

**DATE:** February 8, 2023  
**TO:** Derek Hicks, Discovery Village LLC  
**FROM:** William Maddux

**JOB NO:** 14073-11 Noise Assessment

## **DISCOVERY VILLAGE SUPPLEMENTAL NOISE ASSESSMENT**

Derek Hicks,

Urban Crossroads, Inc. is pleased to provide the following Supplemental Noise Assessment for the Discovery Village (**Project**), which is generally located at the southwest corner of Whitewood Road and Baxter Road in the City of Murrieta. The purpose of this letter is to evaluate the noise impacts associated with the Project with light manufacturing and commercial uses for the Innovation component of the Project as compared to those evaluated in the *Discovery Village Noise Impact Analysis* (dated January 3, 2023) prepared by Urban Crossroads, Inc., hereafter referred to as the “previous technical study,” which anticipated business park uses and commercial uses for the Innovation component. (1) The residential component of the Project would remain the same under both development scenarios.

Regardless of the development scenario, the Project would construct similar size buildings and amenities on the Innovation component and would result in similar impacts relative to construction noise and vibration. Since the residential portion of the Project would remain unchanged, the primary noise impacts associated with the Project would be changes in off-site traffic and potential of onsite noise sources such as roof-top air conditioners, loading docks, parking lot activities, and trash enclosure activities.

### **BACKGROUND**

The Project is comprised of a large lot Tentative Tract Map and development of 267,000 square feet (sf) of business park uses, and 5,000 sf of retail/shopping center uses on Lot 1 through Lot 3 (18.8 gross acres/16.53 net acres), consistent with the “Innovation” land use designation (“Innovation Zone”); and 199 multifamily (low-rise) housing units (condo) and 237 single family detached residential dwelling units for a total of 436 residential dwelling units on Lot 4 through Lot 8 (24.25 net acres), consistent with the existing zoning (MF-2, Multi-Family Residential). For purposes of discussion, the Project will be referred to as the business park Scenario. For the purposes of this analysis, instead of the

MEMORANDUM

267,000 square feet (sf) of business park uses, the Innovation Zone has been evaluated with 267,000 square feet of light manufacturing uses (light manufacturing scenario). The residential uses on Lots 4 through 8 and the 5,000 square feet of commercial uses in the Innovation Zone are unchanged in this analysis.

Based on the *Discovery Village Supplemental Trip Generation and VMT Letter* prepared by Urban Crossroads, Inc. on January 24, 2023, the development of 267,000 sf of light manufacturing uses, 5,000 sf of commercial uses and 436 residential units is anticipated to generate 5,056 trip-ends per day, with 440 AM peak hour trips and 548 PM peak hour trips (in actual vehicles). (2) In comparison to development of 267,000 sf of business park uses, 5,000 sf of commercial uses and 436 residential units, this is 2,048 fewer trip-ends per day, with 178 fewer AM peak hour trips and 127 fewer PM peak hour trips (in actual vehicles).

## **OFF-SITE TRAFFIC NOISE ANALYSIS**

Trip generation for the light manufacturing scenario was compared to trip generation that was assessed under the previous technical study. When compared to the business park scenario land uses, total daily trip generation under the Project would be reduced by approximately twenty-eight percent (business park scenario – 7,104 ADT; Project – 5,056 ADT; Net – -2,048). (3) Even with an increase in trucks in the mix of vehicles associated with light manufacturing, the reduced trip generation under the light manufacturing scenario would translate to lower vehicular-source noise impacts when compared to impacts resulting from the business park scenario as assessed in the previous technical study. On this basis, when compared to the previous technical study, no new or substantially increased vehicular-source noise impacts would occur with development of light manufacturing uses rather than business park uses in the Innovation area.

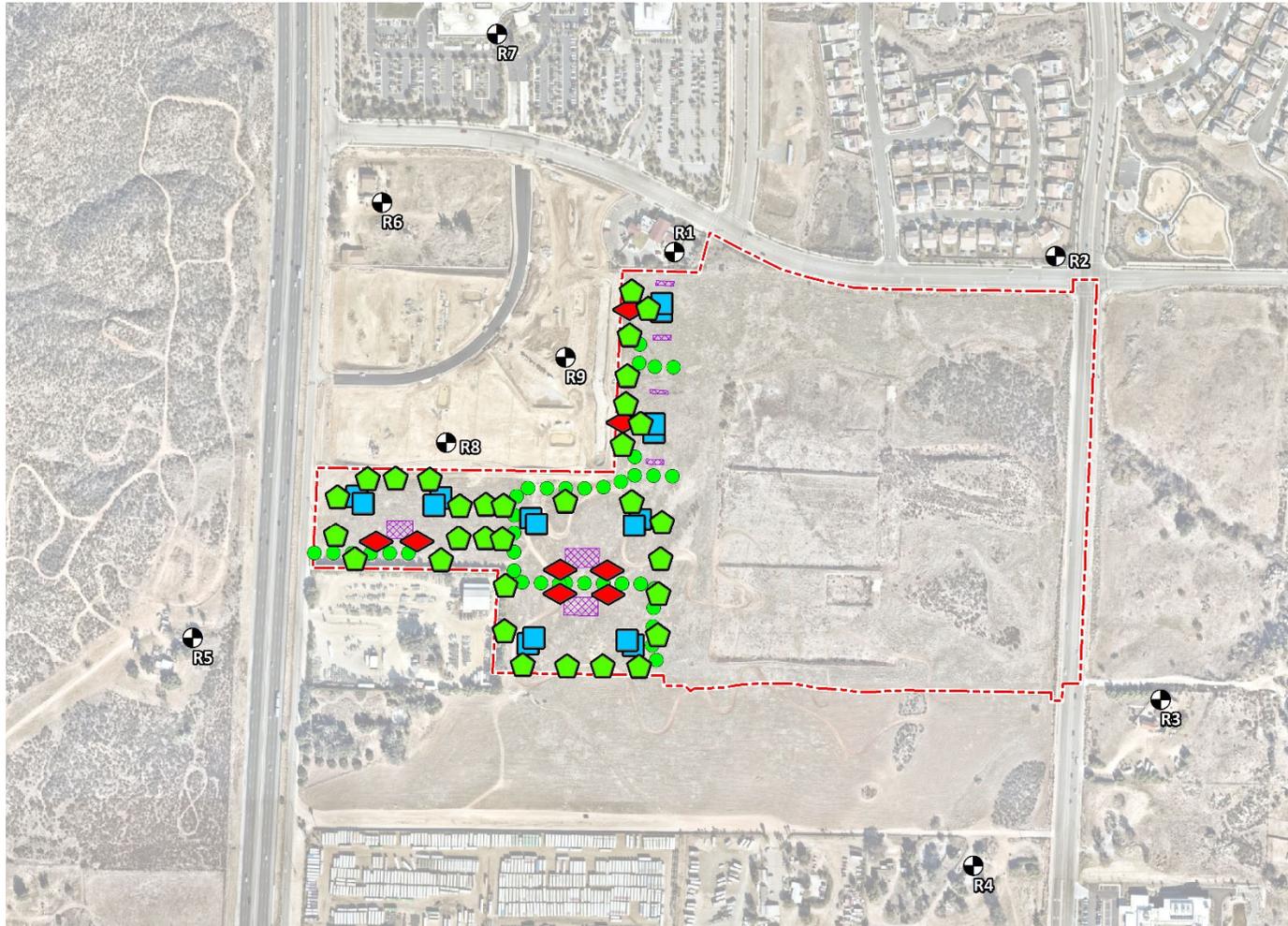
## **OPERATIONAL NOISE**

This section analyzes the potential stationary-source operational noise impacts at the nearby receiver locations resulting from the operation of the proposed Discovery Village light manufacturing scenario. This operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities from the combined light manufacturing scenario. The light manufacturing scenario related noise sources are expected to include roof-top air conditioners, loading docks, parking lot activities, and trash enclosure activities. Exhibit A identifies the noise source locations used to assess the operational noise levels. These locations are conceptual and not based on actual plans but represent a reasonable representation of potential on-site noise sources.

## **OPERATIONAL NOISE SOURCES**

This operational noise analysis is intended to describe noise level impacts associated with the expected typical daytime and nighttime activities at the Project site. To present the potential worst-case noise conditions, this analysis assumes the light manufacturing scenario would be operational 24 hours per day, seven days per week. The on-site light manufacturing scenario - related noise sources are expected to include: the roof-top air conditioners, loading docks, parking lot activities, and trash enclosure activities.

### EXHIBIT A: OPERATIONAL NOISE SOURCE LOCATIONS



**LEGEND:**

-  Receiver Locations
-  Roof-Top Air Conditioning Unit
-  Parking Lot Vehicle Movements
-  Truck Movements
-  Site Boundary
-  Trash Enclosure Activity
-  Loading Dock Activity

**TABLE 1: REFERENCE NOISE LEVELS**

Noise Source <sup>1</sup>	Noise Source Height (Feet)	Min./Hour <sup>2</sup>		Reference Noise Level (dBA L <sub>eq</sub> ) @ 50 Feet	Sound Power Level (dBA) <sup>3</sup>
		Day	Night		
Roof-Top Air Conditioning Units	3'	39	28	57.3	88.9
Parking Lot Vehicle Movements	5'	60	60	41.8	73.4
Trash Enclosure Activity	8'	10	10	57.4	89.0
Loading Docks	3'	60	60	71.8	103.4
Truck Movement	8'	60	60	61.6	93.2

<sup>1</sup> As measured by Urban Crossroads, Inc.

<sup>2</sup> Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site.

<sup>3</sup> Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source.

"Daytime" = 8:00 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:59 a.m.

## **REFERENCE NOISE LEVELS**

To estimate the light manufacturing scenario operational noise impacts, reference noise levels were taken from manufacturers specifications or measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed light manufacturing scenario. This section provides a detailed description of the reference noise level measurements shown on Table 1 used to estimate the light manufacturing scenario operational noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with the roof-top air conditioners, loading docks, parking lot activities, and trash enclosure activities all operating at the same time. These sources of noise activity will likely vary throughout the day.

## **CADNAA NOISE PREDICTION MODEL**

To fully describe the exterior operational noise levels from the light manufacturing scenario, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate light manufacturing scenario site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels.

Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level ( $L_w$ ) to describe individual noise sources. While sound pressure levels (e.g.  $L_{eq}$ ) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels ( $L_w$ ) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and

other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the noise analysis to account for mixed ground representing a combination of hard and soft surfaces. Appendix 1 includes the detailed noise model inputs used to estimate the light manufacturing scenario operational noise levels presented in this section.

### **LIGHT MANUFACTURING SCENARIO OPERATIONAL NOISE LEVELS**

Using the reference noise levels to represent the proposed light manufacturing scenario operations that include roof-top air conditioners, loading docks, parking lot activities, and trash enclosure activities, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site and the light manufacturing scenario -related noise level increases that would be experienced at each of the sensitive receiver locations. Table 2 shows the light manufacturing scenario operational noise levels during the daytime hours of 7:00 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 30.7 to 46.2 dBA  $L_{eq}$ .

Table 3 shows the light manufacturing scenario operational noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 28.8 to 45.6 dBA  $L_{eq}$ . The differences between the daytime and nighttime noise levels are largely related to the duration of noise sources, such as air conditioners, during normal nighttime operations (Table 1).

**TABLE 2: DAYTIME LIGHT MANUFACTURING SCENARIO OPERATIONAL NOISE LEVELS**

Noise Source <sup>1</sup>	Operational Noise Levels by Receiver Location (dBA Leq)								
	R1	R2	R3	R4	R5	R6	R7	R8	R9
Roof-Top Air Conditioning Units	39.3	29.8	29.0	29.9	34.1	34.3	31.9	42.5	40.1
Parking Lot Vehicle Movements	28.1	16.7	16.6	18.0	23.7	24.2	21.7	35.0	32.6
Trash Enclosure Activity	33.2	16.1	20.1	20.1	27.9	24.2	22.6	27.6	35.0
Car Wash Vacuum	24.9	19.2	30.4	30.4	34.9	30.0	24.2	38.7	44.0
Car Wash Tunnel	18.7	17.4	18.4	18.2	24.1	22.3	19.7	29.6	30.6
<b>Total (All Noise Sources)</b>	<b>40.7</b>	<b>30.7</b>	<b>33.2</b>	<b>33.6</b>	<b>38.3</b>	<b>36.4</b>	<b>33.5</b>	<b>44.7</b>	<b>46.2</b>

<sup>1</sup> See Exhibit A for the noise source locations. CadnaA noise model calculations are included in Appendix 1.

**TABLE 3: NIGHTTIME LIGHT MANUFACTURING SCENARIO OPERATIONAL NOISE LEVELS**

Noise Source <sup>1</sup>	Operational Noise Levels by Receiver Location (dBA Leq)								
	R1	R2	R3	R4	R5	R6	R7	R8	R9
Roof-Top Air Conditioning Units	36.9	27.4	26.6	27.5	31.7	31.9	29.5	40.1	37.7
Parking Lot Vehicle Movements	27.1	15.7	15.6	17.1	22.7	23.2	20.7	34.0	31.7
Trash Enclosure Activity	32.3	15.2	19.1	19.2	26.9	23.2	21.7	26.7	34.0
Car Wash Vacuum	24.9	19.2	30.4	30.4	34.9	30.0	24.2	38.7	44.0
Car Wash Tunnel	18.7	17.4	18.4	18.2	24.1	22.3	19.7	29.6	30.6
<b>Total (All Noise Sources)</b>	<b>38.7</b>	<b>28.8</b>	<b>32.4</b>	<b>32.7</b>	<b>37.4</b>	<b>35.0</b>	<b>31.8</b>	<b>43.3</b>	<b>45.6</b>

<sup>1</sup> See Exhibit A for the noise source locations. CadnaA noise model calculations are included in Appendix 1.

## OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the light manufacturing scenario-only operational noise levels are evaluated against exterior noise level thresholds based on the City of Murrieta exterior noise level standards at nearby noise-sensitive receiver locations. Table 4 shows that the operational noise levels associated with the light manufacturing scenario will satisfy the City of Murrieta daytime and nighttime hourly exterior noise level standards at all nearby receiver locations. Therefore, the operational noise impacts are considered *less than significant* at the nearby noise-sensitive receiver locations. Appendix 1 includes the detailed noise model inputs and calculations used to estimate the light manufacturing scenario operational noise levels presented in this section.

**TABLE 4: OPERATIONAL NOISE LEVELS**

Receiver Location	Operational Noise Levels (dBA L <sub>eq</sub> ) <sup>1</sup>		Noise Level Standards (dBA L <sub>eq</sub> ) <sup>2</sup>		Noise Level Standards Exceeded? <sup>3</sup>	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	40.7	38.7	65.0	55.0	No	No
R2	30.7	28.8	60.0	50.0	No	No
R3	33.2	32.4	60.0	50.0	No	No
R4	33.6	32.7	60.0	50.0	No	No
R5	38.3	37.4	60.0	50.0	No	No
R6	36.4	35.0	60.0	50.0	No	No
R7	33.5	31.8	60.0	50.0	No	No
R8	44.7	43.3	70.0	60.0	No	No
R9	46.2	45.6	70.0	60.0	No	No

<sup>1</sup> Operational noise level calculations are included in Appendix 1.

<sup>2</sup> City of Murrieta Noise Element Table 11-3

<sup>3</sup> Do the estimated operational noise source activities exceed the noise level standards?

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

## CONCLUSIONS

This Noise Assessment demonstrates that the off-site study area roadway segments will experience *less than significant* Project-related traffic noise level increases with development of light manufacturing uses in the Innovation area. In addition, the operational noise levels associated with the light manufacturing scenario will satisfy the City of Murrieta exterior noise level standards at all nearby receiver locations. Therefore, the operational noise impacts are considered *less than significant* at the nearby noise-sensitive receiver locations. If you have any questions, please contact me directly at (619) 778-1971.

Respectfully

submitted,

URBAN CROSSROADS, INC.



William A. Maddux

Senior Associate

## REFERENCES

1. **Urban Crossroads, Inc.** *Discovery Village Noise Impact Analysis*. January 3, 2023.
2. —. *Discovery Village Trip Generation & VMT Letter*. 2023.
3. —. *Discovery Village Supplemental Trip Generation and VMT Letter*. January 24, 2023.

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## **APPENDIX 1**

### **OPERATIONAL NOISE LEVEL CALCULATIONS**

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# 14073 - Discovery Village Innovation Alternative

CadnaA Noise Prediction Model: 14073-02\_Operation.cna

Date: 27.01.23

Analyst: B. Maddux

## Calculation Configuration

Configuration	
Parameter	Value
<b>General</b>	
Max. Error (dB)	0.00
Max. Search Radius #(Unit,LEN)	2000.01
Min. Dist Src to Rcvr	0.00
<b>Partition</b>	
Raster Factor	0.50
Max. Length of Section #(Unit,LEN)	999.99
Min. Length of Section #(Unit,LEN)	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
<b>Ref. Time</b>	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
<b>DTM</b>	
Standard Height (m)	0.00
Model of Terrain	Triangulation
<b>Reflection</b>	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rcvr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
<b>Industrial (ISO 9613)</b>	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
<b>Screening</b>	
	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature #(Unit,TEMP)	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. #(Unit,SPEED)	3.0
<b>Roads (TNM)</b>	
<b>Railways (FTA/FRA)</b>	
<b>Aircraft (???)</b>	
Strictly acc. to AzB	

## Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height	Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type		X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)
R1		R1	40.7	38.8	45.3	0.0	0.0	0.0	x	Total	5.00	r	6282474.37	2167703.48	5.00
R2		R2	30.7	28.8	35.4	0.0	0.0	0.0	x	Total	5.00	r	6283713.48	2167689.73	5.00
R3		R3	33.2	32.4	39.1	0.0	0.0	0.0	x	Total	5.00	r	6284055.57	2166250.14	5.00
R4		R4	33.6	32.7	39.3	0.0	0.0	0.0	x	Total	5.00	r	6283446.74	2165711.67	5.00
R5		R5	38.3	37.4	44.0	0.0	0.0	0.0	x	Total	5.00	r	6280908.42	2166449.71	5.00
R6		R6	36.4	35.0	41.6	0.0	0.0	0.0	x	Total	5.00	r	6281524.30	2167863.62	5.00
R7		R7	33.5	31.8	38.4	0.0	0.0	0.0	x	Total	5.00	r	6281897.57	2168410.43	5.00
R8		R8	44.8	43.3	50.0	0.0	0.0	0.0	x	Total	5.00	r	6281732.77	2167086.42	5.00
R9		R9	46.2	45.6	52.2	0.0	0.0	0.0	x	Total	5.00	r	6282120.35	2167362.46	5.00

## Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li		Operating Time			Height	Coordinates			
			Day	Evening	Night	Type	Value	norm.	Day	Special		Night	X	Y	Z
			(dBA)	(dBA)	(dBA)		dB(A)	(min)	(min)	(min)	(ft)	(ft)	(ft)	(ft)	
AC01		AC01	88.9	88.9	88.9	Lw	88.9	585.00	0.00	252.00	3.00	g	6282339.80	2166427.12	27.00
AC02		AC02	88.9	88.9	88.9	Lw	88.9	585.00	0.00	252.00	3.00	g	6282319.83	2166442.75	27.00
AC03		AC03	88.9	88.9	88.9	Lw	88.9	585.00	0.00	252.00	3.00	g	6281997.78	2166431.46	27.00
AC04		AC04	88.9	88.9	88.9	Lw	88.9	585.00	0.00	252.00	3.00	g	6282016.88	2166450.56	27.00
AC05		AC05	88.9	88.9	88.9	Lw	88.9	585.00	0.00	252.00	3.00	g	6282363.23	2166836.85	27.00
AC06		AC06	88.9	88.9	88.9	Lw	88.9	585.00	0.00	252.00	3.00	g	6282343.27	2166816.88	27.00
AC07		AC07	88.9	88.9	88.9	Lw	88.9	585.00	0.00	252.00	3.00	g	6282007.33	2166840.32	27.00
AC08		AC08	88.9	88.9	88.9	Lw	88.9	585.00	0.00	252.00	3.00	g	6282025.56	2166821.22	27.00
AC09		AC09	88.9	88.9	88.9	Lw	88.9	585.00	0.00	252.00	3.00	g	6281714.80	2166908.03	27.00

Name	M.	ID	Result. PWL			Lw / Li		Operating Time			Height		Coordinates			
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	X	Y	Z	
			(dBA)	(dBA)	(dBA)		dB(A)	(min)	(min)	(min)						
AC10		AC10	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	3.00	g	6281693.10	2166883.72	27.00
AC11		AC11	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	3.00	g	6281440.49	2166912.37	27.00
AC12		AC12	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	3.00	g	6281461.32	2166888.93	27.00
AC13		AC13	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	3.00	g	6282407.53	2167120.03	27.00
AC14		AC14	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	3.00	g	6282408.18	2167146.50	27.00
AC15		AC15	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	3.00	g	6282431.06	2167512.57	27.00
AC16		AC16	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	3.00	g	6282432.62	2167537.05	27.00
TRASH01		TRASH01	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	8.00	r	6282327.68	2167516.89	8.00
TRASH02		TRASH02	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	8.00	r	6282306.85	2167151.44	8.00
TRASH03		TRASH03	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	8.00	r	6282101.99	2166594.15	8.00
TRASH04		TRASH04	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	8.00	r	6282102.86	2166671.41	8.00
TRASH05		TRASH05	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	8.00	r	6281636.71	2166763.42	8.00
TRASH06		TRASH06	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	8.00	r	6281503.90	2166762.55	8.00
TRASH07		TRASH07	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	8.00	r	6282255.63	2166669.67	8.00
TRASH08		TRASH08	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	8.00	r	6282258.24	2166590.68	8.00
PARK01		PARK01	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281373.08	2166786.21	5.00
PARK02		PARK02	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281378.29	2166911.21	5.00
PARK03		PARK03	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281477.24	2166970.24	5.00
PARK04		PARK04	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281567.52	2166971.97	5.00
PARK05		PARK05	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281678.63	2166968.50	5.00
PARK06		PARK06	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281775.85	2166881.69	5.00
PARK07		PARK07	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281772.38	2166775.79	5.00
PARK08		PARK08	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281435.58	2166708.08	5.00
PARK09		PARK09	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281715.09	2166704.61	5.00
PARK10		PARK10	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281860.92	2166886.90	5.00
PARK11		PARK11	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281859.19	2166775.79	5.00
PARK12		PARK12	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281914.74	2166772.32	5.00
PARK13		PARK13	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281918.22	2166883.43	5.00
PARK14		PARK14	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281925.16	2166621.28	5.00
PARK15		PARK15	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281921.69	2166473.71	5.00
PARK16		PARK16	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6281980.72	2166364.33	5.00
PARK17		PARK17	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282124.81	2166360.86	5.00
PARK18		PARK18	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282241.13	2166360.86	5.00
PARK19		PARK19	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282359.19	2166359.12	5.00
PARK20		PARK20	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282419.95	2166461.56	5.00
PARK21		PARK21	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282421.69	2166595.24	5.00
PARK22		PARK22	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282428.63	2166708.08	5.00
PARK23		PARK23	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282433.84	2166827.87	5.00
PARK24		PARK24	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282334.88	2166895.58	5.00
PARK25		PARK25	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282119.60	2166897.32	5.00
PARK26		PARK26	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282305.37	2167081.35	5.00
PARK27		PARK27	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282315.79	2167213.29	5.00
PARK28		PARK28	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282320.99	2167303.57	5.00
PARK29		PARK29	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282327.94	2167435.51	5.00
PARK30		PARK30	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282334.88	2167577.87	5.00
PARK31		PARK31	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282388.70	2167522.32	5.00
PARK32		PARK32	73.4	73.4	73.4	Lw	73.4		900.00	0.00	540.00	5.00	r	6282364.40	2167149.06	5.00

### Line Source(s)

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li		Operating Time			Moving Pt. Src			Height				
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	Number			Speed			
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)		dB(A)	(min)	(min)	(min)	Day	Evening	Night	(mph)	(ft)			
TRUCK1		TRUCK1	79.1	79.1	79.1	58.9	58.9	58.9	PWL-Pt	93.2						3.0	3.0	3.0	5.0	8	a
TRUCK2		TRUCK2	77.9	77.9	77.9	58.9	58.9	58.9	PWL-Pt	93.2						3.0	3.0	3.0	5.0	8	a
TRUCK3		TRUCK3	76.9	76.9	76.9	58.9	58.9	58.9	PWL-Pt	93.2						3.0	3.0	3.0	5.0	8	a
TRUCK4		TRUCK4	81.6	81.6	81.6	58.9	58.9	58.9	PWL-Pt	93.2						3.0	3.0	3.0	5.0	8	a
TRUCK5		TRUCK5	83.0	83.0	83.0	58.9	58.9	58.9	PWL-Pt	93.2						3.0	3.0	3.0	5.0	8	a

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
TRUCK1	TRUCK1	8.00	a	6281300.71	2166725.90	8.00	0.00
				6281646.60	2166724.83	8.00	0.00
TRUCK2	TRUCK2	8.00	a	6282495.20	2167330.67	8.00	0.00
				6282358.78	2167334.96	8.00	0.00
				6282364.15	2167459.57	8.00	0.00
TRUCK3	TRUCK3	8.00	a	6282473.71	2166978.34	8.00	0.00
				6282343.74	2166980.48	8.00	0.00
				6282344.81	2167058.90	8.00	0.00
TRUCK4	TRUCK4	8.00	a	6282457.60	2166376.80	8.00	0.00
				6282399.59	2166380.02	8.00	0.00
				6282409.26	2166626.01	8.00	0.00
				6282100.97	2166629.23	8.00	0.00
TRUCK5	TRUCK5	8.00	a	6282337.29	2166979.41	8.00	0.00
				6282293.25	2166955.78	8.00	0.00
				6282258.88	2166942.89	8.00	0.00

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
				6282190.13	2166938.59	8.00	0.00
				6281965.63	2166939.67	8.00	0.00
				6281952.74	2166858.03	8.00	0.00
				6281952.74	2166632.45	8.00	0.00
				6282098.83	2166627.08	8.00	0.00

### Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Operating Time			Height (ft)	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night		
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)		dB(A)		(min)	(min)	(min)		
LOAD3		LOAD3	100.5	100.5	100.5	81.3	81.3	81.3	Lw"	81.3					0	a
LOAD4		LOAD4	100.5	100.5	100.5	81.3	81.3	81.3	Lw"	81.3					0	a
LOAD5		LOAD5	104.0	104.0	104.0	70.5	70.5	70.5	Lw"	70.5					0.	a
LOAD6		LOAD6	100.8	100.8	100.8	74.3	74.3	74.3	Lw"	74.3					0.	a

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
LOAD3	LOAD3	0.00	a	6282465.11	2167435.48	0.00	0.00
				6282464.67	2167419.86	0.00	0.00
				6282406.08	2167422.89	0.00	0.00
				6282407.82	2167438.09	0.00	0.00
LOAD4	LOAD4	0.00	a	6282441.78	2167030.06	0.00	0.00
				6282441.35	2167014.43	0.00	0.00
				6282382.75	2167017.47	0.00	0.00
				6282384.49	2167032.66	0.00	0.00
LOAD5	LOAD5	0.00	a	6282118.67	2166740.29	0.00	0.00
				6282229.75	2166740.29	0.00	0.00
				6282225.30	2166523.69	0.00	0.00
				6282115.34	2166524.80	0.00	0.00
LOAD6	LOAD6	0.00	a	6281539.97	2166833.59	0.00	0.00
				6281626.61	2166832.48	0.00	0.00
				6281625.50	2166776.94	0.00	0.00
				6281537.75	2166778.05	0.00	0.00

### Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates				
								Begin	x	y	z	Ground
								(ft)	(ft)	(ft)	(ft)	(ft)
BUILDING			BUILDING00001	x	0		24.00	a	6281428.89	2166929.12	24.00	0.00
									6281729.91	2166924.67	24.00	0.00
									6281724.35	2166776.94	24.00	0.00
									6281625.50	2166776.94	24.00	0.00
									6281626.61	2166832.48	24.00	0.00
									6281539.97	2166833.59	24.00	0.00
									6281537.75	2166778.05	24.00	0.00
									6281426.67	2166776.94	24.00	0.00
BUILDING			BUILDING00002	x	0		24.00	a	6281990.93	2166858.03	24.00	0.00
									6282377.48	2166852.47	24.00	0.00
									6282373.03	2166675.86	24.00	0.00
									6282228.45	2166677.09	24.00	0.00
									6282229.75	2166740.29	24.00	0.00
									6282118.67	2166740.29	24.00	0.00
									6282117.76	2166681.47	24.00	0.00
									6281986.49	2166685.86	24.00	0.00
BUILDING			BUILDING00003	x	0		24.00	a	6282359.70	2166580.34	24.00	0.00
									6282355.26	2166403.73	24.00	0.00
									6281979.83	2166412.62	24.00	0.00
									6281985.38	2166588.11	24.00	0.00
									6282116.27	2166584.82	24.00	0.00
									6282115.34	2166524.80	24.00	0.00
									6282225.30	2166523.69	24.00	0.00
									6282226.46	2166580.34	24.00	0.00
BUILDING			BUILDING00004	x	0		24.00	a	6282441.35	2167014.43	24.00	0.00
									6282441.78	2167030.06	24.00	0.00
									6282384.49	2167032.66	24.00	0.00
									6282395.15	2167246.74	24.00	0.00
									6282453.75	2167243.70	24.00	0.00
									6282454.04	2167254.35	24.00	0.00
									6282473.40	2167255.33	24.00	0.00
									6282460.37	2167014.88	24.00	0.00
BUILDING			BUILDING00005	x	0		24.00	a	6282472.68	2167609.34	24.00	0.00
									6282508.49	2167607.16	24.00	0.00
									6282497.73	2167416.53	24.00	0.00
									6282464.67	2167419.86	24.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Coordinates			
							Height Begin (ft)	x (ft)	y (ft)	z (ft)
							6282465.11	2167435.48	24.00	0.00
							6282407.82	2167438.09	24.00	0.00
							6282413.66	2167596.75	24.00	0.00
							6282472.25	2167593.72	24.00	0.00