for the Project-related roadway improvements associated with Project construction. To reduce traffic noise levels at the noise source, Caltrans research has shown that rubberized asphalt can provide noise attenuation of approximately 4 dBA for automobile traffic noise levels. (7) Changing the pavement type of a roadway has been shown to reduce the amount of tire/pavement noise produced at the source under both near-term and long-term conditions. Traffic noise is generated primarily by the interaction of the tires and pavement, the engine, and exhaust systems. For automobiles noise, as much as 75 to 90-percent of traffic noise is generated by the interaction of the tires and pavement, especially when traveling at higher and constant speeds. (8) According to research conducted by Caltrans (7) and the Canadian Ministry of Transportation and Highways (9) a 4 dBA reduction in tire/pavement noise is attainable using rubberized asphalt under typical operating conditions.

The effectiveness of reducing traffic noise levels is higher on roadways with low percentages of heavy trucks, since the heavy truck engine and exhaust noise is not affected by rubberized alternative pavement due to the truck engine and exhaust stack height above the pavement itself. (7) Per Caltrans guidance a truck stack height is modeled using a height of 11.5 feet above the road. (10) (11) With the primary off-site traffic noise source consisting of heavy trucks with a stack height of 11.5 feet off the ground, the tire/pavement noise reduction benefits associated rubberized asphalt will be primarily limited to autos.

While the off-site Project-related traffic noise level increases would theoretically be reduced with the 4 dBA reduction provided by rubberized asphalt, the reduction would not provide reliable benefits for the noise levels generated by heavy truck traffic. This is, as previously stated, due to the noise source height difference between automobiles and trucks. While rubberized asphalt will provide some noise reduction, this noise study recognizes that this is only effective for tire-on-pavement noise at higher speeds and would not reduce truck-related off-site traffic noise levels associated with truck engine and exhaust stacks to less than significant impacts. Since the use of rubberized asphalt would not lower the off-site traffic noise levels below a level of significance, rubberized asphalt is not proposed as mitigation for the Project and the off-site Project-related traffic noise level increases at adjacent land uses would remain *significant*.

### OFF-SITE NOISE BARRIERS

Since existing and future noise-sensitive receiving land uses are located adjacent to the impacted roadway segments in the Project study area, off-site noise barriers were considered in this analysis as a potential traffic noise mitigation measure to reduce the impacts. Off-site noise barriers are estimated to provide a *readily perceptible* 5 dBA reduction which, according to the FHWA, is *simple* to attain when blocking the line-of-sight from the noise source to the receiver. (10)

As previously discussed, Caltrans guidance in the Highway Design Manual, Section 1102.3(3), indicates that for design purposes, *the noise barrier should intercept the line of sight from the exhaust stack of a truck to the receptor*, and an 11.5-foot-high truck stack height is assumed to represent the truck engine and exhaust noise source. (11) Therefore, any exterior noise barriers at receiving noise sensitive land uses experiencing Project-related traffic noise level increases would need to be high enough and long enough to block the line-of-sight from the noise source (at 11.5 feet high per Caltrans) to the receiver (at 5 feet high per FHWA guidance) in order to provide a 5 dBA reduction per FHWA guidance. (11) Exterior noise mitigation in the form of noise barriers is not anticipated to provide the FHWA attainable reduction of 5 dBA required to reduce the off-site traffic noise level increases and would also require potential openings for driveway access to individual residential lots fronting the road. As such, off-site noise barriers would not be feasible and would not lower the off-site traffic noise levels below a level of significance, and therefore, noise barriers are not proposed as mitigation for the Project.

### SIGNIFICANT OFF-SITE TRAFFIC NOISE IMPACTS

Both rubberized asphalt and off-site noise barriers are considered as potential noise mitigation measures to reduce the *potentially significant* Project-related off-site traffic noise level increases shown on Tables J and K. However, neither form of mitigation would eliminate the off-site traffic noise level increases at the adjacent land uses to the impacted roadway segments. Therefore, the Project-related off-site traffic noise level increases at adjacent noise-sensitive land are considered a *significant and unavoidable* impact. If you have any questions, please contact me directly at (949) 336-5979.

Respectfully submitted,

URBAN CROSSROADS, INC.



Bill Lawson, P.E., INCE  
Principal



## REFERENCES

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2. **California Court of Appeal.** *Gray v. County of Madera, F053661*. 167 Cal.App.4th 1099; - Cal.Rptr.3d, October 2008.
3. **City of Perris.** *Perris Valley Commerce Center Specific Plan Environmental Impact Report*. July 2011.
4. **U.S. Department of Transportation, Federal Highway Administration.** *FHWA Highway Traffic Noise Prediction Model*. December 1978. FHWA-RD-77-108.
5. **California Department of Transportation Environmental Program, Office of Environmental Engineering.** *Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction*. September 1995. TAN 95-03.
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10. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch.** *Highway Traffic Noise Analysis and Abatement Policy and Guidance*. December 2011.
11. **California Department of Transportation.** *Highway Design Manual, Chapter 1100 Highway Traffic Noise Abatement*. November 2017.

**APPENDIX A:**

**OFF-SITE TRAFFIC NOISE CONTOURS AT RIGHT-OF-WAY**

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing (2019) Road Name: Indian Av. Road Segment: s/o Morgan St.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>				
Average Daily Traffic (Adt): 9,546 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 652 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
<b>Site Data</b>			<b>Vehicle Mix</b>				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%				
			<b>Noise Source Elevations (in feet)</b>				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
			<b>Lane Equivalent Distance (in feet)</b>				
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.09	1.33	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-15.38	1.37	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.66	1.36	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.5	63.7	62.3	59.5	66.8	67.2
Medium Trucks:	64.2	63.5	60.6	59.7	66.8	67.0
Heavy Trucks:	63.8	62.3	57.7	61.5	67.9	68.1
Vehicle Noise:	68.9	68.0	65.3	65.1	72.0	72.2

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	64	137	295	635	
CNEL:	66	142	306	660	

Tuesday, April 7, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing (2019) Road Name: Perris Bl. Road Segment: n/o Ramona Exwy.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>				
Average Daily Traffic (Adt): 28,620 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 1,955 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
<b>Site Data</b>			<b>Vehicle Mix</b>				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%				
			<b>Noise Source Elevations (in feet)</b>				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
			<b>Lane Equivalent Distance (in feet)</b>				
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.67	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-10.61	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-15.89	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.8	67.0	65.6	62.8	70.1	70.5
Medium Trucks:	67.5	66.8	63.9	63.0	70.0	70.3
Heavy Trucks:	67.1	65.6	61.0	64.8	71.2	71.3
Vehicle Noise:	72.2	71.3	68.6	68.4	75.3	75.5

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	144	309	666	1,435	
CNEL:	149	321	692	1,491	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing (2019) Road Name: Indian Av. Road Segment: s/o Rider St.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>				
Average Daily Traffic (Adt): 6,166 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 421 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
<b>Site Data</b>			<b>Vehicle Mix</b>				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%				
			<b>Noise Source Elevations (in feet)</b>				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
			<b>Lane Equivalent Distance (in feet)</b>				
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-5.99	1.33	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-17.28	1.37	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-22.55	1.36	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.6	61.8	60.4	57.6	64.9	65.3
Medium Trucks:	62.3	61.6	58.7	57.8	64.9	65.1
Heavy Trucks:	61.9	60.4	55.8	59.6	66.0	66.2
Vehicle Noise:	67.0	66.1	63.4	63.2	70.1	70.3

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	47	102	220	475	
CNEL:	49	106	229	493	

Tuesday, April 7, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing (2019) Road Name: Perris Bl. Road Segment: s/o Ramona Exwy.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>				
Average Daily Traffic (Adt): 23,801 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 1,626 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
<b>Site Data</b>			<b>Vehicle Mix</b>				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%				
			<b>Noise Source Elevations (in feet)</b>				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
			<b>Lane Equivalent Distance (in feet)</b>				
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.13	-0.13	-1.20	-4.70	0.000	0.000
Medium Trucks:	79.45	-11.41	-0.11	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-16.69	-0.11	-1.20	-5.31	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.0	66.2	64.8	62.0	69.3	69.7
Medium Trucks:	66.7	66.0	63.1	62.2	69.2	69.5
Heavy Trucks:	66.3	64.8	60.2	64.0	70.4	70.5
Vehicle Noise:	71.4	70.5	67.8	67.6	74.5	74.7

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	127	273	589	1,269	
CNEL:	132	284	612	1,318	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Perris Bl. Road Segment: s/o Morgan St.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 25,211 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 1,722 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	0.12	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-11.16	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-16.44	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	67.3	66.5	65.0	62.3	69.5	69.9		
Medium Trucks:	67.0	66.3	63.3	62.4	69.5	69.8		
Heavy Trucks:	66.5	65.0	60.4	64.3	70.7	70.8		
Vehicle Noise:	71.7	70.7	68.1	67.8	74.7	75.0		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			132	284	612	1,319		
CNEL:			137	295	636	1,370		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Perris Bl. Road Segment: s/o Placentia Av.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 27,269 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 1,862 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	0.46	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-10.82	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-16.10	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	67.6	66.8	65.4	62.6	69.9	70.3		
Medium Trucks:	67.3	66.6	63.7	62.7	69.8	70.1		
Heavy Trucks:	66.8	65.4	60.8	64.6	71.0	71.1		
Vehicle Noise:	72.0	71.1	68.4	68.2	75.1	75.3		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			139	299	645	1,390		
CNEL:			144	311	670	1,443		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Perris Bl. Road Segment: s/o Rider St.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 26,860 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 1,835 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	0.40	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-10.89	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-16.16	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	67.5	66.7	65.3	62.6	69.8	70.2		
Medium Trucks:	67.3	66.6	63.6	62.7	69.8	70.0		
Heavy Trucks:	66.8	65.3	60.7	64.5	71.0	71.1		
Vehicle Noise:	72.0	71.0	68.4	68.1	75.0	75.2		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			138	296	638	1,376		
CNEL:			143	308	663	1,429		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Redlands Av. Road Segment: n/o Morgan St.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 1,134 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 77 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-13.35	1.33	-1.20	-4.63	0.000	0.000	
Medium Trucks:	79.45	-24.63	1.37	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	84.25	-29.91	1.36	-1.20	-5.46	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	55.2	54.4	53.0	50.3	57.5	57.9		
Medium Trucks:	55.0	54.3	51.3	50.4	57.5	57.8		
Heavy Trucks:	54.5	53.0	48.4	52.3	58.7	58.8		
Vehicle Noise:	59.7	58.7	56.1	55.9	62.7	63.0		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			15	33	71	154		
CNEL:			16	34	74	159		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Redlands Av. Road Segment: s/o Rider St.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 3,783 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 258 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-8.12	1.33	-1.20	-4.63	0.000	0.000	
Medium Trucks:	79.45	-19.40	1.37	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	84.25	-24.68	1.36	-1.20	-5.46	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.5	59.7	58.2	55.5	62.7	63.1
Medium Trucks:	60.2	59.5	56.6	55.6	62.7	63.0
Heavy Trucks:	59.7	58.3	53.7	57.5	63.9	64.0
Vehicle Noise:	64.9	64.0	61.3	61.1	67.9	68.2

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	34	74	159	343	
CNEL:	36	77	165	356	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Ramona Exwy. Road Segment: w/o Perris Bl.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 39,737 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 2,714 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 102 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 92.0 feet Centerline Dist. to Observer: 92.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 76.733 Medium Trucks: 76.618 Heavy Trucks: 76.629					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	1.23	-2.89	-1.20	-4.76	0.000	0.000	
Medium Trucks:	82.40	-10.06	-2.88	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-15.33	-2.88	-1.20	-5.18	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.9	68.1	66.7	63.9	71.2	71.6
Medium Trucks:	68.3	67.6	64.6	63.7	70.8	71.1
Heavy Trucks:	67.0	65.5	60.9	64.7	71.2	71.3
Vehicle Noise:	72.9	72.0	69.4	68.9	75.8	76.1

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	225	484	1,043	2,247	
CNEL:	234	504	1,086	2,339	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Redlands Av. Road Segment: s/o Placentia Av.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 5,779 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 395 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-6.27	1.33	-1.20	-4.63	0.000	0.000	
Medium Trucks:	79.45	-17.56	1.37	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	84.25	-22.84	1.36	-1.20	-5.46	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.3	61.5	60.1	57.3	64.6	65.0
Medium Trucks:	62.1	61.4	58.4	57.5	64.6	64.9
Heavy Trucks:	61.6	60.1	55.5	59.3	65.8	65.9
Vehicle Noise:	66.8	65.8	63.2	62.9	69.8	70.0

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	45	98	211	455	
CNEL:	47	102	219	472	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Ramona Exwy. Road Segment: e/o Perris Bl.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 35,380 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 2,416 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 102 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 92.0 feet Centerline Dist. to Observer: 92.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 76.733 Medium Trucks: 76.618 Heavy Trucks: 76.629					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	0.72	-2.89	-1.20	-4.76	0.000	0.000	
Medium Trucks:	82.40	-10.56	-2.88	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-15.84	-2.88	-1.20	-5.18	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.4	67.6	66.2	63.4	70.7	71.1
Medium Trucks:	67.8	67.1	64.1	63.2	70.3	70.6
Heavy Trucks:	66.5	65.0	60.4	64.2	70.7	70.8
Vehicle Noise:	72.4	71.5	68.9	68.4	75.3	75.6

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	208	448	965	2,079	
CNEL:	216	466	1,005	2,165	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Morgan St. Road Segment: e/o Indian Av.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 1,791 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 122 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-11.36	1.33	-1.20	-4.63	0.000	0.000	
Medium Trucks:	79.45	-22.65	1.37	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	84.25	-27.92	1.36	-1.20	-5.46	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	57.2	56.4	55.0	52.3	59.5	59.9	
Medium Trucks:	57.0	56.3	53.3	52.4	59.5	59.8	
Heavy Trucks:	56.5	55.0	50.4	54.2	60.7	60.8	
Vehicle Noise:	61.7	60.7	58.1	57.8	64.7	64.9	

Centerline Distance to Noise Contour (in feet)					
		70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	21	45	97	208	
CNEL:	22	47	100	216	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Rider St. Road Segment: e/o Perris Bl.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 12,064 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 824 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-3.08	1.33	-1.20	-4.63	0.000	0.000	
Medium Trucks:	79.45	-14.37	1.37	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	84.25	-19.64	1.36	-1.20	-5.46	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	65.5	64.7	63.3	60.5	67.8	68.2	
Medium Trucks:	65.3	64.6	61.6	60.7	67.8	68.0	
Heavy Trucks:	64.8	63.3	58.7	62.5	69.0	69.1	
Vehicle Noise:	70.0	69.0	66.3	66.1	73.0	73.2	

Centerline Distance to Noise Contour (in feet)					
		70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	74	160	345	743	
CNEL:	77	166	358	771	

Tuesday, April 7, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Morgan St. Road Segment: e/o Perris Bl.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 1,433 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 98 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-12.33	1.33	-1.20	-4.63	0.000	0.000	
Medium Trucks:	79.45	-23.62	1.37	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	84.25	-28.89	1.36	-1.20	-5.46	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	56.3	55.5	54.0	51.3	58.5	58.9	
Medium Trucks:	56.0	55.3	52.3	51.4	58.5	58.8	
Heavy Trucks:	55.5	54.0	49.4	53.3	59.7	59.8	
Vehicle Noise:	60.7	59.7	57.1	56.9	63.7	64.0	

Centerline Distance to Noise Contour (in feet)					
		70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	18	39	83	179	
CNEL:	19	40	86	186	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Rider St. Road Segment: e/o Redlands Av.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 14,944 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 1,021 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-2.15	1.33	-1.20	-4.63	0.000	0.000	
Medium Trucks:	79.45	-13.44	1.37	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	84.25	-18.71	1.36	-1.20	-5.46	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	66.4	65.6	64.2	61.5	68.7	69.1	
Medium Trucks:	66.2	65.5	62.5	61.6	68.7	69.0	
Heavy Trucks:	65.7	64.2	59.6	63.5	69.9	70.0	
Vehicle Noise:	70.9	69.9	67.3	67.0	73.9	74.2	

Centerline Distance to Noise Contour (in feet)					
		70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	86	185	398	857	
CNEL:	89	192	413	890	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Placencia Av. Road Segment: w/o I-215 Frontage Rd.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 11,455 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 782 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-3.30	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-14.59	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-19.86	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	63.8	63.0	61.6	58.9	66.1	66.5		
Medium Trucks:	63.6	62.9	59.9	59.0	66.1	66.3		
Heavy Trucks:	63.1	61.6	57.0	60.8	67.3	67.4		
Vehicle Noise:	68.3	67.3	64.7	64.4	71.3	71.5		
Centerline Distance to Noise Contour (in feet)								
		70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:	78	168	362	779				
CNEL:	81	174	376	810				

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Placencia Av. Road Segment: e/o Indian Av.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 2,231 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 152 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-10.41	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-21.70	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-26.97	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	56.7	55.9	54.5	51.8	59.0	59.4		
Medium Trucks:	56.4	55.7	52.8	51.9	59.0	59.2		
Heavy Trucks:	56.0	54.5	49.9	53.7	60.2	60.3		
Vehicle Noise:	61.2	60.2	57.5	57.3	64.2	64.4		
Centerline Distance to Noise Contour (in feet)								
		70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:	26	56	122	262				
CNEL:	27	59	126	272				

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Placencia Av. Road Segment: w/o Indian Av.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 15 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 1 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-32.24	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-43.53	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-48.80	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	34.9	34.1	32.7	29.9	37.2	37.6		
Medium Trucks:	34.6	33.9	30.9	30.0	37.1	37.4		
Heavy Trucks:	34.1	32.7	28.1	31.9	38.3	38.4		
Vehicle Noise:	39.3	38.4	35.7	35.5	42.3	42.6		
Centerline Distance to Noise Contour (in feet)								
		70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:	1	2	4	9				
CNEL:	1	2	4	10				

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing (2019) Road Name: Placencia Av. Road Segment: e/o Perris Bl.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 5,998 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 410 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-6.11	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-17.40	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-22.67	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	61.0	60.2	58.8	56.0	63.3	63.7		
Medium Trucks:	60.7	60.0	57.1	56.2	63.3	63.5		
Heavy Trucks:	60.3	58.8	54.2	58.0	64.5	64.6		
Vehicle Noise:	65.5	64.5	61.8	61.6	68.5	68.7		
Centerline Distance to Noise Contour (in feet)								
		70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:	51	109	235	506				
CNEL:	53	113	244	526				

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing + Project Road Name: Morgan St. Road Segment: e/o Indian Av.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>				
Average Daily Traffic (Adt): 2,413 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 165 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
<b>Site Data</b>			<b>Vehicle Mix</b>				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 67.69% Medium Trucks: 69.8% 8.8% 21.4% 9.43% Heavy Trucks: 58.3% 5.1% 36.6% 22.88%				
			<b>Noise Source Elevations (in feet)</b>				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
			<b>Lane Equivalent Distance (in feet)</b>				
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-11.36	1.33	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-19.92	1.37	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-16.07	1.36	-1.20	-5.46	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	57.2	56.4	55.0	52.3	59.5	59.9	
Medium Trucks:	59.7	59.0	56.0	55.1	62.2	62.5	
Heavy Trucks:	68.3	66.9	62.3	66.1	72.5	72.6	
Vehicle Noise:	69.2	67.8	63.8	66.6	73.1	73.2	
Centerline Distance to Noise Contour (in feet)							
		70 dBA	65 dBA	60 dBA	55 dBA		
	Ldn:	76	163	352	577		
	CNEL:	77	167	359	773		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing + Project Road Name: Rider St. Road Segment: e/o Perris Bl.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>				
Average Daily Traffic (Adt): 12,390 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 846 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
<b>Site Data</b>			<b>Vehicle Mix</b>				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.44% Medium Trucks: 69.8% 8.8% 21.4% 6.60% Heavy Trucks: 58.3% 5.1% 36.6% 1.96%				
			<b>Noise Source Elevations (in feet)</b>				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
			<b>Lane Equivalent Distance (in feet)</b>				
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.95	1.33	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-14.37	1.37	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-19.64	1.36	-1.20	-5.46	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	65.6	64.8	63.4	60.7	67.9	68.3	
Medium Trucks:	65.3	64.6	61.6	60.7	67.8	68.0	
Heavy Trucks:	64.8	63.3	58.7	62.5	69.0	69.1	
Vehicle Noise:	70.0	69.1	66.4	66.2	73.0	73.3	
Centerline Distance to Noise Contour (in feet)							
		70 dBA	65 dBA	60 dBA	55 dBA		
	Ldn:	75	161	347	747		
	CNEL:	78	167	360	776		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing + Project Road Name: Morgan St. Road Segment: e/o Perris Bl.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>				
Average Daily Traffic (Adt): 2,381 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 163 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
<b>Site Data</b>			<b>Vehicle Mix</b>				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 68.58% Medium Trucks: 69.8% 8.8% 21.4% 8.53% Heavy Trucks: 58.3% 5.1% 36.6% 22.89%				
			<b>Noise Source Elevations (in feet)</b>				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
			<b>Lane Equivalent Distance (in feet)</b>				
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-11.36	1.33	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-20.42	1.37	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-16.13	1.36	-1.20	-5.46	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	57.2	56.4	55.0	52.3	59.5	59.9	
Medium Trucks:	59.2	58.5	55.5	54.6	61.7	62.0	
Heavy Trucks:	68.3	66.8	62.2	66.0	72.5	72.6	
Vehicle Noise:	69.1	67.7	63.7	66.5	73.0	73.2	
Centerline Distance to Noise Contour (in feet)							
		70 dBA	65 dBA	60 dBA	55 dBA		
	Ldn:	75	161	347	747		
	CNEL:	76	164	354	763		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing + Project Road Name: Rider St. Road Segment: e/o Redlands Av.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>				
Average Daily Traffic (Adt): 15,401 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 1,052 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
<b>Site Data</b>			<b>Vehicle Mix</b>				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.47% Medium Trucks: 69.8% 8.8% 21.4% 6.58% Heavy Trucks: 58.3% 5.1% 36.6% 1.95%				
			<b>Noise Source Elevations (in feet)</b>				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
			<b>Lane Equivalent Distance (in feet)</b>				
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.01	1.33	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-13.44	1.37	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.71	1.36	-1.20	-5.46	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	66.6	65.8	64.4	61.6	68.9	69.3	
Medium Trucks:	66.2	65.5	62.5	61.6	68.7	69.0	
Heavy Trucks:	65.7	64.2	59.6	63.5	69.9	70.0	
Vehicle Noise:	70.9	70.0	67.3	67.1	74.0	74.2	
Centerline Distance to Noise Contour (in feet)							
		70 dBA	65 dBA	60 dBA	55 dBA		
	Ldn:	86	186	400	862		
	CNEL:	90	193	416	896		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing + Project Road Name: Placencia Av. Road Segment: w/o I-215 Frontage Rd.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 11,455 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 782 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-3.30	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-14.59	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-19.86	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	63.8	63.0	61.6	58.9	66.1	66.5		
Medium Trucks:	63.6	62.9	59.9	59.0	66.1	66.3		
Heavy Trucks:	63.1	61.6	57.0	60.8	67.3	67.4		
Vehicle Noise:	68.3	67.3	64.7	64.4	71.3	71.5		
Centerline Distance to Noise Contour (in feet)								
		70 dBA	65 dBA	60 dBA	55 dBA			
	Ldn:	78	168	362	779			
	CNEL:	81	174	376	810			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing + Project Road Name: Placencia Av. Road Segment: e/o Indian Av.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 2,622 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 179 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 92.52% Medium Trucks: 69.8% 8.8% 21.4% 5.77% Heavy Trucks: 58.3% 5.1% 36.6% 1.71%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-9.64	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-21.70	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-26.97	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	57.5	56.7	55.3	52.5	59.8	60.1		
Medium Trucks:	56.4	55.7	52.8	51.9	59.0	59.2		
Heavy Trucks:	56.0	54.5	49.9	53.7	60.2	60.3		
Vehicle Noise:	61.5	60.5	57.9	57.5	64.4	64.7		
Centerline Distance to Noise Contour (in feet)								
		70 dBA	65 dBA	60 dBA	55 dBA			
	Ldn:	27	59	126	272			
	CNEL:	28	61	131	283			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing + Project Road Name: Placencia Av. Road Segment: w/o Indian Av.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 1,028 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 70 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 39.36% Medium Trucks: 69.8% 8.8% 21.4% 10.41% Heavy Trucks: 58.3% 5.1% 36.6% 50.23%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-17.42	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-23.20	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-16.36	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	49.7	48.9	47.5	44.7	52.0	52.4		
Medium Trucks:	54.9	54.2	51.3	50.4	57.5	57.7		
Heavy Trucks:	66.6	65.1	60.5	64.3	70.8	70.9		
Vehicle Noise:	66.9	65.5	61.2	64.5	71.0	71.1		
Centerline Distance to Noise Contour (in feet)								
		70 dBA	65 dBA	60 dBA	55 dBA			
	Ldn:	75	161	347	748			
	CNEL:	76	164	354	762			

Tuesday, April 7, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing + Project Road Name: Placencia Av. Road Segment: e/o Perris Bl.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 6,259 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 427 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.57% Medium Trucks: 69.8% 8.8% 21.4% 6.50% Heavy Trucks: 58.3% 5.1% 36.6% 1.93%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-5.91	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-17.40	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-22.67	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	61.2	60.4	59.0	56.2	63.5	63.9		
Medium Trucks:	60.7	60.0	57.1	56.2	63.3	63.5		
Heavy Trucks:	60.3	58.8	54.2	58.0	64.5	64.6		
Vehicle Noise:	65.5	64.6	61.9	61.7	68.5	68.8		
Centerline Distance to Noise Contour (in feet)								
		70 dBA	65 dBA	60 dBA	55 dBA			
	Ldn:	51	110	237	511			
	CNEL:	53	114	247	531			

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: EAPC (2021) Road Name: Indian Av. Road Segment: s/o Morgan St.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 11,733 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 801 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 86.37% Medium Trucks: 69.8% 8.8% 21.4% 7.32% Heavy Trucks: 58.3% 5.1% 36.6% 6.30%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-3.44	1.33	-1.20	-4.63	0.000	0.000	
Medium Trucks:	79.45	-14.15	1.37	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	84.25	-14.80	1.36	-1.20	-5.46	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	65.2	64.4	62.9	60.2	67.4	67.8		
Medium Trucks:	65.5	64.8	61.8	60.9	68.0	68.3		
Heavy Trucks:	69.6	68.1	63.5	67.4	73.8	73.9		
Vehicle Noise:	72.0	70.9	67.6	68.9	75.5	75.7		
Centerline Distance to Noise Contour (in feet)								
		70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:	110	237	511	1,100				
CNEL:	113	244	525	1,131				

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: EAPC (2021) Road Name: Perris Bl. Road Segment: n/o Ramona Exwy.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 32,632 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 2,229 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.26% Medium Trucks: 69.8% 8.8% 21.4% 6.74% Heavy Trucks: 58.3% 5.1% 36.6% 2.00%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	1.25	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-10.07	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-15.34	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	68.4	67.6	66.1	63.4	70.6	71.0		
Medium Trucks:	68.1	67.4	64.4	63.5	70.6	70.9		
Heavy Trucks:	67.6	66.1	61.5	65.4	71.8	71.9		
Vehicle Noise:	72.8	71.8	69.2	69.0	75.8	76.1		
Centerline Distance to Noise Contour (in feet)								
		70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:	156	337	725	1,562				
CNEL:	162	350	753	1,623				

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: EAPC (2021) Road Name: Indian Av. Road Segment: s/o Rider St.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 10,160 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 694 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 85.62% Medium Trucks: 69.8% 8.8% 21.4% 7.41% Heavy Trucks: 58.3% 5.1% 36.6% 6.97%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-4.10	1.33	-1.20	-4.63	0.000	0.000	
Medium Trucks:	79.45	-14.73	1.37	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	84.25	-14.99	1.36	-1.20	-5.46	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	64.5	63.7	62.3	59.5	66.8	67.2		
Medium Trucks:	64.9	64.2	61.2	60.3	67.4	67.7		
Heavy Trucks:	69.4	67.9	63.3	67.2	73.6	73.7		
Vehicle Noise:	71.7	70.5	67.1	68.6	75.2	75.4		
Centerline Distance to Noise Contour (in feet)								
		70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:	105	225	486	1,046				
CNEL:	108	232	499	1,075				

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: EAPC (2021) Road Name: Perris Bl. Road Segment: s/o Ramona Exwy.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 29,382 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 2,007 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.34% Medium Trucks: 69.8% 8.8% 21.4% 6.68% Heavy Trucks: 58.3% 5.1% 36.6% 1.98%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	0.79	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-10.57	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-15.84	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	67.9	67.1	65.7	63.0	70.2	70.6		
Medium Trucks:	67.6	66.9	63.9	63.0	70.1	70.4		
Heavy Trucks:	67.1	65.6	61.0	64.9	71.3	71.4		
Vehicle Noise:	72.3	71.4	68.7	68.5	75.3	75.6		
Centerline Distance to Noise Contour (in feet)								
		70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:	145	312	673	1,450				
CNEL:	151	325	699	1,507				

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: EAPC (2021) Road Name: Perris Bl. Road Segment: s/o Morgan St.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 30,354 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 2,073 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.24% Medium Trucks: 69.8% 8.8% 21.4% 6.75% Heavy Trucks: 58.3% 5.1% 36.6% 2.00%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	0.93	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-10.38	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-15.65	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	68.1	67.3	65.8	63.1	70.3	70.7		
Medium Trucks:	67.8	67.1	64.1	63.2	70.3	70.6		
Heavy Trucks:	67.3	65.8	61.2	65.0	71.5	71.6		
Vehicle Noise:	72.5	71.5	68.9	68.6	75.5	75.8		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			149	321	691	1,490		
CNEL:			155	333	718	1,547		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: EAPC (2021) Road Name: Perris Bl. Road Segment: s/o Placentia Av.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 41,106 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 2,808 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.22% Medium Trucks: 69.8% 8.8% 21.4% 6.77% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	2.25	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-9.05	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-14.32	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	69.4	68.6	67.1	64.4	71.6	72.0		
Medium Trucks:	69.1	68.4	65.4	64.5	71.6	71.9		
Heavy Trucks:	68.6	67.1	62.5	66.4	72.8	72.9		
Vehicle Noise:	73.8	72.9	70.2	70.0	76.8	77.1		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			183	393	847	1,826		
CNEL:			190	409	880	1,896		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: EAPC (2021) Road Name: Perris Bl. Road Segment: s/o Rider St.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 31,250 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 2,134 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.26% Medium Trucks: 69.8% 8.8% 21.4% 6.74% Heavy Trucks: 58.3% 5.1% 36.6% 2.00%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	1.06	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-10.26	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-15.53	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	68.2	67.4	66.0	63.2	70.5	70.9		
Medium Trucks:	67.9	67.2	64.2	63.3	70.4	70.7		
Heavy Trucks:	67.4	65.9	61.3	65.2	71.6	71.7		
Vehicle Noise:	72.6	71.7	69.0	68.8	75.6	75.9		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			152	327	704	1,517		
CNEL:			158	340	732	1,576		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: EAPC (2021) Road Name: Redlands Av. Road Segment: n/o Morgan St.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 5,172 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 353 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.76% Medium Trucks: 69.8% 8.8% 21.4% 6.35% Heavy Trucks: 58.3% 5.1% 36.6% 1.89%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-6.73	1.33	-1.20	-4.63	0.000	0.000	
Medium Trucks:	79.45	-18.33	1.37	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	84.25	-23.60	1.36	-1.20	-5.46	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	61.9	61.1	59.6	56.9	64.1	64.5		
Medium Trucks:	61.3	60.6	57.6	56.7	63.8	64.1		
Heavy Trucks:	60.8	59.3	54.7	58.6	65.0	65.1		
Vehicle Noise:	66.1	65.2	62.5	62.2	69.1	69.4		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			41	88	190	410		
CNEL:			43	92	198	426		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: EAPC (2021) Road Name: Redlands Av. Road Segment: s/o Rider St.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>				
Average Daily Traffic (Adt): 5,994 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 409 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
<b>Site Data</b>			<b>Vehicle Mix</b>				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.68% Medium Trucks: 69.8% 8.8% 21.4% 6.41% Heavy Trucks: 58.3% 5.1% 36.6% 1.90%				
			<b>Noise Source Elevations (in feet)</b>				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
			<b>Lane Equivalent Distance (in feet)</b>				
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-6.09	1.33	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-17.65	1.37	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-22.92	1.36	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	62.5	61.7	60.3	57.5	64.8	65.2	
Medium Trucks:	62.0	61.3	58.3	57.4	64.5	64.8	
Heavy Trucks:	61.5	60.0	55.4	59.2	65.7	65.8	
Vehicle Noise:	66.8	65.8	63.2	62.9	69.8	70.0	

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	45	98	211	454	
CNEL:	47	102	219	472	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: EAPC (2021) Road Name: Ramona Exwy. Road Segment: w/o Perris Bl.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>				
Average Daily Traffic (Adt): 50,037 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 3,417 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 102 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
<b>Site Data</b>			<b>Vehicle Mix</b>				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 92.0 feet Centerline Dist. to Observer: 92.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.27% Medium Trucks: 69.8% 8.8% 21.4% 6.73% Heavy Trucks: 58.3% 5.1% 36.6% 2.00%				
			<b>Noise Source Elevations (in feet)</b>				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
			<b>Lane Equivalent Distance (in feet)</b>				
			Autos: 76.733 Medium Trucks: 76.618 Heavy Trucks: 76.629				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.23	-2.89	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-9.09	-2.88	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-14.37	-2.88	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.9	69.1	67.7	64.9	72.2	72.6	
Medium Trucks:	69.2	68.5	65.6	64.7	71.7	72.0	
Heavy Trucks:	67.9	66.5	61.9	65.7	72.1	72.2	
Vehicle Noise:	73.9	72.9	70.4	69.9	76.8	77.1	

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	261	563	1,212	2,611	
CNEL:	272	586	1,262	2,718	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: EAPC (2021) Road Name: Redlands Av. Road Segment: s/o Placentia Av.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>				
Average Daily Traffic (Adt): 11,085 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 757 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
<b>Site Data</b>			<b>Vehicle Mix</b>				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.26% Medium Trucks: 69.8% 8.8% 21.4% 6.74% Heavy Trucks: 58.3% 5.1% 36.6% 2.00%				
			<b>Noise Source Elevations (in feet)</b>				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
			<b>Lane Equivalent Distance (in feet)</b>				
			Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.44	1.33	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-14.76	1.37	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.03	1.36	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	65.1	64.3	62.9	60.2	67.4	67.8	
Medium Trucks:	64.9	64.2	61.2	60.3	67.4	67.7	
Heavy Trucks:	64.4	62.9	58.3	62.1	68.6	68.7	
Vehicle Noise:	69.6	68.6	66.0	65.7	72.6	72.8	

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	70	151	325	700	
CNEL:	73	157	338	727	

Tuesday, April 7, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: EAPC (2021) Road Name: Ramona Exwy. Road Segment: e/o Perris Bl.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>				
Average Daily Traffic (Adt): 44,328 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 3,028 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 102 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
<b>Site Data</b>			<b>Vehicle Mix</b>				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 92.0 feet Centerline Dist. to Observer: 92.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.23% Medium Trucks: 69.8% 8.8% 21.4% 6.76% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%				
			<b>Noise Source Elevations (in feet)</b>				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0				
			<b>Lane Equivalent Distance (in feet)</b>				
			Autos: 76.733 Medium Trucks: 76.618 Heavy Trucks: 76.629				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	1.70	-2.89	-1.20	-4.76	0.000	0.000
Medium Trucks:	82.40	-9.60	-2.88	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-14.87	-2.88	-1.20	-5.18	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.4	68.6	67.2	64.4	71.7	72.1	
Medium Trucks:	68.7	68.0	65.1	64.1	71.2	71.5	
Heavy Trucks:	67.4	66.0	61.4	65.2	71.6	71.7	
Vehicle Noise:	73.4	72.4	69.9	69.4	76.3	76.5	

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	241	520	1,120	2,414	
CNEL:	251	541	1,166	2,513	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: EAPC (2021) Road Name: Morgan St. Road Segment: e/o Indian Av.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
<b>Highway Data</b>				<b>Site Conditions (Hard = 10, Soft = 15)</b>			
Average Daily Traffic (Adt): 2,642 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 180 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
<b>Site Data</b>				<b>Vehicle Mix</b>			
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 68.2% 12.3% 19.6% 69.73% Medium Trucks: 69.8% 8.8% 21.4% 9.20% Heavy Trucks: 58.3% 5.1% 36.6% 21.07%			
				<b>Noise Source Elevations (in feet)</b>			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0			
				<b>Lane Equivalent Distance (in feet)</b>			
				Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-10.84	1.33	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-19.64	1.37	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-16.04	1.36	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.8	57.0	55.5	52.8	60.0	60.4
Medium Trucks:	60.0	59.3	56.3	55.4	62.5	62.8
Heavy Trucks:	68.4	66.9	62.3	66.1	72.6	72.7
Vehicle Noise:	69.3	68.0	63.9	66.7	73.2	73.3

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	77	165	356	767	
CNEL:	78	169	363	783	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: EAPC (2021) Road Name: Rider St. Road Segment: e/o Perris Bl.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
<b>Highway Data</b>				<b>Site Conditions (Hard = 10, Soft = 15)</b>			
Average Daily Traffic (Adt): 16,698 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 1,140 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
<b>Site Data</b>				<b>Vehicle Mix</b>			
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 68.2% 12.3% 19.6% 91.38% Medium Trucks: 69.8% 8.8% 21.4% 6.65% Heavy Trucks: 58.3% 5.1% 36.6% 1.97%			
				<b>Noise Source Elevations (in feet)</b>			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0			
				<b>Lane Equivalent Distance (in feet)</b>			
				Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.66	1.33	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-13.04	1.37	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.31	1.36	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.9	66.1	64.7	62.0	69.2	69.6
Medium Trucks:	66.6	65.9	62.9	62.0	69.1	69.4
Heavy Trucks:	66.1	64.6	60.0	63.9	70.3	70.4
Vehicle Noise:	71.3	70.4	67.7	67.5	74.3	74.6

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	91	197	424	914	
CNEL:	95	205	441	950	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: EAPC (2021) Road Name: Morgan St. Road Segment: e/o Perris Bl.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
<b>Highway Data</b>				<b>Site Conditions (Hard = 10, Soft = 15)</b>			
Average Daily Traffic (Adt): 3,018 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 206 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
<b>Site Data</b>				<b>Vehicle Mix</b>			
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 68.2% 12.3% 19.6% 73.36% Medium Trucks: 69.8% 8.8% 21.4% 8.16% Heavy Trucks: 58.3% 5.1% 36.6% 18.48%			
				<b>Noise Source Elevations (in feet)</b>			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0			
				<b>Lane Equivalent Distance (in feet)</b>			
				Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-10.04	1.33	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-19.58	1.37	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-16.03	1.36	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.6	57.8	56.3	53.6	60.8	61.2
Medium Trucks:	60.0	59.3	56.4	55.5	62.6	62.8
Heavy Trucks:	68.4	66.9	62.3	66.1	72.6	72.7
Vehicle Noise:	69.4	68.0	64.1	66.7	73.2	73.4

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	77	167	359	773	
CNEL:	79	170	367	790	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: EAPC (2021) Road Name: Rider St. Road Segment: e/o Redlands Av.				Project Name: Rider Buildings 2 and 4 No Job Number: 11559			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
<b>Highway Data</b>				<b>Site Conditions (Hard = 10, Soft = 15)</b>			
Average Daily Traffic (Adt): 17,021 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 1,163 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 50 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
<b>Site Data</b>				<b>Vehicle Mix</b>			
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 47.0 feet Centerline Dist. to Observer: 47.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 68.2% 12.3% 19.6% 91.44% Medium Trucks: 69.8% 8.8% 21.4% 6.60% Heavy Trucks: 58.3% 5.1% 36.6% 1.96%			
				<b>Noise Source Elevations (in feet)</b>			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0			
				<b>Lane Equivalent Distance (in feet)</b>			
				Autos: 40.112 Medium Trucks: 39.891 Heavy Trucks: 39.913			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.57	1.33	-1.20	-4.63	0.000	0.000
Medium Trucks:	79.45	-12.99	1.37	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.26	1.36	-1.20	-5.46	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.0	66.2	64.8	62.0	69.3	69.7
Medium Trucks:	66.6	65.9	63.0	62.1	69.2	69.4
Heavy Trucks:	66.2	64.7	60.1	63.9	70.3	70.4
Vehicle Noise:	71.4	70.4	67.8	67.5	74.4	74.6

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	92	199	428	923	
CNEL:	96	207	445	959	

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: EAPC (2021) Road Name: Placencia Av. Road Segment: w/o I-215 Frontage Rd.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 45,859 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 3,132 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.21% Medium Trucks: 69.8% 8.8% 21.4% 6.78% Heavy Trucks: 58.3% 5.1% 36.6% 2.01%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	2.72	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-8.57	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-13.84	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	69.9	69.1	67.6	64.9	72.1	72.5		
Medium Trucks:	69.6	68.9	65.9	65.0	72.1	72.4		
Heavy Trucks:	69.1	67.6	63.0	66.9	73.3	73.4		
Vehicle Noise:	74.3	73.3	70.7	70.4	77.3	77.6		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			197	423	912	1,965		
CNEL:			204	440	947	2,041		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: EAPC (2021) Road Name: Placencia Av. Road Segment: e/o Indian Av.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 33,270 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 2,272 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.31% Medium Trucks: 69.8% 8.8% 21.4% 6.70% Heavy Trucks: 58.3% 5.1% 36.6% 1.99%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	1.33	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-10.01	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-15.29	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	68.5	67.7	66.2	63.5	70.7	71.1		
Medium Trucks:	68.1	67.4	64.5	63.6	70.7	70.9		
Heavy Trucks:	67.7	66.2	61.6	65.4	71.8	72.0		
Vehicle Noise:	72.9	71.9	69.3	69.0	75.9	76.1		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			158	340	733	1,578		
CNEL:			164	353	761	1,640		

Tuesday, April 7, 2020

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: EAPC (2021) Road Name: Placencia Av. Road Segment: w/o Indian Av.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 38,352 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 2,619 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 89.82% Medium Trucks: 69.8% 8.8% 21.4% 6.88% Heavy Trucks: 58.3% 5.1% 36.6% 3.31%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	1.88	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-9.28	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-12.46	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	69.0	68.2	66.8	64.0	71.3	71.7		
Medium Trucks:	68.9	68.2	65.2	64.3	71.4	71.7		
Heavy Trucks:	70.5	69.0	64.4	68.2	74.7	74.8		
Vehicle Noise:	74.3	73.2	70.3	70.7	77.5	77.7		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			203	437	942	2,028		
CNEL:			210	452	974	2,098		

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: EAPC (2021) Road Name: Placencia Av. Road Segment: e/o Perris Bl.			Project Name: Rider Buildings 2 and 4 No Job Number: 11559					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
<b>Highway Data</b>			<b>Site Conditions (Hard = 10, Soft = 15)</b>					
Average Daily Traffic (Adt): 21,855 vehicles Peak Hour Percentage: 6.83% Peak Hour Volume: 1,493 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
<b>Site Data</b>			<b>Vehicle Mix</b>					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 68.2% 12.3% 19.6% 91.31% Medium Trucks: 69.8% 8.8% 21.4% 6.70% Heavy Trucks: 58.3% 5.1% 36.6% 1.99%					
			<b>Noise Source Elevations (in feet)</b>					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0					
			<b>Lane Equivalent Distance (in feet)</b>					
			Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-0.49	-0.13	-1.20	-4.70	0.000	0.000	
Medium Trucks:	79.45	-11.84	-0.11	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-17.11	-0.11	-1.20	-5.31	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	66.6	65.8	64.4	61.7	68.9	69.3		
Medium Trucks:	66.3	65.6	62.6	61.7	68.8	69.1		
Heavy Trucks:	65.8	64.4	59.8	63.6	70.0	70.1		
Vehicle Noise:	71.0	70.1	67.4	67.2	74.1	74.3		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			119	257	554	1,193		
CNEL:			124	267	575	1,239		

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