Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 03/12/2023

Dozer

Scraper

Case Description: Pico Residential

**** Receptor #1 ****

Description	Land Use		Daytime	Baseli Evening	nes (dBA) Night	
Residences	Residential		60.0	60.0	60.0	
			Eq.	uipment		
Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw Crane Excavator	No No No	20 16 40		89.6 80.6 80.7	50.0 50.0 50.0 50.0	0.0 0.0 0.0

Results

81.7

83.6

50.0

50.0

Noise Limits (dBA)

0.0

0.0

Noise Limit Exceedance (dBA)

No

No

40

40

Night		Day	Calculated (dBA) Evening		Day Night		Evening		
Equipment Leq	Lmax	Leq	Lmax Lmax	Leq Leq	Lmax Lmax	Leq Leq	Lmax	Leq	Lmax
Concrete S	Saw		89.6	82.6	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Crane			80.6	72.6	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Excavator			80.7	76.7	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Dozer			81.7	77.7	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Scraper			83.6	79.6	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A			

Total 89.6 86.0 N/A N/A N/A N/A N/A N/A N/A N/A

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 122-0283

Project Name: Pico Avenue Residential

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.

Source of Traffic Volumes: Linscott, Law, and Greenspan, February 2023

Community Noise Descriptor:

Ldn:

CNEL:

X

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

"-" = contour is located within the roadway right-of-way.

Distance is from the centerline of the roadway segment

to the receptor location.

				Design		Vehicle Mix		Distance from Centerline of Roadway				
Analysis Condition		Median	ADT	Speed	Alpha	Medium	Heavy	CNEL at		Distance	to Contour	
Roadway, Segment	Lanes	Width	Volume	(mph)	Factor	Trucks	Trucks	50 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL
Mission Road												
Knoll Road to Pico Avenue, existing	4	12	14,510	45	0.5	3.0%	2.0%	69.6	-	102	219	472
Knoll Road to Pico Avenue, existing + project	4	12	14,536	45	0.5	3.0%	2.0%	69.6	-	102	219	473
San Marcos Boulevard												
Pico Avenue to TOV Road, existing	4	12	5,860	40	0.5	3.0%	2.0%	64.6	-	-	102	220
Pico Avenue to TOV Road, existing + project	4	12	5,956	40	0.5	3.0%	2.0%	64.7	-	-	103	222
Pico Avenue												
Mission Road to San Marcos Boulevard, existing	3	12	31,200	25	0.5	2.0%	1.0%	66.7	-	65	140	301
Mission Road to San Marcos Boulevard, existing + project	3	12	31,277	25	0.5	2.0%	1.0%	66.7	-	65	140	301

Sound Point Source Attenuation Rate:		•	e on Distance ling of distance	L1 = Reference sound level D1 = Reference dista L2 = Target sound level D2 = Target distance				
	L2 =	L1 -	20 * log(D2/D1)		Ü	L2	Ü	
	L1	D1	D2	D2/D1	log (D2/D1)	L1-20*log(D2/	/D1)	
For L(eq)t	8	36	50 230	4.6	0.6628	72.	7 Construction	
	8	36	50 180	3.6	0.5563	74.9	9 Construction	
	7	79	3 15	5	0.6990	65.0	0 HVAC	