

urbanxroads.com

October 1, 2024

Mr. Robert D. Dalquest City of Upland 460 N. Euclid Avenue Upland, CA 91786

SUBJECT: VILLA SERENA NOISE ASSESSMENT

Dear Mr. Robert D. Dalquest:

Urban Crossroads, Inc. is pleased to provide the following Noise Assessment for the Villa Serena Project ("Project"), which is located on the north side of 15th Street in in the City of Upland, as shown on Exhibit A. This Noise Assessment evaluates potential Project noise impacts in the context of applicable City of Upland noise standards and significance criteria based on guidance provided by Section XIII (a) of the Environmental Checklist Form Appendix G of the California Environmental Quality Act (CEQA). (1) In addition, this noise assessment has been revised in response May 8, 2023, City of Upland incomplete notice.

EXECUTIVE SUMMARY

This Noise Assessment shows that the land uses adjacent to the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to the Project-related traffic for existing conditions. The Villa Serena Project is not expected to include any specific type of operational noise (stationary source) levels beyond the typical noise sources associated with the planned residential land use. This includes residents moving around the site, parking activities, air conditioning units and background outdoor activities. Residential land use is generally considered a noise-sensitive receiving land use. Using the reference noise levels to represent the proposed Project operational noise levels associated with Villa Serena Project will satisfy the City of Upland 55 dBA L_{eq} daytime (7:00 a.m. to 10:00 p.m.) and 45 dBA L_{eq} nighttime (10:00 p.m. to 7:00 a.m.) exterior noise level standards at all nearby receiver locations. In addition, the Project-related operational noise level increases over the ambient noise conditions will satisfy the operational noise level increases over the ambient noise conditions will satisfy the operational noise level increases over the ambient noise conditions will satisfy the operational noise level increases over the ambient noise conditions will satisfy the operational noise level increase criteria at the nearest sensitive receiver locations and the potential impact will be *less than significant*.

The noise analysis shows that Project construction activities will not exceed the reasonable daytime 80 dBA L_{eq} significance threshold. However, it is expected that the Project-related construction noise activities will generate a *potentially significant* temporary noise level increase. Therefore, a minimum 8 to 12-foot-high temporary noise barrier is required adjacent to the existing noise sensitive residences. With the required 8 to 12-foot-high temporary noise barrier and the construction noise mitigation measures outlined in this noise assessment, the construction noise impacts are considered *less than significant*.

PROJECT DESCRIPTION

The preliminary site plan for the proposed Project is shown on Exhibit B. The proposed Project includes the development of 66 single family residential dwelling units, the 15th Street extension and the basin trail. The Villa Serena is not expected to include any specific type of operational noise (stationary source) levels beyond the typical noise sources associated with the planned residential land use. This includes residents moving around the site, parking activities, air conditioning units and background outdoor activities. Residential land use is generally considered a noise-sensitive receiving land use.

PROJECT BACKGROUND

On July 20, 2018, Urban Crossroads, Inc. prepared the *Upland Colonies Noise Impact Analysis (NIA)*. The NIA evaluated the on-site traffic noise level impacts to future residents of the Project and assessed the potential off-site construction noise and vibration impacts to the adjacent existing residential community. The purpose of this work effort is to assess the potential the Project related traffic noise level increases and the operational noise levels increases associated with the planned residential land use in response to the Superior Court ruling included in Appendix A. According to the ruling from Judge David Cohn, the NIA did not evaluate *the impacts of the Project compared to the Ambient Noise Level*. The analysis provided in this Noise Assessment was prepared to evaluate the incremental noise level increases or impacts of the Project in comparison to the existing ambient noise levels.

NOISE DESCRIPTORS

According to the *Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol*, the proper noise descriptor to use in any given situation depends on the nature of the noise source. For example, a high amplitude short duration event such as gunshot requires a different descriptor than a constant relatively low amplitude noise source such as traffic. The proper descriptor depends on the spatial distribution of noise sources, duration of the noise event, amount of fluctuation, and time patterns. Dozens of descriptors and scales have been devised over the years to quantify community noise, aircraft flyovers, traffic noise, industrial noise, speech interference, etc. (2) Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used figure is the equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the "average" noise levels within the environment. The City of Upland relies on the equivalent level (L_{eq}) to assess operational activities associated with non-transportation transportation related stationary noise sources.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized.





EXHIBIT A: LOCATION MAP



EXHIBIT B: SITE PLAN



LEGEND:

The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of Upland relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

OFF-SITE TRAFFIC NOISE LEVEL INCREASES

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Environmental Checklist Form XIII (a) Noise Guidelines at the nearest sensitive receiver locations. Under CEQA, consideration must 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.* (3) The City of Upland General Plan Safety Element Table SAF-4 *Exterior Incremental Noise Impact Standards for Noise Sensitive Use* outlines the allowable noise exposure increases that are derived from the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual.* To describe the amount to which a given noise level increase is considered acceptable, the FTA criteria is used to evaluate the incremental noise level increase and establishes a method for comparing future project noise with existing ambient conditions under CEQA Significance Threshold A. In effect, the amount to which a given noise level increase is considered acceptable is reduced based on existing ambient noise conditions. Table 1 presents the allowable noise exposure increase levels.

Analysia	Condition(c)	Significance Criteria		
Analysis	Condition(s)	Daytime	Nighttime	
	If ambient is < 50 dBA CNEL	≥ 8 dBA CNEL	. Project increase	
	If ambient is 50 - 55 dBA CNEL	≥ 5 dBA CNEL Project increase		
Off-Site	If ambient is 55 - 60 dBA CNEL	≥ 3 dBA CNEL Project increase		
Traffic ¹	If ambient is 60 - 65 dBA CNEL	≥ 2 dBA CNEL Project increase		
	If ambient is 65 - 75 dBA CNEL	≥ 1 dBA CNEL	Project increase	
	If ambient is > 75 dBA CNEL	0 dBA CNEL Project increase		

TABLE 1: ALLOWABLE NOISE EXPOSURE LEVELS

¹ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, consistent with the City of Upland General Plan.

Consistent with the City of Upland General Plan Safety Element, the 24-hour CNEL level is used to assess land use compatibility with transportation related noise sources. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. This is consistent with



the Noise Compatible Land Use Planning guidance provided by Appendix D: Noise Element Guidelines from the State of California General Plan Guidelines. (4)

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. (5) 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. (6) 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. (7) Table 2 presents the roadway parameters used to assess the Project's off-site transportation noise impacts. The ADT volumes used in this study are presented on Table 3 are based on the Villa Serena Traffic Impact Analysis prepared by Urban Crossroads, Inc. (8)

ID	Roadway	Segment	Receiving Land Use ¹	Classification ²	Centerline Distance to Receiving Land Use	Vehicle Speed (mph) ³
1	Campus Av.	n/o 16th St.	Sensitive	Secondary	44'	40
2	Campus Av.	s/o 16th St.	Sensitive	Secondary	44'	40
3	Campus Av.	n/o 14th St.	Sensitive	Secondary	44'	40
4	Campus Av.	s/o 14th St.	Sensitive	Secondary	44'	40
5	16th St.	w/o Campus Av.	Sensitive	Secondary	44'	45
6	16th St.	e/o Campus Av.	Sensitive	Secondary	44'	45
7	15th St.	w/o Campus Av.	Sensitive	Collector	33'	35
8	15th St.	e/o Campus Av.	Sensitive	Collector	33'	25
9	15th St.	w/o Grove Av.	Sensitive	Collector	33'	25
10	14th St.	w/o Campus Av.	Sensitive	Collector	33'	35

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

² City of Upland General Plan Circulation Element

³ Upland Colonies Traffic Analysis, Urban Crossroads, Inc.

The ADT volumes vary for each roadway segment based on the existing traffic volumes and the combination of project traffic distributions. In addition, the off-site traffic noise analysis maintains a



peak hour to average daily traffic (peak-to-daily) relationship of 7.9%. This analysis relies on a comparative analysis of the off-site traffic noise impacts, without and with project ADT traffic volumes from the Project traffic study. Table 4 provides the time of day (daytime, evening, and nighttime) vehicle splits and Table 5 presents the traffic flow distributions (vehicle mix) used for this analysis. The vehicle mix provides the hourly distribution percentages of automobiles, medium trucks, and heavy trucks for input into the FHWA noise prediction model.

			Average Daily Traffic Volumes ¹					
ID	Roodway	Comment.	Exis	ting	ОҮС			
	Noauway	Segment	Without Project	With Project	Without Project	With Project		
1	Campus Av.	n/o 16th St.	20,900	21,084	22,885	23,069		
2	Campus Av.	s/o 16th St.	20,354	20,630	22,946	23,222		
3	Campus Av.	n/o 14th St.	19,427	19,733	22,284	22,590		
4	Campus Av.	s/o 14th St.	16,608	16,730	19,613	19,735		
5	16th St.	w/o Campus Av.	22,614	22,644	24,318	24,348		
6	16th St.	e/o Campus Av.	23,465	23,527	25,221	25,283		
7	15th St.	w/o Campus Av.	2,870	2,900	3,365	3,395		
8	15th St.	e/o Campus Av.	100	609	105	614		
9	15th St.	w/o Grove Av.	127	219	135	227		
10	14th St.	w/o Campus Av.	3,581	3,673	4,120	4,212		

TABLE 3: AVERAGE DAILY TRAFFIC VOLUMES

¹ Upland Colonies Traffic Analysis, Urban Crossroads, Inc.

TABLE 4: TIME OF DAY VEHICLE SPLITS

		Total of Time of		
venicie rype	Daytime	Evening	Nighttime	Day Splits
Autos	77.50%	12.90%	9.60%	100.00%
Medium Trucks	84.80%	4.90%	10.30%	100.00%
Heavy Trucks	86.50%	2.70%	10.80%	100.00%

"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 5:	TRAFFIC FLOW BY VEHICLE TYPE	VEHICLE MIX)
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	Т	w		
Roadway Classification	Autos	Medium Trucks	Heavy Trucks	Total
All Roadways	97.42%	1.84%	0.74%	100.00%

Typical California Vehicle Mix.



OFF-SITE TRAFFIC NOISE ANALYSIS

To assess the off-site transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed for each traffic scenario described in the *Villa Serena Traffic Study*. (8) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Noise contours were used to assess the Project's incremental 24-hour dBA CNEL traffic-related noise impacts at receiving land uses adjacent to roadways conveying Project traffic. 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 CNEL 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 6 through 9 present a summary of the exterior dBA CNEL traffic noise level, for existing, and opening year cumulative conditions without and with Project conditions. Appendix A includes a summary of the dBA CNEL traffic noise level contour for each of the traffic scenarios.

10	Deed	Segment	Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)		
טו	KOAU	Segment	Land Use ¹	Land Use (dBA) ²	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Campus Av.	n/o 16th St.	Sensitive	69.8	RW	92	198
2	Campus Av.	s/o 16th St.	Sensitive	69.7	RW	90	194
3	Campus Av.	n/o 14th St.	Sensitive	69.5	RW	87	188
4	Campus Av.	s/o 14th St.	Sensitive	68.8	RW	79	170
5	16th St.	w/o Campus Av.	Sensitive	71.4	RW	118	253
6	16th St.	e/o Campus Av.	Sensitive	71.6	RW	121	260
7	15th St.	w/o Campus Av.	Sensitive	61.1	RW	RW	RW
8	15th St.	e/o Campus Av.	Sensitive	43.1	RW	RW	RW
9	15th St.	w/o Grove Av.	Sensitive	44.1	RW	RW	RW
10	14th St.	w/o Campus Av.	Sensitive	62.1	RW	RW	RW

TABLE 6: EXISTING CONTOURS

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

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



п	Deed	Compat	Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)		
ם	KUdu	Segment	Land Use ¹	Land Use (dBA) ²	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Campus Av.	n/o 16th St.	Sensitive	69.8	RW	92	199
2	Campus Av.	s/o 16th St.	Sensitive	69.7	RW	91	196
3	Campus Av.	n/o 14th St.	Sensitive	69.5	RW	88	190
4	Campus Av.	s/o 14th St.	Sensitive	68.8	RW	79	171
5	16th St.	w/o Campus Av.	Sensitive	71.4	RW	118	254
6	16th St.	e/o Campus Av.	Sensitive	71.6	RW	121	260
7	15th St.	w/o Campus Av.	Sensitive	61.2	RW	RW	RW
8	15th St.	e/o Campus Av.	Sensitive	50.9	RW	RW	RW
9	15th St.	w/o Grove Av.	Sensitive	46.5	RW	RW	RW
10	14th St.	w/o Campus Av.	Sensitive	62.2	RW	RW	RW

TABLE 7: EXISTING WITH PROJECT CONTOURS

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

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

TABLE 8: OPENING YEAR CUMULATIVE CONTOURS

	Road	Comment	Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)		
טו		Segment	Land Use ¹	Land Use (dBA) ²	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Campus Av.	n/o 16th St.	Sensitive	70.2	RW	98	210
2	Campus Av.	s/o 16th St.	Sensitive	70.2	RW	98	210
3	Campus Av.	n/o 14th St.	Sensitive	70.1	RW	96	206
4	Campus Av.	s/o 14th St.	Sensitive	69.5	RW	88	190
5	16th St.	w/o Campus Av.	Sensitive	71.7	RW	123	266
6	16th St.	e/o Campus Av.	Sensitive	71.9	59	126	272
7	15th St.	w/o Campus Av.	Sensitive	61.8	RW	RW	RW
8	15th St.	e/o Campus Av.	Sensitive	43.3	RW	RW	RW
9	15th St.	w/o Grove Av.	Sensitive	44.4	RW	RW	RW
10	14th St.	w/o Campus Av.	Sensitive	62.7	RW	RW	RW

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

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



Ē	Road	Compart	Receiving	CNEL at Nearest	Distance to Contour from Centerline (Feet)		
U		Segment	Land Use ¹	Land Use (dBA) ²	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Campus Av.	n/o 16th St.	Sensitive	70.2	RW	98	211
2	Campus Av.	s/o 16th St.	Sensitive	70.2	RW	98	212
3	Campus Av.	n/o 14th St.	Sensitive	70.1	RW	97	208
4	Campus Av.	s/o 14th St.	Sensitive	69.5	RW	88	190
5	16th St.	w/o Campus Av.	Sensitive	71.7	RW	124	266
6	16th St.	e/o Campus Av.	Sensitive	71.9	59	127	273
7	15th St.	w/o Campus Av.	Sensitive	61.8	RW	RW	RW
8	15th St.	e/o Campus Av.	Sensitive	51.0	RW	RW	RW
9	15th St.	w/o Grove Av.	Sensitive	46.6	RW	RW	RW
10	14th St.	w/o Campus Av.	Sensitive	62.8	RW	RW	RW

 TABLE 9: OPENING YEAR CUMULATIVE WITH PROJECT CONTOURS

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

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

PROJECT TRAFFIC NOISE LEVEL INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included in this report for informational purposes and to fully analyze the existing traffic scenarios identified in the *Villa Serena Traffic Study*. (8) However, the analysis of existing off-site traffic noise levels plus traffic noise generated by the proposed Project scenario will not actually occur since the Project would not be fully constructed and operational until future conditions when the Project is built and fully occupied. Table 6 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels range from 43.1 to 71.6 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7 shows the Existing with Project conditions range from 46.5 to 71.6 dBA CNEL. Table 10 shows that the Project off-site traffic noise level increases range from 0.0 to 7.8 dBA CNEL on the study area roadway segments. Based on the significance criteria for off-site traffic noise presented in Table 1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to the Project-related traffic for existing conditions.



ID	Road	Segment	Segment		CNEL at Receiving Land Use (dBA) ²			Incremental Noise Level Increase Threshold	
		8	Land Use ¹	No Project	With Project	Project Addition	Limit ³	Exceeded ⁴	
1	Campus Av.	n/o 16th St.	Sensitive	69.8	69.8	0.0	1	No	
2	Campus Av.	s/o 16th St.	Sensitive	69.7	69.7	0.0	1	No	
3	Campus Av.	n/o 14th St.	Sensitive	69.5	69.5	0.0	1	No	
4	Campus Av.	s/o 14th St.	Sensitive	68.8	68.8	0.0	1	No	
5	16th St.	w/o Campus Av.	Sensitive	71.4	71.4	0.0	1	No	
6	16th St.	e/o Campus Av.	Sensitive	71.6	71.6	0.0	1	No	
7	15th St.	w/o Campus Av.	Sensitive	61.1	61.2	0.1	2	No	
8	15th St.	e/o Campus Av.	Sensitive	43.1	50.9	7.8	8	No	
9	15th St.	w/o Grove Av.	Sensitive	44.1	46.5	2.4	8	No	
10	14th St.	w/o Campus Av.	Sensitive	62.1	62.2	0.1	2	No	

 TABLE 10: EXISTING PROJECT TRAFFIC NOISE LEVEL INCREASES

¹Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

³City of Upland General Plan Table SAF-4.

⁴ Does the Project create an incremental noise level increase exceeding the significance criteria?

Table 8 presents the Opening Year Cumulative without Project conditions CNEL noise levels. The Opening Year Cumulative without Project exterior noise levels are expected to range from 43.3 to 71.9 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 9 shows the Opening Year Cumulative with Project conditions will range from 46.6 to 71.9 dBA CNEL. Table 11 shows that the Project off-site traffic noise level increases will range from 0.0 to 7.7 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to the Project-related traffic for Opening Year Cumulative conditions

EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at five locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit C provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Tuesday, August 31, 2021. Appendix B includes study area photos.



EXHIBIT C: NOISE MEASUREMENT LOCATIONS





MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (9)

NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. These measurement locations were collected at locations that are intended to best describe the existing ambient noise levels within the noise sensitive receiver locations near the Project. In addition, due to the long-term nature of these measurements, the noise level meters are placed in locations where the meter can be securely positioned to avoid any interference. Measurement locations L1 and L2 were selected to describe the noise sensitive residential homes within the Upland Hills Country Club. Measurement locations, L3, L4 and L5 were selected to describe the existing residential community south of the Project Site on 15th Street.

Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources. (2) Further, FTA guidance states, that it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community. (10)*

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (10) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.



NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the average or equivalent sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 12 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. The daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix C provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L_1 , L_2 , L_5 , L_8 , L_{25} , L_{50} , L_{90} , L_{95} , and L_{99} percentile noise levels observed during the daytime and nighttime periods.

Table 12 shows that the existing ambient noise level at measurements locations L1 to L5 are consistent with the quiet nature of the surrounding residential community. While there is some variation in the individual noise levels at each location, the noise levels on Table 12 represent the average of all hourly noise levels observed during these time periods expressed as a single number.

Location ¹	Description	Energy Average Noise Level (dBA L _{eq}) ²		
		Daytime	Nighttime	
L1	Located north of the Project site near single-family residence at 1168 Upland Hills Drive South.	47.2	42.5	
L2	Located east of the Project site near single-family residence at 8269 Calle Del Prado.	43.6	39.3	
L3	Located south of the Project site near single-family residence at 1335 East 15th Street.	47.2	40.6	
L4	Located south of the Project site near single-family residence at 1497 Fernando Avenue.	45.7	41.0	
L5	Located west of the Project site near single-family residence at 1520 North Himalayas Circle.	42.6	38.5	

TABLE 12: AMBIENT NOISE LEVEL MEASUREMENTS

 $^{\rm 1}$ See Exhibit C for the noise level measurement locations.

² Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix C.

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



RECEIVER LOCATIONS

To assess the potential for long-term operational noise impacts, the following receiver locations, as shown on Exhibit D, were identified as representative locations for focused analysis. This includes additional receiver locations adjacent to the 15th Street extension and the basin trail. While the existing noise level measurement locations are used to describe the existing background ambient noise conditions in the Project study area, the receiver locations are used to calculate the Project operational noise levels at potentially impact nearby noise sensitive residences. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Noise-sensitive receivers near the Project site include the existing residential homes located to the west of the Project site on Himalayas Circle, south on 15th Street and north on Upland Hills Drive. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures.

NOISE PREDICTION MODEL

To fully describe the exterior operational noise levels from the Project, 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 Project 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. 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 D includes the detailed noise model inputs.



EXHIBIT D: RECEIVER LOCATIONS



LEGEND:

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OPERATIONAL NOISE ANALYSIS

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations resulting from the operation of the proposed Villa Serena Project. This operational noise analysis is intended to describe noise level impacts associated with the typical activities expected at the Project site. The on-site Project-related noise sources shown on Exhibit E are expected to include residential air conditioning units and other background outdoor activity. This noise source activity is representative of the planned residential land use that is not expected to produce any type of peak or single event noise source activities.

To estimate the Project operational noise impacts, reference sound power levels (L_w) were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. 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 reference Project operational sound power noise levels are summarized below:

- A/C Condenser Units: 73 dBA L_w according to the reference product data sheet for the Bryant 124ANS Series 5-Ton Air Conditioner Unit.
- Background Outdoor Activity: 75 dBA L_w based on reference outdoor noise level measurements collected by Urban Crossroads, Inc.

PROJECT OPERATIONAL NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as the Villa Serena Project, stationary-source (operational) noise such as the expected residential air conditioning units and other background outdoor activity are typically evaluated against standards established under a jurisdiction's Municipal Code. The City of Upland noise control guidelines for determining and mitigating non-transportation or stationary noise source impacts from operations in neighboring residential areas are found in Chapter 9.40 of the Municipal Code, provided in Appendix D. The performance standards found in Chapter 9.40 limit the base exterior noise level to 55 dBA L_{eq} during the daytime hours from 7:00 am to 10:00 p.m., and 45 dBA L_{eq} during the nighttime hours from 10:00 p.m. 7:00 a.m. at sensitive residential receiver locations. (11)



EXHIBIT E: PROJECT OPERATIONAL NOISE SOURCE LOCATIONS



PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the proposed Project operations that include residential air conditioning units and other background outdoor activity, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Table 13 shows that the daytime Project operational noise at the off-site receiver locations with the planned 6-foot-high wall is expected to range from 30.9 to 51.3 dBA L_{eq}. It is important to recognize that the operational noise analysis includes all sixty-six air conditioning units and outdoor activities all operating at the same time without accounting for any of the planned residential building structures. In real world operating conditions, the air conditioning units will cycle on and off throughout the day and night. Therefore, the noise levels presented below conservatively overstate the Project operational noise levels.

Receiver	Project Operational Noise Levels (dBA Leq) ²		Noise Leve (dBA	l Standards Leq) ³	Noise Level Standards Exceeded? ⁴		
Location	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime	
R1	43.8	34.1	55	45	No	No	
R2	50.0	35.3	55	45	No	No	
R3	30.9	19.6	55	45	No	No	
R4	35.9	20.6	55	45	No	No	
R5	44.6	33.6	55	45	No	No	
R6	51.3	36.2	55	45	No	No	
R7	46.7	33.6	55	45	No	No	
R8	43.3	30.0	55	45	No	No	
R9	32.9	21.6	55	45	No	No	
R10	45.2	31.4	55	45	No	No	

TABLE 13: PROJECT OPERATIONAL NOISE LEVELS

¹ See Exhibit D for the receiver locations.

² Proposed Project unmitigated operational noise level calculations are included in Appendix E.

³ City of Upland Municipal Code Chapter 9.40. (Appendix D).

⁴ Do the estimated Project 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.

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the City of Upland exterior noise level standards at the nearest noise-sensitive receiver locations. Table 13 shows the operational noise levels associated with Villa Serena Project will not exceed the City of Upland 55 dBA L_{eq} daytime (7:00 a.m. to 10:00 p.m.) and 45 dBA L_{eq} nighttime (10:00 p.m. to 7:00 a.m.) exterior noise level standards at all nearby receiver locations. Therefore, the operational noise impacts are considered *less than significant* at the nearest noise-sensitive receiver locations.



PROJECT OPERATIONAL NOISE LEVEL INCREASES

Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of receivers to determine if a noise increase represents a significant adverse environmental impact (3). This approach recognizes that there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction, primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an effective way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted — the so-called *ambient* environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. To describe the Project operational noise levels measurements for the nearby receiver locations potentially impacted by Project operational noise levels measurements for the nearby receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (2) Instead, they must be logarithmically added using the following base equation:

 $SPL_{Total} = 10log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \dots 10^{SPLn/10}]$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. As indicated on Table 14, the Project will generate a daytime operational noise level increase ranging from 0.2 to 5.5 dBA L_{eq} at the nearest receiver locations. Table 15 shows that the Project will generate a nighttime operational noise level increase ranging from 0.0 to 1.3 dBA L_{eq} at the nearest receiver locations. To describe the amount to which a given noise level increase is considered substantial (Threshold A), the City of Upland General Plan outlines criteria (Table SAF-4) to evaluate the incremental noise level increase and establishes a method for comparing future project noise with existing ambient conditions under CEQA Significance Noise Threshold A. Based on the significance criteria presented in Table 1, the Project-related operational noise level increases will satisfy the operational noise level increase criteria at the nearest sensitive receiver locations and the impact will be *less than significant*.



Receiver Location ¹	Total Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Increase Criteria ⁷	Increase Criteria Exceeded?
R1	43.8	L1	47.2	48.8	1.6	8	No
R2	50.0	L1	47.2	51.8	4.6	8	No
R3	30.9	L2	43.6	43.8	0.2	8	No
R4	35.9	L2	43.6	44.3	0.7	8	No
R5	44.6	L3	47.2	49.1	1.9	8	No
R6	51.3	L3	47.2	52.7	5.5	8	No
R7	46.7	L3	47.2	50.0	2.8	8	No
R8	43.3	L4	45.7	47.7	2.0	8	No
R9	32.9	L5	42.6	43.0	0.4	8	No
R10	45.2	L5	42.6	47.1	4.5	8	No

TABLE 14: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

¹ See Exhibit D for the receiver locations.

² Total Project daytime operational noise levels as shown on Table 16.

³ Reference noise level measurement locations as shown on Exhibit C.

⁴ Observed daytime ambient noise levels as shown on Table 15.

⁵ Represents the combined ambient conditions plus the Project activities.

⁶ The noise level increase expected with the addition of the proposed Project activities.

⁷ City of Upland General Plan Table SAF-4.

TABLE 15: NIGHTTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

Receiver Location ¹	Total Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient⁵	Project Increase ⁶	Increase Criteria ⁷	Increase Criteria Exceeded?
R1	34.1	L1	42.5	43.1	0.6	8	No
R2	35.3	L1	42.5	43.3	0.8	8	No
R3	19.6	L2	39.3	39.3	0.0	8	No
R4	20.6	L2	39.3	39.4	0.1	8	No
R5	33.6	L3	40.6	41.4	0.8	8	No
R6	36.2	L3	40.6	41.9	1.3	8	No
R7	33.6	L3	40.6	41.4	0.8	8	No
R8	30.0	L4	41.0	41.3	0.3	8	No
R9	21.6	L5	38.5	38.6	0.1	8	No
R10	31.4	L5	38.5	39.3	0.8	8	No

¹ See Exhibit D for the receiver locations.

² Total Project nighttime operational noise levels as shown on Table 16.

³ Reference noise level measurement locations as shown on Exhibit C.

⁴ Observed nighttime ambient noise levels as shown on Table 15.

⁵ Represents the combined ambient conditions plus the Project activities.

⁶ The noise level increase expected with the addition of the proposed Project activities.

⁷ City of Upland General Plan Table SAF-4.



COMMUNITY RESPONSE TO NOISE

Community responses to noise vary depending upon everyone's susceptibility to noise and personal attitudes about noise. Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. (12) Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. (12) Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit F. A change of 3 dBA is considered *barely perceptible*, and changes of 5 dBA are considered *readily perceptible*. (13) An increase of 10 dBA is considered twice as loud.

The operational noise level increase analysis shows that the nearest noise sensitive residential receivers will potentially experience a background ambient noise level increases are considered *barely* or *readily perceptible*. This finding is conservatively based on all sixty-six air conditioning units and outdoor activities all operating at the same time without accounting for any building structures or planned perimeter walls.

CONSTRUCTION NOISE ANALYSIS

To control noise impacts associated with the construction of the proposed Project, the City of Upland has established limits to the hours of operation. Section 9.40.100[M] of the City's Municipal Code states: *It is unlawful for any person to engage in or permit the erection (including excavation), demolition, alteration or repair of any building other than between the hours of 7:00 a.m. and 6:00 p.m. on weekdays... (14) However, neither the City of Upland General Plan Noise Element nor Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) <i>Transit Noise and Vibration Impact Assessment Manual* is used for analysis of daytime construction impacts, as discussed below. According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA Leq as a reasonable threshold for noise sensitive residential land use (10 p. 179).

CONSTRUCTION REFERENCE NOISE LEVELS

To describe construction noise activities, this construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model (RCNM), which includes a national database of construction



equipment reference noise emission levels. (15) The RCNM equipment database, provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation. Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. Consistent with FTA guidance for general construction noise assessment, the loudest construction equipment represented by the combined noise levels for graders, excavators and compactors represent a sound power level of 115 L_w, assuming they operate at the same time. Appendix G includes the detailed CadnaA construction noise model inputs.

CONSTRUCTION NOISE ANALYSIS

To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations shown on Exhibit F, a construction-related daytime noise level threshold of 80 dBA L_{eq} is used as a reasonable threshold to assess the daytime construction noise level impacts. Table 16 shows that the construction noise levels are expected to range from 50.7 to 63.6 dBA L_{eq} at the nearby receiver locations and will not exceed the reasonable daytime 80 dBA L_{eq} significance threshold. Therefore, the noise impacts due to Project construction noise are considered *less than significant* at all receiver locations.

_ .	Construction Noise Levels (dBA L _{eq})							
Receiver Location ¹	Highest Construction Noise Levels ² Threshold ³		Threshold Exceeded? ⁴					
R1	55.0	80	No					
R2	56.6	80	No					
R3	50.7	80	No					
R4	53.6	80	No					
R5	61.6	80	No					
R6	63.6	80	No					
R7	56.8	80	No					
R8	59.2	80	No					
R9	55.9	80	No					
R10	60.5	80	No					

TABLE 16: CONSTRUCTION NOISE LEVEL COMPLIANCE

¹Construction noise source and receiver locations are shown on Exhibit F.

² Highest construction noise level calculations based on distance from the construction noise source activity to the nearest receiver locations.

³ FTA Transit Noise and Vibration Impact Assessment Manual.

⁴ Do the estimated Project construction noise levels exceed the construction noise level threshold?





EXHIBIT F: PROJECT CONSTRUCTION NOISE SOURCE LOCATIONS

LEGEND:

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CONSTRUCTION NOISE LEVEL INCREASE

To control the noise-generating construction activities, the temporary noise level increases over the existing *ambient* conditions must be considered under CEQA Significance Threshold A. In California a *substantial* noise increase occurs when the project's predicted noise level exceeds the existing *ambient* noise level by 12 dBA or more. (16) The use of 12 dB was established in California many years ago and is based on the concept that a 10 dB increase generally is perceived as a doubling of loudness. (2 pp. 3-2) Therefore, if the Project-related construction noise levels generate a temporary noise level increase above the existing ambient noise levels of up to 12 dBA L_{eq}, then the Project construction noise level increases will be considered a *potentially significant impact*.

To describe the temporary Project construction noise level contributions to the existing ambient noise environment, the Project construction noise levels were combined with the existing *ambient* noise levels measurements at the nearest off-site receiver locations. The difference between the combined Project-construction and ambient noise levels is used to describe the construction noise level contributions. Temporary noise level increases that would be experienced at sensitive receiver locations when Project construction-source noise is added to the *ambient* daytime conditions are presented on Table 17. As indicated in Table 17, the Project will contribute unmitigated construction noise level increases ranging from 7.9 to 18.0 dBA L_{eq} during the daytime hours at the closest receiver locations. The unmitigated construction noise analysis shows that the nearest receiver locations will exceed the Caltrans *substantial* 12 dBA L_{eq} noise level increase significance threshold during Project construction activities. The temporary construction noise level increase analysis shows that the noise impacts due to Project-related construction noise are considered *potentially significant* without mitigation.

Therefore, a minimum 8 to 12-foot-high temporary noise barrier is required adjacent to the existing noise sensitive residences as shown on Exhibit G. Table 18 shows that the mitigated construction noise levels at the nearest noise sensitive receiver locations are expected to range from 50.7 to 58.1 dBA L_{eq}. Appendix H includes the mitigated construction CadnaA noise calculations. The mitigated construction noise levels will range from 7.9 to 11.2 dBA L_{eq} and will not exceed the Caltrans *substantial* 12 dBA L_{eq} noise level increase significance threshold. With the required 8 to 12-foot-high temporary noise barrier and the construction noise mitigation measures outlined below, the construction noise impacts are considered *less than significant*.

Receiver Location ¹	Highest Construction Noise Levels ²	Measurement Location ³	Reference Ambient Noise Levels⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Increase Criteria ⁷	Increase Criteria Exceeded?
R1	55.0	L1	47.2	55.7	8.5	12	No
R2	56.6	L1	47.2	57.1	9.9	12	No
R3	50.7	L2	43.6	51.5	7.9	12	No
R4	53.6	L2	43.6	54.0	10.4	12	No
R5	61.6	L3	47.2	61.8	14.6	12	Yes
R6	63.6	L3	47.2	63.7	16.5	12	Yes
R7	56.8	L3	47.2	57.3	10.1	12	No
R8	59.2	L4	45.7	59.4	13.7	12	Yes
R9	55.9	L5	42.6	56.1	13.5	12	Yes
R10	60.5	L5	42.6	60.6	18.0	12	Yes

TABLE 17: CONSTRUCTION NOISE LEVEL INCREASES

¹ See Exhibit F for the receiver locations.

² Total Project daytime operational noise levels as shown on Table 16.

³ Ambient noise level measurement locations as shown on Exhibit C.

⁴ Observed daytime ambient noise levels as shown on Table 12.

⁵ Represents the combined ambient conditions plus the Project construction activities.

⁶ The noise level increase expected with the addition of the proposed Project construction activities.

⁷ Caltrans substantial noise level increase criteria.



BASE LINE ST SIXTEENTH ST LOTH ST RED VTOOTH DRIV 12' 8' ารณ รั 8' JUANINA GT ISABELITA CT ARTURO ST HILDITA GT NOW ARMANDO ST GERTRUDITA CT

EXHIBIT G: CONSTRUCTION NOISE MITIGATION MEASURES

LEGEND:

Construction Activity **—** Temporary Noise Barrier **12**¹ Temporary Noise Barrier Height (in feet)



N

Receiver Location ¹	Highest Construction Noise Levels ²	Measurement Location ³	Reference Ambient Noise Levels⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Increase Criteria ⁷	Increase Criteria Exceeded?
R1	55.0	L1	47.2	55.7	8.5	12	No
R2	56.6	L1	47.2	57.1	9.9	12	No
R3	50.7	L2	43.6	51.5	7.9	12	No
R4	53.6	L2	43.6	54.0	10.4	12	No
R5	55.3	L3	47.2	55.9	8.7	12	No
R6	58.1	L3	47.2	58.4	11.2	12	No
R7	56.8	L3	47.2	57.3	10.1	12	No
R8	56.6	L4	45.7	56.9	11.2	12	No
R9	53.3	L5	42.6	53.7	11.1	12	No
R10	52.2	L5	42.6	52.7	10.1	12	No

TABLE 18: MITIGATED CONSTRUCTION NOISE LEVEL INCREASES

¹ See Exhibit F for the receiver locations.

² Mitigated Project construction noise level calculations are included in H.

³ Ambient noise level measurement locations as shown on Exhibit C.

⁴ Observed daytime ambient noise levels as shown on Table 12.

⁵ Represents the combined ambient conditions plus the Project construction activities.

⁶ The noise level increase expected with the addition of the proposed Project construction activities.

⁷ Caltrans substantial noise level increase criteria.



PROJECT CONSTRUCTION NOISE MITIGATION MEASURES

The following mitigation measures are required to reduce noise levels produced by the construction equipment.

- MM-1 Install a minimum 8 to 12-foot-high temporary construction noise barrier as shown on Exhibit G. The noise control barriers must have a solid face from top to bottom. The noise control barriers must meet the minimum height and be constructed as follows:
 - The temporary noise barriers shall provide a minimum transmission loss of 20 dBA (Federal Highway Administration, Noise Barrier Design Handbook). The noise barrier shall be constructed using an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts.
 - The noise barrier must be maintained, and any damage promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired.
 - The noise control barrier and associated elements shall be completely removed, and the site appropriately restored upon the conclusion of the construction activity.
- MM-2 All construction activities shall comply with City of Upland Section 9.40.100[M] limiting construction activity to the hours between 7:00 a.m. and 6:00 p.m.
- MM-3 Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.
- MM-4 All stationary construction equipment shall be placed in such a manner so that emitted noise is directed away from any sensitive receivers.
- MM-5 Construction equipment staging areas shall be located at the greatest feasible distance between the staging area and the nearest sensitive receivers.
- MM-6 The construction contractor shall limit equipment and material deliveries to the same hours specified for construction equipment for MM-2.
- MM-7 Electrically powered air compressors and similar power tools shall be used, when feasible, in place of diesel equipment.
- MM-8 No music or electronically reinforced speech from construction workers shall be allowed.



CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. (10) Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. (10) Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity.

To analyze vibration impacts originating from the operation and construction of the Villa Serena, vibration-generating activities are appropriately evaluated against standards established under a City's Municipal Code, if such standards exist. However, the City of Upland does not identify specific vibration level limits and instead relies on the Federal Transit Administration (FTA) methodology (10) consistent with the City of Upland General Plan Final Program EIR. (17) The FTA *Transit Noise and Vibration Impact Assessment* methodology provides guidelines for the maximum-acceptable vibration criteria for different types of land uses. These guidelines allow 90 VdB for industrial (workshop) use, 84 VdB for office use and 78 VdB for daytime residential uses and 72 VdB for nighttime uses in buildings where people normally sleep. (10)

TYPICAL CONSTRUCTION VIBRATION IMPACTS

Ground-borne vibration levels resulting from typical construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration (FTA) (10). However, while vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized on Table 19. Based on the representative vibration levels presented for typical construction equipment types, it is possible to estimate the potential Project construction vibration levels using the following vibration assessment methods defined by the FTA. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation: $L_{VdB}(D) = L_{VdB}(25 \text{ ft}) - 30\log(D/25)$

Equipment	Vibration Decibels (VdB) at 25 feet			
Small bulldozer	58			
Jackhammer	79			
Loaded Trucks	86			
Large bulldozer	87			

TABLE 19:	VIBRATION SOURCE	LEVELS FOR TYPIC	CAL CONSTRUCTION	Equipment
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Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual



Table 20 presents the expected typical construction equipment vibration levels at the nearest receiver locations. At distances ranging from 12 feet to 187 feet from typical Project construction activities (at the Project site boundary), construction vibration levels are estimated to range from 60.8 to 96.6 VdB and will exceed the FTA Transit Noise and Vibration Impact Assessment Manual maximum acceptable vibration criteria of 78 VdB for daytime residential uses at receivers located within 50 feet of the Project site boundary. The vibration analysis shows that the Project-related construction vibration impacts will be *potentially significant* during the typical construction activities at the Project site and mitigation is required.

	Distance to		Receiver V					
Receiver Location ¹	Construction Activity (Feet)	Small Bulldozer	Jack- hammer	Loaded Trucks	Large Bulldozer	Highest Vibration Levels	Threshold VdB ³	Threshold Exceeded? ⁴
R1	187'	31.8	52.8	59.8	60.8	60.8	78	No
R2	144'	35.2	56.2	63.2	64.2	64.2	78	No
R3	179'	32.4	53.4	60.4	61.4	61.4	78	No
R4	51'	48.7	69.7	76.7	77.7	77.7	78	No
R5	27'	57.0	78.0	85.0	86.0	86.0	78	Yes
R6	17'	63.0	84.0	91.0	92.0	92.0	78	Yes
R7	59'	46.8	67.8	74.8	75.8	75.8	78	No
R8	28'	56.5	77.5	84.5	85.5	85.5	78	Yes
R9	29'	56.1	77.1	84.1	85.1	85.1	78	Yes
R10	12'	67.6	88.6	95.6	96.6	96.6	78	Yes

TABLE 20: TYPICAL CONSTRUCTION EQUIPMENT VIBRATION LEVELS

¹Receiver locations are shown on Exhibit B.

² Based on the Vibration Source Levels of Construction Equipment included on Table 4.

³ FTA Transit Noise and Vibration Impact Assessment maximum acceptable vibration criteria.

⁴ Does the vibration level exceed the maximum acceptable vibration threshold?

Therefore, a 50-foot buffer setback mitigation measure is required which would restrict the use of large, loaded trucks, and heavy mobile equipment greater than 80,000 pounds, within 50-feet of occupied sensitive receiver locations represented by receiver locations R5, R6, R8, R9 and R10. Instead, small rubber-tired or alternative equipment, as well as soil compaction equipment shall be used during Project construction to reduce vibration effects on nearby structures and their occupants. Table 20 shows that with the 50-foot setback buffer, Project construction vibration levels will not exceed the 78 VdB construction vibration threshold for daytime residential uses. Therefore, the Project-related construction wibration impacts are considered *less than significant* with a 50-foot buffer setback mitigation measure during typical construction activities at the Project site. Moreover, the vibration levels reported at the sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.



CONCLUSIONS

This Noise Assessment demonstrates that the noise and vibration levels associated with Villa Serena Project will satisfy the noise standards outlined in the City of Upland Plan and the significance criteria provided by Section XIII (a) of the CEAQ Environmental Checklist Form Appendix G. (1) Therefore, the Project-related noise and vibration impacts are considered *less than significant* with mitigation at the nearby noise-sensitive receiver locations. If you have any questions, please contact me directly at (949) 584-3148.

Respectfully submitted,

URBAN CROSSROADS, INC.

Bill Lawson, P.E., INCE Principal





REFERENCES

- 1. **State of California.** *California Environmental Quality Act, Appendix G Environmental Checklist Form.* 2019.
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- 12. U.S. Environmental Protection Agency Office of Noise Abatement and Control. *Noise Effects Handbook-A Desk Reference to Health and Welfare Effects of Noise.* October 1979 (revised July 1981). EPA 550/9/82/106.
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- 15. U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning. FHWA Roadway Construction Noise Model. January, 2006.
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APPENDIX A

SUPERIOR COURT RULING



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1 2 3 4 5 6 7 8	Superior Court of California County of San Bernardino 247 West Third Street, Dept. S26 San Bernardino, California 92415	FILED SUPERIOR COURT OF CALIFORNIA COUNTY OF SAN BERNARDINO SAN BERNARDINO DISTRICT SEP 1:3 2021 BY
9	SUPERIOR COURT OF TH	E STATE OF CALIFORNIA
10	COUNTY OF SAN BERNARDIN	O, SAN BERNARDINO DISTRICT
11		
12	FRIENDS OF UPLAND WETLANDS,	Case No.: CIVDS-2010521
13	Petitioner,	RULING ON SUBMITTED MATTER:
14	vs.	GRANTED IN PART
15	CITY OF UPLAND; AND DOES 11 through 100,	Hearing Date: July 14, 2021 Dept: S-26, Judge David Cohn
17	Respondent.	
18	FH II, LLC; and DOES 101 through 1,000	
20	Defendants and	
21	Real Parties in Interest	
22)
23		
24		
25		
26		
27		
28		
		-1-

San Diego (2019) 43 Cal.App.5th 404, 418, quoting Benach v. County of Los Angeles 1 (2007) 149 Cal.App.4th 836, 852.) "Issues do not have a life of their own: if they are not 2 3 raised or supported by argument or citation to authority, we consider the issues waived." 4 (Jones v. Superior Court (1994) 26 Cal.App.4th 92, 96, cited in Holden v. City of San 5 Diego, supra, at p. 418; see also, Cal. Rules of Court, rule 3.1113(a) [provides for 6 waiver of all grounds not supported in the points and authorities accompanying a motion 7 or opposition to a motion].) 8 9 FUW's failure to specify the reasons why the IS/MND is inadequate on this issue 10 is fatal to this argument. 11 F. The IS/MND Failed to Analyze the Noise Impacts of the Project Compared to 12 the Ambient Noise Level, but Considered Only the Maximum Noise 13 Threshold. 14 15 FUW contends the IS/MND improperly relied on Upland's "exterior noise 16 standard" and a federal vibration standard as thresholds of significance in analyzing the 17 potentially significant noise impacts of the project. FUW's argument is unsupported. 18 The CEQA Guidelines define the "threshold of significance" as "an identifiable 19 20 quantitative, qualitative, or performance level of a particular environmental effect, non-21 compliance with which means the effect will normally be determined to be significant by 22

the agency and compliance with which means the effect normally will be determined to be less than significant." (Guidelines, § 15064.7, subd. (a).) "The lead agency has

²⁴ be less than significant. (Guidelines, § 15004.7, subd. (a).) The lead agency has
²⁵ substantial discretion in determining the appropriate threshold of significance to
²⁶ evaluate the severity of a particular impact.' [Citation.]" (*Jensen, supra,* 23 Cal.App.5th
²⁷ at p. 885.)

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Regarding noise impacts, the environmental checklist form in the Guidelines includes a series of questions to frame the analysis. (See, Guidelines Appendix G: Environmental Checklist Form, XIII, Noise.) The key question is whether the project will generate "a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standard established in the local general plan or noise ordinance, or applicable standard of other agencies." (Guidelines Appendix G: Environmental Checklist Form, XIII, Noise.)

9 The IS/MND identifies Upland Municipal Code Chapter 9.40, Unnecessary Noise, 10 and Upland's General Plan Policies SAF-1.1 and SAF-1.3 as the basis for the 11 thresholds of significance used in analyzing noise impacts of the project. (See, AR 156-12 159, 1384-1458.) Vibration level standards are not identified in the Upland General Plan 13 or Municipal Code. As a result, the IS/MND adopted the U.S. Department of 14 15 Transportation Federal Transit Administration ("FTA") guidelines for maximum-16 acceptable vibration criteria for different land uses. (AR 1411.) 17 The public agency's decision in choosing the threshold is presumed correct, and 18 a petitioner bears the burden of proving that the threshold selected is legally 19 20 inadequate. FUW does not suggest any alternatives to the thresholds of significance 21 used by Upland and FH, nor do they point to any evidence in the record demonstrating 22 that the selected thresholds are inadequate. Therefore, FUW has not met its burden of 23 demonstrating the selected thresholds are legally inadequate. 24 Nonetheless, Guidelines section 15064, subdivision (b)(2), provides: 25 26 When using a threshold, the lead agency should briefly explain how compliance with the threshold means that the project's 27 impacts are less than significant. Compliance with the threshold does not relieve a lead agency of the obligation to 28

consider substantial evidence indicating that the project's environmental effect may still be significant.

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FUW argues that Upland failed to exercise "careful judgment" in analyzing the 3 4 noise impacts. FUW contends the IS/MND failed to analyze the qualitative increase in 5 existing ambient noise levels, and did not consider that "an activity which may not be 6 significant in an urban area may be significant in a rural area." (Guidelines, § 15064, 7 subd. (b).) According to FUW, the noise analysis should have started with the existing 8 noise situation as the "baseline," not with Upland's noise standard as the "ceiling." 9 10 Lead agencies often use the CEQA checklist in conjunction with an analysis 11 using quantitative limits on maximum allowed noise levels and on increases in the level 12 of noise to determine whether noise impacts are significant. (King & Gardiner Farms, 13 LLC v. County of Kern (2020) 45 Cal.App.5th 814, 883; see also, Jensen, supra, 23 14 Cal.App.5th 877 [negative declaration case].) Nevertheless, "[t]he noise questions in the 15 16 checklist do not define what maximum level of noise, or increase in the level of noise, 17 constitutes a significant impact." (2 Kostka & Zischke, supra, § 13.64A, citing to King & 18 Gardiner Farms, supra, 45 Cal.App.5th at p. 884.) 19

Upland and FH contend that since they used the relevant provisions of the 20 21 General Plan and Upland Municipal Code as the thresholds of significance, the noise 22 impacts analysis is proper. But lead agencies do not have discretion to consider only 23 maximum noise levels and ignore any increases in noise levels relative to existing 24 conditions in the project area. (King & Gardiner Farms, supra, 45 Cal.App.5th at p. 887, 25 quoting Keep our Mountains Quiet v. County of Santa Clara (2015) 236 Cal.App.4th 26 27 714, 732-733 [negative declaration case holding that increase in noise level must be 28 considered, not just absolute noise level].) Here, there is substantial evidence

-44-

supporting a fair argument that Upland considered only the maximum threshold and did
not qualitatively analyze the noise impacts.

In Upland's General Plan, Policy SAF-1.1 provides the "Exterior Noise
Standards" and states: "For a single-family residential land use such as the Project, the
normally acceptable exterior noise level standard is 60 A-weighted decibels (dBA)
CNEL [Community Noise Equivalent Level]."²⁷ (AR 1409, 159.) Policy SAF-1.3 sets forth
the "Interior Noise Standards" and "identifies an interior noise level standard of 45 dBA
CNEL for new residential developments." (AR 1409.)

10 In the technical analysis (Appendix "H" to the IS/MND), the section discussing the 11 construction noise standards states that section 9.40.040 of the UMC "identifies the 12 maximum allowable noise levels at residential use based on the 55 dBA base ambient 13 14 noise level standard plus 20 dBA, which equates to a 75 dBA Lmax noise level 15 standard."28 (AR 1410.) This assertion that the maximum allowable noise level is 75 16 dBA Lmax is misleading. The maximum exterior residential noise level above the base 17 ambient noise level is set forth in UMC section 9.40.070, and it provides maximum 18 duration periods for noise levels exceeding the base ambient noise level. The code 19 20 section states that a noise level of 20 dBA above base ambient level is not permitted at 21

22

Policy SAF-1.1 "identifies the transportation-related exterior noise compatibility standards for different land
uses in Table SAF-1" [AR 1409.] The IS/MND states that "[t]he Community Noise Equivalent Level (CNEL) uses
weighted averages of the intensity of a sound, with corrections for time of day, to represent a composite 24-hour
noise level. [Upland] uses CNEL to represent their exterior and interior noise standards." [AR 159.]

UMC sections 9.40.040 provides, "All ambient noise measurements shall commence at the base ambient levels in decibels within the respective times and zones as follows," and then establishes the base ambient noise level for residential land uses of 55 dBA during the hours of 7:00 a.m. to 10:00 p.m. [AR 1442.] The code section goes on to state, "Actual decibel measurements exceeding the above levels at the times and within the zones corresponding thereto shall be employed as the base ambient noise level referred to in this chapter. Otherwise, no ambient noise shall be deemed to be less than the above specified levels." [AR 1442.]

all, and the base ambient noise level is allowed for only thirty minutes per hour.²⁹ (AR 1443.)

The technical analysis of the noise impacts repeatedly seeks only to "satisfy the 3 4 City of Upland 60 dBA CNEL exterior noise level standard for residential land use" or 5 "satisfy the 45 dBA CNEL interior noise level standard." (AR 1391, 1392, 1419.) There 6 is no discussion of the actual base ambient noise level in the areas surrounding the site 7 and the increase in that noise level-only a discussion of the predicted absolute noise 8 9 levels associated with the project. Therefore, in finding that the unmitigated exterior 10 noise levels generated by on-site transportation "will range from 57.0 to 66.4 dBA 11 CNEL," the technical analysis only contemplates mitigation that will result in an exterior 12 noise level not in excess of 60 dBA CNEL. (AR 1419.) 13

Similarly, the technical analysis seems to view the 75 dBA Lmax noise level as the 14 15 ungualified maximum threshold to be exceeded in determining whether unmitigated 16 project-related construction noise levels are potentially significant. (AR 1392.) The 17 technical analysis states that "the Project-related construction noise impacts [were] 18 evaluated based on the maximum allowable noise level for residential uses of 75 dBA 19 20 Lmax." (AR 1410.) As a result, when the technical analysis determined that the 21 unmitigated construction noise levels were expected to range from 61.3 to 83.3 dBA 22 Lmax, the formulation of a mitigation measure was based only on the 83.3 dBA Lmax 23 noise level since that level exceeded the 75 dBA Lmax level. (AR 1430-1431.) Since the 24 mitigated temporary construction noise level was determined to range between 64.7 25 26

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²⁹ The noise level of 15 dBA above base ambient level is allowed only for one minute per hour, 10 dBA above base ambient noise level is allowed only for five minutes per hour, and 5 dBA above base ambient noise level is allowed for only 15 minutes per hour. [AR 1443.]

and 74.1 dBA L_{max}, the IS/MND concluded that the mitigation would reduce the noise impact to a less than significant level. (AR 1431.) Again, there was no discussion of the *actual* base ambient noise level in the surrounding area and the projected increase in that noise level caused by the project.³⁰

5 Contrary to Upland's and FH's argument, "conformity with the absolute or 6 maximum noise level specified in a general plan does not prevent a fair argument from 7 being made that the proposed project will generate environmentally significant noise 8 9 impacts. [Citation.] ... '[T]he lead agency should consider both the increase in noise 10 level and absolute noise level associated with a project.' [Citation.]" (King & Gardiner 11 Farms, LLC, supra, 45 Cal.App.5th at p. 887, quoting Keep our Mountains Quiet v. 12 County of Santa Clara (2015) 236 Cal.App.4th 714, 732-733 [negative declaration case 13 holding that increase in noise level must be considered, not just absolute noise level; 14 15 see also, Citizens for Responsible & Open Development v. City of Grand Terrace 16 (2008) 160 Cal.App.4th 1323, 1338.) 17 Therefore, there is substantial evidence in the record supporting a fair argument

19 that Upland and FH failed to qualitatively analyze the noise impacts of the project.

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G. FUW's Traffic Impact Argument is Moot.

The IS/MND concluded that the project will result in less than significant traffic impacts. FUW, however, argues there is substantial evidence supporting a fair argument that the project may result in traffic *safety* issues. FUW cites comments made

25 26

Contrary to Upland's and FH's assertion, residents submitted written comments during the public comment
period regarding their concerns regarding the noise impacts from the project and project-related construction. (AR 3910-3911, 3915, 3923, 3925.) In responses, Upland and FH claimed "no significant traffic noise impact was determined to exceed established City standards" (AR 3916), and "[w]ith the implementation of mitigation and imposition of standard City conditions, project-related ... noise impacts were reduced to less than significant levels (below established thresholds)." (AR 3924, 3928.)



APPENDIX B

OFF-SITE TRAFFIC NOISE ANALYSIS WORKSHEETS





	FH	WA-RD-77-108	HIGHW	VAY NO	DISE P	REDICTIO	ом мо	DEL					
Scenar Road Nan Road Segme	rio: E ne: Campus A nt: n/o 16th St	v.				Project I Job Nu	Vame: mber:	Uplan 14319	d Colonies				
SITE	SPECIFIC I	NPUT DATA				N	DISE I	NODE	L INPUT	s			
Highway Data				S	Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	20,900 vehicle	s					Autos	15				
Peak Hour	Percentage:	7.90%			Me	edium True	cks (2 /	Axles)	15				
Peak H	lour Volume:	1,651 vehicle	s		He	avy Truck	ks (3+ /	Axles)	15				
Ve	ehicle Speed:	40 mph		V	ehicle	Mix							
Near/Far La	ne Distance:	36 feet			Veh	icleType		Day	Evening	Night	Daily		
Site Data						A	utos:	77.5%	6 12.9%	9.6	% 97.42%		
Ba	rrier Heiaht:	0.0 feet			М	edium Tru	icks:	84.8%	6 4.9%	10.39	% 1.84%		
Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy Tru	icks:	86.5%	6 2.7%	10.89	% 0.74%		
Centerline D	ist. to Barrier:	44.0 feet		N	oise Se	ource Ele	vation	s (in f	eet)				
Centerline Dist.	to Observer:	44.0 feet				Autos:	: 0.	000	1				
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks:	2.	297					
Observer Height	(Above Pad):	5.0 feet			Hea	vy Trucks:	8.	006	Grade Ad	ljustmer	nt: 0.0		
P	ad Elevation:	0.0 feet				uivelent	Distan		faati				
Ro	ad Elevation:	0.0 feet		L	ane Eq	Autoo	JISTAIN	460	leel)				
	Road Grade:	0.0%			Madiu	Autos.	. 40.	244					
	Len View:	-90.0 degre	es		Hear	III TTUCKS.	· 40.	241					
	ragin view.	50.0 degre	03			<i>,</i> ,	. 10.	202					
FHWA Noise Mod	el Calculation	s											
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresr	nel	Barrier Att	en Be	erm Atten		
Autos:	66.51	0.74		1.28		-1.20		-4.61	0.0	000	0.000		
Medium Trucks:	77.72	-16.50		1.31		-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	82.99	-20.46		1.31		-1.20		-5.50	0.0	000	0.000		
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	ation)	r.		-					
VehicleType	Leq Peak Ho	ur Leq Da	/ L	eq Eve	ening	Leq N	light		Ldn	(CNEL		
Autos:	67	7.3	66.5		64.7		58.6	5	67.	3	67.9		
Medium Trucks:	61	1.3	60.8		54.5		52.9	-	61.4	4	61.6		
Vehicle Noise	62	2.6	68.6		53.2 65.4		54.3 60.1	3	62.	3	62.9		
Contorlino Distan	co to Noice C	ontour (in fee	1		00.4			-		-			
Centernine Distan	LE LU NUISE L	undur (mitee	/	70 dE	BA	65 d	BA		60 dBA	5	5 dBA		
			Ldn:	40		86	6		185		398		
		С	NEL:	43		92	2		198		426		

Scenari	io: E					Project N	lame: U	pland	Colonies		
Road Nam	e: Campus Av	r.				Job Nu	nber: 1	4319			
Road Segmer	nt: s/o 16th St.										
SITE	SPECIFIC IN	PUT DATA				NC	DISE M	ODE		S	
Highway Data				Si	te Con	ditions (H	lard = 1	10, So	ft = 15)		
Average Daily	Traffic (Adt):	20,354 vehicles	3				A	utos:	15		
Peak Hour	Percentage:	7.90%			Me	dium Truc	:ks (2 A	xles):	15		
Peak H	lour Volume:	1,608 vehicles	6		He	avy Truck	s (3+ A	xles):	15		
Ve	hicle Speed:	40 mph		Ve	hicle l	Mix					
Near/Far La	ne Distance:	36 feet			Veh	icleType	Ĺ	Day	Evening	Night	Daily
Site Data						AL	tos: 7	77.5%	12.9%	9.6%	97.42%
Bai	rrier Height:	0.0 feet			М	edium Tru	cks: 8	34.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			I	leavy Tru	cks: {	36.5%	2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	44.0 feet		No	oise So	ource Ele	vations	(in fe	et)		
Centerline Dist.	to Observer:	44.0 feet				Autos	0.0	00	- 1/		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks:	2.2	97			
Observer Height (Above Pad):	5.0 feet			Heav	v Trucks:	8.0	06	Grade Ad	iustment.	0.0
Pa	ad Elevation:	0.0 feet		-							
Roa	ad Elevation:	0.0 feet		La	ne Eq	uivalent L	Distanc	e (in f	eet)		
1	Road Grade:	0.0%				Autos:	40.4	60			
	Left View:	-90.0 degree	es		Meaiu	m Trucks:	40.2	41			
	Right View:	90.0 degree	2S		Heav	y Trucks:	40.2	02			
FHWA Noise Mode	el Calculation:	s									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresne	e/ 1	Barrier Att	en Ber	m Atten
Autos:	66.51	0.62		1.28		-1.20	-	4.61	0.0	000	0.000
Medium Trucks:	77.72	-16.62		1.31		-1.20	-	4.87	0.0	000	0.000
Heavy Trucks:	82.99	-20.57		1.31		-1.20	-	5.50	0.0	000	0.00
	Lavala (with	out Topo and	barrier a	attenua	ation)						
Unmitigated Noise	E Levels (with	but rope and					ight		Ldn	CI	VEL
Unmitigated Noise VehicleType	Leq Peak Hou	r Leq Day	Le	eq Eve	ning	Leq N	ym				67
Unmitigated Noise VehicleType Autos:	Leq Peak Hou 67	r Leq Day .2	66.3	eq Eve	ning 64.6	Leq N	58.5		67.1	1	07.
Unmitigated Noise VehicleType Autos: Medium Trucks:	Leq Peak Hou 67 61	r Leq Day .2 .2	66.3 60.7	eq Eve	64.6 54.4	Leq N	58.5 52.8		67.1 61.3	3	61.
Unmitigated Noise VehicleType Autos: Medium Trucks: Heavy Trucks:	Leq Peak Hou 67 61 62	r Leq Day .2 .2 .5	66.3 60.7 62.1	eq Eve	64.6 54.4 53.1	Leq N	58.5 52.8 54.3		67.1 61.3 62.1	1 3 7	61.8 62.8
Unmitigated Noise VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	Leg Peak Hou 67 61 62 69	.2 .2 .2 .2	66.3 60.7 62.1 68.5	eq Eve	64.6 54.4 53.1 65.2	Leq N	58.5 52.8 54.3 60.7		67.1 61.3 62.1 69.2	1 3 7 2	61. 62. 69.
Unmitigated Noise VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise: Centerline Distance	Led Peak Hou 67 61 62 69 69	Leq Day 2 2 5 2 ntour (in feet)	66.3 60.7 62.1 68.5	eq Eve	64.6 54.4 53.1 65.2	Leq N	58.5 52.8 54.3 60.7		67.1 61.3 62.7 69.2	2	61.: 62.: 69.
Unmitigated Noise VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise: Centerline Distanc	Leg Peak Hou 67 61 62 69 ce to Noise Co	Leq Day 2 2 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	66.3 60.7 62.1 68.5	eq Eve	64.6 54.4 53.1 65.2	Leq N 65 dl	58.5 52.8 54.3 60.7 BA	6	67. 61.3 62.7 69.2 0 dBA	55	61.4 62.8 69.7 dBA
Unmitigated Noise VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise: Centerline Distanc	Levels (with Leq Peak Hou 67 61 62 69 ce to Noise Co	Leq Day 2 2 5 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0	Ldn:	70 dB 39	ning 64.6 54.4 53.1 65.2	65 dl	58.5 52.8 54.3 60.7 3A	6	67. 61. 62.7 69.2 0 dBA 182	1 3 7 2 55 3	61.5 62.8 69.7 <i>dBA</i> 91

	FHW	A-RD-77-108 HIG	HWAY N	NOISE PF	REDICTIO	N MODE					
Scenari Road Nam Road Segmer	io: E e: Campus Av. nt: n/o 14th St.				Project N Job Nur	lame: Upli nber: 143	and Colonies 19				
SITE	SPECIFIC IN	PUT DATA			NC	ISE MO	DEL INPUT	s			
Highway Data				Site Conditions (Hard = 10, Soft = 15)							
Average Daily	Traffic (Adt): 1	9,427 vehicles				Aut	os: 15				
Peak Hour	Percentage:	7.90%		Me	dium Truc	ks (2 Axle	s): 15				
Peak H	our Volume:	1,535 vehicles		He	avy Truck	s (3+ Axle	s): 15				
Vei	hicle Speed:	40 mph	-	Vohiclo	liv						
Near/Far Lai	ne Distance:	36 feet	-	Venicle	cleType	Da	/ Evening	Night	Daily		
Site Data				veni	A	itos: 77	5% 12.9%	9.6%	97 42%		
Ba	wier Height	0.0 feet		Me	edium Tru	cks: 84.	8% 4.9%	10.3%	1.84%		
Barrier Type (0.14)	oll 1 Borm):	0.0 1001		F	leavv Tru	cks: 86.	5% 2.7%	10.8%	0.74%		
Centerline Dis	st to Barrier:	44.0 feet	-								
Centerline Dist.	to Observer:	44.0 feet	4	Noise So	urce Elev	ations (ii	1 feet)				
Barrier Distance	to Observer:	0.0 feet			Autos:	0.000					
Observer Height (Above Pad):	5.0 feet		Meaiur	n Trucks:	2.297	Crada Ar	livetnent			
Pa	ad Elevation:	0.0 feet		Heav	y Trucks:	8.006	Grade Ad	ijusuneni.	0.0		
Roa	ad Elevation:	0.0 feet		Lane Equ	ıivalent D)istance (in feet)				
ŀ	Road Grade:	0.0%			Autos:	40.460					
	Left View:	-90.0 degrees		Mediur	n Trucks:	40.241					
	Right View:	90.0 degrees		Heav	y Trucks:	40.262					
FHWA Noise Mode	el Calculations	1									
VehicleType	REMEL	Traffic Flow Di	stance	Finite	Road	Fresnel	Barrier At	ten Ber	m Atten		
Autos:	66.51	0.42	1.2	28	-1.20	-4.0	61 0.	000	0.000		
Medium Trucks:	77.72	-16.82	1.3	81	-1.20	-4.8	37 0.	000	0.000		
Heavy Trucks:	82.99	-20.77	1.3	81	-1.20	-5.8	50 0.	000	0.000		
Unmitigated Noise	Levels (witho	ut Topo and barri	ier atter	nuation)							
VehicleType	Leq Peak Hou	r Leq Day	Leq E	vening	Leq N	ight	Ldn	CI	NEL		
Autos:	67.	0 66.1		64.4		58.3	66.	9	67.5		
Medium Trucks:	61.	0 60.5		54.2		52.6	61.	1	61.3		
Heavy Trucks:	62.	3 61.9		5 <u>2</u> .9		54.1	62.	5	62.6		
Vehicle Noise:	69.	0 68.3		65.0		60.5	69.	0	69.5		
Centerline Distance	e to Noise Co	ntour (in feet)						-			
		l	70	dBA	65 dE	BA	60 dBA	55	dBA		
		Ldn:	3	38	82		176	3	79		
		CNEL:	4	11	87		188	4	06		

	FH	WA-RD-77-108	HIGH	WAY NO	DISE PH	EDICI		DDEL			
Scenar	io: E					Project	Name:	Upland	d Colonies		
Road Nan	ne: Campus Av	v.				Job N	umber:	14319			
Road Segme	nt: s/o 14th St										
SITE	SPECIFIC IN	IPUT DATA				N	OISE	MODE	L INPUT	s	
Highway Data				S	ite Con	ditions	(Hard =	= 10, So	oft = 15)		
Average Daily	Traffic (Adt):	16,608 vehicle	s					Autos:	15		
Peak Hour	Percentage:	7.90%			Mee	dium Tru	ucks (2	Axles):	15		
Peak H	our Volume:	1,312 vehicle	5		Hei	avy Truc	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		v	ehicle A	<i>lix</i>					
Near/Far La	ne Distance:	36 feet		Ē	Vehi	cleType		Day	Evening	Night	Daily
Site Data						4	Autos:	77.5%	12.9%	9.6	6 97.42%
Ba	rrier Heiaht:	0.0 feet			Me	edium Ti	ucks:	84.8%	4.9%	10.39	% 1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0			F	leavy Ti	ucks:	86.5%	2.7%	10.8	% 0.74%
Centerline Di	ist. to Barrier:	44.0 feet		N	loise So	urce El	evatior	ns (in f	eet)		
Centerline Dist.	to Observer:	44.0 feet				Auto	s: 0	000			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Truck	s: 2	.297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Truck	s: 8	006	Grade Ad	djustmei	nt: 0.0
P	ad Elevation:	0.0 feet		_	_					-	
Ro	ad Elevation:	0.0 feet		L	ane Equ	livalent	Distar	ice (in	teet)		
	Road Grade:	0.0%				Auto	s: 40	.460			
	Left View:	-90.0 degre	es		Meaiur	n Truck	s: 40	.241			
	Right View:	90.0 degre	es		Heav	y Truck	5. 40	.262			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	nel	Barrier At	ten B	erm Atten
Autos:	66.51	-0.26		1.28		-1.20		-4.61	0.	.000	0.000
Medium Trucks:	77.72	-17.50		1.31		-1.20		-4.87	0.	.000	0.000
Heavy Trucks:	82.99	-21.45		1.31		-1.20		-5.50	0.	.000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	r attenu	ation)						
VehicleType	Leq Peak Hou	ur Leq Day	,	Leq Eve	ening	Leq	Night		Ldn	(CNEL
Autos:	66	3.3	65.5		63.7		57.	.6	66	.3	66.9
Medium Trucks:	60).3	59.8		53.5		51.	.9	60	.4	60.6
Heavy Trucks:	61	.6	61.2		52.2		53.	.5	61	.8	61.9
Vehicle Noise:	68	3.3	67.6		64.4		59	.8	68	.3	68.8
Centerline Distan	ce to Noise Co	ontour (in feet)								
				70 dl	BA	65 (dBA	(60 dBA	5	5 dBA
			Ldn:	34		7	4		158		341
		C	NEL:	37		7	9		170		366

Sunday, December 4, 2022

Sunday, December 4, 2022

	FH	WA-RD-77-108	HIGH	NAY NO	DISE P	REDICTIO		DEL			
Scenai Road Nan Road Segme	rio: E ne: 16th St. nt: w/o Campu	ıs Av.				Project I Job Nu	Vame: \ mber: 1	Jplano 14319	d Colonies		
SITE	SPECIFIC IN	NPUT DATA				N	DISE N	IODE	L INPUT	S	
Highway Data				S	ite Cor	ditions (Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	22,614 vehicle	s					Autos:	15		
Peak Hour	Percentage:	7.90%			Me	dium Tru	cks (2 A	(xles):	15		
Peak H	lour Volume:	1,787 vehicle	s		He	avy Truci	ks (3+ A	(xles):	15		
Ve	ehicle Speed:	45 mph		V	ehicle	Mix					
Near/Far La	ne Distance:	36 feet		-	Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	6 97.42%
Ba	rrier Heiaht:	0.0 feet			М	edium Tru	icks:	84.8%	4.9%	10.3%	6 1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy Tru	icks:	86.5%	2.7%	10.8%	6 0.74%
Centerline D	ist. to Barrier:	44.0 feet		N	oise S	ource Ele	vations	in f	eet)		
Centerline Dist.	to Observer:	44.0 feet				Autos	0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	2.3	97			
Observer Height	(Above Pad):	5.0 feet			Hea	vv Trucks	8.0	006	Grade Ad	iustmen	t: 0.0
P	ad Elevation:	0.0 feet		-							
Ro	ad Elevation:	0.0 feet		Li	ane Eq	uivalent	Distanc	e (in	feet)		
	Road Grade:	0.0%				Autos	: 40.4	460			
	Left View:	-90.0 degre	es		Mediu	m Trucks	40.2	241			
	Right View:	90.0 degre	es		Hea	vy Trucks	40.2	262			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	el	Barrier Atte	en Be	rm Atten
Autos:	68.46	0.57		1.28		-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-16.67		1.31		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-20.63		1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	r attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	/	Leq Eve	ening	Leq N	light		Ldn	0	NEL
Autos:	69	9.1	68.2		66.5		60.4		69.0)	69.6
Medium Trucks:	62	2.9	62.4		56.0		54.5		63.0)	63.2
Heavy Trucks:	63	3.7	63.3		54.3		55.6		63.9	9	64.0
Vehicle Noise:	71	1.0	70.2		67.1		62.4		70.9	9	71.4
Centerline Distan	ce to Noise C	ontour (in fee)								
				70 dE	BA	65 d	BA	6	60 dBA	55	5 dBA
			Ldn:	51		11	0		236		509
		C	NEL:	55		11	8		253		546

	гнии	A-KD-77-100 HIG		NUISE PR	EDICTION				
Scenari	o: E				Project Na	me: Upla	and Colonies		
Road Nam	e: 16th St.				Job Num	ber: 143	19		
Road Segmer	nt: e/o Campus	Av.							
SITE S	SPECIFIC INF	UT DATA			NO	SE MOI	DEL INPUT	S	-
Highway Data				Site Cond	ditions (Ha	ard = 10,	Soft = 15)		
Average Daily	Traffic (Adt): 23	3,465 vehicles				Auto	os: 15		
Peak Hour	Percentage:	7.90%		Med	dium Truck	s (2 Axle	s): 15		
Peak H	our Volume: 1	,854 vehicles		Hea	avy Trucks	(3+ Axle	s): 15		
Vel	hicle Speed:	45 mph	-	Vehicle N	lix				
Near/Far Lar	ne Distance:	36 feet	-	Vehi	cleTvpe	Dav	/ Evenina	Night	Dailv
Site Data					Auto	os: 77.	5% 12.9%	9.6%	97.42
Bar	rier Height:	0.0 feet		Me	dium Truc	ks: 84.	8% 4.9%	10.3%	1.849
Barrier Type (0-W	all. 1-Berm):	0.0		H	leavy Truc	ks: 86.	5% 2.7%	10.8%	0.749
Centerline Dis	t. to Barrier:	44.0 feet	ŀ	Noiso So	urco Elov	ations (in	foot		
Centerline Dist.	to Observer:	44.0 feet	-	140/36 30	Autos:	0.000	i ieelj		
Barrier Distance t	to Observer:	0.0 feet		Mediur	n Trucks	2 207			
Observer Height (J	Above Pad):	5.0 feet		Heav	v Trucks:	8.006	Grade An	liustment	. 0 0
Pa	d Elevation:	0.0 feet		neav	y macks.	0.000	0/000/10	juounone	0.0
Roa	d Elevation:	0.0 feet		Lane Equ	ivalent Di	stance (n feet)		
F	Road Grade:	0.0%			Autos:	40.460			
	Left View:	-90.0 degrees		Mediun	n Trucks:	40.241			
	Right View:	90.0 degrees		Heav	y Trucks:	40.262			
FHWA Noise Mode	l Calculations								
VehicleType	REMEL	Traffic Flow Di	istance	Finite	Road	Fresnel	Barrier Att	ten Ber	m Atten
Autos:	68.46	0.73	1.2	8	-1.20	-4.6	61 0.	000	0.00
Medium Trucks:	79.45	-16.51	1.3	1	-1.20	-4.8	B7 0.	000	0.00
Heavy Trucks:	84.25	-20.46	1.3	1	-1.20	-5.5	<i>i0</i> 0.	000	0.00
Unmitigated Noise	Levels (without	ut Topo and barn	ier atter	nuation)					
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq Nig	ht	Ldn	CI	VEL
Autos:	69.3	68.4		66.6		60.6	69.	2	69.
Medium Trucks:	63.1	62.6		56.2		54.7	63.	1	63
Heavy Trucks:	63.9	63.5		54.5		55.7	64.	1	64
Vehicle Noise:	71.1	70.4		67.2		62.6	71.	1	71.
	e to Noise Cor	tour (in feet)							
Centerline Distanc	0.10 110100 001			-10.4	05 10	4	60 dRA	55	dBA
Centerline Distanc			70	авA	65 dB/	4	00 UDA	00	0.571
Centerline Distanc		Ldn:	70	ава 52	65 dB/ 112	4	242	5	22

	FH\	WA-RD-77-108	HIGHV	VAY NO	DISE PR	EDICTIC	N MODEL		_	
Scenari Road Nam Road Segmer	o: E e: 15th St. nt: w/o Campu	ıs Av.				Project N Job Nur	<i>lame:</i> Uplan nber: 14319	d Colonies		
SITE	SPECIFIC IN	NPUT DATA				NC	ISE MODI	EL INPUT	S	
Highway Data				S	ite Cond	ditions (H	lard = 10, S	oft = 15)		
Average Daily	Traffic (Adt):	2,870 vehicle	s				Autos	: 15		
Peak Hour	Percentage:	7.90%			Med	dium Truc	ks (2 Axles)	: 15		
Peak H	our Volume:	227 vehicle	s		Hea	avy Truck	s (3+ Axles)	: 15		
Vei	hicle Speed:	35 mph		V	ehicle N	lix				
Near/Far La	ne Distance:	12 feet		-	Vehi	cleTvpe	Dav	Evenina	Niaht	Dailv
Site Data						Au	tos: 77.5%	6 12.9%	9.6%	97.42%
Bar	rier Heiaht:	0.0 feet			Me	dium Tru	cks: 84.8%	6 4.9%	10.3%	1.84%
Barrier Type (0-W	all, 1-Berm):	0.0			h	leavy Tru	cks: 86.5%	6 2.7%	10.8%	0.74%
Centerline Dis	t. to Barrier:	33.0 feet		N	nise So	urce Elev	ations (in f	(oot)		
Centerline Dist.	to Observer:	33.0 feet		~	0136 00	Autos	0 000	001/		
Barrier Distance	to Observer:	0.0 feet			Mediun	n Trucke	2 297			
Observer Height (.	Above Pad):	5.0 feet			Heav	v Trucks:	8 006	Grade Ad	iustment:	0.0
Pa	d Elevation:	0.0 feet			nour,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.000			
Roa	d Elevation:	0.0 feet		L	ane Equ	ivalent E	oistance (in	feet)		
F	Road Grade:	0.0%				Autos:	32.833			
	Left View:	-90.0 degre	es		Mediun	n Trucks:	32.562			
	Right View:	90.0 degre	es		Heav	y Trucks:	32.589			
FHWA Noise Mode	l Calculation	s								
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite I	Road	Fresnel	Barrier Att	en Berr	n Atten
Autos:	64.30	-7.31		2.64		-1.20	-4.52	0.0	000	0.000
Medium Trucks:	75.75	-24.54		2.69		-1.20	-4.86	0.0	000	0.000
Heavy Trucks:	81.57	-28.50		2.69		-1.20	-5.69	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	attenu	ation)					
VehicleType	Leq Peak Hou	ur Leq Day	′ [Leq Eve	ening	Leq N	ight	Ldn	CN	IEL
Autos:	58	3.4	57.6		55.8		49.7	58.4	4	59.0
Medium Trucks:	52	2.7	52.2		45.9		44.3	52.8	3	53.0
Heavy Trucks:	54	1.6	54.2		45.1		46.4	54.	(54.9
venicle Noise:	60).7	60.0		56.5		52.2	60.1	7	61.1
Centerline Distance	e to Noise C	ontour (in feet)							
			L	70 dl	BA	65 dE	BA	60 dBA	55	dBA
			Ldn:	8		17		37	7	9
		C	VEL:	8		18		39	8	4

	FH\	NA-RD-77-108	HIGHWA	N NC	DISE PF	REDICTIO	ом ис	DEL			
Scenar	rio: E					Project I	Vame:	Upland	d Colonies		
Road Segme	nt: e/o Campu	s Av.				JOD NU	mber.	14319			
SITE	SPECIFIC IN	IPUT DATA				N	DISE I	NODE	L INPUT	S	
Highway Data				Si	te Con	ditions (l	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	100 vehicles						Autos:	15		
Peak Hour	Percentage:	7.90%			Me	dium Tru	cks (2 /	Axles):	15		
Peak H	lour Volume:	8 vehicles			He	avy Truck	ks (3+7	Axles):	15		
Ve	ehicle Speed:	25 mph		Ve	ehicle I	Nix					
Near/Far La	ane Distance:	12 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6	% 97.42%
Ba	rrier Height:	0.0 feet			Me	edium Tru	icks:	84.8%	4.9%	10.3	% 1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0			ŀ	leavy Tru	icks:	86.5%	2.7%	10.8	% 0.74%
Centerline Di	ist. to Barrier:	33.0 feet		No	oise So	urce Ele	vation	s (in fe	eet)		
Centerline Dist.	to Observer:	33.0 feet				Autos.	: 0	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	2.	297			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	. 8	006	Grade Ad	ljustmei	nt: 0.0
P	ad Elevation:	0.0 feet				,					
Ro	ad Elevation:	0.0 feet		La	ane Equ	uvalent i	Distan	ce (in i	feet)		
	Road Grade:	0.0%				Autos.	: 32.	833			
	Left View:	-90.0 degree	s		Mediur	n Trucks.	32.	562			
	Right View:	90.0 degree	s		Heav	y Trucks.	: 32.	589			
FHWA Noise Mod	el Calculation	s		_							
VehicleType	REMEL	Traffic Flow	Distand	ce	Finite	Road	Fresr	nel 🛛	Barrier Att	ten B	erm Atten
Autos:	58.73	-20.42		2.64		-1.20		-4.52	0.	000	0.000
Medium Trucks:	70.80	-37.66		2.69		-1.20		-4.86	0.	000	0.000
Heavy Trucks:	77.97	-41.62		2.69		-1.20		-5.69	0.	000	0.000
Unmitigated Nois	e Levels (with	out Topo and I	oarrier at	tenua	ation)						
VehicleType	Leq Peak Hou	ır Leq Day	Le	q Eve	ening	Leq N	light		Ldn	(CNEL
Autos:	39	0.7 3	8.9		37.1		31.1		39.	7	40.3
Medium Trucks:	34	.6 3	34.1		27.8		26.2	2	34.	7	34.9
Heavy Trucks:	37	.8 3	87.4		28.4		29.7	7	38.	0	38.1
Vehicle Noise:	42	2.7 4	2.0		38.1		34.2	2	42.	7	43.1
Centerline Distan	ce to Noise Co	ontour (in feet)									
				70 dE	BA	65 d	BA	6	60 dBA	5	5 dBA
		1	.dn:	0		1			2		5
		CN	IEL:	1		1			2		5

Sunday, December 4, 2022

Sunday, December 4, 2022

	FH\	WA-RD-77-108	HIGH	NAY NO	DISE P	REDICTI		DEL			
Scenai Road Nan Road Segme	rio: E ne: 15th St. nt: w/o Grove	Av.				Project I Job Nu	Vame: U Imber: 1	Jpland 14319	l Colonies		
SITE	SPECIFIC IN	NPUT DATA				N	OISE N	IODE	L INPUT	5	
Highway Data				S	ite Cor	nditions (Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	127 vehicle	s				/	Autos:	15		
Peak Hour	Percentage:	7.90%			Me	edium Tru	cks (2 A	(xles):	15		
Peak H	lour Volume:	10 vehicle	s		He	eavy Truc	ks (3+ A	(xles):	15		
Ve	ehicle Speed:	25 mph		V	ehicle	Mix					
Near/Far La	ne Distance:	12 feet			Veh	nicleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Heiaht:	0.0 feet			M	ledium Tru	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy Tru	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline D	ist. to Barrier:	33.0 feet		N	oise S	ource Ele	vations	s (in fe	eet)		
Centerline Dist.	to Observer:	33.0 feet				Autos	. 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	: 2.2	297			
Observer Height	(Above Pad):	5.0 feet			Hea	vv Trucks	: 8.0	006	Grade Ad	ustment	: 0.0
P	ad Elevation:	0.0 feet		-							
Ro	ad Elevation:	0.0 feet		Li	ane Eq	uivalent	Distanc	e (in i	feet)		
	Road Grade:	0.0%				Autos	: 32.8	333			
	Left View:	-90.0 degre	es		Mediu	m Trucks	: 32.5	562			
	Right View:	90.0 degre	es		Hea	vy Trucks	: 32.5	589			
FHWA Noise Mod	el Calculation	S									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	el	Barrier Atte	en Bei	m Atten
Autos:	58.73	-19.38		2.64		-1.20		-4.52	0.0	000	0.000
Medium Trucks:	70.80	-36.62		2.69		-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	77.97	-40.58		2.69		-1.20		-5.69	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	r attenu	ation)						
VehicleType	Leq Peak Hou	ur Leq Daj	/	Leq Eve	ening	Leq N	light		Ldn	C	NEL
Autos:	40	0.8	39.9		38.1		32.1		40.7	,	41.3
Medium Trucks:	35	5.7	35.2		28.8	1	27.3		35.7	,	36.0
Heavy Trucks:	38	3.9	38.5		29.4		30.7		39.0)	39.2
Vehicle Noise:	43	3.7	43.0		39.1		35.2		43.7	,	44.1
Centerline Distan	ce to Noise C	ontour (in feet	9								
			L	70 dE	ЗA	65 d	BA	6	60 dBA	55	dBA
		~	Ldn:	1		1			3		6
		C	NEL:	1		1			3		6

	FHW	A-RD-77-108	пісг	WATN	IOISE Pr			DEL			
Scenari	o: E					Project	Name:	Upland	l Colonies		
Road Nam	e: 14th St.					Job N	lumber:	14319			
Road Segmer	nt: w/o Campus	s Av.									
SITE S	SPECIFIC IN	PUT DATA				1	IOISE N	IODE	L INPUT	S	
Highway Data				5	Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	3,581 vehicles	5					Autos:	15		
Peak Hour	Percentage:	7.90%			Me	dium Tr	ucks (2 A	Axles):	15		
Peak H	our Volume:	283 vehicles	5		He	avy Tru	cks (3+ A	Axles):	15		
Vel	hicle Speed:	35 mph		١	/ehicle I	Nix					
Near/Far Lar	ne Distance:	12 feet			Vehi	cleType	2	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Bar	rier Height:	0.0 feet			Me	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	all, 1-Berm):	0.0			F	leavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	t. to Barrier:	33.0 feet		,	Voise Sc	urce F	evation	s (in fe	pet)		
Centerline Dist.	to Observer:	33.0 feet		É		Auto	s' 01	000			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Truck	s: 2.	297			
Observer Height (Above Pad):	5.0 feet			Heav	v Truck	s: 8.0	006	Grade Ad	iustment	: 0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		1	ane Equ	livalen	t Distanc	ce (in i	leet)		
F	Road Grade:	0.0%				Auto	s: 32.	833			
	Left View:	-90.0 degree	s		Mediur	n Truck	s: 32.	562			
	Right View:	90.0 degree	S		Heav	y Truck	s: 32.	589			
FHWA Noise Mode	l Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	64.30	-6.34		2.64	4	-1.20		-4.52	0.0	000	0.000
Medium Trucks:	75.75	-23.58		2.69	Э	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	81.57	-27.54		2.69	Э	-1.20		-5.69	0.0	000	0.00
Unmitigated Noise	Levels (witho	ut Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Hour	· Leq Day		Leg Ev	/ening	Leq	Night		Ldn	CI	VEL
Autos:	59.	4 :	58.5		56.8		50.7	,	59.3	3	59.9
Medium Trucks:	53.	7	53.2		46.8		45.3	3	53.7	7	54.0
Heavy Trucks:	55.	5	55.1		46.1		47.3	3	55.7	7	55.8
Vehicle Noise:	61.	6	60.9		57.5		53.1		61.6	3	62.1
Centerline Distanc	e to Noise Co	ntour (in feet)									
			L	70 a	iBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	9)	2	20		43	9	92
		~ ~ ~			<u> </u>		11		15		20

	FH	WA-RD-77-108	HIGHWA	AY NO			ODEL						
Scenar Road Nan Road Segme	io: E+P ne: Campus A nt: n/o 16th St	v.		Project Name: Upland Colonies Job Number: 14319									
SITE	SPECIFIC IN	NPUT DATA				NOISE	MOD	EL INPUT	S				
Highway Data				S	Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	21,084 vehicles	5				Autos	: 15					
Peak Hour	Percentage:	7.90%			Medium	Trucks (2 Axles)	: 15					
Peak H	lour Volume:	1,666 vehicles	в		Heavy	Trucks (3·	+ Axles)	: 15					
Ve	hicle Speed:	40 mph		V	ehicle Mix								
Near/Far La	ne Distance:	36 feet		-	VehicleT	vpe	Dav	Evenina	Niaht	Dailv			
Site Data						Autos:	77.5%	6 12.9%	9.6%	97.42%			
Ba	rrier Height	0.0 feet			Mediur	n Trucks:	84.89	6 4.9%	10.3%	1.84%			
Barrier Type (0-V	/all. 1-Berm):	0.0			Heav	y Trucks:	86.5%	6 2.7%	10.8%	0.74%			
Centerline Di	st. to Barrier:	44.0 feet			aiaa Caura	Elevetic	no (in f	(a a fi					
Centerline Dist.	to Observer:	44.0 feet		N	oise source	e Elevalic		eel)					
Barrier Distance	to Observer:	0.0 feet			Ma dia ma Ta	ulos.	0.000						
Observer Height	(Above Pad):	5.0 feet			Heavy Tr	ucks:	2.231 9.006	Grade Ad	iustment	.00			
P	ad Elevation:	0.0 feet			neavy n	JUNS.	0.000	0/440 / 14	laounoni	. 0.0			
Ro	ad Elevation:	0.0 feet		L	ane Equiva	ent Dista	nce (in	feet)					
	Road Grade:	0.0%			A	utos: 4	0.460						
	Left View:	-90.0 degree	es		Medium Tr	ucks: 4	0.241						
	Right View:	90.0 degree	es		Heavy Tr	ucks: 4	0.262						
FHWA Noise Mod	el Calculation	IS		_									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite Roa	d Fre	snel	Barrier Att	en Ber	m Atten			
Autos:	66.51	0.78		1.28	-1.	20	-4.61	0.0	000	0.000			
Medium Trucks:	77.72	-16.46		1.31	-1.	20	-4.87	0.0	000	0.000			
Heavy Trucks:	82.99	-20.42		1.31	-1.	20	-5.50	0.0	000	0.000			
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenu	uation)								
VehicleType	Leq Peak Ho	ur Leq Day	Le	q Eve	ening L	eq Night.		Ldn	CI	NEL			
Autos:	67	7.4	66.5		64.7	51	8.7	67.3	3	67.9			
Medium Trucks:	61	1.4	60.9		54.5	53	3.0	61.4	4	61.7			
Heavy Trucks:	62	2.7	62.3		53.3	54	4.5	62.9	9	63.0			
Vehicle Noise:	69	9.4	68.7		65.4	6	0.8	69.4	4	69.8			
Centerline Distan	ce to Noise C	ontour (in feet)											
				70 dl	BA	65 dBA		60 dBA	55	dBA			
		-	Ldn:	40		86		186	4	00			
		CI	VEL:	43	43 92 199 4					29			

	FH	WA-RD-77-108	HIGHW	AY N	OISE PR	EDICTIC	ON MOI	DEL			
Scenar Road Nam Road Segme	io: E+P ne: Campus A nt: s/o 16th St	V.				Project I Job Nu	Vame: L mber: 1	Jpland 4319	l Colonies		
SITE	SPECIFIC IN	IPUT DATA				N	DISE N	IODE	L INPUT	S	
Highway Data				S	ite Con	ditions (l	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	20,630 vehicle	s				A	Autos:	15		
Peak Hour	Percentage:	7.90%			Med	dium Tru	cks (2 A	xles):	15		
Peak H	lour Volume:	1,630 vehicle	s		Hea	avy Truck	ks (3+ A	xles):	15		
Ve	hicle Speed:	40 mph		v	ehicle N	lix					
Near/Far La	ne Distance:	36 feet		-	Vehi	cleTvpe		Dav	Evenina	Niaht	Daily
Site Data						A	utos:	77.5%	12.9%	9.69	% 97.42%
Pa	rrior Hoight:	0.0 foot			Ме	dium Tru	icks:	84.8%	4.9%	10.39	% 1.84%
Barrier Type (0-W	/all_1-Berm)	0.0 1001			h	leavy Tru	icks:	86.5%	2.7%	10.89	% 0.74%
Centerline Di	st. to Barrier:	44.0 feet						. (in \$.	41		
Centerline Dist.	to Observer:	44.0 feet		N	1015e 50	urce Ele	vations		eet)		
Barrier Distance	to Observer:	0.0 feet			1.4 m all	Autos.	0.0	000			
Observer Height ((Above Pad):	5.0 feet			Mediun	n Trucks.	2.2	297	Grade Ac	livetmor	nt: 0.0
Pa	ad Elevation:	0.0 feet			Heav	y mucks.	0.0	000	Orade Au	yusunci	1. 0.0
Roa	ad Elevation:	0.0 feet		L	ane Equ	ivalent l	Distanc	e (in i	feet)		
	Road Grade:	0.0%				Autos.	40.4	460			
	Left View:	-90.0 degre	es		Mediun	n Trucks.	40.2	241			
	Right View:	90.0 degre	es		Heav	y Trucks.	40.2	262			
FHWA Noise Mode	el Calculation	s								-	-
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	ten Be	erm Atten
Autos:	66.51	0.68		1.28		-1.20		-4.61	0.	000	0.000
Medium Trucks:	77.72	-16.56		1.31		-1.20		-4.87	0.	000	0.000
Heavy Trucks:	82.99	-20.51		1.31		-1.20		-5.50	0.	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenı	uation)						-
VehicleType	Leq Peak Hou	ur Leq Day	′ L	eq Ev	ening	Leq N	light		Ldn	(CNEL
Autos:	67	7.3	66.4		64.6		58.6		67.	2	67.8
Medium Trucks:	61	.3	60.8		54.4		52.9		61.	3	61.6
Heavy Trucks:	62	2.6	62.2		53.2		54.4		62.	8	62.9
Vehicle Noise:	69	9.3	68.6		65.3		60.8		69.	3	69.7
Centerline Distant	ce to Noise C	ontour (in feet)								
				70 d	BA	65 d	BA	6	60 dBA	5	5 dBA
			Ldn:	39)	85			183		395
		С	NEL:	42	2	91			196		422

Sunday, December 4, 2022

Sunday, December 4, 2022

	FH	WA-RD-77-108	B HIGH	NAY NO	DISE P	REDICTIO		DEL			
Scenar Road Nan Road Segme	io: E+P ne: Campus A nt: n/o 14th Si	v.				Project I Job Nu	Vame: \ Imber: 1	Jpland 14319	l Colonies		
SITE	SPECIFIC II	NPUT DATA				N	OISE N	IODE	L INPUT	s	
Highway Data				S	ite Cor	nditions (Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	19,733 vehicle	s				,	Autos:	15		
Peak Hour	Percentage:	7.90%			Me	edium Tru	cks (2 A	(xles)	15		
Peak F	lour Volume:	1,559 vehicle	s		He	eavy Truci	ks (3+ A	(xles	15		
Ve	hicle Speed:	40 mph		V	ehicle	Mix					
Near/Far La	ne Distance:	36 feet		Ē	Veł	nicleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6	% 97.42%
Ba	rrier Height:	0.0 feet			Μ	ledium Tru	ucks:	84.8%	4.9%	10.3	% 1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0				Heavy Tru	ucks:	86.5%	2.7%	10.8	% 0.74%
Centerline Di	st. to Barrier:	44.0 feet		N	oise S	ource Ele	vations	s (in fe	eet)		
Centerline Dist.	to Observer:	44.0 feet				Autos	: 0.0	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	: 2.2	297			
Observer Height	(Above Pad):	5.0 feet			Hea	vy Trucks	: 8.0	006	Grade Ad	iustme	nt: 0.0
P	ad Elevation:	0.0 feet		-							
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distanc	e (in i	teet)		
	Road Grade:	0.0%				Autos	: 40.4	460			
	Left View:	-90.0 degre	es		Mediu	m Trucks.	: 40.2	241			
	Right View:	90.0 degre	es		неа	vy Trucks	: 40.2	262			
FHWA Noise Mod	el Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	el	Barrier Att	en B	erm Atten
Autos:	66.51	0.49		1.28		-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-16.75		1.31		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-20.71		1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	r attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y .	Leq Eve	ening	Leq N	light		Ldn		CNEL
Autos:	6	7.1	66.2		64.4		58.4		67.0)	67.6
Medium Trucks:	6	1.1	60.6		54.2	2	52.7		61.1	1	61.4
Heavy Trucks:	62	2.4	62.0		53.0)	54.2	2	62.6	3	62.7
Vehicle Noise:	69	9.1	68.4		65.1		60.6	6	69.1	1	69.5
Centerline Distan	ce to Noise C	ontour (in fee	t)	=0							
			L	/0 dl	ВА	65 d	BA	6	A ZO	1	05 aBA
			Lan:	38		83	5		1/8		383
		C	NEL:	41		88	5		190		410

	FHV	VA-RD-77-108	HIGH	WATN	IUISE PI	REDICTI		JEL			
Scenar	io: E+P					Project	Name: L	Jpland	Colonies		
Road Nam	e: Campus Av	<i>ı</i> .				Job Ni	umber: 1	4319			
Road Segmer	nt: s/o 14th St.										
SITE	SPECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUT	S	
Highway Data				3	Site Con	ditions (Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	16,730 vehicle	s				A	Autos:	15		
Peak Hour	Percentage:	7.90%			Me	dium Tru	icks (2 A	xles):	15		
Peak H	lour Volume:	1,322 vehicle	s		He	avy Truc	ks (3+ A	xles):	15		
Ve	hicle Speed:	40 mph		1	Vehicle I	Mix					
Near/Far La	ne Distance:	36 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	97.42
Bai	rrier Height:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-W	/all, 1-Berm):	0.0			1	Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74
Centerline Dis	st. to Barrier:	44.0 feet		-	Noise Sr	ource Fli	vations	ín fe	ef)		
Centerline Dist.	to Observer:	44.0 feet		ŕ	10/30 00	Autos	. 00	00			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	r. 0.0	97			
Observer Height (Above Pad):	5.0 feet			Heav	v Trucks	. 8.0	006	Grade Ad	iustment	: 0.0
Pa	ad Elevation:	0.0 feet				,					
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalent	Distanc	e (in f	feet)		
1	Road Grade:	0.0%				Autos	a: 40.4	60			
	Left View:	-90.0 degree	es		Mediu	m Trucks	:: 40.2	241			
	Right View:	90.0 degre	es		Heav	y Trucks	s: 40.2	262			
FHWA Noise Mode	el Calculation:	s									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresn	e/	Barrier Att	en Ber	m Atten
Autos:	66.51	-0.23		1.2	В	-1.20		4.61	0.0	000	0.00
Medium Trucks:	77.72	-17.47		1.3	1	-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	82.99	-21.42		1.3	1	-1.20		-5.50	0.0	000	0.00
Unmitigated Noise	e Levels (with	out Topo and	barrie	r atten	uation)						
VehicleType	Leq Peak Hou	ir Leq Day	1	Leq E	vening	Leq I	Vight		Ldn	C	NEL
Autos:	66	.4	65.5		63.7		57.7		66.3	3	66.
Medium Trucks:	60	.4	59.9		53.5		52.0		60.4	4	60.
Heavy Trucks:	61	.7	61.3		52.2		53.5		61.9	9	62.
Vehicle Noise:	68	.4	67.7		64.4		59.8		68.4	4	68.
Centerline Distanc	ce to Noise Co	ontour (in feet)								
			L	70 c	dBA	65 0	1BA	6	0 dBA	55	dBA
				-		_			160		240
		-	Lan:	3	4	7.	4		159	-	545

	FH\	WA-RD-77-108	HIGHWA	Y NO	ISE PREDICT	ION MO	DEL			
Scenar Road Nam Road Segme	io: E+P ne: 16th St. nt: w/o Campu	ıs Av.			Project Job N	Name: I lumber:	Jpland I4319	Colonies		
SITE	SPECIFIC IN	NPUT DATA			N	IOISE N	IODEI	. INPUT	S	
Highway Data				Si	te Conditions	(Hard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	22,644 vehicles					Autos:	15		
Peak Hour	Percentage:	7.90%			Medium Tr	ucks (2 A	(xles):	15		
Peak H	lour Volume:	1,789 vehicles			Heavy Tru	cks (3+ A	(xles):	15		
Ve	hicle Speed:	45 mph		Ve	hicle Mix					
Near/Far La	ne Distance:	36 feet			VehicleType		Day	Evening	Night	Daily
Site Data					,	Autos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Heiaht:	0.0 feet			Medium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	44.0 feet		No	ise Source El	evation	s (in fe	et)		
Centerline Dist.	to Observer:	44.0 feet			Auto	s: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Medium Truck	s: 2.1	297			
Observer Height	(Above Pad):	5.0 feet			Heavy Truck	s: 8.0	006	Grade Adj	justment	0.0
Pi	ad Elevation:	0.0 feet				Distant	- (in f	4		
Ro	ad Elevation:	0.0 feet		Ld	ne Equivalent	Distant		eel)		
	Road Grade:	0.0%			Auto Madium Truck	S: 40.4	460			
	Right View:	-90.0 degree 90.0 degree	s		Heavy Truck	s. 40. s: 40.	262			
FHWA Noise Mod	el Calculation	s								
VehicleType	REMEL	Traffic Flow	Distand	e	Finite Road	Fresn	el l	Barrier Att	en Ber	m Atten
Autos:	68.46	0.57		1.28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-16.66		1.31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-20.62		1.31	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and I	barrier at	tenua	ation)					
VehicleType	Leq Peak Hou	ur Leq Day	Le	q Eve	ning Leq	Night		Ldn	CI	VEL
Autos:	69	9.1 6	58.2		66.5	60.4		69.0	D	69.6
Medium Trucks:	62	2.9 6	52.4		56.1	54.5		63.0	D	63.2
Heavy Trucks:	63	3.7 (53.3		54.3	55.6		63.9	9	64.0
Vehicle Noise:	71	1.0	70.2		67.1	62.4		71.0	D	71.4
Centerline Distant	ce to Noise Ce	ontour (in feet)			T				Т	
				70 dB	A 65	dBA	6	0 dBA	55	dBA
		1	dn:	51	1	10		236	5	09
		CN	IEL:	55	1	18		254	5	46

	FH\	VA-RD-77-108	HIGHW	AY NO	DISE PF	REDICT		DDEL			
Scenan	io: E+P					Project	Name.	Uplan	d Colonies		
Road Nam	e: 16th St.					Job N	umber.	14319			
Road Segmer	nt: e/o Campu	s Av.									
SITE	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	s	
Highway Data				S	ite Con	ditions	(Hard	= 10, Se	oft = 15)		
Average Daily	Traffic (Adt):	23,527 vehicles	5					Autos:	15		
Peak Hour	Percentage:	7.90%			Me	dium Tri	ucks (2	Axles):	15		
Peak H	our Volume:	1,859 vehicles	5		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		V	ehicle I	Nix					
Near/Far La	ne Distance:	36 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data						/	Autos:	77.5%	12.9%	9.6%	97.42%
Bai	rier Heiaht:	0.0 feet			Me	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	all, 1-Berm):	0.0			ŀ	leavy T	rucks:	86.5%	5 2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	44.0 feet		N	nisa Sr	urco El	ovatio	ne (in fi	oot)		
Centerline Dist.	to Observer:	44.0 feet		14	0136 30	Auto	evalio	13 (1111	een		
Barrier Distance	to Observer:	0.0 feet			Modiu	n Truck	o. (207			
Observer Height (Above Pad):	5.0 feet			Heav	v Truck	а. 4 е Я	1006	Grade Ad	iustmen	t: 0.0
Pa	ad Elevation:	0.0 feet			neav	y mack	J. C	.000		,	
Roa	ad Elevation:	0.0 feet		Li	ane Equ	uivalent	Distar	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 40	.460			
	Left View:	-90.0 degree	:S		Mediur	n Truck	s: 4().241			
	Right View:	90.0 degree	:S		Heav	y Truck	s: 4(0.262			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	68.46	0.74		1.28		-1.20		-4.61	0.	000	0.000
Medium Trucks:	79.45	-16.50		1.31		-1.20		-4.87	0.	000	0.000
Heavy Trucks:	84.25	-20.45		1.31		-1.20		-5.50	0.	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	Ir Leq Day	L	.eq Eve	ening	Leq	Night		Ldn	C	NEL
Autos:	69	.3	68.4		66.6		60	.6	69.	2	69.8
Medium Trucks:	63	.1	62.6		56.2		54	.7	63.	1	63.4
Heavy Trucks:	63	.9	63.5		54.5		55	.7	64.	1	64.2
Vehicle Noise:	71	.1	70.4		67.2		62	.6	71.	1	71.6
Centerline Distance	e to Noise Co	ontour (in feet)									
				70 dE	BA	65	dBA	(60 dBA	55	i dBA
			Ldn:	52		1	13		243	:	522
		CI	VEL:	56		1:	21		260	;	560

Sunday, December 4, 2022

Sunday, December 4, 2022

	FH	WA-RD-77-10	8 HIGI	IWAY	NOISE	PREDICTI	ON MO	DEL			
Scenai Road Nan Road Segme	rio: E+P ne: 15th St. nt: w/o Campu	ıs Av.				Project Job N	Name: I umber:	Uplan 14319	d Colonies		
SITE	SPECIFIC IN	NPUT DATA				N	OISE N	NODE	EL INPUTS	5	
Highway Data					Site Co	nditions ((Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	2,900 vehicle	es				,	Autos.	: 15		
Peak Hour	Percentage:	7.90%			N	ledium Tru	icks (2 A	Axles)	: 15		
Peak H	lour Volume:	229 vehicle	es		H	leavy Truc	:ks (3+ A	Axles)	: 15		
Ve	hicle Speed:	35 mph			Vehicle	Mir					
Near/Far La	ne Distance:	12 feet			Venicie	hicleType		Dav	Evenina	Niaht	Dailv
Site Data							utos:	77.5%	6 12.9%	9.6%	97.42%
Ba	rrier Height	0.0 feet			1	Medium Tr	ucks:	84.8%	6 4.9%	10.3%	1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy Tr	ucks:	86.5%	6 2.7%	10.8%	0.74%
Centerline D	ist. to Barrier:	33.0 feet			Noise S	Source Ele	evation	s (in f	eet)		
Centerline Dist.	to Observer:	33.0 feet				Autos	: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Medi	um Trucks	: 2:	297			
Observer Height	(Above Pad):	5.0 feet			Hei	avv Trucks	5: 8.0	006	Grade Adj	ustment	: 0.0
P	ad Elevation:	0.0 feet									
Ro	ad Elevation:	0.0 feet			Lane E	quivalent	Distand	ce (in	feet)		
	Road Grade:	0.0%				Autos	s: 32.	833			
	Left View:	-90.0 degre	ees		Medi	um Trucks	32.	562			
	Right View:	90.0 degre	es		Hei	avy Trucks	32.	589			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finit	e Road	Fresn	el	Barrier Atte	en Ber	m Atten
Autos:	64.30	-7.26	6	2.	64	-1.20		-4.52	0.0	00	0.000
Medium Trucks:	75.75	-24.50)	2.	69	-1.20		-4.86	0.0	00	0.000
Heavy Trucks:	81.57	-28.45	5	2.	69	-1.20		-5.69	0.0	00	0.000
Unmitigated Nois	e Levels (with	out Topo and	l barri	er atte	nuation)					
VehicleType	Leq Peak Ho	ur Leq Da	У	Leq l	Evening	Leq I	Night		Ldn	C	NEL
Autos:	58	3.5	57.6		55.	8	49.8	3	58.4		59.0
Medium Trucks:	52	2.7	52.3		45.	9	44.4	ļ.	52.8		53.0
Heavy Trucks:	54	4.6	54.2		45.	2	46.4	ļ.	54.8		54.9
Vehicle Noise:	60).7	60.0		56.	6	52.2	2	60.7		61.2
Centerline Distan	ce to Noise C	ontour (in fee	t)								
			L	70	dBA	65 0	'BA	1	60 dBA	55	dBA
			Ldn:		8	1	7		37	-	80
		C	NEL:		8	1	8		39		85

	FRV	A-KD-77-100 HI	GHWA	NUISE PI	REDICTION				
Scenario	o: E+P				Project Na	me: Uplar	d Colonies		
Road Name	e: 15th St.				Job Num	ber: 1431	Э		
Road Segmen	nt: e/o Campus	Av.							
SITE S	SPECIFIC IN	PUT DATA			NO	SE MOD	EL INPUT	S	
Highway Data				Site Con	ditions (Ha	ard = 10, S	Goft = 15)		
Average Daily	Traffic (Adt):	609 vehicles				Autos	s: 15		
Peak Hour	Percentage:	7.90%		Me	dium Truck	s (2 Axles): 15		
Peak He	our Volume:	48 vehicles		He	avy Trucks	(3+ Axles	: 15		
Vel	hicle Speed:	25 mph		Vehicle	Mix				
Near/Far Lar	ne Distance:	12 feet		Veh	icleType	Day	Evening	Night	Daily
Site Data					Aut	os: 77.5	% 12.9%	9.6%	97.429
Bar	rier Heiaht:	0.0 feet		М	edium Truc	ks: 84.8	% 4.9%	10.3%	1.84%
Barrier Type (0-Wa	all, 1-Berm):	0.0		1	Heavy Truc	ks: 86.5	% 2.7%	10.8%	0.74%
Centerline Dis	t. to Barrier:	33.0 feet		Noise Sr	urce Flev	ations (in	foot)		
Centerline Dist. t	to Observer:	33.0 feet		10130 00	Autos:	0.000			
Barrier Distance t	to Observer:	0.0 feet		Mediu	m Trucks:	2 297			
Observer Height (/	Above Pad):	5.0 feet		Heav	v Trucks	8.006	Grade Ad	iustment	0.0
Pa	d Elevation:	0.0 feet			,				
Roa	d Elevation:	0.0 feet		Lane Eq	uivalent Di	stance (in	feet)		
F	Road Grade:	0.0%			Autos:	32.833			
	Left View:	-90.0 degrees		Mediu	m Trucks:	32.562			
	Right View:	90.0 degrees		Heav	y Trucks:	32.589			
FHWA Noise Mode	Calculation	;							
VehicleType	REMEL	Traffic Flow	Distance	e Finite	Road	Fresnel	Barrier Att	en Ber	m Atten
Autos:	58.73	-12.58	2	.64	-1.20	-4.52	2 0.0	000	0.00
Medium Trucks:	70.80	-29.81	2	.69	-1.20	-4.86	i 0.0	000	0.00
Heavy Trucks:	77.97	-33.77	2	.69	-1.20	-5.69	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and ba	rrier att	enuation)					
VehicleType	Leq Peak Hou	r Leq Day	Leq	Evening	Leq Nig	ht	Ldn	CI	NEL
Autos:	47	.6 46	.7	45.0		38.9	47.	5	48.
Medium Trucks:	42	5 42	.0	35.6		34.1	42.	5	42.
Heavy Trucks:	45	.7 45.	.3	36.3		37.5	45.9	9	46.
Vehicle Noise:	50	5 49	.8	45.9		42.0	50.	5	50.
Centerline Distanc	e to Noise Co	ntour (in feet)							
			7	0 dBA	65 dB,	۹	60 dBA	55	dBA
			1 A	·)			0		17
		Ld	<i>.</i>	2	4		0		

	FH	WA-RD-77-108	3 HIGI	HWAY	NOISE P	REDICTIO	N MODEL			
Scenar Road Nam Road Segme	io: E+P ne: 15th St. nt: w/o Grove	Av.				Project N Job Nur	ame: Upla nber: 1431	nd Colonies 9		
SITE	SPECIFIC IN	NPUT DATA				NO	ISE MOD	EL INPUT	S	
Highway Data					Site Cor	nditions (H	ard = 10,	Soft = 15)		
Average Daily	Traffic (Adt):	219 vehicle	s				Auto	s: 15		
Peak Hour	Percentage:	7.90%			Me	edium Truc	ks (2 Axle:	s): 15		
Peak H	lour Volume:	17 vehicle	s		He	eavy Truck	s (3+ Axles	s): 15		
Ve	hicle Speed:	25 mph			Vehicle	Mix				
Near/Far La	ne Distance:	12 feet			Veh	nicleTvpe	Dav	Evenina	Niaht	Dailv
Site Data						Au	tos: 77.5	5% 12.9%	9.6%	97.42%
Ba	rrier Height	0.0 feet			M	ledium Truc	cks: 84.8	3% 4.9%	10.3%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0				Heavy True	cks: 86.5	5% 2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	33.0 feet			Noise S	ource Elev	ations (in	feet)		
Centerline Dist.	to Observer:	33.0 feet				Autos	0.000	1000		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	2 297			
Observer Height ((Above Pad):	5.0 feet			Hea	wy Trucks:	8.006	Grade Ad	iustment:	0.0
Pa	ad Elevation:	0.0 feet				<i>i) maana</i> .	0.000			
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent D	istance (i	n feet)		
	Road Grade:	0.0%				Autos:	32.833			
	Left View:	-90.0 degre	es		Mediu	m Trucks:	32.562			
	Right View:	90.0 degre	es		Hea	vy Trucks:	32.589			
FHWA Noise Mode	el Calculation	s								
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresnel	Barrier Att	en Berr	n Atten
Autos:	58.73	-17.02		2.	64	-1.20	-4.5	2 0.0	000	0.000
Medium Trucks:	70.80	-34.26		2.	69	-1.20	-4.8	6 0.0	000	0.000
Heavy Trucks:	77.97	-38.21		2.	69	-1.20	-5.6	9 0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)					
VehicleType	Leq Peak Ho	ur Leq Daj	У	Leq E	Evening	Leq Ni	ght	Ldn	CN	IEL
Autos:	43	3.2	42.3		40.5	i	34.5	43.1	I	43.7
Medium Trucks:	38	3.0	37.5		31.2	1	29.6	38.1	I	38.3
Heavy Trucks:	41	1.2	40.8		31.8		33.1	41.4	1	41.5
Vehicle Noise:	46	3.1	45.4		41.5	5	37.6	46.1	1	46.5
Centerline Distant	ce to Noise C	ontour (in feet	t)							
				70	dBA	65 dE	BA	60 dBA	55	dBA
			Ldn:		1	2		4	1	3
		С	NEL:		1	2		4	9	9

	FHV	VA-RD-77-108	HIGHV	VAY NO	JISE PI	KEDICI	ION MC	DEL			
Scenar	io: E+P					Project	Name:	Upland	d Colonies		
Road Nam	e: 14th St.					Job N	lumber:	14319			
Road Segmer	nt: w/o Campu	s Av.									
SITE	SPECIFIC IN	IPUT DATA				M	OISE	MODE		s	
Highway Data				S	ite Con	ditions	(Hard =	: 10, So	oft = 15)		
Average Daily	Traffic (Adt):	3,673 vehicles	6					Autos:	15		
Peak Hour	Percentage:	7.90%			Me	dium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	290 vehicles	6		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	35 mph		V	ehicle l	Mix					
Near/Far La	ne Distance:	12 feet		-	Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Bai	rier Heiaht:	0.0 feet			Me	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	all, 1-Berm):	0.0			ŀ	leavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	33.0 feet		N	oise Sc	ource El	levation	s (in fe	eet)		
Centerline Dist.	to Observer:	33.0 feet				Auto	s' 0	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	n Truck	s 2	297			
Observer Height (Above Pad):	5.0 feet			Heav	v Truck	s: 8	006	Grade Ad	iustment	: 0.0
Pa	ad Elevation:	0.0 feet			mour	y maon	0. 0.				
Roa	ad Elevation:	0.0 feet		Li	ane Eq	uivalen	t Distan	ce (in	feet)		
1	Road Grade:	0.0%				Auto	s: 32	.833			
	Left View:	-90.0 degree	es		Mediui	m Truck	s: 32	.562			
	Right View:	90.0 degree	es		Heav	y Truck	's: 32	.589			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	64.30	-6.23		2.64		-1.20		-4.52	0.0	000	0.000
Medium Trucks:	75.75	-23.47		2.69		-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	81.57	-27.43		2.69		-1.20		-5.69	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	ir Leq Day	· 1	Leq Eve	ening	Leq	Night		Ldn	C	NEL
Autos:	59	.5	58.6		56.9		50.	8	59.4	4	60.0
Medium Trucks:	53	.8	53.3		46.9		45.	4	53.8	В	54.1
Heavy Trucks:	55	.6	55.2		46.2		47.	4	55.8	8	55.9
Vehicle Noise:	61	.7	61.1		57.6		53.	2	61.8	В	62.2
Centerline Distance	e to Noise Co	ontour (in feet,									
				70 dE	BA	65	dBA	6	60 dBA	55	dBA
			Ldn:	9		2	20		43		93
		CI	VEL:	10		2	21		46	1	99

Sunday, December 4, 2022

Sunday, December 4, 2022

	FH	WA-RD-77-108	HIGHW	AY NO	DISE P	REDICTIO	ом мо	DEL			
Scenar Road Nan Road Segme	rio: OYC ne: Campus A nt: n/o 16th Si	v.				Project I Job Nu	Vame: mber:	Uplan 14319	d Colonies		
SITE	SPECIFIC II	NPUT DATA				N	DISE	NODE	EL INPUT	S	
Highway Data				S	ite Cor	ditions (l	Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	22,885 vehicle	s					Autos	15		
Peak Hour	Percentage:	7.90%			Me	edium True	cks (2 A	Axles)	: 15		
Peak H	lour Volume:	1,808 vehicle	s		He	avy Truck	ks (3+ /	Axles)	: 15		
Ve	ehicle Speed:	40 mph		V	ehicle	Mix					
Near/Far La	ne Distance:	36 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	6 12.9%	9.69	% 97.42%
Ba	rrier Heiaht:	0.0 feet			М	edium Tru	icks:	84.8%	6 4.9%	10.39	% 1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy Tru	icks:	86.5%	6 2.7%	10.89	% 0.74%
Centerline D	ist. to Barrier:	44.0 feet		N	oise Se	ource Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	44.0 feet				Autos	: 0.	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	2.	297			
Observer Height	(Above Pad):	5.0 feet			Hea	vy Trucks	8.	006	Grade Ad	justmer	nt: 0.0
P	ad Elevation:	0.0 feet									
Ro	ad Elevation:	0.0 feet		Li	ane Eq	uivalent l	Distan	ce (in	teet)		
	Road Grade:	0.0%				Autos:	40.	460			
	Left View:	-90.0 degre	es		Mediu	m Trucks:	: 40.	241			
	Right View:	90.0 degre	es		Hea	vy Trucks:	40.	262			
FHWA Noise Mod	el Calculation	IS		1							
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresr	iel	Barrier Att	en Be	erm Atten
Autos:	66.51	1.13		1.28		-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-16.11		1.31		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-20.06		1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	/ L	eq Eve	ening	Leq N	light		Ldn	(CNEL
Autos:	6	7.7	66.8		65.1		59.0)	67.	6	68.3
Medium Trucks:	6	1.7	61.2		54.9		53.3	3	61.	8	62.0
Heavy Trucks:	6	3.0	62.6		53.6		54.9)	63.	2	63.3
Vehicle Noise:	69	9.7	69.0		65.7		61.2	2	69.	7	70.2
Centerline Distan	ce to Noise C	ontour (in fee)			-					
				70 dE	BA	65 d	BA		60 dBA	5	5 dBA
		_	Ldn:	42		91			196		423
		С	NEL:	45		98	3		210		453

	FHV	VA-RD-77-108	HIGHWA	AT NU	ISE PF	EDICII		JEL			
Scenar	io: OYC					Project	Name: L	pland	Colonies		
Road Nam	e: Campus Av	<i>ı</i> .				Job Nu	imber: 1	4319			
Road Segme	nt: s/o 16th St.										
SITE	SPECIFIC IN	IPUT DATA				N	OISE M	ODE	L INPUT	S	
Highway Data				Sit	e Con	ditions (Hard = :	10, So	ft = 15)		
Average Daily	Traffic (Adt):	22,946 vehicle	s				A	lutos:	15		
Peak Hour	Percentage:	7.90%			Mee	dium Tru	cks (2 A	xles):	15		
Peak F	lour Volume:	1,813 vehicle	s		Hea	avy Truc	ks (3+ A	xles):	15		
Ve	hicle Speed:	40 mph		Ve	hicle N	<i>lix</i>					
Near/Far La	ne Distance:	36 feet			Vehi	cleType	l	Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Height:	0.0 feet			Me	edium Tri	ucks: (34.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy Tri	ucks: {	36.5%	2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	44.0 feet		No	ise So	urce Fle	vations	(in fe	ef)		
Centerline Dist.	to Observer:	44.0 feet				Autos	· 0.0	00			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	· 22	97			
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	· 80	06	Grade Ad	iustment	0.0
P	ad Elevation:	0.0 feet			mour	,	. 0.0			,	
Ro	ad Elevation:	0.0 feet		Lai	ne Equ	ivalent	Distanc	e (in f	ieet)		
	Road Grade:	0.0%				Autos	: 40.4	-60			
	Left View:	-90.0 degree	es	1	Mediur	n Trucks	: 40.2	41			
	Right View:	90.0 degree	es		Heav	y Trucks	: 40.2	262			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresne	e/	Barrier Att	en Ber	m Atten
Autos:	66.51	1.14		1.28		-1.20	-	4.61	0.0	000	0.00
Medium Trucks:	77.72	-16.09		1.31		-1.20	-	4.87	0.0	000	0.00
Heavy Trucks:	82.99	-20.05		1.31		-1.20		-5.50	0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and	barrier a	ttenua	tion)						
	I a a Da al IIa.	r Leq Day	/ Le	eq Ever	ning	Leq N	light		Ldn	CI	NEL
VehicleType	Leq Реак ног				05.4		59.0		67.7	7	68.
VehicleType Autos:	Leg Peak Hol 67	.7	66.9		05.1		00.0				
VehicleType Autos: Medium Trucks:	67 61	.7 .7	66.9 61.2		54.9		53.3		61.8	В	62.
VehicleType Autos: Medium Trucks: Heavy Trucks:	67 61 63	.7 .7 .1	66.9 61.2 62.7		54.9 53.6		53.3 54.9		61.8 63.2	B 2	62. 63.
VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	61 62 63 69	.7 .7 .1 .7	66.9 61.2 62.7 69.0		54.9 53.6 65.8		53.3 54.9 61.2		61.8 63.2 69.8	8 2 8	62. 63. 70.
VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise: Centerline Distan	2007 2017 2017 2017 2017 2017 2017 2017	.7 .7 .1 .7 ontour (in feet	66.9 61.2 62.7 69.0		54.9 53.6 65.8		53.3 54.9 61.2		61.8 63.2 69.8	8 2 8	62. 63. 70.
Vehicle Type Autos: Medium Trucks: Heavy Trucks: Vehicle Noise: Centerline Distanc	67 61 63 69 69 69	.7 .7 .1 .7 .7 .7	66.9 61.2 62.7 69.0	70 dB,	65.1 54.9 53.6 65.8	65 a	53.3 54.9 61.2	6	61.8 63.2 69.8 0 dBA	8 2 8 55	62.0 63.3 70.2 dBA
VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise: Centerline Distant	67 61 63 69 69 69	.7 .7 .1 .7 ntour (in feet	66.9 61.2 62.7 69.0) Ldn:	70 dB) 42	65.1 54.9 53.6 65.8	65 a 9'	53.3 54.9 61.2 BA	6	61.8 63.2 69.8 0 dBA 197	8 2 8 55 4	62.0 63.3 70.2 dBA

	FH\	VA-RD-77-108	HIGHW	AY N	OISE PR	EDICTI	ON MO	DEL	_	_	
Scenari Road Nam Road Segmer	Scenario: OYC Road Name: Campus Av. Road Segment: n/o 14th St. SITE SPECIFIC INPUT DATA					Project Job Ni	Name: I Imber:	Jplanc 14319	I Colonies		
SITE	SPECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUT	S	
Highway Data				S	ite Cond	ditions (Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	22,284 vehicles					,	Autos:	15		
Peak Hour	Percentage:	7.90%			Med	dium Tru	cks (2 A	(xles):	15		
Peak H	our Volume:	1,760 vehicles			Hea	avy Truc	ks (3+ A	(xles):	15		
Vei	hicle Speed:	40 mph		L.	ohiclo II	liv					
Near/Far Lai	ne Distance:	36 feet		v	Vehi	cleTvne		Dav	Evenina	Night	Daily
Site Data				-	venn	A	utos:	77.5%	12.9%	9.6%	97.42%
Ba	rior Hoight:	0.0 foot			Me	dium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	all 1-Berm)	0.0 1001			h	leavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	44.0 feet						. (in f .	- 41		
Centerline Dist.	to Observer:	44.0 feet		~	1015e 50	urce Ele	evations		et)		
Barrier Distance	to Observer:	0.0 feet			A da alle ca	Autos	. 0.0	JUU 207			
Observer Height (Above Pad):	5.0 feet			Mediun	n Trucks	; Z.,	297	Grade An	liustment	. 0.0
Pa	ad Elevation:	0.0 feet			neav	y mucks	. 0.1	000	Orade Au	justinent	0.0
Roa	ad Elevation:	0.0 feet		L	ane Equ	ıivalent	Distand	e (in i	feet)		
F	Road Grade:	0.0%				Autos	: 40.4	460			
	Left View:	-90.0 degree	s		Mediun	n Trucks	40.	241			
	Right View:	90.0 degree	s		Heav	y Trucks	40.	262			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	ice	Finite I	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	66.51	1.02		1.28	5	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-16.22		1.31		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-20.18		1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and I	oarrier a	ttenu	uation)						
VehicleType	Leq Peak Hou	ır Leq Day	Le	eq Ev	ening	Leq I	light		Ldn	CI	VEL
Autos:	67	.6 6	6.7		65.0		58.9		67.	5	68.1
Medium Trucks:	61	.6 0	51.1		54.8		53.2		61.	7	61.9
Heavy Trucks:	62	.9 (62.5		53.5		54.7		63.	1	63.2
Vehicle Noise:	69	.6 6	8.9		65.6		61.1		69.	6	70.1
Centerline Distance	e to Noise Co	ontour (in feet)									
				70 d	BA	65 a	IBA	6	i0 dBA	55	dBA
		1	.dn:	42	2	89	9		193	4	15
		CN	IEL:	44	1	96	5		206	4	45

	FR	WA-KD-77-108	HIGHV	VAT NU	JISE PI	REDICI		DEL			
Scenar	io: OYC					Project	Name:	Upland	d Colonies		
Road Nam	e: Campus A	v.				Job N	umber:	14319			
Road Segmer	nt: s/o 14th St										
SITE	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	s	
Highway Data				Si	ite Con	ditions	(Hard =	= 10, So	oft = 15)		
Average Daily	Traffic (Adt):	19,613 vehicles	6					Autos:	15		
Peak Hour	Percentage:	7.90%			Me	dium Tri	ucks (2	Axles):	15		
Peak H	our Volume:	1,549 vehicles	6		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		V	ehicle I	Mix					
Near/Far La	ne Distance:	36 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Bai	rier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	all, 1-Berm):	0.0			1	Heavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	44.0 feet		N	oico Sr	ourco El	ovation	ne (in f	nof)		
Centerline Dist.	to Observer:	44.0 feet		14	0136 30		evalion	000	eel)		
Barrier Distance	to Observer:	0.0 feet			Madiu	m Truck	s. 0	207			
Observer Height (Above Pad):	5.0 feet			Hear	n Truck	5. – e [,] 9	006	Grade Ad	iustment	· 0.0
Pa	ad Elevation:	0.0 feet			Tieas	ly much	3. 0	.000	0/000//10	Juotimoni	0.0
Roa	ad Elevation:	0.0 feet		La	ane Eq	uivalent	Distan	ce (in	feet)		
I	Road Grade:	0.0%				Auto	s: 40	.460			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 40	.241			
	Right View:	90.0 degree	es		Heav	/y Truck	s: 40	.262			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Ber	rm Atten
Autos:	66.51	0.46		1.28		-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-16.78		1.31		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-20.73		1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	ur Leq Day	· 1	Leq Eve	ening	Leq	Night		Ldn	C	NEL
Autos:	67	.0	66.2		64.4		58.	4	67.0	0	67.6
Medium Trucks:	61	.1	60.6		54.2		52.	7	61.	1	61.4
Heavy Trucks:	62	2.4	62.0		52.9		54.	2	62.	5	62.7
Vehicle Noise:	69	9.1	68.4		65.1		60.	5	69.	1	69.5
Centerline Distance	e to Noise C	ontour (in feet))					1			
			L	70 dE	BA	65	dBA	6	60 dBA	55	dBA
			Ldn:	38		8	2		177	3	381
		CI	VEL:	41		8	8		190	4	108

Sunday, December 4, 2022

Sunday, December 4, 2022

	FH\	NA-RD-77-108	HIGHW	VAY NO	DISE PI	REDICTIO	ом мо	DEL			
Scenai Road Nan Road Segme	io: OYC ne: 16th St. nt: w/o Campu	is Av.				Project I Job Nu	Vame: imber:	Uplan 14319	d Colonies		
SITE	SPECIFIC IN	IPUT DATA				N	OISE I	NODE	L INPUT	s	
Highway Data				S	ite Con	ditions (Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	24,318 vehicle	s					Autos	15		
Peak Hour	Percentage:	7.90%			Me	dium Tru	cks (2 /	Axles)	15		
Peak H	lour Volume:	1,921 vehicle	s		He	avy Truc	ks (3+)	Axles)	15		
Ve	hicle Speed:	45 mph		V	ehicle	Mix					
Near/Far La	ne Distance:	36 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	6 12.9%	9.6	% 97.42%
Ba	rrier Heiaht:	0.0 feet			М	edium Tru	ucks:	84.8%	6 4.9%	10.3	% 1.84%
Barrier Type (0-V	/all, 1-Berm):	0.0			1	Heavy Tru	ucks:	86.5%	6 2.7%	10.8	% 0.74%
Centerline D	st. to Barrier:	44.0 feet		N	oise So	ource Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	44.0 feet				Autos	: 0.	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	: 2.	297			
Observer Height	(Above Pad):	5.0 feet			Heav	/y Trucks	: 8.	006	Grade Ad	justme	nt: 0.0
P	ad Elevation:	0.0 feet						,,			
Ro	ad Elevation:	0.0 feet		Li	ane Eq	uivalent	Distan	ce (in	feet)		
	Road Grade:	0.0%				Autos	: 40.	460			
	Left View:	-90.0 degre	es		Meaiu	m Trucks	: 40.	241			
	Right View:	90.0 degre	es		Heav	/y Trucks	: 40.	202			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ince	Finite	Road	Fresr	nel	Barrier Att	en B	erm Atten
Autos:	68.46	0.88		1.28		-1.20		-4.61	0.0	000	0.000
Medium Trucks:	79.45	-16.35		1.31		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	84.25	-20.31		1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	ur Leq Day	/ L	leq Eve	ening	Leq N	light		Ldn		CNEL
Autos:	69	9.4	68.5		66.8		60.7	7	69.3	3	70.0
Medium Trucks:	63	3.2	62.7		56.4		54.8	3	63.3	3	63.5
Heavy Trucks:	64	l.1	63.7		54.6		55.9	9	64.2	2	64.3
Vehicle Noise:	71	.3	70.5		67.4		62.1	7	71.3	3	71.7
Centerline Distan	ce to Noise Co	ontour (in feet)								
			∟	70 dE	ЗA	65 d	BA		50 dBA	5	5 dBA
		-	Ldn:	53		11	5		248		534
		С	NEL:	57		12	3		266		5/3

						Project i	vame: เ	Jolanc	Colonies		
Road Name	e: 16th St					Job Ni	mber: 1	4319			
Road Segmen	t: e/o Campus	Av.									
SITE S						N		IODE		s	
Highway Data					Site Con	ditions (Hard =	10, Sc	ft = 15)	-	
Average Daily 1	raffic (Adt): 2	5,221 vehicles	s					Autos:	15		
Peak Hour I	Percentage:	7.90%			Me	dium Tru	cks (2 A	xles):	15		
Peak Ho	our Volume:	1,992 vehicles	5		He	avy Truc	ks (3+ A	xles):	15		
Veh	icle Speed:	45 mph		-	Vehicle	<i>Ni</i> v					
Near/Far Lar	e Distance:	36 feet		-	Vehi	cleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						A	utos:	77.5%	12.9%	9.6%	97.42
Ban	rier Height:	0.0 feet			Me	edium Tri	icks:	84.8%	4.9%	10.3%	1.84
Barrier Type (0-Wa	all. 1-Berm):	0.0			ŀ	leavy Tri	icks:	86.5%	2.7%	10.8%	0.74
Centerline Dis	t. to Barrier:	44.0 feet		-	Naiaa Ca	uree Ele	votions	lin fe	oti		
Centerline Dist. t	o Observer:	44.0 feet		-	140/36 30	Autos	· 0.0	00	eu		
Barrier Distance t	o Observer:	0.0 feet			Mediu	n Trucks	. 22	00			
Observer Height (A	Above Pad):	5.0 feet			Heav	v Trucks	. 2.2	06	Grade Ad	iustment	0.0
Pa	d Elevation:	0.0 feet		_	mour	,	. 0.0				
Roa	d Elevation:	0.0 feet		-	Lane Equ	ivalent	Distanc	e (in i	feet)		
F	oad Grade:	0.0%				Autos	: 40.4	60			
	Left View:	-90.0 degree	es		Mediur	n Trucks	: 40.2	241			
	Right View:	90.0 degree	es		Heav	y Trucks	: 40.2	262			
FHWA Noise Mode	I Calculations	:									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresn	e/	Barrier Att	en Ber	m Atten
Autos:	68.46	1.04		1.2	8	-1.20		4.61	0.0	000	0.00
Medium Trucks:	79.45	-16.20		1.3	1	-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	84.25	-20.15		1.3	1	-1.20		-5.50	0.0	000	0.00
Unmitigated Noise	Levels (witho	out Topo and	barri	ier atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	r i	Leq E	vening	Leq N	light		Ldn	CI	NEL
Autos:	69.	6	68.7		66.9		60.9		69.5	5	70
Medium Trucks:	63.	4	62.9		56.5		55.0		63.4	1	63
Heavy Trucks:	64.	2	63.8		54.8		56.0		64.4	1	64.
Vehicle Noise:	71.	4	/0.7		67.6		62.9		71.4	+	71
Centerline Distance	e to Noise Co	ntour (in feet,)	70	dD A	65 -	DA	,	O dBA		dDA
			I dn'	70	UBA 5	000	o Q	6	254	55	UBA 17
		-		0		11	0		234	0	····/

FH\	NA-RD-77-108 HIG	HWAY I		TION MO	DEL	_		
Scenario: OYC Road Name: 15th St. Road Segment: w/o Campu	ıs Av.		Proje Job	ct Name: Number:	Upland 14319	Colonies		
SITE SPECIFIC IN	PUT DATA			NOISE M	NODEL		S	
Highway Data			Site Condition	s (Hard =	10, Soi	ft = 15)		
Average Daily Traffic (Adt):	3,365 vehicles				Autos:	15		
Peak Hour Percentage:	7.90%		Medium	Trucks (2 /	Axles):	15		
Peak Hour Volume:	266 vehicles		Heavy Ti	ucks (3+ A	Axles):	15		
Vehicle Speed:	35 mph	-	Vehicle Mix					
Near/Far Lane Distance:	12 feet		VehicleTy	be	Day	Evening	Night	Daily
Site Data				Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height:	0.0 feet		Medium	Trucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		Heavy	Trucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	33.0 feet	-	Noise Source	Elevation	s (in fe	ef)		
Centerline Dist. to Observer:	33.0 feet	-	Au	tos: 0	000			
Barrier Distance to Observer:	0.0 feet		Medium Tru	rks: 2	297			
Observer Height (Above Pad):	5.0 feet		Heavy Tru	nks: 8	006	Grade Adi	ustment	0.0
Pad Elevation:	0.0 feet	-						
Road Elevation:	0.0 feet	-	Lane Equivale	nt Distan	ce (in fe	eet)		
Road Grade:	0.0%		Au	tos: 32.	833			
Lett View:	-90.0 degrees		Medium Tru	CKS: 32.	562			
Right View:	90.0 degrees		Heavy Tru	CKS: 32.	589			
FHWA Noise Model Calculation	s							
VehicleType REMEL	Traffic Flow Di	stance	Finite Road	Fresh	iel E	Barrier Atte	en Ber	m Atten
Autos: 64.30	-6.61	2.6	64 -1.2	D	-4.52	0.0	000	0.000
Medium Trucks: 75.75	-23.85	2.6	69 -1.2	D	-4.86	0.0	000	0.000
Heavy Trucks: 81.57	-27.81	2.6	69 -1.2	D	-5.69	0.0	000	0.000
Unmitigated Noise Levels (with	out Topo and barri	ier atter	nuation)					
VehicleType Leq Peak Hou	ır Leq Day	Leq E	vening Le	q Night		Ldn	CI	IEL
Autos: 59	0.1 58.3		56.5	50.4	+	59.1		59.7
Medium Trucks: 53	3.4 52.9		46.5	45.0)	53.5	5	53.7
Heavy Trucks: 55	5.2 54.8		45.8	47.1		55.4	ļ	55.5
Vehicle Noise: 61	.4 60.7		57.2	52.9	9	61.4	Ļ	61.8
Centerline Distance to Noise Co	ontour (in feet)							
		70	dBA 6	5 dBA	60	0 dBA	55	dBA
	Ldn:	1	9	19		41	8	88
	CNEL:	1	9	20		44	ę	94

	FH)	WA-RD-77-108	HIGH	WAY N	IOISE PI	REDICT		DDEL			
Scenar	io: OYC					Project	Name:	Upland	d Colonies		
Road Nam	ne: 15th St.					Job N	lumber:	14319			
Road Segme	nt: e/o Campu	s Av.									
SITE	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	s	
Highway Data				4	Site Con	ditions	(Hard :	= 10, So	oft = 15)		
Average Daily	Traffic (Adt):	105 vehicle	s					Autos:	15		
Peak Hour	Percentage:	7.90%			Me	dium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	8 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	25 mph		1	Vehicle	Mix					
Near/Far La	ne Distance:	12 feet		-	Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6	6 97.42%
Ba	rrier Height	0.0 feet			M	edium T	rucks:	84.8%	4.9%	10.3	% 1.84%
Barrier Type (0-W	/all. 1-Berm):	0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8	% 0.74%
Centerline Di	st. to Barrier:	33.0 feet			Noico Sr		lovatio	ne (in f	nof)		
Centerline Dist.	to Observer:	33.0 feet		ŕ	10/30 00	Auto	evaluoi	000			
Barrier Distance	to Observer:	0.0 feet			Madiu	Auto Truck	a. u	207			
Observer Height	(Above Pad):	5.0 feet			Healu	n Truck	5. 4 c' 9	006	Grade Ac	liustmei	nt. 0.0
P	ad Elevation:	0.0 feet			near	y muck	з. с	.000	0/000/10	jaounoi	. 0.0
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distar	nce (in i	feet)		
	Road Grade:	0.0%				Auto	s: 32	2.833			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 32	2.562			
	Right View:	90.0 degre	es		Heav	y Truck	s: 32	2.589			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	nel	Barrier At	ten B	erm Atten
Autos:	58.73	-20.21		2.6	4	-1.20		-4.52	0.	000	0.000
Medium Trucks:	70.80	-37.45		2.6	9	-1.20		-4.86	0.	000	0.000
Heavy Trucks:	77.97	-41.40		2.6	9	-1.20		-5.69	0.	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	r atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Day	/	Leq E	vening	Leq	Night		Ldn	(CNEL
Autos:	40	0.0	39.1		37.3		31	.3	39.	9	40.5
Medium Trucks:	34	1.8	34.4		28.0		26	.4	34.	9	35.1
Heavy Trucks:	38	3.1	37.7		28.6		29	.9	38.	2	38.4
Vehicle Noise:	42	2.9	42.2		38.3		34	.4	42.	9	43.3
Centerline Distant	ce to Noise C	ontour (in feet)								
				70 0	dBA	65	dBA	6	60 dBA	5	5 dBA
			Ldn:	1	1		1		2		5
		С	NEL:	1	1		1		3		5

Sunday, December 4, 2022

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	FH	WA-RD-77-108	HIGHW	AY NC	DISE P	REDICTI	ON MO	DEL			
Scenar Road Nam Road Segme	io: OYC ne: 15th St. nt: w/o Grove	Av.				Project Job Ni	Name: umber:	Uplan 14319	d Colonies		
SITE	SPECIFIC I	NPUT DATA				N	OISE I	MODE	L INPUT	s	
Highway Data				Si	te Cor	nditions ((Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	135 vehicle	s					Autos:	15		
Peak Hour	Percentage:	7.90%			Me	edium Tru	icks (2)	Axles).	15		
Peak H	lour Volume:	11 vehicle	s		He	eavy Truc	:ks (3+)	Axles).	15		
Ve	hicle Speed:	25 mph		V	hiclo	Mix					
Near/Far La	ne Distance:	12 feet			Veł	nicleTvpe		Dav	Evenina	Niah	t Dailv
Site Data						A	utos:	77.5%	6 12.9%	9.6	% 97.42%
Bai	rrier Height:	0.0 feet			Μ	ledium Tr	ucks:	84.8%	6 4.9%	10.3	% 1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0				Heavy Tr	ucks:	86.5%	6 2.7%	10.8	% 0.74%
Centerline Di	st. to Barrier:	33.0 feet		N	nise S	ource Ele	evation	s (in f	eet)		
Centerline Dist.	to Observer:	33.0 feet		-		Autos	x' 0	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	s: 2	297			
Observer Height ((Above Pad):	5.0 feet			Hea	vv Trucks	. <u> </u>	006	Grade Ad	liustme	nt: 0.0
Pa	ad Elevation:	0.0 feet				.,					
Roa	ad Elevation:	0.0 feet		Lá	ane Eq	uivalent	Distan	ce (in	feet)		
	Road Grade:	0.0%				Autos	s: 32.	.833			
	Left View:	-90.0 degre	es		Mediu	m Trucks	s: 32.	.562			
	Right View:	90.0 degre	es		Hea	vy Trucks	32.	.589			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresr	nel	Barrier Att	en E	lerm Atten
Autos:	58.73	-19.13		2.64		-1.20		-4.52	0.0	000	0.000
Medium Trucks:	70.80	-36.37		2.69		-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	77.97	-40.32		2.69		-1.20		-5.69	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	/ L	eq Eve	ening	Leq I	Night		Ldn		CNEL
Autos:	41	1.0	40.2		38.4		32.3	3	41.	0	41.6
Medium Trucks:	35	5.9	35.4		29.1		27.5	5	36.	0	36.2
Heavy Trucks:	39	9.1	38.7		29.7	,	31.0)	39.	3	39.4
Vehicle Noise:	43	3.9	43.3		39.4		35.5	5	44.	0	44.4
Centerline Distance	ce to Noise C	ontour (in fee)		_				-		
				70 dE	3A	65 0	dBA	1	60 dBA	1	55 dBA
			Ldn:	1		1			3		6
		C	NEL:	1		1			3		6

Scenar	io: OYC					Project	Name: \	Jpland	Colonies		
Road Nam	ne: 14th St.					Job N	umber: '	14319			
Road Segme	nt: w/o Campu	s Av.									
SITE	SPECIFIC IN	PUT DATA				N	OISE N	IODE	L INPUT	s	
Highway Data				S	Site Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	4,120 vehicles	S				,	Autos:	15		
Peak Hour	Percentage:	7.90%			Me	dium Tru	icks (2 A	(xles)	15		
Peak H	lour Volume:	325 vehicles	S		He	avy Truc	:ks (3+ A	(xles)	15		
Ve	hicle Speed:	35 mph		ν	ehicle l	Nix					
Near/Far La	ne Distance:	12 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Heiaht:	0.0 feet			Me	edium Ti	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy Ti	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	33.0 feet			loise Sc	urco El	ovation	: (in fa	oof)		
Centerline Dist.	to Observer:	33.0 feet		-	0130 00	Auto	. 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediu	n Truck	5. 0.0	207			
Observer Height ((Above Pad):	5.0 feet			Heav	v Truck	s 2.1	006	Grade Ad	iustment	0.0
Pa	ad Elevation:	0.0 feet			mour	,	. 0				
Roa	ad Elevation:	0.0 feet		L	ane Equ	uivalent	Distanc	e (in t	feet)		
	Road Grade:	0.0%				Auto:	s: 32.0	333			
	Left View:	-90.0 degree	es		Mediur	n Truck	s: 32.	562			
	Right View:	90.0 degree	es		Heav	y Truck	32.5	589			
FHWA Noise Mode	el Calculations	5									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	64.30	-5.73		2.64	Ļ	-1.20		-4.52	0.0	000	0.00
Medium Trucks:	75.75	-22.97		2.69)	-1.20		-4.86	0.0	000	0.00
Heavy Trucks:	81.57	-26.93		2.69)	-1.20		-5.69	0.0	000	0.00
Unmitigated Noise	e Levels (with	out Topo and	barrier a	attenu	uation)					1	
Unmitigated Noise VehicleType	e Levels (with Leq Peak Hou	r Leq Day	barrier a	attenu eq Ev	u ation) rening	Leq	Night		Ldn	CI	VEL
Unmitigated Noise VehicleType Autos:	e Levels (witho Leq Peak Hou 60	r Leq Day	barrier a Le 59.1	attenu eq Ev	vening 57.4	Leq	Night 51.3		Ldn 59.9	CI	VEL 60.
Unmitigated Noise VehicleType Autos: Medium Trucks:	e Levels (witho Leq Peak Hou 60 54	nut Topo and Leq Day 0 3	barrier a 59.1 53.8	atteni eq Ev	vation) rening 57.4 47.4	Leq	Night 51.3 45.9		Ldn 59.9 54.3	CI 3	VEL 60.5 54.0
Unmitigated Noise VehicleType Autos: Medium Trucks: Heavy Trucks:	e Levels (without Leg Peak Hou 60 54 56	out Topo and r Leq Day .0 .3 .1	barrier a 59.1 53.8 55.7	eq Ev	uation) rening 57.4 47.4 46.7	Leq	Night 51.3 45.9 47.9		Ldn 59.9 54.3 56.3	<i>CI</i> 3 3	VEL 60.5 54.6 56.4
Unmitigated Noise VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	e Levels (without Leg Peak Hou 60 54 56 62	Dut Topo and r Leq Day 0 3 1 2	barrier a 7 Le 59.1 53.8 55.7 61.6	attenu eq Ev	vening 57.4 47.4 46.7 58.1	Leq	Night 51.3 45.9 47.9 53.7		Ldn 59.9 54.3 56.3 62.3	C/ 3 3 3	VEL 60. 54. 56. 62.
Unmitigated Noise VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise: Centerline Distance	e Levels (without Leg Peak Hout 60 54 56 62 62 62 62 62 62 62 62 62 62 62 62 62	Dut Topo and r Leq Day 0 3 1 2 ntour (in feet,	barrier a , Le 59.1 53.8 55.7 61.6)	eq Ev	vation) rening 57.4 47.4 46.7 58.1	Leg	Night 51.3 45.9 47.9 53.7		Ldn 59.9 54.3 56.3 62.3	C/ 9 3 3	NEL 60. 54. 56. 62.
Unmitigated Noiss VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise: Centerline Distanc	e Levels (with Leg Peak Hou 60 54 56 62 ce to Noise Co	nt Topo and Leq Day 0 3 1 2 ntour (in feet,	barrier a 59.1 53.8 55.7 61.6	attenu eq Ev 70 d	uation) rening 57.4 47.4 46.7 58.1	Leq .	Night 51.3 45.9 47.9 53.7	6	Ldn 59.5 54.3 56.3 62.3 60 dBA	CI 9 3 3 3 3 55	VEL 60.8 54.6 56.4 62.7 dBA
Unmitigated Noise VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise: Centerline Distanc	e Levels (with Leq Peak Hou 60 54 56 62 ce to Noise Co	out Topo and r Leq Day 0 3 1 2 ntour (in feet	barrier a 59.1 53.8 55.7 61.6 0 Ldn:	70 d	uation) rening 57.4 47.4 46.7 58.1	Leq . 65 (Night 51.3 45.9 47.9 53.7 dBA 2	6	Ldn 59.5 54.3 62.3 60 dBA 47	CI 2 3 3 55 1	VEL 60.8 54.6 56.4 62.7 dBA 01

	FH\	WA-RD-77-108	HIGHWA	Y NC	DISE PREDICT	ION MO	DEL			
Scenar Road Narr Road Segme	io: OYC+P ne: Campus A nt: n/o 16th St	V.			Projec Job N	t Name: \ lumber: `	Jplanc 14319	I Colonies		
SITE	SPECIFIC IN	NPUT DATA				NOISE	IODE	L INPUTS	5	
Highway Data				Si	ite Conditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	23,069 vehicle	s				Autos:	15		
Peak Hour	Percentage:	7.90%			Medium Tr	rucks (2 A	Axles):	15		
Peak H	lour Volume:	1,822 vehicle	s		Heavy Tru	icks (3+ A	Axles):	15		
Ve	hicle Speed:	40 mph		V	ehicle Mix					
Near/Far La	ne Distance:	36 feet		-	VehicleType	9	Dav	Evenina	Niaht	Dailv
Site Data						Autos:	77.5%	12.9%	9.6%	97.42%
Ba	rrior Hoiaht	0.0 feet			Medium 7	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	/all. 1-Berm):	0.0			Heavy 7	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	44.0 feet		N	oico Sourco E	lovation	in fe	of)		
Centerline Dist.	to Observer:	44.0 feet		744	Auto		200	eu		
Barrier Distance	to Observer:	0.0 feet			Madium Trual	/S. U.I	207			
Observer Height	(Above Pad):	5.0 feet			Heavy Truck	(S. 2.)	201	Grade Adi	ustment	0.0
P	ad Elevation:	0.0 feet			neavy nuch		500	0/000/10	dourioni	0.0
Ro	ad Elevation:	0.0 feet		La	ane Equivalen	t Distanc	ce (in t	feet)		
	Road Grade:	0.0%			Auto	os: 40.4	460			
	Left View:	-90.0 degre	es		Medium Truck	(s: 40.)	241			
	Right View:	90.0 degre	es		Heavy Truck	(s: 40.)	262			
FHWA Noise Mod	el Calculation	S		_						
VehicleType	REMEL	Traffic Flow	Distan	ce	Finite Road	Fresn	el	Barrier Atte	en Ber	m Atten
Autos:	66.51	1.17		1.28	-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-16.07		1.31	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-20.03		1.31	-1.20		-5.50	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	tenu	ation)					
VehicleType	Leq Peak Hou	ur Leq Day	/ Le	q Eve	ening Leq	Night		Ldn	CI	VEL
Autos:	67	7.8	66.9		65.1	59.1		67.7	,	68.3
Medium Trucks:	61	1.8	61.3		54.9	53.4		61.8	3	62.1
Heavy Trucks:	63	3.1	62.7		53.6	54.9)	63.2	2	63.4
Vehicle Noise:	69	9.8	69.1		65.8	61.2	2	69.8	3	70.2
Centerline Distant	ce to Noise Co	ontour (in feet)							
				70 dE	BA 65	dBA	6	i0 dBA	55	dBA
			Ldn:	43		92		197	4	25
		C	NEL:	46	1	98		211	4	55

	FH)	WA-RD-77-108 H	IIGHWA	Y NO	DISE PRE	EDICTIC	ON MO	DEL				
Scenar	rio: OYC+P				F	Project N	lame:	Uplan	d Colonies	;		
Road Nan	ne: Campus A	v.				Job Nu	mber:	14319				
Road Segme	nt: s/o 16th St											
SITE	SPECIFIC IN	IPUT DATA				NC	DISE N	NODE	L INPU	rs		
Highway Data				Sit	te Cond	itions (H	lard =	10, S	oft = 15)			
Average Daily	Traffic (Adt):	23,222 vehicles						Autos.	15			
Peak Hour	Percentage:	7.90%			Medi	ium Truc	:ks (2 A	Axles).	15			
Peak H	lour Volume:	1,835 vehicles			Hear	vy Truck	:s (3+ A	Axles).	15			
Ve	ehicle Speed:	40 mph		Ve	hicle Mi	ix						
Near/Far La	ane Distance:	36 feet			Vehic	leType		Day	Evening	Nig	ght	Daily
Site Data						AL	itos:	77.5%	6 12.9%		9.6%	97.42%
Ba	rrier Heiaht:	0.0 feet			Med	dium Tru	cks:	84.8%	6 4.9%	10).3%	1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0			He	eavy Tru	cks:	86.5%	6 2.7%	10).8%	0.74%
Centerline D	ist. to Barrier:	44.0 feet		No	oise Sou	irce Ele	vation	s (in f	eet)			
Centerline Dist.	to Observer:	44.0 feet				Autos:	0.0	000	,			
Barrier Distance	to Observer:	0.0 feet			Medium	Trucks:	2.	297				
Observer Height	(Above Pad):	5.0 feet			Heavv	Trucks:	8.0	006	Grade A	djusti	ment:	0.0
P	ad Elevation:	0.0 feet										
Ro	ad Elevation:	0.0 feet		La	ne Equi	valent L	Jistand	ce (in	teet)			
	Road Grade:	0.0%				Autos:	40.	460				
	Left View:	-90.0 degrees	5		Meaium	Trucks:	40.	241				
	Right View:	90.0 degrees	5		Heavy	Trucks:	40.	262				
FHWA Noise Mod	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Distanc	е	Finite R	load	Fresn	el	Barrier A	tten	Bern	n Atten
Autos:	66.51	1.20		1.28		-1.20		-4.61	0	.000		0.000
Medium Trucks:	77.72	-16.04		1.31		-1.20		-4.87	0	.000		0.000
Heavy Trucks:	82.99	-20.00		1.31		-1.20		-5.50	0	.000		0.000
Unmitigated Nois	e Levels (with	out Topo and b	arrier at	tenua	ation)						-	
VehicleType	Leq Peak Hou	ur Leq Day	Leo	y Eve	ning	Leq N	ight		Ldn		CN	IEL
Autos:	67	⁷ .8 6	6.9		65.1		59.1		67	.7		68.3
Medium Trucks:	61	.8 6	1.3		54.9		53.4	Ļ	61	.9		62.1
Heavy Trucks:	63	3.1 6	2.7		53.7		54.9)	63	.3		63.4
Vehicle Noise:	69	9.8 6	9.1		65.8		61.3	3	69	.8		70.2
Centerline Distan	ce to Noise C	ontour (in feet)										
				70 dB	A	65 dl	BA	1	60 dBA		55 c	dBA
		L	dn:	43		92			198		42	27
		CN	EL:	46		98			212		45	57

Sunday, December 4, 2022

	FH	WA-RD-77-108	HIGHV	VAY NO		REDICTIO					
Scenai Road Nan Road Segme	rio: OYC+P ne: Campus A ent: n/o 14th St	v.				Project I Job Nu	Vame: L Imber: 1	Jpland 4319	Colonies		
SITE	SPECIFIC II	NPUT DATA				N	OISE N	IODE	L INPUTS	5	
Highway Data				S	ite Cor	nditions (Hard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	22,590 vehicle	s				A	Autos:	15		
Peak Hour	Percentage:	7.90%			Me	edium Tru	cks (2 A	xles):	15		
Peak H	lour Volume:	1,785 vehicle	s		He	eavy Truci	ks (3+ A	xles):	15		
Ve	ehicle Speed:	40 mph		V	ehicle	Mix					
Near/Far La	ne Distance:	36 feet			Veh	nicleType	1	Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Heiaht:	0.0 feet			M	ledium Tru	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy Tru	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline D	ist. to Barrier:	44.0 feet		N	oise S	ource Ele	vations	; (in fe	et)		
Centerline Dist.	to Observer:	44.0 feet				Autos	: 0.0	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks	: 2.2	297			
Observer Height	(Above Pad):	5.0 feet			Hea	vy Trucks	: 8.0	006	Grade Adj	ustment	: 0.0
P	ad Elevation:	0.0 feet									
Ro	ad Elevation:	0.0 feet		Li	ane Eq	uivalent	Distanc	e (in 1	eet)		
	Road Grade:	0.0%			Marth	Autos	: 40.4	160			
	Left View:	-90.0 degre	es		Mealu	m Trucks	: 40.2	241			
	Right view:	90.0 degre	es		пеа	vy mucks.	. 40.2	202			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresne	e/	Barrier Atte	en Ber	m Atten
Autos:	66.51	1.08		1.28		-1.20		-4.61	0.0	000	0.000
Medium Trucks:	77.72	-16.16		1.31		-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-20.12		1.31		-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ 1	Leq Eve	ening	Leq N	light		Ldn	C	NEL
Autos:	67	7.7	66.8		65.0)	59.0		67.6	6	68.2
Medium Trucks:	6	1.7	61.2		54.8	1	53.3		61.7	, 	62.0
Heavy Trucks:	6	3.0	62.6		53.5		54.8		63.2	,	63.3
venicie Noise.	0	9.7	09.0		05.7		01.1		09.7		70.1
Centerline Distan	ce to Noise C	ontour (in feel)	70 d	24	65.4	DA	6	0 dBA	55	dBA
			I dn:	10 00	24	0000	DM 1	0	105	1 35	110
		C	NEL ·	42		90	,		208	4	1/0
		0		40		51			200	4	

	FHWA	A-RD-77-108 HIG	HWAY	NOISE PR	EDICTIO	N MOD	EL			
Scenario:	OYC+P				Project Na	ame: U	pland	Colonies		
Road Name:	Campus Av.				Job Nurr	nber: 14	4319			
Road Segment.	s/o 14th St.									
SITE SI	PECIFIC INP	UT DATA			NO	ISE M	ODE	L INPUT	S	
Highway Data				Site Cond	ditions (H	ard = 1	0, So	ft = 15)		
Average Daily Tr	affic (Adt): 19	,735 vehicles				Α	utos:	15		
Peak Hour P	ercentage:	7.90%		Med	dium Truck	(S (2 A)	des):	15		
Peak Ho	ur Volume: 1	,559 vehicles		Hea	avy Trucks	: (3+ A)	des):	15		
Vehi	cle Speed:	40 mph		Vehicle N	lix					
Near/Far Lane	Distance:	36 feet	F	Vehi	cleType	L	Day	Evening	Night	Daily
Site Data					Aut	os: 7	7.5%	12.9%	9.6%	97.42%
Barri	er Heiaht:	0.0 feet		Me	dium Truc	ks: 8	4.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wal	l, 1-Berm):	0.0		H	leavy Truc	ks: 8	6.5%	2.7%	10.8%	0.74%
Centerline Dist.	to Barrier:	44.0 feet	E.	Naisa Sa	urce Elev	ations	(in fo	of)		
Centerline Dist. to	Observer:	44.0 feet	H	10130 00	Autos:	0.0	00	00		
Barrier Distance to	Observer:	0.0 feet		Mediur	n Trucks	2.2	97			
Observer Height (A	bove Pad):	5.0 feet		Heav	v Trucks:	8.0	06	Grade Ad	iustment	: 0.0
Pad	Elevation:	0.0 feet	-							
Road	Elevation:	0.0 feet	4	Lane Equ	iivalent D	istance	e (in f	eet)		
Ro	oad Grade:	0.0%			Autos:	40.4	60			
_	Left View:	-90.0 degrees		Mediun	n Trucks:	40.2	41			
ŀ	Right View:	90.0 degrees		Heav	y Trucks:	40.2	02			
FHWA Noise Model	Calculations									
VehicleType	REMEL 7	Traffic Flow Di	istance	Finite	Road	Fresne	1	Barrier Att	en Ber	m Atten
Autos:	66.51	0.49	1.2	8	-1.20	-	4.61	0.0	000	0.000
Medium Trucks:	77.72	-16.75	1.3	1	-1.20	-	4.87	0.0	000	0.000
Heavy Trucks:	82.99	-20.71	1.3	1	-1.20	-	5.50	0.0	000	0.00
Unmitigated Noise I	evels (withou	t Topo and barri	ier atten	uation)						
VehicleType L	eq Peak Hour	Leq Day	Leq E	vening	Leq Nig	ght		Ldn	CI	NEL
Autos:	67.1	66.2		64.4		58.4		67.0)	67.6
Medium Trucks:	61.1	60.6		54.2		52.7		61.	1	61.4
Heavy Trucks:	62.4	62.0		53.0		54.2		62.0	j ,	62.
Vehicle Noise:	69.1	68.4		65.1		60.6		69.	1	69.
Centerline Distance	to Noise Con	tour (in feet)								
		, . I	70 (dBA	65 dB.	A	6	0 dBA	55	dBA
		Ldn:	3	8	83			178	3	83
					0.7			100		10

	FH\	WA-RD-77-108	HIGHWA	Y NOIS	SE PREDICTI	ON MOI	DEL			
Scenar Road Nan Road Segme	io: OYC+P ne: 16th St. nt: w/o Campu	ıs Av.			Project Job N	Name: L umber: 1	Jpland (4319	Colonies		
SITE	SPECIFIC IN	NPUT DATA			N	OISE N	IODEL	INPUT	5	
Highway Data				Site	Conditions	(Hard =	10, Sof	t = 15)		
Average Daily	Traffic (Adt):	24,348 vehicles	5			A	Autos:	15		
Peak Hour	Percentage:	7.90%			Medium Tru	icks (2 A	xles):	15		
Peak H	lour Volume:	1,924 vehicles	в		Heavy Truc	:ks (3+ A	xles):	15		
Ve	hicle Speed:	45 mph		Veh	icle Mix					
Near/Far La	ne Distance:	36 feet			VehicleTvpe		Dav I	Evenina	Night	Dailv
Site Data					A	utos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Height	0.0 feet			Medium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V	/all. 1-Berm):	0.0			Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	44.0 feet		Noi	so Sourco El	wations	(in foo	(#)		
Centerline Dist.	to Observer:	44.0 feet		NOIS	Autor			9		
Barrier Distance	to Observer:	0.0 feet			Autos Indium Trucka	5. U.U.	00			
Observer Height	(Above Pad):	5.0 feet		IV.	Heavy Trucks	. <u>2.2</u>		Grade Adi	ustment	0.0
P	ad Elevation:	0.0 feet			neavy nucka	5. 0.0	00	5/440 / 14	dounion	0.0
Ro	ad Elevation:	0.0 feet		Lan	e Equivalent	Distanc	e (in fe	et)		
	Road Grade:	0.0%			Autos	s: 40.4	60			
	Left View:	-90.0 degree	es	N	ledium Trucks	s: 40.2	241			
	Right View:	90.0 degree	es		Heavy Trucks	s: 40.2	262			
FHWA Noise Mod	el Calculation	s								
VehicleType	REMEL	Traffic Flow	Distanc	e F	inite Road	Fresne	el B	arrier Atte	en Ber	m Atten
Autos:	68.46	0.89		1.28	-1.20		4.61	0.0	000	0.000
Medium Trucks:	79.45	-16.35		1.31	-1.20		4.87	0.0	000	0.000
Heavy Trucks:	84.25	-20.30		1.31	-1.20		-5.50	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier at	tenuat	ion)					
VehicleType	Leq Peak Hou	ur Leq Day	Lee	q Eveni	ing Leq I	Night	l	dn	CI	VEL
Autos:	69	9.4	68.6		66.8	60.7		69.4	ŀ	70.0
Medium Trucks:	63	3.2	62.7		56.4	54.8		63.3	3	63.5
Heavy Trucks:	64	4.1	63.7		54.6	55.9		64.2	2	64.4
Vehicle Noise:	71	1.3	70.6		67.4	62.7		71.3	3	71.7
Centerline Distan	ce to Noise Co	ontour (in feet,)							
				70 dBA	65 0	1BA	60	dBA	55	dBA
			Ldn:	53	11	15	2	248	5	35
		CI	NEL:	57	12	24	2	266	5	73

	FH\	NA-RD-77-108	HIGHW	AY N	OISE PI	REDICTI	ON MO	DEL				
Scenai Road Nan	rio: OYC+P ne: 16th St.					Project I	Name: umber:	Uplan 14319	d Colonies			
Road Segme	nt: e/o Campu	s Av.										
SITE	SPECIFIC IN	IPUT DATA				N	OISE	NODE		S		
Highway Data				S	ite Con	ditions ('Hard =	10, S	oft = 15)		_	
Average Daily	Traffic (Adt):	25,283 vehicle	s					Autos.	15			
Peak Hour	Percentage:	7.90%			Me	dium Tru	cks (2 /	Axles).	15			
Peak H	lour Volume:	1,997 vehicle	s		He	avy Truc	ks (3+ /	Axles).	15			
Ve	ehicle Speed:	45 mph		v	ehicle l	Mix						
Near/Far La	ane Distance:	36 feet		-	Veh	icleType		Day	Evening	Nigh	t [Daily
Site Data						A	utos:	77.5%	12.9%	9.6	% 9	7.42%
Ba	rrier Height:	0.0 feet			M	edium Tri	ucks:	84.8%	4.9%	10.3	%	1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0			1	Heavy Tri	ucks:	86.5%	2.7%	10.8	% (0.74%
Centerline D	ist. to Barrier:	44.0 feet		Ν	loise So	ource Ele	evation	s (in f	eet)			
Centerline Dist.	to Observer:	44.0 feet		-	Autos: 0.000							
Barrier Distance	to Observer:	0.0 feet			Medium Trucks: 2.297							
Observer Height	(Above Pad):	5.0 feet			Heav	v Trucks	. 8.	006	Grade Ad	ljustme	ent: 0	.0
P	ad Elevation:	0.0 feet		-								
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distan	ce (in	feet)			
	Road Grade:	0.0%				Autos	: 40.	460				
	Left View:	-90.0 degree	es		Mediu	m Trucks	40.	241				
	Right View:	90.0 degree	es		Heavy Trucks: 40.262							
FHWA Noise Mod	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresr	nel	Barrier Att	ten E	erm /	Atten
Autos:	68.46	1.05		1.28		-1.20		-4.61	0.	000		0.000
Medium Trucks:	79.45	-16.18		1.31		-1.20		-4.87	0.	000		0.000
Heavy Trucks:	84.25	-20.14		1.31		-1.20		-5.50	0.	000		0.000
Unmitigated Nois	e Levels (with	out Topo and	barrier	attenu	uation)						·	
VehicleType	Leq Peak Hou	ir Leq Day	' L	.eq Ev	ening	Leq N	Vight		Ldn		CNE	L
Autos:	69	68.7		66.9		60.9	9	69.	5		70.1	
Medium Trucks:	63	62.9		56.5		55.0)	63.	4		63.7	
Heavy Trucks:	64	.2	63.8		54.8		56.0)	64.	4		64.5
Vehicle Noise:	71	.4	70.7		67.6		62.9	9	71.	4		71.9
Centerline Distan	ce to Noise Co	ontour (in feet)									
				70 d	BA	65 a	IBA	1	60 dBA	4	55 dB	A
			Ldn:	55	5	11	8		254		548	
		C	NEL:	59	59 127 273				588			

Sunday, December 4, 2022

Sunday, December 4, 2022

	FH	WA-RD-77-10	3 HIGH	IWAY	NOISE F	PREDICTI		DEL			
Scena Road Nan Road Segme	rio: OYC+P ne: 15th St. ent: w/o Campu	ıs Av.				Project Job N	Name: \ umber: 1	Jplan 14319	d Colonies		
SITE	SPECIFIC IN	IPUT DATA				N	OISE N	NODE	L INPUT	5	
Highway Data					Site Co.	nditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	3,395 vehicle	es				,	Autos.	15		
Peak Hour	Percentage:	7.90%			М	edium Tru	icks (2 A	Axles)	15		
Peak I	Hour Volume:	268 vehicle	s		н	eavy Truc	:ks (3+ A	Axles)	15		
Ve	ehicle Speed:	35 mph			Vehicle	Mix					
Near/Far La	ane Distance:	12 feet			Ve	hicleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	6 12.9%	9.6%	97.42%
Ba	rrier Height:	0.0 feet			٨	1edium Tr	ucks:	84.8%	6 4.9%	10.3%	1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy Tr	ucks:	86.5%	6 2.7%	10.8%	0.74%
Centerline D	ist. to Barrier:	33.0 feet			Noise S	ource El	evations	s (in f	eet)		
Centerline Dist.	to Observer:	33.0 feet				Autos	s: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Media	um Trucks	: 2.2	297			
Observer Height	(Above Pad):	5.0 feet			Hea	vy Trucks	s: 8.0	006	Grade Adj	ustment	: 0.0
P	ad Elevation:	0.0 feet									
Ro	ad Elevation:	0.0 feet			Lane Ed	quivalent	Distanc	e (in	feet)		
	Road Grade:	0.0%				Autos	5: 32.8	833			
	Left View:	-90.0 degre	es		Medii	um Trucks	32.5	562			
	Right View:	90.0 degre	es		Hea	ivy Trucks	32.5	589			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	e Road	Fresn	el	Barrier Atte	en Ber	m Atten
Autos:	64.30	-6.57	,	2.	64	-1.20		-4.52	0.0	000	0.000
Medium Trucks:	75.75	-23.81		2.	69	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	81.57	-27.77	,	2.	69	-1.20		-5.69	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq Da	y	Leq E	Evening	Leq	Night		Ldn	C	NEL
Autos:	59	9.2	58.3		56.	5	50.5	5	59.1		59.7
Medium Trucks:	52.9		46.0	6	45.0)	53.5	5	53.7		
Heavy Trucks:	55	5.3	54.9		45.9	9	47.1		55.5	5	55.6
Vehicle Noise:	61	1.4	60.7		57.3	3	52.9)	61.4	Ļ	61.8
Centerline Distan	ce to Noise C	ontour (in fee	t)								
			L	70	dBA	65 0	dBA	1	60 dBA	55	dBA
	Ldn:					1	9		41		88
		C	NEL:		9	2	0		44		94

						LEDIOTIC					
Scenario	: OYC+P					Project I	Vame: l	Jpland	Colonies		
Road Name	e: 15th St.					Job Nu	mber: '	4319			
Road Segmen	t: e/o Campus	s Av.									
SITE S	PECIFIC IN	PUT DATA				N	DISEN	IODE	L INPUT	S	
Highway Data					Site Con	ditions (l	Hard =	10, So	oft = 15)		
Average Daily 1	raffic (Adt):	614 vehicle	s				,	Autos:	15		
Peak Hour I	Percentage:	7.90%			Mee	dium Tru	cks (2 A	xles):	15		
Peak Ho	our Volume:	49 vehicle	s		Hei	avy Truck	ks (3+ A	xles):	15		
Veh	icle Speed:	25 mph			Vehicle N	lix					
Near/Far Lar	e Distance:	12 feet		F	Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	97.429
Bar	rier Heiaht:	0.0 feet			Me	edium Tru	icks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wa	all, 1-Berm):	0.0			F	leavy Tru	icks:	86.5%	2.7%	10.8%	0.749
Centerline Dis	t. to Barrier:	33.0 feet		H	Noise So	urco Elo	vation	in f	oof)		
Centerline Dist. t	o Observer:	33.0 feet		H	10/30 00	Autos	0.0	000			
Barrier Distance t	o Observer:	0.0 feet			Mediur	n Trucks	2:	997			
Observer Height (/	Above Pad):	5.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0						
Pa	d Elevation:	0.0 feet		F							
Roa	d Elevation:	0.0 feet		4	Lane Equ	iivalent l	Distanc	e (in	leet)		
F	coad Grade:	0.0%				Autos.	32.	333			
	Left View:	-90.0 degree	es		Mediur	n Trucks.	32.	562			
	Right View:	90.0 degre	es		Heav	y Trucks.	32.	589			
FHWA Noise Mode	I Calculations	;									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	58.73	-12.54		2.6	4	-1.20		-4.52	0.0	000	0.00
Medium Trucks:	70.80	-29.78		2.6	9	-1.20		-4.86	0.0	000	0.00
Heavy Trucks:	77.97	-33.73		2.6	9	-1.20		-5.69	0.0	000	0.00
Unmitigated Noise	Levels (witho	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou	r Leq Day	1	Leq E	vening	Leq N	light		Ldn	C	NEL
Autos:	47.	6	46.8		45.0		38.9		47.6	6	48.
Medium Trucks:	42.		35.7		34.1		42.6	6	42.		
Heavy Trucks:	45.	.7	45.3		36.3		37.5		45.9	9	46.
Vehicle Noise:	50.	.5	49.9		46.0		42.1		50.6	3	51.
Centerline Distanc	e to Noise Co	ntour (in feet)								
			L	70 (dBA	65 d	BA	6	60 dBA	55	dBA
	Ldn:				2 4 8 1			17			
		0	NEL		,	4			8		18

	FH	WA-RD-77-108	B HIGH	IWAY N	IOISE PI	REDICTIO	N MOD	EL					
Scenar Road Nam Road Segme	io: OYC+P ne: 15th St. nt: w/o Grove	Av.			Project Name: Upland Colonies Job Number: 14319								
SITE	SPECIFIC IN	NPUT DATA				NO	ISE M	ODEL	NPUT	5			
Highway Data				4	Site Con	ditions (H	lard = 1	0, Soft	= 15)				
Average Daily	Traffic (Adt):	227 vehicle	s				A	utos:	15				
Peak Hour	Percentage:	7.90%			Me	dium Truc	ks (2 Ax	(les):	15				
Peak H	lour Volume:	18 vehicle	s		He	avy Truck	s (3+ Ax	(les):	15				
Ve	hicle Speed:	25 mph			Vehicle I	Mix							
Near/Far La	ne Distance:	12 feet		-	Veh	icleType	D	ay E	/ening	Night	Daily		
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	97.42%		
Bai	rrier Heiaht:	0.0 feet			M	edium Tru	cks: 8	4.8%	4.9%	10.3%	1.84%		
Barrier Type (0-W	/all, 1-Berm):	0.0			I	Heavy Tru	cks: 8	6.5%	2.7%	10.8%	0.74%		
Centerline Di	st. to Barrier:	33.0 feet		7	Noise So	ource Elev	ations	(in feet)				
Centerline Dist.	to Observer:	33.0 feet		-		Autos:	0.00	0					
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks:	2.29	97					
Observer Height ((Above Pad):	5.0 feet			Heav	v Trucks:	8.00	 16 Gi	ade Ad	ustment	: 0.0		
Pa	ad Elevation:	0.0 feet		L.		,							
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalent D	listance	e (in fee	t)				
	Road Grade:	0.0%				Autos:	32.83	33					
	Left View:	-90.0 degre	es		Mediu	m Trucks:	32.56	52					
	Right View:	90.0 degre	es		Heav	y Trucks:	32.5	39					
FHWA Noise Mode	el Calculation	s											
VehicleType	REMEL	Traffic Flow	Disi	tance	Finite	Road	Fresne	I Ba	rrier Atte	en Ber	m Atten		
Autos:	58.73	-16.87		2.6	4	-1.20	-4	4.52	0.0	000	0.000		
Medium Trucks:	70.80	-34.10)	2.6	9	-1.20	-4	4.86	0.0	000	0.000		
Heavy Trucks:	77.97	-38.06	i	2.6	9	-1.20	-	5.69	0.0	000	0.000		
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)								
VehicleType	Leq Peak Ho	ur Leq Da	у	Leg E	vening	Leq Ni	ght	Lo	in	C	NEL		
Autos:	43	3.3	42.4		40.7		34.6		43.2	2	43.8		
Medium Trucks:	38	3.2	37.7		31.3		29.8		38.3	3	38.5		
Heavy Trucks:	41	1.4	41.0		32.0		33.2		41.6	6	41.7		
Vehicle Noise:	46	3.2	45.6		41.6		37.7		46.2	2	46.6		
Centerline Distance	ce to Noise C	ontour (in fee	t)	=0		05.15							
			L	70 0	/U aBA 65 dBA 60 dBA			55	ава				
	Lan:				1 2 4				9				
		C	NEL:	1	1 2 4 9								

	FHV	VA-RD-77-108	HIGHV	VAY NO	DISE PF	REDICT		DEL				
Scenar	io: OYC+P					Project	Name:	Upland	Colonies			
Road Nam	e: 14th St.					Job N	umber:	14319				
Road Segme	nt: w/o Campu	s Av.										
SITE	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	S		
Highway Data				S	ite Con	ditions	(Hard =	= 10, So	oft = 15)			
Average Daily	Traffic (Adt):	4,212 vehicles	6					Autos:	15			
Peak Hour	Percentage:	7.90%			Mee	dium Tru	ucks (2	Axles):	15			
Peak H	lour Volume:	333 vehicles	6		Hei	avy Truc	cks (3+	Axles):	15			
Ve	hicle Speed:	35 mph		V	ehicle N	lix						
Near/Far La	ne Distance:	12 feet			Vehi	cleType		Day	Evening	Night	Daily	
Site Data						4	Autos:	77.5%	12.9%	9.6%	97.42%	
Ba	rrier Height:	0.0 feet			Ме	edium Ti	rucks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-W	(all, 1-Berm):	0.0			F	leavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%	
Centerline Di	st. to Barrier:	33.0 feet		N	nisa Sa	urco Fl	ovation	ne (in fi	oof)			
Centerline Dist.	to Observer:	33.0 feet		/*	0136 00	Auto	evanor e 0	000				
Barrier Distance	to Observer:	0.0 feet			Modiur	n Truck	s. 0	207				
Observer Height (Above Pad):	5.0 feet			Heav	v Truck	з. <u> </u>	006	Grade Ad	liustmen	0.0	
Pa	ad Elevation:	0.0 feet			mean	y macks	3. 0	.000		,		
Roa	ad Elevation:	0.0 feet		Li	ane Equ	iivalent	Distar	ice (in	feet)			
1	Road Grade:	0.0%				Auto:	s: 32	.833				
	Left View:	-90.0 degree	es		Mediur	n Truck	s: 32	.562				
	Right View:	90.0 degree	es		neavy ITUCKS: 32.589							
FHWA Noise Mode	el Calculation:	5										
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier At	ten Be	rm Atten	
Autos:	64.30	-5.64		2.64		-1.20		-4.52	0.	000	0.000	
Medium Trucks:	75.75	-22.88		2.69		-1.20		-4.86	0.	000	0.000	
Heavy Trucks:	81.57	-26.83		2.69		-1.20		-5.69	0.	000	0.000	
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	ation)							
VehicleType	Leq Peak Hou	r Leq Day	· 1	Leq Eve	ening	Leq	Night		Ldn	С	NEL	
Autos:	60	.1	59.2		57.5		51.	.4	60.	0	60.6	
Medium Trucks:	54	.4	53.9		47.5		46	.0	54.	4	54.7	
Heavy Trucks:	56	.2	55.8	46.8 48.0 56.4				56.5				
Vehicle Noise:	62	.3	61.7		58.2		53	.8	62.	4	62.8	
Centerline Distant	ce to Noise Co	ontour (in feet,										
				70 dE	BA	65 (dBA	6	60 dBA	55	dBA	
			Ldn:	10		2	2		47		102	
		Ci	VEL:	11		2	3		51		109	

Sunday, December 4, 2022

Sunday, December 4, 2022

APPENDIX C

STUDY AREA PHOTOS







L1-E 34, 7' 8.710000"117, 38' 9.850000"



L1-N 34, 7' 8.580000"117, 38' 9.910000"



L1-S 34, 7' 7.810000"117, 38' 10.460000"



L1-W 34, 7' 8.700000"117, 38' 9.850000"



L2-E 34, 7' 7.090000"117, 37' 28.570000"



L2-N 34, 7' 7.150000"117, 37' 28.540000"



L2-S 34, 7' 7.130000"117, 37' 28.540000"



L2-W 34, 7' 7.080000"117, 37' 28.570000"



L3-E 34, 7' 5.020000"117, 37' 58.560000"



L3-N 34, 7' 4.940000"117, 37' 58.590000"



L3-S 34, 7' 4.940000"117, 37' 58.590000"



L3-W 34, 7' 5.010000"117, 37' 58.590000"



L4-E 34, 7' 4.280000"117, 38' 11.200000"



L4-N 34, 7' 4.320000"117, 38' 11.200000"



L4-S 34, 7' 4.280000"117, 38' 11.200000"



L4-W 34, 7' 4.260000"117, 38' 11.170000"



L5-E 34, 7' 5.010000"117, 38' 12.460000"



L5-N 34, 7' 5.050000"117, 38' 12.570000"



L5-S 34, 7' 5.020000"117, 38' 12.520000"



L5-W 34, 7' 4.990000"117, 38' 12.490000"

APPENDIX D

NOISE LEVEL MEASUREMENT WORKSHEETS





						24-Ho	ur Noise L	evel Meas	urement S	ummary						
Date:	Tuesday, A	ugust 31, 202	1		Location:	L1 - Located	north of the	Project site r	near single-fa	amily	Meter:	Piccolo II			JN:	14319
Project:	Colonies Up	oland			Source:	residence at	1168 Upland	Hills Drive S	outh.						Analyst:	A. Khan
							Hourly L _{eq}	dBA Readings	(unadjusted)							
75.0	0															
a 70.0	0															
B 65.0	0															
ب 55.0	0															
2 50.0 2 45.0	0 -	N 0	~	• •	· •	∞ 4		<u>∞</u>	∞ 1	n			- 4 - 0 -		<u>o</u>	m
보 40.0	0 - 4 -	39.	- 4	- 4 - 4		<mark>- 4</mark>		- <mark>49.</mark>	- <mark>4</mark>	<mark></mark>	49.	₽ <mark></mark>	- <mark>49.</mark> -		<mark>47</mark> .	- 43
35.0	0 ++ 0	1 2	2	1 5	6	7 8		10 11	12 1	2 1/	15 1	6 17	18 10	20	21 22	22
	0	1 2	5	4 5		/ 0	5.	Hour Be	eginning	.5 14	15 1	0 17	10 15	20	21 22	25
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L _{eq}	Adj.	Adj. L _{eq}
	0	42.0	58.3	44.9	57.6	56.3	53.2	52.0	49.4	47.0	45.3	45.1	45.0	42.0	10.0	52.0
	1	39.7 41.0	44.5	37.1	44.1	43.7	42.7	42.1	40.3	39.0 39.5	37.6	37.4	37.2	39.7 41.0	10.0	49.7
Night	3	40.2	49.7	36.0	49.0	47.8	44.8	43.8	39.6	38.2	36.5	36.3	36.1	40.2	10.0	50.2
	4	42.0	51.8	37.4	51.3	50.5	47.5	45.6	41.0	39.3	37.9	37.7	37.4	42.0	10.0	52.0
	5	42.1	50.1	38.2	49.4	48.6	46.4	45.2	42.3	40.5	38.7	38.5	38.3	42.1	10.0	52.1
	7	42.8	46.4	36.0	50.5	45.5	44.4	43.4	42.9	40.8	36.6	36.4	36.1	42.8	0.0	49.6
	8	43.4	50.2	40.1	49.6	49.0	47.3	46.2	43.7	42.3	40.8	40.6	40.2	43.4	0.0	43.4
	9	49.7	55.1	42.2	54.7	54.4	53.9	53.4	50.7	48.9	43.8	43.2	42.4	49.7	0.0	49.7
	10	46.8	55.3	41.6	54.8	54.1	52.2	50.9	46.7	44.2	42.4	42.1	41.7	46.8	0.0	46.8
	11	49.0	50.7	41.2	49.7	59.2 49.2	25.7 48 3	55.2 47.6	47.0	45.9	41.9	41.7	41.4	49.0	0.0	49.0 44.8
	13	45.5	53.5	41.3	52.4	51.5	49.8	48.9	45.7	44.0	42.1	41.8	41.5	45.5	0.0	45.5
Day	14	48.0	57.1	43.8	56.6	55.9	53.7	51.9	47.2	45.4	44.3	44.1	43.9	48.0	0.0	48.0
	15	49.1	57.7	45.1	57.4	56.7	54.3	52.5	48.4	47.2	45.7	45.5	45.2	49.1	0.0	49.1
	16	46.9	53.5	43.7	53.1	52.5	50.8	49.6	47.0	45.8	44.4	44.1	43.8	46.9	0.0	46.9
	17	47.0	53.8	44.2	53.3	52.6	50.9	49.7	47.1	45.9	44.8	44.6	44.4	47.0	0.0	47.0
	18	49.4	54.1	46.4	53.7	53.3	52.5	51.9	50.1	48.8	47.0	46.8	46.5	49.4	0.0	49.4
	19	45.9	51.7	42.0	51.1	50.7	49.4	48.0	46.3	45.0	43.4	43.1	42.7	45.9	5.0	50.9
	20	43.1	52.8	42.0	52.5	49.0 52.0	48.0 51.1	50.4	43.4	44.4	45.5	45.1	42.8	43.1	5.0	52.6
	22	47.1	53.0	43.5	52.4	51.9	50.7	49.9	47.8	45.9	44.1	43.8	43.6	47.1	10.0	57.1
Night	23	43.3	49.0	39.8	48.4	48.0	47.2	46.6	44.3	41.8	40.5	40.2	39.9	43.3	10.0	53.3
Timeframe	Hour	L _{eq}	L max	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		L _{eq} (dBA)	
Day	Min	42.8	50.0	37.6	49.6	49.0	47.3	46.2	42.9	40.8	38.6	38.2	37.8	24-Hour	Daytime	Nighttime
Enorm	Max	49.7	60.7	46.4	60.1	59.2	55.7	53.4	50.7	48.9	47.0	46.8	46.5		(7am-10pm)	(10pm-7am)
chergy	Min	39.6	44 5	36 0	53.3	52.7	51.0 42.7	49.9	46.7	45.1	43.4	43.1	42.8	16 0	17 2	/ 2 ⊑
Night	Max	47.1	58.3	44.9	57.6	56.3	53.2	52.0	49.4	47.0	45.3	45.1	45.0	40.0	4/.2	42.3
Energy	Average	42.5	Ave	erage:	49.4	48.7	46.9	45.9	42.9	41.0	39.5	39.2	39.0			

						24-Ho	ur Noise L	evel Meas	urement S	ummary						
Date:	Tuesday, Au	ugust 31, 202	21		Location:	L2 - Located	east of the P	roject site ne	ear single-far	nily	Meter	: Piccolo II			JN:	14319
Project:	Colonies Up	oland			Source:	residence at	8269 Calle D	el Prado.							Analyst:	A. Khan
							Hourly L _{eq} (dBA Readings	(unadjusted)							
75 (0															
a 70.0	ğ — — —															
a 65.0																
- 55.0 - 50.0																
₹ 45.0	õ –									t						
p 35.0	6	8.1	2.9	6.6 6.6	8.5	2.2 0.4	5.6	46.	- <mark>4</mark> {	3.1	H3.7	2.1 2.4	11.1	8 <mark>.63</mark>	13.8	0.1
- 30.0		- m m		- m m		4 4	4			4		4 4		m		
	0	1 2	3	4 5	6	7 8	9 1	LO 11	12 1	.3 14	15	16 17	18 19	20	21 22	23
								Hour Be	eginning							
Timeframe	Hour	L _{eq}	L _{max}		L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L _{eq}	Adj.	Adj. L _{eq}
	1	39.4	44.4	35.0	43.9	43.5	42.6	42.1	40.1 38.7	38.0	36.1	36.4	35.9	39.4 38.1	10.0	49.4
	2	35.1	38.6	33.4	38.3	37.9	37.3	36.8	35.4	34.7	33.7	33.6	33.4	35.1	10.0	45.1
Night	3	32.9	36.6	31.4	36.3	35.8	35.3	34.8	33.2	32.3	31.6	31.5	31.5	32.9	10.0	42.9
	4	36.1	40.5	34.3	40.2	40.0	39.2	38.3	36.4	35.3	34.5	34.4	34.3	36.1	10.0	46.1
	5	30.0	42.0	33.0	41.4	40.8	39.9 43.4	39.3 42.1	37.2	35.7	33.8	33.4 34.0	33.1	38.5	10.0	46.6
	7	42.2	47.2	38.6	46.8	46.4	45.6	45.2	43.0	41.2	39.5	39.2	38.7	42.2	0.0	42.2
	8	40.4	48.1	36.1	47.4	46.8	45.1	43.9	40.6	38.6	37.1	36.7	36.3	40.4	0.0	40.4
	9	42.6	51.6	36.4	50.8	50.2	47.9	46.6	42.6	40.3	37.4	37.0	36.6	42.6	0.0	42.6
	10	45.7	55.7	37.9	52.5	53.2	40.7 51.5	47.6 50.6	45.9	41.5	39.9	39.2	38.3	45.7	0.0	45.7
	12	44.2	54.7	39.4	54.2	53.8	52.5	51.7	48.9	45.9	40.6	40.3	39.7	44.2	0.0	44.2
	13	47.4	55.4	43.2	55.2	54.9	54.3	53.9	51.7	49.2	45.0	44.4	43.4	47.4	0.0	47.4
Day	14	43.1	50.9	38.3	50.6	50.0	47.9	46.8	43.3	40.7	38.9	38.7	38.4	43.1	0.0	43.1
	15 16	43.7	51.7 48.9	39.2 38.2	50.7 48.1	49.9	48.3	47.0 45.3	44.3 42 9	42.0 40.7	39.9	39.6 38.6	39.3	43.7 42.1	0.0	43.7 42.1
	17	42.4	50.0	39.1	49.3	48.7	46.8	45.1	42.5	41.2	39.7	39.5	39.3	42.4	0.0	42.4
	18	44.2	50.2	40.2	49.7	49.4	48.2	47.4	44.9	43.1	41.0	40.7	40.4	44.2	0.0	44.2
	19	41.1	48.9	36.8	47.5	46.5	45.0	44.2	41.8	39.9	37.7	37.3	37.0	41.1	5.0	46.1
	20	39.8	44.5	38.2	43.9	43.3	42.0	41.4	40.1	39.4	38.6	38.5	38.2	39.8	5.0	44.8
	21	43.8	47.8	42.1	47.3	46.8	45.8	45.3	44.1	43.4	42.5	42.4	42.2	43.8	5.0	48.8
Night	22	44.7	50.1 47.7	41.3	49.5	49.0 45.7	48.1 44.1	47.6	45.7	43.9	41.7	41.5	41.4	44.7	10.0	54.7 50.1
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	1012	L _{eq} (dBA)	5011
Day	Min	39.8	44.5	36.1	43.9	43.3	42.0	41.4	40.1	38.6	37.1	36.7	36.3	24-Hour	Daytime	Nighttime
Energy	Max	47.4	55.7	43.2	55.2	54.9	54.3	53.9	51.7	49.2	45.0	44.4	43.4		(7am-10pm)	(10pm-7am)
Litergy	Min	32.9	36.6	31.4	36.3	35.8	35.3	34.8	33.2	32.3	31.6	31.5	31.5	<u>47</u> <u>4</u>	43 6	30 3
Night	Max	44.7	50.1	41.3	49.5	49.0	48.1	47.6	45.7	43.9	41.7	41.5	41.4	72.7	-5.0	55.5
Energy	Average	39.3	Ave	erage:	42.9	42.3	41.2	40.5	38.4	37.0	35.5	35.3	35.1			



						24-Ho	ur Noise Le	evel Meas	urement S	ummary						
Date:	Tuesday, A	ugust 31, 202	1		Location:	L3 - Located	south of the	Project site r	near single-fa	amily	Meter:	Piccolo II			JN:	14319
Project:	Colonies Up	oland			Source:	residence at	1335 East 15	th Street.							Analyst:	A. Khan
							Hourly L _{eq} (dBA Readings	(unadjusted)							
75.0	0															
a 70.0	0															
B 65.0	0															
ب 55.0	0															
2 50.0 2 45.0	0 0 9	4 m		9 0	~ ~	<u>.</u>	<u> </u>	<u>е и</u>	- <mark>4</mark>	n n	<u>.</u>	<u> </u>	<u></u>		<u>m</u> – r	- 00
H 40.0	0 <u>6</u>	37.		36.36	4	- <mark>50</mark>		<mark>44</mark>	<mark>-6</mark> 6	2 2 -	48. 48.	<mark></mark>	- <mark>43</mark>		<mark>- 5.</mark>	- 6 -
35.0	0 + + 0	1 2	2	1 E	6	7 0	1	0 11	12 1	2 14	15 1/		19 10	20	21 22	
	0	1 2	J	4 J	0	/ 0	5 1	Hour Be	eginning	.5 14	15 1	5 17	10 19	20	21 22	23
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L _{eq}	Adj.	Adj. L _{eq}
	0	39.6	44.6	36.2	44.1	43.6	42.7	42.2	40.5	38.9	37.0	36.7	36.4	39.6	10.0	49.6
	1	37.4	40.5	35.1	40.2	39.9	39.4	39.0	38.0	37.1	35.6	35.5	35.2	37.4	10.0	47.4
Night	3	38.8	42.8	32.4	42.4	48.8	41.0	40.0	35.2	33.6	30.4	30.2	32.5	38.8	10.0	48.8
Ŭ	4	36.6	44.3	33.1	43.9	43.2	40.8	39.4	36.7	34.9	33.9	33.7	33.5	36.6	10.0	46.6
	5	38.0	44.5	34.9	43.9	43.3	41.9	41.0	38.1	36.7	35.5	35.3	35.0	38.0	10.0	48.0
	7	41.2	52.2	35.1	51.7	58.4	48.7	46.3 53.9	49.7	45.3	35.6	35.4	35.2	41.2	0.0	49.5
	8	50.6	62.3	37.2	61.1	60.1	57.9	55.8	50.1	42.8	38.4	37.9	37.4	50.6	0.0	50.6
	9	46.3	56.8	38.4	56.3	55.4	53.6	51.5	44.4	42.0	39.3	38.9	38.5	46.3	0.0	46.3
	10	44.6	52.9	40.6	52.3	51.7	50.3	48.7	43.5	42.5	41.2	41.0	40.7	44.6	0.0	44.6
	11	40.5 49.4	57.0 62.7	38.4 38.6	50.8 62.1	56.1	54.3 57.0	52.4 53.1	43.4	41.0	39.0	38.8 39.0	38.5	40.5 49.4	0.0	40.5 49.4
	13	43.5	53.8	38.1	53.2	52.6	50.1	47.7	42.2	39.9	38.6	38.4	38.3	43.5	0.0	43.5
Day	14	42.9	67.4	40.5	66.2	65.5	64.2	63.4	59.1	54.8	41.0	40.9	40.6	42.9	0.0	42.9
	15	48.9	56.7	41.5	56.2	55.5	54.0	52.5	50.0	46.7	42.7	42.0	41.6	48.9	0.0	48.9
	16	46.6	54.9	41.0	54.0	53.2	51.7	50.5	47.1	44.4	41.8	41.5	41.2	46.6	0.0	46.6
	17	48.3	58.0	43.1	57.3	56.3	53.5	51.4	47.8	46.1	44.1	43.7	43.3	48.3	0.0	48.3
	18	48.9	63.3	42.8	62.5	61.5	59.0	56.3	48.4	46.3	43.9	43.5	43.0	48.9	0.0	48.9
	19	43.8	64.5	39.6	64.2	63.9	63.0	62.2	53.5	43.4	40.4	40.0	39.7	43.8	5.0	48.8
	20	43.1	50.3	40.2	49.9	49.4	47.9	46.4	42.7	41.6	40.7	40.5	40.3	43.1	5.0	48.1
	21	45.3	63.9 52.7	43.0	53.5 52.2	62.9	60.6 51.0	58.4	46.3	45.0	43.6	43.4	43.1	45.3	5.0	50.3
Night	22	45.7	46.0	38.0	55.5 45.6	52.0 45.1	44 1	49.5 43.4	45.0 41.4	45.0 39.8	42.5	38.3	38.1	45.7	10.0	50.8
Timeframe	Hour	L _{ea}	L max	L min	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	40.0	L _{eg} (dBA)	50.0
Dav	Min	42.9	50.3	36.4	49.9	49.4	47.9	46.4	42.2	39.9	38.4	37.9	36.8	24 Hour	Daytime	Nighttime
Day	Max	50.6	67.4	43.1	66.2	65.5	64.2	63.4	59.1	54.8	44.1	43.7	43.3	24-nour	(7am-10pm)	(10pm-7am)
Energy	Average	47.2	Ave	erage:	58.3	57.6	55.6	53.6	47.6	44.2	40.9	40.5	40.1		47.0	40.0
Night	Min	36.6	40.5	32.4	40.2	39.9	39.4	39.0	35.2	33.6	32.7	32.6	32.5	45.7	47.2	40.6
Energy	Average	45.7	53.7 Ave	41.8 erage:	53.3 46.0	52.6 45.5	51.0 44 1	49.3	45.6	43.8	42.3	42.1	41.9			
Lincipy	, incluge	40.0			40.0	+3.5	44.1	42.0	33.2	57.7	50.4	50.2	30.0			



						24-Ho	ur Noise L	evel Meas	urement S	ummary						
Date:	Tuesday, Au	ugust 31, 202	21		Location:	L4 - Located	south of the	Project site r	near single-fa	amily	Meter:	Piccolo II			JN:	14319
Project:	Colonies Up	bland			Source:	residence at	1497 Fernan	do Avenue.							Analyst:	A. Khan
							Hourly L _{eq}	dBA Readings	(unadjusted)							
75.0	0															
70.																
/ap 65.0	0															
- 55. 50	0															
₹ 45.	Õ						4			n		<u> </u>	9.0		_ 0	
PO 35.	0 – 0 –	(7.9 (6.8	5.2	8.1	2.1	3.3	47	3.0	<mark>45.0</mark>	- <mark>48</mark>	45.0	46.	45	<mark></mark>	45.0 46.	12.5
- 30.		_ m n		- m m	4	4 4		1 4						•		4
	0	1 2	3	4 5	6	7 8	9 1	10 11	12 1	.3 14	15 1	5 17	18 19	20	21 22	23
								Hour Be	eginning							
Timeframe	Hour	L _{eq}		L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L _{eq}	Adj.	Adj. L _{eq}
	0	40.3	74.8 42.3	37.2	74.5 41.9	74.0 41.5	71.4 40.9	40.4	58.5 38.9	45.8	38.4 34.8	37.8 34.6	37.3	40.3	10.0	50.3 47.9
	2	36.8	41.9	34.3	41.4	40.8	40.0	39.5	37.1	36.0	34.7	34.6	34.4	36.8	10.0	46.8
Night	3	34.2	57.4	32.8	56.9	56.3	54.0	49.8	37.1	33.7	33.0	32.9	32.8	34.2	10.0	44.2
	4	35.5	41.4	33.0	40.9	40.6	39.0	37.8	36.0	34.4	33.3	33.2	33.0	35.5	10.0	45.5
	6	42.1	43.0 51.5	34.0	42.5	42.1	41.4	40.8	39.0 41.5	37.5	36.2	34.5 36.0	34.2	42.1	10.0	48.1 52.1
	7	42.7	51.6	35.7	50.9	50.2	47.7	46.0	43.1	40.5	37.1	36.5	35.9	42.7	0.0	42.7
	8	43.3	52.3	36.8	51.8	51.2	49.6	48.0	42.8	39.9	37.7	37.3	37.0	43.3	0.0	43.3
	9 10	47.4	56.6	37.9	56.0	55.5	54.0	53.1	46.2	42.8	38.9	38.5	38.0	47.4	0.0	47.4
	10	43.7	55.4	38.5	50.7	49.9	49.5	46.7	43.0	41.2	39.2 39.1	38.9	38.7	43.7	0.0	43.7
	12	45.0	55.1	39.5	54.4	53.8	51.3	49.2	43.9	41.5	40.1	39.8	39.6	45.0	0.0	45.0
	13	46.9	58.0	39.9	57.4	56.3	53.5	51.2	45.3	41.9	40.4	40.2	40.0	46.9	0.0	46.9
Day	14	48.0	66.1	45.5	66.0	65.7	64.3	62.8	54.9 45 5	49.9	46.4	46.1	45.7	48.0 45.6	0.0	48.0
	15	45.6	53.0 74.4	42.0	73.8	52.4 72.9	50.1 70.7	48.3	45.5 61.7	44.0 52.8	42.6	42.4	42.1 41.4	45.6	0.0	45.6 44.8
	17	46.3	61.3	41.6	61.1	60.6	58.9	57.0	47.4	44.2	42.2	41.9	41.7	46.3	0.0	46.3
	18	49.6	76.6	43.0	76.4	75.7	71.0	67.8	56.0	47.1	43.9	43.6	43.2	49.6	0.0	49.6
	19	44.2	52.5	39.5	51.8	51.0	49.1	47.7	44.1	42.5	40.3	39.9	39.6	44.2	5.0	49.2
	20	42.9	49.5	39.7	49.2	48.8	47.3	45.9	42.9	41.7	40.2	40.0	39.8	42.9	5.0	47.9
	21	46.6	54.0	42.8	53.6	53.1	51.7	50.7	47.0	49.9	43.0	43.3	42.9	46.6	10.0	56.6
Night	23	42.5	51.0	37.4	50.7	50.2	48.2	46.2	42.5	40.1	38.1	37.8	37.5	42.5	10.0	52.5
Timeframe	Hour	L _{eq}	L max	L min	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		L _{eq} (dBA)	
Day	Min	42.7	49.5	35.7	49.2	48.8	47.3	45.9	42.8	39.9	37.1	36.5	35.9	24-Hour	Daytime	Nighttime
Energy	Average	49.0	Ave	rage:	59.0	58.3	56.0	53.9	47.9	44.1	40.4	40.1	40.3		(Fam-Lopin)	(10pm=7am)
Night	Min	34.2	41.4	32.8	40.9	40.6	39.0	37.8	36.0	33.7	33.0	32.9	32.8	44.5	45.7	41.0
Thight	Max	46.6	74.8	41.7	74.5	74.0	71.4	66.4	58.5	45.8	42.3	42.1	41.9			
Energy	Average	41.0	Ave	rage:	50.4	49.9	48.3	46.5	42.0	38.7	36.2	35.9	35.7			



24-Hour Noise Level Measurement Summary Date: Tuesday, August 31, 2021 Location: L5 - Located west of the Project site near single-family Meter: Piccolo II Project: Colonies Upland Source: residence at 1520 North Himalayas Circle. Anal														JN: Analyst:	14319 A. Khan	
							Hourly L _{eq}	dBA Readings	s (unadjusted))						
75.0	י															
a 70.0	ž															
g 60.0	5															
	3															
≥ 45.0																
p 35.0	ŏ − ‰ +	14.9 16.3	2	3.6		1.2	4 .	0.3		1.6	5.2	<mark></mark>	- <mark>45</mark>		13.7	0.1
- 30.0		_ m m		- m _ m		4 4		m 4	4	4 4	4	1				
	0	1 2	3	4 5	6	7 8	9 2	10 11	12 2	13 14	15 1	.6 17	18 19	20	21 22	23
								Hour B	eginning							
Timeframe	Hour	L _{eq}	L max	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L _{eq}	Adj.	Adj. L _{eq}
	0	38.7	57.9	35.9	57.4	56.9	52.7	50.1	42.7	39.0	36.8	36.5	36.1	38.7	10.0	48.7
	2	34.9	40.8	32.8	40.3 42.4	40.0	39.2 40.2	38.7	37.0	35.0	33.8	33.3	32.9	34.9	10.0	44.9
Night	3	34.2	40.5	31.5	40.2	39.9	38.7	37.7	34.2	32.9	31.9	31.7	31.6	34.2	10.0	44.2
	4	33.6	37.9	31.4	37.5	37.2	36.4	35.7	34.2	32.9	31.7	31.5	31.4	33.6	10.0	43.6
	5	36.7	41.3	33.0	40.8	40.4	39.6	39.1	37.5	36.0	34.2	33.6	33.2	36.7	10.0	46.7
	6	37.6	46.1	33.8	45.0	43.9	41.4	40.3	37.7	36.1	34.4	34.2	33.9	37.6	10.0	47.6
	8	40.2	51.0	34.0	48.5	47.2	43.0	45.7	40.3	38.2	36.4	36.1	35.8	40.2	0.0	40.2
	9	44.1	54.0	36.6	52.7	51.5	49.7	48.3	44.4	41.2	37.7	37.3	36.8	44.1	0.0	44.1
	10	39.5	46.0	36.6	45.0	44.1	42.5	41.6	39.9	38.7	37.3	37.0	36.7	39.5	0.0	39.5
	11	40.3	46.9	36.9	45.9	45.2	43.9	43.1	40.7	39.3	37.7	37.4	37.0	40.3	0.0	40.3
	12	40.9	50.9	37.0	49.5	48.2	45.4 46.4	43.7	40.6	39.0	37.6	37.4	37.1	40.9	0.0	40.9
Day	13	41.0	49.6	39.3	49.0	48.4	40.4	45.5	41.0	41.0	37.5	39.7	39.4	41.0	0.0	41.0
- /	15	42.2	47.0	39.6	46.4	45.8	44.8	44.3	43.0	41.6	40.3	40.1	39.8	42.2	0.0	42.2
	16	43.9	50.7	39.0	50.3	49.8	48.9	48.2	44.7	41.7	39.6	39.3	39.1	43.9	0.0	43.9
	17	42.1	48.1	39.9	47.0	46.3	44.8	44.0	42.5	41.5	40.4	40.2	40.0	42.1	0.0	42.1
	18	45.8	51.5	41.4	51.0	50.6	49.9	49.2	46.7	44.6	42.3	41.9	41.5	45.8	0.0	45.8
	20	42.6	49.1	38.6	46.5	48.0	40.7	43.7	45.5	41.2	39.1	38.9	38.7	42.0	5.0	47.0
	21	44.9	53.0	41.2	52.5	51.8	50.3	48.2	44.8	43.3	41.8	41.6	41.4	44.9	5.0	49.9
Night	22	43.7	51.1	40.2	50.0	49.0	47.4	46.6	44.3	42.4	40.9	40.6	40.3	43.7	10.0	53.7
-	23	40.1	47.7	36.2	46.8	45.8	44.2	43.2	40.7	38.7	36.9	36.7	36.3	40.1	10.0	50.1
Timeframe	Hour	L _{eq}	L max	L _{min} 34.6	L1%	L2%	L5%	L8%	20 0	28 2	25.7	25.2	299%		L _{eq} (UDA) Davtime	Nighttime
Day	Max	45.8	54.0	41.4	52.7	51.8	50.3	49.2	46.7	44.6	42.3	41.9	41.5	24-Hour	(7am-10pm)	(10pm-7am)
Energy	Average	42.6	Ave	erage:	48.7	47.9	46.4	45.4	42.4	40.6	38.8	38.5	38.2			
Night	Min	33.6	37.9	31.4	37.5	37.2	36.4	35.7	34.2	32.9	31.7	31.5	31.4	41.5	42.6	38.5
Energy	Max Average	43.7	57.9 Ave	40.2 erage:	57.4	56.9 43.9	52.7	50.1	44.3 38.4	42.4	40.9	40.6	40.3			
		0010			1.110			1212	0011	0010	0.110	0 110	0.112			





APPENDIX E

CITY OF UPLAND MUNICIPAL CODE NOISE STANDARDS




Upland	d Municipal Code						
Up	Previous	Next	Main	Collapse	Search	Print	No Frames
<u>Title 9</u>	PUBLIC PEACE AND	WELFARE					

Note

* Prior ordinance history: Ord. 947.

9.40.010 Purpose.

The purpose of this chapter is to establish criteria and standards for the regulation of noise levels within the city. (Prior code § 5400.100)

9.40.020 Definitions.

As used in this chapter, specific words and phrases are defined as follows:

"Ambient noise level" means the all-encompassing noise level associated with a given environment, being a composite of sounds from all sources, excluding any intrusive noise.

"Average noise level" means the logarithmic average of noise samples taken over a specified length of time.

"Commercial purpose" means the use, operation or maintenance of any sound-amplifying equipment for the purpose of advertising any business, goods, or services and/or for the purpose of advertising or attracting the attention of the public to or soliciting patronage from any performance, entertainment, exhibition or event, or for the purpose of demonstrating any such sound equipment.

"Construction material manufacturer" means any use located on the same property as the mining industry, manufacturing products including concrete, asphalt, concrete blocks, concrete pipe, roofing tile or other similar materials.

"Cumulative time period" means an additive period of time composed of individual time segments which may be continuous or interrupted.

"Decibel (dB)" means a measurement unit of sound pressure level which denotes the ratio between two quantities which are proportional to power; the number of decibels corresponding to the ratio of two amounts of power is 10 times the logarithm to the base 10 of this ratio.

"Impact noise" means the sound produced by the impact or collision of one moving object or mass with a second object or mass that is stationary or moving.

"Intrusive noise" means a sound which intrudes over and above the existing ambient noise level at a given location.

"Mining industry" means any industry which extracts sand and gravel resources from the ground.

"Motor driven vehicle" means and includes, but is not limited to, any automobile, truck, van, bus, motorcycle, minibike, go-cart or other self-propelled vehicle, on or off road.

"Noise" means any sound that is loud or disturbing or that interferes with one's ability to hear some other sound.

"Noise level" means the "A" weighted sound pressure level in decibels audible to humans obtained by using a sound level meter. The unit of noise level measurement shall be designated as dB(A).

"Person" means a person, firm, association, co-partnership, joint venture, corporation, or any entity, public or private in nature.

"Simple tone noise" means a noise characterized by a predominant frequency or frequencies so that other frequencies cannot be readily distinguished.

"Sound pressure level of a sound," in decibels, means 20 times the logarithm to the base 10 of the ratio of the pressure of this sound to the reference pressure, which reference pressure shall be explicitly stated. (Prior code § 5400.300)

9.40.030 Noise level measurement criteria.

A. Any noise level measurement, made pursuant to the provisions of this chapter, shall be determined by using a sound level meter that meets the minimum requirements of the American National Standard Institute for sound level meters, or by using an instrument with associated recording and analyzing equipment that will provide equivalent data.

B. The factors which shall be considered in determining whether a violation of the provisions of this section exists shall include, but not be limited to, the following:

- 1. The sound level of the objectionable noise;
- 2. The sound level of the ambient noise;
- 3. The proximity of the noise to residential sleeping facilities;
- 4. The nature and zoning of the area within which the noise emanates;
- 5. The number of persons affected by the noise source;
- 6. The time of day or night the noise occurs;
- 7. The duration of the noise and its tonal, informational, or musical content;
- 8. Whether the noise is continuous, recurrent, or intermittent;
- 9. Whether the noise is produced by a commercial or noncommercial activity.

C. The above considerations shall be considered in addition to the noise levels set forth in this section in determining a violation. However, noises do not necessarily need to exceed those noise level limits to be considered unnecessary or unusual so as to cause discomfort or annoyance to persons in the area. (Prior code § 5400.400)

9.40.040 Base ambient noise level.

All ambient noise measurements shall commence at the base ambient noise levels in decibels within the respective times and zones as follows:

Decibels	Time	Zone Use
45 dB(A)	10:00 p.m.—7:00 a.m.	Residential
55 dB(A)	7:00 a.m.—10:00 p.m.	Residential
65 dB(A)	Anytime	Uses not specified
75 dB(A)	Anytime	Industrial and commercial

Actual decibel measurements exceeding the above levels at the times and within the zones corresponding thereto shall be employed as the base ambient noise level referred to in this chapter. Otherwise, no ambient noise shall be deemed to be less than the above specified levels. (Prior code § 5400.500)

9.40.050 Exterior noise level measurement.

Exterior noise levels shall be measured at any point relative to the closest point of the source of the noise at the property line on the affected property. Measurements will not be made during extraordinary times, such as during the movement of a nearby train or airplane. (Prior code § 5400.600)

9.40.060 Excessive noise unlawful.

A. It is unlawful for any person at any location to create any noise, or to allow the creation of any noise, when such noise causes the noise level to exceed any noise level for the cumulative time periods specified below in Section 9.40.070 and Section 9.40.080.

B. Furthermore, notwithstanding any specified noise level, it is also unlawful for any person to wilfully make or continue, or cause to be made or continued, any loud, unnecessary, or unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person residing in the area, and it is unlawful for any person in ownership or control of any premises to knowingly permit a violation of this section upon the premises. (Prior code § 5400.700)

9.40.070 Maximum residential noise levels.

Exterior noise shall be measured on the exterior of any residential property, and no noise level shall exceed the following for the duration periods specified:

Noise Level Exceeded Base ambient noise level (BANL) 5 dB(A) above BANL 10 dB(A) above BANL 15 dB(A) above BANL 20 d(B)(A) above BANL Maximum Duration Period 30 minutes in any hour

15 minutes in any hour
5 minutes in any hour
1 minute in any hour
Not permitted

(Prior code § 5400.800)

9.40.080 Maximum nonresidential noise levels.

Measured on the exterior of nonresidential properties, no noise level shall exceed the respective base ambient noise levels for nonresidential land uses as determined by development standards established by the regulating agency. (Prior code § 5400.900)

9.40.090 Mining industry allowed noise levels for residential property.

A. Exemptions. This section shall supersede all the provisions of Sections <u>9.40.040</u> and <u>9.46.070</u> relative to allowed noise for mining industry.

B. Allowed Levels. The allowed maximum exterior average sound level in any hour at any property zoned for residential use shall be as follows:

Mining Industry Use and Days Allowed	Times	Allowed Levels
Monday—Friday:		
Quarry/plant	6 a.m.—6 p.m.	55 dB(A)
Construction material manufacturer	5 a.m.—6 p.m.	55 dB(A)
Saturday:		
Quarry/plant	7 a.m.—3 p.m.	55 dB(A)
Construction material manufacturer	5 a.m.—3 p.m.	55 dB(A)
All Times:		
Quarry/plant		45 dB(A)
Construction material manufacturer		45 dB(A)

C. Exceptions. Exceptions may be granted in the event of a proven emergency situation or required by a public agency and written authorization is obtained from the city manager or designee prior to quarry, plant or construction

material manufacturer operations being conducted. The maximum exterior sound level at any property zoned for residential use shall not exceed 55 dB(A) during such exception.

D. Measurement Parameters.

1. Measurements shall be made to the one-tenth decibel, but shall be reported to the integer value. Values of 0.1 to 0.4 shall be rounded down to the lower integer. Values of 0.5 to 0.9 shall be rounded up to the higher integer.

2. If measurements are made for more than one hour, the subsequent measurements shall be made on one hour increments. For a series of one hour measurements, compliance shall be determined by the highest average hourly reading. Measurements shall be started on the hour and ended on the hour.

3. Measurements of less than one hour, extrapolated to one hour shall not be used to determine compliance or violation.

4. Measurements will be made on the "A" weighted scale and a slow response.

E. Measurement Location. Exterior measurements shall be at locations on residential property that are considered accessible for normal and usual outdoor human activity and which are intended and used for such purposes. The receptor shall be placed at five feet above the ground surface and 10 feet from any reflecting surface. When these conditions cannot be met, the actual location utilized shall be noted in writing.

F. Calibration. Prior to, and after each measurement period, the sound level meter shall be calibrated using an acoustic calibrator of the coupler type.

Each year, the sound level meter and acoustic calibrator shall be calibrated to manufacturers' specifications by a laboratory subject to the National Bureau of Standards.

G. Ambient Noise.

1. Compliance applies only to the alleged offending source. Preferably, an ambient measurement will be measured at the affected property while the source is nonoperational and immediately prior to or immediately after the measurement period while the source is operating. If this procedure is not feasible and the source operation cannot be controlled, then an ambient measurement will be made at some other location in the vicinity that in the judgment of the measurement technician is representative of the situation at the affected property.

2. If the ambient level is below the source level by 10 dB(A) or more, then the measurement with the source in operation will be equivalent to the source alone within the prescribed resolution. If the ambient level is less than 10 dB(A) lower than the source, then the ambient level will be subtracted logarithmically from the combined measurement to determine the actual source level. If the ambient level is higher than the source level, the source will be considered to comply regardless of its level.

H. Record Keeping. When applying this section for an enforcement action, the following information, as a minimum, shall be recorded and maintained:

1. The date, start time, stop time, average "A" weighted sound level, meter scale when appropriate, slow or fast response, equipment manufacturer, model number and serial number, and the ambient sound level shall be documented.

2. The location of the source, the property measurement point, and the ambient measurement point shall be documented and scaled dimensionally. Photos are not necessary but encouraged. The data sheets shall be signed and dated by the measurement technician.

3. In the event auxiliary recording devices are used for data storage, then settings shall be listed, and equipment type, manufacturer, model and serial number listed.

I. Verification. If data is to be used for enforcement purposes, the technician will certify in writing that the data recorded was from the source and that all procedures have been complied with in the measurement and reporting. (Prior code § 5400.950)

9.40.100 Noises prohibited—Unnecessary noise standard.

The following acts are declared to be loud, disturbing and unnecessary noises in violation of this chapter, but such enumeration shall not be deemed to be exclusive, namely:

A. Impact, Repetitive and Tone Noise Levels. In the event any offending noise consists primarily of impact noise, repetitive noise, or simple tone noise, each of the maximum permitted noise levels specified in Section 9.40.070 of this chapter shall be reduced by five dB(A).

B. Radios, Televisions and Stereos. It is unlawful for any person to play, use, operate, or permit to be played, used or operated any radio, television set, musical instrument, phonograph, stereophonic equipment, jukebox or other machine or device for producing, reproducing or amplifying sound when audible at a distance of 50 feet or more from the source of the sound and/ or when audible within any other residence or establishment.

C. Hawkers and Peddlers. It is unlawful for any person to sell anything by public outcry within any area of the city. The provisions of this section shall not be construed to prohibit the selling by outcry of merchandise, food, and beverages at licensed sporting events, parades, fairs, circuses, and other similar licensed public entertainment events.

D. Drums and Musical Instruments. It is unlawful for any person to use any drum or other percussion or musical instrument or device of any kind for the purpose of attracting attention by the creation of noise within the city.

E. Machinery, Equipment, Fans and Air Conditioning. It is unlawful for any person to operate, cause to operate or permit the operation of any machinery, equipment, device, pump, fan, compressor, air conditioning apparatus, or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property line of any property to exceed the ambient noise base level by five dB(A).

F. Motor Driven Vehicles. It is unlawful for any person to operate any motor driven vehicle within the city that, due to the nature of the operation of the vehicle, or due to the operating condition of the vehicle, or due to any modification made to the vehicle, generates noise so that a reasonable person is caused discomfort or annoyance.

G. Horns, Signaling Devices. It is unlawful for any person to cause the sounding of any horn or signaling device on any automobile, motorcycle, street car or other motor driven vehicle on any street or public place of the city, except as a danger warning; to create by means of any such signaling device any unreasonably loud or harsh sound; and to create the sounding of any such device for an unnecessary and unreasonable period of time. It is unlawful for any person to use any signaling device except one operated by hand or electricity; to use any horn, whistle or other device operated by engine exhaust; or to use any such signaling device when traffic is for any reason held up.

H. Loudspeakers, Amplifiers for Advertising. It is unlawful for any person to use, operate or permit to be played, used, or operated any radio receiving set, musical instrument, phonograph, loudspeaker, sound amplifier, or other machine or device for the producing or reproducing of sound which is cast upon the public streets for the purpose of commercial advertising or attracting the attention of the public to any building or structure.

I. Yelling, Shouting. It is unlawful for any person to yell, shout, hoot, whistle, or sing on the public streets, particularly between the hours of 11:00 p.m. and 7:00 a.m., or at any time or place so as to annoy or disturb the quiet, comfort, or repose of any persons in the vicinity.

J. Animals and Fowl. It is unlawful for any person to keep or maintain, or to permit such activity, upon any premises owned, or occupied, or controlled by such person any animal or fowl otherwise permitted to be kept which, by any sound, cry, or behavioral noise, causes annoyance or discomfort to a reasonable person in any residential neighborhood.

K. Exhaust. It is unlawful for any person to discharge into the open air the exhaust of any steam engine, stationary internal combustion engine, motorboat, or motor driven vehicle except through a muffler or other device which will effectively prevent loud or explosive noises therefrom.

L. Loading, Unloading, Opening Boxes. It is unlawful for any person to create any loud and excessive noise in connection with loading or unloading any vehicle or the opening and destruction of bales, boxes, crates, and containers.

M. Construction or Repairing of Buildings. It is unlawful for any person to engage in or permit the erection (including excavation), demolition, alteration or repair of any building other than between the hours of 7:00 a.m. and 6:00 p.m. on weekdays, except in case of urgent necessity in the interest of public health and safety, and then only with a permit from the building inspector, which permit may be granted for a period not to exceed three days or less while the emergency continues, and which permit may be renewed for periods of three days or less while the emergency continues. If the building inspector should determine that the public health and safety will not be

impaired by the erection, demolition, alteration or repair of any building or the excavation of streets and highways within the hours of 6:00 p.m. and 7:00 a.m., and if he or she shall further determine that loss or inconvenience would result to any party in interest, he or she may grant permission for such work to be done within the hours of 6:00 p.m. and 7:00 a.m., upon application being made at the time the permit for the work is awarded or during the progress of the work.

N. Metal Rails, Pillars and Columns—Transportation Thereof. It is unlawful for any person to transport rails, pillars or columns of iron, steel or other material over and along streets and other public places upon carts, trays, cars, trucks, or in any other manner so loaded as to cause loud noises or as to disturb the peace and quiet of such streets or other public places.

O. Hammers, Etc. It is unlawful for any person to operate between the hours of 10:00 p.m. and 7:00 a.m. any steam shovel, pneumatic hammer, derrick, steam or electric hoist or other appliance, the use of which is attended by loud or unusual noise.

P. Blowers. It is unlawful for any person to operate any noise-creating blower or power fan or any internal combustion engine, the operation of which causes noise due to the explosion of operating gases or fluids, unless the noise from such blower or fan is muffled and such engine is equipped with a muffler device sufficient to deaden such noise.

Q. Exceptions. This section shall not apply to persons who are participants in events for which they have obtained a valid permit from the city and have been authorized to engage in such conduct. (Prior code § 5400.1000)

9.40.110 Violation a misdemeanor.

Any person violating any of the provisions of this chapter shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined an amount not exceeding \$1,000.00, or be imprisoned in the city or county jail for a period not exceeding six months, or by both such fine and imprisonment. Each day such violation is committed or permitted to continue shall constitute a separate offense and shall be punishable as such hereunder. (Prior code § 5400.1100)

9.40.120 Manner of enforcement.

Violations of this chapter shall be prosecuted in the same manner as other misdemeanor violations of the city's code. (Prior code § 5400.1200)

9.40.130 Additional remedy—Injunction.

As an additional remedy, the operation or maintenance of any device, instrument, vehicle or machinery in violation of any provision hereof and which causes discomfort or annoyance to reasonable persons of normal sensitiveness or which endangers the comfort, repose, health or peace of residents in the area shall be deemed, and is declared to be, a public nuisance and may be subject to abatement summarily by a restraining order or injunction issued by a court of competent jurisdiction. (Prior code § 5400.1300)

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APPENDIX F

OPERATIONAL NOISE LEVEL CALCULATIONS



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14896 - Upland Colonies

CadnaA Noise Prediction Model: 14896-03.cna Date: 19.06.23 Analyst: B. Lawson

Calculation Configuration

Configurat	ion
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	
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
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 Rvcr - 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 (RLS-90)	
Strictly acc. to RLS-90	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	М.	ID		Level Lr		Lir	nit. Valı	ue		Land	l Use	Height	:	C	oordinates	
			Day	Night	CNEL	Day	Night	CNEL	Туре	Auto	Noise Type			Х	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R01	43.8	34.1	43.5	55.0	45.0	0.0				5.00	а	6142210.48	2353699.29	5.00
RECEIVERS		R02	50.0	35.3	48.0	55.0	45.0	0.0				5.00	а	6142953.70	2353783.32	5.00
RECEIVERS		R03	30.9	19.6	30.0	55.0	45.0	0.0				5.00	а	6144631.55	2353746.43	5.00
RECEIVERS		R04	35.9	20.6	33.8	55.0	45.0	0.0				5.00	а	6144399.08	2353347.84	5.00
RECEIVERS		R05	44.6	33.6	43.7	55.0	45.0	0.0				5.00	а	6143420.50	2353349.82	5.00
RECEIVERS		R06	51.3	36.2	49.3	55.0	45.0	0.0				5.00	а	6143159.29	2353363.44	5.00
RECEIVERS		R07	46.7	33.6	45.2	55.0	45.0	0.0				5.00	а	6142773.82	2353163.07	5.00
RECEIVERS		R08	43.3	30.0	41.7	55.0	45.0	0.0				5.00	а	6141897.50	2353158.34	5.00
RECEIVERS		R09	32.9	21.6	32.0	55.0	45.0	0.0				5.00	а	6141338.47	2353287.11	5.00
RECEIVERS		R10	45.2	31.4	43.5	55.0	45.0	0.0				5.00	а	6141867.68	2353376.72	5.00

Point Source(s)

Name	М.	ID	R	esult. PW	'L		Lw/L	i	Op	erating Ti	me	К0	Height		Co	oordinates	
			Day	Evening	Night	Туре	Value	norm.	Day	Special	Night				Х	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		POOL07	95.0	95.0	95.0	Lw	95		900.00	0.00	0.00	0.0	5.00	а	6142981.07	2353406.90	5.00
POINTSOURCE		POOL06	95.0	95.0	95.0	Lw	95		900.00	0.00	0.00	0.0	5.00	а	6142990.57	2353419.42	5.00
POINTSOURCE		POOL05	95.0	95.0	95.0	Lw	95		900.00	0.00	0.00	0.0	5.00	а	6142966.23	2353453.82	5.00
POINTSOURCE		POOL04	95.0	95.0	95.0	Lw	95		900.00	0.00	0.00	0.0	5.00	а	6142906.57	2353409.51	5.00
POINTSOURCE		POOL03	95.0	95.0	95.0	Lw	95		900.00	0.00	0.00	0.0	5.00	а	6142924.17	2353431.87	5.00
POINTSOURCE		POOL02	95.0	95.0	95.0	Lw	95		900.00	0.00	0.00	0.0	5.00	а	6142934.47	2353397.94	5.00
POINTSOURCE		POOL01	95.0	95.0	95.0	Lw	95		900.00	0.00	0.00	0.0	5.00	а	6142953.03	2353423.68	5.00
POINTSOURCE		AC01	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143051.36	2353436.75	5.00
POINTSOURCE		AC02	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143063.97	2353445.60	5.00

Name	M.	ID	R	esult. PW	'L		Lw/L	i	Ope	erating Ti	me	К0	Height	:	Co	oordinates	
			Day	Evening	Night	Туре	Value	norm.	Day	Special	Night			_	Х	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC03	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143143.50	2353446.06	5.00
POINTSOURCE		AC04	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143157.96	2353443.55	5.00
POINTSOURCE		AC05	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143239.53	2353444.21	5.00
POINTSOURCE		AC06	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143251.97	2353442.64	5.00
POINTSOURCE		AC07	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143332.37	2353440.83	5.00
POINTSOURCE		AC08	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143346.20	2353441.27	5.00
POINTSOURCE		AC09	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143483.27	2353454.36	5.00
POINTSOURCE		AC10	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143482.58	2353467.51	5.00
POINTSOURCE		AC11	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143457.68	2353602.74	5.00
POINTSOURCE		AC12	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143389.06	2353604.58	5.00
POINTSOURCE		AC13	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143374.10	2353604.16	5.00
POINTSOURCE		AC14	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143293.21	2353603.94	5.00
POINTSOURCE		AC15	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143280.33	2353605.74	5.00
POINTSOURCE		AC16	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143201.28	2353607.31	5.00
POINTSOURCE		AC17	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143186.30	2353605.52	5.00
POINTSOURCE		AC18	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143105.70	2353608.93	5.00
POINTSOURCE		AC19	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143091.89	2353609.39	5.00
POINTSOURCE		AC20	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6143011.44	2353608.48	5.00
POINTSOURCE		AC21	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142978.68	2353600.65	5.00
POINTSOURCE		AC22	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142903.59	2353555.02	5.00
POINTSOURCE	-	AC23	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142892.10	2353545.25	5.00
POINTSOURCE	-	AC24	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142828.78	2353498.74	5.00
POINTSOURCE		AC25	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142818.45	2353490.53	5.00
POINTSOURCE		AC26	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142750.74	2353452.48	5.00
POINTSOURCE		AC27	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142737.80	2353450.89	5.00
POINTSOURCE		AC28	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142952.17	2353279.15	5.00
POINTSOURCE		AC29	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142939.22	2353276.87	5.00
POINTSOURCE		AC30	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142858.83	2353279.37	5.00
POINTSOURCE		AC31	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142845.20	2353277.56	5.00
POINTSOURCE		AC32	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142764.60	2353280.96	5.00
POINTSOURCE		AC33	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142751.50	2353283.45	5.00
POINTSOURCE		AC34	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142657.09	2353448.17	5.00
POINTSOURCE		AC35	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142643.55	2353451.12	5.00
POINTSOURCE		AC36	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142670.80	2353280.96	5.00
POINTSOURCE		AC37	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142656.98	2353280.74	5.00
POINTSOURCE		AC38	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142576.62	2353285.27	5.00
POINTSOURCE		AC39	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142563.89	2353282.77	5.00
POINTSOURCE		AC40	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142563.12	2353451.58	5.00
POINTSOURCE		AC41	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142549.71	2353449.08	5.00
POINTSOURCE		AC42	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142482.72	2353279.16	5.00
POINTSOURCE		AC43	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142469.92	2353285.72	5.00
POINTSOURCE		AC44	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142469.36	2353453.62	5.00
POINTSOURCE		AC45	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142455.93	2353449.99	5.00
POINTSOURCE		AC46	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142389.05	2353287.09	5.00
POINTSOURCE		AC47	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142375.62	2353283.23	5.00
POINTSOURCE		AC48	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142376.01	2353453.38	5.00
POINTSOURCE		AC49	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142361.70	2353451.13	5.00
POINTSOURCE		AC50	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142297.24	2353283.88	5.00
POINTSOURCE		AC51	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142281.90	2353287.77	5.00
POINTSOURCE		AC52	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142200.99	2353286.19	5.00
POINTSOURCE		AC53	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142188.21	2353281.19	5.00
POINTSOURCE		AC54	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142082.10	2353289.79	5.00
POINTSOURCE		AC55	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142069.38	2353287.74	5.00
POINTSOURCE		AC56	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6141988.30	2353289.56	5.00
POINTSOURCE		AC57	73.0	73.0	73.0	Lw	73					0.0	5.00	a	6141975.80	2353287.28	5.00
POINTSOURCE		AC58	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142281.09	2353454.31	5.00
POINTSOURCE		AC59	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142268.59	2353452.25	5.00
POINTSOURCE	L	AC60	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142187.78	2353456.57	5.00
POINTSOURCE	L	AC61	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142144.52	2353457.30	5.00
POINTSOURCE		AC62	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142063.87	2353457.53	5.00
POINTSOURCE		AC63	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6142018.57	2353458.52	5.00
POINTSOURCE		AC64	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6141971.86	2353456.59	5.00
POINTSOURCE		AC65	73.0	73.0	73.0	Lw	73					0.0	5.00	а	6141956.64	2353454.13	5.00
POINTSOURCE	L	PARK01	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6142008.82	2353257.27	5.00
POINTSOURCE		PARK02	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6142139.83	2353287.22	5.00
POINTSOURCE		PARK03	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6142130.95	2353338.35	5.00
POINTSOURCE	L	PARK04	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6141890.71	2353387.50	5.00
POINTSOURCE	L	PARK05	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6141890.18	2353422.63	5.00
POINTSOURCE		PARK06	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6142158.94	2353412.19	5.00
POINTSOURCE		PARK07	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6142170.46	2353437.15	5.00
POINTSOURCE		PARK08	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6142165.57	2353455.81	5.00
POINTSOURCE		PARK09	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6141904.99	2353441.18	5.00
POINTSOURCE		PARK10	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6141904.68	2353409.24	5.00
POINTSOURCE		PARK11	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6143110.54	2353412.63	5.00
POINTSOURCE		PARK12	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6143216.84	2353415.14	5.00
POINTSOURCE		PARK13	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	a	6143314.39	2353409.41	5.00
POINTSOURCE		PARK14	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	a	6143441.16	2353554 69	5.00

Name	M.	ID	R	Result. PWL Day Evening Night			Lw/L	i	Operating Time				Height		Coordinates			
			Day	Day Evening Night T		Туре	Value	norm.	Day	Special	Special Night				х	Y	Z	
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)	
POINTSOURCE		PARK15	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6143438.04	2353569.11	5.00	
POINTSOURCE		PARK16	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6143436.36	2353589.11	5.00	
POINTSOURCE		PARK17	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6143441.72	2353600.92	5.00	
POINTSOURCE		PARK18	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6142136.44	2353310.98	5.00	
POINTSOURCE		PARK19	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6141952.24	2353236.43	5.00	
POINTSOURCE		PARK20	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6141990.78	2353232.41	5.00	
POINTSOURCE		PARK21	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6141986.74	2353205.99	5.00	
POINTSOURCE		PARK22	75.0	75.0	75.0	Lw	75		900.00	0.00	0.00	0.0	5.00	а	6141947.26	2353207.56	5.00	

Barrier(s)

Name	Sel.	М.	ID	Abso	rption	Z-Ext.	Canti	lever	Н	leig	ght		Coordinat	es	
				left	right		horz.	vert.	Begin		End	х	У	z	Ground
						(ft)	(ft)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
BARRIEREXISTING			0						6.00	а		6141940.55	2353333.42	6.00	0.00
												6141934.89	2353333.51	6.00	0.00
												6141933.87	2353273.26	6.00	0.00
												6142122.57	2353271.43	6.00	0.00
												6142123.10	2353329.65	6.00	0.00
												6142117.89	2353329.74	6.00	0.00
BARRIEREXISTING			0						6.00	а		6142153.33	2353327.31	6.00	0.00
												6142147.72	2353327.18	6.00	0.00
												6142147.12	2353265.68	6.00	0.00
												6142522.84	2353262.47	6.00	0.00
												6142945.23	2353258.69	6.00	0.00
												6142992.36	2353257.90	6.00	0.00
												6142993.26	2353324.32	6.00	0.00
												6142987.65	2353324.42	6.00	0.00
BARRIEREXISTING			0						6.00	а		6143016.37	2353482.86	6.00	0.00
												6143011.20	2353482.95	6.00	0.00
												6143010.04	2353427.30	6.00	0.00
												6143057.60	2353426.04	6.00	0.00
												6143057.49	2353432.56	6.00	0.00
												6143385.81	2353427.68	6.00	0.00
												6143386.92	2353479.96	6.00	0.00
			_						6.00			6143381.76	2353480.05	6.00	0.00
BARRIEREXISTING			0						6.00	а		6143443.59	2353419.96	6.00	0.00
												6143443.73	2353414.80	6.00	0.00
												6143496.47	2353414.13	6.00	0.00
												6143497.30	2353500.37	6.00	0.00
												6143449.30	2333307.10	0.00	0.00
			0						6.00	-		6141020.02	2333301.37	6.00	0.00
BARRIEREAISTING			0						0.00	a		61/1015 5/	2353415.42	6.00	0.00
												6141916.28	2353413.73	6.00	0.00
BARRIEREXISTING			0						6.00	a		6142151.01	2353472.74	6.00	0.00
5,11112122,101110			-						0.00	Ŭ		6142151.03	2353470 11	6.00	0.00
BARRIEREXISTING			0						6.00	а		6142180.42	2353429.21	6.00	0.00
			Ů						0.00	Ŭ		6142181.33	2353469.83	6.00	0.00
BARRIEREXISTING			0						6.00	а		6143421.15	2353565.80	6.00	0.00
			-							-		6143426.54	2353565.94	6.00	0.00
												6143427.62	2353616.87	6.00	0.00
BARRIEREXISTING			0						6.00	а		6143450.95	2353576.07	6.00	0.00
			-									6143451.64	2353616.69	6.00	0.00
BARRIEREXISTING			0						6.00	а		6143492.48	2353563.02	6.00	0.00
												6143498.32	2353563.15	6.00	0.00
												6143498.77	2353616.12	6.00	0.00
BARRIEREXISTING			0						6.00	a		6141810.74	2353254.13	6.00	0.00
												6141878.16	2353253.51	6.00	0.00
												6141879.89	2353453.52	6.00	0.00

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APPENDIX G

CONSTRUCTION NOISE LEVEL CALCULATIONS



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14896 - Upland Colonies

CadnaA Noise Prediction Model: 14896-05_Construction.cna Date: 26.09.24 Analyst: B. Lawson

Calculation Configuration

Configurat	ion
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	
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
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 Rvcr - 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 (RLS-90)	
Strictly acc. to RLS-90	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M. ID Level Lr Day Night CNEL		Limit. Value				Lanc	Use	Height	C	oordinates				
			Day	Night	CNEL	Day	Night	CNEL	Туре	Auto	Noise Type		x	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)
RECEIVERS_PROJECT		R01	55.0	55.0	61.7	80.0	0.0	0.0				5.00	r 6671896.97	1865987.11	1450.48
RECEIVERS_PROJECT		R02	56.6	56.6	63.2	80.0	0.0	0.0				5.00	6672638.61	1866083.69	1456.10
RECEIVERS_PROJECT		R03	50.7	50.7	57.4	80.0	0.0	0.0				5.00 ו	r 6674316.74	1866075.19	1442.47
RECEIVERS_PROJECT		R04	53.6	53.6	60.3	80.0	0.0	0.0				5.00 (6674091.06	1865672.75	1424.43
RECEIVERS_PROJECT		R05	55.3	55.3	62.0	80.0	0.0	0.0				5.00 (6673112.65	1865658.17	1430.08
RECEIVERS_PROJECT		R06	58.1	58.1	64.8	80.0	0.0	0.0				5.00 ו	r 6672851.26	1865667.38	1433.04
RECEIVERS_PROJECT		R07	56.8	56.8	63.5	80.0	0.0	0.0				5.00 (6672469.26	1865460.53	1429.93
RECEIVERS_PROJECT		R08	56.6	56.6	63.3	80.0	0.0	0.0				5.00 (6671593.21	1865440.98	1431.04
RECEIVERS_PROJECT		R09	53.3	53.3	59.9	80.0	0.0	0.0				5.00	r 6671032.11	1865560.27	1432.93
RECEIVERS_PROJECT		R10	52.2	52.2	58.8	80.0	0.0	0.0				5.00	r 6671559.70	1865658.81	1437.40

Area Source(s)

• • •															
Name	М.	ID	R	esult. PW	'L	Re	esult. PW	L''		Lw / L	i	Op	erating Ti	me	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)	
SITEBOUNDARY_PROJECT		CONSTRUCTION	115.0	115.0	115.0	66.4	66.4	66.4	Lw	115					8

Name	ID	ŀ	lei	ght		Coordinat	es	
		Begin		End	х	У	z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY_PROJECT	CONSTRUCTION	8.00	r		6671573.29	1865534.78	1437.59	1429.59
					6671571.14	1865773.41	1443.96	1435.96
					6671816.13	1865773.36	1442.13	1434.13
					6671816.15	1865787.35	1443.11	1435.11

Name	ID	F	lei	ght			Coordinat	es	
		Begin		End		x	У	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
						6671838.70	1865809.35	1443.98	1435.98
						6671849.42	1865798.07	1443.46	1435.46
					-	6671861 55	1865797 31	1443 71	1435 71
					-	6671862.50	1865770.22	1443.71	1433.71
					_	6671862.59	1865779.23	1442.32	1434.32
					_	6671887.76	1865779.46	1443.13	1435.13
						6671888.33	1865772.13	1442.24	1434.24
						6672440.94	1865775.51	1441.00	1433.00
						6672663.12	1865941.30	1442.86	1434.86
						6673095.06	1865943.55	1439.71	1431.71
						6673094 50	1865956 52	1441 00	1433.00
					-	6673145.25	1865955.02	1440.47	1/32 /7
					-	6672146.27	18055555.40	1440.47	1432.47
					_	66/3146.37	1865940.17	1438.83	1430.83
					_	6673186.41	1865940.17	1441.00	1433.00
						6673187.76	1865925.00	1438.07	1430.07
						6674213.82	1865928.33	1437.41	1429.41
						6674213.26	1865897.88	1430.94	1422.94
						6674195.22	1865880.96	1427.71	1419.71
						6674230.74	1865807.65	1427.91	1419.91
			-			6674150 67	1865756 00	1432 00	1424 00
			-		-	667/1/0 /1	1865744 50	1/122.00	1424.00
			-		-	00/4148.41	1005/44.50	1452.00	1424.00
			_			6675149.89	1865748.45	1443.59	1435.59
						6675156.65	1865749.11	1444.20	1436.20
						6675162.90	1865747.80	1444.98	1436.98
						6675168.89	1865745.46	1446.40	1438.40
						6675173.84	1865742.34	1447.77	1439.77
						6675177.49	1865736.61	1449.40	1441.40
						6675178.01	1865728.01	1449.88	1441 88
					-	6675175.01	1965728.01	1440.20	1441.00
					_	00/51/5.00	1805721.24	1449.38	1441.50
					_	6675168.63	1865710.83	1447.11	1439.11
					_	6675162.64	1865707.44	1445.30	1437.30
						6675152.75	1865707.96	1443.27	1435.27
						6675144.67	1865710.04	1442.54	1434.54
						6675135.04	1865726.19	1442.41	1434.41
						6675128.46	1865730.97	1442.62	1434.62
						6673989 39	1865722 51	1432.00	1424 00
					-	6673080.30	1805722.51	1432.00	1424.00
					_	6673989.39	1865693.75	1429.77	1421.77
					_	6673188.25	1865685.03	1436.34	1428.34
					_	6672766.87	1865685.54	1437.41	1429.41
						6672764.83	1865525.71	1431.00	1423.00
						6671750.52	1865514.47	1431.68	1423.68
					٦	6671752.86	1865469.68	1431.10	1423.10
						6671572.93	1865468.63	1433.17	1425.17
			-			6671094 92	1865464 81	1435.00	1427 00
			-		-	667090E 24	1865/00 77	1420 00	1420.00
			-		-	6670705 61	1003499.77	1420.00	1420.00
			-			66/0/05.61	1865495.26	1430.69	1422.69
						6670700.32	1865495.13	1430.78	1422.78
						6670688.38	1865485.46	1431.00	1423.00
			Ľ	L_ T	_]	6670677.05	1865485.91	1431.00	1423.00
						6670665.26	1865485.61	1430.83	1422.83
						6670651.66	1865477.75	1430.81	1422.81
			-			6670640 17	1865477 20	1430 9/	1422 04
			-			6670620 20	1965/70 65	1/121 02	1/22.34
			-		-	6670620.27	10034/8.05	1431.03	1423.03
			_		4	00/0020.37	1805484.40	1431.09	1423.09
						6670610.10	1865492.41	1431.06	1423.06
			L			6670600.88	1865501.63	1430.72	1422.72
						6670600.73	1865516.44	1430.30	1422.30
						6670619.62	1865528.07	1430.00	1422.00
			-			6670632.01	1865536.84	1430.00	1422.00
			-		-	6670642.74	1865541 60	1/120.00	1422.00
			-		-	6670654 52	1005341.08	1430.00	1422.00
			-		_	00/0054.53	1005539.56	1430.00	1422.00
						6670661.24	1865528.15	1430.11	1422.11
						6670912.86	1865530.12	1433.16	1425.16

Barrier(s)

Name	Sel.	М.	ID	Abso	rption	Z-Ext.	Canti	lever	Н	ei	ght		Coordinat	es	
				left	right		horz.	vert.	Begin		End	х	У	z	Ground
						(ft)	(ft)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
BARRIEREXISTING_PROJECT			0						6.00	r		6671504.85	1865535.28	1437.50	1431.50
												6671572.26	1865535.81	1435.97	1429.97
												6671570.61	1865735.80	1439.45	1433.45
BARRIEREXISTING_PROJECT			0						6.00	r		6671435.02	1865592.39	1436.82	1430.82
												6671434.23	1865537.70	1437.13	1431.13
												6671225.90	1865537.18	1433.13	1427.13
												6670910.80	1865533.53	1431.73	1425.73
												6670877.72	1865548.64	1432.17	1426.17
												6670702.20	1865545.51	1432.17	1426.17

Name	Sel.	M.	ID	Abso	rption	Z-Ext.	Cant	ilever	Н	lei	ght		Coordinat	es	
				left	right		horz.	vert.	Begin		End	x	У	z	Ground
						(ft)	(ft)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
												6670677.72	1865570.77	1432.46	1426.46
												6670677.98	1865654.89	1433.27	1427.27
BARRIEREXISTING_PROJECT			0						6.00	r		6671572.96	1865279.53	291.20	285.20
												6671570.82	1865467.27	1431.27	1425.27
												6671641.57	1865468.35	1430.07	1424.07
												6671641.57	1865461.19	1430.85	1424.85
BARRIEREXISTING PROJECT			0						6.00	r		6671798 25	1865457 72	1431 16	1425 16
DAMMEREADING_INOIECT			Ľ						0.00	Ľ		6671798.25	1865473 34	1/20 00	1/23 00
			-									6672122.02	1065473.34	1423.33	1425.55
			-									6672132.02	1005474.00	1431.00	1425.00
			-									6672420.00	1805477.47	1430.00	1424.00
			-									6672556.50	1865477.47	1430.00	1424.00
												6672556.50	1865462.71	1430.00	1424.00
BARRIEREXISTING_PROJECT			0						6.00	r		6672700.81	1865455.76	1429.94	1423.94
												6672701.90	1865478.55	1429.45	1423.45
												6672830.80	1865479.20	1428.00	1422.00
												6672830.80	1865470.30	1427.79	1421.79
BARRIEREXISTING_PROJECT			0						6.00	r		6672998.99	1865471.17	1426.43	1420.43
												6672998.77	1865482.67	1426.40	1420.40
												6673061.49	1865482.89	1425.93	1419.93
												6673060.62	1865413.45	1424.59	1418.59
BARRIEREXISTING PROJECT			0						6.00	r		6674026.75	1865690.10	1427.05	1421.05
			-									6674226 75	1865690 36	1427.03	1421.03
												6674404 61	1865687 75	1/27 22	1/21 33
												6674604.61	1965690.94	1427.33	1421.33
			+							\vdash		6674004.01	1805085.84	1430.02	1424.02
			-									6674927.79	1865690.88	1431.65	1425.65
			-									6675136.12	1865693.74	1439.33	1433.33
			-									6675122.58	1865646.35	1435.17	1429.17
BARRIEREXISTING_PROJECT			0						6.00	r		6671033.48	1865534.95	1432.81	1426.81
												6671033.22	1865602.61	1435.12	1429.12
BARRIEREXISTING_PROJECT			0						6.00	r		6671570.61	1865735.58	1439.44	1433.44
												6671503.79	1865735.94	1438.42	1432.42
BARRIEREXISTING_PROJECT			0						6.00	r		6671570.81	1865685.95	1440.00	1434.00
												6671502.06	1865685.60	1438.30	1432.30
BARRIEREXISTING_PROJECT			0						6.00	r		6671571.01	1865635.77	1437.60	1431.60
												6671513.34	1865635.25	1438.00	1432.00
BARRIEREXISTING PROJECT			0						6.00	r		6671571.21	1865585.95	1438.00	1432.00
												6671516.29	1865585.08	1437.91	1431.91
BARRIERTEMP PROJECT			0						8.00	r		6672769.14	1865568.14	1433.00	1425.00
			-									6672771.68	1865681.93	1436.97	1428.97
			-									6673096.16	1865683 23	1/37 0/	1/20.07
	-	-	-				<u> </u>			\square		6673255 70	1865686 10	1436 25	1428 25
	-	-	-							\square		6672E0E 12	1065600 44	1424 50	1426.55
		-	-									00/3393.12	1000000.44	1434.50	1420.50
		-							0.67		\vdash	00/389/.72	1865690.78	1430.70	1422.70
BARRIERTEMP_PROJECT	-		10						8.00	r		6671433.92	1865536.36	1439.05	1431.05
			-				L					6671283.92	1865535.84	1435.35	1427.35
			-									6671039.39	1865533.75	1435.01	1427.01
												6670909.96	1865532.45	1433.53	1425.53
												6670774.54	1865531.15	1431.28	1423.28
												6670663.35	1865530.11	1430.20	1422.20
BARRIERTEMP_PROJECT			0						12.00	r		6671570.61	1865735.58	1445.44	1433.44
										Π		6671571.41	1865535.80	1442.07	1430.07
										Π		6671482.37	1865535.10	1442.84	1430.84
BARRIERTEMP PROJECT			0						8.00	r		6671471.07	1865467.02	1435.00	1427.00
												6671572.13	1865468.13	1433.25	1425.25
										\square	++	6671641 21	1865468 35	1432 09	1424 08
	L		1	L		I	1	1		1		0071041.21	1000-00.00	1452.00	1727.00

Building(s)

Name	Sel.	М.	ID	RB	Residents	Absorption	Height			Coordinat	es	
							Begin		х	У	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
			building_00002	х	0		25.00	r	6674267.11	1865618.82	1443.01	1418.01
									6674357.09	1865652.60	1443.01	1419.32
									6674398.74	1865571.49	1443.01	1422.00
									6674286.52	1865526.39	1443.01	1418.45
									6674255.86	1865600.51	1443.01	1418.19
			building_00003	х	0		25.00	r	6674429.92	1865642.32	1446.75	1421.75
									6674432.11	1865622.60	1446.75	1422.00
									6674422.91	1865624.35	1446.75	1422.00
									6674429.56	1865552.61	1446.75	1422.00
									6674551.76	1865566.09	1446.75	1423.94
									6674543.39	1865635.35	1446.75	1423.73
									6674532.77	1865634.95	1446.75	1423.21
									6674530.25	1865652.88	1446.75	1422.76
			building_00004	х	0		25.00	r	6674560.98	1865650.88	1448.40	1423.40
									6674560.96	1865565.40	1448.40	1424.00
									6674680.77	1865564.79	1448.40	1424.63

	Sel.	М.	עו	ĸь	neoracineo	Absorption	пеідпі			coordinat		
							Begin		х	y	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
							()	-	()	1005553.45	(,	(10)
									6674683.25	1865653.45	1448.40	1425.00
			building_00005	х	0		25.00	r	6674699.14	1865654.20	1450.00	1425.00
									6674699.46	1865566.64	1450.00	1424.78
									6674921 20	1965563 56	1450.00	1426.00
								-	0074821.39	1805505.50	1450.00	1426.00
									6674818.24	1865654.31	1450.00	1424.07
			building_00006	х	0		25.00	r	6674832.71	1865655.42	1449.02	1424.02
									6674829 86	1865564 65	1449 02	1425 78
								-	667 1025.00	1005501.05	1 4 4 0 0 0 0	1424.00
									6674948.98	1865560.87	1449.02	1424.00
									6674950.06	1865652.69	1449.02	1424.00
			building 00007	х	0		25.00	r	6674961.67	1865567.61	1449.00	1424.00
			0_000						667/083 22	1865478 68	1449.00	1422.56
								-	0074303.22	1803478.08	1445.00	1422.30
									6675070.76	1865502.22	1449.00	1421.67
									6675048.52	1865588.68	1449.00	1423.00
			building 00013	x	0		25.00	r	6672782 25	1865641 82	1452 00	1427 00
			5411411 <u>8</u> _00015	~			25.00	ŀ.	6672702.20	1005011.02	1 152.00	1127.00
									6672813.33	1865641.65	1452.00	1426.82
									6672813.20	1865621.70	1452.00	1426.55
									6672832.99	1865621.56	1452.00	1426.46
								-	6672922.69	1000074 70	1452.00	1425.00
								-	0072852.08	1803374.70	1432.00	1425.00
									6672808.71	1865574.92	1452.00	1425.70
									6672808.82	1865592.39	1452.00	1426.12
	1								6672802 89	1865592 44	1452 00	1426.07
	-							-	6672002.05	1065572.44	1453.00	1425 62
L	-	-		-				-	00/2802.78	10025/3.96	1452.00	1425.62
								L	6672781.83	1865574.06	1452.00	1425.43
			building 00014	х	0		25.00	r	6672850.38	1865633.41	1451.44	1426.44
<u> </u>	1		5						6672000 54	1865634.00	1451 44	1426.00
	<u> </u>	-						-	0072900.30	1003034.00	1431.44	1420.00
	L								6672901.00	1865596.80	1451.44	1425.31
									6672874.61	1865596.49	1451.44	1426.00
									6672874 82	1865580 73	1451 44	1426.00
								-	0072074.02	1005500.75	1451.44	1420.00
									6672851.00	1865580.43	1451.44	1426.00
			building_00015	х	0		25.00	r	6672913.00	1865626.25	1450.17	1425.17
									6672913.18	1865577.78	1450.17	1425.00
								-	6672024.52	1005577.00	1450.17	1425.21
									0072934.32	1805577.80	1450.17	1425.21
									6672934.45	1865595.03	1450.17	1425.40
									6672940.21	1865595.06	1450.17	1425.54
									6672940 27	1865577 88	1450 17	1425 28
								-	6672046.27	1005577.00	1450.17	1425.20
									6672965.27	1865577.97	1450.17	1425.52
									6672965.09	1865626.44	1450.17	1426.00
			building 00016	х	0		25.00	r	6672975.52	1865629.17	1450.91	1425.91
									6672076.22	1000070 70	1450.01	1425.21
									00/29/0.23	1805575.72	1450.91	1425.21
									6673001.54	1865576.03	1450.91	1425.00
									6673001.32	1865593.17	1450.91	1424.96
									6673027.00	1865503 52	1/15/0 01	1423 72
									0073027.99	1003393.32	1430.91	1425.72
									6673027.06	1865664.92	1450.91	1427.17
									6673004.18	1865664.62	1450.91	1428.32
								_	CC72004 C4	1865629 54	1450 91	1424 19
									66/3004 64	1005025.51	1150151	1121125
							25.00		6673004.64		4 4 4 6 9 5	4 4 3 4 3 5
			building_00017	x	0		25.00	r	6673004.64 6673037.98	1865641.89	1446.25	1421.25
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51	1865641.89 1865642.06	1446.25 1446.25	1421.25 1424.40
			building_00017	x	0		25.00	r	6673037.98 6673075.51 6673075.56	1865641.89 1865642.06 1865628.74	1446.25 1446.25 1446.25	1421.25 1424.40 1424.00
			building_00017	x	0		25.00	r	6673037.98 6673075.51 6673075.56	1865641.89 1865642.06 1865628.74	1446.25 1446.25 1446.25	1421.25 1424.40 1424.00
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51 6673075.56 6673083.88	1865641.89 1865642.06 1865628.74 1865628.77	1446.25 1446.25 1446.25 1446.25	1421.25 1424.40 1424.00 1424.00
			building_00017	x	0		25.00	r	6673075.51 6673075.51 6673075.56 6673083.88 6673083.99	1865641.89 1865642.06 1865628.74 1865628.77 1865607.59	1446.25 1446.25 1446.25 1446.25 1446.25	1421.25 1424.40 1424.00 1424.00 1424.00
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673083.99 6673081.02	1865641.89 1865642.06 1865628.74 1865628.77 1865607.59 1865607.58	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1421.25 1424.40 1424.00 1424.00 1424.00 1423.97
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673083.99 6673081.02 6673081.10	1865641.89 1865642.06 1865628.74 1865607.59 1865607.58 1865571.20	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1421.25 1424.40 1424.00 1424.00 1423.97 1423.00
			building_00017	×	0		25.00	r	6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673083.99 6673081.02 6673081.02	1865641.89 1865642.06 1865628.74 1865607.59 1865607.58 1865571.30	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1421.25 1424.40 1424.00 1424.00 1424.00 1423.97 1423.00
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51 6673083.88 6673083.99 6673081.02 6673081.19 6673056.49	1865641.89 1865642.06 1865628.74 1865607.59 1865607.58 1865571.30 1865571.17	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1421.25 1424.40 1424.00 1424.00 1423.97 1423.00 1423.00
			building_00017	×	0		25.00	r	6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673083.99 6673081.02 6673081.19 6673056.49 6673056.38	1865641.89 1865642.06 1865628.74 1865607.59 1865607.58 1865571.30 1865571.17 1865592.28	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1421.25 1424.40 1424.00 1424.00 1423.97 1423.00 1423.00 1423.10
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673083.02 6673081.02 6673081.19 6673056.49 6673056.38 6673038.19	1865641.89 1865642.06 1865628.74 1865607.59 1865607.58 1865571.30 1865571.17 1865592.28 1865592.21	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1421.25 1424.40 1424.00 1424.00 1423.97 1423.00 1423.00 1423.00 1423.00
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673083.89 6673081.02 6673081.02 6673081.19 6673056.49 6673056.38 6673038.19	1865642.06 1865642.06 1865628.74 1865607.59 1865607.58 1865571.30 1865571.17 1865592.28 1865592.21	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1421.25 1424.40 1424.00 1424.00 1423.97 1423.00 1423.00 1423.00 1423.00
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.56 6673083.88 6673083.99 6673081.02 6673081.19 6673056.49 6673056.38 6673038.19 6673038.20	1855641.89 1865642.06 1865628.74 1865607.59 1865607.58 1865571.30 1865571.17 1865592.28 1865592.21 1865528.79	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1421.25 1424.40 1424.00 1424.00 1423.97 1423.00 1423.00 1423.10 1423.00 1423.00
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.56 6673075.56 6673083.88 6673083.09 6673081.02 6673081.19 6673056.38 6673056.39 6673058.38.19 6673098.20 6673098.20	1865642.06 1865642.06 1865628.74 1865607.59 1865507.58 1865571.30 1865571.30 1865572.17 1865592.28 1865592.21 1865592.31	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00	1421.25 1424.00 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1424.00 1424.00
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.56 6673075.56 6673083.88 6673083.99 6673081.02 6673056.49 6673056.49 6673056.38 6673038.19 6673098.20 6673098.20	1865641.89 1865642.06 1865628.77 1865607.59 1865607.58 1865571.30 1865571.30 1865592.28 1865592.21 1865592.31 1865591.31	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.20 1449.00 1449.00	1421.25 1424.00 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1424.00 1424.00 1424.02
			building_00017	x	0		25.00	r	6673004.64 6673075.51 6673075.55 6673075.55 6673083.88 6673083.99 6673081.02 6673056.49 6673056.49 6673056.38 6673038.19 6673098.20 6673098.91 6673124.37	1865641.89 1865642.06 1865628.74 1865607.59 1865607.59 1865507.30 1865571.17 1865592.28 1865592.21 1865591.31 1865591.31	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.20 1449.00 1449.00	1421.25 1424.40 1424.00 1424.00 1423.97 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1423.23
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.56 6673075.56 6673083.88 6673083.99 6673081.02 6673081.02 6673081.02 6673056.38 6673056.38 6673038.19 6673098.20 6673098.91 6673124.70	1865641.89 1865642.06 1865628.77 1865607.59 1865607.58 1865571.30 1865571.30 1865592.28 1865592.21 1865528.79 1865591.31 1865591.80 1865553.35	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00	1421.25 1424.40 1424.00 1424.00 1423.97 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.33
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.56 6673075.56 6673083.89 6673081.02 6673081.02 6673056.49 6673056.49 6673056.38 6673038.19 6673098.20 6673098.20 6673124.37 6673124.37	1865641.89 1865642.06 1865628.74 1865607.59 1865507.58 1865571.30 1865592.28 1865592.21 1865591.31 1865591.31 1865571.35 186557.35	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00	1421.25 1424.40 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.33 1423.10
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			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.56 6673075.56 6673083.88 6673083.09 6673081.02 6673081.02 6673081.02 6673083.19 6673098.20 6673098.91 6673124.37 6673124.70 6673124.70 6673149.33 6673148.29	1865641.89 1865642.06 1865628.77 1865607.59 1865607.59 1865571.30 1865571.30 1865571.30 1865592.28 1865592.21 1865628.79 1865591.31 1865559.35 1865575.81 1865575.81	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00	1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1423.62 1423.33 1423.10
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.56 6673075.56 6673083.89 6673081.02 6673081.02 667305.49 667305.49 667305.49 667305.49 667305.49 667305.49 6673098.20 6673098.91 6673124.37 6673124.70 6673149.33 6673149.33 6673148.29 6673160.17	1865641.89 1865642.06 1865628.74 1865607.59 1865507.58 1865571.30 1865591.31 1865591.31 1865591.31 1865591.31 1865571.35 1865571.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865575.35 1865575.35 186562.85	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00	1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1423.31 1423.33 1423.31
			building_00017	x	0		25.00	r	6673004.64 667307.98 6673075.51 6673075.51 6673075.51 6673075.51 6673083.89 6673083.99 6673081.19 6673056.49 6673056.38 6673098.20 6673098.91 6673124.37 6673124.37 6673124.33 6673149.33 6673160.17 6673160.17	1865641.89 1865642.06 1865628.74 1865628.74 1865607.59 1865507.30 1865592.28 1865592.21 1865592.21 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865625.35 1865625.35 1865625.35	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73	1421.25 1424.40 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1423.62 1423.33 1423.73 1423.71
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.56 6673075.56 6673083.88 6673081.02 6673081.02 6673081.02 6673081.02 6673083.19 6673083.19 6673083.19 6673082.01 6673098.91 6673124.37 6673124.70 6673149.33 6673149.33 6673124.70 6673124.71 6673124.72 6673124.73 6673124.70 6673124.71 6673124.72	1865641.89 1865642.06 1865628.74 1865628.77 1865607.59 1865571.30 1865571.30 1865571.31 1865591.24 1865591.31 1865571.31 1865571.31 1865571.31 1865571.31 1865571.31 1865575.35 1865575.31 1865575.31 1865575.35 1865575.35 1865575.35 1865575.35 1865562.85 1865575.81 186552.85 186552.85 186552.85 186557.862	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73	1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.33 1423.10 1423.84 1423.73 1423.71 1423.44
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.56 6673075.56 6673083.89 6673081.02 667305.41 667305.41 667305.43 667305.44 667305.43 667305.43 667305.43 667305.49 667305.49 6673088.20 667308.20 6673124.37 6673124.37 6673124.70 6673149.33 6673149.33 6673149.33 6673124.70 6673124.70 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673191.31 </td <td>1865641.89 1865642.06 1865628.74 1865607.59 1865507.30 1865571.30 1865591.21 1865592.21 1865591.31 1865591.31 1865571.30 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865575.35 1865575.35 1865575.35 1865575.35 1865575.35 1865578.36 1865578.62 1865578.18</td> <td>1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73</td> <td>1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.33 1423.31 1423.73 1423.71 1423.04</td>	1865641.89 1865642.06 1865628.74 1865607.59 1865507.30 1865571.30 1865591.21 1865592.21 1865591.31 1865591.31 1865571.30 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865591.31 1865575.35 1865575.35 1865575.35 1865575.35 1865575.35 1865578.36 1865578.62 1865578.18	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73	1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.33 1423.31 1423.73 1423.71 1423.04
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			building_00017				25.00 25.00 25.00 25.00		6673004.64 6673007.98 6673075.51 6673075.56 6673083.88 6673081.02 6673081.02 6673081.02 6673081.02 6673081.02 6673081.02 6673081.02 6673081.02 6673081.02 6673082.03 6673098.01 6673098.01 6673124.37 6673124.70 6673149.33 6673148.29 6673121.53 6673121.53 6673191.12 6673191.12 6673185.28 6673185.28 6673185.161 667327.66 667327.67	1865641.89 1865642.06 1865628.74 1865628.77 1865607.58 1865571.30 1865571.30 1865571.30 1865571.30 1865571.30 1865571.31 1865591.28 1865591.30 1865571.31 1865571.31 1865571.31 1865571.31 1865571.31 1865571.31 1865571.31 1865571.31 1865571.31 1865571.31 186557.31 186557.31 186557.31 186557.31 186557.31 186557.32 186557.31 186557.31 186557.32 186557.34 186557.34 186557.34 186557.34 186557.34 186555.56 186555.56	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1448.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73	1421.25 1424.40 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.00 1424.00 1423.31 1423.41 1423.71 1423.26 1423.27 1423.02 1423.02 1423.04 1423.81
			building_00017		0		25.00		6673004.64 667307.98 6673075.51 6673075.51 6673075.51 6673075.51 6673075.51 6673075.51 6673075.51 6673083.89 6673081.19 6673056.49 6673056.49 6673056.49 6673078.19 6673078.19 6673078.20 6673108.19 6673124.37 6673142.37 6673148.29 6673148.29 6673148.29 6673148.29 6673148.29 6673140.17 667315.51 6673160.17 6673185.28 6673185.28 6673161.16 6673227.66 6673227.475	1865641.89 1865642.06 1865628.74 1865628.74 1865607.59 1865607.58 1865502.81 1865592.28 1865592.28 1865592.21 1865592.21 1865592.28 1865591.31 1865591.30 1865591.31 1865591.31 1865575.35 1865575.31 1865575.31 1865578.18 1865578.18 1865578.34 1865577.31 1865578.34 1865577.31 1865577.31 1865578.34 1865577.31 1865577.31 1865577.31 1865577.31 1865577.31 1865577.31 1865577.31 186557.71 186557.71 186557.71 186557.71 186557.71 186557.71 186557.71 186557.71	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73	1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1423.02 1423.31 1423.71 1423.04 1423.71 1423.04 1423.26 1423.27 1423.02 1423.04 1423.83 1423.81 1423.81
			building_00017				25.00 25.00 25.00 25.00 25.00		6673004.64 667307.98 6673075.51 6673075.53 6673083.88 6673081.02 6673081.02 6673081.02 6673081.02 6673081.03 6673081.03 6673081.01 667308.019 667307.02 667307.03 667307.03 667307.03 6673124.37 6673124.70 6673124.73 6673124.73 6673124.73 6673124.73 6673124.73 6673124.70 6673124.70 6673124.70 6673124.73 6673124.73 6673124.73 6673124.75 6673124.75 6673125.88 6673126.88 6673274.95 6673274.95 6673274.95	1865641.89 1865642.06 1865628.74 1865628.77 1865607.59 1865571.30 1865571.30 186552.21 186552.21 1865591.30 1865591.31 1865591.30 186557.31 186557.31 186557.84 186557.81 1865578.34 186557.81 186557.81 186557.83 186557.83 186557.81 186557.83 186557.81 186557.83 186557.83 186557.83 186557.83 186555.74 186555.77 186555.77 186558.76 186558.77 186558.77 186558.72	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1448.20 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73	1421.25 1424.40 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.33 1423.10 1423.26 1423.71 1423.02 1423.26 1423.27 1423.02 1423.83 1423.81 1423.81
			building_00017	x			25.00 25.00 25.00 25.00		6673004.64 6673037.98 6673075.51 6673075.56 6673083.89 6673081.02 6673081.02 6673081.02 6673081.02 6673081.02 6673081.02 6673081.02 6673081.02 6673081.02 6673082.03 6673083.09 6673098.91 6673124.37 6673124.37 6673149.33 6673149.33 6673124.70 6673149.23 6673149.23 6673124.70 6673124.70 6673124.70 6673148.29 6673191.12 6673191.12 6673191.28 6673185.28 6673185.68 667327.66 667327.67 667327.68 667327.68 667327.68 667327.68 667327.68 667327.68	1865641.89 1865642.06 1865628.74 1865628.77 1865607.58 1865571.30 1865571.30 1865571.30 1865571.30 1865571.30 1865591.28 1865591.31 1865591.30 186557.35 186557.35 186557.81 186557.81 186557.81 186557.81 186557.81 186557.81 186557.81 186557.81 186557.81 186557.81 186557.81 186557.81 186557.81 186557.81 186557.81 186557.81 186557.81 186557.81 186557.84 186557.81 186557.81 1865557.81 186555.56 186553.56 186553.56 186553.56 186553.56 186553.57 1865553.56 <	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1448.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.83 1448.83	1421.25 1424.40 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.00 1424.00 1423.31 1423.41 1423.71 1423.02 1423.02 1423.02 1423.81 1423.81 1423.81
			building_00017				25.00		6673004.64 667307.98 6673075.51 6673075.51 6673075.51 6673075.51 6673083.89 6673081.99 6673081.19 6673056.49 6673056.49 6673028.19 6673038.19 6673038.19 6673038.19 6673098.201 6673124.37 6673124.37 6673124.37 6673148.29 6673148.29 6673148.29 6673148.29 6673148.29 6673140.17 6673121.53 6673120.55 667315.28 6673160.17 6673161.16 6673217.55 6673161.16 66732274.78 66732274.58 6673250.68 6673250.68 6673250.68	1865641.89 1865642.06 1865628.74 1865628.74 1865607.59 1865507.30 1865502.28 1865592.28 1865592.29 1865592.21 1865592.21 1865592.29 1865592.21 1865592.21 1865591.31 1865591.31 1865591.30 1865575.31 1865575.31 1865578.18 1865578.18 1865578.41 1865578.41 1865578.41 1865578.41 1865578.41 1865578.41 1865578.41 1865578.41 1865578.41 1865578.41 1865578.41 1865577.41 1865577.41 1865577.41 1865577.41 1865577.41 1865577.41 186557.47 186557.47 186557.47 186557.41 1865581.76 186558	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1448.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.83 1448.83 1448.83 1448.83	1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.00 1423.31 1423.32 1423.71 1423.04 1423.26 1423.20 1423.20 1423.81 1423.08 1423.81
			building_00017				25.00 25.00 25.00 25.00 25.00		6673004.64 667307.94 6673075.51 6673075.51 6673075.53 6673083.89 6673081.02 6673081.02 6673081.03 6673081.03 6673081.03 6673081.01 667308.19 667308.19 667308.19 667308.19 667308.19 6673124.37 6673124.37 6673124.37 6673124.37 6673124.37 6673124.37 6673124.37 6673124.30 6673124.53 6673124.53 6673124.53 6673124.53 6673124.53 6673121.53 6673121.53 6673125.68 667327.68 667327.49 667327.498 6673250.68 6673250.68 6673250.68 6673274.72	1865641.89 1865642.06 1865628.74 1865628.77 1865607.59 1865571.30 1865571.30 1865522.21 186552.21 1865591.30 1865591.31 1865591.30 1865575.31 1865575.31 1865575.31 1865578.31 1865578.34 1865578.34 186557.31 186557.31 1865578.34 186557.31 186553.67 186557.31 186557.34 186557.31 186553.67 186553.67 186553.67 186553.67 186553.67 186553.67 186553.67 186554.67 186554.67 186554.67 186564.31	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1448.25 1448.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.83 1448.83 1448.83 1448.83	1421.25 1424.40 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.00 1423.33 1423.10 1423.42 1423.73 1423.71 1423.26 1423.27 1423.02 1423.83 1423.81 1423.81 1423.81 1423.85 1423.85
			building_00017				25.00		6673004.64 667307.98 6673075.51 6673075.51 6673075.51 6673075.51 6673075.51 6673075.51 6673075.51 6673083.89 6673081.02 6673081.02 6673056.49 6673056.49 6673056.49 6673075.51 667308.09 667308.19 6673098.20 6673124.37 6673142.39 6673140.31 6673140.77 6673140.73 6673140.73 667310.73 667310.73 6673161.16 6673227.66 6673227.4.98 6673250.68 6673250.68 6673250.68 6673250.69 6673250.60 667324.72	1865641.89 1865642.06 1865628.74 1865607.59 1865507.30 1865571.30 1865571.30 186557.30 186557.30 186557.31 1865591.31 1865591.30 186557.35 186557.35 186557.31 186557.31 186557.31 186557.31 186557.31 1865578.62 1865578.62 1865578.41 1865578.42 1865578.41 1865578.42 1865578.42 1865578.42 1865578.42 1865578.42 1865578.42 1865578.42 1865578.42 1865578.41 1865578.41 1865578.41 1865578.41 1865578.41 1865578.41 1865581.77 1865581.67 1865581.67 1865560.3.31 1865660.3.31 1865660.	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1448.25 1448.00 1449.00 1448.73 1448.73 1448.73 1448.83 1448.83 1448.83	1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1423.84 1423.71 1423.84 1423.71 1423.02 1423.02 1423.02 1423.02 1423.02 1423.02 1423.02 1423.02 1423.02 1423.02
			building_00017				25.00		6673004.64 667307.98 6673075.51 6673075.51 6673075.51 6673075.51 6673075.51 6673075.51 6673083.89 6673081.19 6673056.49 6673056.49 6673056.38 6673028.19 6673078.20 6673078.20 6673098.91 6673124.37 6673124.70 6673160.17 6673160.17 6673161.15 6673191.12 6673152.28 6673152.28 6673152.28 6673152.28 6673227.66 6673227.62 6673227.63 6673227.63 6673227.63 6673227.63 6673227.63 6673227.63 6673227.63 6673227.63 6673227.63 6673227.63 6673227.63 6673227.63 6673227.64 6673227.67 667	1865641.89 1865642.06 1865628.74 1865628.74 1865607.59 1865507.30 1865571.30 186552.21 186552.21 1865591.30 1865591.31 1865591.30 1865591.31 186557.31 186557.31 186557.531 186557.531 186557.541 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.167 1865581.76 1865504.30 1865504.31 186504.30 186504.30 1865598.47	1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1448.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.83 1448.83 1448.83 1448.83 1448.83	1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.00 1423.33 1423.31 1423.71 1423.61 1423.62 1423.61 1423.61 1423.61 1423.61 1423.61

Urban	Crossroads,	Inc.
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Name	Sel.	M.	ID	RB	Residents	Absorption	Height			Coordinat	es	
							Begin		X (64)	У (бъ	Z (ft)	Ground
			building 00021	v	0		(ft) 25.00	r	(ft) 6673292.07	(TL) 1865642.85	(π) 1449.00	(π) 1424.00
			building_00021	^	0		25.00		6673292.92	1865576.84	1449.00	1422.60
									6673314.29	1865577.10	1449.00	1422.45
									6673314.11	1865591.48	1449.00	1423.24
									6673319.38	1865591.53	1449.00	1423.25
									6673319.55	1865577.70	1449.00	1422.53
									6673344.73	1865642 13	1449.00	1423.14
									6673315.68	1865641.78	1449.00	1424.00
									6673315.68	1865643.16	1449.00	1424.00
			building_00022	х	0		25.00	r	6673355.86	1865614.45	1449.00	1424.00
									6673371.08	1865614.65	1449.00	1424.00
									6673370.52	1865645.11	1449.00	1424.00
									6673400.36	1865594.27	1449.00	1424.00
									6673380.54	1865594.49	1449.00	1423.37
									6673380.92	1865573.82	1449.00	1422.69
									6673356.46	1865573.58	1449.00	1422.67
			building_00023	х	0		25.00	r	6673417.27	1865649.14	1449.00	1424.00
									6673470.05	1865649.95	1449.00	1424.00
									6673470.60	1865616.40	1449.00	1423.85
<u> </u>									6673451.67	1865601.22	1449.00	1424.00
									6673444.83	1865601.13	1449.00	1423.98
									6673445.22	1865578.31	1449.00	1423.24
									6673418.41	1865577.88	1449.00	1422.94
			building_00024	x	0		25.00	r	6673481.13	1865649.77	1449.00	1424.00
									6673534.82	1865650.37	1449.00	1423.66
									6673514 54	1865617.43	1449.00	1423.62
									6673514.76	1865600.40	1449.00	1424.00
									6673508.64	1865600.31	1449.00	1423.72
									6673508.88	1865577.96	1449.00	1422.52
									6673481.91	1865577.68	1449.00	1422.64
			building_00025	х	0		25.00	r	6673544.86	1865654.08	1448.40	1423.40
									6673545.04	1865620.96	1448.40	1423.42
									6673565.32	1865604.41	1448.40	1423.03
									6673570.86	1865604.43	1448.40	1422.78
									6673570.97	1865580.59	1448.40	1422.02
									6673597.76	1865580.76	1448.40	1420.67
									6673597.34	1865654.38	1448.40	1424.14
			building_00026	х	0		25.00	r	6673633.28	1865675.33	1450.57	1425.57
									6673682.75	1865630.10	1450.57	1425.00
									6673651.00	1865629.91	1450.57	1423.86
									6673651.06	1865622.52	1450.57	1423.39
									6673624.73	1865622.35	1450.57	1423.36
<u> </u>									6673624.59	1865644.26	1450.57	1424.30
<u> </u>									6673627.19	1865644.27	1450.57	1424.28
									6673633 36	1865661.92	1450.57	1425.02
<u> </u>			building 00027	x	0		25.00	r	6673670.68	1865604.54	1447.23	1422.23
									6673730.52	1865605.34	1447.23	1421.64
									6673730.97	1865573.32	1447.23	1420.17
<u> </u>									6673692.89	1865572.78	1447.23	1419.96
									6673692.97	1865566.59	1447.23	1419.62
			building 00028	x	0		25.00	r	6673738 11	1865607 26	1446 38	1421 38
				-	5			Ť	6673738.38	1865574.51	1446.38	1420.26
									6673769.76	1865574.95	1446.38	1420.04
									6673769.94	1865566.84	1446.38	1419.59
<u> </u>									6673802.72	1865566.96	1446.38	1420.52
									6673802.64	1865590.07	1446.38	1421.48
<u> </u>									6673787 02	1865607 92	1446 38	1421.11
		-	building 00029	x	0		25.00	r	6673849.38	1865611.46	1447.61	1422.60
									6673907.22	1865611.67	1447.61	1421.39
									6673907.34	1865579.50	1447.61	1420.58
									6673871.20	1865579.37	1447.61	1420.14
		-							6673871.25	1865567.87	1447.61	1419.38
<u> </u>		-	huilding 00020	v	0		25.00	r	6673856 12	1865671 75	1447.61	1419.31
				^	0		25.00		6673857.15	1865623.46	1448.50	1422.79
									6673890.29	1865623.95	1448.50	1422.03
									6673890.05	1865640.47	1448.50	1422.38
									6673885.39	1865640.41	1448.50	1422.45

Name	Sel.	M.	ID	RB	Residents	Absorption	Height			Coordinat	es	
							Begin		х	У	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
									6673885.18	1865655.55	1448.50	1422.67
									6673908.27	1865655.89	1448.50	1422.15
									6673907.95	1865678.38	1448.50	1422.08
									6673875.53	1865677.90	1448.50	1422.98
									6673875.61	1865672.04	1448.50	1422.95
			building 00031	x	0		25.00	r	6674034.11	1865691.69	1446.16	1421.16
									6674034.50	1865668.70	1446.16	1420.80
									6674051.45	1865668 98	1446 16	1420.46
									6674051.45	1865660 32	1446.16	1420.40
									6674057.00	1805000.32	1440.10	1420.22
									6674057.78	1805000.41	1440.10	1420.07
									6674057.89	1865653.75	1446.16	1419.82
									6674053.87	1865653.66	1446.16	1419.98
									6674054.21	1865633.61	1446.16	1419.49
									6674085.81	1865634.17	1446.16	1419.00
									6674085.00	1865681.98	1446.16	1420.43
									6674069.41	1865681.71	1446.16	1420.37
									6674069.30	1865687.60	1446.16	1420.79
									6674053.38	1865687.32	1446.16	1420.96
									6674053.30	1865692.02	1446.16	1421.10
			building 00059	x	0		25.00	r	6672804.48	1865472.14	1446.53	1421.53
				-					6672857 08	1865472 44	1446 53	1421 72
	-							H	6672857 10	1865/60 70	14/6 52	1421 52
	-							\mid	00/205/.10	1003400.70	1440.53	1421.52
								\parallel	00/2865.69	1805460.82	1446.53	1421.17
									6672865.91	1865426.22	1446.53	1420.22
									6672830.47	1865425.98	1446.53	1419.94
									6672830.38	1865440.90	1446.53	1420.61
									6672804.69	1865440.73	1446.53	1419.79
			building_00060	х	0		25.00	r	6672706.64	1865458.39	1448.93	1423.93
									6672739.30	1865458.94	1448.93	1424.00
									6672740.14	1865410.29	1448.93	1420.00
									6672698.86	1865409 56	1448 93	1421 55
									6672698 36	1865/38 12	1//8 03	1/22 22
									6672701.04	1005458.12	1440.93	1423.33
									66/2/01.94	1865438.17	1448.93	1423.29
									6672701.78	1865448.51	1448.93	1423.86
									6672706.83	1865448.60	1448.93	1423.84
			building_00063	х	0		25.00	r	6672525.70	1865467.81	1449.00	1424.00
									6672566.17	1865467.81	1449.00	1424.00
									6672566.19	1865446.16	1449.00	1423.96
									6672584.32	1865446.15	1449.00	1423.64
									6672584.34	1865414.78	1449.00	1423.00
									6672557 98	1865414 76	1449.00	1422 78
									6672557.90	1865/17 00	1449.00	1/22.90
									6672537.37	1805417.55	1445.00	1422.05
					-		25.00		6672525.70	1865417.99	1449.00	1424.04
			building_00064	x	0		25.00	r	6672409.94	1865464.95	1449.00	1424.00
									6672410.37	1865437.07	1449.00	1423.64
									6672424.50	1865437.31	1449.00	1423.81
									6672424.86	1865415.58	1449.00	1423.35
									6672457.33	1865416.10	1449.00	1423.83
									6672456.52	1865465.66	1449.00	1424.72
			building_00066	х	0		25.00	r	6672235.14	1865464.64	1448.94	1423.94
		1		1					6672267.04	1865464.72	1448.94	1423.84
									6672267.11	1865444.99	1448.94	1423.45
									6672281 55	1865445 01	1448 94	1423 32
	-			-				Η	6672281 62	1865416.26	1448 94	1422 51
	-			-				H	66722201.03	1865/16 12	1//0.54	1/22.31
	-		huilding 00070	~			25.00		6672000.21	1065452.22	1440.54	1423.27
			building_00070	x	0		25.00	r	00/2099.34	1805452.28	1449.57	1424.57
								\vdash	bb/2099.82	1865413.27	1449.57	1424.00
									6672158.93	1865414.00	1449.57	1424.13
									6672158.46	1865452.72	1449.57	1423.25
									6672144.11	1865452.55	1449.57	1424.00
									6672143.98	1865463.47	1449.57	1424.25
								Π	6672103.97	1865463.00	1449.57	1424.87
								Π	6672104.10	1865452.34	1449.57	1424.61
			building 00071	x	0		25.00	r	6671915 49	1865462 42	1448 99	1423 99
		-	000/1	<u>^</u>			_3.00	Ĥ	66710/7 51	1865/62.72	14/19 00	1424.00
			L					Η	6671047 50	1065465 45	1440.00	1424.00
								\vdash	00/1947.50	1005405.45	1448.99	1424.00
									ob/1974.44	1865465.44	1448.99	1423.92
									6671974.41	1865439.53	1448.99	1423.36
									6671954.65	1865439.53	1448.99	1424.00
									6671954.60	1865411.54	1448.99	1423.75
									6671915.43	1865411.58	1448.99	1423.38
			building_00074	х	0		25.00	r	6671805.75	1865459.62	1450.21	1425.21
								Π	6671837.83	1865460.10	1450.21	1426.00
								Η	6671838 56	1865410 58	1450 21	1474 31
	-	-		-				H	6671702.24	1865/00 00	1450.21	1426.00
	-	-		-				\parallel	6671704 00	1003409.00	1450.21	1425.00
								Н	00/1/91.90	1805438.65	1450.21	1425.54
		l l		1	1				ob/1806.07	1865438.88	1450.21	1425.70

							6671683.05	1865434 14	1451.00	1425.00
							6671661 69	1965434.14	1451.00	1425.00
						\vdash	0071001.08	1005433.90	1451.00	1425.54
							66/1661.58	1865445.60	1451.00	1425.08
							6671666.48	1865445.62	1451.00	1425.00
							6671666.33	1865462.43	1451.00	1425.00
							6671627.62	1865462.07	1451.00	1425.18
							6671627.66	1865458.36	1451.00	1425.56
	building_00077	х	0		25.00	r	6670694.99	1865662.33	1452.00	1427.00
							6670716.11	1865662.77	1452.00	1427.00
							6670716.33	1865652.00	1452.00	1427.09
							6670738.09	1865652.44	1452.00	1427.03
							6670739.02	1865605.90	1452.00	1428.48
							6670696 13	1865605.05	1452.00	1428 87
	building 00078	v	0		25.00	r	6670745.40	1865631 72	1452.00	1428.05
	bullung_00078	^	0		25.00	Ľ	6670745.40	1965500 17	1453.05	1420.05
							6670700.02	18055500.70	1455.05	1420.74
							6670788.83	1865590.76	1453.05	1428.73
							6670788.24	1865636.06	1453.05	1427.72
							6670770.87	1865635.86	1453.05	1428.03
							6670770.91	1865632.07	1453.05	1428.10
	building_00079	х	0		25.00	r	6670795.76	1865624.08	1453.08	1428.08
							6670796.42	1865576.77	1453.08	1428.88
							6670838.43	1865577.32	1453.08	1428.09
							6670837.89	1865616.08	1453.08	1428.00
							6670818.04	1865615.79	1453.08	1428.00
							6670817.92	1865624.38	1453.08	1428.00
	building 00080	v	0		25.00	r	6670845 78	1865611.45	1453.00	1428.00
-	building_00000	^	0		25.00		6670846.22	1965570.04	1452.00	1420.00
						\vdash	6670846.23	1805570.04	1453.00	1428.00
							6670888.76	1865570.48	1453.00	1428.48
							6670888.26	1865616.41	1453.00	1428.18
							6670871.16	1865616.24	1453.00	1428.14
							6670871.20	1865611.72	1453.00	1428.24
	building_00081	х	0		25.00	r	6670896.12	1865619.38	1453.14	1428.14
							6670917.82	1865619.57	1453.14	1428.16
							6670917.91	1865610.54	1453.14	1428.45
							6670938.28	1865610.73	1453.14	1428.74
							6670938.60	1865573.50	1453.14	1428.67
							6670896 52	1865573 13	1453 14	1428.66
	building 00082	v	0		25.00	-	6670036.32	1965679.19	1/150.21	1420.00
	bulluing_00082	^	0		25.00	Ľ	6670045.00	1965561 41	1455.02	1420.02
							6670945.99	1805561.41	1455.62	1426.15
							6670989.21	1865561.96	1453.82	1426.59
							6670988.46	1865619.68	1453.82	1428.64
							6670967.37	1865619.42	1453.82	1428.00
							6670967.49	1865608.94	1453.82	1428.13
	building_00083	х	0		25.00	r	6670995.77	1865608.68	1453.71	1428.71
							6670996.27	1865561.92	1453.71	1426.72
							6671039.37	1865562.40	1453.71	1428.43
							6671038.79	1865613.13	1453.71	1428.92
							6671030.89	1865613.02	1453 71	1429.00
							6671029 73	1865615 35	1/53 71	1/28 0/
						\vdash	6671023.73	1805015.55	1455.71	1420.94
\vdash	 					\vdash	6671024.25	1005017.45	1453.71	1420.00
							6671024.21	1865618.35	1453.71	1428.86
							6671021.10	1865617.54	1453.71	1428.94
						Ц	6671018.90	1865615.31	1453.71	1429.00
							6671017.88	1865611.85	1453.71	1429.00
							6671018.98	1865608.98	1453.71	1429.00
	building_00084	х	0		25.00	r	6671045.57	1865621.56	1453.63	1428.63
							6671045.73	1865560.16	1453.63	1428.66
							6671069.61	1865560.21	1453.63	1429.90
							6671069 60	1865572 77	1453 63	1429 91
						H	6671088 57	1865572.90	1453.62	1430.00
⊢						H	6671000 40	1065612.20	1452.03	1420.00
							6671088.49	1865612.32	1453.63	1429.74
\vdash						Ц	06/1068.27	1865612.25	1453.63	1429.00
							6671068.24	1865621.64	1453.63	1429.00
	building_00085	х	0		25.00	r	6671095.37	1865609.65	1454.92	1429.92
							6671095.63	1865563.33	1454.92	1430.00
							6671138.55	1865563.55	1454.92	1430.00
							6671138.25	1865620.40	1454.92	1429.05
						Π	6671117.76	1865620.29	1454.92	1429.00
						Π	6671117.80	1865609.77	1454.92	1429.27
	building 00086	×	0		25.00	r	6671145 90	1865615.04	1454 27	1429 27
	00000	^			23.00	H	6671146.00	1865572.04	1/54.27	1/20.00
├ ── ├	 			1		Н	00/1146.02	18055/3.26	1454.27	1430.00
				1	1		6671188.79	1865573.34	1454.27	1430.00

RB Residents Absorption Height

0

Begin

(ft)

25.00 r

х

(ft)

6671612.98

Coordinates

6671613.19 1865434.18 1451.00 1426.00 6671627.87 1865434.31 1451.00 1426.00 6671628.11 1865407.96 1451.00 1425.38 6671683.26 1865408.45 1451.00 1424.45

y

(ft)

1865458.24

z

(ft)

1451.00

Ground

(ft)

1426.00

Name Sel. M.

ID

building_00075 x

Name	Sel.	Μ.	ID	RB	Residents	Absorption	Height			Coordinat	es	
							Begin		x	У	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
									6671188.71	1865612.72	1454.27	1429.43
									6671167.82	1865612.68	1454.27	1429.39
									6671166.56	1865618.94	1454.27	1429.26
									6671161.10	1965620.31	1454.27	1420.22
								\vdash	0071101.19	1803021.28	1434.27	1429.25
									66/1155.5/	1865619.04	1454.27	1429.24
									6671154.31	1865615.07	1454.27	1429.33
			building_00087	х	0		25.00	r	6671195.80	1865610.60	1454.52	1429.52
									6671196.15	1865564.20	1454.52	1430.00
									6671239.34	1865564.50	1454.52	1430.00
									6671238.92	1865621.42	1454.52	1430.00
									6671218.16	1865621.27	1454.52	1429.86
									6671218 22	1865610 75	1454 52	1429.94
			building 00088	v	0		25.00	r	6671245.44	1865619.00	1455.00	1430.00
			bulluing_00088	^	0		25.00	Ľ	6671245.44	1805015.00	1455.00	1430.00
									66/1245.8/	18655/3.22	1455.00	1430.00
									6671289.18	1865573.60	1455.00	1430.85
									6671288.79	1865614.97	1455.00	1430.00
									6671264.34	1865614.74	1455.00	1430.06
				L					6671264.29	1865619.18	1455.00	1430.00
			building_00089	х	0		25.00	r	6671295.58	1865614.01	1455.00	1430.00
								Π	6671295.72	1865574.49	1455.00	1430.86
				-					6671338 58	1865574 65	1455.00	1431 00
				-				H	6671339 /3	1865617 12	1455.00	1430 24
								\vdash	6671220.02	1005017.12	1455.00	1420.20
								\parallel	00/1329.98	1805617.09	1455.00	1430.29
									6671327.21	1865621.26	1455.00	1430.20
									6671323.06	1865622.45	1455.00	1430.18
									6671318.74	1865621.12	1455.00	1430.14
									6671316.48	1865617.95	1455.00	1430.17
									6671316.37	1865614.09	1455.00	1430.25
			building 00090	х	0		25.00	r	6671345.76	1865622.02	1455.31	1430.31
									6671366 46	1865622.20	1455 31	1430 51
								\vdash	6671366 53	1865611.04	1/155 31	1/30 05
									6671300.55	1005011.54	1455.51	1430.33
									6671388.69	1865612.13	1455.31	1431.10
									6671389.06	1865565.99	1455.31	1431.67
									6671346.21	1865565.61	1455.31	1430.89
			building_00091	х	0		25.00	r	6671396.28	1865613.29	1456.11	1431.11
									6671396.04	1865571.72	1456.11	1431.83
									6671438.53	1865571.44	1456.11	1431.00
									6671438.82	1865617.70	1456.11	1430.23
									6671420.66	1865617.78	1456.11	1431.00
									6671420.62	1865613 15	1/156 11	1/31 00
			huildin - 00002				25.00	-	0071420.02	1803013.13	1450.11	1431.00
			building_00092	x	0		25.00	r	6671513.11	1005507.00	1456.61	1451.61
								Ц	06/1560.00	1865588.22	1456.81	1432.00
									6671560.39	1865545.53	1456.81	1432.00
									6671522.14	1865545.18	1456.81	1431.79
									6671521.94	1865565.48	1456.81	1432.00
								Π	6671513.35	1865565.38	1456.81	1432.00
			building 00093	х	0		25.00	r	6671514.44	1865638.35	1457.00	1432.00
								H	6671557.76	1865638.61	1457.00	1432.04
				-				H	6671558 02	1865595 27	1457.00	1432.00
				-				H	6671500.03	1065504.00	1457.00	1421 50
								H	00/1500.02	1000094.88	1457.00	1431.50
									6671500.48	1865616.61	1457.00	1431.66
									6671514.58	1865616.70	1457.00	1432.00
			building_00094	х	0		25.00	r	6671505.34	1865687.45	1457.36	1432.35
									6671555.82	1865688.03	1457.36	1433.42
								Π	6671556.34	1865645.34	1457.36	1432.19
									6671513.54	1865644.82	1457.36	1432.00
								Π	6671513.28	1865667.68	1457.36	1432.41
								H	6671505 62	1865667 58	1457 36	1432.28
								\vdash	6671503.02	1065660 40	1457.30	1422.20
								H	00/1502.04	1005009.46	1457.36	1432.23
								\square	06/1500.55	1865673.34	1457.36	1432.22
								Ц	6671502.01	1865678.15	1457.36	1432.26
									6671505.52	1865679.95	1457.36	1432.33
			building_00095	х	0		25.00	r	6671506.52	1865737.67	1457.47	1432.47
								Π	6671545.26	1865738.21	1457.47	1433.26
									6671545.87	1865695.93	1457.47	1433.00
								Π	6671498.92	1865695.25	1457.47	1432.28
								H	6671498 60	1865717 70	1457.47	1432 34
				-				H	6674506.00	1005717.70	1457.47	1432.54
									06/1506.80	1865/17.80	1457.47	1432.50

APPENDIX H

CONSTRUCTION NOISE LEVEL CALCULATIONS



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14896 - Upland Colonies

CadnaA Noise Prediction Model: 14896-05_Construction.cna Date: 26.09.24 Analyst: B. Lawson

Calculation Configuration

Configurat	ion
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	
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
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 Rvcr - 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 (RLS-90)	
Strictly acc. to RLS-90	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	М.	ID		Level Lr			mit. Val	ue		Land	Use	Height	C	oordinates	
			Day	Night	CNEL	Day	Night	CNEL	Туре	Auto	Noise Type		x	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)
RECEIVERS_PROJECT		R01	55.0	55.0	61.7	80.0	0.0	0.0				5.00 r	6671896.97	1865987.11	1450.48
RECEIVERS_PROJECT		R02	56.6	56.6	63.2	80.0	0.0	0.0				5.00 r	6672638.61	1866083.69	1456.10
RECEIVERS_PROJECT		R03	50.7	50.7	57.4	80.0	0.0	0.0				5.00 r	6674316.74	1866075.19	1442.47
RECEIVERS_PROJECT		R04	53.6	53.6	60.3	80.0	0.0	0.0				5.00 r	6674091.06	1865672.75	1424.43
RECEIVERS_PROJECT		R05	55.3	55.3	62.0	80.0	0.0	0.0				5.00 r	6673112.65	1865658.17	1430.08
RECEIVERS_PROJECT		R06	58.1	58.1	64.8	80.0	0.0	0.0				5.00 r	6672851.26	1865667.38	1433.04
RECEIVERS_PROJECT		R07	56.8	56.8	63.5	80.0	0.0	0.0				5.00 r	6672469.26	1865460.53	1429.93
RECEIVERS_PROJECT		R08	56.6	56.6	63.3	80.0	0.0	0.0				5.00 r	6671593.21	1865440.98	1431.04
RECEIVERS_PROJECT		R09	53.3	53.3	59.9	80.0	0.0	0.0				5.00 r	6671032.11	1865560.27	1432.93
RECEIVERS_PROJECT		R10	52.2	52.2	58.8	80.0	0.0	0.0				5.00 r	6671559.70	1865658.81	1437.40

Area Source(s)

• •															
Name	М.	ID	R	esult. PW	′L	R	esult. PW	L''		Lw / L	i	Op	erating Ti	me	Height
			Day	Day Evening Night			Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	
SITEBOUNDARY_PROJECT		CONSTRUCTION	115.0	115.0	115.0	66.4	66.4	66.4	Lw	115					8

Name	ID	Height					Coordinat	es	
		Begin		End		х	У	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY_PROJECT	CONSTRUCTION	8.00 r				6671573.29	1865534.78	1437.59	1429.59
						6671571.14	1865773.41	1443.96	1435.96
						6671816.13	1865773.36	1442.13	1434.13
						6671816.15	1865787.35	1443.11	1435.11

Name	ID	Н	leig	ght		Coordinat	es	
		Begin		End	x	У	z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
					6671838.70	1865809.35	1443.98	1435.98
					6671849.42	1865798.07	1443.46	1435.46
			+		6671861 55	1865797 31	1443 71	1435 71
			+		6671862.59	1865770 23	1442.32	1/3/ 32
			+		6671887.76	1805775.25	1442.32	1434.32
			+		6671887.78	1805779.40	1445.15	1455.15
			_		66/1888.33	1865772.13	1442.24	1434.24
			_		6672440.94	1865775.51	1441.00	1433.00
					6672663.12	1865941.30	1442.86	1434.86
					6673095.06	1865943.55	1439.71	1431.71
					6673094.50	1865956.52	1441.00	1433.00
					6673145.25	1865955.40	1440.47	1432.47
			1		6673146.37	1865940.17	1438.83	1430.83
			+		6673186.41	1865940 17	1441 00	1433.00
			+		6673187.76	1865925.00	1/138 07	1/30.07
			+		6674242.02	1803923.00	1430.07	1430.07
			+		6674213.82	1865928.33	1437.41	1429.41
			_		6674213.26	1865897.88	1430.94	1422.94
					6674195.22	1865880.96	1427.71	1419.71
					6674230.74	1865807.65	1427.91	1419.91
			J		6674150.67	1865756.90	1432.00	1424.00
					6674148.41	1865744.50	1432.00	1424.00
					6675149.89	1865748.45	1443.59	1435.59
			+		6675156.65	1865749 11	1444 20	1436.20
			+		6675162.90	1865747.80	1/// 08	1/36 08
			+		6675162.90	1803747.80	1444.90	1430.90
			+		6675168.89	1865745.46	1446.40	1438.40
			_		6675173.84	1865742.34	1447.77	1439.77
			_		6675177.49	1865736.61	1449.40	1441.40
					6675178.01	1865728.01	1449.88	1441.88
					6675175.66	1865721.24	1449.38	1441.38
					6675168.63	1865710.83	1447.11	1439.11
					6675162.64	1865707.44	1445.30	1437.30
			+		6675152.75	1865707.96	1443.27	1435.27
			+		6675144.67	1865710.04	1442 54	1/3/ 5/
			+		6675125.04	1965726 10	1442.34	1434.34
			+		0073133.04	1803720.19	1442.41	1434.41
			+		6675128.46	1865730.97	1442.62	1434.62
			_		6673989.39	1865722.51	1432.00	1424.00
					6673989.39	1865693.75	1429.77	1421.77
					6673188.25	1865685.03	1436.34	1428.34
					6672766.87	1865685.54	1437.41	1429.41
					6672764.83	1865525.71	1431.00	1423.00
					6671750.52	1865514.47	1431.68	1423.68
			+		6671752.86	1865469 69	1431 10	1423 10
			+		6671572.00	1865/20 67	1/22 17	1/25.10
			+		00/15/2.93	1003408.03	1433.1/	1423.1/
			+		06/1094.93	1865464.81	1435.00	1427.00
			+		6670895.31	1865499.77	1428.00	1420.00
					6670705.61	1865495.26	1430.69	1422.69
					6670700.32	1865495.13	1430.78	1422.78
					6670688.38	1865485.46	1431.00	1423.00
					6670677.05	1865485.91	1431.00	1423.00
			1		6670665.26	1865485.61	1430.83	1422.83
			+		6670651.66	1865477.75	1430.81	1422.81
			+		6670640 17	1865/177 20	1430 04	1422.04
			+		6670620.20	10654770 65	1421 02	1422.94
			+		00/0028.38	10054/8.05	1431.03	1423.03
					66/0620.37	1865484.40	1431.09	1423.09
					6670610.10	1865492.41	1431.06	1423.06
					6670600.88	1865501.63	1430.72	1422.72
		Τ	_[6670600.73	1865516.44	1430.30	1422.30
					6670619.62	1865528.07	1430.00	1422.00
			1		6670632.01	1865536.84	1430.00	1422.00
			+		6670642 74	1865541 68	1430.00	1422 00
			+		6670654 52	1865520 54	1430.00	1422.00
			+		6670664.53	100000000	1430.00	1422.00
			+		00/0661.24	1805528.15	1430.11	1422.11
					6670912.86	1865530.12	1433.16	1425.16

Barrier(s)

Name	Sel.	М.	ID	Abso	rption	Z-Ext.	Canti	lever	Н	ei	ght		Coordinat	es	
				left	right		horz.	vert.	Begin		End	х	У	z	Ground
						(ft)	(ft)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
BARRIEREXISTING_PROJECT			0						6.00	r		6671504.85	1865535.28	1437.50	1431.50
												6671572.26	1865535.81	1435.97	1429.97
												6671570.61	1865735.80	1439.45	1433.45
BARRIEREXISTING_PROJECT			0						6.00	r		6671435.02	1865592.39	1436.82	1430.82
												6671434.23	1865537.70	1437.13	1431.13
												6671225.90	1865537.18	1433.13	1427.13
												6670910.80	1865533.53	1431.73	1425.73
												6670877.72	1865548.64	1432.17	1426.17
												6670702.20	1865545.51	1432.17	1426.17

Name	Sel.	M.	ID	Abso	rption	Z-Ext.	Cant	ilever	Н	lei	ght		Coordinat	es	
				left	right		horz.	vert.	Begin		End	x	У	z	Ground
						(ft)	(ft)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
												6670677.72	1865570.77	1432.46	1426.46
												6670677.98	1865654.89	1433.27	1427.27
BARRIEREXISTING_PROJECT			0						6.00	r		6671572.96	1865279.53	291.20	285.20
												6671570.82	1865467.27	1431.27	1425.27
												6671641.57	1865468.35	1430.07	1424.07
												6671641.57	1865461.19	1430.85	1424.85
BARRIEREXISTING PROJECT			0						6.00	r		6671798 25	1865457 72	1431 16	1425 16
DAMMEREAD THOSE CT			Ľ						0.00	Ľ		6671798.25	1865473.34	1/20 00	1/23 00
			-									6672122.02	1065473.34	1423.33	1425.55
			-									6672132.02	1005474.00	1431.00	1425.00
			-									6672420.00	1805477.47	1430.00	1424.00
			-									6672556.50	1865477.47	1430.00	1424.00
												6672556.50	1865462.71	1430.00	1424.00
BARRIEREXISTING_PROJECT			0						6.00	r		6672700.81	1865455.76	1429.94	1423.94
												6672701.90	1865478.55	1429.45	1423.45
												6672830.80	1865479.20	1428.00	1422.00
												6672830.80	1865470.30	1427.79	1421.79
BARRIEREXISTING_PROJECT			0						6.00	r		6672998.99	1865471.17	1426.43	1420.43
												6672998.77	1865482.67	1426.40	1420.40
												6673061.49	1865482.89	1425.93	1419.93
												6673060.62	1865413.45	1424.59	1418.59
BARRIEREXISTING PROJECT			0						6.00	r		6674026.75	1865690.10	1427.05	1421.05
			-									6674226 75	1865690.36	1427.03	1421.03
			-									6674404 61	1865687 75	1/27 22	1/21 33
												6674604.61	1965690.94	1427.33	1421.33
			+							\vdash		6674004.01	1805085.84	1430.02	1424.02
			-									6674927.79	1865690.88	1431.65	1425.65
			-									6675136.12	1865693.74	1439.33	1433.33
			-									6675122.58	1865646.35	1435.17	1429.17
BARRIEREXISTING_PROJECT			0						6.00	r		6671033.48	1865534.95	1432.81	1426.81
												6671033.22	1865602.61	1435.12	1429.12
BARRIEREXISTING_PROJECT			0						6.00	r		6671570.61	1865735.58	1439.44	1433.44
												6671503.79	1865735.94	1438.42	1432.42
BARRIEREXISTING_PROJECT			0						6.00	r		6671570.81	1865685.95	1440.00	1434.00
												6671502.06	1865685.60	1438.30	1432.30
BARRIEREXISTING_PROJECT			0						6.00	r		6671571.01	1865635.77	1437.60	1431.60
												6671513.34	1865635.25	1438.00	1432.00
BARRIEREXISTING PROJECT			0						6.00	r		6671571.21	1865585.95	1438.00	1432.00
												6671516.29	1865585.08	1437.91	1431.91
BARRIERTEMP PROJECT			0						8.00	r		6672769.14	1865568.14	1433.00	1425.00
			-									6672771.68	1865681.93	1436.97	1428.97
			-									6673096.16	1865683 23	1/37 0/	1/20.07
	-	-	-				<u> </u>			\square		6673255 70	1865686 10	1436 25	1428 25
	-	-	+							\square		6672E0E 12	1065600 44	1424 50	1426.55
		-	-									00/3393.12	1000000.44	1434.50	1420.50
		-							0.67		\vdash	00/389/.72	1865690.78	1430.70	1422.70
BARKIERTEMP_PROJECT	-		10						8.00	r		6671433.92	1865536.36	1439.05	1431.05
			-				L					6671283.92	1865535.84	1435.35	1427.35
			-									6671039.39	1865533.75	1435.01	1427.01
												6670909.96	1865532.45	1433.53	1425.53
												6670774.54	1865531.15	1431.28	1423.28
												6670663.35	1865530.11	1430.20	1422.20
BARRIERTEMP_PROJECT			0						12.00	r		6671570.61	1865735.58	1445.44	1433.44
										Π		6671571.41	1865535.80	1442.07	1430.07
										Π		6671482.37	1865535.10	1442.84	1430.84
BARRIERTEMP PROJECT			0						8.00	r		6671471.07	1865467.02	1435.00	1427.00
												6671572.13	1865468.13	1433.25	1425.25
										\square	++	6671641 21	1865468 35	1432 09	1424 08
	L		1	L		I	1	1		1		0071041.21	1000-00.00	1452.00	1727.00

Building(s)

Name	Sel.	М.	ID	RB	Residents	Absorption	Height			Coordinat	es	
							Begin		х	У	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
			building_00002	х	0		25.00	r	6674267.11	1865618.82	1443.01	1418.01
									6674357.09	1865652.60	1443.01	1419.32
									6674398.74	1865571.49	1443.01	1422.00
									6674286.52	1865526.39	1443.01	1418.45
									6674255.86	1865600.51	1443.01	1418.19
			building_00003	х	0		25.00	r	6674429.92	1865642.32	1446.75	1421.75
									6674432.11	1865622.60	1446.75	1422.00
									6674422.91	1865624.35	1446.75	1422.00
									6674429.56	1865552.61	1446.75	1422.00
									6674551.76	1865566.09	1446.75	1423.94
									6674543.39	1865635.35	1446.75	1423.73
									6674532.77	1865634.95	1446.75	1423.21
									6674530.25	1865652.88	1446.75	1422.76
			building_00004	х	0		25.00	r	6674560.98	1865650.88	1448.40	1423.40
									6674560.96	1865565.40	1448.40	1424.00
									6674680.77	1865564.79	1448.40	1424.63

Nume	Sel.	М.	ID	кв	Residents	Absorption	Height			Coordinat		
							Begin		х	y	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
							()	-	()	1005553.45	(,	(,
									6674683.25	1865653.45	1448.40	1425.00
			building_00005	х	0		25.00	r	6674699.14	1865654.20	1450.00	1425.00
									6674699.46	1865566.64	1450.00	1424.78
									6674921 20	1965563 56	1450.00	1426.00
	<u> </u>							-	0074821.39	1805505.50	1450.00	1420.00
									6674818.24	1865654.31	1450.00	1424.07
			building_00006	х	0		25.00	r	6674832.71	1865655.42	1449.02	1424.02
									6674829 86	1865564 65	1449 02	1425 78
	-							-	6674040.00	1005504.05	1440.02	1425.70
									6674948.98	1865560.87	1449.02	1424.00
									6674950.06	1865652.69	1449.02	1424.00
			building 00007	х	0		25.00	r	6674961.67	1865567.61	1449.00	1424.00
	-		0_000						667/083 22	1865478 68	1449.00	1422.56
	<u> </u>							-	0074303.22	1803478.08	1445.00	1422.50
									6675070.76	1865502.22	1449.00	1421.67
									6675048.52	1865588.68	1449.00	1423.00
			building 00013	x	0		25.00	r	6672782 25	1865641 82	1452 00	1427 00
	-		54114118_00015	~	Ů		25.00	ŀ	66727012.23	1005011.02	1452.00	1420.02
	<u> </u>								6672813.33	1865641.65	1452.00	1426.82
									6672813.20	1865621.70	1452.00	1426.55
									6672832.99	1865621.56	1452.00	1426.46
									6672922.69	1000074 70	1452.00	1425.00
	<u> </u>							-	0072852.08	1803374.70	1452.00	1425.00
									6672808.71	1865574.92	1452.00	1425.70
				1			_		6672808.82	1865592.39	1452.00	1426.12
		1							6672802 89	1865592 44	1452 00	1426 07
	-	-						-	6672002.05	1065572.44	1452.00	1425 62
	<u> </u>	-		-				-	00/2802.78	10025/3.96	1452.00	1425.62
		L		L				L	6672781.83	1865574.06	1452.00	1425.43
			building 00014	х	0		25.00	r	6672850.38	1865633.41	1451.44	1426.44
<u> </u>	-	1						Ė	6672000 50	1865624.00	1/151 4/	1426.00
	<u> </u>	<u> </u>						-	00/2900.56	1005034.00	1451.44	1420.00
								L	6672901.00	1865596.80	1451.44	1425.31
									6672874.61	1865596.49	1451.44	1426.00
	<u> </u>	1							6672974 02	1865580 72	1451 44	1426.00
									0072874.82	1003300.73	1451.44	1420.00
									6672851.00	1865580.43	1451.44	1426.00
			building 00015	х	0		25.00	r	6672913.00	1865626.25	1450.17	1425.17
									6672913 18	1865577 78	1450 17	1425.00
									0072313.18	1805577.78	1430.17	1425.00
									6672934.52	1865577.86	1450.17	1425.21
									6672934.45	1865595.03	1450.17	1425.40
									6672940 21	1865595.06	1450 17	1425 54
								-	6672510.21	10055555.00	4450.47	1425.20
	<u> </u>								6672940.27	1865577.88	1450.17	1425.28
									6672965.27	1865577.97	1450.17	1425.52
									6672965.09	1865626.44	1450.17	1426.00
			building 00016	~	0		25.00	r	6672075 52	1865620 17	1/15/0 01	1/25 01
	<u> </u>		Dullulling_00010		0		23.00	-	0072973.32	1803029.17	1430.91	1423.91
									6672976.23	1865575.72	1450.91	1425.21
									6673001.54	1865576.03	1450.91	1425.00
									6673001 32	1865593 17	1450 91	1424 96
	-							-	6673001.52	1005555.17	1450.01	1424.50
									6673027.99	1865593.52	1450.91	1423.72
									6673027.06	1865664.92	1450.91	1427.17
									667300/ 18	1865664.62	1450.91	1428.32
	-								()()/.)(//+.10)	1005000.54		
								_	6673004.18		4 4 5 0 4 1	4424 40
									6673004.64	1865629.54	1450.91	1424.19
			building_00017	x	0		25.00	r	6673004.18 6673037.98	1865629.54 1865641.89	1450.91 1446.25	1424.19 1421.25
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51	1865629.54 1865641.89 1865642.06	1450.91 1446.25 1446.25	1424.19 1421.25 1424.40
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51	1865641.89 1865642.06	1450.91 1446.25 1446.25	1424.19 1421.25 1424.40
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51 6673075.56	1865629.54 1865641.89 1865642.06 1865628.74	1450.91 1446.25 1446.25 1446.25	1424.19 1421.25 1424.40 1424.00
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51 6673075.56 6673083.88	1865629.54 1865641.89 1865642.06 1865628.74 1865628.77	1450.91 1446.25 1446.25 1446.25 1446.25	1424.19 1421.25 1424.40 1424.00 1424.00
			building_00017	x	0		25.00	r	6673004.18 6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673083.99	1865629.54 1865641.89 1865642.06 1865628.74 1865628.77 1865607.59	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25	1424.19 1421.25 1424.40 1424.00 1424.00 1424.00
			building_00017	×	0		25.00	r	6673004.18 6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673083.99 6673081.02	1865629.54 1865641.89 1865642.06 1865628.74 1865628.77 1865607.59	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1424.19 1421.25 1424.40 1424.00 1424.00 1424.00
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673083.99 6673081.02	1865629.54 1865641.89 1865642.06 1865628.74 1865628.77 1865607.59 1865607.58	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1424.19 1421.25 1424.40 1424.00 1424.00 1424.00 1423.97
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673083.99 6673081.02 6673081.19	1865629.54 1865641.89 1865642.06 1865628.74 1865607.59 1865607.58 1865571.30	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1424.19 1421.25 1424.40 1424.00 1424.00 1423.97 1423.00
			building_00017	x	0		25.00	r	6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673083.99 6673081.02 6673081.19 6673056.49	1865629.54 1865641.89 1865642.06 1865628.74 1865607.59 1865607.58 1865571.30 1865571.17	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1424.19 1421.25 1424.40 1424.00 1424.00 1423.97 1423.00 1423.00
			building_00017	x	0		25.00	r	6673004.64 6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673083.99 6673081.02 6673081.19 6673056.49 6673056.38	1865629.54 1865641.89 1865642.06 1865628.74 1865607.59 1865607.58 1865571.30 1865571.17 1865592.28	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1424.19 1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.10
			building_00017	x	0		25.00	r	6673004.64 6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673081.02 6673081.02 667305.49 667305.39	1865629.54 1865641.89 1865642.06 1865628.74 1865607.59 1865607.58 1865571.30 1865571.17 1865592.28	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1424.19 1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.10
			building_00017	x	0		25.00	r	6673004.64 6673004.64 6673075.98 6673075.51 6673075.56 6673075.98 6673083.88 6673081.02 6673081.19 667305.649 667305.838 667305.38	1865629.54 1865641.89 1865642.06 1865628.74 1865607.59 1865607.58 1865571.30 1865571.17 1865592.28 1865592.21	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1424.19 1421.25 1424.00 1424.00 1424.00 1423.97 1423.00 1423.00 1423.10 1423.00
			building_00017	x	0		25.00	r	6673004.64 6673004.64 6673075.51 6673075.56 6673075.56 6673083.88 6673083.89 6673081.02 6673081.03 6673056.49 6673056.48 6673056.38 6673056.38 6673058.19 6673058.20	1865629.54 1865641.89 1865642.06 1865628.74 1865607.59 1865607.58 1865571.30 1865571.30 1865571.77 1865592.28 1865592.21	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25	1424.19 1421.25 1424.00 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1424.00
			building_00017	x	0		25.00	r	6673004.64 6673004.64 6673037.98 6673075.51 6673075.55 6673075.56 6673083.88 6673081.02 6673081.02 667305.449 667305.48 667305.49 667305.88 667308.91 667308.92 667308.93	1865629.54 1865641.89 1865642.06 1865628.77 1865607.59 1865607.58 1865571.30 1865571.30 1865592.28 1865592.21 1865592.31	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00	1424.19 1421.25 1424.00 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00
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			building_00017	x	0		25.00	r	6673004.64 6673004.64 6673037.98 6673075.51 6673075.56 6673083.88 6673083.89 6673081.02 6673081.02 6673055.48 667305.48 667305.48 667305.48 667305.48 6673098.20 6673098.20 6673124.37	1865629.54 1865641.89 1865628.74 1865628.74 1865607.59 1865607.58 1865571.30 1865571.30 1865592.21 1865592.21 1865592.21 1865591.31 1865591.80	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00	1424.19 1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1423.62
			building_00017	x	0		25.00	r	6673037.98 6673037.98 6673075.51 6673075.56 6673083.88 6673081.02 6673081.02 6673056.49 6673056.49 6673056.38 6673038.19 6673098.20 6673098.20 6673124.37 6673124.70	1865629.54 1865629.54 1865628.74 1865628.77 1865607.59 1865507.58 1865571.30 1865592.28 1865592.21 1865592.31 1865591.31 1865591.80	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.20 1449.00 1449.00 1449.00	1424.19 1421.25 1424.40 1424.00 1424.00 1424.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.03
			building_00017	x	0		25.00	r	6673004.64 6673004.64 6673075.51 6673075.51 6673075.56 6673083.88 6673083.99 6673081.09 6673056.49 6673056.49 6673083.19 6673056.49 6673058.49 6673058.49 6673058.49 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673108.20 6673124.37 6673124.30 6673124.37	1865629.54 1865641.89 1865628.74 1865628.74 1865607.59 1865607.59 1865571.30 1865571.37 1865592.28 1865592.21 1865592.21 1865591.80 1865575.35	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00	1424.19 1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.02 1423.32 1423.31
			building_00017	x	0		25.00	r	6673004.64 6673004.64 6673075.51 6673075.51 6673075.56 6673075.56 6673083.88 6673081.02 6673081.02 6673083.19 6673083.19 6673056.38 6673056.38 6673098.20 6673098.20 6673124.37 6673124.37 6673124.37 6673149.33	1865629.54 1865628.74 1865628.74 1865628.77 1865607.59 1865507.58 1865571.30 1865571.30 1865592.28 1865592.21 1865592.21 1865591.31 1865591.30 1865575.81 1865575.81	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00	1424.19 1421.25 1424.40 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.20 1423.31 1423.32
			building_00017	x	0		25.00	r	6673037.98 6673037.98 6673075.51 6673075.55 6673083.88 6673083.89 6673081.02 667305.49 667305.49 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673038.19 6673124.37 6673124.37 6673142.33 6673149.33 6673148.29	1865629.54 1865629.54 1865628.74 1865628.77 1865607.59 1865507.58 1865571.30 1865571.30 1865592.28 1865592.21 1865592.31 1865591.31 1865575.35 1865575.35 1865575.81	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.20 1449.00 1449.00 1449.00 1449.00	1424.19 1421.25 1424.00 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1423.62 1423.33 1423.10
			building_00017		0		25.00	r	6673004.64 6673004.64 6673075.51 6673075.51 6673075.56 6673083.88 6673083.89 6673081.09 6673056.49 6673056.49 6673083.19 6673056.49 6673058.49 6673058.49 6673058.49 6673058.49 6673058.49 6673058.49 6673098.91 6673124.37 6673124.37 6673149.33 6673149.33 6673160.17	1865629.54 1865628.74 1865628.74 1865628.77 1865607.59 1865607.59 1865507.58 1865571.37 1865592.28 1865592.21 1865592.21 1865591.31 1865591.30 1865597.581 1865597.581 1865629.73 1865629.73	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00	1424.19 1421.25 1424.40 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1423.33 1423.33 1423.14 1423.84 1423.73
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			building_00017				25.00		6673037.98 6673004.64 6673003.98 6673075.51 6673075.56 6673083.88 6673083.88 6673081.02 667305.49 667305.49 667305.49 667305.49 667305.49 6673075.50 6673075.51 6673075.53 667308.102 6673075.49 6673075.49 6673075.49 6673075.49 6673075.49 6673075.49 6673075.49 6673149.30 6673124.70 6673124.70 6673124.70 6673124.70 6673124.71 6673124.72 6673124.73 6673124.71 6673124.72 6673124.73 6673124.71 6673124.72 6673124.73 6673125.5 667311.71 6673185.28 6673185.28 6673185.28 66732327.	1865629.54 1865629.54 1865641.89 1865628.74 1865628.74 1865628.74 1865607.59 1865607.58 1865571.30 1865571.30 1865591.31 1865591.31 1865591.30 1865575.35 1865575.35 1865578.31 1865578.34 1865578.31 1865578.31 1865578.31 1865578.31 1865578.31 1865578.31 1865578.31 1865578.31 1865578.31 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.35	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.01 1448.73 1448.73 1448.73 1448.73 1448.73	1424.19 1421.25 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.00 1423.31 1423.10 1423.31 1423.71 1423.01 1423.26 1423.27 1423.02 1423.02
			building_00017		0		25.00		6673037.98 6673004.64 6673004.64 6673004.64 6673075.51 6673075.56 6673083.88 6673083.99 6673081.09 6673081.09 6673081.19 6673081.19 6673081.19 667308.19 667308.19 667308.20 6673098.20 6673124.37 6673124.37 6673148.29 6673160.17 667321.55 6673148.29 6673160.17 667321.55 6673160.17 6673160.17 667321.55 6673160.17 6673160.17 6673160.17 6673160.17 6673160.17 6673185.28 6673185.28 6673161.16 6673227.66	1865629.54 1865629.54 1865624.06 1865628.74 1865628.77 1865607.59 1865607.59 1865507.50 1865591.30 1865591.30 1865591.30 1865591.31 1865591.30 1865591.31 1865591.30 1865575.31 1865578.18 1865578.18 1865578.18 1865578.34 1865578.34 1865578.31 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865577.31	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73	1424.19 1421.25 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1423.62 1423.33 1423.71 1423.71 1423.01 1423.20 1423.21 1423.21
			building_00017		0		25.00		6673004.64 6673004.64 6673075.51 6673075.56 6673075.56 6673075.56 6673083.88 6673081.02 6673081.02 6673081.02 6673056.49 6673056.49 6673058.19 6673058.20 6673098.91 6673124.37 6673124.37 6673149.33 6673149.33 6673149.33 6673124.70 6673124.71 6673124.72 6673160.17 6673124.70 6673124.70 6673124.70 6673124.70 6673124.70 6673124.71 6673160.17 6673191.12 6673191.12 6673191.12 6673195.88 6673160.16 6673227.66 6673227.66	1865629.54 1865629.54 1865628.74 1865628.74 1865628.74 1865628.74 1865607.59 1865607.58 1865571.30 186552.21 1865592.28 1865591.30 1865591.31 1865591.30 186557.31 186557.31 186557.81 <tr< td=""><td>1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.01 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73</td><td>1424.19 1421.25 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.00 1423.21 1423.21 1423.21 1423.21 1423.21</td></tr<>	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.01 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73	1424.19 1421.25 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.00 1423.21 1423.21 1423.21 1423.21 1423.21
			building_00017		0		25.00		6673037.98 6673003.64 6673003.98 6673075.51 6673075.56 6673083.88 6673083.88 6673081.02 667305.49 667305.49 667305.49 667308.19 667305.49 6673075.61 6673075.73 6673075.74 6673075.73 6673075.73 6673124.37 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673149.33 6673148.29 6673149.33 6673149.33 6673149.33 6673149.33 6673149.73 6673185.28 6673185.28 6673161.16 667324.75 667324.75 667324.75 667324.75 667324.75 667324.75	1865629.54 1865629.54 1865624.06 1865628.74 1865628.77 1865607.59 1865607.59 1865502.81 1865571.30 1865592.28 1865592.21 1865591.30 1865591.31 186557.35 186557.31 186557.81 1865578.62 1865578.62 1865578.61 1865578.62 1865578.61 1865578.62 1865578.62 1865578.61 1865578.62 1865578.62 1865578.61 1865578.62 1865578.62 1865578.61 1865578.62 1865578.62 1865578.62 1865578.62 1865578.61 1865578.61 1865578.61 1865578.61 1865578.62 1865578.62 1865578.62 1865578.62 1865578.73 18655	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.01 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73	1424.19 1421.25 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1423.62 1423.33 1423.10 1423.84 1423.71 1423.02 1423.02 1423.02 1423.02
			building_00017				25.00		6673036-16 6673004.64 6673004.64 6673004.64 6673075.51 6673075.56 6673083.88 6673083.98 6673083.99 6673081.09 6673056.49 6673056.49 6673056.49 6673056.49 6673098.109 6673098.20 6673098.20 6673124.37 6673124.37 6673148.29 6673160.17 6673121.53 6673148.29 6673148.29 6673148.29 667315.5 6673160.17 6673121.55 6673185.28 6673185.28 6673185.28 6673161.16 6673227.66 6673227.67 6673227.68 6673227.69	1865629.54 1865629.54 1865628.74 1865628.74 1865628.74 1865628.74 1865607.59 1865607.58 1865571.30 1865592.28 1865592.28 1865592.28 1865592.21 1865592.21 1865591.31 1865591.30 1865591.31 1865597.81 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.18 1865578.16 1865578.16 1865577.81 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 18	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73	1424.19 1421.25 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1423.62 1423.31 1423.04 1423.73 1423.71 1423.04 1423.25 1423.02 1423.02 1423.02 1423.02
			building_00017		0		25.00		6673004.64 6673004.64 6673003.98 6673075.51 6673075.56 6673083.88 6673081.02 6673081.02 667305.49 667305.49 667305.49 667305.49 667305.49 6673075.50 6673075.51 6673075.53 6673075.649 6673075.73 6673075.73 6673124.70 6673124.70 6673124.70 6673124.70 6673124.70 6673124.71 6673124.72 6673124.73 6673124.73 6673124.73 6673124.73 6673124.73 6673124.73 6673125.58 6673191.12 6673185.28 6673185.28 667327.66 667327.67 667327.68 667327.68 667327.68 667327.69 667327.75 667327.75 <td>1865629.54 1865629.54 1865628.74 1865628.74 1865628.74 1865628.74 1865607.59 1865607.58 186557.1.70 1865571.30 1865592.28 1865592.21 1865591.30 1865591.31 186557.31 186557.31 186557.31 186557.81 186559.94 186557.81 1865581.67 1865581.67 1865581.67 <!--</td--><td>1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73</td><td>1424.19 1421.25 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.00 1423.01 1423.01 1423.01 1423.01 1423.02 1423.02 1423.02 1423.03 1423.03</td></td>	1865629.54 1865629.54 1865628.74 1865628.74 1865628.74 1865628.74 1865607.59 1865607.58 186557.1.70 1865571.30 1865592.28 1865592.21 1865591.30 1865591.31 186557.31 186557.31 186557.31 186557.81 186559.94 186557.81 1865581.67 1865581.67 1865581.67 </td <td>1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73</td> <td>1424.19 1421.25 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.00 1423.01 1423.01 1423.01 1423.01 1423.02 1423.02 1423.02 1423.03 1423.03</td>	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73	1424.19 1421.25 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1424.00 1423.01 1423.01 1423.01 1423.01 1423.02 1423.02 1423.02 1423.03 1423.03
			building_00017				25.00		6673037.98 6673004.64 6673004.64 6673004.64 6673075.51 6673075.56 6673083.88 6673083.88 6673081.02 6673081.02 667305.49 667305.49 667305.49 6673075.50 6673075.49 6673075.49 6673075.49 6673098.91 6673124.37 6673149.33 6673149.33 6673142.70 6673149.33 6673149.33 6673149.33 6673149.31 6673149.32 6673160.17 6673172.155 6673185.28 6673185.28 6673185.28 6673185.28 6673274.75 6673274.75 6673274.98 6673250.68 6673250.68	1865629.54 1865629.54 1865628.74 1865628.74 1865628.77 1865607.59 1865607.59 1865502.28 1865592.28 1865592.21 1865592.21 1865591.30 1865591.30 1865575.31 1865575.31 1865578.62 1865578.61 1865578.61 1865578.61 1865595.94 1865578.41 1865581.76 1865581.76 18	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73	1424.19 1421.25 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1423.84 1423.71 1423.01 1423.01 1423.02 1423.02 1423.02 1423.02 1423.02 1423.03 1423.03
			building_00017				25.00 25.00 25.00 25.00 25.00		6673004.64 6673004.64 6673075.51 6673075.51 6673075.51 6673075.56 6673075.51 6673075.51 6673075.51 6673083.88 6673083.99 6673081.09 6673056.49 6673056.49 6673075.51 6673075.38 6673075.49 667308.19 6673078.20 6673098.20 6673124.37 6673124.37 6673124.37 6673124.37 6673124.37 6673124.37 6673124.37 6673124.37 6673124.37 6673124.37 6673124.37 667315.28 667315.28 667315.28 667316.17 667327.49 667327.49 667327.49 667327.49 6673250.60 6673250.60 6673250.60 6673250.60 6673250.60<	1865629.54 1865629.54 1865628.74 1865628.74 1865628.74 1865607.59 1865507.50 1865507.50 1865591.30 1865591.31 1865591.30 1865591.30 1865591.31 1865591.30 1865591.30 1865591.31 1865591.30 1865591.31 1865591.30 186557.581 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865578.34 1865581.67 1865581.67 186564.31 186564.31	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.20 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.83 1448.83 1448.83 1448.83	1424.19 1421.25 1424.00 1424.00 1423.07 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1423.33 1423.31 1423.31 1423.32 1423.71 1423.04 1423.26 1423.27 1423.26 1423.26 1423.32 1423.32 1423.32 1423.33
			building_00017		0		25.00		6673004.64 6673004.64 6673004.64 6673075.51 6673075.56 6673075.56 6673083.88 6673083.88 6673081.02 667305.49 667305.49 667305.49 667305.49 6673075.50 667308.102 6673075.49 6673075.49 6673075.49 6673078.20 6673124.70 6673124.70 6673124.70 6673124.70 6673124.71 6673124.72 6673125.5 6673124.52 6673125.5 6673148.28 6673185.28 6673185.28 667327.66 667327.67 667327.75 667327.47 667327.47 667327.47 667327.47 667327.47	1865629.54 1865629.54 1865628.74 1865628.74 1865628.74 1865628.74 1865607.59 1865507.58 1865571.17 186552.21 1865592.28 1865591.30 1865591.31 1865591.30 1865575.31 1865575.31 1865575.31 1865578.34 1865597.81 1865581.67 1865581.67 1865604.31 1865604.31 1865604.30 186	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.83 1448.83 1448.83 1448.83 1448.83	1424.19 1421.25 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1423.31 1423.41 1423.42 1423.73 1423.71 1423.26 1423.20 1423.02 1423.02 1423.02 1423.81 1423.81 1423.81 1423.81 1423.81
			building_00017				25.00		6673037.98 6673004.64 6673004.64 6673004.64 6673075.51 6673075.56 6673075.56 6673083.88 6673083.99 6673081.09 667305.49 667305.49 667305.49 6673075.51 6673075.53 667308.19 6673075.49 6673075.49 667308.19 6673098.91 6673124.37 6673149.33 6673149.33 6673140.17 6673140.17 6673121.55 6673140.17 6673152.88 6673160.17 6673161.16 667321.52 6673274.75 6673274.75 6673274.98 667320.68 6673250.68 6673247.72 6673247.72 6673247.72 6673247.72	1865629.54 1865629.54 1865628.74 1865628.74 1865628.74 1865628.74 1865628.74 1865607.59 1865507.59 1865592.28 1865592.28 1865592.28 1865592.28 1865592.28 1865592.29 1865592.21 1865592.21 1865591.80 1865575.31 1865575.31 1865578.61 1865578.61 1865578.61 1865578.61 1865578.61 1865578.61 1865578.61 1865578.61 1865578.61 1865578.61 1865578.61 1865578.61 1865578.61 1865578.61 186557.61 186557.61 186557.61 186557.61 186557.61 1865581.76 1865598.4.77 1865598.4.70 1865598.4.70 1	1450.91 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1446.25 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1449.00 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.73 1448.83 1448.83 1448.83 1448.83	1424.19 1421.25 1424.00 1424.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1423.00 1424.00 1424.00 1424.00 1423.84 1423.71 1423.01 1423.01 1423.02 1423.01 1423.02 1423.0

Urban	Crossroads,	Inc.
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Name	Sel.	M.	ID	RB	Residents	Absorption	Height			Coordinat	es	
							Begin		X (64)	У (бъ	Z (ft)	Ground
			building 00021	v	0		(ft) 25.00	r	(ft) 6673292.07	(TL) 1865642.85	(π) 1449.00	(π) 1424.00
			building_00021	^	0		25.00		6673292.92	1865576.84	1449.00	1422.60
									6673314.29	1865577.10	1449.00	1422.45
									6673314.11	1865591.48	1449.00	1423.24
									6673319.38	1865591.53	1449.00	1423.25
									6673319.55	1865577.70	1449.00	1422.53
									6673344.73	1865642 13	1449.00	1423.14
									6673315.68	1865641.78	1449.00	1424.00
									6673315.68	1865643.16	1449.00	1424.00
			building_00022	х	0		25.00	r	6673355.86	1865614.45	1449.00	1424.00
									6673371.08	1865614.65	1449.00	1424.00
									6673370.52	1865645.11	1449.00	1424.00
									6673400.36	1865594 27	1449.00	1424.00
									6673380.54	1865594.49	1449.00	1423.37
									6673380.92	1865573.82	1449.00	1422.69
									6673356.46	1865573.58	1449.00	1422.67
			building_00023	х	0		25.00	r	6673417.27	1865649.14	1449.00	1424.00
									6673470.05	1865649.95	1449.00	1424.00
									6673470.60	1865616.40	1449.00	1423.85
<u> </u>									6673451.67	1865601.22	1449.00	1424.00
									6673444.83	1865601.13	1449.00	1423.98
									6673445.22	1865578.31	1449.00	1423.24
									6673418.41	1865577.88	1449.00	1422.94
			building_00024	x	0		25.00	r	6673481.13	1865649.77	1449.00	1424.00
									6673534.82	1865650.37	1449.00	1423.66
									6673514 54	1865617.43	1449.00	1423.62
									6673514.76	1865600.40	1449.00	1424.00
									6673508.64	1865600.31	1449.00	1423.72
									6673508.88	1865577.96	1449.00	1422.52
									6673481.91	1865577.68	1449.00	1422.64
			building_00025	х	0		25.00	r	6673544.86	1865654.08	1448.40	1423.40
									6673545.04	1865620.96	1448.40	1423.42
									6673565.32	1865604.41	1448.40	1423.03
									6673570.86	1865604.43	1448.40	1422.78
									6673570.97	1865580.59	1448.40	1422.02
									6673597.76	1865580.76	1448.40	1420.67
									6673597.34	1865654.38	1448.40	1424.14
			building_00026	х	0		25.00	r	6673633.28	1865675.33	1450.57	1425.57
									6673682.75	1865630.10	1450.57	1425.00
									6673651.00	1865629.91	1450.57	1423.86
									6673651.06	1865622.52	1450.57	1423.39
									6673624.73	1865622.35	1450.57	1423.36
<u> </u>									6673624.59	1865644.26	1450.57	1424.30
<u> </u>									6673627.19	1865644.27	1450.57	1424.28
									6673633 36	1865661.92	1450.57	1425.02
<u> </u>			building 00027	x	0		25.00	r	6673670.68	1865604.54	1447.23	1422.23
									6673730.52	1865605.34	1447.23	1421.64
									6673730.97	1865573.32	1447.23	1420.17
<u> </u>									6673692.89	1865572.78	1447.23	1419.96
									6673692.97	1865566.59	1447.23	1419.62
<u> </u>			building 00028	x	0		25.00	r	6673738 11	1865607 26	1446 38	1421 38
				-	5			Ť	6673738.38	1865574.51	1446.38	1420.26
									6673769.76	1865574.95	1446.38	1420.04
									6673769.94	1865566.84	1446.38	1419.59
<u> </u>									6673802.72	1865566.96	1446.38	1420.52
									6673802.64	1865590.07	1446.38	1421.48
<u> </u>									6673787 02	1865607 92	1446 38	1421.11
		-	building 00029	x	0		25.00	r	6673849.38	1865611.46	1447.61	1422.60
									6673907.22	1865611.67	1447.61	1421.39
									6673907.34	1865579.50	1447.61	1420.58
									6673871.20	1865579.37	1447.61	1420.14
		-							6673871.25	1865567.87	1447.61	1419.38
<u> </u>		-	huilding 00020	v	0		25.00	r	6673856 /2	1865671 75	1447.61	1419.31
				^	0		25.00		6673857.15	1865623.46	1448.50	1422.79
									6673890.29	1865623.95	1448.50	1422.03
									6673890.05	1865640.47	1448.50	1422.38
									6673885.39	1865640.41	1448.50	1422.45

Name	Sel.	M.	ID	RB	Residents	Absorption	Height			Coordinat	es	
							Begin		х	У	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
									6673885.18	1865655.55	1448.50	1422.67
									6673908.27	1865655.89	1448.50	1422.15
									6673907.95	1865678.38	1448.50	1422.08
									6673875.53	1865677.90	1448.50	1422.98
									6673875.61	1865672.04	1448.50	1422.95
			building_00031	х	0		25.00	r	6674034.11	1865691.69	1446.16	1421.16
									6674034.50	1865668.70	1446.16	1420.80
									6674051.45	1865668.98	1446.16	1420.46
									6674051.60	1865660.32	1446.16	1420.22
									6674057.78	1865660.41	1446.16	1420.07
									6674057.89	1865653.75	1446.16	1419.82
									6674053.87	1865653.66	1446.16	1419.98
									6674054.21	1865633.61	1446.16	1419.49
									6674085.81	1865634.17	1446.16	1419.00
									6674085.00	1865681.98	1446.16	1420.43
									6674069.41	1865681.71	1446.16	1420.37
									6674069.30	1865687.60	1446.16	1420.79
									6674053 38	1865687 32	1446 16	1420.96
									6674053 30	1865692.02	1446 16	1421 10
			building 00059	×	0		25.00	r	6672804.48	1865472 14	1446 53	1421.10
	-			<u>^</u>			_3.00	Ĥ	6672857 00	1865/72 //	1446 52	1421 72
	-	-		\vdash				H	6672857 14	1865460 74	1446 52	1421 52
	-	-		-				Н	6672025 00	1865460.70	1440.33	1/21 17
	-			-				H	6672865.09	1965400.82	1440.53	1421.17
				-				\vdash	6672820 /7	1000420.22	1440.53	1420.22
	-			-				\vdash	00/2830.47	1005425.98	1440.53	1419.94
	<u> </u>	-		-				\parallel	bb/2830.38	1865440.90	1446.53	1420.61
		-	kulla ereri	-				\square	bb/2804.69	1865440.73	1446.53	1419.79
			building_00060	х	0		25.00	r	6672706.64	1865458.39	1448.93	1423.93
									6672739.30	1865458.94	1448.93	1424.00
									6672740.14	1865410.29	1448.93	1420.00
									6672698.86	1865409.56	1448.93	1421.55
									6672698.36	1865438.12	1448.93	1423.33
									6672701.94	1865438.17	1448.93	1423.29
									6672701.78	1865448.51	1448.93	1423.86
									6672706.83	1865448.60	1448.93	1423.84
			building_00063	х	0		25.00	r	6672525.70	1865467.81	1449.00	1424.00
									6672566.17	1865467.81	1449.00	1424.00
									6672566.19	1865446.16	1449.00	1423.96
									6672584.32	1865446.15	1449.00	1423.64
									6672584.34	1865414.78	1449.00	1423.00
									6672557.98	1865414.76	1449.00	1422.78
									6672557.97	1865417.99	1449.00	1422.89
									6672525.70	1865417.99	1449.00	1424.04
			building 00064	x	0		25.00	r	6672409.94	1865464.95	1449.00	1424.00
									6672410.37	1865437.07	1449.00	1423.64
									6672424.50	1865437.31	1449.00	1423.81
									6672424.86	1865415.58	1449.00	1423.35
									6672457.33	1865416.10	1449.00	1423.83
		-						H	6672456 52	1865465 66	1449 00	1424 72
		-	building 00066	×	0		25.00	r	6672235 14	1865464 64	1448 94	1423 94
			00000	Ê			25.00	Ĥ	6672267 04	1865464 72	1448 94	1423.84
	-			-				H	6672267.04	1865/// 00	1440.94	1422 /15
				-				H	6672207.11	1865//5 01	1440.54	1423.43
				-				Н	6672201.33	1865416.30	1/10 04	1423.32
	-		L	-				Н	6672225 20	1865416 12	1440.94	1422.31
			huilding 00070				25.00	-	6672000.21	1005410.13	1448.94	1423.27
			pallaling_00070	x	0		25.00	r	00/2099.34	1005452.28	1449.57	1424.57
	-			-				\vdash	00/2099.82	1805413.27	1449.57	1424.00
	-			-				\parallel	00/2158.93	1805414.00	1449.57	1424.13
	<u> </u>			-				H	06/2158.46	1865452.72	1449.57	1423.25
	-	-		-				\square	06/2144.11	1865452.55	1449.57	1424.00
	-	-		-				\square	00/2143.98	1865463.47	1449.57	1424.25
	<u> </u>			-				\square	6672103.97	1865463.00	1449.57	1424.87
				-					6672104.10	1865452.34	1449.57	1424.61
			building_00071	х	0		25.00	r	6671915.49	1865462.42	1448.99	1423.99
	<u> </u>			-					6671947.51	1865462.39	1448.99	1424.00
				<u> </u>					6671947.50	1865465.45	1448.99	1424.00
				<u> </u>					6671974.44	1865465.44	1448.99	1423.92
				L					6671974.41	1865439.53	1448.99	1423.36
									6671954.65	1865439.53	1448.99	1424.00
								Ĺ	6671954.60	1865411.54	1448.99	1423.75
									6671915.43	1865411.58	1448.99	1423.38
			building_00074	х	0		25.00	r	6671805.75	1865459.62	1450.21	1425.21
								Π	6671837.83	1865460.10	1450.21	1426.00
									6671838.56	1865410.58	1450.21	1424.31
								П	6671792.34	1865409.86	1450.21	1426.00
				1				Н	6671791.90	1865438.65	1450.21	1425.54
								H	6671806.07	1865438.88	1450.21	1425.70
		1		1	1							1.20.70

							6671683.05	1865434 14	1451.00	1425.00
							6671661 69	1965434.14	1451.00	1425.00
						\vdash	0071001.08	1005433.90	1451.00	1425.54
							66/1661.58	1865445.60	1451.00	1425.08
							6671666.48	1865445.62	1451.00	1425.00
							6671666.33	1865462.43	1451.00	1425.00
							6671627.62	1865462.07	1451.00	1425.18
							6671627.66	1865458.36	1451.00	1425.56
	building_00077	х	0		25.00	r	6670694.99	1865662.33	1452.00	1427.00
							6670716.11	1865662.77	1452.00	1427.00
							6670716.33	1865652.00	1452.00	1427.09
							6670738.09	1865652.44	1452.00	1427.03
							6670739.02	1865605.90	1452.00	1428.48
							6670696 13	1865605.05	1452.00	1428 87
	building 00078	v	0		25.00	r	6670745.40	1865631 72	1452.00	1428.05
	bullung_00078	^	0		25.00	Ľ	6670745.40	1965500 17	1453.05	1420.05
							6670700.02	18055500.70	1455.05	1420.74
							6670788.83	1865590.76	1453.05	1428.73
							6670788.24	1865636.06	1453.05	1427.72
							6670770.87	1865635.86	1453.05	1428.03
							6670770.91	1865632.07	1453.05	1428.10
	building_00079	х	0		25.00	r	6670795.76	1865624.08	1453.08	1428.08
							6670796.42	1865576.77	1453.08	1428.88
							6670838.43	1865577.32	1453.08	1428.09
							6670837.89	1865616.08	1453.08	1428.00
							6670818.04	1865615.79	1453.08	1428.00
							6670817.92	1865624.38	1453.08	1428.00
	building 00080	v	0		25.00	r	6670845 78	1865611.45	1453.00	1428.00
-	building_00000	^	0		25.00		6670846.22	1965570.04	1452.00	1420.00
						\vdash	6670846.23	1805570.04	1453.00	1428.00
							6670888.76	1865570.48	1453.00	1428.48
							6670888.26	1865616.41	1453.00	1428.18
							6670871.16	1865616.24	1453.00	1428.14
							6670871.20	1865611.72	1453.00	1428.24
	building_00081	х	0		25.00	r	6670896.12	1865619.38	1453.14	1428.14
							6670917.82	1865619.57	1453.14	1428.16
							6670917.91	1865610.54	1453.14	1428.45
							6670938.28	1865610.73	1453.14	1428.74
							6670938.60	1865573.50	1453.14	1428.67
							6670896 52	1865573 13	1453 14	1428.66
	building 00082	v	0		25.00	-	6670036.32	1965679.19	1/150.21	1420.00
	bulluing_00082	^	0		25.00	Ľ	6670045.00	1965561 41	1455.02	1420.02
							6670945.99	1805561.41	1455.62	1426.15
							6670989.21	1865561.96	1453.82	1426.59
							6670988.46	1865619.68	1453.82	1428.64
							6670967.37	1865619.42	1453.82	1428.00
							6670967.49	1865608.94	1453.82	1428.13
	building_00083	х	0		25.00	r	6670995.77	1865608.68	1453.71	1428.71
							6670996.27	1865561.92	1453.71	1426.72
							6671039.37	1865562.40	1453.71	1428.43
							6671038.79	1865613.13	1453.71	1428.92
							6671030.89	1865613.02	1453 71	1429.00
							6671029 73	1865615 35	1/53 71	1/28 0/
						\vdash	6671023.73	1805015.55	1455.71	1420.94
\vdash	 					\vdash	6671024.25	1005017.45	1453.71	1420.00
							6671024.21	1865618.35	1453.71	1428.86
							6671021.10	1865617.54	1453.71	1428.94
						Ц	6671018.90	1865615.31	1453.71	1429.00
							6671017.88	1865611.85	1453.71	1429.00
							6671018.98	1865608.98	1453.71	1429.00
	building_00084	х	0		25.00	r	6671045.57	1865621.56	1453.63	1428.63
							6671045.73	1865560.16	1453.63	1428.66
							6671069.61	1865560.21	1453.63	1429.90
							6671069 60	1865572 77	1453 63	1429 91
						H	6671088 57	1865572.90	1453.62	1430.00
⊢						H	6671000 40	1065612.20	1452.03	1420.00
							6671088.49	1865612.32	1453.63	1429.74
\vdash						Ц	06/1068.27	1865612.25	1453.63	1429.00
							6671068.24	1865621.64	1453.63	1429.00
	building_00085	х	0		25.00	r	6671095.37	1865609.65	1454.92	1429.92
							6671095.63	1865563.33	1454.92	1430.00
							6671138.55	1865563.55	1454.92	1430.00
							6671138.25	1865620.40	1454.92	1429.05
						П	6671117.76	1865620.29	1454.92	1429.00
						Π	6671117.80	1865609.77	1454.92	1429.27
	building 00086	×	0		25.00	r	6671145 90	1865615.04	1454 27	1429 27
	00000	~			23.00	H	6671146.00	1865572.04	1/54.27	1/20.00
├ ── ├	 			1		Н	00/1146.02	18055/3.26	1454.27	1430.00
				1	1		6671188.79	1865573.34	1454.27	1430.00

RB Residents Absorption Height

0

Begin

(ft)

25.00 r

х

(ft)

6671612.98

Coordinates

6671613.19 1865434.18 1451.00 1426.00 6671627.87 1865434.31 1451.00 1426.00 6671628.11 1865407.96 1451.00 1425.38 6671683.26 1865408.45 1451.00 1424.45

y

(ft)

1865458.24

z

(ft)

1451.00

Ground

(ft)

1426.00

Name Sel. M.

ID

building_00075 x

Name	Sel.	Μ.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	У	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
									6671188.71	1865612.72	1454.27	1429.43
									6671167.82	1865612.68	1454.27	1429.39
									6671166.56	1865618.94	1454.27	1429.26
									6671161.10	1965620.31	1454.27	1420.22
								\vdash	0071101.19	1803021.28	1434.27	1429.23
									66/1155.5/	1865619.04	1454.27	1429.24
			-						6671154.31	1865615.07	1454.27	1429.33
			building_00087	х	0		25.00	r	6671195.80	1865610.60	1454.52	1429.52
									6671196.15	1865564.20	1454.52	1430.00
									6671239.34	1865564.50	1454.52	1430.00
									6671238.92	1865621.42	1454.52	1430.00
									6671218.16	1865621.27	1454.52	1429.86
									6671218 22	1865610 75	1454 52	1429.94
			building 00088	v	0		25.00	r	6671245.44	1865619.00	1455.00	1430.00
			building_00088	^	0		25.00	Ľ	6671245.44	1805019.00	1455.00	1430.00
									66/1245.8/	18655/3.22	1455.00	1430.00
									6671289.18	1865573.60	1455.00	1430.85
									6671288.79	1865614.97	1455.00	1430.00
									6671264.34	1865614.74	1455.00	1430.06
									6671264.29	1865619.18	1455.00	1430.00
			building_00089	х	0		25.00	r	6671295.58	1865614.01	1455.00	1430.00
								Π	6671295.72	1865574.49	1455.00	1430.86
				-					6671338 58	1865574 65	1455.00	1431 00
				-				H	6671339 /3	1865617 12	1455.00	1430 24
								\vdash	6671220.02	1005017.12	1455.00	1420.20
								\parallel	00/1329.98	1805617.09	1455.00	1430.29
									6671327.21	1865621.26	1455.00	1430.20
									6671323.06	1865622.45	1455.00	1430.18
									6671318.74	1865621.12	1455.00	1430.14
									6671316.48	1865617.95	1455.00	1430.17
									6671316.37	1865614.09	1455.00	1430.25
			building 00090	х	0		25.00	r	6671345.76	1865622.02	1455.31	1430.31
									6671366 46	1865622.20	1455 31	1430 51
								\vdash	6671366 53	1865611.04	1/155 31	1/30 05
									6671388.60	1805011.54	1455.51	1430.33
									6671388.69	1865612.13	1455.31	1431.10
									6671389.06	1865565.99	1455.31	1431.67
									6671346.21	1865565.61	1455.31	1430.89
			building_00091	х	0		25.00	r	6671396.28	1865613.29	1456.11	1431.11
									6671396.04	1865571.72	1456.11	1431.83
									6671438.53	1865571.44	1456.11	1431.00
									6671438.82	1865617.70	1456.11	1430.23
									6671420.66	1865617.78	1456.11	1431.00
									6671420.62	1865613 15	1/156 11	1/31 00
							25.00	-	0071420.02	1803013.13	1450.11	1431.00
			building_00092	x	0		25.00	r	6671513.11	1005507.00	1456.61	1451.61
								Ц	06/1560.00	1865588.22	1456.81	1432.00
									6671560.39	1865545.53	1456.81	1432.00
									6671522.14	1865545.18	1456.81	1431.79
		L		L					6671521.94	1865565.48	1456.81	1432.00
								Π	6671513.35	1865565.38	1456.81	1432.00
			building 00093	х	0		25.00	r	6671514.44	1865638.35	1457.00	1432.00
									6671557.76	1865638.61	1457.00	1432.04
				-				H	6671558 02	1865595 27	1457.00	1432.00
								H	6671500.03	1065504.00	1457.00	1421 50
								H	00/1500.02	1000094.88	1457.00	1431.50
									6671500.48	1865616.61	1457.00	1431.66
									6671514.58	1865616.70	1457.00	1432.00
			building_00094	х	0		25.00	r	6671505.34	1865687.45	1457.36	1432.35
									6671555.82	1865688.03	1457.36	1433.42
								Π	6671556.34	1865645.34	1457.36	1432.19
									6671513.54	1865644.82	1457.36	1432.00
								П	6671513 28	1865667 68	1457 36	1432.41
								H	6671505 62	1865667 58	1457 36	1432.28
								\vdash	6671503.02	1065660 40	1457.30	1422.20
	-							H	00/1502.04	1005009.46	1457.36	1432.23
									6671500.55	1865673.34	1457.36	1432.22
								Ц	6671502.01	1865678.15	1457.36	1432.26
									6671505.52	1865679.95	1457.36	1432.33
			building_00095	х	0		25.00	r	6671506.52	1865737.67	1457.47	1432.47
								Π	6671545.26	1865738.21	1457.47	1433.26
									6671545.87	1865695.93	1457.47	1433.00
								Π	6671498.92	1865695.25	1457.47	1432.28
								H	6671498 60	1865717 70	1457.47	1432 34
								H	6674506.00	1005717.70	1457.47	1432.54
									06/1506.80	1865/17.80	1457.47	1432.50