

DATE: March 14, 2023
TO: Eric Everheart, Toll Brothers
FROM: William Maddux

JOB NO: 14919-10 Noise Memo.Docx

VISTA ROSE SUPPLEMENTAL ON-SITE NOISE ASSESSMENT

Eric Everheart,

Urban Crossroads, Inc. is pleased to provide the following Supplemental On-Site Noise Assessment for the Vista Rose (**Project**), which is located on the north of Alta Vista Street, east of Rose Drive, and west of Placentia Champions Sports complex in the City of Placentia as shown in Exhibit A. The purpose of this letter is to evaluate the noise impacts associated with the Project with the adjacent commercial land uses west of the Project site.

BACKGROUND

The City of Placentia previously prepared an initial study/mitigated negative declaration (IS/MND) and approved a vesting tentative subdivision map for 74 single family residences, Tract 15700. The prior property owner recorded a final subdivision map for a total of 62 single-family lots with a remainder parcel covering the existing oil operations area. The proposed Project (Vesting TTM 19250) adds 26 additional residential units to the original approved 74-unit subdivision, for a total of 100 lots as shown in Exhibit B.

PROPERTY LINE NOISE STANDARDS

To analyze the Project's compatibility with the existing commercial land uses, the measured and modeled noise levels are evaluated against standards established under a City's Municipal Code. The City of Placentia Municipal Code, Section 23.76.050 establishes the permissible noise level that may be received at nearby sensitive uses (e.g., residential). Noise ordinance limits generally apply to "stationary" sources such as mechanical equipment. The City of Placentia noise level limits are presented in Table 1.

EXHIBIT A: LOCATION MAP



EXHIBIT B: SITE PLAN



TABLE 1: CITY OF PLACENTIA NOISE LEVEL LIMITS

Noise Zone	Noise Level Limits dBA L_{eq} -1-Hour average	Time Period
Exterior Noise Standard		
1	55	7:00 a.m. – 10:00 p.m.
	50	10:00 p.m. – 7:00 a.m.
2	65	Anytime
3	70	Anytime
Interior Noise Standard		
1	55	7:00 a.m. – 10:00 p.m.
	45	10:00 p.m. – 7:00 a.m.
Noise Zone 1: All Residential Property Noise Zone 2: All Commercial Property Noise Zone 3: All Industrial Property		

Source: City of Placentia, City of Placentia Municipal Code Sections 23.76.050 and 23.76.060, March 2018.

For noise-sensitive residential properties, the exterior noise level shall not exceed 55 dBA L_{50} during daytime hours (7:00 a.m. to 10:00 p.m.) and shall not exceed 50 dBA L_{50} during the nighttime hours (10:00 p.m. to 7:00 a.m.), as defined by the Municipal Code. (1) These standards shall apply for a cumulative period of 30 minutes in any hour (L_{50}), as well as plus 5 dBA cannot be exceeded for a cumulative period of more than 15 minutes in any hour (L_{25}), or the standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour (L_8), or the standard plus 15 dBA for a cumulative period of more than 1 minute in any hour (L_2), or the standard plus 20 dBA for any period of time (L_{max}).

OPERATIONAL NOISE

This section analyzes the potential stationary-source operational noise impacts at on-site receiver locations resulting from the operation of the adjacent commercial land uses. This operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities from the adjacent grocery store and retail center. The 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 based on available information and represent a reasonable representation of potential off-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 commercial retail center would be operational 24 hours per day, seven days per week. The noise sources are expected to include: the roof-top air conditioners, loading docks, parking lot activities, and trash enclosure activities

and are shown in Exhibit C. While a child playground is located at the southern end of the retail building, this is a lot for under 6 year old children and is not considered a constant or substantial noise source due to the limited duration of the noise sources and the lack of low frequency sound levels. Similarly, a recycling collection station is located east of the grocery store along the western property line of the Project, however, this is an enclosed facility that only accepts recyclable for storage and does not process any material at this location. Thus, the recycling center is contained in a structure and noise levels generated by the activities do not represent substantial consistent noise sources.

TABLE 2: REFERENCE NOISE LEVELS

Noise Source ¹	Noise Source Height (Feet)	Min./Hour ²		Reference Noise Level (dBA L _{eq}) @ 50 Feet	Sound Power Level (dBA) ³
		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
Loading Docks	3'	60	60	71.8	103.4

¹ As measured by Urban Crossroads, Inc.

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

³ 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" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

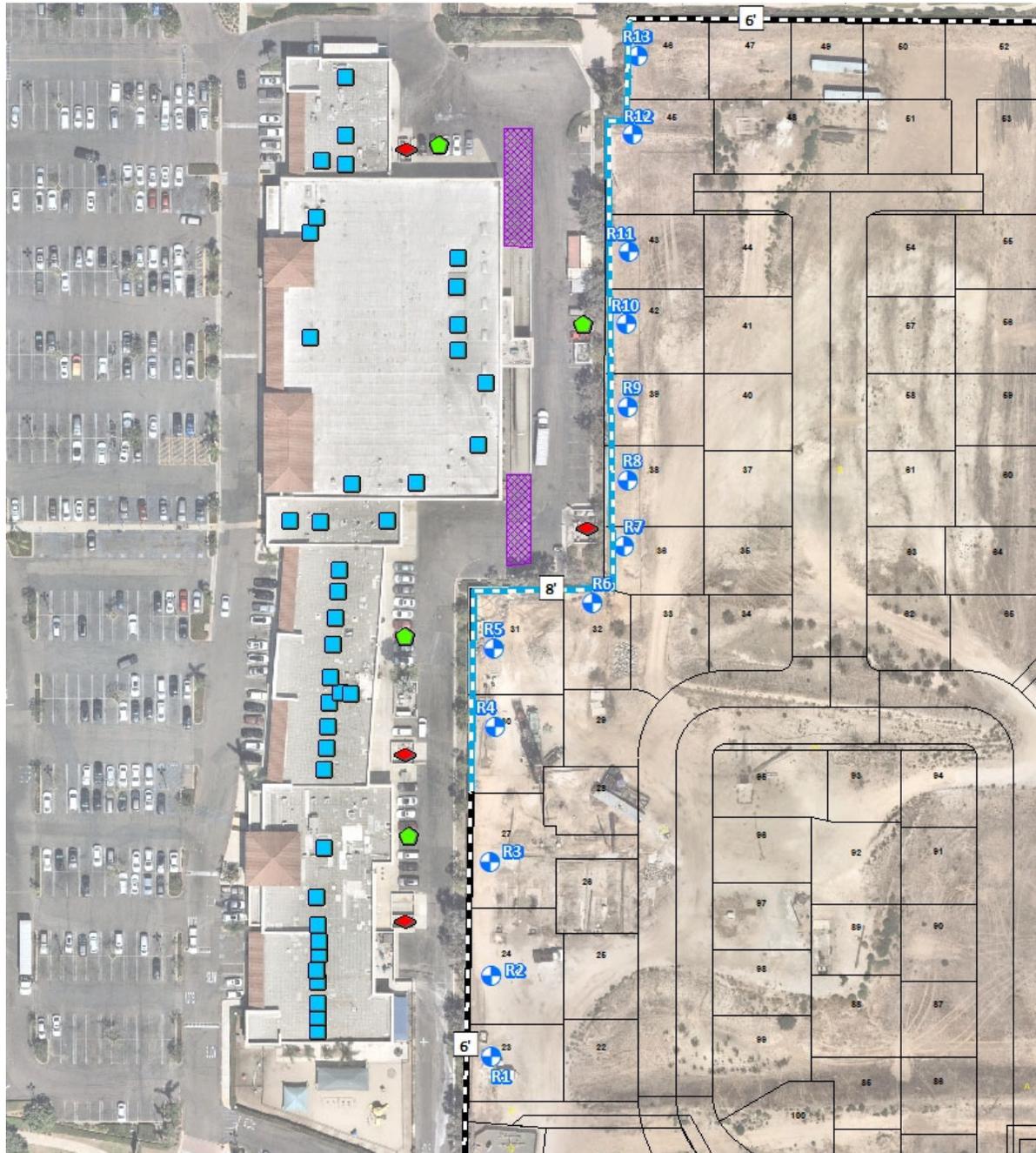
REFERENCE NOISE LEVELS

To estimate the operational noise levels generated by the adjacent commercial retail uses, reference noise levels were taken from manufacturers specifications or measurements collected from similar types of activities. It is important to note that the 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

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.

EXHIBIT C: OPERATIONAL NOISE SOURCE LOCATIONS



LEGEND:



- Barrier Height
- 6 feet
- 8 feet
- Roof-Top Air Conditioning Unit
- Parking Lot Vehicle Movements
- Trash Enclosure Activity
- Loading Area
- On-Site Receivers

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.

OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the adjacent commercial land uses, Urban Crossroads, Inc. modeled the unmitigated operational source noise levels that are expected to be experienced at each of the sensitive receiver locations. Tables 3 and 4 show the off-site operational noise levels (daytime and nighttime). The hourly noise levels at the on-site receiver locations and wall heights shown in Exhibit C, are expected to range from 32.8 to 53.2 dBA L_{eq} . Appendix 1 includes the detailed noise model inputs used to estimate the Project operational noise levels presented in this section.

PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

Table 5 shows the Project operational noise levels during the daytime and nighttime hours. The hourly noise levels at the on-site receiver locations are expected to range from 32.8 to 53.2 dBA L_{eq} . As shown in Table 5, noise levels from the adjacent commercial operations with the barrier heights shown in Exhibit C would comply with the City of Placentia exterior noise level limits. Appendix includes the detailed noise model inputs used to estimate the Project operational noise levels presented in this section.

TABLE 3: DAYTIME NOISE LEVELS

Noise Source ¹	Operational Noise Levels at Receiver Location (dBA L _{eq})												
	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13
Roof-Top Air Conditioning Units	44.8	45.5	43.5	43.1	44.0	45.9	36.3	39.6	40.6	40.7	41.5	41.7	37.4
Parking Lot Vehicle Movements	22.3	24.1	27.0	23.4	24.4	21.9	18.4	22.6	26.4	31.4	27.8	24.5	19.0
Trash Enclosure Activity	34.4	36.5	36.1	33.6	33.6	34.3	37.0	37.1	33.1	30.1	28.7	29.7	26.8
Loading Docks	43.4	44.5	46.4	49.6	51.9	49.5	47.6	49.9	49.6	49.8	51.7	52.9	47.8
Total (All Noise Sources)	47.4	48.3	48.5	50.6	52.6	51.2	48.3	50.5	50.2	50.4	52.1	53.2	48.2

¹ See Exhibit C for the noise source locations. CadnaA noise model calculations are included in Appendix 1.

TABLE 4: NIGHTTIME NOISE LEVELS

Noise Source ¹	Operational Noise Levels at Receiver Location (dBA L _{eq})												
	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13
Roof-Top Air Conditioning Units	39.1	39.7	37.8	37.4	38.2	40.2	30.5	33.9	34.9	35.0	35.8	36.0	31.6
Parking Lot Vehicle Movements	21.3	23.1	26.0	22.4	23.4	21.0	17.5	21.6	25.4	30.4	26.9	23.5	18.0
Trash Enclosure Activity	33.4	35.5	35.2	32.6	32.6	33.4	36.0	36.1	32.1	29.1	27.7	28.7	25.9
Loading Docks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total (All Noise Sources)	40.2	41.2	39.9	38.7	39.4	41.1	37.1	38.2	37.0	37.1	36.9	36.9	32.8

¹ See Exhibit C for the noise source locations. CadnaA noise model calculations are included in Appendix 1.

TABLE 5: NOISE LEVEL COMPLIANCE WITH SINGLE BARRIER

Receiver Location ¹	Project Operational Noise Levels (dBA Leq) ²		Noise Level Standards (dBA Leq) ³		Noise Level Standards Exceeded? ⁴	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	47.4	40.2	55	50	No	No
R2	48.3	41.2	55	50	No	No
R3	48.5	39.9	55	50	No	No
R4	50.6	38.7	55	50	No	No
R5	52.6	39.4	55	50	No	No
R6	51.2	41.1	55	50	No	No
R7	48.3	37.1	55	50	No	No
R8	50.5	38.2	55	50	No	No
R9	50.2	37.0	55	50	No	No
R10	50.4	37.1	55	50	No	No
R11	52.1	36.9	55	50	No	No
R12	53.2	36.9	55	50	No	No
R13	48.2	32.8	55	50	No	No

¹ See Exhibit C for the receiver locations.

² Proposed Project operational noise levels as shown on Tables 3 and 4.

³ City of Placentia Municipal Code, Section 23.76.050 and 23.76.060 (Appendix 3.1)

⁴ Do the estimated operational noise source activities exceed the noise level standards at receiver locations?

"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 commercial uses will comply with the City of Placentia noise standards with the barrier heights shown in Exhibit C. Therefore, the operational noise impacts are considered *less than significant* at the on-site 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. **City of Placentia.** *Municipal Code, Chapters 23.76 & 23.81.*

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APPENDIX 1

OPERATIONAL NOISE LEVEL CALCULATIONS

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14919 - Alta Vista Residential - Off-site Commercial

CadnaA Noise Prediction Model: 14919-02_Offsite_Comm.cna

Date: 07.03.23

Analyst: B. Maddux

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
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
Ref. Time	
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
DTM	
Standard Height (m)	85.04
Model of Terrain	Triangulation
Reflection	
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
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	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
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
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)	(ft)
R01		R01	47.4	40.2	48.2	0.0	0.0	0.0	x	Total	5.00	r	6078598.82	2266086.51	300.00
R02		R02	48.3	41.2	49.2	0.0	0.0	0.0	x	Total	5.00	r	6078599.34	2266148.19	300.44
R03		R03	48.5	39.8	48.5	0.0	0.0	0.0	x	Total	5.00	r	6078598.29	2266233.40	301.38
R04		R04	50.6	38.8	49.3	0.0	0.0	0.0	x	Total	5.00	r	6078601.43	2266335.86	302.61
R05		R05	52.6	39.4	50.9	0.0	0.0	0.0	x	Total	5.00	r	6078600.91	2266394.93	303.38
R06		R06	51.2	41.1	50.5	0.0	0.0	0.0	x	Total	5.00	r	6078675.66	2266429.43	303.86
R07		R07	48.2	37.2	47.2	0.0	0.0	0.0	x	Total	5.00	r	6078699.71	2266472.82	303.00
R08		R08	50.5	38.2	49.1	0.0	0.0	0.0	x	Total	5.00	r	6078701.80	2266521.96	305.24
R09		R09	50.2	37.0	48.6	0.0	0.0	0.0	x	Total	5.00	r	6078701.80	2266577.90	305.72
R10		R10	50.4	37.0	48.7	0.0	0.0	0.0	x	Total	5.00	r	6078700.75	2266640.10	306.10
R11		R11	52.1	36.9	50.0	0.0	0.0	0.0	x	Total	5.00	r	6078703.37	2266694.47	306.69
R12		R12	53.3	36.9	51.0	0.0	0.0	0.0	x	Total	5.00	r	6078705.49	2266783.22	307.83
R13		R13	48.2	32.8	46.0	0.0	0.0	0.0	x	Total	5.00	r	6078709.41	2266842.94	308.76

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)	
DWY1		DWY1	74.1	74.1	74.1	Lw	74.1	900.00	0.00	540.00	5.00	r	6078536.82	2266253.78	305.26
DWY2		DWY2	74.1	74.1	74.1	Lw	74.1	900.00	0.00	540.00	5.00	r	6078534.21	2266404.82	307.00
DWY3		DWY3	74.1	74.1	74.1	Lw	74.1	900.00	0.00	540.00	5.00	r	6078560.25	2266775.91	307.91

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)		(ft)	(ft)	(ft)	(ft)
DWY4		DWY4	74.1	74.1	74.1	Lw	74.1		900.00	0.00	540.00	5.00	r	6078668.33	2266640.50	308.61
Trash1		TRASH1	88.9	88.9	88.9	Lw	88.9		150.00	0.00	90.00	8.00	r	6078670.20	2266486.86	311.11
Trash2		TRASH2	88.9	88.9	88.9	Lw	88.9		150.00	0.00	90.00	8.00	r	6078534.09	2266773.66	311.00
Trash3		TRASH3	88.9	88.9	88.9	Lw	88.9		150.00	0.00	90.00	8.00	r	6078532.70	2266316.20	309.21
Trash4		TRASH4	88.9	88.9	88.9	Lw	88.9		150.00	0.00	90.00	8.00	r	6078533.40	2266189.81	308.00
AC001		AC001	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078468.04	2266106.91	330.00
AC002		AC002	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078468.56	2266117.32	330.00
AC003		AC003	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078468.30	2266128.00	330.00
AC004		AC004	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078468.04	2266143.63	330.00
AC005		AC005	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078467.52	2266152.48	330.00
AC006		AC006	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078469.34	2266164.98	330.00
AC007		AC007	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078468.82	2266174.36	330.00
AC008		AC008	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078468.30	2266187.38	330.00
AC009		AC009	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078467.52	2266207.69	330.00
AC010		AC010	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078472.72	2266244.93	330.00
AC011		AC011	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078472.72	2266304.04	330.00
AC012		AC012	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078474.55	2266320.19	330.00
AC013		AC013	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078475.85	2266336.86	330.00
AC014		AC014	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078476.37	2266355.09	330.00
AC015		AC015	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078484.96	2266362.64	330.00
AC016		AC016	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078492.78	2266362.12	330.00
AC017		AC017	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078477.67	2266374.10	330.00
AC018		AC018	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078479.49	2266399.10	330.00
AC019		AC019	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078481.58	2266419.41	330.00
AC020		AC020	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078483.14	2266438.68	330.00
AC021		AC021	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078484.18	2266455.35	330.00
AC022		AC022	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078520.38	2266492.85	330.00
AC023		AC023	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078470.12	2266491.80	330.00
AC024		AC024	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078446.94	2266492.59	330.00
AC025		AC025	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078494.34	2266519.93	330.00
AC026		AC026	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078542.78	2266521.23	330.00
AC027		AC027	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078589.39	2266550.14	330.00
AC028		AC028	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078462.83	2266630.87	330.00
AC029		AC029	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078462.05	2266710.55	330.00
AC030		AC030	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078467.52	2266721.75	330.00
AC031		AC031	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078595.14	2266596.51	330.00
AC032		AC032	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078574.04	2266621.51	330.00
AC033		AC033	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078573.78	2266640.26	330.00
AC034		AC034	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078573.52	2266669.17	330.00
AC035		AC035	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078573.78	2266690.78	330.00
AC036		AC036	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078489.67	2266761.53	330.00
AC037		AC037	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078471.27	2266765.00	330.00
AC038		AC038	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078489.32	2266783.40	330.00
AC039		AC039	88.9	88.9	88.9	Lw	88.9		585.00	0.00	117.00	3.00	g	6078489.32	2266827.15	330.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li		Operating Time			Height		
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)		dB(A)		(min)	(min)	(min)		
Loading1		Loading1	100.4	100.4	100.4	78.0	78.0	78.0	Lw	100.4		900.00	0.00	0.00	8	r
Loading2		Loading2	100.4	100.4	100.4	79.8	79.8	79.8	Lw	100.4		900.00	0.00	0.00	8	r

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
Loading1	Loading1	8.00	r	6078610.12	2266699.37	311.00	303.00
				6078610.12	2266788.78	310.30	302.30
				6078630.95	2266788.78	310.09	302.09
				6078630.95	2266698.51	311.00	303.00
Loading2	Loading2	8.00	r	6078610.66	2266526.63	311.00	303.00
				6078628.89	2266526.63	311.00	303.00
				6078628.89	2266459.79	311.00	303.00
				6078610.66	2266458.05	310.42	302.42

Barrier(s)

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever	Height		Coordinates					
				left	right			horz.	vert.	Begin	End	x	y	z	Ground
								(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
BARRIEREXISTING				0					6.00	r	6078702.67	2266870.57	311.00	305.00	
											6078702.69	2266871.75	311.00	305.00	
											6079028.51	2266868.74	314.00	308.00	
											6079024.95	2266394.28	310.60	304.60	
BARRIEREXISTING				0	0.99	0.99			10.00	r	6079131.57	2266392.50	309.42	303.42	
											6078583.31	2266287.17	313.67	303.67	
											6078586.03	2266438.70	312.88	302.88	

Name	Sel.	M.	ID	Absorption		Z-Ext. (ft)	Cantilever		Height		Coordinates				
				left	right		horz. (ft)	vert. (ft)	Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)	Ground (ft)	
												6078690.87	2266440.48	313.00	303.00
												6078687.32	2266794.11	312.78	302.78
												6078701.53	2266794.11	313.00	303.00
												6078702.67	2266870.57	315.00	305.00
BARRIEREXISTING			0						6.00	r		6078577.14	2265942.91	301.00	295.00
												6078583.31	2266287.17	309.67	303.67
BARRIEREXISTING			0						3.00	g		6078445.37	2266841.60	330.00	303.00
												6078518.89	2266837.98	330.00	302.50
												6078520.70	2266748.80	330.00	303.00
												6078606.87	2266749.40	330.00	303.00
												6078604.46	2266508.35	330.00	303.00
												6078529.13	2266508.95	330.00	303.00
												6078529.13	2266473.40	330.00	302.91
												6078516.48	2266474.00	330.00	303.00
												6078504.43	2266290.20	330.00	301.64
												6078521.30	2266290.20	330.00	301.42
												6078521.90	2266236.56	330.00	301.00
												6078508.04	2266235.36	330.00	301.00
												6078509.25	2266133.51	330.00	300.00
												6078521.90	2266132.91	330.00	300.00
												6078522.50	2266098.56	330.00	300.00
												6078418.85	2266097.36	330.00	300.00

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (ft)	Coordinates			
								x (ft)	y (ft)	z (ft)	Ground (ft)
BUILDING			BUILDING00001	x	0	24.00	r	6078444.84	2266842.56	327.00	303.00
								6078520.36	2266839.96	327.00	302.41
								6078521.66	2266750.11	327.00	303.00
								6078608.92	2266751.42	327.00	303.00
								6078605.87	2266506.62	327.00	303.00
								6078530.34	2266508.36	327.00	303.00
								6078530.34	2266472.77	327.00	302.89
								6078518.19	2266472.77	327.00	303.00
								6078505.46	2266291.58	327.00	301.63
								6078523.69	2266291.58	327.00	301.38
								6078523.17	2266233.77	327.00	300.96
								6078508.58	2266233.77	327.00	301.00
								6078510.15	2266133.77	327.00	300.00
								6078524.21	2266133.77	327.00	300.00
								6078524.21	2266096.79	327.00	300.00
								6078414.83	2266096.27	327.00	300.00
								6078422.65	2266292.62	327.00	301.29
								6078439.75	2266473.61	327.00	303.00
								6078428.46	2266473.61	327.00	303.00
								6078429.77	2266744.01	327.00	303.00
								6078440.18	2266744.01	327.00	303.00
								6078440.62	2266750.95	327.00	303.00
								6078444.96	2266750.52	327.00	303.00