

Goodman Logistics Center Fullerton Noise Impact Analysis City of Fullerton

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13158-09 Noise Study



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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
Hz	Hertz
INCE	Institute of Noise Control Engineering
L _{eq}	Equivalent continuous (average) sound level
L _{max}	Maximum level measured over the time interval
L _{min}	Minimum level measured over the time interval
mph	Miles per hour
OPR	Office of Planning and Research
PPV	Peak particle velocity
Project	Goodman Logistics Center Fullerton
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
VdB	Vibration Decibels



EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the potential noise impacts and the necessary noise mitigation measures, if any, for the proposed Goodman Logistics Center Fullerton development ("Project"). The Project site is located at the northeast corner of the Acacia Avenue/Orangethorpe Avenue intersection in the City of Fullerton (2001 E. Orangethorpe Avenue). The Project involves the demolition of all existing structures on the Project site, and the redevelopment of the Project with four buildings totaling 1,561,522 square feet (sf). This includes 1,456,522 sf of warehouse space – expected to be used for fulfillment center and cold storage uses – and approximately 105,000 sf of office space (ground floor and mezzanine).

The Project Applicant may pursue the acquisition of an off-site property located north of E. Orangethorpe Avenue that abuts the southern boundary of the Project site (2301 E. Orangethorpe Avenue). In the event this property is acquired, the two existing buildings on that property would also be demolished and a maximum of approximately 1,609,384 sf of high cube warehouse space would be provided on the Project site. The larger Project (Optional Site Plan) is the basis for analysis in this report to provide a conservative worst-case impact analysis and assumes 804,692 square feet of high cube fulfillment center use and 804,692 square feet of high-cube cold storage warehouse use (inclusive of office space). This study has been prepared to satisfy applicable City of Fullerton standards and thresholds of significance based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1)Off-Site Traffic Noise Analysis

Traffic generated by the operation of the proposed Project will influence the traffic noise levels in surrounding off-site areas. To quantify the off-site traffic noise increases on the surrounding off-site areas, the changes in traffic noise levels on 31 roadway segments surrounding the Project site were calculated based on the change in the average daily traffic (ADT) volumes. The traffic noise levels provided in this analysis are based on the traffic forecasts found in the *Goodman Logistics Center Fullerton Traffic Analysis*. (2) To assess the off-site noise level impacts associated with the proposed Project, noise contour boundaries were developed for Existing and Opening Year (2022) traffic conditions. The analysis shows that the Project-related traffic noise level increases under all "with Project" traffic scenarios would result in *less than significant* impacts at receiving land uses adjacent to the study area roadway segments.

OPERATIONAL NOISE ANALYSIS

Using reference noise levels to represent the expected noise sources from the Goodman Logistics Center Fullerton site, the operational analysis estimates the Project-related stationary-source noise hourly average L_{eq} levels at nearest sensitive receiver locations. The noise-producing activities associated with the proposed Goodman Logistics Center Fullerton are anticipated to be loading dock activity, entry gate & truck movements, roof-top air conditioning units, and trash enclosure activity. The operational noise analysis shows that the Project will satisfy the City of Fullerton stationary-source exterior hourly average L_{eq} noise levels adjusted to reflect the ambient noise level and the City of Anaheim 60 dBA L_{eq} anytime exterior noise level standards at all nearest receiver locations. The Project will contribute a *less than significant* long-term



operational noise level impact to the existing ambient noise environment at the noise-sensitive receiver locations. Therefore, the Project-related operational noise level impacts are *less than significant*.

OPERATIONAL VIBRATION ANALYSIS

On-site operations associated with the Project will include heavy trucks moving on site to and from the loading dock areas. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. Since trucks rarely create vibration that exceed 70 VdB (unless there are bumps due to frequent potholes in the road) (3 p. 113), it is expected that the on-site heavy trucks will be travelling at very low speeds so activity will satisfy the maximum-acceptable vibration criteria of 78 VdB for daytime and 72 VdB for nighttime for residential uses, and therefore, will be *less than significant*.

With respect to off-site truck activity, ground-borne vibration levels from automobile traffic are generally overshadowed by vibration generated by heavy trucks on uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way. This is consistent with the FTA *Transit Noise and Vibration Impact Assessment Manual* (3), finding that rubber-tired traffic is rarely perceptible on smooth roadways. Since trucks rarely create vibration that exceeds 70 VdB (unless there are bumps due to frequent potholes in the road) (3 p. 113), it is expected that off-site truck vibration impacts at nearest homes will satisfy the maximum-acceptable vibration criteria of 78 VdB for daytime and 72 VdB for nighttime for residential uses, and therefore, will be *less than significant*.

TYPICAL CONSTRUCTION NOISE ANALYSIS

Using sample reference noise levels to represent the planned typical construction activities of the Goodman Logistics Center Fullerton site, this analysis estimates the Project-related construction noise levels at the closest sensitive receiver locations. This includes the demolition of the Kimberly-Clark buildings and associated facilities and the two existing buildings and associated facilities on the potential expansion site. However, no pile driving is expected as part of the Project construction activities.

To demonstrate compliance with local noise regulations, and to provide a conservative analysis, the Project-only construction noise levels are evaluated against exterior noise level thresholds based on the City of Fullerton and City of Anaheim exterior noise level standards. The typical Project-related short-term construction noise levels are expected to range from 53.7 to 61.6 dBA L_{eq} and will satisfy the noise level standards adjusted to reflect the ambient noise level in City of Fullerton, and the City of Anaheim 60 dBA L_{eq} anytime exterior noise level standards at all the nearest sensitive receiver locations. Therefore, the construction noise impacts are considered *less than significant* at the nearest noise-sensitive receiver locations.



NIGHTTIME CONCRETE POUR NOISE ANALYSIS

While most of the Project's construction activities would occur during the daytime hours, concrete pours are planned to occur at night. Since the nighttime concrete pours will take place outside the permitted City of Fullerton Municipal Code, Section 15.90.050 hours of 7:00 a.m. to 8:00 p.m. on any day except Sunday or a City-recognized holiday, the Project Applicant will be required to obtain authorization for nighttime work from the City of Fullerton. The noise levels associated with the nighttime concrete pour activities are estimated to range from 49.9 to 57.5 dBA L_{eq} and will satisfy the City of Fullerton and City of Anaheim stationary-source exterior noise level standards at all nearest noise sensitive residential receiver locations. Therefore, based on the results of this analysis, all nearest sensitive receiver locations will experience *less than significant* impacts due to the Project related nighttime concrete pour activities.

TYPICAL CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. At distances ranging from 305 feet to 2,080 feet from typical Project construction activities (at the Project site boundary), construction vibration levels are estimated to range from 29.4 to 54.4 VdB and will remain below the FTA Transit Noise and Vibration Impact Assessment Manual maximum acceptable vibration criteria of 78 VdB for daytime residential uses at all receiver locations. Therefore, the Project-related vibration impacts are considered *less than significant* during typical construction activities at the Project site.

CONCRETE CRUSHING CONSTRUCTION NOISE ANALYSIS

An additional analysis was completed to assess potential noise impacts due to the concrete crushing activities planned near the southern project site boundary on Orangethorpe Avenue. The concrete crushing construction noise levels are estimated to range from 42.9 to 57.9 dBA L_{eq} at the nearest sensitive receiver locations. The concrete crushing construction noise analysis shows that the receiver locations will satisfy the City of Fullerton and City of Anaheim exterior noise level standards at the nearest noise-sensitive receiver locations. Therefore, the noise impacts due to the Project concrete crushing noise is considered *less than significant* at all receiver locations.

CONCRETE CONSTRUCTION VIBRATION ANALYSIS

At distances ranging from 1,347 feet to 3,055 feet from the Project concrete crushing construction activity area planned near the southern project site boundary on Orangethorpe Avenue, concrete crushing construction vibration levels are estimated to range from 24.4 to 35.1 VdB at nearest sensitive receiver locations. The analysis shows that the concrete crushing construction vibration levels will remain below the FTA Transit Noise and Vibration Impact Assessment maximum acceptable vibration criteria of 78 VdB for daytime residential uses at all



receiver locations. Therefore, the Project-related concrete construction vibration impacts are considered *less than significant*.

SUMMARY OF CEQA SIGNIFICANCE FINDINGS

The results of this Goodman Logistics Center Fullerton Noise Impact Analysis are summarized below based on the significance criteria in Section 4 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1). Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA. All impacts are less than significant without mitigation.

Amahusia	Report	Significance Findings			
Analysis	Section	Unmitigated	Mitigated		
Off-Site Traffic Noise	7	Less Than Significant	-		
Operational Noise	0	Less Than Significant	-		
Operational Vibration	9	Less Than Significant	-		
Construction Noise		Less Than Significant	-		
Construction Vibration	10	Less Than Significant	-		
Concrete Crushing Noise		Less Than Significant	-		

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

MITIGATION MEASURES

The Project would not result in significant construction-related noise impacts requiring mitigation; however, the following MMs identified in The Fullerton Plan EIR are incorporated as part of the proposed project and assumed in the analysis presented in this section. These MMs will be included in the MMRP for the proposed project.

- **MM N-1** Project applicants shall ensure through contract specifications that the following construction best management practices (BMPs) be implemented by contractors to reduce construction noise levels:
 - Ensure that construction equipment is properly muffled according to industry standards and be in good working condition.
 - Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.
 - Schedule high noise-producing activities between the hours of 7:00 AM and 8:00 PM on any day except Sunday or a City-recognized holiday to minimize disruption on sensitive uses.
 - Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.
 - Use electric air compressors and similar power tools rather than diesel equipment, where feasible.



- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 30 minutes.
- Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the City or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party.
- Contract specifications shall be included in construction documents, which shall be reviewed by the City prior to issuance of a grading or building permit (whichever is issued first).
- **MM N-2** Project applicants shall require by contract specifications that heavily loaded trucks used during construction would be routed away from residential streets to the extent feasible. Contract specifications shall be included in construction documents, which shall be reviewed by the City prior to issuance of a grading permit.



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1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Goodman Logistics Center Fullerton ("Project"). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, sets out the local regulatory setting, presents the study methods and procedures for transportation related CNEL traffic noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term stationary-source operational noise and short-term construction noise and vibration impacts.

1.1 SITE LOCATION

The 65.4-net-acre¹ Project site is located at the northeast corner of the Orangethorpe Avenue and Acacia Avenue intersection and is bounded by Acacia Avenue to the west, Kimberly Avenue and BNSF railroad tracks to the north, State College Boulevard to the east, and Orangethorpe Avenue to the south. The adjacent off-site property at 2301 E. Orangethorpe Avenue that may be acquired by the Project Applicant encompasses approximately 0.7 acres. The Project site and off-site property location is shown on Exhibit 1-A.

Regional access to the Project site is provided from State Route (SR)-57 and SR-91 located east and south of the Project site, respectively. The Project site is currently occupied by a Kimberly-Clark manufacturing facility, which includes 1,210,720 square feet (sf) of existing manufacturing and warehouse buildings. Kimberly-Clark's operations and associated use of the site will terminate by June 2020. The proposed Project and neighboring land uses are consistent with the industrial land use designation and the growth assumptions for the Southeast Industrial Focus Area anticipated in City of Fullerton General Plan.

1.2 PROJECT DESCRIPTION

The Project involves the demolition of all existing structures on the Project site, and the redevelopment of the Project with four buildings totaling 1,561,522 square feet (sf) as shown on Exhibit 1-B. This includes 1,456,522 sf of warehouse space – expected to be used for fulfillment center and cold storage uses – and approximately 105,000 sf of office space (ground floor and mezzanine). The Project Applicant may pursue the acquisition of an off-site property located north of E. Orangethorpe Avenue that abuts the southern boundary of the Project site (2301 E. Orangethorpe Avenue) as shown on Exhibit 1-C. In the event this property is acquired, the two existing buildings on that property would also be demolished and a maximum of approximately 1,609,384 sf of high cube warehouse space would be provided on the Project site. The larger Project (Optional Site Plan) is the basis for analysis in this report to provide a conservative worst-case impact analysis and assumes 804,692 square feet of high cube fulfillment center use and 804,692 square feet of high-cube cold storage warehouse use (inclusive of office space).

¹ The Project site encompasses approximately 73.1 gross acres, which includes an easement for City of Fullerton Water Department facilities, areas to be dedicated for access improvements along the site-adjacent roadways, and public roadway right-of-way.





EXHIBIT 1-A: LOCATION MAP

Potential Expansion Site



City of Anaheim

EXHIBIT 1-B: SITE PLAN







EXHIBIT 1-C: OPTIONAL SITE PLAN



The primary noise-generating on-site Project-related noise sources are expected to be loading dock activity, entry gate & truck movements, roof-top air conditioning units, and trash enclosure activity. This noise analysis is intended to describe noise level impacts associated with the expected maximum noise-generating operational activities at the Project site. To present a conservative approach, this report assumes the Project will operate 24-hours daily for seven days per week. Further, because noise levels generated by cold storage loading dock activity can be slightly higher due to the use of refrigerated trucks or reefers, this analysis conservatively assumes that all loading dock activity is associated with cold storage facilities, even though only 50 percent cold storage is anticipated.



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2 FUNDAMENTALS

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140		
NEAR JET ENGINE		130	INTOLERABLE OR DEAFENING	
		120		HEARING LOSS
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100		
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	LEANER AT 3m (10 ft) 70		SPEECH INTERFERENCE
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	CLEED
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		DISTURBANCE
QUIET SUBURBAN NIGHTTIME	LIBRARY	30		
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20	FAINT	
	BROADCAST/RECORDING STUDIO	10		NO EFFECT
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

EXHIBIT 2-A: TYPICAL NOISE LEVELS

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (4) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA



at approximately 100 feet, which can cause serious discomfort. (5) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

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 (typically one hour) and is commonly used to describe the "average" noise levels within the environment.

To describe the time-varying character of environmental noise, the statistical or percentile noise descriptors L_{50} , L_{25} , L_8 and L_2 , are commonly used. The percentile noise descriptors are the noise levels equaled or exceeded during 50 percent, 25 percent, 8 percent and 2 percent of a stated time. Sound levels associated with the L_2 and L_8 typically describe transient or short-term events, while levels associated with the L_{50} describe the steady state (or median) noise conditions. The City of Fullerton relies on the percentile noise levels to describe the stationary source noise level limits with respect to residentially zoned properties and sensitive uses (collectively termed sensitive receivers for purposes of this Noise Study). While the L_{50} describes the noise levels occurring 50 percent of the time, the L_{eq} accounts for the total energy (average) observed for the entire hour.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment, however. 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. 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 Fullerton relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. Based on guidance from the U.S. Department of Transportation, Federal Highway Administration (FHWA), Office of Environment and Planning, Noise and Air Quality Branch, the way noise reduces with distance depends on the following factors.



2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (4)

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (6)

2.3.3 ATMOSPHERIC EFFECTS

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (4)

2.3.4 Shielding

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearest residents. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The FHWA does not consider the planting of vegetation to be a noise abatement measure. (6)



2.3.5 REFLECTION

Field studies conducted by the FHWA have shown that the reflection from barriers and buildings does not substantially increase noise levels. (6) If all the noise striking a structure was reflected back to a given receiving point, the increase would be theoretically limited to 3 dBA. Further, not all the acoustical energy is reflected back to same point. Some of the energy would go over the structure, some is reflected to points other than the given receiving point, some is scattered by ground coverings (e.g., grass and other plants), and some is blocked by intervening structures and/or obstacles (e.g., the noise source itself). Additionally, some of the reflected energy is lost due to the longer path that the noise must travel. FHWA measurements made to quantify reflective increases in traffic noise have not shown an increase of greater than 1-2 dBA; an increase that is not perceptible to the average human ear.

2.4 NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements.

2.5 Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by up to 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (6)

2.6 LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (7)

2.7 COMMUNITY RESPONSE TO NOISE

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon everyone's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

• Fear associated with noise producing activities;



- Socio-economic status and educational level;
- Perception that those affected are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Belief that the noise source can be controlled.

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. (8) 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. (8) 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 2-B. A change of 3 dBA are considered *barely perceptible*, and changes of 5 dBA are considered *readily perceptible*. (6)





2.8 VIBRATION

The California Building Code, The Fullerton Plan, and The Fullerton Municipal Code do not have guidance for assessing vibration levels. Therefore, consistent with The Fullerton Plan EIR, the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* (3), which provides technical guidance for predicting and assessing noise and vibration impacts is used for purposes of this analysis. According to the FTA, vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for



evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment and/or activities

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



Human/Structural Response		Velocity Level*		Typical Sources (50 ft from source)	
Threshold, minor cosmetic damage fragile buildings		100	•	Blasting from construction projects	
Difficulty with tasks such as reading a VDT screen	\rightarrow	90	•	Bulldozers and other heavy tracked construction equipment	
-			-	Commuter rail, upper range	
Residential annoyance, infrequent events (e.g. commuter rail)		80	-	Rapid transit, upper range	
			-	Commuter rail, typical	
Residential annoyance, frequent	\rightarrow		-	Bus or truck over bump	
events (e.g. rapid transit)		70	-	Rapid transit, typical	
Limit for vibration sensitive equipment. Approx. threshold for human perception of vibration		60	-	Bus or truck, typical	
		50	•	Typical background vibration	
		\bigcirc	0		

* RMS Vibration Velocity Level in VdB relative to 10⁻⁶ inches/second

Source: Federal Transit Administration (FTA) Transit Noise Impact and Vibration Assessment.



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3 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). (9) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

3.2 STATE OF CALIFORNIA GREEN BUILDING STANDARDS CODE

The State of California's Green Building Standards Code contains mandatory measures for nonresidential building construction in Section 5.507 on Environmental Comfort. (10) These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies must be at least 50. For those developments in areas where noise contours are not readily available and the noise level exceeds 65 dBA L_{eq} for any hour of operation, a wall and roof-ceiling combined STC rating of 45, and exterior windows with a minimum STC rating of 40 are required (Section 5.507.4.1).

3.3 CITY OF FULLERTON GENERAL PLAN

The City of Fullerton has adopted Chapter 7, Noise, of *The Fullerton Plan* to identify the potential for noise conflicts and identify ways of reducing potential noise impacts. (11) The policies provided below are identified by *The Fullerton Plan* for potential noise issues:

- **P8.2 Mobile Sources:** Support projects, programs, policies and regulations to control and abate noise generated by mobile sources.
- **P8.3 Consideration of Noise in Land Use Decisions:** Support projects, programs, policies and regulations which ensure noise-compatible land use planning recognizing the relative importance of noise sources in order of community impact, the local attitudes towards these sources, and the suburban or urban characteristics of the environment, while identifying noise sensitive uses.
- **P8.4 Noise Reduction Measures:** Support projects, programs, policies and regulations to control and abate noise generated by stationary sources.
- **P8.5** Focus Area Planning: Support projects, programs, policies and regulations to evaluate ways to ensure noise compatible land use planning as part of community-based planning of Focus Areas.
- **P8.6** Noise Receptors: Support projects, programs, policies and regulations to permit uses where the noise level of the surroundings—after taking into account noise insulation features and other control techniques of the use—is not detrimental to the use.
- **P8.7** Noise Generators: Support projects, programs, policies and regulations to permit uses and/or activities where the noise generated by the use and/or activity is not detrimental or otherwise a nuisance to the surroundings.

The noise criteria identified in *The Fullerton Plan*, Table 8, shown here as Exhibit 3-A, provides the City with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels. The *Land Use Compatibility for Community Noise Environments* matrix indicates that the Project industrial land uses are considered *normally acceptable* with exterior noise levels between 50 and 75 CNEL, and *conditionally acceptable* with noise levels between 70 and 80 dBA CNEL. For *conditionally acceptable* land uses, *new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features have been included in the design. Conventional construction, <i>but with closed windows and fresh air supply systems or air conditioning, will normally suffice.* (11)



	Community Noise Exposure (CNEL)					
Land Use Category	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable		
Residential-Low Density, Single-Family, Duplex, Mobile Homes	50 - 60	55 - 70	70 – 75	75 – 85		
Residential – Multiple Family	50 - 65	60 – 70	70 – 75	70 – 85		
Transient Lodging – Motel, Hotels	50 – 65	60 – 70	70 – 80	80 – 85		
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 – 70	60 – 70	70 – 80	80 – 85		
Auditoriums, Concert Halls, Amphitheaters	NA	50 – 70	NA	65 – 85		
Sports Arenas, Outdoor Spectator Sports	NA	50 – 75	NA	70 – 85		
Playgrounds, Neighborhood Parks	50 – 70	NA	67.5 – 77.5	72.5 – 85		
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 70	NA	70 – 80	80 – 85		
Office Buildings, Business Commercial and Professional	50 – 70	67.5 – 77.5	75 – 85	N/A		
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 – 80	75 – 85	N/A		

CNEL = community noise equivalent level; NA = not applicable

<u>NORMALLY ACCEPTABLE</u>: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

<u>CONDITIONALLY ACCEPTABLE</u>: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features have been included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice. <u>NORMALLY UNACCEPTABLE</u>: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise-insulation features must be included in the design.

<u>CLEARLY UNACCEPTABLE</u>: New construction or development should generally not be undertaken.

Source: Office of Planning and Research, California, General Plan Guidelines, October 2003.

3.4 CONSTRUCTION AND OPERATIONAL NOISE STANDARDS

Although the Project site is located within the City of Fullerton, noise-sensitive receivers potentially impacted by operational noise activities are also located in the City of Anaheim. Therefore, to accurately describe the potential Project-related operational noise level contributions, this analysis presents the appropriate operational noise standards for the City of Fullerton and the City of Anaheim.



3.4.1 CITY OF FULLERTON

To minimize the operational (stationary-source) noise activity from industrial land use, the City of Fullerton Municipal Code, Section 15.40.080 requires that *sound related to industrial or manufacturing processes shall comply* with the *Noise Standards and Regulations* outlined in Chapter 15.90. This chapter outlines noise standards for *sensitive receivers* that includes *all property within the residential noise zone* (Section 15.90.030(A)) and *any private or public school, hospital, residential care facility for the elderly, and religious institutions* (Section 15.90.30(B)(1)). For sensitive receivers, the City of Fullerton Municipal Code, Section 15.90.030, identifies operational noise level limits using the percentile noise descriptors. The L₅₀ percentile noise descriptor identifies the noise levels occurring 50 percent of the time. These standards shall not exceed:

- The noise standard for a cumulative period of more than 30 minutes in any hour (L_{50})
- The noise standard plus 5 dB(A) for a cumulative period of more than 15 minutes but less than 30 minutes in any hour (L_{25})
- The noise standard plus 10 dB(A) for a cumulative period of more than 5 minutes but less than 15 minutes in any hour (L_8)
- The noise standard plus 15 dB(A) for a cumulative period of more than one minute but less than five minutes in any hour (L_2)
- The noise standard plus 20 dB(A) for a cumulative period of less than one minute in an hour (L_{max}).

In the event the ambient noise level exceeds any of the five noise limit categories listed above, the cumulative period applicable to the category shall be increased to reflect the ambient noise level. The City does not have specific noise level limits for commercial or industrial zones. Rather, the Municipal Code regulates the noise caused by any use on a sensitive receiver. The exterior noise level standards of the City of Fullerton Municipal Code applicable to the sensitive receivers are shown on Table 3-1 and included in Appendix 3.1 where Daytime is 7:00 a.m. to 10:00 p.m. and Nighttime is 10:00 p.m. to 7:00 a.m.

	Exterior Noise Level Standards (dBA) ¹					
Time Period	L ₅₀ (30 mins)	L ₂₅ (15 mins)	L ₈ (5 mins)	L ₂ (1 min)	L _{max} (Anytime)	
Daytime (7:00 a.m. to 10:00 p.m.)	55	60	65	70	75	
Nighttime (10:00 p.m. to 7:00 a.m.)	50	55	60	65	70	

TABLE 3-1:	OPERATIONAL	NOISE LEVEL	STANDARDS

¹ The percent noise level is the level exceeded "n" percent of the time during the measurement period. L_{50} is the noise level exceeded 50% of the time. (City of Fullerton Municipal Code, Section 15.90.030 included in Appendix 3.1).

Noise sources associated with construction, repair, remodeling, or grading of any real property are exempt from noise level standards provide they take place between the hours of 7:00 a.m. and 8:00 p.m. on any day except Sunday or a City-recognized holiday.



3.4.2 CITY OF ANAHEIM

The City of Anaheim Municipal Code, Chapter 6.70 *Sound Pressure Levels,* included in Appendix 3.2, limits sound levels for stationary sources of noise radiated for extended periods from any premises in excess of 60 decibels at the property line. (12) Sound created by construction or building repair of any premises within the City of Anaheim is exempt from the applications of the Municipal Code during the hours of 7:00 a.m. and 7:00 p.m. Chapter 6.70 of the City of Anaheim Municipal Code is included in Appendix 3.2.

3.5 VIBRATION STANDARDS

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. 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. (3) The City of Fullerton does not identify specific vibration level limits and instead will rely on the Federal Transit Administration (FTA) methodology for the purpose of analyzing vibration impacts from the proposed project. 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. (3)





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4 SIGNIFICANCE CRITERIA

The following significance criteria are based on currently adopted guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) For the purposes of this report, impacts would be potentially significant if the Project results in or causes:

- A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- B. Generation of excessive ground-borne vibration or ground-borne noise levels?
- C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

4.1 CEQA GUIDELINES NOT FURTHER ANALYZED

The Project site is not located within two miles of a public airport or within an airport land use plan. The closest airport is the Fullerton Municipal Airport located over 4.5 miles west of the Project site. As such, the Project site would not be exposed to excessive noise levels from airport operations, and therefore, impacts are considered *less than significant*, and no further noise analysis is conducted in relation to Guideline C.

4.2 SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development.

OFF-SITE TRAFFIC NOISE

Table 5.6-7 of The Fullerton Plan Final Program EIR noise section presents the thresholds of *Significance of Changes in Cumulative Noise Exposure* and is used to describe the amount to which a given exterior noise level increase is considered acceptable. According to Table 5.6-7 an increase in ambient noise levels is assumed to be a significant noise impact if a project causes ambient noise levels to exceed the following at noise sensitive locations:

- Where the existing ambient noise level is less than 60 dBA, a project related permanent increase in ambient noise levels of 5 dBA CNEL or greater.
- Where the existing ambient noise level is greater than 60 dBA, a project related permanent increase in ambient noise levels of 3 dBA CNEL or greater.

LONG-TERM OPERATIONAL NOISE & VIBRATION

- If Project-related operational (stationary-source) noise levels:
 - \circ exceed the exterior 55 dBA L₅₀ daytime or 50 dBA L₅₀ nighttime noise level standards for sensitive receivers. These standards shall not be exceeded plus 5 dBA for a cumulative period of more than 15 minutes but less than 30 minutes in any hour (L₂₅), or plus 10 dB(A) for a cumulative period of more than 5 minutes but less than 15 minutes in any

hour (L₈), or plus 15 dB(A) for a cumulative period of more than one minute but less than five minutes in any hour (L₂), or plus 20 dB(A) for a cumulative period of less than one minute in an hour (L_{max}). In the event the ambient noise level exceeds any of the five noise limit categories listed above, the cumulative period applicable to the category shall be increased to reflect the ambient noise level. (City of Fullerton Municipal Code, Section 15.90.030).

- exceed the 60 dBA Leq anytime noise level standard at the property line (City of Anaheim Municipal Code Section 6.70)
- If the existing ambient noise levels at the noise-sensitive receivers near the Project site:
 - $\circ~$ are less than 60 dBA L_{eq} and the Project creates a 5 dBA L_{eq} or greater Project-related noise level increase; or
 - $\circ~$ are greater than 60 L_{eq} and the Project creates a 3 dBA L_{eq} or greater Project-related noise level increase; or
- If Project generated operational vibration levels exceed the FTA's acceptable vibration thresholds of 78 VdB for daytime residential use and 72 VdB for nighttime uses in buildings where people normally sleep. (FTA Transit Noise and Vibration Impact Assessment).

SHORT-TERM CONSTRUCTION NOISE & VIBRATION

The City of Fullerton and City of Anaheim both exempt noise from construction from compliance with Noise Standards within identified hours. For purposes of performing a conservative analysis however, the following criteria are applied to daytime and night-time construction-related noise:

- If Project-related construction noise levels:
 - exceed the exterior 55 dBA L_{50} daytime or 50 dBA L_{50} nighttime noise level standards for sensitive receivers. These standards shall not be exceeded plus 5 dBA for a cumulative period of more than 15 minutes but less than 30 minutes in any hour (L_{25}), or plus 10 dB(A) for a cumulative period of more than 5 minutes but less than 15 minutes in any hour (L_8), or plus 15 dB(A) for a cumulative period of more than one minute but less than five minutes in any hour (L_2), or plus 20 dB(A) for a cumulative period of less than one minute in an hour (L_{max}). In the event the ambient noise level exceeds any of the five noise limit categories listed above, the cumulative period applicable to the category shall be increased to reflect the ambient noise level. (City of Fullerton Municipal Code, Section 15.90.030).
 - exceed the 60 dBA Leq anytime noise level standard at the property line (City of Anaheim Municipal Code Section 6.70)
- If Project generated construction vibration levels exceed the FTA's acceptable vibration thresholds of 78 VdB for daytime residential use and 72 VdB for nighttime uses in buildings where people normally sleep. (FTA Transit Noise and Vibration Impact Assessment).





5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at seven 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 5-A 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 Wednesday, April 29, 2020. Appendix 5.1 includes study area photos. These measurements represent background ambient noise conditions during the mandatory State of California stay at home order due to the Covid-19 pandemic. Based on a comparison of existing noise level measurements taken in December 2019, we were able to estimate a 2.5 dBA L_{eq} reduction in noise levels due to the stay at home order. Therefore, the noise levels presented below conservatively overstate the relative project noise level increases to compensate for the lower ambient noise level measurements.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured over a 24hour 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. (13)

5.2 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. 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. (4) 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. (3)*





EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS

LEGEND:

A Measurement Locations 📃 Site Boundary

Potential Expansion Site

City of Fullerton City of Anaheim

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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. (3) 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 nearest 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.

5.3 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 5-1 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. Except for Location L5, which is in the City of Anaheim, each measurement location is in the City of Fullerton. These locations were largely selected to describe the existing ambient noise level conditions at similar distances north, south, east, and west of the Project site. These measurement locations will be used to assess the incremental Project noise level increases attributed to the Project. Appendix 5.2 provides a summary of the existing hourly ambient noise levels described below:

- Location L1 represents the noise levels north of the Project site on Walnut Avenue near existing single-family residential home at 2016 E Santa Fe Avenue. This location describes the closest residential neighborhoods at the transition from industrial to residential to the north. The noise levels at this location consist primarily of traffic noise from Walnut Avenue. The noise level measurements collected show an overall 24-hour exterior noise level of 66.2 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 64.9 dBA L_{eq} with an average nighttime noise level of 57.5 dBA L_{eq}.
- Location L2 represents the noise levels north of the Project site at 637 South State College Boulevard. The ambient noise levels at this location account parking lot vehicle movements as well as traffic noise from Valencia Drive and State College Boulevard. The noise level measurements collected show an overall 24-hour exterior noise level of 64.7 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 63.0 dBA L_{eq} with an average nighttime noise level of 56.2 dBA L_{eq}.
- Location L3 represents the noise levels northeast of the Project site on Fender Avenue near existing single-family residential home at 2400 Santa Clara Avenue. This location describes the closest residential neighborhoods at the transition from industrial to residential to the northeast. The 24-hour CNEL indicates that the overall exterior noise level is 67.9 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 65.4 dBA L_{eq} with an average nighttime noise level of 59.8 dBA L_{eq}. Background traffic noise from Fender Avenue represents the primary source of noise at this location.
- Location L4 represents the noise levels east of the Project site near Hayfield University. The noise level measurements collected show an overall 24-hour exterior noise level of 66.4 dBA CNEL. The



energy (logarithmic) average daytime noise level was calculated at 62.5 dBA L_{eq} with an average nighttime noise level of 59.0 dBA L_{eq} . The noise levels at this location consist primarily of traffic noise from East Orangethorpe Avenue and parking lot vehicle movements.

- Location L5 represents the noise levels south of the Project site near existing single-family residential homes at 1545 E Benmore Lane in the City of Anaheim. The 24-hour CNEL indicates that the overall exterior noise level is 68.9 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 63.0 dBA L_{eq} with an average nighttime noise level of 62.2 dBA L_{eq}. Traffic on Benmore Lane represents the primary source of noise at this location.
- Location L6 represents the noise levels southwest of the Project site near the New Life Presbyterian Church. The 24-hour CNEL indicates that the overall exterior noise level is 65.5 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 61.4 dBA L_{eq} with an average nighttime noise level of 58.3 dBA L_{eq}. Traffic on East Orangethorpe Avenue represents the primary source of noise at this location.
- Location L7 represents the noise levels west of the Project site near Seekers Chapel. The 24-hour CNEL indicates that the overall exterior noise level is 58.1 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 54.8 dBA L_{eq} with an average nighttime noise level of 50.6 dBA L_{eq}. Parking lot vehicle movements and traffic on Kimberly Avenue represent the primary source of noise at this location.

Location ¹	Description	Energy Ave Level (d	CNEL	
		Daytime	Nighttime	
L1	Located north of the Project site on Walnut Avenue near existing single-family residential home at 2016 E Santa Fe Avenue.	64.9	57.5	66.2
L2	Located northeast of the Project site near 637 South State College Boulevard.	63.0	56.2	64.7
L3	Located northeast of the Project site on Fender avenue near existing single-family residential home at 2400 Santa Clara Avenue.	65.4	59.8	67.9
L4	Located east of the Project site near Hayfield University.	62.5	59.0	66.4
L5	Located south of the Project site near existing single- family residential homes at 1545 E Benmore Lane.	63.0	62.2	68.9
L6	Located southwest of the Project site near the New Life Presbyterian Church.	61.4	58.3	65.5
L7	Located east of the Project site near Seekers Chapel.	54.8	50.6	58.1

TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS

¹ See Exhibit 5-A for the noise level measurement locations.

² Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2.

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



6 OFF-SITE TRAFFIC NOISE METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future traffic noise environment. Consistent with the *Land Use Compatibility for Community Noise Environments*, all transportation related noise levels are presented in terms of the 24-hour CNEL's.

6.1 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. (14) 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. (15) 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. (16)

6.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site dBA CNEL transportation noise impacts. Table 6-1 identifies the 31 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per The Fullerton Plan Mobility Chapter, and the posted vehicle speeds. The ADT volumes used in this study area presented on Table 6-2 are based on the *Goodman Logistics Center Fullerton Traffic Analysis* for warehousing use, prepared by Urban Crossroads, Inc. for the following traffic scenarios under both Without and With Project alternatives: Existing, and Opening Year (2022). (2)

The ADT volumes vary for each roadway segment based on the existing traffic volumes and the combination of project traffic distributions. This analysis relies on a comparative evaluation of the off-site traffic noise impacts, without and with project ADT traffic volumes from the Project traffic study.



ID	Roadway	Segment	Receiving Land Use ¹	Distance from Centerline to Receiving Land Use (Feet) ²	Vehicle Speed (mph) ³
1	Raymond Av.	n/o Kimberly Av.	1	42'	40
2	Raymond Av.	s/o Kimberly Av.	1	42'	40
3	Raymond Av.	s/o Orangethorpe Av.	1	42'	40
4	Raymond Av.	s/o SR-91 Westbound Ramps	1	45'	50
5	Raymond Av.	s/o SR-91 Eastbound Ramps	EDR/MDR/GC/NCR	45'	50
6	Acacia Av.	n/o Kimberly Av.	1	40'	40
7	Acacia Av.	s/o Kimberly Av.	1	40'	40
8	N. State College Bl.	n/o Chapman Av.	C/LDR/HDR	50'	40
9	N. State College Bl.	s/o Chapman Av.	C/LMDR/LDR	50'	35
10	N. State College Bl.	s/o Commonwealth Av.	MDR/LDR/I	50'	40
11	N. State College Bl.	s/o Kimberly Av.	1	50'	40
12	N. State College Bl.	s/o Dwy. 16	1	50'	40
13	N. State College Bl.	s/o Orangethorpe Av.	I/GC/I/WU	50'	40
14	N. State College Bl.	s/o SR-91 Westbound Ramps	I/LDR/MDR	53'	55
15	N. State College Bl.	s/o SR-91 Eastbound Ramps	LDR/MDR	53'	55
16	S. Placentia Av.	n/o Kimberly Av.	1	42'	40
17	S. Placentia Av.	s/o Kimberly Av.	1	42'	40
18	Kimberly Av.	e/o Raymond Av.	1	30'	45
19	Kimberly Av.	e/o Dwy. 5	1	30'	45
20	Kimberly Av.	e/o Dwy. 11	1	30'	45
21	Orangethorpe Av.	w/o Raymond Av.	GC/OL/I	50'	40
22	Orangethorpe Av.	e/o Raymond Av.	1	50'	45
23	Orangethorpe Av.	e/o Acacia Av.	1	50'	45
24	Orangethorpe Av.	e/o Dwy. 6	1	50'	45
25	Orangethorpe Av.	e/o Dwy. 10	1	50'	45
26	Orangethorpe Av.	w/o N. State College Bl.	1	50'	45
27	Orangethorpe Av.	e/o N. State College Bl.	1	50'	45
28	Orangethorpe Av.	w/o S. Placentia Av.	1	50'	45
29	Orangethorpe Av.	e/o S. Placentia Av.	LDR/I/C	60'	45
30	Orangethorpe Av.	e/o SR-57 Southbound Ramps	LDR/C	60'	45
31	Orangethorpe Av.	e/o SR-57 Northbound Ramps	LDR/C/I/CM	60'	45

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

¹ The Fullerton Plan Community Development Plan, City of Anaheim General Plan Land Use Plan, City of Placentia General Plan Land Use Map. ² Distance to receiving land use is based upon the right-of-way distances.

³ Goodman Logistics Center Traffic Analysis.

"I"= Industrial, "EDR"= Estate Density Residential; "NCR"= Neighborhood Center Commercial; "C"= Commercial; "LDR"= Low Density Residential; "HDR"= High Density Residential; "LMDR"= Low-Medium Density Residential; "MDR"= Medium Density Residential; "WU"= Water Uses; "GC"= General Commercial; "OL"= Office Low; "CM"= Commercial-Manufacturing.



			Average Daily Traffic Volumes ¹			nes ¹
ID	Roadway	Segment	Existing	; (2020)	Opening Year Cumulative (2022)	
			Without Project	With Project	Without Project	With Project
1	Raymond Av.	n/o Kimberly Av.	23,031	23,157	24,580	24,706
2	Raymond Av.	s/o Kimberly Av.	23,511	23,636	24,861	24,987
3	Raymond Av.	s/o Orangethorpe Av.	29,674	29,971	31,037	31,334
4	Raymond Av.	s/o SR-91 Westbound Ramps	28,583	28,709	29,684	29,810
5	Raymond Av.	s/o SR-91 Eastbound Ramps	29,102	29,228	29,973	30,099
6	Acacia Av.	n/o Kimberly Av.	7,815	7,941	8,188	8,314
7	Acacia Av.	s/o Kimberly Av.	7,548	7,926	7,772	8,150
8	N. State College Bl.	n/o Chapman Av.	36,863	37,160	37,766	38,063
9	N. State College Bl.	s/o Chapman Av.	25,624	25,921	26,431	26,728
10	N. State College Bl.	s/o Commonwealth Av.	23,284	23,581	24,276	24,573
11	N. State College Bl.	s/o Kimberly Av.	23,058	24,084	23,525	24,551
12	N. State College Bl.	s/o Dwy. 16	23,244	24,373	23,716	24,844
13	N. State College Bl.	s/o Orangethorpe Av.	27,451	28,704	28,017	29,269
14	N. State College Bl.	s/o SR-91 Westbound Ramps	26,945	27,585	27,501	28,141
15	N. State College Bl.	s/o SR-91 Eastbound Ramps	22,525	22,651	22,992	23,118
16	S. Placentia Av.	n/o Kimberly Av.	20,981	21,107	23,741	23,867
17	S. Placentia Av.	s/o Kimberly Av.	20,848	20,974	22,809	22,935
18	Kimberly Av.	e/o Raymond Av.	1,890	2,142	2,136	2,388
19	Kimberly Av.	e/o Dwy. 5	1,917	2,481	2,230	2,794
20	Kimberly Av.	e/o Dwy. 11	1,837	2,671	2,148	2,982
21	Orangethorpe Av.	w/o Raymond Av.	34,347	34,644	35,670	35,966
22	Orangethorpe Av.	e/o Raymond Av.	32,976	33,444	33,929	34,397
23	Orangethorpe Av.	e/o Acacia Av.	32,284	32,768	33,295	33,779
24	Orangethorpe Av.	e/o Dwy. 6	32,284	32,756	33,295	33,767
25	Orangethorpe Av.	e/o Dwy. 10	32,018	32,785	33,023	33,790
26	Orangethorpe Av.	w/o N. State College Bl.	32,018	33,169	33,023	34,175
27	Orangethorpe Av.	e/o N. State College Bl.	31,006	32,032	31,981	33,007
28	Orangethorpe Av.	w/o S. Placentia Av.	29,568	30,594	30,514	31,541
29	Orangethorpe Av.	e/o S. Placentia Av.	31,698	32,599	33,419	34,320
30	Orangethorpe Av.	e/o SR-57 Southbound Ramps	35,266	35,780	36,686	37,199
31	Orangethorpe Av.	e/o SR-57 Northbound Ramps	37,050	37,176	38,133	38,259

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

¹ Source: Goodman Logistics Center Traffic Analysis.



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

Table 6-3 provides the time of day (daytime, evening, and nighttime) vehicle splits. The daily Project truck trip-ends were assigned to the individual off-site study area roadway segments based on the Project truck trip distribution percentages documented in the *Traffic Analysis*. Using the Project truck trips in combination with the Project trip distribution, Urban Crossroads, Inc. calculated the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments. Table 6-4 shows the traffic flow by vehicle type (vehicle mix) used for all without Project traffic scenarios, and Tables 6-5 to 6-6 show the vehicle mixes used for the with Project traffic scenarios.

		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%

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

¹County of Orange Land Use/Noise Compatibility Manual, December 1993. Values rounded to the nearest one-hundredth. "Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Cleasification		Total		
Classification	Autos	Medium Trucks	Heavy Trucks	Iotai
All Segments	96.36%	2.47%	1.17%	100.00%

TABLE 6-4: WITHOUT PROJECT VEHICLE MIX

Based on a 24-hour count taken at State College Boulevard and Kimberly Avenue (Goodman Logistics Center Traffic Analysis, Urban Crossroads, Inc.). Vehicle mix percentage values rounded to the nearest one-hundredth.

Due to the added Project truck trips, the increase in Project traffic volumes and the distributions of trucks on the study area road segments, the percentage of autos, medium trucks and heavy trucks will vary for each of the traffic scenarios. This explains why the existing and future traffic volumes and vehicle mixes vary between seemingly identical study area roadway segments.



			With Project ¹				
ID	Roadway	Segment	Autos	Medium Trucks	Heavy Trucks	Total ²	
1	Raymond Av.	n/o Kimberly Av.	96.38%	2.46%	1.16%	100.00%	
2	Raymond Av.	s/o Kimberly Av.	96.38%	2.46%	1.16%	100.00%	
3	Raymond Av.	s/o Orangethorpe Av.	96.24%	2.52%	1.24%	100.00%	
4	Raymond Av.	s/o SR-91 Westbound Ramps	96.37%	2.46%	1.16%	100.00%	
5	Raymond Av.	s/o SR-91 Eastbound Ramps	96.37%	2.46%	1.16%	100.00%	
6	Acacia Av.	n/o Kimberly Av.	96.41%	2.44%	1.15%	100.00%	
7	Acacia Av.	s/o Kimberly Av.	96.53%	2.36%	1.11%	100.00%	
8	N. State College Bl.	n/o Chapman Av.	96.26%	2.51%	1.23%	100.00%	
9	N. State College Bl.	s/o Chapman Av.	96.22%	2.52%	1.25%	100.00%	
10	N. State College Bl.	s/o Commonwealth Av.	96.21%	2.53%	1.26%	100.00%	
11	N. State College Bl.	s/o Kimberly Av.	94.97%	3.06%	1.97%	100.00%	
12	N. State College Bl.	s/o Dwy. 16	94.89%	3.09%	2.02%	100.00%	
13	N. State College Bl.	s/o Orangethorpe Av.	94.78%	3.14%	2.08%	100.00%	
14	N. State College Bl.	s/o SR-91 Westbound Ramps	95.95%	2.64%	1.41%	100.00%	
15	N. State College Bl.	s/o SR-91 Eastbound Ramps	96.38%	2.46%	1.16%	100.00%	
16	S. Placentia Av.	n/o Kimberly Av.	96.38%	2.46%	1.16%	100.00%	
17	S. Placentia Av.	s/o Kimberly Av.	96.38%	2.46%	1.16%	100.00%	
18	Kimberly Av.	e/o Raymond Av.	96.78%	2.18%	1.03%	100.00%	
19	Kimberly Av.	e/o Dwy. 5	91.70%	4.37%	3.93%	100.00%	
20	Kimberly Av.	e/o Dwy. 11	87.01%	6.38%	6.61%	100.00%	
21	Orangethorpe Av.	w/o Raymond Av.	96.26%	2.51%	1.23%	100.00%	
22	Orangethorpe Av.	e/o Raymond Av.	96.14%	2.56%	1.30%	100.00%	
23	Orangethorpe Av.	e/o Acacia Av.	96.16%	2.55%	1.29%	100.00%	
24	Orangethorpe Av.	e/o Dwy. 6	95.97%	2.64%	1.40%	100.00%	
25	Orangethorpe Av.	e/o Dwy. 10	95.56%	2.81%	1.63%	100.00%	
26	Orangethorpe Av.	w/o N. State College Bl.	95.36%	2.89%	1.75%	100.00%	
27	Orangethorpe Av.	e/o N. State College Bl.	95.63%	2.77%	1.60%	100.00%	
28	Orangethorpe Av.	w/o S. Placentia Av.	95.59%	2.79%	1.62%	100.00%	
29	Orangethorpe Av.	e/o S. Placentia Av.	95.63%	2.78%	1.60%	100.00%	
30	Orangethorpe Av.	e/o SR-57 Southbound Ramps	96.03%	2.61%	1.36%	100.00%	
31	Orangethorpe Av.	e/o SR-57 Northbound Ramps	96.37%	2.47%	1.17%	100.00%	

TABLE 6-5:	FXISTING	WITH PROJECT	VEHICLE MIX
TADLE 0 3.	LABING	WITH TROJECT	

¹ Source: Goodman Logistics Center Traffic Analysis.

² Total of vehicle mix percentage values rounded to the nearest one-hundredth.



			With Project ¹				
ID	Roadway	Segment	Autos	Medium Trucks	Heavy Trucks	Total ²	
1	Raymond Av.	n/o Kimberly Av.	96.37%	2.46%	1.16%	100.00%	
2	Raymond Av.	s/o Kimberly Av.	96.37%	2.46%	1.16%	100.00%	
3	Raymond Av.	s/o Orangethorpe Av.	96.25%	2.52%	1.24%	100.00%	
4	Raymond Av.	s/o SR-91 Westbound Ramps	96.37%	2.46%	1.16%	100.00%	
5	Raymond Av.	s/o SR-91 Eastbound Ramps	96.37%	2.46%	1.16%	100.00%	
6	Acacia Av.	n/o Kimberly Av.	96.41%	2.44%	1.15%	100.00%	
7	Acacia Av.	s/o Kimberly Av.	96.52%	2.36%	1.12%	100.00%	
8	N. State College Bl.	n/o Chapman Av.	96.27%	2.51%	1.23%	100.00%	
9	N. State College Bl.	s/o Chapman Av.	96.23%	2.52%	1.25%	100.00%	
10	N. State College Bl.	s/o Commonwealth Av.	96.22%	2.53%	1.26%	100.00%	
11	N. State College Bl.	s/o Kimberly Av.	95.00%	3.05%	1.96%	100.00%	
12	N. State College Bl.	s/o Dwy. 16	94.92%	3.08%	2.00%	100.00%	
13	N. State College Bl.	s/o Orangethorpe Av.	94.81%	3.13%	2.06%	100.00%	
14	N. State College Bl.	s/o SR-91 Westbound Ramps	95.96%	2.64%	1.41%	100.00%	
15	N. State College Bl.	s/o SR-91 Eastbound Ramps	96.38%	2.46%	1.16%	100.00%	
16	S. Placentia Av.	n/o Kimberly Av.	96.37%	2.46%	1.16%	100.00%	
17	S. Placentia Av.	s/o Kimberly Av.	96.38%	2.46%	1.16%	100.00%	
18	Kimberly Av.	e/o Raymond Av.	96.74%	2.21%	1.05%	100.00%	
19	Kimberly Av.	e/o Dwy. 5	92.22%	4.16%	3.62%	100.00%	
20	Kimberly Av.	e/o Dwy. 11	87.99%	5.97%	6.04%	100.00%	
21	Orangethorpe Av.	w/o Raymond Av.	96.26%	2.51%	1.23%	100.00%	
22	Orangethorpe Av.	e/o Raymond Av.	96.14%	2.56%	1.30%	100.00%	
23	Orangethorpe Av.	e/o Acacia Av.	96.17%	2.55%	1.29%	100.00%	
24	Orangethorpe Av.	e/o Dwy. 6	95.98%	2.63%	1.39%	100.00%	
25	Orangethorpe Av.	e/o Dwy. 10	95.58%	2.80%	1.62%	100.00%	
26	Orangethorpe Av.	w/o N. State College Bl.	95.39%	2.88%	1.73%	100.00%	
27	Orangethorpe Av.	e/o N. State College Bl.	95.65%	2.76%	1.59%	100.00%	
28	Orangethorpe Av.	w/o S. Placentia Av.	95.62%	2.78%	1.61%	100.00%	
29	Orangethorpe Av.	e/o S. Placentia Av.	95.66%	2.76%	1.58%	100.00%	
30	Orangethorpe Av.	e/o SR-57 Southbound Ramps	96.04%	2.60%	1.35%	100.00%	
31	Orangethorpe Av.	e/o SR-57 Northbound Ramps	96.37%	2.47%	1.17%	100.00%	

TABLE 6-6: OPENING YEAR (2022) WITH PROJECT VEHICLE MI
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¹ Source: Goodman Logistics Center Traffic Analysis.

² Total of vehicle mix percentage values rounded to the nearest one-hundredth.



7 OFF-SITE TRAFFIC NOISE IMPACTS

To assess the off-site traffic CNEL noise level impacts associated with the proposed Project, noise contours were developed based on the *Goodman Logistics Center Fullerton Traffic Analysis*. (2) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway.

7.1 TRAFFIC NOISE CONTOURS

Noise contours were used to assess the Project's incremental 24-hour dBA CNEL traffic-related noise impacts at 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 7-1 through 7-6 present a summary of the exterior dBA CNEL traffic noise levels without barrier attenuation. Roadway segments are analyzed without Project and with Project conditions in each of the following timeframes: Existing and Opening Year (2022). Appendix 7.1 includes a summary of the dBA CNEL traffic noise level contours for each of the traffic scenarios.



	Road	Road Segment	Receiving	CNEL at	Distance to Contour from Centerline (Feet)		
ID			Land Use ¹	Land Use	70	65	60
				(dBA) ²	dBA CNEL	dBA CNEL	dBA CNEL
1	Raymond Av.	n/o Kimberly Av.	1	72.2	59	127	274
2	Raymond Av.	s/o Kimberly Av.	1	72.3	60	129	278
3	Raymond Av.	s/o Orangethorpe Av.	1	73.3	70	151	325
4	Raymond Av.	s/o SR-91 Westbound Ramps	1	74.3	87	188	406
5	Raymond Av.	s/o SR-91 Eastbound Ramps	EDR/MDR/GC/NCR	74.4	89	191	411
6	Acacia Av.	n/o Kimberly Av.	1	67.4	RW	58	125
7	Acacia Av.	s/o Kimberly Av.	1	67.3	RW	57	122
8	N. State College Bl.	n/o Chapman Av.	C/LDR/HDR	76.3	131	282	608
9	N. State College Bl.	s/o Chapman Av.	C/LMDR/LDR	73.3	84	180	388
10	N. State College Bl.	s/o Commonwealth Av.	MDR/LDR/I	74.3	96	208	448
11	N. State College Bl.	s/o Kimberly Av.	1	74.2	96	207	445
12	N. State College Bl.	s/o Dwy. 16	1	74.3	96	208	447
13	N. State College Bl.	s/o Orangethorpe Av.	I/GC/I/WU	75.0	108	232	500
14	N. State College Bl.	s/o SR-91 Westbound Ramps	I/LDR/MDR	75.6	125	270	582
15	N. State College Bl.	s/o SR-91 Eastbound Ramps	LDR/MDR	74.8	111	240	517
16	S. Placentia Av.	n/o Kimberly Av.	1	71.8	56	120	258
17	S. Placentia Av.	s/o Kimberly Av.	1	71.8	55	119	257
18	Kimberly Av.	e/o Raymond Av.	1	63.7	RW	RW	53
19	Kimberly Av.	e/o Dwy. 5	1	63.8	RW	RW	54
20	Kimberly Av.	e/o Dwy. 11	1	63.6	RW	RW	52
21	Orangethorpe Av.	w/o Raymond Av.	GC/OL/I	76.0	125	269	580
22	Orangethorpe Av.	e/o Raymond Av.	1	77.0	147	316	681
23	Orangethorpe Av.	e/o Acacia Av.	1	76.9	145	311	671
24	Orangethorpe Av.	e/o Dwy. 6	1	76.9	145	311	671
25	Orangethorpe Av.	e/o Dwy. 10	1	76.9	144	310	667
26	Orangethorpe Av.	w/o N. State College Bl.	1	76.9	144	310	667
27	Orangethorpe Av.	e/o N. State College Bl.	1	76.7	141	303	653
28	Orangethorpe Av.	w/o S. Placentia Av.	I	76.5	136	294	633
29	Orangethorpe Av.	e/o S. Placentia Av.	LDR/I/C	74.4	118	255	550
30	Orangethorpe Av.	e/o SR-57 Southbound Ramps	LDR/C	74.9	127	274	591
31	Orangethorpe Av.	e/o SR-57 Northbound Ramps	LDR/C/I/CM	75.1	131	283	610

TABLE 7-1: EXISTING WITHOUT PROJECT NOISE CONTOURS

¹ The Fullerton Plan Community Development Plan, City of Anaheim General Plan Land Use Plan, City of Placentia General Plan Land Use Map. ² The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.



	Road			CNEL at	Distance to Contour from Centerline (Feet)			
ID		Segment	Land Use ¹	Land Use	70	65	60	
				(dBA) ²	dBA CNEL	dBA CNEL	dBA CNEL	
1	Raymond Av.	n/o Kimberly Av.	1	72.2	59	128	275	
2	Raymond Av.	s/o Kimberly Av.	1	72.3	60	129	278	
3	Raymond Av.	s/o Orangethorpe Av.	1	73.4	71	154	331	
4	Raymond Av.	s/o SR-91 Westbound Ramps	1	74.3	88	189	407	
5	Raymond Av.	s/o SR-91 Eastbound Ramps	EDR/MDR/GC/NCR	74.4	89	191	412	
6	Acacia Av.	n/o Kimberly Av.	1	67.5	RW	58	126	
7	Acacia Av.	s/o Kimberly Av.	1	67.4	RW	58	125	
8	N. State College Bl.	n/o Chapman Av.	C/LDR/HDR	76.4	133	287	618	
9	N. State College Bl.	s/o Chapman Av.	C/LMDR/LDR	73.5	86	184	397	
10	N. State College Bl.	s/o Commonwealth Av.	MDR/LDR/I	74.4	99	213	459	
11	N. State College Bl.	s/o Kimberly Av.	1	75.3	113	244	525	
12	N. State College Bl.	s/o Dwy. 16	1	75.4	115	247	533	
13	N. State College Bl.	s/o Orangethorpe Av.	I/GC/I/WU	76.2	129	278	600	
14	N. State College Bl.	s/o SR-91 Westbound Ramps	I/LDR/MDR	75.9	132	284	612	
15	N. State College Bl.	s/o SR-91 Eastbound Ramps	LDR/MDR	74.9	112	240	518	
16	S. Placentia Av.	n/o Kimberly Av.	1	71.8	56	120	258	
17	S. Placentia Av.	s/o Kimberly Av.	1	71.8	55	119	257	
18	Kimberly Av.	e/o Raymond Av.	1	64.0	RW	RW	56	
19	Kimberly Av.	e/o Dwy. 5	1	67.2	RW	42	91	
20	Kimberly Av.	e/o Dwy. 11	1	69.0	RW	56	120	
21	Orangethorpe Av.	w/o Raymond Av.	GC/OL/I	76.1	127	274	590	
22	Orangethorpe Av.	e/o Raymond Av.	1	77.2	151	326	702	
23	Orangethorpe Av.	e/o Acacia Av.	1	77.1	149	321	691	
24	Orangethorpe Av.	e/o Dwy. 6	1	77.2	152	327	704	
25	Orangethorpe Av.	e/o Dwy. 10	1	77.5	157	339	731	
26	Orangethorpe Av.	w/o N. State College Bl.	1	77.6	161	348	750	
27	Orangethorpe Av.	e/o N. State College Bl.	1	77.3	154	332	716	
28	Orangethorpe Av.	w/o S. Placentia Av.	1	77.2	150	323	696	
29	Orangethorpe Av.	e/o S. Placentia Av.	LDR/I/C	75.0	129	279	601	
30	Orangethorpe Av.	e/o SR-57 Southbound Ramps	LDR/C	75.2	133	286	616	
31	Orangethorpe Av.	e/o SR-57 Northbound Ramps	LDR/C/I/CM	75.1	132	284	611	

¹ The Fullerton Plan Community Development Plan, City of Anaheim General Plan Land Use Plan, City of Placentia General Plan Land Use Map.

² The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.



			Receiving	CNEL at	Distance to Contour from Centerline (Feet)			
ID	Road	Segment	Land Use ¹	Land Use	70	65	60	
				(dBA) ²	dBA CNEL	dBA CNEL	dBA CNEL	
1	Raymond Av.	n/o Kimberly Av.	1	72.5	62	133	286	
2	Raymond Av.	s/o Kimberly Av.	I	72.6	62	134	288	
3	Raymond Av.	s/o Orangethorpe Av.	I	73.5	72	155	334	
4	Raymond Av.	s/o SR-91 Westbound Ramps	1	74.5	90	193	416	
5	Raymond Av.	s/o SR-91 Eastbound Ramps	EDR/MDR/GC/NCR	74.5	90	194	419	
6	Acacia Av.	n/o Kimberly Av.	1	67.6	RW	60	129	
7	Acacia Av.	s/o Kimberly Av.	1	67.4	RW	58	125	
8	N. State College Bl.	n/o Chapman Av.	C/LDR/HDR	76.4	133	287	618	
9	N. State College Bl.	s/o Chapman Av.	C/LMDR/LDR	73.5	85	184	396	
10	N. State College Bl.	s/o Commonwealth Av.	MDR/LDR/I	74.5	99	214	461	
11	N. State College Bl.	s/o Kimberly Av.	1	74.3	97	209	451	
12	N. State College Bl.	s/o Dwy. 16	1	74.4	98	210	453	
13	N. State College Bl.	s/o Orangethorpe Av.	I/GC/I/WU	75.1	109	235	507	
14	N. State College Bl.	s/o SR-91 Westbound Ramps	I/LDR/MDR	75.7	127	274	590	
15	N. State College Bl.	s/o SR-91 Eastbound Ramps	LDR/MDR	74.9	113	243	524	
16	S. Placentia Av.	n/o Kimberly Av.	1	72.4	60	130	280	
17	S. Placentia Av.	s/o Kimberly Av.	1	72.2	59	126	272	
18	Kimberly Av.	e/o Raymond Av.	1	64.2	RW	RW	58	
19	Kimberly Av.	e/o Dwy. 5	1	64.4	RW	RW	59	
20	Kimberly Av.	e/o Dwy. 11	1	64.3	RW	RW	58	
21	Orangethorpe Av.	w/o Raymond Av.	GC/OL/I	76.1	128	276	595	
22	Orangethorpe Av.	e/o Raymond Av.	1	77.1	149	322	694	
23	Orangethorpe Av.	e/o Acacia Av.	1	77.1	148	318	685	
24	Orangethorpe Av.	e/o Dwy. 6	1	77.1	148	318	685	
25	Orangethorpe Av.	e/o Dwy. 10	1	77.0	147	316	681	
26	Orangethorpe Av.	w/o N. State College Bl.	1	77.0	147	316	681	
27	Orangethorpe Av.	e/o N. State College Bl.	1	76.9	144	310	667	
28	Orangethorpe Av.	w/o S. Placentia Av.	1	76.7	139	300	646	
29	Orangethorpe Av.	e/o S. Placentia Av.	LDR/I/C	74.7	123	264	570	
30	Orangethorpe Av.	e/o SR-57 Southbound Ramps	LDR/C	75.1	131	281	606	
31	Orangethorpe Av.	e/o SR-57 Northbound Ramps	LDR/C/I/CM	75.2	134	289	622	

TABLE 7-3: OPENING YEAR (2022) WITHOUT PROJECT NOISE CONTOURS

¹ The Fullerton Plan Community Development Plan, City of Anaheim General Plan Land Use Plan, City of Placentia General Plan Land Use Map. ² The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.



			Receiving	CNEL at	Dista from C	nce to Co Centerline	ntour e (Feet)
ID	Road	Segment	General Plan Land Use ¹	Land Use (dBA) ²	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Raymond Av.	n/o Kimberly Ay.		72.5	62	133	287
2	Raymond Av.	s/o Kimberly Av.	1	72.6	62	134	289
3	Raymond Av.	s/o Orangethorpe Av.	1	73.6	73	158	341
4	Raymond Av.	s/o SR-91 Westbound Ramps	1	74.5	90	194	417
5	, Raymond Av.	s/o SR-91 Eastbound Ramps	EDR/MDR/GC/NCR	74.5	90	195	420
6	Acacia Av.	n/o Kimberly Av.	1	67.7	RW	60	130
7	Acacia Av.	s/o Kimberly Av.	1	67.5	RW	59	127
8	N. State College Bl.	n/o Chapman Av.	C/LDR/HDR	76.5	135	291	628
9	N. State College Bl.	s/o Chapman Av.	C/LMDR/LDR	73.6	87	188	405
10	N. State College Bl.	s/o Commonwealth Av.	MDR/LDR/I	74.6	102	219	472
11	N. State College Bl.	s/o Kimberly Av.	1	75.4	114	246	531
12	N. State College Bl.	s/o Dwy. 16	1	75.5	116	250	539
13	N. State College Bl.	s/o Orangethorpe Av.	I/GC/I/WU	76.3	131	281	606
14	N. State College Bl.	s/o SR-91 Westbound Ramps	I/LDR/MDR	76.0	134	288	620
15	N. State College Bl.	s/o SR-91 Eastbound Ramps	LDR/MDR	74.9	113	244	525
16	S. Placentia Av.	n/o Kimberly Av.	1	72.4	60	130	280
17	S. Placentia Av.	s/o Kimberly Av.	1	72.2	59	127	273
18	Kimberly Av.	e/o Raymond Av.	1	64.5	RW	RW	60
19	Kimberly Av.	e/o Dwy. 5	1	67.5	RW	44	95
20	Kimberly Av.	e/o Dwy. 11	1	69.2	RW	57	124
21	Orangethorpe Av.	w/o Raymond Av.	GC/OL/I	76.2	130	281	605
22	Orangethorpe Av.	e/o Raymond Av.	1	77.3	154	332	715
23	Orangethorpe Av.	e/o Acacia Av.	1	77.2	152	327	705
24	Orangethorpe Av.	e/o Dwy. 6	1	77.4	155	333	717
25	Orangethorpe Av.	e/o Dwy. 10	1	77.6	160	345	744
26	Orangethorpe Av.	w/o N. State College Bl.	1	77.8	164	354	763
27	Orangethorpe Av.	e/o N. State College Bl.	1	77.5	157	338	729
28	Orangethorpe Av.	w/o S. Placentia Av.	1	77.3	153	329	709
29	Orangethorpe Av.	e/o S. Placentia Av.	LDR/I/C	75.2	133	288	619
30	Orangethorpe Av.	e/o SR-57 Southbound Ramps	LDR/C	75.3	136	293	631
31	Orangethorpe Av.	e/o SR-57 Northbound Ramps	LDR/C/I/CM	75.2	134	289	623

TABLE 7-4: OPENING YEAR (2022) WITH PROJECT NOISE CONTOURS

¹ The Fullerton Plan Community Development Plan, City of Anaheim General Plan Land Use Plan, City of Placentia General Plan Land Use Map. ² The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.



7.2 EXISTING 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 to fully analyze all the existing traffic scenarios identified in the *Goodman Logistics Center Fullerton Traffic Analysis*. This condition is provided solely for informational purposes and will not occur, since the Project will not be fully developed and occupied under Existing conditions. Consistent with the Project Traffic Analysis, the off-site with project traffic volumes include the existing trip generation Kimberly Clark as part of the without project traffic volumes. Therefore, the with Project traffic noise level increases account for only the net increase in Project trips. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 63.6 to 77.0 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project conditions will range from 64.0 to 77.6 dBA CNEL. Table 7-5 shows that the Project off-site traffic noise level impacts will range from 0.0 to 5.4 dBA CNEL.

Based on the 5 dBA CNEL increase significance criteria when noise levels are below 60 dBA CNEL and 3 dBA CNEL increase criteria when the noise levels already exceed 60 dBA CNEL, two of the 31 study area roadway segments are shown to exceed the off-site traffic noise level increase significance criteria due to the Existing with Project conditions.

- Kimberly Avenue east of Driveway 5 (Segment #19)
- Kimberly Avenue east of Driveway 11 (Segment #20)

A review of the off-site traffic noise level increases show that neither of these two segments include noise sensitive receivers; therefore, all the study area roadway segments will experience *less than significant* noise level increases on receiving land uses due to the Project-related traffic.

7.3 OPENING YEAR (2022) PROJECT TRAFFIC NOISE LEVEL INCREASES

Table 7-3 presents the Opening Year (2022) without Project conditions CNEL noise levels. The Opening Year (2022) without Project exterior noise levels are expected to range from 64.2 to 77.1 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-4 shows that the Opening Year (2022) with Project conditions will range from 64.5 to 77.8 dBA CNEL. Table 7-6 shows that the Project off-site traffic noise level increases will range from 0.0 to 4.9 dBA CNEL

Based on the 5 dBA CNEL increase significance criteria when noise levels are below 60 dBA CNEL and 3 dBA CNEL increase criteria when the noise levels already exceed 60 dBA CNEL, two of the 31 study area roadway segments are shown to exceed the off-site traffic noise level increase significance criteria due to the Opening Year (2022) with Project conditions.

- Kimberly Avenue east of Driveway 5 (Segment #19)
- Kimberly Avenue east of Driveway 11 (Segment #20)



A review of the off-site traffic noise level increases show that neither of these two segments include noise sensitive receivers; therefore, all the study area roadway segments will experience *less than significant* noise level increases on receiving land uses due to the Project-related traffic.



	Bood	Sogmont	Receiving	CNI Lai	EL at Recei nd Use (dB	ving A)²	Noise Sensitive	Incremental Noise Level Increase Threshold ³	
	Noau	Jegment	Land Use ¹	No Project Ambient	With Project	Project Addition	Land Use?	Limit	Exceeded?
1	Raymond Av.	n/o Kimberly Av.	1	72.2	72.2	0.0	No	3	No
2	Raymond Av.	s/o Kimberly Av.	1	72.3	72.3	0.0	No	3	No
3	Raymond Av.	s/o Orangethorpe Av.	I	73.3	73.4	0.1	No	3	No
4	Raymond Av.	s/o SR-91 Westbound Ramps	1	74.3	74.3	0.0	No	3	No
5	Raymond Av.	s/o SR-91 Eastbound Ramps	EDR/MDR/GC/NCR	74.4	74.4	0.0	Yes	3	No
6	Acacia Av.	n/o Kimberly Av.	I	67.4	67.5	0.1	No	3	No
7	Acacia Av.	s/o Kimberly Av.	I	67.3	67.4	0.1	No	3	No
8	N. State College Bl.	n/o Chapman Av.	C/LDR/HDR	76.3	76.4	0.1	Yes	3	No
9	N. State College Bl.	s/o Chapman Av.	C/LMDR/LDR	73.3	73.5	0.2	Yes	3	No
10	N. State College Bl.	s/o Commonwealth Av.	MDR/LDR/I	74.3	74.4	0.1	Yes	3	No
11	N. State College Bl.	s/o Kimberly Av.	1	74.2	75.3	1.1	No	3	No
12	N. State College Bl.	s/o Dwy. 16	I	74.3	75.4	1.1	No	3	No
13	N. State College Bl.	s/o Orangethorpe Av.	I/GC/I/WU	75.0	76.2	1.2	No	3	No
14	N. State College Bl.	s/o SR-91 Westbound Ramps	I/LDR/MDR	75.6	75.9	0.3	Yes	3	No
15	N. State College Bl.	s/o SR-91 Eastbound Ramps	LDR/MDR	74.8	74.9	0.1	Yes	3	No
16	S. Placentia Av.	n/o Kimberly Av.	1	71.8	71.8	0.0	No	3	No
17	S. Placentia Av.	s/o Kimberly Av.	I	71.8	71.8	0.0	No	3	No
18	Kimberly Av.	e/o Raymond Av.	I	63.7	64.0	0.3	No	3	No
19	Kimberly Av.	e/o Dwy. 5	1	63.8	67.2	3.4	No	3	Yes
20	Kimberly Av.	e/o Dwy. 11	I	63.6	69.0	5.4	No	3	Yes
21	Orangethorpe Av.	w/o Raymond Av.	GC/OL/I	76.0	76.1	0.1	No	3	No
22	Orangethorpe Av.	e/o Raymond Av.	1	77.0	77.2	0.2	No	3	No
23	Orangethorpe Av.	e/o Acacia Av.	1	76.9	77.1	0.2	No	3	No

TABLE 7-5: EXISTING WITH PROJECT TRAFFIC NOISE LEVEL INCREASES



П	Road	Segment	Receiving	CNEL at Receiving Land Use (dBA) ²			Noise Sensitive	Increme Level I Thre	ntal Noise ncrease shold ³
	Noau		Land Use ¹	No Project Ambient	With Project	Project Addition	Land Use?	Limit	Exceeded?
24	Orangethorpe Av.	e/o Dwy. 6	1	76.9	77.2	0.3	No	3	No
25	Orangethorpe Av.	e/o Dwy. 10	1	76.9	77.5	0.6	No	3	No
26	Orangethorpe Av.	w/o N. State College Bl.	1	76.9	77.6	0.7	No	3	No
27	Orangethorpe Av.	e/o N. State College Bl.	1	76.7	77.3	0.6	No	3	No
28	Orangethorpe Av.	w/o S. Placentia Av.	1	76.5	77.2	0.7	No	3	No
29	Orangethorpe Av.	e/o S. Placentia Av.	LDR/I/C	74.4	75.0	0.6	Yes	3	No
30	Orangethorpe Av.	e/o SR-57 Southbound Ramps	LDR/C	74.9	75.2	0.3	Yes	3	No
31	Orangethorpe Av.	e/o SR-57 Northbound Ramps	LDR/C/I/CM	75.1	75.1	0.0	Yes	3	No

¹The Fullerton Plan Community Development Plan, City of Anaheim General Plan Land Use Plan, City of Placentia General Plan Land Use Map.

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.

³ Does the Project create an incremental noise level increase exceeding the significance criteria (Section 4.2)?

"I"= Industrial; "EDR"= Estate Density Residential; "NCR"= Neighborhood Center Commercial; "C"= Commercial; "LDR"= Low Density Residential; "HDR"= High Density Residential; "LMDR"= Low-Medium Density Residential; "MDR"= Medium Density Residential; "WU"= Water Uses; "GC"= General Commercial; "OL"= Office Low; "CM"= Commercial-Manufacturing.

П	Bood	Sogmont	Receiving	CNE Lai	EL at Recei nd Use (dB	ving A)²	Noise Sensitive	Increme Level I Thre	Incremental Noise Level Increase Threshold ³	
	Nuau	Segment	Land Use ¹	No Project Ambient	With Project	Project Addition	Land Use?	Limit	Exceeded?	
1	Raymond Av.	n/o Kimberly Av.	I	72.5	72.5	0.0	No	3	No	
2	Raymond Av.	s/o Kimberly Av.	1	72.6	72.6	0.0	No	3	No	
3	Raymond Av.	s/o Orangethorpe Av.	1	73.5	73.6	0.1	No	3	No	
4	Raymond Av.	s/o SR-91 Westbound Ramps	I	74.5	74.5	0.0	No	3	No	
5	Raymond Av.	s/o SR-91 Eastbound Ramps	EDR/MDR/GC/NCR	74.5	74.5	0.0	Yes	3	No	
6	Acacia Av.	n/o Kimberly Av.	1	67.6	67.7	0.1	No	3	No	
7	Acacia Av.	s/o Kimberly Av.	I	67.4	67.5	0.1	No	3	No	
8	N. State College Bl.	n/o Chapman Av.	C/LDR/HDR	76.4	76.5	0.1	Yes	3	No	
9	N. State College Bl.	s/o Chapman Av.	C/LMDR/LDR	73.5	73.6	0.1	Yes	3	No	
10	N. State College Bl.	s/o Commonwealth Av.	MDR/LDR/I	74.5	74.6	0.1	Yes	3	No	
11	N. State College Bl.	s/o Kimberly Av.	1	74.3	75.4	1.1	No	3	No	
12	N. State College Bl.	s/o Dwy. 16	1	74.4	75.5	1.1	No	3	No	
13	N. State College Bl.	s/o Orangethorpe Av.	I/GC/I/WU	75.1	76.3	1.2	No	3	No	
14	N. State College Bl.	s/o SR-91 Westbound Ramps	I/LDR/MDR	75.7	76.0	0.3	Yes	3	No	
15	N. State College Bl.	s/o SR-91 Eastbound Ramps	LDR/MDR	74.9	74.9	0.0	Yes	3	No	
16	S. Placentia Av.	n/o Kimberly Av.	1	72.4	72.4	0.0	No	3	No	
17	S. Placentia Av.	s/o Kimberly Av.	I	72.2	72.2	0.0	No	3	No	
18	Kimberly Av.	e/o Raymond Av.	I	64.2	64.5	0.3	No	3	No	
19	Kimberly Av.	e/o Dwy. 5	I	64.4	67.5	3.1	No	3	Yes	
20	Kimberly Av.	e/o Dwy. 11	1	64.3	69.2	4.9	No	3	Yes	
21	Orangethorpe Av.	w/o Raymond Av.	GC/OL/I	76.1	76.2	0.1	No	3	No	
22	Orangethorpe Av.	e/o Raymond Av.	1	77.1	77.3	0.2	No	3	No	
23	Orangethorpe Av.	e/o Acacia Av.	1	77.1	77.2	0.1	No	3	No	

TABLE 7-6: OPENING YEAR (2022) WITH PROJECT TRAFFIC NOISE INCREASES



П	Road	Segment	Receiving	CNEL at Receiving Land Use (dBA) ²			Noise Sensitive	Increme Level I Thre	ntal Noise ncrease shold ³
	Noau		Land Use ¹	No Project Ambient	With Project	Project Addition	Land Use?	Limit	Exceeded?
24	Orangethorpe Av.	e/o Dwy. 6	1	77.1	77.4	0.3	No	3	No
25	Orangethorpe Av.	e/o Dwy. 10	1	77.0	77.6	0.6	No	3	No
26	Orangethorpe Av.	w/o N. State College Bl.	1	77.0	77.8	0.8	No	3	No
27	Orangethorpe Av.	e/o N. State College Bl.	1	76.9	77.5	0.6	No	3	No
28	Orangethorpe Av.	w/o S. Placentia Av.	1	76.7	77.3	0.6	No	3	No
29	Orangethorpe Av.	e/o S. Placentia Av.	LDR/I/C	74.7	75.2	0.5	Yes	3	No
30	Orangethorpe Av.	e/o SR-57 Southbound Ramps	LDR/C	75.1	75.3	0.2	Yes	3	No
31	Orangethorpe Av.	e/o SR-57 Northbound Ramps	LDR/C/I/CM	75.2	75.2	0.0	Yes	3	No

¹The Fullerton Plan Community Development Plan, City of Anaheim General Plan Land Use Plan, City of Placentia General Plan Land Use Map.

 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.

³ Does the Project create an incremental noise level increase exceeding the significance criteria (Section 4.2)?

"I"= Industrial; "EDR"= Estate Density Residential; "NCR"= Neighborhood Center Commercial; "C"= Commercial; "LDR"= Low Density Residential; "HDR"= High Density Residential; "LMDR"= Low-Medium Density Residential; "MDR"= Medium Density Residential; "WU"= Water Uses; "GC"= General Commercial; "OL"= Office Low; "CM"= Commercial-Manufacturing. This page intentionally left blank



8 SENSITIVE RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. Sensitive uses or 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. In addition to noise sensitive residential noise zones, the City of Fullerton Municipal Code Section 15.90.030(B)(1) defines sensitive use as any private or public school, hospital, residential care facility for the elderly, and religious institution. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

To describe the potential off-site Project noise levels, eight sensitive receiver locations in the vicinity of the Project site were identified, including the location of the nearest sensitive receiver to the project site. All distances are measured from the Project site boundary to the outdoor living areas (e.g., private backyards) or the building façade, whichever is closer to the Project site. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. 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. Distance is measured in a straight line from the project boundary to each receiver location.

- R1: Location R1 represents the existing noise sensitive residence at 231 South Acacia Avenue in the City of Fullerton, approximately 1,984 feet northwest of the Project site. This location describes the closest residential neighborhoods at the transition from industrial to residential to the northwest. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R1 is placed at the residential building façade. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R2: Location R2 represents the existing noise sensitive residence at 2016 East Santa Fe Avenue in the City of Fullerton, approximately 2,080 feet north of the Project site. This location describes the closest residential neighborhoods at the transition from industrial to residential to the north. R2 is placed in the private outdoor living area (backyard) facing the Project site behind the existing 6' foot high barrier. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R3: Location R3 represents the True Unity Baptist Church at 765 South State College Boulevard in the City of Fullerton, approximately 305 feet north of the Project site. Receiver R3 is placed at the building façade. A 24-hour noise measurement near this location, L2, is used to describe the existing ambient noise environment.
- R4: Location R4 represents the existing noise sensitive residence at 2400 Santa Clara Avenue in the City of Fullerton, approximately 1,876 feet northeast of the Project site. This location describes the closest residential neighborhoods at the transition from industrial to residential to the northeast. R4 is placed in the private outdoor living area (backyard) facing the Project site behind the existing 6' foot high barrier. A 24-hour noise



measurement near this location, L3, is used to describe the existing ambient noise environment.

- R5: Location R5 represents Hayfield University at 2495 East Orangethorpe Avenue in the City of Fullerton approximately 1,141 feet east of the Project site. Receiver R5 is placed at the building façade. A 24-hour noise measurement near this location, L4, is used to describe the existing ambient noise environment.
- R6: Location R6 represents the existing noise sensitive residence at 1545 East Benmore Lane, in the City of Anaheim, approximately 1,282 feet south of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R6 is placed at the residential building façade. A 24-hour noise measurement near this location, L5, is used to describe the existing ambient noise environment.
- R7: Location R7 represents the New Life Presbyterian Church at 1430 East Orangethorpe Avenue in the City of Fullerton, approximately 1,059 feet southwest of the Project site.
 Receiver R7 is placed at the building façade. A 24-hour noise measurement near this location, L6, is used to describe the existing ambient noise environment.
- R8: Location R8 represents Seekers Chapel at 1521 East Orangethorpe Avenue in the City of Fullerton, approximately 1,122 feet west of the Project site. Receiver R8 is placed at the building façade. A 24-hour noise measurement near this location, L7, is used to describe the existing ambient noise environment.





EXHIBIT 8-A: SENSITIVE RECEIVER LOCATIONS



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9 OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations, identified in Section 8, resulting from the operation of the proposed Goodman Logistics Center Fullerton Project. Exhibit 9-A identifies the representative noise source locations used to assess the operational noise levels

9.1 OPERATIONAL NOISE SOURCES

This operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities at the Project site. To present the potential worst-case noise conditions, this analysis assumes the Project would be operational 24 hours per day, seven days per week. Consistent with similar warehouse uses, the Project business operations would primarily be conducted within the enclosed buildings, except for traffic movement, parking, as well as loading and unloading of trucks at designated loading bays. The on-site Project-related noise sources are expected to include: loading dock activity, entry gate & truck movements, roof-top air conditioning units, and trash enclosure activity.

9.2 REFERENCE NOISE LEVELS

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. This section provides a detailed description of the reference noise level measurements shown on Table 9-1 used to estimate the Project operational noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with the loading dock activity, entry gate & truck movements, roof-top air conditioning units, and trash enclosure activity all operating continuously. These sources of noise activity will likely vary throughout the day.

9.2.1 MEASUREMENT PROCEDURES

The reference noise level measurements presented in this section were collected using a Larson Davis LxT Type 1 precisions sound level meter (serial number 01146). The LxT sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 200, was programmed in "slow" mode to record noise levels in "A" weighted form and was located at approximately five feet above the ground elevation for each measurement. 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. (13)







EXHIBIT 9-A: OPERATIONAL NOISE SOURCE LOCATIONS



Naise Course	Duration	Ref.	Noise Source	Min./Hour⁵		Reference Noise Level (dBA L _{eq})		Sound Power	
Noise Source	(hh:mm:ss)	(Feet)	Height (Feet) Day Nigh		Night	@ Ref. Dist.	@ 50 Feet	Level (dBA) ⁶	
Loading Dock Activity ¹	00:14:00	30'	8'	60	60	70.1	65.7	111.5	
Entry Gate & Truck Movements ²	00:15:00	20'	8'	_7	_7	64.0	58.0	89.7	
Roof-Top Air Conditioning Units ³	96:00:00	5'	5'	39	28	77.2	57.2	88.9	
Trash Enclosure Activity ⁴	00:00:32	8'	5'	5	5	72.7	56.8	89.0	

TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS

¹ As measured by Urban Crossroads, Inc. at the Nature's Best Distribution Facility in the City of Chino.

² As measured by Urban Crossroads, Inc. at the Motivational Fulfillment & Logistics Services distribution facility in the City of Chino.

³ Lennox SCA120 series 10-ton model packaged air conditioning unit.

⁴ As measured by Urban Crossroads, Inc. at a commercial and office park trash enclosure in the City of Costa Mesa.

⁵ Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

⁶ Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or

surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source. Numbers may vary due to size differences between point and area noise sources.

⁷ Entry Gate & Truck Movements are calculate based on the number of events by time of day (See Table 9-2).

9.2.2 LOADING DOCK ACTIVITY

The reference loading dock activities are intended to describe the typical operational noise activities associated with the Project. This includes truck idling, reefer activity (refrigerator truck/cold storage), deliveries, backup alarms, unloading/loading, docking including a combination of tractor trailer semi-trucks, two-axle delivery trucks, and background forklift operations. Since the noise levels generated by cold storage loading dock activity can be slightly higher due to the use of refrigerated trucks or reefers, this analysis conservatively assumes that all loading dock activity is associated with cold storage facilities, even though only 50 percent cold storage is anticipated. To describe the loading dock activities for cold storage, a reference noise level measurement was collected at the Nature's Best distribution facility located at 16081 Fern Avenue in the City of Chino. During the fourteen-minute truck idling/reefer activity reference noise level measurement, approximately 20 delivery trucks were docked, idling, or parked in the northern loading dock area.

The truck idling/reefer activity reference noise level measurement was taken in the center of the loading dock activity area and represents multiple concurrent noise sources resulting in a combined noise level of 65.7 dBA L_{eq} at a uniform distance of 50 feet. Specifically, the reference noise level measurement represents one truck located approximately 30 feet from the noise level meter with another truck passing by to park roughly 20 feet away, both with their engines idling. Throughout the reference noise level measurement, a separate docked and running reefer truck was located approximately 50 feet east of the measurement location. Additional background noise sources included truck pass-by noise, truck drivers talking to each other next to docked trucks, and air brake release noise when trucks parked.

9.2.3 ENTRY GATE & TRUCK MOVEMENTS

An entry gate and truck movements reference noise level measurement were taken at the southern entry gate of the Motivational Fulfillment & Logistics Services distribution facility located at 6810 Bickmore Avenue in the City of Chino over a 15-minute period and represents multiple noise sources producing a reference noise level of 58.0 dBA L_{eq} at 50 feet. The noise sources included at this measurement location account for the rattling and squeaking during normal opening and closing operations, the gate closure equipment, truck engines idling outside the entry gate, truck movements through the entry gate, and background truck court activities and forklift backup alarm noise. The reference entry gate and truck movement noise levels are used to describe typical truck movements entering and exiting the loading dock area. This activity is considered a moving point source or line source and is used to represent the truck movements from the driveway locations to the loading docks. Since these noise levels represent the typical tractor trailer entering and exiting, the noise levels adequately describe the planned entry gate and truck movements activities at the Project site.

Consistent with the *Goodman Logistics Center Fullerton Traffic Analysis*, the Project is expected to generate a total of approximately 3,422 trip-ends per day (actual vehicles) and includes 904 truck trip-ends per day. (2) This noise study relies on the actual Project trips (as opposed to the passenger car equivalents) to accurately account for the effect of individual truck trips on the study area roadway network. Using the estimated number of truck trips in combination with time of day vehicle splits, the number of entry gate and truck movements by driveway location were calculated. As shown on Table 9-2, this information is then used to calculate the entry gate and truck movements operational noise source activity based on the number of events by time of day.

9.2.4 ROOF-TOP AIR CONDITIONING UNITS

To assess the noise levels created by the roof-top air conditioning units, reference noise level measurements were collected from a Lennox SCA120 series 10-ton model packaged air conditioning unit. At 5 feet from the roof-top air conditioning unit, the exterior noise levels were measured at 77.2 dBA L_{eq} . At the uniform reference distance of 50 feet, the reference noise levels are 57.2 dBA L_{eq} .

Based on the typical operating conditions observed over a four-day measurement period, the roof-top air conditioning units are estimated to operate for and average 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. These operating conditions reflect peak summer cooling requirements with measured temperatures approaching 96 degrees Fahrenheit (°F) with average daytime temperatures of 82°F. For this noise analysis, the air conditioning units are expected to be located on the roof of the Project buildings. This reference noise level describes the expected roof-top air conditioning units located 5 feet above the roof for the planned air conditioning units at the Project site.

Entry Gate &	Total		Truck	Time of	Day Vehicl	e Splits⁵	Truc	k Moveme	nts ⁶
Truck Movement Location ¹	Project Truck Trips ²	Trip Dist. ³	Trips by Location ⁴	Day	Evening	Night	Day	Evening	Night
Driveway 3		10%	90	86.50%	2.70%	10.80%	78	2	10
Driveway 4		10%	90	86.50%	2.70%	10.80%	78	2	10
Driveway 5		8%	72	86.50%	2.70%	10.80%	62	2	8
Driveway 6		9%	81	86.50%	2.70%	10.80%	70	2	9
Driveway 7		8%	72	86.50%	2.70%	10.80%	62	2	8
Driveway 8	904	10%	90	86.50%	2.70%	10.80%	78	2	10
Driveway 9		8%	72	86.50%	2.70%	10.80%	62	2	8
Driveway 10		10%	90	86.50%	2.70%	10.80%	78	2	10
Driveway 13		13%	118	86.50%	2.70%	10.80%	102	3	13
Driveway 14		9%	81	86.50%	2.70%	10.80%	70	2	9
Driveway 16		5%	45	86.50%	2.70%	10.80%	39	1	5

TABLE 9-2: ENTRY GATE & TRUCK MOVEMENTS BY LOCATION

¹ Driveway locations as shown on Exhibit 9-A. The potential consolidation of driveways 3 and 5 into a single driveway will not change the number of truck trips on Kimberly Avenue or the entry gate & truck movement operational noise levels.

² Total Project truck trips according to Table 4-3 of the Goodman Logistics Center Traffic Analysis.

³ Project truck trip distribution according to Exhibit 4-2 of the Goodman Logistics Center Traffic Analysis.

⁴ Calculated trip trucks per location represents the product of the total project truck trips by and the trip distribution.

⁵ Heavy truck time of day vehicle splits as shown on Table 6-3.

⁶ Calculated time of day entry gate and truck movements by location.

9.2.5 TRASH ENCLOSURE ACTIVITY

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project site. The measured reference noise level at the uniform 50-foot reference distance is 57.3 dBA L_{eq} for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for each of the Project buildings. Typical trash enclosure activities are estimated to occur for 5 minutes per hour.

9.3 CADNAA 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. This includes the additional noise attenuation provided by the existing intervening building structures and noise barriers located between the Project and the nearest receiver locations. Using the ISO 9613 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 protocol, the CadnaA noise prediction model relies on the reference sound power level (PWL) to describe individual noise sources. While sound pressure levels (e.g. L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (PWL) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish as a result of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.0 was used in the CadnaA noise analysis to account for hard site conditions. Appendix 9.1 includes the detailed noise model inputs used to estimate the Project operational noise levels presented in this section.

9.4 **PROJECT OPERATIONAL NOISE LEVELS**

Using the reference noise levels to represent the proposed Project operations that include loading dock activity, entry gate & truck movements, roof-top air conditioning units, and trash enclosure 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. Tables 9-3 shows the Project operational noise levels during the daytime hours of 7:00 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 30.1 to 41.7 dBA L_{eq}.

Noise Coursel	Ор	Operational Noise Levels by Receiver Location (dBA Leq)									
Noise Source-	R1	R2	R3	R4	R5	R6	R7	R8			
Loading Dock Activity	39.7	41.5	33.6	38.0	34.4	37.5	33.2	29.2			
Entry Gate & Truck Movements	23.3	23.0	18.1	21.3	20.5	18.9	28.6	11.9			
Roof-Top Air Conditioning Units	26.4	26.9	33.5	26.8	29.9	26.8	29.5	22.5			
Trash Enclosure Activity	8.4	9.1	4.0	8.6	2.0	6.4	1.4	1.4			
Total (All Noise Sources)	40.0	41.7	36.6	38.4	35.8	37.9	35.7	30.1			

TABLE 9-3: DAYTIME PROJECT OPERATIONAL NOISE LEVELS

¹ See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

Table 9-4 shows the Project operational noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 29.7 to 41.6 dBA L_{eq}. The differences between the daytime and nighttime noise levels is largely related to the duration of noise activity (Table 9-1).

Noine Coursel	Operational Noise Levels by Receiver Location (dBA Leq)									
Noise Source-	R1	R2	R3	R4	R5	R6	R7	R8		
Loading Dock Activity	39.7	41.5	33.6	38.0	34.4	37.5	33.2	29.2		
Entry Gate & Truck Movements	14.4	14.0	9.1	12.5	11.7	10.0	19.7	3.0		
Roof-Top Air Conditioning Units	24.0	24.5	31.1	24.4	27.5	24.4	27.1	20.1		
Trash Enclosure Activity	7.4	8.2	3.0	7.7	1.1	5.4	0.4	0.4		
Total (All Noise Sources)	39.8	41.6	35.6	38.2	35.2	37.7	34.3	29.7		

TABLE 9-4: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS

¹ See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

9.5 PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

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 Fullerton and City of Anaheim exterior noise level standards at the nearest noise-sensitive receiver locations. Table 9-5 shows that the operational noise levels associated with Goodman Logistics Center Fullerton Project will satisfy the City of Fullerton operational noise level standards adjusted to reflect the ambient noise level and the City of Anaheim 60 dBA L_{eq} anytime exterior noise level standards at all the nearest sensitive receiver locations. Therefore, the operational noise impacts are considered *less than significant* at the nearest noise-sensitive receiver locations.

Receiver Location ¹	Use City		City Meas. Location ²		Project Operational Noise Levels (dBA Leq) ³		e Level dards Leq)⁴	Noise Level Standards Exceeded? ⁵		
				Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime	
R1	Residential	Fullerton	L1	40.0	39.8	64.9	57.5	No	No	
R2	Residential	Fullerton	L1	41.7	41.6	64.9	57.5	No	No	
R3	Church	Fullerton	L2	36.6	35.6	63.0	56.2	No	No	
R4	Residential	Fullerton	L3	38.4	38.2	65.4	59.8	No	No	
R5	School	Fullerton	L4	35.8	35.2	62.5	59.0	No	No	
R6	Residential	Anaheim	L5	37.9	37.7	60.0	60.0	No	No	
R7	Church	Fullerton	L6	35.7	34.3	61.4	58.3	No	No	
R8	Church	Fullerton	L7	30.1	29.7	54.8	50.6	No	No	

TABLE 9-5: OPERATIONAL NOISE LEVEL COMPLIANCE

¹ See Exhibit 8-A for the receiver locations.

² Reference noise level measurement locations as shown on Exhibit 5-A.

³ Proposed Project operational noise levels as shown on Tables 9-3 and 9-4.

⁴ Exterior noise level standards adjusted to reflect the ambient noise levels (Table 5-1) per the City of Fullerton Municipal Code, Section

15.90.030 and the City of Anaheim Municipal Code, Chapter 6.70.

⁵ 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.

9.6 PROJECT OPERATIONAL NOISE LEVEL INCREASES

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearest 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. (4) 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 describe the Project noise level increases to the existing ambient noise environment. As indicated on Tables 9-6 and 9-7, the Project will generate daytime and nighttime operational noise level increases ranging from 0.0 to 0.1 dBA L_{eq} at the receiver locations. Project-related operational noise level increases will satisfy the operational noise level increase significance criteria presented in Section 4.2. Therefore, the incremental Project operational noise level increase is considered *less than significant* at all receiver locations.

9.7 OPERATIONAL VIBRATION IMPACTS

On-site operations associated with the Project will include heavy trucks moving on site to and from the loading dock areas. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. Since trucks rarely create vibration that exceed 70 VdB (unless there are bumps due to frequent potholes in the road) (3 p. 113), it is expected that the on-site heavy trucks will be travelling at very low speeds so activity will satisfy the maximum-acceptable vibration criteria of 78 VdB for daytime and 72 VdB for nighttime for residential uses, and therefore, will be *less than significant*.

With respect to off-site truck activity, ground-borne vibration levels from automobile traffic are generally overshadowed by vibration generated by heavy trucks on uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way. This is consistent with the FTA *Transit Noise and Vibration Impact Assessment Manual* (3), finding that rubber-tired traffic is rarely perceptible on smooth roadways. Since trucks rarely create vibration that exceed 70 VdB (unless there are bumps due to frequent potholes in the road) (3 p. 113), it is expected that off-site truck vibration impacts at nearest homes will satisfy the maximum-acceptable vibration criteria of 78 VdB for daytime and 72 VdB for nighttime for residential uses, and therefore, 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	40.0	L1	64.9	64.9	0.0	3.0	No
R2	41.7	L1	64.9	64.9	0.0	3.0	No
R3	36.6	L2	63.0	63.0	0.0	3.0	No
R4	38.4	L3	65.4	65.4	0.0	3.0	No
R5	35.8	L4	62.5	62.5	0.0	3.0	No
R6	37.9	L5	63.0	63.0	0.0	3.0	No
R7	35.7	L6	61.4	61.4	0.0	3.0	No
R8	30.1	L7	54.8	54.8	0.0	5.0	No

TABLE 9-6: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

¹ See Exhibit 8-A for the receiver locations.

² Total Project daytime operational noise levels as shown on Table 9-3.

³ Reference noise level measurement locations as shown on Exhibit 5-A.

⁴ Observed daytime ambient noise levels as shown on Table 5-1.

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 Significance increase criteria as shown in Section 4.2.



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	39.8	L1	57.5	57.6	0.1	5.0	No
R2	41.6	L1	57.5	57.6	0.1	5.0	No
R3	35.6	L2	56.2	56.2	0.0	5.0	No
R4	38.2	L3	59.8	59.8	0.0	5.0	No
R5	35.2	L4	59.0	59.0	0.0	5.0	No
R6	37.7	L5	62.2	62.2	0.0	3.0	No
R7	34.3	L6	58.3	58.3	0.0	5.0	No
R8	29.7	L7	50.6	50.6	0.0	5.0	No

TABLE 9-7: NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES

¹ See Exhibit 8-A for the receiver locations.

² Total Project nighttime operational noise levels as shown on Table 9-4.

³ Reference noise level measurement locations as shown on Exhibit 5-A.

⁴ Observed nighttime ambient noise levels as shown on Table 5-1.

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 Significance increase criteria as shown in Section 4.2.



10 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 10-A shows the construction noise source locations in relation to the nearest sensitive receiver locations previously described in Section 8. To prevent high levels of construction noise from impacting noise-sensitive land uses, City of Fullerton Municipal Code Section 15.90.050, states that construction activities are limited to the hours of 7:00 a.m. to 8:00 p.m. on any day except Sunday or a City-recognized holiday. (17)

10.1 CONSTRUCTION NOISE LEVELS

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers, and portable generators operating simultaneously that when combined can reach high levels. The number and mix of construction equipment are expected to occur in the following stages:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

This construction noise analysis was prepared using reference noise level measurements taken by Urban Crossroads, Inc. to describe the typical construction activity noise levels for each stage of Project construction. This includes the demolition of existing buildings and facilities on the Kimberly-Clark site and the potential expansion site. However, no pile driving is expected as part of the Project construction activities. The construction reference noise level measurements represent a list of typical construction activity noise levels with multiple pieces of equipment operating simultaneously to conservatively estimate Project construction noise levels.

Noise levels generated by heavy construction equipment can range from approximately 68 dBA to more than 80 dBA when measured at 50 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 80 dBA measured at 50 feet from the noise source to the receiver would be reduced to 74 dBA at 100 feet from the source to the receiver, and would be further reduced to 68 dBA at 200 feet from the source to the receiver.





EXHIBIT 10-A: TYPICAL CONSTRUCTION NOISE SOURCE LOCATIONS


10.2 Typical Construction Reference Noise Levels

To describe the Project typical construction noise levels, measurements were collected for similar activities at several construction sites. Table 10-1 provides a summary of the construction reference noise level measurements. Since the reference noise levels were collected at varying distances of 30 feet and 50 feet, all construction noise level measurements presented on Table 10-1 have been adjusted for consistency to describe a uniform reference distance of 50 feet. Construction noise generated from concrete crushing activities and nighttime concrete pours are addressed separately, below.

Construction Stage	Reference Construction Activity ¹	Reference Noise Level @ 50 Feet (dBA L _{eq})	Highest Reference Noise Level (dBA L _{eq})
	Demolition Activity	67.9	
Demolition	Backhoe	64.2	71.9
	Water Truck Pass-By & Backup Alarm	71.9	
<u></u>	Scraper, Water Truck, & Dozer Activity	75.3	
Site	Backhoe	64.2	75.3
ricparation	Water Truck Pass-By & Backup Alarm	71.9	
	Rough Grading Activities	73.5	
Grading	Water Truck Pass-By & Backup Alarm	71.9	73.5
	Construction Vehicle Maintenance Activities	67.5	
	Foundation Trenching	68.2	
Building	Framing	62.3	71.6
construction	Concrete Mixer Backup Alarms & Air Brakes	71.6	
	Concrete Mixer Truck Movements	71.2	
Paving	Concrete Paver Activities	65.6	71.2
	Concrete Mixer Pour & Paving Activities	65.9	
	Air Compressors	65.2	
Architectural	Generator	64.9	65.2
coating	Crane	62.3	

TABLE 10-1: TYPICAL CONSTRUCTION REFERENCE NOISE LEVELS

¹ Reference construction noise level measurements taken by Urban Crossroads, Inc.

10.3 Typical Construction Noise Analysis

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts with multiple pieces of equipment operating simultaneously at the nearest sensitive receiver locations were completed. This includes the additional noise attenuation provided by the existing intervening building structures and noise barriers located between the Project site and the nearest receiver locations.



The reference noise level measurements were collected from existing construction operations with similar equipment as those expected with the Project. While the construction size, scope of work, and ambient noise levels vary for the reference noise level measurements, each piece of construction equipment fully represents the expected noise levels for each activity. The construction noise analysis does not rely on any one reference noise level to fully describe the potential impacts. Rather, a combination of individual construction noise level measurements is used to describe typical activities for each stage of construction.

As shown on Table 10-2, the construction noise levels are expected to range from 53.7 to 61.6 dBA L_{eq} at the nearest receiver locations. Appendix 10.1 includes the detailed CadnaA construction noise model inputs.

	Construction Noise Levels (dBA Leq)						
Receiver Location ¹	Demolition	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels ²
R1	55.9	59.3	57.5	55.6	55.2	49.2	59.3
R2	54.3	57.7	55.9	54.0	53.6	47.6	57.7
R3	57.9	61.3	59.5	57.6	57.2	51.2	61.3
R4	54.0	57.4	55.6	53.7	53.3	47.3	57.4
R5	58.2	61.6	59.8	57.9	57.5	51.5	61.6
R6	50.6	54.0	52.2	50.3	49.9	43.9	54.0
R7	56.8	60.2	58.4	56.5	56.1	50.1	60.2
R8	50.3	53.7	51.9	50.0	49.6	43.6	53.7

TABLE 10-2: TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

¹Noise receiver locations are shown on Exhibit 10-A.

² Construction noise level calculations based on distance from the project site boundaries (construction activity area) to nearby receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1.

10.4 Typical Daytime Construction Noise Level Compliance

To demonstrate compliance with local noise regulations, the Project-only construction noise levels are conservatively evaluated against exterior noise level thresholds based on the City of Fullerton and City of Anaheim at the nearest noise-sensitive receiver locations. Table 10-3 shows that the construction noise levels associated with Goodman Logistics Center Fullerton Project will satisfy the City of Fullerton noise level standards adjusted to reflect the ambient noise level, and the City of Anaheim 60 dBA L_{eq} anytime exterior noise level standards at all the nearest sensitive receiver locations. Therefore, the construction noise impacts are considered *less than significant* at the nearest noise-sensitive receiver locations.



				Construe	ction Noise Levels	dBA L _{eq})
Receiver Location ¹	Use	City	Meas. Location ²	Highest Construction ³	Daytime Threshold⁴	Threshold Exceeded? ⁵
R1	Residential	Fullerton	L1	59.3	64.9	No
R2	Residential	Fullerton	L1	57.7	64.9	No
R3	Church	Fullerton	L2	61.3	63.0	No
R4	Residential	Fullerton	L3	57.4	65.4	No
R5	School	Fullerton	L4	61.6	62.5	No
R6	Residential	Anaheim	L5	54.0	60.0	No
R7	Church	Fullerton	L6	60.2	61.4	No
R8	Church	Fullerton	L7	53.7	54.8	No

TABLE 10-3: TYPICAL DAYTIME CONSTRUCTION NOISE LEVEL COMPLIANCE

¹Noise receiver locations are shown on Exhibit 10-A.

² Reference noise level measurement locations as shown on Exhibit 5-A.

³ Construction noise level calculations based on distance from the project site boundaries (construction activity area) to nearby receiver locations as shown on Table 10-2.

⁴ Exterior noise level standards adjusted to reflect the daytime ambient noise levels (Table 5-1) per the City of Fullerton Municipal Code, Section 15.90.030 and the City of Anaheim Municipal Code, Chapter 6.70.

⁵ Do the estimated Project construction noise levels exceed the daytime construction noise level threshold?

10.5 NIGHTTIME CONCRETE POUR NOISE ANALYSIS

It is our understanding that nighttime concrete pouring activities will occur as a part of Project construction activities. Nighttime concrete pouring activities are often used to support reduced concrete mixer truck transit times and lower air temperatures than during the daytime hours. Since the nighttime concrete pours will take place outside the permitted City of Fullerton Municipal Code, Section 15.90.050 hours of 7:00 a.m. to 8:00 p.m. on any day except Sunday or a City-recognized holiday, the Project Applicant will be required to obtain authorization for nighttime work from the City of Fullerton. Any nighttime construction noise activities shall satisfy the noise limit categories outlined in Section 15.90.030 of the Municipal Code.

As shown on Table 10-4, the noise levels associated with the nighttime concrete pour activities (paving) are estimated to range from 49.6 to 57.5 dBA L_{eq} and will satisfy the stationary-source exterior hourly average L_{eq} noise levels adjusted to reflect the ambient noise level and the City of Anaheim 60 dBA L_{eq} anytime exterior noise level standards at all the receiver locations, with the exception of one receiver in the City of Fullerton. The estimated nighttime concrete pour activity noise levels include the additional noise attenuation provided by the existing intervening building structures and noise barriers located between the Project site and the nearest receiver locations. While location R3, may experience nighttime noise concrete pour activity noise levels that exceed the existing nighttime ambient noise conditions, this receiver is not operational during the nighttime hours. Therefore, based on the results of this analysis, all nearest noise receiver locations will experience *less than significant* impacts due to the Project related nighttime concrete pour activities



				Construe	ction Noise Levels	(dBA L _{eq})
Receiver Location ¹	Use	City	Meas. Location ²	Paving Construction ³	Nighttime Threshold⁴	Threshold Exceeded? ⁵
R1	Residential	Fullerton	L1	55.2	57.5	No
R2	Residential	Fullerton	L1	53.6	57.5	No
R3	Church	Fullerton	L2	57.2	56.2	Yes
R4	Residential	Fullerton	L3	53.3	59.8	No
R5	School	Fullerton	L4	57.5	59.0	No
R6	Residential	Anaheim	L5	49.9	60.0	No
R7	Church	Fullerton	L6	56.1	58.3	No
R8	Church	Fullerton	L7	49.6	50.6	No

TABLE 10-4: NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

¹Noise receiver locations are shown on Exhibit 10-A.

² Reference noise level measurement locations as shown on Exhibit 5-A.

³ Paving construction noise level calculations based on distance from the construction noise source activity to nearby receiver locations as shown on Table 10-2.

⁴ Exterior noise level standards adjusted to reflect the nighttime ambient noise levels (Table 5-1) per the City of Fullerton Municipal Code, Section 15.90.030.

⁵ Do the estimated Project construction noise levels exceed the nighttime construction noise level threshold?

10.6 Typical Construction Vibration Impacts

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. 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) (3). 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 10-5. It should be noted that pile driving is not required for the Project. This list includes vibration source levels for a hoe ram or breaker representing a percussion hammer fitted to an excavator for breaking concrete. Based on the representative vibration levels presented for various 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
Hoe Ram (Breaker)	87

TABLE 10-5: VIBRATION SOURCE LEVELS FOR TYPICAL CONSTRUCTION EQUIPMENT

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Table 10-6 presents the expected typical construction equipment vibration levels at the nearest receiver locations. At distances ranging from 305 feet to 2,080 feet from typical Project construction activities (at the Project site boundary), construction vibration levels are estimated to range from 29.4 to 54.4 VdB and will remain below the FTA Transit Noise and Vibration Impact Assessment Manual maximum acceptable vibration criteria of 78 VdB for daytime residential uses at all receiver locations.

Therefore, the Project-related vibration impacts are considered *less than significant* 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.

	Distance to		Receiver V	ibration Lev				
Receiver Location ¹	Construction Activity (Feet)	Small Bulldozer	Jack- hammer	Loaded Trucks	Large Bulldozer	Highest Vibration Levels	Threshold VdB ³	Threshold Exceeded? ⁴
R1	1,984'	1.0	22.0	29.0	30.0	30.0	78	No
R2	2,080'	0.4	21.4	28.4	29.4	29.4	78	No
R3	305'	25.4	46.4	53.4	54.4	54.4	78	No
R4	1,876'	1.7	22.7	29.7	30.7	30.7	78	No
R5	1,141'	8.2	29.2	36.2	37.2	37.2	78	No
R6	1,282'	6.7	27.7	34.7	35.7	35.7	78	No
R7	1,059'	9.2	30.2	37.2	38.2	38.2	78	No
R8	1,122'	8.4	29.4	36.4	37.4	37.4	78	No

TABLE 10-6: TYPICAL CONSTRUCTION EQUIPMENT VIBRATION LEVELS

¹Noise receiver locations are shown on Exhibit 10-A.

² Based on the Vibration Source Levels of Construction Equipment included on Table 10-5.

³ FTA Transit Noise and Vibration Impact Assessment Manual maximum acceptable vibration criteria as shown in Section 4.2.

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



10.7 CONCRETE CRUSHING CONSTRUCTION REFERENCE NOISE LEVELS

An additional analysis was completed to assess potential noise level impacts due to concrete crushing activities planned near the southern project site boundary on Orangethorpe Avenue. Exhibit 10-B shows the location of the planned concrete crushing activity area in relation to the receiver locations. The concrete crushing construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published in the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. (18) Table 10-7 provides a summary of the reference average L_{eq} noise levels used to describe concrete crushing construction activities.

The reference noise level summary describes construction activity noise levels with multiple pieces of concrete construction equipment operating simultaneously and includes source noise levels for a hoe ram or breaker representing a percussion hammer fitted to an excavator for breaking concrete. A default ground attenuation factor of 0.0 was used in the CadnaA noise prediction model to account for hard site conditions.

Construction Stage	Typical Equipment	Reference Noise Level @ 50 Feet (dBA L _{eq}) ¹	Highest Reference Noise Level (dBA L _{eq})	
	Mounted Impact Hammer (Hoe Ram)	83		
Concrete Crushing	Rubber Tired Dozers	75	83	
	Dump Truck	72		

TABLE 10-7: CONCRETE CRUSHING CONSTRUCTION REFERENCE NOISE LEVELS

¹FHWA's Roadway Construction Noise Model, January 2006.

10.8 CONCRETE CRUSHING CONSTRUCTION NOISE ANALYSIS AND COMPLIANCE

Using the reference RCNM construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at nearest sensitive receiver locations were completed. To assess the worst-case construction noise levels, the Project construction noise analysis relies on the highest noise level impacts when the equipment with the highest reference noise level is operating at the closest point from the edge of primary construction activity (as shown on Exhibit 10-B) to each receiver location. As shown on Table 10-8, the concrete crushing construction noise levels are estimated to range from 42.9 to 57.9 dBA L_{eq} at the nearest receiver locations.

The concrete crushing construction noise analysis shows that the receiver locations will satisfy the City of Fullerton and City of Anaheim exterior noise level standards at the nearest noise-sensitive receiver locations. Therefore, the noise impacts due to the Project concrete crushing noise is considered *less than significant* at all receiver locations. Appendix 10.2 includes the detailed CadnaA concrete crushing construction equipment noise model inputs.





EXHIBIT 10-B: CONCRETE CRUSHING NOISE SOURCE LOCATIONS

N

City of Anaheim

City of Fullerton

Existing Barrier



- Distance from receiver to construction activity (in feet)

				Construe	ction Noise Levels (dBA L _{eq})
Receiver Location ¹	Use	City	Meas. Location ²	Concrete Crushing ³	Daytime Threshold⁴	Threshold Exceeded? ⁵
R1	Residential	Fullerton	L1	57.1	64.9	No
R2	Residential	Fullerton	L1	55.6	64.9	No
R3	Church	Fullerton	L2	42.9	63.0	No
R4	Residential	Fullerton	L3	55.1	65.4	No
R5	School	Fullerton	L4	52.4	62.5	No
R6	Residential	Anaheim	L5	51.7	60.0	No
R7	Church	Fullerton	L6	57.9	61.4	No
R8	Church	Fullerton	L7	46.3	54.8	No

TABLE 10-8: CONCRETE CRUSHING CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

¹Noise receiver locations are shown on Exhibit 10-B.

² Reference noise level measurement locations as shown on Exhibit 5-A.

³ Concrete crushing noise level calculations provided in Appendix 10.2

⁴ Exterior noise level standards adjusted to reflect the daytime ambient noise levels (Table 5-1) per the City of Fullerton Municipal

Code, Section 15.90.030 and the City of Anaheim Municipal Code, Chapter 6.70.

⁵ Do the estimated Project construction noise levels exceed the daytime construction noise level threshold?

10.9 CONCRETE CRUSHING CONSTRUCTION VIBRATION ANALYSIS AND COMPLIANCE

Using the vibration source level of construction equipment list provided on Table 10-5 that includes source levels for a hoe ram or breaker representing a percussion hammer fitted to an excavator for breaking concrete and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project concrete crushing construction vibration impacts. Table 10-9 presents the expected concrete crushing construction equipment vibration levels when the equipment with the highest reference vibration activity operating at the closest point from the edge of primary construction activity (Project site boundary) to each receiver location.

At distances ranging from 1,347 feet to 3,055 feet from the Project concrete crushing construction activities as shown on Exhibit 10-B, construction vibration levels are estimated to range from 24.4 to 35.1 VdB and will remain below the FTA Transit Noise and Vibration Impact Assessment Manual maximum acceptable vibration criteria of 78 VdB for daytime residential uses at all receiver locations. Therefore, the Project-related vibration impacts are considered *less than significant* during Project concrete crushing construction activities at the Project site.



	Distance to		Rece	iver Vibrat	ion Levels (
Receiver Location ¹	Construction Activity (Feet)	Small Bulldozer	Jack- hammer	Loaded Trucks	Large Bulldozer	Hoe Ram (Breaker)	Highest Vibration Levels	Threshold VdB ³	Threshold Exceeded? ⁴
R1	2,862'	0.0	17.2	24.2	25.2	25.2	25.2	78	No
R2	2,931'	0.0	16.9	23.9	24.9	24.9	24.9	78	No
R3	1,607'	3.8	24.8	31.8	32.8	32.8	32.8	78	No
R4	3,055'	0.0	16.4	23.4	24.4	24.4	24.4	78	No
R5	2,191'	0.0	20.7	27.7	28.7	28.7	28.7	78	No
R6	1,358'	6.0	27.0	34.0	35.0	35.0	35.0	78	No
R7	1,347'	6.1	27.1	34.1	35.1	35.1	35.1	78	No
R8	1,441'	5.2	26.2	33.2	34.2	34.2	34.2	78	No

TABLE 10-9: CONCRETE CRUSHING EQUIPMENT VIBRATION LEVELS

¹Concrete Crushing receiver locations are shown on Exhibit 10-B.

² Based on the Vibration Source Levels of Construction Equipment included on Table 10-5.

³ FTA Transit Noise and Vibration Impact Assessment Manual maximum acceptable vibration criteria as shown in Section 4.2.

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





11 REFERENCES

- 1. State of California. California Environmental Quality Act, Appendix G. 2018.
- 2. **Urban Crossroads.** *Goodman Logistics Center Traffic Analysis.* July 2020.
- 3. U.S. Department of Transportation, Federal Transit Administration. *Transit Noise and Vibration Impact Assessment Manual.* September 2018.
- 4. California Department of Transportation Environmental Program. *Technical Noise Supplement A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., September 2013.
- 5. Environmental Protection Agency Office of Noise Abatement and Control. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. March 1974. EPA/ONAC 550/9/74-004.
- 6. U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch. *Highway Traffic Noise Analysis and Abatement Policy and Guidance*. December 2011.
- 7. U.S. Department of Transportation, Federal Highway Administration. *Highway Traffic Noise in the United States, Problem and Response.* April 2000. p. 3.
- 8. 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.
- 9. Office of Planning and Research. State of California General Plan Guidelines. October 2017.
- 10. State of California. 2016 California Green Building Standards Code. January 2017.
- 11. City of Fullerton. The Fullerton Plan, Chapter 7, Noise. May 2012.
- 12. City of Anaheim. Municipal Code Chapter 6.70 Sound Pressure Levels.
- 13. American National Standards Institute (ANSI). Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.
- 14. U.S. Department of Transportation, Federal Highway Administration. FHWA Highway Traffic Noise Prediction Model. December 1978. FHWA-RD-77-108.
- 15. California Department of Transportation Environmental Program, Office of Environmental Engineering. Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction. September 1995. TAN 95-03.
- 16. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report.* June 1995. FHWA/CA/TL-95/23.
- 17. City of Fullerton. Municipal Code, Chapter 15.90 Noise Standards and Regulation.
- 18. U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning. *FHWA Roadway Construction Noise Model.* January, 2006.





12 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Goodman Logistics Center Fullerton Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5979.

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EDUCATION

Master of Science in Civil and Environmental Engineering California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning California Polytechnic State University, San Luis Obispo • June, 1992

PROFESSIONAL REGISTRATIONS

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009
AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012
PTP – Professional Transportation Planner • May, 2007 – May, 2013
INCE – Institute of Noise Control Engineering • March, 2004

PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America ITE – Institute of Transportation Engineers

PROFESSIONAL CERTIFICATIONS

Certified Acoustical Consultant – County of Orange • February, 2011 FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013





APPENDIX 3.1:

CITY OF FULLERTON MUNICIPAL CODE





15.40.080. Industrial environmental controls.

To minimize environmental pollution by industrial or other activities the following standards are prescribed for any activity carried on in an industrial zone classification:

A. Noise control:

Sound related to industrial or manufacturing processes, excluding traffic noise, shall comply with Chapter 15.90 of this title.

B. Smoke, dust, fumes and contaminants:

Industrial or manufacturing processes out of which evolve smoke, dust, fumes, particulate matter, contaminants and specific contaminants, shall comply with the latest rules and regulations of the South Coast Air Quality Management District.

C. Odors:

Odors from gases or other odorous matter shall not be in such quantities as to be offensive beyond the property line of the parcel from which said odors emanate.

D. Hazardous materials:

1. Hazardous materials shall not be emitted into the air or ground that can cause damage to health, to animals or vegetation, or other forms of property or that can cause any excessive staining beyond the property line of the lot on which the use is located.

2. A permit shall be obtained for storage of hazardous materials from the Fullerton Fire Department.

E. Vibration:

Vibration from any machine, operation or process that can cause noticeable displacement as measured at the property line of the parcel on which the use is located shall be prohibited.

F. Glare:

All on-site lighting devices shall be designed so as to limit glare/spillover onto adjacent property with a residential zone classification.

(Ord. 3066, (part), 2005: Ord. 2982, 2001)

Fullerton, CA Municipal Code

Chapter 15.90 NOISE STANDARDS AND REGULATION

Sections:

- 15.90.010. Intent and purpose.
- 15.90.020. Definitions.
- 15.90.030. Noise standards.
- 15.90.040. Activities exempt from standards.
- 15.90.050. Activities with special provisions.
- 15.90.060. Noise level measurement.
- 15.90.070. Enforcement.
- 15.90.080. Appeal.

15.90.010. Intent and purpose.

A. In order to control unnecessary, excessive and annoying sounds emanating from incorporated areas of the city, it shall be the policy of the city to prohibit such sounds generated from all sources as specified in this chapter except that noise regulated by any penal statute or ordinance and those activities that have been preempted by state or federal law.

B. Specified noise levels have been determined to be detrimental to the public health, welfare and safety and contrary to public interest; therefore, creating, maintaining, causing or allowing to create, maintain or cause any noise in a manner prohibited by or not in conformity with the provisions of this chapter is a public nuisance and shall be punishable as such.

(Ord. 2982, 2001)

15.90.020. Definitions.

A. Whenever used in this chapter, the following words, phrases and terms shall have the meaning as indicated below:

AMBIENT NOISE LEVEL means the all-encompassing noise level associated with a given environment, being a composite of sounds from all sources, excluding the alleged offensive noise, at the location and approximate time at which a comparison with the alleged offensive noise is to be made.

CUMULATIVE PERIOD means an additive period of time composed of individual time segments that may be continuous or interrupted.

DECIBEL (dB) means a unit that denotes the ratio between two quantities which are proportional to power: the number of decibels corresponding to the ratio of 2 amounts of power is

10 times the logarithm to the base 10 of this ratio.

EMERGENCY MACHINERY, VEHICLE OR WORK means any machinery, vehicle or work used, employed or performed in an effort to protect, provide or restore safe conditions in the community or for the citizenry, or work by private or public utilities when restoring utility service.

FIXED NOISE SOURCE means a stationary device that creates sounds while fixed or motionless, including but not limited to industrial and commercial machinery and equipment, pumps, fans, compressors, generators, air conditioners and refrigeration equipment.

GRADING means any excavating or filling of earth material or any combination thereof conducted to prepare a site for construction or other improvements thereon.

IMPACT NOISE means the noise produced by the collision of one mass in motion with a second mass that may be either in motion or at rest.

MOBILE NOISE SOURCE shall mean any noise source that is not stationary, including but not limited to motorized vehicles, trains, and aircraft.

NOISE LEVEL means the "A" weighted sound pressure level in decibels obtained by using a sound level meter at slow response with a reference pressure of 20 micro-newtons per square meter. The unit of measurement shall be designated as dB(A).

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

RESIDENTIAL PROPERTY means a parcel of real property that is developed and used either in part or in whole for residential purposes, other than transient uses such as hotels and motels.

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 the sound to a reference pressure, which reference pressure shall be explicitly stated.

B. A **NOISE ZONE** is defined as an area where a specific set of standards has been established for allowable interior and exterior noise levels.

1. A **RESIDENTIAL NOISE ZONE** includes all properties with a residential zone classification, whether incorporated or unincorporated.

2. A **COMMERCIAL NOISE ZONE** includes all properties with a commercial or public land use zone classification, whether incorporated or unincorporated.

3. An *INDUSTRIAL NOISE ZONE* includes all properties with an industrial zone classification, whether incorporated or unincorporated.

(Ord. 2982, 2001)

15.90.030. Noise standards.

A. The following noise standards, unless otherwise specifically indicated, shall apply to all property within the Residential Noise Zone:

Allowable Interior Noise Level Time Period

Not to exceed 55 dB(A)	7:00 a.m 10:00 p.m.
Not to exceed 45 dB(A)	10:00 p.m 7:00 a.m.
Allowable Exterior Noise Level	Time Period
Not to exceed 55 dB(A)	7:00 a.m 10:00 p.m.
Not to exceed 50 dB(A)	10:00 p.m 7:00 a.m.

B. Noise standards for a sensitive use:

1. A "sensitive use" for the purpose of this chapter means any private or public school, hospital, residential care facility for the elderly, and religious institution.

2. It shall be unlawful for any person at any location within the incorporated area of the city to create any noise that causes the noise level at any sensitive use, while the same is in operation to exceed the noise limits as specified for the Residential Noise Zone, notwithstanding the sensitive use may be located outside of the Residential Noise Zone.

C. It shall be unlawful for any person at any location within the incorporated area of the city to create any noise which can be classified as being continuous, reoccurring, predictable, or whose operation of noise-generating capabilities can be stopped or started at a specified time, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level, when measured on the property, either incorporated or unincorporated, to exceed:

1. The noise standard for a cumulative period of more than 30 minutes in any hour;

2. The noise standard plus 5 dB(A) for a cumulative period of more than 15 minutes but less than 30 minutes in any hour;

3. The noise standard plus 10 dB(A) for a cumulative period of more than 5 minutes but less than 15 minutes in any hour;

4. The noise standard plus 15 dB(A) for a cumulative period of more than one minute but less than five minutes in any hour;

5. The noise standard plus 20 dB(A) for a cumulative period of less than one minute in an hour.

D. In the event the ambient noise level exceeds any of the five noise limit categories listed in Subsection C, the cumulative period applicable to the category shall be increased to reflect the ambient noise level.

(Ord. 2982, 2001)

15.90.040. Activities exempt from standards.

A. The following activities shall be exempt from the noise level standards specified by this chapter:

1. School bands, school athletic and school entertainment events.

2. Outdoor gatherings, public dances, shows and sporting and entertainment events provided the events are conducted pursuant to a permit and/or license issued by the city.

3. Activities conducted on public parks, public playgrounds and public or private school grounds.

4. Any mechanical device, apparatus or equipment used, related to or connected with the use of machinery, vehicles, or work due to an emergency.

5. All mechanical devices, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions.

6. Mobile noise sources associated with agricultural pest control through pesticide application.

7. Noise from vehicular traffic on public streets.

B. For the drilling of water wells, the Director of Development Services may approve or conditionally approve an exception or limited exemption from the noise level standards of this chapter.

(Ord. 2982, 2001)

15.90.050. Activities with special provisions.

A. The following activities shall be exempt from the noise level standards specified by this chapter provided they take place between the hours of 7 a.m. and 8 p.m. on any day except Sunday or a City-recognized holiday.

1. Noise sources associated with construction, repair, remodeling, or grading of any real property;

2. Mobile noise sources associated with agricultural operations;

3. Noise sources associated with the maintenance of real property, including normal maintenance and repair by city and utility crews.

B. Installation of air conditioning, refrigeration and pool equipment shall be certified to be within the provisions of this chapter for night and day operation noise levels.

(Ord. 2982, 2001: Ord. 3026, 2003)

15.90.060. Noise level measurement.

A. The location selected for measuring exterior noise levels shall be at any point on the affected property. The affected property shall be the address from which the complaint was received.

B. The location selected for measuring interior noise levels shall be made within the affected property at a point at least four feet from the wall, ceiling or floor nearest the noise source.

C. Any noise level measurements made pursuant to the provisions of this chapter shall be performed using a sound level meter that meets the American National Standard Institute's Standard S1.4 - 1971 for Type 1 or Type 2 sound level meters or an instrument and the associated recording and analyzing equipment which will provide equivalent data.

(Ord. 2982, 2001)

15.90.070. Enforcement.

A. The Director of Development Services and his duly authorized representatives are directed to enforce the provisions of this chapter.

B. No person shall interfere with, oppose or resist any authorized person charged with the enforcement of this chapter.

(Ord. 2982, 2001)

15.90.080. Appeal.

A. The owner or operator of a noise source who has been cited in violation of the provisions of this chapter may appeal the citation to the City Council. Within 15 days following receipt of a notice of appeal, the City Clerk shall forward to the City Council the recommendation of the Director of Development Services, the notice of appeal, and all evidence concerning the appeal received by the Director. In addition, any person may file with the City Council written arguments supporting or attacking the citation. The City Clerk shall mail to the applicant and the complainant a notice of the date set for hearing of the appeal. The notice shall be mailed at least ten days prior to the hearing date.

B. Within 60 days following its receipt of the notice of the appeal, the City Council shall affirm, modify or reverse the citation. The decision shall be based upon the evaluation by the City Council of the matter. As part of its decision, the City Council may direct the Director of Development Services to conduct further proceedings on the appeal. Failure of the City Council to affirm, modify or reverse the citation within the 60-day period shall constitute an affirmation of the citation.

(Ord. 2982, 2001)

APPENDIX 3.2:

CITY OF ANAHEIM MUNICIPAL CODE





Anaheim Municipal Code

Chapter 6.70 SOUND PRESSURE LEVELS

Sections:

- 6.70.010 Established.
- 6.70.020 Violations and penalties.
- 6.70.030 Enforcement.

6.70.010 ESTABLISHED.

Sound produced in excess of the sound pressure levels permitted herein are hereby determined to be objectionable and constitute an infringement upon the right and quiet enjoyment of property in this City.

No person shall within the City create any sound radiated for extended periods from any premises which produces around pressure level at any point on the property line in excess of sixty decibels (Re 0.0002 Microbar) read on the A-scale of a sound level meter. Readings shall be taken in accordance with the instrument manufacturer's instructions, using the slowest meter response.

The sound level measuring microphone shall be placed at any point on the property line, but not closer than three (3) feet from any wall and not less than three (3) feet above the ground, where the above listed maximum sound pressure level shall apply. At any point the measured level shall be the average of not less than three (3) readings taken at two (2) minute intervals. To have valid readings, the levels must be five (5) decibels or more above the levels prevailing at the same point when the source's ofthe alleged objectionable sound are not operating.

Sound pressure levels shall be measured with a sound level meter manufactured according to American Standard S1.4-1961 published by the American Standards Association, Inc., New York City, New York.

Traffic sounds sound created by emergencyactivities and sound created by governmental units or their contractors shall be exempt from the applications of this chapter. Sound created by construction or building repair of any premises within the City shall be exempt from the applications of this chapter during the hours of 7:00 a.m. to 7:00 p.m. Additional work hours may be permitted if deemed necessary by the Director of Public Works or Building Official. (Ord. 2526 § 1 (part); June 18, 1968; Ord. 3400 § 1; February 11, 1975: Ord. 6020 § 1; April 25, 2006.)

6.70.020 VIOLATIONS AND PENALTIES.

The first violation of this chapter by any person shall be punishable as an infraction in accordance with applicable provisions of the California Penal Code and the California Government Code. The second and all subsequent violations of said chapter committed by such person shall be punishable as a misdemeanor. (Ord. 5929 § 9; July 27, 2004.)

6.70.030 ENFORCEMENT.

The Code Enforcement Manager of the City of Anaheim shall enforce the provisions of this chapter. (Ord. 5812 § 25; June 11, 2002.)

APPENDIX 5.1:

STUDY AREA PHOTOS







L1_E 33, 52' 7.530000", 117, 53' 41.360000"



L1_N 33, 52' 6.830000", 117, 53' 40.970000"



L1_S 33, 52' 7.340000", 117, 53' 41.160000"



L1_W 33, 52' 7.770000", 117, 53' 41.380000"



L2_E 33, 51' 56.460000", 117, 53' 28.360000"



L2_N 33, 51' 56.600000", 117, 53' 28.640000"



L2_S 33, 51' 56.730000", 117, 53' 28.470000"



L2_W 33, 51' 56.460000", 117, 53' 28.360000"



L3_E 33, 52' 5.450000", 117, 53' 16.420000"



33, 52' 5.490000", 117, 53' 16.420000"



L3_S 33, 52' 5.460000", 117, 53' 16.420000"



L3_W 33, 52' 5.450000", 117, 53' 16.420000"



L4_E 33, 51' 36.620000", 117, 53' 9.410000"



L4_N 33, 51' 36.630000", 117, 53' 9.440000"



L4_S 33, 51' 36.630000", 117, 53' 9.440000"



L4_W 33, 51' 36.620000", 117, 53' 9.410000"



L5_E 33, 51' 22.960000", 117, 53' 44.050000"



L5_N 33, 51' 22.720000", 117, 53' 42.400000"



L5_S 33, 51' 23.120000", 117, 53' 44.100000"



L5_W 33, 51' 22.960000", 117, 53' 44.020000"



L6_E 33, 51' 33.520000", 117, 54' 8.300000"



L6_N 33, 51' 33.500000", 117, 54' 8.220000"



L6_S 33, 51' 33.500000", 117, 54' 8.220000"



L6_W 33, 51' 33.560000", 117, 54' 8.300000"



L7_E 33, 51' 45.660000", 117, 54' 9.260000"



L7_N 33, 51' 44.750000", 117, 54' 9.620000"



L7_S 33, 51' 44.750000", 117, 54' 9.620000"



L7_W 33, 51' 45.780000", 117, 54' 9.180000"



APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS




	24-Hour Noise Level Measurement Summary															
Date:	Wednesday	. April 29, 20	20		location	L1 - Located	north of the	Project site	on Walnut A	venue near	Meter [.]	Piccolo I			١N٠	13158
Project:	Goodman L	ogistics Cente	er			existing sing	gle-family res	idential hom	ne at 2016 E S	Santa Fe					Analyst:	P. Mara
-		-				Avenue.	Hourbul	ARA Roadinas	(upadiustod)							
							Houriy L _{eq} C	IBA Keuulinys	(unaujusteu)							
85.	0															
2 80.0	0															
5 70.0								_								
.05. 60.0 ب	ğ — — –					0 - 0		<mark>~ - 2</mark> -	<mark>۳ و</mark>	<u>າ - ຄ</u>	0.8.7 0.8.5					
2 55.0 1 50.0		- N 10		61.6	61.	63. 63. 62. 6	<u> </u>	61.8	<mark>62.</mark>	5 50		03	<mark>62.</mark>		4 - r	4.
P 45.0	5	53.1	55.	23.2										<u></u>	S S	<u> </u>
35.0	ő															
	0	1 2	3	4 5	6	7 8	91	LO 11	12 13	3 14	15 16	17	18 19	20	21 22	23
								Hour Be	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	52.7	78.1	41.5	66.0	62.0	52.0	49.0	43.0	43.0	42.0	42.0	41.0	52.7	10.0	62.7
		53.7	75.8 76.7	41.3	67.0 67.0	64.0	53.0	51.0	45.0	43.0	42.0	41.0	41.0	53.7	10.0	63.7
Night	3	55.0	81.4	41.6	68.0	63.0	53.0	51.0	44.0	43.0	42.0	42.0	41.0	55.0	10.0	65.0
Ŭ	4	53.2	76.3	40.4	67.0	62.0	52.0	50.0	44.0	43.0	41.0	41.0	40.0	53.2	10.0	63.2
	5	61.6	87.6	40.5	73.0	71.0	65.0	62.0	54.0	50.0	44.0	43.0	41.0	61.6	10.0	71.6
	6	61.7	85.0	43.9	73.0	70.0	67.0	65.0	58.0	53.0	47.0	46.0	44.0	61.7	10.0	71.7
	/ 8	62.0	80.6 87.7	43.4	73.0 75.0	71.0	69.0 68.0	67.0 65.0	57.0	50.0	45.0	44.0 45.0	43.0	62.0 63.6	0.0	62.0 63.6
	9	60.8	80.2	43.9	73.0	70.0	67.0	64.0	56.0	50.0	45.0	45.0	44.0	60.8	0.0	60.8
	10	61.8	80.8	45.4	74.0	72.0	68.0	65.0	56.0	50.0	47.0	46.0	46.0	61.8	0.0	61.8
	11	70.4	95.6	48.1	76.0	74.0	72.0	72.0	71.0	66.0	53.0	51.0	49.0	70.4	0.0	70.4
Dav	12	62.6	83.2	46.7	75.0	72.0	69.0	66.0	57.0	51.0	48.0	48.0	47.0	62.6	0.0	62.6
,	13	64.3	84.9 84.6	47.5	76.0	74.0	71.0	69.0 70.0	58.0	53.0	49.0	49.0 40.0	48.0	64.3	0.0	64.3
	14	68.7	84.0 96.9	40.4 50.0	78.0 78.0	75.0	72.0	70.0 68.0	60.0	54.0 55.0	49.0 51.0	49.0 51.0	47.0 50.0	68 7	0.0	68.7
	16	68.5	96.6	48.8	79.0	76.0	72.0	70.0	62.0	55.0	50.0	50.0	49.0	68.5	0.0	68.5
	17	63.9	86.7	45.7	76.0	73.0	70.0	68.0	58.0	52.0	48.0	47.0	46.0	63.9	0.0	63.9
	18	62.7	84.1	45.6	75.0	72.0	68.0	65.0	54.0	49.0	47.0	46.0	46.0	62.7	0.0	62.7
Fuening	19	59.5	82.3	44.6	72.0	70.0	66.0	62.0	52.0	47.0	45.0	45.0	45.0	59.5	5.0	64.5
Evening	20	55.2 55.4	77.0	42.6	69.0 69.0	64 0	55.0 54.0	52.0 49.0	46.0 45.0	44.0 44.0	43.0	43.0 43.0	43.0	55.2 55.4	5.0	60.2 60.4
	22	55.7	79.6	42.6	69.0	64.0	54.0	50.0	46.0	45.0	44.0	43.0	43.0	55.7	10.0	65.7
Night	23	57.4	82.8	42.4	69.0	67.0	63.0	60.0	50.0	45.0	43.0	43.0	42.0	57.4	10.0	67.4
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		L _{eq} (dBA)	
Day	Min	60.8	80.2	43.4	73.0	70.0	67.0 72.0	64.0 72.0	54.0	49.0	45.0	44.0	43.0	24-Hour	Daytime	Nighttime
Energy		65.7	90.9 Ave	Prage:	79.0	78.0	69.7	67.4	58.9	52.9	48.2	47.6	46.6	69.9	64.0	
Evening	Min	55.2	77.6	42.6	69.0	64.0	54.0	49.0	45.0	44.0	43.0	43.0	43.0	63.3	64.9	57.5
Evening	Max	59.5	82.3	44.6	72.0	70.0	66.0	62.0	52.0	47.0	45.0	45.0	45.0	24-	Hour CNEL (a	BA)
Energy	Average	57.2	Ave	erage:	70.0	66.7	58.3	54.3	47.7	45.0	44.0	43.7	43.7			
Night	Min	52.7	75.8 87.6	40.4	66.0 73.0	62.0	52.0 67.0	49.0	43.0	43.0	41.0	41.0	40.0		66.2	
Energy	Average	57.5	Ave	erage:	68.8	65.1	57.0	54.4	47.7	45.4	43.0	40.0	41.7	1		
57																



						24-Ho	ur Noise L	evel Meas	urement S	ummary						
Date: Project:	Wednesda Goodman I	y, April 29, 20 ogistics Cent	020 er		Location:	L2 - Locatec 631 S State	l northeast c College Blvd	of the Project I.	site near Pic	ture This at	Meter:	Piccolo I			JN: Analyst:	13158 P. Mara
							Hourly L _{eq}	dBA Readings	(unadjusted)							
85.0	2															
2 80.0																
<u>ع</u> 70.0 65.0	5					———— <mark>—</mark> —	- 6					_				\square
60.0 ٿ 55.0 ح	2						<mark>89</mark>	<mark>∞.</mark>	e7.2	n — o —	N	6				
b 50.0	2 – <u>r</u> –	5.3		6.6	28.0	28.6		61 57.6	g		59.		58.0 58.0	;	57.4	
± 40.0	ž ⊢ 	_ <u> </u>	S											<u>2</u>	<mark>ک</mark>	- ⁶ -
55.0) <u> </u>	1 2	3	4 5	6	7 8	9 1	10 11	12 1	3 14	15 16	17	18 19	20	21 22	23
	-		-		-			Hour Be	eginning							
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L _{eq}	Adj.	Adj. L _{ec}
	0	55.3	74.8	49.8	67.0	61.0	56.0	55.0	52.0	51.0	51.0	50.0	50.0	55.3	10.0	65.3
	1	55.8	80.3	48.0	66.0	59.0	56.0	54.0	52.0	51.0	50.0	49.0	48.0	55.8	10.0	65.8
All also	2	55.3	79.4	49.4	65.0	60.0	57.0	55.0	52.0	51.0	50.0	50.0	50.0	55.3	10.0	65.3
Night	3	53.3	70.3	48.3	60.0	57.0	55.0	54.0	52.0	51.0	50.0	50.0	49.0	53.3	10.0	63.3
	4	56.3	79.0	49.5	66.0	63.0	59.0	56.0	53.0	52.0	51.0	50.0	50.0	56.3	10.0	66.3
	6	58.0	79.4	52.3	69.0	65.0	59.0	57.0	55.0	54.0	53.0	53.0	52.0	58.0	10.0	68.0
	7	58.6	79.3	52.0	70.0	65.0	60.0	58.0	56.0	55.0	53.0	53.0	52.0	58.6	0.0	58.6
	8	69.1	100.0	54.9	80.0	79.0	68.0	64.0	58.0	57.0	56.0	55.0	55.0	69.1	0.0	69.1
	9	68.9	87.6	54.4	80.0	79.0	79.0	71.0	58.0	57.0	55.0	55.0	55.0	68.9	0.0	68.9
	10	61.8	83.3	52.7	/4.0 (F. 0	/0.0	65.0	62.0	57.0	56.0	54.0	54.0	53.0	61.8	0.0	61.8
	11	57.0 67.2	73.0 87.2	53.8	78 0	76.0	50.0 75.0	58.0 74.0	57.0	50.0	55.0	55.0 54.0	54.0	57.0 67.2	0.0	57.0 67.2
Day	13	59.9	82.8	51.0	71.0	67.0	63.0	60.0	57.0	55.0	53.0	52.0	51.0	59.9	0.0	59.9
	14	60.0	79.2	55.1	68.0	65.0	62.0	61.0	59.0	58.0	56.0	56.0	55.0	60.0	0.0	60.0
	15	57.7	73.4	52.9	66.0	63.0	60.0	59.0	57.0	56.0	54.0	54.0	53.0	57.7	0.0	57.7
	16	59.7	82.6	52.6	70.0	67.0	61.0	59.0	57.0	56.0	54.0	53.0	53.0	59.7	0.0	59.7
	17	59.9	84.9	51.0	74.0	66.0	59.0	57.0	55.0	54.0	52.0	52.0	51.0	59.9	0.0	59.9
	18	57.5	81.0	52.1	63.0	57.0	59.0	57.0	55.0	53.0	53.0	53.0	52.0	57.5	5.0	63.0
Evening	20	54.1	69.4	51.4	57.0	56.0	55.0	55.0	54.0	53.0	52.0	52.0	51.0	54.1	5.0	59.1
Ŭ	21	54.2	64.5	50.4	58.0	57.0	55.0	55.0	54.0	53.0	52.0	51.0	51.0	54.2	5.0	59.2
Night	22	57.4	76.7	50.7	68.0	66.0	61.0	59.0	53.0	53.0	52.0	51.0	51.0	57.4	10.0	67.4
Mant	23	56.3	76.1	50.6	67.0	62.0	57.0	56.0	54.0	53.0	52.0	52.0	51.0	56.3	10.0	66.3
Timeframe	Hour	L _{eq}	L max	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		L _{eq} (dBA)	
Day	Min Max	57.5	/3.4	51.0	65.0 80.0	63.0 70.0	59.0	57.0	55.0	54.0	52.0	52.0	51.0	24-Hour	Daytime	Nighttim
Energy	Average	63.8	Ave	erage:	71.8	68.7	64.3	61.7	57.0	56.0	54.1	53.8	53.1	64.5		
5	Min	54.1	64.5	50.4	57.0	56.0	55.0	55.0	54.0	53.0	52.0	51.0	51.0	61.5	63.0	56.2
Evening	Max	58.0	88.3	51.4	63.0	57.0	56.0	55.0	54.0	53.0	52.0	52.0	51.0	24-	Hour CNEL (dBA)
Energy	Average	55.8	Ave	erage:	59.3	56.7	55.3	55.0	54.0	53.0	52.0	51.7	51.0			
Night	Min	53.3	70.3	48.0	60.0	57.0	55.0	54.0	52.0	51.0	50.0	49.0	48.0		64.7	
Energy	Max	58.0	80.3	52.3 erage:	69.0 66.1	66.0	61.0 57.4	59.0	55.0	54.0	53.0	53.0	52.0	-	V 11/	
Lincigy	A Clube	50.2	- AV	cruge.	00.1	01.7	57.4	55.0	52.5	52.0	51.0	50.0	50.1			



						24-Ho	ur Noise Le	evel Measu	urement S	ummary						
Date:	Wednesday	, April 29, 20	20		Location	L3 - Located	northeast o	f the Project	site on Fend	er avenue	Meter:	Piccolo II			JN:	13158
Project:	Goodman L	ogistics Cente	er			near existin	g single-fami	ly residentia	l home at 24	00 Santa					Analyst:	P. Mara
						Cidra Avenu	e. Hourly L _{eg} (dBA Readings	(unadjusted)							
05.0	ר – ר															
₹ 80.0																
B 70.0																
60.0 ت					- o	7.3		<mark></mark>		0			- <mark>.</mark> 6			
<u>></u> 55.0 <u>−</u> 50.0) — <u>;</u> —		7.6	62.(63.	9 9	<mark></mark>	<mark>64</mark>		8 <mark>99</mark> -	9		62. 62	60.4	9.0 9.2	61.0
9 45.0 40.0		54														
35.0) + + (1 2	2	1 E	6	7 0	0 1		12 1	2 1/	15 16	17	19 10	20	21 22	
	0	1 2	5	4 5	0	/ 0	9	Hour Be	eginning	5 14	15 10	17	10 19	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	56.7	67.0	48.9	66.6	65.8	63.2	61.4	56.2	51.2	49.3	49.1	49.0	56.7	10.0	66.7
	1	54.6	63.3 64.0	48.3	62.9 63.7	62.4	60.7	59.5 61.8	54.3	50.9 50.6	49.0	48.7 48 1	48.4	54.6 56.0	10.0	64.6 66.0
Night	3	57.6	68.6	47.9	68.1	67.2	64.5	62.9	55.8	50.5	48.6	48.4	48.1	57.6	10.0	67.6
	4	62.0	75.9	47.4	75.2	73.8	69.1	66.1	55.8	49.8	47.8	47.6	47.5	62.0	10.0	72.0
	5	61.1	73.5	49.0	72.9	71.8	68.5 70.4	66.1	58.8	52.2	49.6	49.4	49.1	61.1 62.0	10.0	71.1
	7	67.3	74.3	54.9	74.1	77.3	74.2	72.0	65.9	61.5	56.2	55.7	55.0	67.3	0.0	67.3
	8	65.9	76.1	54.7	75.7	74.7	72.4	70.9	65.8	60.5	56.0	55.5	54.9	65.9	0.0	65.9
	9	65.9	77.1	53.5	76.5	75.5	72.8	71.0	65.1	59.5	54.6	54.1	53.7	65.9	0.0	65.9
	10	66.3	75.7	50.7	75.2 77.2	74.3	71.6	69.8 71.5	63.0 65.1	55.9 59.8	51.5	51.2 52.5	50.8	66.3	0.0	66.3
Davi	12	67.1	78.3	52.1	77.8	76.8	74.2	72.3	66.2	59.9	53.2	52.7	52.3	67.1	0.0	67.1
Day	13	65.8	77.3	51.7	76.8	75.7	72.7	70.9	64.8	58.9	52.8	52.3	51.8	65.8	0.0	65.8
	14	66.2	77.5	53.4	76.9	75.8	73.2	71.4	65.3	59.9	54.3	53.9	53.5	66.2	0.0	66.2
	15 16	65.9 66.7	76.8 78.3	53.9	76.2 77.6	75.1 76.4	72.8 73.5	71.2	65.5 65.8	60.1 60.3	54.9 54.6	54.5 54.0	54.0	65.9 66.7	0.0	65.9 66.7
	10	65.8	77.4	53.0	76.8	75.6	72.8	70.9	64.7	59.2	54.0	53.5	53.1	65.8	0.0	65.8
	18	64.7	76.7	52.4	76.2	75.1	71.8	69.6	62.9	57.3	53.2	52.9	52.5	64.7	0.0	64.7
	19	62.9	74.7	51.9	74.2	73.2	70.3	68.4	59.9	54.9	52.5	52.2	52.0	62.9	5.0	67.9
Evening	20 21	60.4 59.0	73.9	50.0 50.2	73.2 71.0	71.8	67.4 66.4	64.7	55.7	52.4 51.6	50.4 50.6	50.2	50.1 50.3	60.4 59.0	5.0 5.0	65.4 64.0
	22	59.2	71.4	50.2	71.6	70.5	66.9	63.7	54.1	51.4	50.5	50.4	50.2	59.0	10.0	69.2
Night	23	61.0	70.1	53.2	69.7	69.0	67.1	66.0	60.9	56.7	54.1	53.8	53.3	61.0	10.0	71.0
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		L _{eq} (dBA)	
Day	Min Max	64.3 67.3	/5./ 78.7	50.7 54.9	75.2 78 3	74.3 77.3	/1.6 74.2	69.6 72.3	62.9 66.2	55.9 61.5	51.5 56.2	51.2 55.7	50.8 55.0	24-Hour	Daytime	Nighttime
Energy	Average	66.1	Ave	erage:	76.7	75.7	72.9	71.1	65.0	59.4	54.1	53.6	53.1	64.0		
Evening	Min	59.0	71.4	50.0	71.0	69.9	66.4	63.9	55.0	51.6	50.4	50.2	50.1	64.0	05.4	23.9
Fnores	Max	62.9	74.7	51.9	74.2	73.2	70.3	68.4	59.9	54.9	52.5	52.2	52.0	24-1	Hour CNEL (d	BA)
chergy .	Min	54.6	63.3	47.4	62.9	62.4	60.7	59.5	56.9	49.8	47.8	47.6	47.5		67 0	
Night	Max	63.0	75.9	53.2	75.2	73.8	70.4	68.4	61.3	56.7	54.1	53.8	53.3		67.9	
Energy	Average	59.8	Ave	erage:	69.4	68.6	65.9	64.0	57.1	52.0	49.6	49.4	49.1			



Houry 1., dBA Readings (undiguted) undiguted	Date: Project:	Wednesday Goodman L	y, April 29, 20 ogistics Cent	D20 ter		Location	24-Ho . L4 - Located	east of the	ever Meási Project site n	u rement S lear Hayfield	University.	Meter:	Piccolo II			JN: Analyst:	13158 P. Mara
Neph No Lo Lo <thl< th=""><th>05.0</th><th></th><th></th><th></th><th></th><th></th><th></th><th>Hourly L _{eq}</th><th>dBA Readings</th><th>(unadjusted)</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></thl<>	05.0							Hourly L _{eq}	dBA Readings	(unadjusted)							
Imperiate <	85.0 80.0 75.0																
Junction Junctin Junctin Junctin J	5 70.0																
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	60.0 تـــ 60.0 <u>ح</u> 55.0		_		I:0	1.9	2.7 2.5	1.8	2.6 65.9	64.7	1.6	2.5		<mark>1.4</mark>		<mark>0 4</mark>	~
35.0 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 15 17 18 19 20 21 22 23 Timefrome Hour Lew Lew Lift 15 50% Low Low Low Adj Adj <th>9 45.0 9 45.0 9 40.0</th> <th>24.1 54.1</th> <th>52.9</th> <th>39</th> <th>0</th> <th></th> <th>9 9 9</th> <th></th> <th>9</th> <th></th> <th></th> <th>9</th> <th></th> <th>0 0</th> <th>23</th> <th>57.</th> <th>26.8</th>	9 45.0 9 45.0 9 40.0	24.1 54.1	52.9	39	0		9 9 9		9			9		0 0	23	57.	26.8
Timeframe Four Low Low L1% L2% L5% L6% L9% L9% Lw Adj Adj Ldj Lg Adj Adj Ldj Lg Lg Adj Adj Adj Lg Lg <thlg< th=""> Lg <thlg< th=""> <t< td=""><td>35.0</td><td>) ++</td><td>1 2</td><td>3</td><td>4 5</td><td>6</td><td>7 8</td><td>9</td><td>10 11</td><td>12 1</td><td>.3 14</td><td>15 16</td><td>17</td><td>18 19</td><td>20</td><td>21 22</td><td>23</td></t<></thlg<></thlg<>	35.0) ++	1 2	3	4 5	6	7 8	9	10 11	12 1	.3 14	15 16	17	18 19	20	21 22	23
Timefrom Hour Lea Lea Lea Adj Lej Adj Adj Lej Adj		-		-		-		-	Hour Be	eginning							
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Timeframe	Hour	L _{eq}	L max	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L _{eq}	Adj.	Adj. L _{eq}
1 52.9 64.0 44.6 62.6 61.2 93.4 93.5 52.1 48.1 46.0 45.7 45.2 52.9 90.0 62.9 Nght 3 60.8 66.8 53.1 66.6 65.0 64.0 63.3 60.9 60.0 59.0 58.8 58.5 60.8 10.0 70.8 5 61.0 70.3 50.6 67.3 66.6 65.1 64.4 61.7 59.8 58.0 57.8 57.3 61.2 10.0 71.0 6 61.9 70.6 51.3 68.0 67.1 66.3 63.3 59.6 53.4 53.6 52.6 51.6 62.7 0.0 62.3 9 61.8 70.6 51.5 68.8 68.1 66.7 65.9 63.0 59.9 53.4 53.6 63.4 53.6 63.4 63.4 53.6 63.4 62.9 63.5 63.4 63.4 63.4 62.9 63.6		0	54.1	63.3	47.8	61.6	60.8	59.7	58.8	54.1	51.4	49.3	49.0	48.4	54.1	10.0	64.1
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		1	52.9	64.0	44.6	62.6	61.2	59.4	58.5	52.1	48.1	46.0	45.7	45.2	52.9	10.0	62.9
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Night	2	55.3	66.2	44.2	64.7	63.8	62.3	61.4	54.2	48.6	46.3	45.1	44.6	55.3	10.0	65.3
1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 7 0 0 0 0 7 0 1 0 7 0 1 0 7 0 1 0	Nigrit	3 1	60.8	68.7	58.1	67.3	65.0	64.0 65.1	64.4	60.9	59.8	59.0	58.8 57.8	58.5	60.8 61.2	10.0	70.8
6 619 70.6 51.3 69.0 68.3 67.1 66.3 63.3 59.6 53.5 52.7 51.8 61.9 10.0 71.9 7 62.7 72.4 51.1 70.7 69.9 68.2 67.1 63.8 60.2 53.6 52.6 51.6 62.7 0.0 62.7 9 61.8 70.6 51.5 68.8 68.1 66.7 65.9 63.0 59.9 53.8 52.8 62.6 60.0 62.5 10 65.2 67.3 66.4 65.8 63.7 61.7 58.7 58.3 57.6 62.6 0.0 62.5 11 65.9 72.3 62.5 77.1 65.9 65.2 62.6 59.9 54.5 53.7 53.0 61.4 0.0 61.4 12 64.7 70.6 68.1 66.9 65.7 62.4 59.6 53.5 54.4 67.7 60.2 50.0 53.7		5	61.0	70.3	50.6	69.1	68.3	66.8	65.9	61.7	58.4	52.5	51.7	51.0	61.0	10.0	71.0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		6	61.9	70.6	51.3	69.0	68.3	67.1	66.3	63.3	59.6	53.5	52.7	51.8	61.9	10.0	71.9
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		7	62.7	72.4	51.1	70.7	69.9	68.2	67.1	63.8	60.2	53.6	52.6	51.6	62.7	0.0	62.7
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		8	62.5	71.1	52.2	69.7	68.9	67.5	66.6	63.8	60.5	54.4	53.6	52.8	62.5	0.0	62.5
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		9	61.8	70.6	51.5	68.8	68.1	66.7	65.9	63.0	59.9	53.8	52.8	52.0	61.8	0.0	61.8
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		10 11	62.6	69.5 72.3	57.0 62.5	68.0 70.8	67.3	68.8	65.8 68.1	66.3	65.2	58.7	58.3 63.4	57.6	62.6	0.0	62.6
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		11	64.7	72.3	60.9	70.6	69.7	67.8	67.1	65.1	63.7	61.9	61.6	61.2	64.7	0.0	64.7
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Day	13	61.4	69.2	52.5	67.9	67.1	65.9	65.2	62.6	59.9	54.5	53.7	53.0	61.4	0.0	61.4
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		14	61.6	70.6	53.1	68.9	68.1	66.9	65.7	62.4	59.6	55.0	54.3	53.6	61.6	0.0	61.6
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		15	62.7	70.9	55.0	69.3	68.7	67.4	66.5	63.5	61.1	56.8	56.2	55.4	62.7	0.0	62.7
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		16	62.5	69.9	55.3	68.4	67.7	66.8	66.1	63.7	61.3	57.1	56.4	55.7	62.5	0.0	62.5
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		17	63.9	74.7	54.7	72.3	71.2	69.4	68.4	64.1	61.3	56.7	55.9	55.1	63.9	0.0	63.9
Lo Lo <thlo< th=""> Lo Lo <thl< td=""><td></td><td>18</td><td>60.2</td><td>69.4</td><td>52.3</td><td>67.9</td><td>66.8</td><td>65.6</td><td>64.8</td><td>61.3</td><td>59.7</td><td>54.2</td><td>53.5</td><td>50.6</td><td>60.2</td><td>5.0</td><td>65.2</td></thl<></thlo<>		18	60.2	69.4	52.3	67.9	66.8	65.6	64.8	61.3	59.7	54.2	53.5	50.6	60.2	5.0	65.2
21 58.2 67.5 48.3 66.0 65.0 63.5 62.8 59.4 55.3 49.8 49.3 48.7 58.2 5.0 63.2 Night 22 57.4 66.8 47.9 65.3 64.5 63.0 62.1 58.3 54.1 49.3 48.8 48.3 57.4 10.0 67.4 Night 23 56.8 66.5 47.9 64.9 63.9 62.3 61.6 57.6 53.5 49.4 48.9 48.4 56.8 10.0 67.4 Timeframe Hour Leg Lmax Lmin L1% L2% L5% L8% L2% L5% L9% L9% L9% L9% L9% L4 56.8 10.0 66.8 Day Min 61.4 69.2 51.1 67.1 65.9 65.2 62.4 59.6 53.6 52.6 51.6 63.4 62.9 24 Hour Day time Nighttime Max 65.9 74.7 28.5 72.3 71.2 69.4 68.5 63.7	Evening	20	59.3	70.2	48.4	68.1	66.8	65.3	64.0	59.7	56.0	50.3	49.5	48.8	59.3	5.0	64.3
Night 22 57.4 66.8 47.9 65.3 64.5 63.0 62.1 58.3 54.1 49.3 48.8 48.3 57.4 10.0 67.4 Timeframe Hour Lee Lmax Lmin L1% L2% L5% L50% L90% L95% L99% Leg (dBA) Day Min 61.4 69.2 51.1 67.9 67.1 65.9 65.2 62.4 59.6 53.6 52.6 51.6 24-Hour Day Min Max 65.9 74.7 62.5 72.3 71.2 69.4 68.4 66.3 65.2 63.6 63.4 62.9 24-Hour Day ime Nightime Energy Average 63.0 Average: 69.5 68.7 67.3 66.5 63.7 61.2 56.7 56.0 55.3 Min 58.2 67.5 48.3 66.0 65.0 63.5 62.8 59.4 55.3 49.8 49.3	Ŭ	21	58.2	67.5	48.3	66.0	65.0	63.5	62.8	59.4	55.3	49.8	49.3	48.7	58.2	5.0	63.2
Min 56.8 66.5 47.9 64.9 63.9 62.3 61.6 57.6 53.5 49.4 48.9 48.4 56.8 10.0 66.8 Timeframe Hour Leq Lmax Lmin L1% L2% L5% L8% L25% L50% L90% L95% L99% Leg (BA) Day Min 61.4 69.2 51.1 67.9 67.1 65.9 65.2 62.4 59.6 53.6 52.6 51.6 24-Hour Day Min Max 65.9 74.7 62.5 72.3 71.2 69.4 68.4 66.3 65.2 63.6 63.4 62.9 24-Hour Day time Nighttime Energy Average 63.0 Average: 69.5 68.7 67.3 66.5 63.7 61.2 55.3 49.8 48.7 56.8 61.5 59.0 59.0 Evening Min 58.2 67.5 48.3 66.0 65.0 63.5 62.8 59.4 55.3 49.8 49.3 48.7	Night	22	57.4	66.8	47.9	65.3	64.5	63.0	62.1	58.3	54.1	49.3	48.8	48.3	57.4	10.0	67.4
Timeframe Hour Leq Lmax Lmin L1% L2% L5% L8% L25% L50% L90% L95% L99% L 99% L eq (dBA) Day Min 61.4 69.2 51.1 67.9 67.1 65.9 65.2 62.4 59.6 53.6 52.6 51.6 24-Hour Daytime Nighttime Max 65.9 74.7 62.5 72.3 71.2 69.4 68.4 66.3 65.2 63.6 63.4 62.9 24-Hour Daytime Nighttime Energy Average 63.0 Average: 69.5 68.7 67.3 66.5 63.7 61.2 56.7 56.0 55.3 61.5 62.5 59.0 64.5 59.4 55.3 49.8 49.3 48.7 61.5 62.5 59.0 24-Hour 0aytime Nighttime Evening Min 58.2 67.5 48.3 66.0 65.6 64.8 61.3 57.4 51.7 51.1 50.6 61.5 62.5 59.0 24-Hour CNEL (dBA)	- MBIII	23	56.8	66.5	47.9	64.9	63.9	62.3	61.6	57.6	53.5	49.4	48.9	48.4	56.8	10.0	66.8
Day Min 61.4 69.2 51.1 67.3 67.1 65.9 65.2 62.4 53.6 53.6 52.6 51.6 24-Hour Daytime Nighttime Max 65.9 74.7 62.5 72.3 71.2 69.4 68.4 66.3 65.2 63.6 63.4 62.9 24-Hour Daytime Nighttime Energy Average 63.0 Average 63.0 Average 63.0 67.5 48.3 66.0 65.0 63.7 61.2 56.7 56.0 55.3 61.5 61.5 63.7 61.2 56.7 56.0 55.3 61.5 62.5 59.0 61.5 62.5 59.0 61.5 63.7 61.2 56.7 56.0 55.3 61.5 62.5 59.0 61.5 62.5 59.4 55.3 49.8 49.3 48.7 61.5 62.5 59.0 62.5 59.0 64.7 66.8 65.6 64.8 61.3 57.4 51.7 51.1 50.6 61.5 62.5 59.0 Kight Min 52.	Timeframe	Hour			L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		L _{eq} (dBA)	
Energy Average 63.0 Average: 69.5 68.7 67.3 66.5 63.7 61.2 56.7 56.0 55.3 61.5 62.5 62.5 63.7 61.2 56.7 56.0 55.3 61.5 62.5 62.5 59.0 62.5 63.7 61.2 56.7 56.0 55.3 61.5 62.5 59.0 62.5 59.0 62.5 55.3 49.8 49.3 48.7 61.5 62.5 59.0 62.5 59.0 62.5 62.5 59.0 62.5 59.0 62.5 59.0 62.5 59.0 62.5 59.0 62.5 59.0 62.5 59.0 62.5 59.0 62.5 59.0 62.5 59.0 62.5 59.0 62.5 59.0 62.5 59.0 62.5 59.0 62.5 59.0 62.5 62.5 63.7 61.2 50.0 50.0 51.1 50.6 61.5 62.5 59.0 62.5 62.5 62.5 63.3 60.1 50.3 50.6 50.0 48.7 61.5 61.5 62.5 59.0 6	Day	Max	65.9	09.2 74 7	62.5	07.9 72 3	07.1 71.2	69.9	68.4	66.3	59.0 65.2	53.0 63.6	52.0 63.4	62.9	24-Hour	Daytime	Nighttime
Min 58.2 67.5 48.3 66.0 65.0 63.5 62.8 59.4 55.3 49.8 49.3 48.7 61.5 62.5 59.0 Evening Max 60.2 70.2 50.2 68.1 66.8 65.6 64.8 61.3 57.4 51.7 51.1 50.6 Energy Average 59.3 Average: 67.3 66.2 64.8 63.9 60.1 56.3 50.0 49.4 44.7 51.1 50.6 24-Hour CNEL (dBA) Night Min 52.9 63.3 44.2 61.6 60.8 59.4 58.5 52.1 48.1 46.0 45.1 44.6 46.0 45.1 44.6 66.4 66.3	Energy	Average	63.0	Ave	erage:	69.5	68.7	67.3	66.5	63.7	61.2	56.7	56.0	55.3			
Wax 60.2 70.2 50.2 68.1 66.8 65.6 64.8 61.3 57.4 51.7 51.1 50.6 24-Hour CNEL (dBA) Energy Average 59.3 Average: 67.3 66.2 64.8 63.9 60.1 56.3 50.6 50.0 49.4 Night Min 52.9 63.3 44.2 61.6 60.8 59.4 58.5 52.1 48.1 46.0 45.1 44.6 Max 61.9 70.6 58.1 69.1 68.3 67.1 66.3 63.3 60.0 59.0 58.8 58.5 56.4 51.5 50.9 50.4 56.4 Energy Average 59.0 Average: 65.6 64.7 63.3 62.5 58.2 54.8 51.5 50.9 50.4 56.4	Evening	Min	58.2	67.5	48.3	66.0	65.0	63.5	62.8	59.4	55.3	49.8	49.3	48.7	61.2	62.5	59.0
Energy Average 59.3 Average: 67.3 66.2 64.8 63.9 60.1 56.3 50.6 50.0 49.4 Night Min 52.9 63.3 44.2 61.6 60.8 59.4 58.5 52.1 48.1 46.0 45.1 44.6 Max 61.9 70.6 58.1 69.1 68.3 67.1 66.3 63.3 60.0 59.0 58.8 58.5 Energy Average 59.0 Average: 65.6 64.7 63.3 62.5 58.2 54.8 51.5 50.9 50.4	Lvening	Max	60.2	70.2	50.2	68.1	66.8	65.6	64.8	61.3	57.4	51.7	51.1	50.6	24-	Hour CNEL (a	IBA)
Night Min 52.9 63.3 44.2 61.6 60.8 59.4 58.5 52.1 48.1 46.0 45.1 44.6 Max 61.9 70.6 58.1 69.1 68.3 67.1 66.3 63.3 60.0 59.0 58.8 58.5 Energy Average 59.0 Average: 65.6 64.7 63.3 62.5 58.2 54.8 51.5 50.9 50.4	Energy	Average	59.3	Ave	erage:	67.3	66.2	64.8	63.9	60.1	56.3	50.6	50.0	49.4			
Energy Average 59.0 Average: 65.6 64.7 63.3 62.5 58.2 54.8 51.5 50.9 50.4	Night	Min	52.9	63.3	44.2	61.6	60.8	59.4	58.5	52.1	48.1	46.0	45.1	44.6		66.4	
	Energy	Average	59.0	Ave	erage:	65.6	64.7	63.3	62.5	58.2	54.8	59.0	50.9	50.4			



						24-Ho	ur Noise L	evel Measu	urement Si	ummary						
Date: Project:	Wednesday Goodman L	y, April 29, 20 ogistics Cento	20 er		Location:	L5 - Located family reside	south of the ential homes	e Project site s at 1545 E Be	near existing enmore Lane	g single 	Meter:	Piccolo II			JN: Analyst:	13158 P. Mara
							Hourly L _{eq} (dBA Readings	(unadjusted)							
85.0	2															
6 80.0																
<u>ت</u> 70.0 65.0	3															
60.0 ٿـ 55.0 ح) 				4.7	<u>6</u> <u>6</u>			<u> </u>	<u>, </u>	5.4	<u> </u>	<mark>. – п</mark>		<u>8</u>	m
50.0		62	62	62	9	6 6 7	61	0		6 6	9 1 3	6 2	0	2 3	61	61
± 40.0																
	0	1 2	3	4 5	6	7 8	9 2	10 11	12 1	3 14	15 16	17	18 19	20	21 22	23
								Hour Be	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	60.9	61.5	60.4 61.4	61.4 62.6	61.4	61.3 62.5	61.2	61.1 62.1	60.9 61.9	60.6 61.6	60.5	60.4	60.9 62.0	10.0 10.0	70.9
	2	62.5	63.1	62.0	63.0	63.0	62.9	62.8	62.7	62.5	62.2	62.1	62.0	62.5	10.0	72.0
Night	3	62.3	63.5	61.6	63.3	63.1	62.8	62.7	62.4	62.2	61.9	61.8	61.7	62.3	10.0	72.3
	4	61.1	62.8	60.5	62.7	62.6	62.1	61.7	61.2	61.0	60.7	60.6	60.5	61.1	10.0	71.1
	5	62.2	68.4 71.9	60.4 61.3	67.9 71 5	67.2	65.9 69.0	64.5 67.6	62.1 65.1	61.3	60.7	60.5 61.5	60.4	62.2 64.7	10.0 10.0	72.2
	7	62.9	69.4	61.1	68.9	68.3	66.7	65.4	62.6	61.9	61.4	61.3	61.2	62.9	0.0	62.9
	8	62.9	69.3	61.0	68.8	68.0	66.5	65.6	62.8	61.8	61.3	61.2	61.1	62.9	0.0	62.9
	9	61.0	65.3	59.5	64.7	64.2	63.1	62.7	61.3	60.5	59.7	59.6	59.5	61.0	0.0	61.0
	10	62.1	66.0 75.0	60.7	65.7 74 5	65.3 72 7	64.4 71.6	63.9	62.4	61.6 61.0	61.1	61.0 60.1	60.8	62.1	0.0	62.1
	11	63.9	73.0	59.8	74.5	70.9	69.7	68.4	63.5	61.4	60.2	59.9	59.9	63.9	0.0	63.9
Day	13	65.5	70.3	62.3	70.1	69.8	69.0	68.2	65.9	64.6	63.0	62.7	62.4	65.5	0.0	65.5
	14	62.0	68.6	59.2	68.2	67.6	66.2	65.1	62.1	60.5	59.6	59.5	59.3	62.0	0.0	62.0
	15	65.4	77.5	61.1	75.8	74.3	70.8	67.8 CF F	64.0	62.8	61.7	61.5	61.3	65.4	0.0	65.4
	16 17	62.5	70.6 68.6	60.6 60.5	69.6 67.9	67.1	65.5	65.5 64 5	62.9 62.4	61.9	61.0 61.0	60.9 60.8	60.7 60.6	63.0 62.5	0.0	63.0 62.5
	18	62.1	65.3	60.6	64.9	64.6	63.9	63.3	62.3	61.8	61.1	60.9	60.7	62.1	0.0	62.1
	19	60.5	65.1	59.6	64.5	63.9	62.2	61.2	60.5	60.2	59.8	59.8	59.6	60.5	5.0	65.5
Evening	20	59.1	64.6	57.9	64.3	63.6	61.4	60.2	58.8	58.5	58.1	58.1	58.0	59.1	5.0	64.1
	21	59.8 61.3	64.0	58.9 60.7	63.7	62.9	61.3	60.6 61.8	59.8 61.5	59.5 61.3	59.1 60.9	59.1 60.8	59.0 60.7	59.8 61.3	5.0	64.8 71.3
Night	22	61.3	66.4	59.9	65.9	65.2	64.2	63.5	60.8	60.5	60.1	60.1	59.9	61.3	10.0	71.3
Timeframe	Hour	L _{eq}	L _{max}	L _{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		L _{eq} (dBA)	
Day	Min	61.0	65.3	59.2	64.7	64.2	63.1	62.7	61.3	60.5	59.6	59.5	59.3	24-Hour	Daytime	Nighttime
Energy	Average	63.5	77.5 Ave	erage:	75.8 69.2	68.5	67.0	65.8	63.1	61.9	60.9	60.8	62.4		60.0	62.2
Evoning	Min	59.1	64.0	57.9	63.7	62.9	61.3	60.2	58.8	58.5	58.1	58.1	58.0	62.7	63.0	62.2
Lvening	Max	60.5	65.1	59.6	64.5	63.9	62.2	61.2	60.5	60.2	59.8	59.8	59.6	24-	Hour CNEL (d	BA)
Energy	Average	59.9	Ave	erage:	64.2	63.5	61.6	60.7	59.7	59.4	59.0	59.0	58.9			
Night	Max	64.7	71.9	62.0	71.5	70.8	69.0	67.6	65.1	63.1	62.2	62.1	62.0		68.9	
Energy	Average	62.2	Ave	erage:	64.5	64.2	63.6	63.1	62.1	61.7	61.1	61.1	60.9	1		



						24-Ho	ur Noise L	evel Measu	urement S	ummary						
Date: Project:	Wednesday Goodman L	r, April 29, 20 ogistics Cent)20 :er		Location:	L6 - Located Presbytaria	southwest on Church.	of the Project	t site near th	e New Life	Meter:	Piccolo II			JN: Analyst:	13158 P. Mara
							Hourly L _{eq} (dBA Readings	(unadjusted)							
85.0)															
₹ 80.0																
B 70.0																
65.0 ج 60.0 ب					~~~~~											
≥ 55.0				62.5		0.8	1.7	0.22.0 1.3	52.4	1.2	63.2 52.0	1.6	<mark>- 8.</mark> 6. 6.0		.	
9 45.0	5.9 			52	+-	• • • • •		• • • • •		---	-	—		<mark>28</mark>	55.	
35.0																
	0	1 2	3	4 5	6	7 8	9 2	10 11	12 1	3 14	15 16	17	18 19	20	21 22	23
								Hour Be	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	52.9	62.3	44.5	62.0 58.1	61./	59.9	58.1	52.1	48.5	45.3	44.9	44.7	52.9 40.8	10.0	62.9
	2	49.8 50.7	59.5	45.1	59.2	58.8	57.6	55.8	50.0	45.5	45.0	43.4	44.3	49.8 50.7	10.0	60.7
Night	3	51.9	60.3	44.7	59.9	59.5	58.5	57.1	52.1	48.1	45.3	45.1	44.8	51.9	10.0	61.9
	4	55.6	63.8	48.0	63.3	62.8	61.5	60.2	56.1	52.8	48.8	48.4	48.1	55.6	10.0	65.6
	5	62.9	70.2	53.3	69.8	69.4	68.2	67.4	64.0	60.4	54.8	54.1	53.5	62.9	10.0	72.9
	6	64.2	72.4	54.2	72.1	71.7	70.2	68.9 65.0	64.6	61.5	56.1	55.2	54.4	64.2	10.0	74.2
	8	60.8	67.6	52.4	67.2	66.9	65.8	64.8	61.8	59.1	55.7	54.5 53.1	53.5 52.5	60.8	0.0	62.0 60.8
	9	61.7	70.0	52.4	69.6	69.2	67.7	66.5	62.0	59.3	54.2	53.4	52.6	61.7	0.0	61.7
	10	62.0	70.1	52.7	69.6	69.2	67.8	66.6	62.9	59.1	54.7	53.6	52.9	62.0	0.0	62.0
	11	61.3	70.5	52.7	69.8	69.0	66.9	65.5	61.6	58.7	54.3	53.5	52.8	61.3	0.0	61.3
Day	12	62.4	70.8	55.2	70.2	69.3	67.4	66.1	63.0	60.5	56.7	56.0	55.4	62.4	0.0	62.4
	13 14	61.2	72.1 69.1	55.0 54.4	/1./ 68.7	68.2	69.6 66.9	65.1	64.0 61.4	59 O	57.0	56.4 55.1	55.8 54.6	61.2	0.0	61.7
	15	63.2	71.1	56.6	70.8	70.3	68.6	67.3	63.5	61.2	57.9	57.4	56.8	63.2	0.0	63.2
	16	62.0	69.5	56.0	69.1	68.6	66.8	65.2	62.5	60.6	57.4	56.7	56.1	62.0	0.0	62.0
	17	61.6	69.3	54.7	68.9	68.4	66.9	65.4	62.1	59.8	56.1	55.3	54.8	61.6	0.0	61.6
	18	59.8	67.3	53.0	66.9	66.5	64.8	63.6	60.5	58.2	54.2	53.6	53.1	59.8	0.0	59.8
Evening	20	59.9	67.6	50.7 49 1	67.2	66.6	64 5	62.7	59.8	50.0	52.1	51.4 49.6	50.8 49.2	59.9	5.0	63.2
2001116	20	57.1	65.0	48.8	64.7	64.3	63.1	61.8	57.6	54.3	49.8	49.3	48.9	57.1	5.0	62.1
Night	22	55.8	63.9	48.2	63.6	63.2	61.8	60.3	56.3	52.7	49.0	48.6	48.3	55.8	10.0	65.8
Night	23	53.0	61.8	45.5	61.1	60.7	59.3	57.6	53.5	49.9	46.4	46.0	45.6	53.0	10.0	63.0
Timeframe	Hour	L _{eq}			L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%		L _{eq} (dBA)	
Day	iviin Max	59.8 63.7	07.3 72.1	52.4	00.9 71 7	00.5 71 1	69.6	68.1	60.5 64.0	58.2 61.2	54.1 57.9	53.1 57.4	52.5	24-Hour	Daytime	Nighttime
Energy	Average	61.9	Ave	erage:	69.2	68.7	67.2	65.9	62.3	59.8	55.7	54.9	54.2	со г	C1 A	го э
Evening	Min	57.1	65.0	48.8	64.7	64.3	63.1	61.8	57.6	54.3	49.8	49.3	48.9	00.5	01.4	50.3
	Max	59.9	68.5	50.7	68.1	67.7	66.8	65.1	59.8	56.6	52.1	51.4	50.8	24-	Hour CNEL (d	BA)
Energy	Average	58.6		erage:	66.6	66.2 57.7	64.8	63.2	58.5	55.4	50.7	50.1	49.7		~ -	
Night	Max	64.2	72.4	54.2	72.1	71.7	70.2	68.9	48.9 64.6	45.5 61.5	43.0	43.4 55.2	43.2 54.4		65.5	
Energy	Average	58.3	Ave	erage:	63.2	62.8	61.5	60.1	55.3	51.8	48.2	47.8	47.4			



	24-Hour Noise Level Measurement Summary															
Date: Project:	Wednesday Goodman L	v, April 29, 20 ogistics Cente	20 er		Location	L7 - Located	east of the l	Project site n	iear Seekers	Chapel.	Meter:	Piccolo I			JN: Analyst:	13158 P. Mara
							Hourly L _{eq} (dBA Readings	(unadjusted)							
85.0)															
3 80.0	2															
B 70.0	ž															
05.0 ٿ																
→ 55.0 → 50.0				- N			- <u>m</u>	2		- <u>m</u> –						
P 45.0	2 – 4 –	48.5	49.1	53.7	23.6	<mark>52.7</mark>	27.	22. 21			53.7 51.9	51.0	50.8 49.0	48.0	50.2	49.2
35.0	5 -															
	0	1 2	3	4 5	6	7 8	9 1	10 11	12 1	3 14	15 16	17	18 19	20	21 22	23
T '	11	,			140/	1.20/	1 = 0/			150%	1000/	105%	100%		A .!!	
Timeframe	Hour	L _{eq}			L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L _{eq}	Adj.	Adj. L _{eq}
	1	47.2	61.5	43.1 44.6	53.0 53.0	52.0	49.0 50.0	49.0	47.0	45.0	44.0	44.0 46.0	43.0 45.0	47.2	10.0	58.5
	2	47.5	61.4	44.4	53.0	52.0	49.0	48.0	47.0	46.0	45.0	45.0	44.0	47.5	10.0	57.5
Night	3	49.1	69.1	44.6	55.0	52.0	50.0	49.0	48.0	48.0	46.0	45.0	45.0	49.1	10.0	59.1
	4	53.7	82.5	44.7	61.0	57.0	53.0	51.0	48.0	47.0	46.0	46.0	45.0	53.7	10.0	63.7
	5	51.8	72.2	45.9	61.0	59.0	55.0	54.0	50.0	48.0	47.0	47.0	46.0	51.8	10.0	61.8
	5	53.0	74.2	46.1	63.0	59.0	58.0	55.0	52.0 49.0	49.0	47.0	47.0	46.0	53.0	0.0	53.0
	8	52.7	71.5	46.3	61.0	58.0	55.0	54.0	51.0	50.0	48.0	47.0	46.0	52.7	0.0	52.7
	9	54.3	78.8	47.6	63.0	60.0	57.0	55.0	51.0	50.0	49.0	48.0	48.0	54.3	0.0	54.3
	10	55.5	74.2	48.4	65.0	63.0	61.0	59.0	53.0	51.0	49.0	49.0	49.0	55.5	0.0	55.5
	11	58.7	83.3	49.4	66.0	65.0	64.0	63.0	56.0	52.0	51.0	50.0	50.0	58.7	0.0	58.7
Day	12	61.2 54.0	84.0 73.2	48.5 49.5	67.0 61.0	59.0	65.0 57.0	65.0 55.0	64.0 53.0	53.0 52.0	50.0	50.0 51.0	49.0 50.0	61.2 54.0	0.0	61.2 54.0
	13	55.3	70.7	50.4	64.0	62.0	59.0	57.0	54.0	53.0	52.0	51.0	51.0	55.3	0.0	55.3
	15	53.7	69.7	47.9	63.0	61.0	57.0	56.0	53.0	51.0	49.0	48.0	48.0	53.7	0.0	53.7
	16	51.9	68.7	47.2	61.0	58.0	54.0	53.0	51.0	50.0	48.0	48.0	47.0	51.9	0.0	51.9
	17	51.0	72.5	46.4	59.0	58.0	54.0	53.0	49.0	48.0	47.0	47.0	47.0	51.0	0.0	51.0
	18	50.8	73.8 69.0	45.8	56.0	57.0	55.0	52.0	48.0	47.0	46.0	46.0	46.0	50.8 49.0	5.0	50.8
Evening	20	48.9	60.9	46.7	54.0	52.0	50.0	49.0	49.0	48.0	47.0	40.0	47.0	48.9	5.0	53.9
Ű	21	50.2	69.7	46.2	59.0	56.0	51.0	50.0	49.0	48.0	47.0	47.0	46.0	50.2	5.0	55.2
Night	22	49.0	62.7	45.7	56.0	55.0	52.0	51.0	48.0	47.0	46.0	46.0	46.0	49.0	10.0	59.0
Time	23	49.2	66.5	46.0	55.0	53.0	51.0	50.0	49.0	48.0	47.0	47.0	46.0	49.2	10.0	59.2
Timejrame	Hour Min	L _{eq} 50.8	68 7	45.6	L1%	L2%	L5%	L8%	48 0	47 0	L90%	46.0	46.0		L _{eq} (UDA)	
Day	Max	61.2	84.0	50.4	67.0	65.0	65.0	65.0	64.0	53.0	52.0	40.0 51.0	51.0	24-Hour	Daytime	Nighttime
Energy	Average	55.5	Ave	erage:	62.8	60.4	57.8	56.3	52.7	50.4	48.8	48.4	48.1	527	5/ 8	506
Evening	Min	48.9	60.9	45.4	54.0	52.0	50.0	49.0	48.0	47.0	46.0	46.0	45.0	55.7	54.0	50.0
Enormy	Max	50.2	69.7	46.7	59.0	56.0	51.0	50.0	49.0	48.0	47.0	47.0	47.0	24	Hour CNEL (d	IBA)
Energy	Min	49.4	61 4	43.1	55.3	53.7	49.0	49.7	48.7	47.7	46.7	46.7 44 0	46.0			
Night	Max	53.7	82.5	46.1	63.0	61.0	58.0	56.0	52.0	49.0	47.0	47.0	46.0		58.1	
Energy	Average	50.6	Ave	erage:	56.7	54.7	51.9	50.8	48.6	47.3	46.0	45.9	45.1			



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APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE CONTOURS

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	FH	WA-RD-77-108	HIGHW	AY NO	ISE PF	REDICTIO	и мог	DEL			
Scenari Road Nam Road Segmer	o: Existing (2 e: Raymond / nt: n/o Kimber	020) Av. Iy Av.				Project N Job Nur	ame: 0 nber: 1	Goodm 3158	an Logistio	cs Cente	er
SITE S	SPECIFIC IN	NPUT DATA				NO	ISE N	IODEI		5	
Highway Data				Si	te Con	ditions (H	ard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	23,031 vehicl	es				A	Autos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 A	xles):	15		
Peak H	our Volume:	1,730 vehicle	s		He	avy Truck	s (3+ A	xles):	15		
Vel	hicle Speed:	40 mph		Ve	hicle I	Mix					
Near/Far Lar	ne Distance:	53 feet		-	Vehi	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						Au	tos:	77.5%	12.9%	9.6%	96.36%
Bar	rier Heiaht:			Me	edium Truc	cks: 1	84.8%	4.9%	10.3%	2.47%	
Barrier Type (0-W	all, 1-Berm):			ŀ	leavy Truc	cks: 1	86.5%	2.7%	10.8%	1.17%	
Centerline Dis	t. to Barrier:		No	nisa Sa	urce Flev	ations	in fo	of)			
Centerline Dist.	to Observer:	42.0 feet		-		Autos:	0.0	000	01/		
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	04	Grade Adj	ustmen	t: 0.0
Pa	d Elevation:	0.0 feet		-							
Roa	d Elevation:	0.0 feet		La	ne Equ	uivalent D	istanc	e (in f	eet)		
F	Road Grade:	0.0%				Autos:	32.9	966			
	Left View:	-90.0 degre	es		Mediur	m Trucks:	32.6	596			
	Right View:	90.0 degre	es		Heav	y Trucks:	32.7	23			
FHWA Noise Mode	I Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresne	el I	Barrier Atte	en Be	rm Atten
Autos:	66.51	0.89		2.61		-1.20		-4.60	0.0	00	0.000
Medium Trucks:	77.72	-15.01		2.66		-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	82.99	-18.27		2.66		-1.20		-5.53	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	attenua	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	V L	eq Eve	ning	Leq Ni	ght		Ldn	С	NEL
Autos:	68	3.8	68.2		66.4		60.3		69.0)	69.6
Medium Trucks:	64	1.2	63.9		57.5		56.0		64.5	;	64.7
Heavy Trucks:	66	3.2	66.0		57.0		58.2		66.6	1	66.7
Vehicle Noise:	71	1.6	71.1		67.3		63.3		71.8		72.2
Centerline Distanc	e to Noise C	ontour (in fee)								
				70 dE	8A 🛛	65 dE	8A .	6	0 dBA	55	5 dBA
			Ldn:		56		120		258		555
		С	NEL:		59		127		274		591

	FHV	VA-RD-77-108	HIGHW	AY NO	DISE PR	REDICTIO	N MOD	EL			
Scenari	o: Existing (20	20)				Project N	ame: G	oodm	an Logisti	cs Cente	r
Road Nam	e: Raymond A	v.				Job Nur	nber: 13	3158	-		
Road Segmer	nt: s/o Kimberl	y Av.									
SITE	SPECIFIC IN	PUT DATA				NO	ISE M	ODE		s	
Highway Data				S	ite Con	ditions (H	lard = 1	0, So	ft = 15)		
Average Daily	Traffic (Adt):	23,511 vehicle	s				Α	utos:	15		
Peak Hour	Percentage:	7.51%			Mee	dium Truc	ks (2 A)	des):	15		
Peak H	our Volume:	1,766 vehicles			Hea	avy Truck	s (3+ A)	des):	15		
Ve	hicle Speed:	40 mph		V	ehicle N	<i>lix</i>					
Near/Far La	ne Distance:	53 feet		Ē	Vehi	cleType	Ľ	Day	Evening	Night	Daily
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	96.36%
Bai	rier Height	0.0 feet			Me	dium Tru	cks: 8	4.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	all, 1-Berm):	0.0			H	leavy Tru	cks: 8	6.5%	2.7%	10.8%	1.17%
Centerline Dis	st. to Barrier:	42.0 feet			alaa C-		untion -	lin f-	o.41		
Centerline Dist.	to Observer:	42.0 feet		N	oise so	urce Elev	ations	(In re	et)		
Barrier Distance	to Observer:	0.0 feet			Modium	Autos:	0.0	JU 37			
Observer Height (Above Pad):	5.0 feet			Healur	n Trucks:	2.2	97	Grada Ad	iustmont	
Pa	ad Elevation:	0.0 feet			neav	y mucks.	0.0	J4	Olduc Au	usunon.	. 0.0
Roa	ad Elevation:	0.0 feet		Li	ane Equ	ivalent D	listance	e (in f	eet)		
1	Road Grade:	0.0%				Autos:	32.9	66			
	Left View:	-90.0 degree	s		Mediur	n Trucks:	32.6	96			
	Right View:	90.0 degree	s		Heav	y Trucks:	32.7	23			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	1	Barrier Att	en Ber	m Atten
Autos:	66.51	0.98		2.61		-1.20	-	4.60	0.0	000	0.000
Medium Trucks:	77.72	-14.92		2.66		-1.20	-	4.87	0.0	000	0.000
Heavy Trucks:	82.99	-18.18		2.66		-1.20	-	5.53	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	attenu	ation)						
VehicleType	Leq Peak Hou	ir Leq Day	L	eq Eve	ening	Leq Ni	ight		Ldn	CI	VEL
Autos:	68	.9	58.2		66.5		60.4		69.0)	69.7
Medium Trucks:	64	.3	54.0		57.6		56.1		64.5	5	64.8
Heavy Trucks:	66	.3	56.1		57.1		58.3		66.	7	66.8
Vehicle Noise:	71	.7	71.2		67.4		63.4		71.9	9	72.3
Centerline Distanc	e to Noise Co	ontour (in feet)		=0		05.5					10.4
				70 dl	BA	65 dE	BA	6	0 dBA	55	dBA
					50		101				
			Ldn:		56		121		261		563

Friday, May 15, 2020

FI	IWA-RD-77-108	HIGHW	ay no	DISE PR	REDICTIO	ON MO	DEL			
Scenario: Existing (2020)				Project N	lame:	Goodr	nan Logistio	cs Cente	er
Road Name: Raymond	AV.				JOD INU	mber:	13158			
Road Cogment: oro orang	outorpo / tt.									
SITE SPECIFIC	NPUT DATA			ite Con	NC Nitiono (I	DISEI			5	
Highway Data			31	le con	unons (i	iaru =	10, 3	511 = 15)		
Average Daily Traffic (Adt):	29,674 vehicle	es		Ma	diumo Truu	aka (D	Autos.	15		
Peak Hour Percentage:	7.51%			Neo	aium Trud	CKS (2)	4xies). Avice)	15		
Peak Hour Volume:	2,229 venicies	s		пеа	avy muci	(5 (3+)	uxies).	15		
Venicle Speed:	40 mpn		Ve	ehicle N	<i>lix</i>					
Near/Far Lane Distance:	53 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data					A	utos:	77.5%	6 12.9%	9.6%	96.36%
Barrier Height:	0.0 feet			Me	edium Tru	icks:	84.8%	6 4.9%	10.3%	2.47%
Barrier Type (0-Wall, 1-Berm):	0.0			H	leavy Tru	icks:	86.5%	6 2.7%	10.8%	1.17%
Centerline Dist. to Barrier:	42.0 feet		N	oise So	urce Ele	vation	s (in f	eet)		
Centerline Dist. to Observer:	42.0 feet		-	0.00 00	Autos	0	000	000		
Barrier Distance to Observer:	0.0 feet			Mediur	n Trucks	2	297			
Observer Height (Above Pad):	5.0 feet			Heav	v Trucks	8	004	Grade Adi	ustment	0.0
Pad Elevation:	0.0 feet			mour	y maono.	0.				
Road Elevation:	0.0 feet		La	ane Equ	ivalent l	Distan	ce (in	feet)		
Road Grade:	0.0%				Autos:	32.	966			
Left View:	-90.0 degree	es		Mediun	n Trucks:	32.	696			
Right View:	90.0 degree	es		Heav	y Trucks:	32.	723			
FHWA Noise Model Calculatio	ns									
VehicleType REMEL	Traffic Flow	Distar	ice	Finite	Road	Fresi	nel	Barrier Atte	en Bei	m Atten
Autos: 66.5	1 1.99		2.61		-1.20		-4.60	0.0	00	0.000
Medium Trucks: 77.7	2 -13.91		2.66		-1.20		-4.87	0.0	00	0.000
Heavy Trucks: 82.9	9 -17.16		2.66		-1.20		-5.53	0.0	00	0.000
Unmitigated Noise Levels (wit	hout Topo and	barrier a	ttenu	ation)						
VehicleType Leq Peak H	our Leq Day	/ Le	eq Eve	ening	Leq N	light		Ldn	C	NEL
Autos: 6	9.9	69.3		67.5		61.4	1	70.1		70.7
Medium Trucks: 6	35.3	65.0		58.6		57.	1	65.6		65.8
Heavy Trucks: 6	37.3	67.1		58.1		59.3	3	67.7		67.8
Vehicle Noise:	2.7	72.2		68.4		64.4	1	72.9)	73.3
Centerline Distance to Noise	Contour (in feet)								
			70 dE	BA	65 d	BA	1	60 dBA	55	dBA
		Ldn:		66		142		305		658
	-							-		-

	FHV	VA-RD-77-108	HIGHW	VAY N	OISE PF	REDICTI	ON MOI	DEL			
Scenar Road Nam Road Segmei	io: Existing (20 e: Raymond A nt: s/o SR-91 \	020) w. Westbound Rar	nps			Project Job N	Name: (umber: 1	Goodn 13158	nan Logisti	cs Cente	er
SITE	SPECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUT	S	
Highway Data				S	Site Con	ditions ('Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	28,583 vehicle	s				,	Autos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Tru	icks (2 A	(xles):	15		
Peak H	our Volume:	2,147 vehicles	;		He	avy Truc	ks (3+ A	xles):	15		
Ve	hicle Speed:	50 mph									
Near/Far La	ne Distance:	45 feet		V	venicle l	NIX ioloTuno		Dav	Evening	Night	Dailu
0/4- 0-4-					veni	cierype		Day 77.50	Evening	Night	Dally
Site Data				_		A A	utos:	11.5%	12.9%	9.6%	90.30%
Bai	rrier Height:	0.0 feet			IVIE	eaium Tr	UCKS:	84.8%	0.7%	10.3%	2.47%
Barrier Type (0-W	'all, 1-Berm):	0.0			F	Heavy Ir	UCKS:	80.3%	2.7%	10.8%	1.17%
Centerline Dis	st. to Barrier:	45.0 feet		Ν	loise So	ource Ele	evations	s (in fe	eet)		
Centerline Dist.	to Observer:	45.0 feet				Autos	: 0.0	000			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	: 2.2	297			
Observer Height (Above Pad):	5.0 feet			Heav	y Trucks	: 8.0	004	Grade Ad	iustmen	t: 0.0
Pa	ad Elevation:	0.0 feet					Distant		64		
Roa	ad Elevation:	0.0 feet		L	ane Equ	livalent	Distanc	e (In	reet)		
	Road Grade:	0.0%				Autos	:: 39.1	291			
	Left View:	-90.0 degree	s		Mediur	n Trucks	:: 39.0	J65			
	Right View:	90.0 degree	s		Heav	y Trucks	:: 39.0	187			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	en Be	rm Atten
Autos:	70.20	0.86		1.47	,	-1.20		-4.62	0.0	000	0.000
Medium Trucks:	81.00	-15.04		1.50)	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-18.30		1.50)	-1.20		-5.49	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	uation)						
VehicleType	Leq Peak Hou	Ir Leq Day	L	Leq Ev	ening	Leq I	Vight		Ldn	C	NEL
Autos:	71	.3	70.7		68.9		62.9		71.5	5	72.1
Medium Trucks:	66	.3	66.0		59.6		58.1		66.6	6	66.8
Heavy Trucks:	67	.4	67.2		58.2		59.4		67.8	3	67.9
Vehicle Noise:	73	.7	73.2		69.7		65.4		73.9)	74.3
Centerline Distance	e to Noise Co	ontour (in feet)									
				70 d	IBA	65 0	1BA	6	60 dBA	55	i dBA
			Ldn:		82		176		380		819
		CI	VEL:		87		188		406		875

	FH	WA-RD-77-10	8 HIGH	WAY NO	DISE P	REDICTIC	ON MOI	DEL			
Scenario Road Name Road Segmen	2: Existing (2) 2: Raymond / 1: s/o SR-91	020) Av. Eastbound Ra	mps			Project N Job Nu	lame: (mber: 1	Goodn 3158	nan Logistic	s Cente	٢
SITE S	PECIFIC IN	VPUT DATA				NC	DISE N	IODE	L INPUTS	;	
Highway Data				Si	ite Cor	nditions (F	lard =	10, Sc	oft = 15)		
Average Daily 1	raffic (Adt):	29,102 vehic	les					Autos:	15		
Peak Hour I	Percentage:	7.51%			Me	edium Truc	cks (2 A	xles):	15		
Peak Ho	our Volume:	2,186 vehicle	es		He	eavy Truck	is (3+ A	xles):	15		
Veh	icle Speed:	50 mph		V	ehicle	Mix					
Near/Far Lan	e Distance:	45 feet		E F	Veł	nicleType		Dav	Evenina	Niaht	Dailv
Site Data						AL	itos:	77.5%	12.9%	9.6%	96.36%
Bar	rier Heiaht:	0.0 feet			Μ	ledium Tru	cks:	84.8%	4.9%	10.3%	2.47%
Barrier Type (0-Wa	all, 1-Berm):				Heavy Tru	cks:	86.5%	2.7%	10.8%	1.17%	
Centerline Dis	t. to Barrier:		N	nisa S	ource Ele	vations	in fa	of)			
Centerline Dist. t	o Observer:	45.0 feet			0.00 0	Autos	0.0	000			
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Trucks	2.2	97			
Observer Height (A	Above Pad):	5.0 feet			Hea	vv Trucks:	8.0	04	Grade Adj	ustment	: 0.0
Pa	d Elevation:	0.0 feet		-					,		
Roa	d Elevation:	0.0 feet		Lá	ane Eq	uivalent L	Distanc	e (in i	leet)		
F	load Grade:	0.0%				Autos:	39.2	291			
	Left View:	-90.0 degre	es		Mediu	m Trucks:	39.0)65			
	Right View:	90.0 degre	es		неа	vy Trucks:	39.0	187			
FHWA Noise Mode	I Calculation	IS		-							
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresn	el	Barrier Atte	en Bei	m Atten
Autos:	70.20	0.94	ļ	1.47		-1.20		-4.62	0.0	00	0.000
Medium Trucks:	81.00	-14.96	6	1.50		-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	85.38	-18.22	2	1.50		-1.20		-5.49	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	l barrie	r attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y	Leq Eve	ening	Leq N	light		Ldn	C	NEL
Autos:	71	1.4	70.8		69.0		62.9		71.6		72.2
Medium Trucks:	66	6.3	66.1		59.7		58.2		66.6		66.9
Heavy Trucks:	67	7.5	67.3		58.2		59.5		67.8		68.0
Vehicle Noise:	73	3.8	73.3		69.8		65.5		74.0		74.4
Centerline Distance	e to Noise C	ontour (in fee	t)	70 -1	24	05 1	0.4		0 -10 4		-/0.4
			Ldn	70 dE	5A 00	65 di	5A 170	e	DU BBA	55	abA
			Lan:		83		1/9		385		829
		C	INEL:		89		191		411		885

	FHV	/A-RD-77-108	HIGHW	AY NO		REDICTIO	N MOD	EL _			
Scenari	o: Existing (20	20)				Project N	ame: G	oodm	an Logisti	cs Cente	r
Road Nam	e: Acacia Av.					Job Nur	nber: 13	3158			
Road Segmer	nt: n/o Kimberl	y Av.									
SITES	SPECIFIC IN	PUT DATA				NO	ISE M	ODE		6	
Highway Data				S	ite Con	ditions (H	lard = 1	0, Sc	ft = 15)		
Average Daily	Traffic (Adt):	7,815 vehicle	s				A	utos:	15		
Peak Hour	Percentage:	7.51%			Mee	dium Truc	ks (2 Ax	des):	15		
Peak H	our Volume:	587 vehicles	5		Hea	avy Truck	s (3+ A)	des):	15		
Vel	hicle Speed:	40 mph		V	ehicle N	<i>lix</i>					
Near/Far Lar	ne Distance:	45 feet			Vehi	cleType	D	ay	Evening	Night	Daily
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	96.36%
Bar	rier Height:	0.0 feet			Me	edium Tru	cks: 8	4.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	all, 1-Berm):	0.0			E	leavy Tru	cks: 8	6.5%	2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	40.0 feet			laisa Sa	urco Elos	ations	(in fe	(of)		
Centerline Dist.	to Observer:	40.0 feet		74	0136 30	Autor:	0.00		ei)		
Barrier Distance	to Observer:	0.0 feet			Modiur	n Trucke:	2.00	70			
Observer Height (J	Above Pad):	5.0 feet			Hoav	v Trucks:	2.23	57 74	Grade Ad	ustment	:00
Pa	d Elevation:	0.0 feet			neav	y mucho.	0.00	,4	,		0.0
Roa	d Elevation:	0.0 feet		L	ane Equ	ıivalent D	listance	e (in f	eet)		
F	Road Grade:	0.0%				Autos:	33.44	48			
	Left View:	-90.0 degree	s		Mediur	n Trucks:	33.18	32			
	Right View:	90.0 degree	s		Heav	y Trucks:	33.20	38			
FHWA Noise Mode	Calculation:	6									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresne	1	Barrier Att	en Ber	m Atten
Autos:	66.51	-3.80		2.52		-1.20		4.59	0.0	000	0.000
Medium Trucks:	77.72	-19.70		2.57		-1.20	-4	4.87	0.0	000	0.000
Heavy Trucks:	82.99	-22.96		2.56		-1.20	-	5.56	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	L	eq Ev	ening	Leq Ni	ight		Ldn	CI	VEL
Autos:	64	.0	63.4		61.6		55.5		64.2	2	64.8
Medium Trucks:	59	.4	59.1		52.8		51.2		59.7	,	59.9
Heavy Trucks:	61	.4	61.2		52.2		53.4		61.8	3	61.9
Vehicle Noise:	66	.8	66.3		62.6		58.5		67.0)	67.4
Centerline Distanc	e to Noise Co	ntour (in feet)									
				70 d	BA	65 dE	BA	6	0 dBA	55	dBA
			Lan:		25		55		118		254
		0	151.		07		50		405		070

Friday, May 15, 2020

FH	WA-RD-77-108 HIG	HWAY	NOISE PI	REDICTI	ION MC	DEL			
Scenario: Existing (2 Road Name: Acacia Av. Road Segment: s/o Kimber	020) Iy Av.			Project Job N	Name: umber:	Goodr 13158	nan Logist	ics Cent	er
SITE SPECIFIC II	NPUT DATA			N	OISE	MODE	L INPUT	S	
Highway Data			Site Con	ditions	(Hard =	: 10, S	oft = 15)		
Average Daily Traffic (Adt):	7,548 vehicles					Autos.	15		
Peak Hour Percentage:	7.51%		Me	dium Tru	ucks (2	Axles).	15		
Peak Hour Volume:	567 vehicles		He	avy Truc	cks (3+	Axles).	15		
Vehicle Speed:	40 mph	-	Mahiala	<i>a</i>					
Near/Far Lane Distance:	45 feet	-	Venicie I	VIIX		Dav	Evoning	Night	Daily
Site Data			ven	icie i ype	Autos:	77.5%	Evening	9.6%	06.36%
Demise Usinkt	0.0.6		М	, edium Tr	ucks:	84.8%	6 <u>4.9%</u>	10.3%	2.47%
Barrier Height:	0.0 feet			Heavy Tr	ucks:	86.5%	6 2.7%	10.8%	5 1.17%
Contorlino Dist to Parrier	0.0 40.0 foot								
Centerline Dist. to Observer:	40.0 feet		Noise So	ource El	evation	s (in f	eet)		
Barrier Distance to Observer:	0.0 feet			Autos	s: 0	000			
Observer Height (Above Pad):	5.0 feet		Mediu	m Trucks	s: 2	297			
Pad Elevation:	0.0 feet		Heav	y Trucks	s: 8	.004	Grade Ad	ljustmen	t: 0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent	Distan	ce (in	feet)		
Road Grade:	0.0%			Autos	s: 33	.448			
Left View:	-90.0 degrees		Mediu	m Trucks	s: 33	182			
Right View:	90.0 degrees		Heav	y Trucks	s: 33	.208			
FHWA Noise Model Calculation	IS								
VehicleType REMEL	Traffic Flow D	Distance	Finite	Road	Fres	nel	Barrier At	ten Be	rm Atten
Autos: 66.51	-3.95	2.5	52	-1.20		-4.59	0.	000	0.00
Medium Trucks: 77.72	-19.85	2.5	57	-1.20		-4.87	0.	000	0.00
Heavy Trucks: 82.99	-23.11	2.5	56	-1.20		-5.56	0.	000	0.00
Unmitigated Noise Levels (with	out Topo and barr	rier attei	nuation)						
VehicleType Leq Peak Ho	ur Leq Day	Leq E	evening	Leq	Night		Ldn	C	NEL
Autos: 6	3.9 63.2	2	61.5		55.	4	64.	0	64.
Medium Trucks: 5	9.2 59.0)	52.6		51.	1	59.	5	59.
Heavy Trucks: 6	1.2 61.1		52.0		53.	3	61.	6	61.
Vehicle Noise: 6	6.6 66.2	2	62.4		58.	4	66.	9	67.
Centerline Distance to Noise C	ontour (in feet)								
		70	dBA	65 (dBA	1	60 dBA	55	5 dBA
	Ldn.	2	25		53	3	115) -	248
	CNEL	:	26		57	,	122	2	263

	FH\	WA-RD-77-108	HIGHW	AY N	OISE PR	EDICTI	ON MO	DEL			
Scenar Road Nam Road Segme	io: Existing (20 ne: N. State Co nt: n/o Chapm	020) bliege Bl. an Av.				Project Job N	Name: umber:	Goodr 13158	man Logis	tics Ce	enter
SITE	SPECIFIC IN	IPUT DATA				N	OISE I	NODE	L INPU	rs	
Highway Data				S	ite Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	36,863 vehicle	s					Autos	15		
Peak Hour	Percentage:	7.51%			Mee	dium Tru	icks (2)	Axles)	: 15		
Peak H	lour Volume:	2,769 vehicles	6		Hea	avy Truc	cks (3+)	Axles)	: 15		
Ve	hicle Speed:	40 mph		L.	lahiala I	ni~					
Near/Far La	ne Distance:	88 feet			Vehi	cleTvne		Dav	Evening	Niał	nt Daily
Site Data				-	V OI II	μοτ. γρο Α	Autos:	77.5%	6 12.9%	9.0	6% 96.36%
Pa	rrior Hoight:	0.0 foot			Me	dium Ti	ucks:	84.89	6 4.9%	10.	3% 2.47%
Barrier Type (0-W	(all 1-Berm)	0.0 1001			H	leavy Tr	ucks:	86.5%	6 2.7%	10.	8% 1.17%
Centerline Di	st. to Barrier:	50.0 feet		-							
Centerline Dist.	to Observer:	50.0 feet		N	loise So	urce El	evation	s (in f	eet)		
Barrier Distance	to Observer:	0.0 feet			1 4 m all 1 m	Autos	s: 0.	000			
Observer Height	Above Pad):	5.0 feet			weatur		s: 2.	297	Crada A	divotro	ont: 0.0
Pa	ad Elevation:	0.0 feet			neav	y mucks	s. o.	004	Grade A	ujusun	em. 0.0
Roa	ad Elevation:	0.0 feet		L	ane Equ	iivalent	Distan	ce (in	feet)		
	Road Grade:	0.0%				Autos	s: 24.	269			
	Left View:	-90.0 degree	s		Mediur	n Truck	s: 23.	902			
	Right View:	90.0 degree	es		Heav	y Truck	s: 23.	938			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresr	nel	Barrier A	tten	Berm Atten
Autos:	66.51	2.94		4.61		-1.20		-4.65	0	.000	0.000
Medium Trucks:	77.72	-12.97		4.70)	-1.20		-4.87	0	.000	0.000
Heavy Trucks:	82.99	-16.22		4.69)	-1.20		-5.43	0	.000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	attenu	lation)						
VehicleType	Leq Peak Ho	ur Leq Day	·	eq Ev	ening	Leq	Night		Ldn		CNEL
Autos:	72	2.9	72.2		70.4		64.4	4	73	.0	73.6
Medium Trucks:	68	3.3	68.0		61.6		60.1	1	68	.5	68.8
Heavy Trucks:	70).3	70.1		61.1		62.3	3	70	.7	70.8
Vehicle Noise:	75	5.6	75.2		71.4		67.4	4	75	.9	76.3
Centerline Distant	ce to Noise C	ontour (in feet)								
				70 d	BA	65 (dBA		60 dBA		55 dBA
			Ldn:		123		266		57	2	1,233
		Ci	VEL:		131		282		60	8	1,311

	FH	WA-RD-77-10	3 HIGHV	NAY NO	ISE PI	REDICTIO	N MOD)EL			
Scenario Road Name Road Segmen	o: Existing (2 e: N. State Co t: s/o Chapm	020) ollege Bl. an Av.				Project N Job Nur	lame: G nber: 1	Goodm 3158	nan Logistio	s Cente	er
SITE S	PECIFIC IN	NPUT DATA				NO	ISE M	ODE	L INPUTS	5	
Highway Data				Si	te Con	ditions (H	lard = 1	10, So	oft = 15)		
Average Daily	Traffic (Adt):	25,624 vehic	es				A	utos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 A	xles):	15		
Peak He	our Volume:	1,925 vehicle	s		He	avy Truck	s (3+ A	xles):	15		
Vel	nicle Speed:	35 mph		Ve	hicle	Mix					
Near/Far Lar	ne Distance:	88 feet			Veh	icleType	1	Dav	Evenina	Niaht	Dailv
Site Data						Au	tos: 1	77.5%	12.9%	9.6%	96.36%
Bar	rier Heiaht [.]	0.0 feet			М	edium Tru	cks: 8	34.8%	4.9%	10.3%	2.47%
Barrier Type (0-Wa	all, 1-Berm):	0.0			I	Heavy Tru	cks: 8	36.5%	2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	50.0 feet		No	nise Sr	ource Flev	ations	(in fe	pet)		
Centerline Dist. t	o Observer:	50.0 feet				Autos:	0.0	00	.00		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Trucks:	2.2	97			
Observer Height (/	Above Pad):	5.0 feet			Heav	v Trucks:	8.0	04	Grade Adj	ustmen	t: 0.0
Pa	d Elevation:	0.0 feet			mour	y maono.	0.0	•••			
Roa	d Elevation:	0.0 feet		La	ne Eq	uivalent D	Distanc	e (in f	feet)		
F	Road Grade:	0.0%				Autos:	24.2	69			
	Left View:	-90.0 degre	es		Mediu	m Trucks:	23.9	02			
	Right View:	90.0 degre	es		Heav	y Trucks:	23.9	38			
FHWA Noise Mode	I Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresne	e/	Barrier Atte	en Be	rm Atten
Autos:	64.30	1.94	ļ.	4.61		-1.20	-	4.65	0.0	00	0.000
Medium Trucks:	75.75	-13.97	,	4.70		-1.20	-	4.87	0.0	00	0.000
Heavy Trucks:	81.57	-17.22	2	4.69		-1.20	-	5.43	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	attenua	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	у	Leq Eve	ning	Leq Ni	ight		Ldn	С	NEL
Autos:	69	9.6	69.0		67.2		61.2		69.8		70.4
Medium Trucks:	65	5.3	65.0		58.7		57.1		65.6		65.8
Heavy Trucks:	67	7.8	67.7		58.6		59.9		68.2		68.4
Vehicle Noise:	72	2.7	72.3		68.3		64.5		73.0		73.3
Centerline Distanc	e to Noise C	ontour (in fee	t)								
			L	70 dE	8A -	65 dE	BA	6	60 dBA	55	dBA
			Ldn:		79		170		366		788
		C	NEL:		84		180		388		836

	FHV	VA-RD-77-108	HIGHW	AY NC		REDICTIO	N MODE	L			
Scenari	o: Existing (20	20)				Project N	ame: Go	odma	n Logisti	cs Cente	r
Road Nam	e: N. State Co	llege Bl.				Job Nu	nber: 13	158			
Road Segmer	nt: s/o Commo	nwealth Av.									
SITE	SPECIFIC IN	PUT DATA				NC	ISE MO	DEL	INPUT	s	
Highway Data				S	ite Cond	ditions (H	lard = 10	, Soft	t = 15)		
Average Daily	Traffic (Adt):	23,284 vehicle	es				Au	tos:	15		
Peak Hour	Percentage:	7.51%			Med	dium Truc	ks (2 Axl	es):	15		
Peak H	our Volume:	1,749 vehicles	3		Hea	avy Truck	s (3+ Axl	es):	15		
Vel	hicle Speed:	40 mph		V	ehicle N	<i>lix</i>					
Near/Far Lar	ne Distance:	88 feet			Vehi	cleType	Da	iv E	vening	Night	Daily
Site Data						AL	tos: 77	.5%	12.9%	9.6%	96.36%
Bar	rier Height:	0.0 feet			Me	edium Tru	cks: 84	.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	all. 1-Berm):	0.0			H	leavy Tru	cks: 86	.5%	2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	50.0 feet							4		
Centerline Dist.	to Observer:	50.0 feet		N	0/se 50	urce Elev	ations (in ree	t)		
Barrier Distance	to Observer:	0.0 feet			1 da - 16 - 10	Autos:	0.000	7			
Observer Height (J	Above Pad):	5.0 feet			Mealun	n Trucks:	2.29		Srada Ad	iustmont	
Pa	ad Elevation:	0.0 feet			Heav	y Trucks:	8.004	+ 0	naue Au	Jusuneni	. 0.0
Roa	ad Elevation:	0.0 feet		La	ane Equ	iivalent D	listance	(in fe	et)		
F	Road Grade:	0.0%				Autos:	24.26	9			
	Left View:	-90.0 degree	s		Mediun	n Trucks:	23.90	2			
	Right View:	90.0 degree	s		Heav	y Trucks:	23.93	В			
FHWA Noise Mode	el Calculation:	s									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresnel	В	arrier Att	en Ber	m Atten
Autos:	66.51	0.94		4.61		-1.20	-4	.65	0.0	000	0.000
Medium Trucks:	77.72	-14.96		4.70		-1.20	-4	.87	0.0	000	0.000
Heavy Trucks:	82.99	-18.22		4.69		-1.20	-5	.43	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	attenu	ation)						
VehicleType	Leq Peak Hou	ir Leq Day	· L	eq Eve	ening	Leq N	ight	L	.dn	CI	VEL
Autos:	70	.9	70.2		68.4		62.4		71.0)	71.6
Medium Trucks:	66	.3	66.0		59.6		58.1		66.5	5	66.8
Heavy Trucks:	68	.3	68.1		59.1		60.3		68.7	7	68.8
Vehicle Noise:	73	.6	73.2		69.4		65.4		73.9	9	74.3
		ontour (in feet)								10.4
Centerline Distanc	e to Noise Co	(70 .10		00.00					
Centerline Distanc	e to Noise Co		L	70 dE	BA	65 dE	BA IOC	60	dBA	55	dBA 000
Centerline Distanc	e to Noise Co		Ldn:	70 dł	91	65 dE	196	60	421	55	908 908

Friday, May 15, 2020

FF	WA-RD-77-108 H	IGHWAY	NOISE PR	REDICTIO	N MODEL	-		
Scenario: Existing (2 Road Name: N. State C Road Segment: s/o Kimbe	2020) college Bl. rly Av.			Project Na Job Nun	ame: Goo aber: 131	dman Logistio 58	s Cente	r
SITE SPECIFIC I	NPUT DATA			NO	ISE MO	DEL INPUTS	5	
Highway Data			Site Con	ditions (H	ard = 10,	Soft = 15)		
Average Daily Traffic (Adt):	23,058 vehicles				Auto	os: 15		
Peak Hour Percentage:	7.51%		Me	dium Trucł	is (2 Axle	s): 15		
Peak Hour Volume:	1,732 vehicles		He	avy Trucks	(3+ Axle	s): 15		
Vehicle Speed:	40 mph		Vehicle I	Mix				
Near/Far Lane Distance:	88 feet		Venicle	icleTvpe	Dav	/ Evenina	Niaht	Dailv
Site Data				Aut	os: 77.	5% 12.9%	9.6%	96.36%
Barrier Height:	0.0 feet		M	edium Truc	ks: 84.	8% 4.9%	10.3%	2.47%
Barrier Type (0-Wall, 1-Berm):	0.0		ŀ	leavy Truc	ks: 86.	5% 2.7%	10.8%	1.17%
Centerline Dist. to Barrier:	50.0 feet		Noine Co	uree Elev	ationa (ir	(aa4)		
Centerline Dist. to Observer:	50.0 feet		NOISe SC	Autoor		l leel)		
Barrier Distance to Observer:	0.0 feet		Modiu	Autos.	0.000			
Observer Height (Above Pad):	5.0 feet		Hoo	n Trucks.	2.237	Grade Adi	ustmont	. 0 0
Pad Elevation:	0.0 feet		Tieav	y mucks.	0.004	Orade Auj	usunon	. 0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent D	istance (I	in feet)		
Road Grade:	0.0%			Autos:	24.269			
Left View:	-90.0 degrees		Mediu	m Trucks:	23.902			
Right View:	90.0 degrees		Heav	y Trucks:	23.938			
FHWA Noise Model Calculatio	ns							
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atte	en Ber	m Atten
Autos: 66.5	1 0.90	4.	61	-1.20	-4.6	65 0.0	00	0.000
Medium Trucks: 77.7	2 -15.00	4.	70	-1.20	-4.8	37 0.0	00	0.000
Heavy Trucks: 82.9	9 -18.26	4.	69	-1.20	-5.4	13 0.0	00	0.000
Unmitigated Noise Levels (wit	hout Topo and ba	arrier atte	nuation)					
VehicleType Leq Peak Ho	our Leq Day	Leq	Evening	Leq Nig	ght	Ldn	C	NEL
Autos: 7	0.8 70).2	68.4		62.3	71.0		71.6
Medium Trucks: 6	6.2 65	5.9	59.6		58.0	66.5		66.7
Heavy Trucks: 6	8.2 68	3.0	59.0		60.3	68.6		68.
Vehicle Noise: 7	3.6 73	3.2	69.4		65.3	73.8		74.2
Centerline Distance to Noise C	Contour (in feet)		1					
		. 70	aBA	65 dB	A (0.1	60 dBA	55	aBA
	Lo	3n: -	90		194	419		902
	CNE	=L.:	96		207	445		959

	FH\	WA-RD-77-108 H	IGHWAY	NOISE PI	REDICTIO	ON MOI	DEL			
Scenan Road Nam Road Segmei	io: Existing (20 e: N. State Co nt: s/o Dwy. 10	020) bilege Bl. S			Project I Job Nu	Vame: (mber: 1	Goodn 13158	nan Logistio	cs Cente	er
SITE	SPECIFIC IN	IPUT DATA			NO	DISE N	IODE	L INPUTS	5	
Highway Data				Site Con	ditions (I	Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	23,244 vehicles					Autos:	15		
Peak Hour	Percentage:	7.51%		Me	dium True	cks (2 A	xles):	15		
Peak H	our Volume:	1,746 vehicles		He	avy Truck	ks (3+ A	(xles):	15		
Ve	hicle Speed:	40 mph		Vahiala	Mix					
Near/Far La	ne Distance:	88 feet		Venicle I	icleTvne		Dav	Evening	Night	Daily
Site Data				VCI	A	utos:	77.5%	12.9%	9.6%	96.36%
Ba	rior Hoight:	0.0 foot		M	edium Tru	icks:	84.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	all 1-Borm)	0.0 1001		I	Heavy Tru	icks:	86.5%	2.7%	10.8%	1.17%
Centerline Dis	st. to Barrier:	50.0 feet		Noise Or				4)		
Centerline Dist.	to Observer:	50.0 feet		Noise Sc	ource Ele	vations		eet)		
Barrier Distance	to Observer:	0.0 feet		Madiu	Autos:	0.0	007			
Observer Height (Above Pad):	5.0 feet		Wealu	III TTUCKS.	2.2	297	Grada Ad	ustmon	+ 0 0
Pa	ad Elevation:	0.0 feet		neav	ly mucks.	0.0	JU4	Graue Auj	usunen	. 0.0
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent l	Distanc	e (in :	feet)		
	Road Grade:	0.0%			Autos:	24.2	269			
	Left View:	-90.0 degrees		Mediu	m Trucks.	23.9	902			
	Right View:	90.0 degrees		Heav	/y Trucks:	23.9	938			
FHWA Noise Mode	el Calculation	s								
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresn	el	Barrier Atte	en Be	rm Atten
Autos:	66.51	0.93	4	.61	-1.20		-4.65	0.0	000	0.000
Medium Trucks:	77.72	-14.97	4	.70	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-18.23	4	.69	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and ba	nrrier atte	enuation)						
VehicleType	Leq Peak Ho	ur Leq Day	Leq	Evening	Leq N	light		Ldn	С	NEL
Autos:	70).9 70	.2	68.4		62.4		71.0)	71.6
Medium Trucks:	66	66	.0	59.6		58.1		66.5	5	66.8
Heavy Trucks:	68	3.3 68	.1	59.0		60.3	1	68.7	,	68.8
Vehicle Noise:	73	3.6 73	.2	69.4		65.4		73.9)	74.3
Centerline Distance	e to Noise C	ontour (in feet)								
			70) dBA	65 d	BA	6	60 dBA	55	dBA
		Lo	In:	91		195		421		907
		CNE	EL:	96		208		447		964

	FH	WA-RD-77-1	08 HIGI	HWAY	NOISE P	REDICTIO	N MODEI			
Scenari Road Nam Road Segmer	io: Existing (2 e: N. State Co nt: s/o Orange	020) ollege Bl. ethorpe Av.				Project N Job Nur	ame: Goo nber: 131	idman Logisti 58	cs Center	
SITE	SPECIFIC IN	VPUT DAT	A			NO	ISE MOI	DEL INPUT	s	
Highway Data					Site Cor	nditions (H	ard = 10,	Soft = 15)		
Average Daily	Traffic (Adt):	27,451 veh	icles				Auto	os: 15		
Peak Hour	Percentage:	7.51%			Me	edium Truc	ks (2 Axle	s): 15		
Peak H	our Volume:	2,062 vehic	les		He	eavy Truck	s (3+ Axle	s): 15		
Ve	hicle Speed:	40 mph			Vehicle	Mix				
Near/Far La	ne Distance:	88 feet			Veh	nicleType	Da	/ Evenina	Niaht	Daily
Site Data						Au	tos: 77.	5% 12.9%	9.6%	96.36%
Bai	rier Heiaht:	0.0 feet			М	ledium Truc	cks: 84.	8% 4.9%	10.3%	2.47%
Barrier Type (0-W	all. 1-Berm):	0.0				Heavy Truc	cks: 86.	5% 2.7%	10.8%	1.17%
Centerline Dis	st. to Barrier:	50.0 feet			Noiso S	ourco Eloy	ations (in	a foot)		
Centerline Dist.	to Observer:	50.0 feet			NUISE 3	Autos:	0.000	neel)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Trucke:	2 207			
Observer Height (Above Pad):	5.0 feet			Hoo	W Trucks:	2.257	Grade Ad	iustment [.]	0.0
Pa	ad Elevation:	0.0 feet			nea	vy muchs.	0.004	0/440 / 14	dourioni.	0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent D	istance (in feet)		
1	Road Grade:	0.0%				Autos:	24.269			
	Left View:	-90.0 deg	rees		Mediu	m Trucks:	23.902			
	Right View:	90.0 deg	rees		Hea	vy Trucks:	23.938			
FHWA Noise Mode	el Calculation	is								
VehicleType	REMEL	Traffic Flow	v Di	stance	Finite	Road	Fresnel	Barrier Atte	en Bern	n Atten
Autos:	66.51	1.0	66	4.6	61	-1.20	-4.6	65 0.0	000	0.000
Medium Trucks:	77.72	-14.	25	4.1	70	-1.20	-4.8	37 0.0	000	0.000
Heavy Trucks:	82.99	-17.	50	4.6	69	-1.20	-5.4	43 0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo ar	nd barri	ier atte	nuation)					
VehicleType	Leq Peak Ho	ur Leq E	Day	Leq E	Evening	Leq Ni	ght	Ldn	CN	EL
Autos:	71	1.6	70.9		69.2	2	63.1	71.7	7	72.3
Medium Trucks:	67	7.0	66.7		60.3	5	58.8	67.3	3	67.5
Heavy Trucks:	69	9.0	68.8		59.8	3	61.0	69.4	1	69.5
Vehicle Noise:	74	4.4	73.9		70.1		66.1	74.6	6	75.0
Centerline Distance	e to Noise C	ontour (in fe	et)							
			l	70	dBA	65 dE	BA	60 dBA	55 0	1BA
			Ldn:		101		218	470		1,013
			CNEL:		108		232	500		1,077

	FHV	VA-RD-77-108	HIGHW	AY NO	DISE PR	EDICTIO	N MOD	EL			
Scenari	o: Existing (20	20)				Project N	ame: Go	oodm	an Logisti	cs Cente	r
Road Nam	e: N. State Co	llege Bl.				Job Nur	nber: 13	158			
Road Segmer	nt: s/o SR-91 V	Vestbound Ra	mps								
SITE	SPECIFIC IN	PUT DATA				NO	ISE MO	DDEI	INPUT:	S	
Highway Data				S	ite Cond	ditions (H	lard = 10	0, So	ft = 15)		
Average Daily	Traffic (Adt):	26,945 vehicle	es				AL	itos:	15		
Peak Hour	Percentage:	7.51%			Med	dium Truc	ks (2 Ax	les):	15		
Peak H	our Volume:	2,024 vehicle	5		Hea	avy Truck	s (3+ Ax	les):	15		
Ve	hicle Speed:	55 mph		v	ehicle N	lix					
Near/Far La	ne Distance:	78 feet		Ē	Vehi	cleTvpe	D	av	Evenina	Niaht	Dailv
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	96.36%
Pa	rior Hoight	0.0 foot			Me	dium Tru	cks: 84	4.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	all 1-Borm)	0.0 1001			h	leavy Tru	cks: 86	6.5%	2.7%	10.8%	1.17%
Centerline Dis	t to Barrier	53.0 feet									
Centerline Dist	to Observer:	53.0 feet		N	loise So	urce Elev	ations ((in fe	et)		
Barrier Distance	to Observer:	0.0 feet				Autos:	0.00	10			
Observer Height (Above Pad):	5.0 feet			Mediun	n Trucks:	2.29	17			
Pa	d Elevation:	0.0 feet			Heav	y Trucks:	8.00	14	Grade Adj	ustment.	: 0.0
Roa	ad Elevation:	0.0 feet		L	ane Equ	ivalent D	istance	(in f	eet)		
I	Road Grade:	0.0%				Autos:	36.23	35			
	Left View:	-90.0 degree	es		Mediun	n Trucks:	35.99	0			
	Right View:	90.0 degree	es		Heav	y Trucks:	36.01	4			
FHWA Noise Mode	al Calculation	5									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite I	Road	Fresnel	1	Barrier Att	en Ber	m Atten
Autos:	71.78	0.19		1.99		-1.20	-4	1.66	0.0	000	0.000
Medium Trucks:	82.40	-15.71		2.04		-1.20	-4	1.87	0.0	000	0.00
Heavy Trucks:	86.40	-18.97		2.03		-1.20	-5	5.40	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	attenu	uation)						
VehicleType	Leq Peak Hou	r Leq Day	' L	eq Ev	ening	Leq Ni	ight		Ldn	CI	VEL
Autos:	72	.8	72.1		70.3		64.3		72.9	9	73.
Medium Trucks:	67	.5	67.3		60.9		59.4		67.8	3	68.
Heavy Trucks:	68	.3	68.1		59.0		60.3		68.7	7	68.
Vehicle Noise:	75	.0	74.5		71.1		66.6		75.2	2	75.
Centerline Distanc	e to Noise Co	ntour (in feet)	-							
				70 d	BA	65 dE	SA	6	U dBA	55	аВА
							050				
		-	Ldn:		117		253		545		1,173

Friday, May 15, 2020

FI	IWA-RD-77-	108 HIGI	HWAY N	IOISE PF	REDICTIC	ON MO	DEL			
Scenario: Existing (Road Name: N. State (2020) College Bl				Project N	lame: mher	Goodr	nan Logisti	cs Cente	er
Road Segment: s/o SR-9	Eastbound I	Ramps			000 /10		10100			
SITE SPECIFIC	NPUT DAT	Ά			NC	DISE	NODE		s	
Highway Data			;	Site Con	ditions (F	Hard =	10, S	oft = 15)		
Average Daily Traffic (Adt):	22,525 veł	nicles					Autos.	15		
Peak Hour Percentage:	7.51%			Me	dium Truc	cks (2 .	Axles).	15		
Peak Hour Volume:	1,692 vehi	icles		He	avy Truck	(3+)	Axles).	15		
Vehicle Speed:	55 mpł	n		Vohiclo	liv					
Near/Far Lane Distance:	78 feet		-	Venicie i	cleTvpe		Dav	Evening	Niaht	Dailv
Site Data					AL	utos:	77.5%	6 12.9%	9.6%	96.36%
Barrier Height:	0.0 fee	et		Me	edium Tru	icks:	84.8%	6 4.9%	10.3%	2.47%
Barrier Type (0-Wall, 1-Berm):	0.0			ŀ	łeavy Tru	icks:	86.5%	6 2.7%	10.8%	1.17%
Centerline Dist. to Barrier.	53.0 fee	ŧ		Noise Sc	urce Fle	vation	s (in f	eet)		
Centerline Dist. to Observer:	53.0 fee	ŧt	Ē		Autos:	0	000	000		
Barrier Distance to Observer:	0.0 fee	ŧt		Mediu	n Trucks	2	297			
Observer Height (Above Pad):	5.0 fee	ŧ		Heav	v Trucks:	8	004	Grade Ad	iustment	0.0
Pad Elevation:	0.0 fee	et		mour	y maono.	0.		,		
Road Elevation:	0.0 fee	ŧt	1	Lane Equ	ivalent l	Distan	ce (in	feet)		
Road Grade:	0.0%				Autos:	36.	235			
Left View:	-90.0 de	grees		Mediur	n Trucks:	35.	990			
Right View:	90.0 de	grees		Heav	y Trucks:	36.	.014			
FHWA Noise Model Calculatio	ns									
VehicleType REMEL	Traffic Flo	w Di	stance	Finite	Road	Fresr	nel	Barrier Atte	en Bei	m Atten
Autos: 71.7	8 -0	.59	1.9	9	-1.20		-4.66	0.0	000	0.000
Medium Trucks: 82.4	0 -16	.49	2.0	4	-1.20		-4.87	0.0	000	0.00
Heavy Trucks: 86.4	0 -19	.74	2.0	3	-1.20		-5.40	0.0	000	0.000
Unmitigated Noise Levels (with	hout Topo a	nd barri	ier atten	uation)						
VehicleType Leq Peak H	our Leq	Day	Leq E	vening	Leq N	light		Ldn	C	NEL
Autos:	2.0	71.3		69.6		63.	5	72.1		72.7
Medium Trucks:	6.8	66.5		60.1		58.	6	67.0)	67.3
Heavy Trucks:	67.5	67.3		58.3		59.	5	67.9)	68.0
Vehicle Noise:	4.2	73.7		70.3		65.9	9	74.4	ŀ	74.8
Centerline Distance to Noise	Contour (in f	eet)								
		l	70 (dBA	65 di	BA	1	60 dBA	55	dBA
		Ldn:		104		224		483		1,041
		CNEL				0.40		E17		1 1 1 3

	FH\	WA-RD-77-108 H	IIGHWA	Y NOISE P	REDICTIC	N MOD	EL			
Scenan Road Nam Road Segmei	io: Existing (20 e: S. Placenti nt: n/o Kimber	020) a Av. Iy Av.			Project N Job Nu	lame: G mber: 13	oodman 3158	Logistics	s Cente	r
SITE	SPECIFIC IN	IPUT DATA			NC	DISE M	ODEL I	IPUTS		
Highway Data				Site Cor	nditions (H	lard = 1	0, Soft =	15)		
Average Daily	Traffic (Adt):	20,981 vehicles				A	utos:	15		
Peak Hour	Percentage:	7.51%		Me	edium Truc	ks (2 A)	des):	15		
Peak H	our Volume:	1,576 vehicles		He	avy Truck	s (3+ A)	des): '	15		
Ve	hicle Speed:	40 mph		Vehicle	Mix					
Near/Far La	ne Distance:	53 feet		Veh	nicleTvpe	D	av Ev	enina	Niaht	Dailv
Site Data					AL	itos: 7	7.5% 1	2.9%	9.6%	96.36%
Bai	rrier Height	0.0 feet		M	ledium Tru	cks: 8	4.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	all, 1-Berm):	0.0			Heavy Tru	cks: 8	6.5%	2.7%	10.8%	1.17%
Centerline Dis	st. to Barrier:	42.0 feet		Noise S	ource Ele	vations	(in feet)			
Centerline Dist.	to Observer:	42.0 feet		110/30 0	Autos:	0.00				
Barrier Distance	to Observer:	0.0 feet		Modiu	m Trucks:	2.20	50 97			
Observer Height (Above Pad):	5.0 feet		Hea	w Trucks:	8.00	na Gra	ade Adiu	stment	0.0
Pa	ad Elevation:	0.0 feet		7100	<i>ry maono.</i>	0.00	51 5.5			
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent L	Distance	e (in feet))		
	Road Grade:	0.0%			Autos:	32.9	66			
	Left View:	-90.0 degrees	;	Mediu	m Trucks:	32.69	96			
	Right View:	90.0 degrees	;	Hea	vy Trucks:	32.72	23			
FHWA Noise Mode	el Calculation	s		1						
VehicleType	REMEL	Traffic Flow	Distant	e Finite	Road	Fresne	l Bar	rier Atte	n Ben	m Atten
Autos:	66.51	0.49		2.61	-1.20	-4	4.60	0.00	00	0.000
Medium Trucks:	77.72	-15.41		2.66	-1.20	-4	4.87	0.00	00	0.000
Heavy Trucks:	82.99	-18.67		2.66	-1.20	-	5.53	0.00	00	0.000
Unmitigated Noise	e Levels (with	out Topo and b	arrier at	tenuation)						
VehicleType	Leq Peak Ho	ur Leq Day	Le	q Evening	Leq N	ight	Ldi	า	Cl	VEL
Autos:	68	3.4 6	7.8	66.0		59.9		68.6		69.2
Medium Trucks:	63	3.8 6	3.5	57.1		55.6		64.1		64.3
Heavy Trucks:	65	5.8 6	5.6	56.6		57.8		66.2		66.3
Vehicle Noise:	71	1.2 7	0.7	66.9		62.9		71.4		71.8
Centerline Distance	e to Noise C	ontour (in feet)								
				70 dBA	65 dl	BA	60 d	BA	55	dBA
		L	dn:	52		112		242		522
		CN	EL:	56		120		258		555

	FH	WA-RD-77-108	B HIGHW	AY NC	ISE PF	REDICTIO	N MOE	DEL			
Scenario Road Name Road Segmen	o: Existing (2 e: S. Placenti t: s/o Kimber	020) a Av. Iy Av.				Project N Job Nur	ame: G nber: 1	Goodm 3158	an Logistic	s Cente	r
SITE S	PECIFIC IN	NPUT DATA				NO	ISE M	ODEI		;	
Highway Data				Si	te Con	ditions (H	lard = 1	10, So	ft = 15)		
Average Daily 1	Traffic (Adt):	20,848 vehicl	es				A	utos:	15		
Peak Hour I	Percentage:	7.51%			Me	dium Truc	ks (2 A	xles):	15		
Peak Ho	our Volume:	1,566 vehicle	s		He	avy Truck	s (3+ A	xles):	15		
Veh	nicle Speed:	40 mph		Ve	hicle I	Mix					
Near/Far Lar	ne Distance:	53 feet			Veh	icleType	1	Dav	Evenina	Niaht	Dailv
Site Data						Au	tos: 1	77.5%	12.9%	9.6%	96.36%
Bar	rier Heiaht:	0.0 feet			M	edium Tru	cks: 8	34.8%	4.9%	10.3%	2.47%
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	Heavy Tru	cks: 8	36.5%	2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	42.0 feet		No	oise Sc	ource Flev	ations	(in fe	et)		
Centerline Dist. t	o Observer:	42.0 feet				Autos:	0.0	00	017		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Trucks:	2.2	97			
Observer Height (A	Above Pad):	5.0 feet			Heav	v Trucks:	8.0	04	Grade Adj	ustment	: 0.0
Pa	d Elevation:	0.0 feet		-							
Roa	d Elevation:	0.0 feet		La	ne Eq	uivalent D	listanc	e (in f	eet)		
F	Road Grade:	0.0%				Autos:	32.9	66			
	Left View:	-90.0 degre	es		Mediui	m Trucks:	32.6	96			
	Right View:	90.0 degre	es		Heav	y Trucks:	32.7	23			
FHWA Noise Mode	I Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	e/ I	Barrier Atte	en Ber	m Atten
Autos:	66.51	0.46		2.61		-1.20	-	4.60	0.0	00	0.000
Medium Trucks:	77.72	-15.44		2.66		-1.20	-	4.87	0.0	00	0.000
Heavy Trucks:	82.99	-18.70		2.66		-1.20	-	5.53	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	attenua	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y L	.eq Eve	ning	Leq Ni	ght		Ldn	C	NEL
Autos:	68	3.4	67.7		66.0		59.9		68.5		69.1
Medium Trucks:	63	3.7	63.5		57.1		55.6		64.0		64.3
Heavy Trucks:	65	5.8	65.6		56.5		57.8		66.1		66.3
Vehicle Noise:	7'	1.1	70.7		66.9		62.9		71.4		71.8
Centerline Distance	e to Noise C	ontour (in fee	t)								
				70 dE	8A -	65 dE	BA	6	0 dBA	55	dBA
		_	Ldn:		52		112		241		520
		C	NEL:		55		119		257		553

	FHW	/A-RD-77-108	HIGHW	AY NC	ISE PF	REDICTIC	N MODE	EL			
Scenari	o: Existing (20	20)				Project N	lame: Go	odman Lo	gistics (Center	r
Road Nam	e: Kimberly Av					Job Nu	mber: 13	158			
Road Segmer	nt: e/o Raymon	d Av.									
SITE S	SPECIFIC IN	PUT DATA				NC	DISE MO	DEL INP	UTS		
Highway Data				Si	te Con	ditions (F	lard = 10), Soft = 1	5)		
Average Daily	Traffic (Adt):	1,890 vehicle	s				AL	tos: 15			
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 Ax	les): 15			
Peak H	our Volume:	142 vehicles	;		He	avy Truck	s (3+ Ax	les): 15			
Vel	hicle Speed:	45 mph		Ve	hicle I	Nix					
Near/Far Lar	ne Distance:	25 feet			Veh	icleType	Da	ay Even	ing N	ight	Daily
Site Data						AL	itos: 71	7.5% 12.	9%	9.6%	96.36%
Bar	rier Heiaht:	0.0 feet			Me	edium Tru	cks: 84	4.8% 4.	9% 1	0.3%	2.47%
Barrier Type (0-W	all. 1-Berm):	0.0			ŀ	leavy Tru	cks: 86	6.5% 2.	7% 1	0.8%	1.17%
Centerline Dis	st. to Barrier:	30.0 feet		AL.	nico Sc	urco Elo	vations (in foot)			
Centerline Dist.	to Observer:	30.0 feet		744	136 30	Autos:					
Barrier Distance	to Observer:	0.0 feet			Modiu	n Trucks:	2.20	7			
Observer Height (J	Above Pad):	5.0 feet			Hoo	n Trucks. v Trucks:	2.23	، ۸ Grade	- Adiusi	tment:	0.0
Pa	ad Elevation:	0.0 feet		near	y mucho.	0.00				0.0	
Roa	ad Elevation:	0.0 feet		Lá	ne Equ	uivalent I	Distance	(in feet)			
F	Road Grade:	0.0%				Autos:	27.72	6			
	Left View:	-90.0 degree	s		Mediur	n Trucks:	27.40	5			
	Right View:	90.0 degree	s		Heav	y Trucks:	27.43	7			
FHWA Noise Mode	el Calculations	;									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresnel	Barrie	r Atten	Berr	n Atten
Autos:	68.46	-10.48		3.74		-1.20	-4	.49	0.000		0.000
Medium Trucks:	79.45	-26.38		3.81		-1.20	-4	.86	0.000		0.000
Heavy Trucks:	84.25	-29.63		3.81		-1.20	-5	.77	0.000		0.000
Unmitigated Noise	Levels (witho	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	L	.eq Eve	ning	Leq N	ight	Ldn		C٨	IEL
Autos:	60.	5	59.9		58.1		52.0		60.7		61.3
Medium Trucks:	55.	7	55.4		49.1		47.5		56.0		56.2
Heavy Trucks:	57.	2	57.0		48.0		49.3		57.6		57.7
Vehicle Noise:	63.	1	62.6		59.0		54.8		63.3		63.7
Centerline Distanc	e to Noise Co	ntour (in feet)		70.10		05.0					10.4
				and the set of the set		65 dl	34	60 aBA		55 (aBA
				70 UL	DA 44	00 01	00		50		407
		0	Ldn:	70 UL	11	00 01	23		50		107

Friday, May 15, 2020

_	FHV	VA-RD-77-108	HIGH	WAY I		REDICTI	ON MO	DEL		_				
Scenar Road Nam Road Segme	io: Existing (20 ie: Kimberly Av nt: e/o Dwy. 5	20)				Project Job N	Name: umber:	Goodm 13158	an Logisti	cs Cente	er			
SITE	SPECIFIC IN	PUT DATA				N	OISE I	NODE	L INPUT	s				
Highway Data					Site Con	ditions	(Hard =	10, So	oft = 15)					
Average Daily	Traffic (Adt):	1,917 vehicl	es					Autos:	15					
Peak Hour	Percentage:	7.51%			Me	dium Tru	icks (2 i	Axles):	15					
Peak H	lour Volume:	144 vehicle	s		He	avy Truc	cks (3+)	Axles):	15					
Ve	hicle Speed:	45 mph		H	Vohiclo I	Mix								
Near/Far La	ne Distance:	25 feet		-	Venicie i	icleTvne		Dav	Evenina	Niaht	Daily			
Site Data							lutos:	77.5%	12.9%	9.6%	96.36%			
Pa	rrior Hoight:	0.0 foot			M	edium Tr	ucks:	84.8%	4.9%	10.3%	2.47%			
Barrier Type (0-W	all 1-Rerm)	0.0 1001			Heavy Trucks: 86.5% 2.7% 10.8% 1.17									
Centerline Di	st. to Barrier:	30.0 feet		-	N-1 0-			- (- 6-	- 41					
Centerline Dist.	to Observer:	30.0 feet		ŀ	NOISE SC	ource El	evation	s (In re	et)					
Barrier Distance	to Observer:	0.0 feet				Autos	s: 0.	000						
Observer Height (Observer Height (Above Pad): 5.0 feet						s. 2.	297	Grado Ad	iustmon	+ 0.0			
Pa	Pad Elevation: 0.0 feet						s. o.	004	Graue Auj	usunen	. 0.0			
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in f	eet)					
	Road Grade:	0.0%				Autos	s: 27.	726						
	Left View:	-90.0 degre	es		Mediu	m Trucks	s: 27.	405						
	Right View:	90.0 degre	es		Heav	y Trucks	s: 27.	437						
FHWA Noise Mode	el Calculation:	5												
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresr	nel	Barrier Atte	en Be	rm Atten			
Autos:	68.46	-10.41		3.7	4	-1.20		-4.49	0.0	000	0.00			
Medium Trucks:	79.45	-26.32		3.8	1	-1.20		-4.86	0.0	000	0.000			
Heavy Trucks:	84.25	-29.57		3.8	1	-1.20		-5.77	0.0	000	0.00			
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atter	nuation)									
VehicleType	Leq Peak Hou	r Leq Daj	/	Leq E	vening	Leq	Night		Ldn	C	NEL			
Autos:	60	.6	59.9		58.2		52.1	1	60.7	7	61.3			
Medium Trucks:	55	.7	55.5		49.1		47.6	3	56.0)	56.3			
Heavy Trucks:	57	.3	57.1		48.1		49.3	3	57.7	7	57.8			
Vehicle Noise:	63	.1	62.7		59.0		54.8	3	63.4	1	63.			
Centerline Distant	ce to Noise Co	ntour (in feet)											
				70	dBA	65 (dBA	6	0 dBA	55	5 dBA			
			Ldn:		11		23		50		108			
		С	NEL:		12		25		54		115			

	FHV	VA-RD-77-108	HIGHV	VAY NO	OISE PR	EDICTI		DEL					
Scenar Road Nam Road Segme	io: Existing (20 ie: Kimberly Av nt: e/o Dwy. 11			Project Job Ni	Name: 0 Imber: 1	Goodm 3158	nan Logisti	cs Cent	er				
SITE	SPECIFIC IN	PUT DATA			-	N	OISE N	IODE		s	-		
Highway Data				S	ite Cond	ditions (Hard =	10, So	oft = 15)				
Average Daily	Traffic (Adt):	1,837 vehicle	s				A	Autos:	15				
Peak Hour	Percentage:	7.51%			Med	dium Tru	cks (2 A	xles):	15				
Peak H	lour Volume:	138 vehicles	6		Hea	avy Truc	ks (3+ A	xles):	15				
Ve	hicle Speed:	45 mph		V	obiele II	liv							
Near/Far La	ne Distance:	25 feet		V	Vehic Vehic	cleType		Day	Evening	Night	Daily		
Site Data					Autos: 77.5% 12.9% 9.6% 96.3								
Ba	rrier Height [.]	0.0 feet			Me	dium Tr	ucks:	84.8%	4.9%	10.3%	5 2.47%		
Barrier Type (0-W	/all, 1-Berm):	0.0			H	leavy Tr	ucks:	86.5%	2.7%	10.8%	5 1.17%		
Centerline Di	st. to Barrier:	30.0 feet		N	loise So	urce Ele	vations	in fe	et)				
Centerline Dist.	to Observer:	30.0 feet				Autos	. 0.0	100	.,				
Barrier Distance	to Observer:	0.0 feet			Mediun	n Trucks	2.2	97					
Observer Height (Observer Height (Above Pad): 5.0 feet						: 8.0	04	Grade Ad	justmen	t: 0.0		
Pi	ad Elevation:	0.0 feet											
Roa	ad Elevation:	0.0 feet		L	ane Equ	livalent	Distanc	e (in 1	eet)				
	Road Grade:	0.0%				Autos	: 27.7	26					
	Left View:	-90.0 degree	s		Mediun	n Trucks	: 27.4	105					
	Right View:	90.0 degree	s		Heav	y Trucks	: 27.4	137					
FHWA Noise Mode	el Calculation:	5											
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	el	Barrier Att	en Be	rm Atten		
Autos:	68.46	-10.60		3.74		-1.20		4.49	0.0	000	0.000		
Medium Trucks:	79.45	-26.50		3.81		-1.20		-4.86	0.0	000	0.000		
Heavy Trucks:	84.25	-29.76		3.81		-1.20		-5.77	0.0	000	0.000		
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	lation)								
VehicleType	Leq Peak Hou	r Leq Day	· 1	Leq Ev	ening	Leq I	Vight		Ldn	0	NEL		
Autos:	60	.4	59.7		58.0		51.9		60.5	5	61.1		
Medium Trucks:	55	.6	55.3		48.9		47.4		55.8	3	56.1		
Heavy Trucks:	57	.1	56.9		47.9		49.1		57.5	5	57.6		
Vehicle Noise:	62	.9	62.5		58.8		54.7		63.2	2	63.6		
Centerline Distant	ce to Noise Co	ntour (in feet)										
				70 d	BA	65 c	IBA	6	i0 dBA	55	5 dBA		
			Ldn:	11 23 49				105					
	CNEL:						24		52		112		

	FH	WA-RD-77-108	B HIGHW	AY NO	ISE PF	REDICTIO	n Mod	DEL			
Scenari Road Nam Road Segmer	o: Existing (2 e: Orangetho nt: w/o Raymo	020) rpe Av. ond Av.				Project N Job Nur	ame: G nber: 1	Goodma 3158	an Logistio	cs Cente	er
SITE S	SPECIFIC IN	NPUT DATA				NO	ISE M	ODEL	INPUTS	5	
Highway Data				Si	e Con	ditions (H	ard = 1	10, Sof	t = 15)		
Average Daily	Traffic (Adt):	34,347 vehicl	es				A	utos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 A.	xles):	15		
Peak H	our Volume:	2,580 vehicle	s		He	avy Truck	s (3+ A.	xles):	15		
Vel	hicle Speed:	40 mph		Ve	hicle I	Mix					
Near/Far Lar	ne Distance:	88 feet			Vehi	icleType	Ĺ	Day I	Evening	Night	Daily
Site Data						Au	tos: 7	77.5%	12.9%	9.6%	96.36%
Bar	rier Heiaht:	0.0 feet			Me	edium Truc	cks: 8	34.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	all, 1-Berm):	0.0			ŀ	leavy Truc	cks: 8	36.5%	2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	50.0 feet		No	iso Sc	urce Flev	ations	(in for	at)		
Centerline Dist.	to Observer:	50.0 feet				Autos:	0.0	00			
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	04 (Grade Adj	ustment	: 0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		La	ne Equ	uivalent D	istance	e (in fe	et)		
F	Road Grade:	0.0%				Autos:	24.2	69			
	Left View:	-90.0 degre	es		Mediui	m Trucks:	23.9	02			
	Right View:	90.0 degre	es		Heav	y Trucks:	23.9	38			
FHWA Noise Mode	I Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresne	el B	Barrier Atte	en Bei	m Atten
Autos:	66.51	2.63		4.61		-1.20	-	4.65	0.0	00	0.000
Medium Trucks:	77.72	-13.27		4.70		-1.20	-	4.87	0.0	00	0.000
Heavy Trucks:	82.99	-16.53		4.69		-1.20	-	5.43	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	attenua	tion)						
VehicleType	Leq Peak Ho	ur Leq Da	y Li	eq Eve	ning	Leq Ni	ght	1	Ldn	C	NEL
Autos:	72	2.5	71.9		70.1		64.1		72.7		73.3
Medium Trucks:	67	7.9	67.7		61.3		59.8		68.2		68.5
Heavy Trucks:	7(0.0	69.8		60.7		62.0		70.3		70.5
Vehicle Noise:	75	5.3	74.9		71.1		67.1		75.6		76.0
Centerline Distanc	e to Noise C	ontour (in fee	t)								
				70 dB	A	65 dE	8A 🛛	60) dBA	55	dBA
			Ldn:		118		253		546		1,176
		C	NEL:		125		269		580		1,250

	FHV	/A-RD-77-108	HIGHW	AY NO	DISE PR	REDICTIO	N MODE	iL.			
Scenari	o: Existing (20				Project N	ame: Go	odma	an Logisti	cs Cente	er	
Road Nam	e: Orangethor	pe Av.				Job Nur	nber: 13	158	-		
Road Segmer	nt: e/o Raymor	id Av.									
SITE S	SPECIFIC IN	PUT DATA				NO	ISE MC	DEL	. INPUT	s	
Highway Data				S	ite Con	ditions (H	lard = 10), Sof	ft = 15)		
Average Daily	Traffic (Adt):	32,976 vehicle	es				Au	tos:	15		
Peak Hour	Percentage:	7.51%			Mee	dium Truc	ks (2 Axl	es):	15		
Peak H	our Volume:	2,477 vehicles	5		Hea	avy Truck	s (3+ Axl	les):	15		
Vel	hicle Speed:	45 mph		V	ehicle N	<i>lix</i>					
Near/Far Lar	ne Distance:	88 feet		-	Vehi	cleTvpe	Da	av	Evenina	Niaht	Dailv
Site Data						Au	tos: 77	.5%	12.9%	9.6%	96.36%
Bar	rier Height:	0.0 feet			Me	dium Tru	cks: 84	.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	all. 1-Berm):	0.0			H	leavy Tru	cks: 86	6.5%	2.7%	10.8%	1.17%
Centerline Dis	st. to Barrier:	50.0 feet							- 41		
Centerline Dist.	to Observer:	50.0 feet		N	oise so	urce Elev	ations (in ree	et)		
Barrier Distance	to Observer:	0.0 feet				Autos:	0.00	7			
Observer Height (J	Above Pad):	5.0 feet			weatur	n Trucks:	2.29		Grado Ad	iuctmont	
Pa	ad Elevation:	0.0 feet			Heav	y Trucks:	8.00	4 '	Graue Auj	usunen	. 0.0
Roa	ad Elevation:	0.0 feet		Li	ane Equ	ıivalent D	listance	(in fe	eet)		
F	Road Grade:	0.0%				Autos:	24.26	9			
	Left View:	-90.0 degree	es		Mediur	n Trucks:	23.90	2			
	Right View:	90.0 degree	s		Heav	y Trucks:	23.93	8			
FHWA Noise Mode	el Calculations	6									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresnel	E	Barrier Att	en Ber	m Atten
Autos:	68.46	1.94		4.61		-1.20	-4	.65	0.0	000	0.000
Medium Trucks:	79.45	-13.96		4.70		-1.20	-4	.87	0.0	000	0.000
Heavy Trucks:	84.25	-17.22		4.69		-1.20	-5	.43	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	' L	eq Eve	ening	Leq Ni	ight		Ldn	CI	NEL
Autos:	73.	.8	73.2		71.4		65.3		74.0)	74.6
Medium Trucks:	69	.0	68.7		62.4		60.8		69.3	3	69.5
Heavy Trucks:	70.	.5	70.4		61.3		62.6		70.9)	71.0
Vehicle Noise:	76	.4	75.9		72.3		68.1		76.6	6	77.0
Centerline Distanc	e to Noise Co	ntour (in feet,		70	04	05 45	2.4	~	0 -10 4		-10.4
Centerline Distanc	e to Noise Co	ntour (in feet		70 dl	BA	65 dE	BA 007	60) dBA	55	dBA
Centerline Distanc	e to Noise Co	ntour (in feet)	Ldn:	70 dl	BA 138	65 dE	297	60	0 dBA 639	55	dBA 1,376

Friday, May 15, 2020

FH	WA-RD-77-108 HIG	HWAY N	OISE PF	REDICTIC	N MO	DEL						
Scenario: Existing (2	.020)			Project N	lame:	Goodr	nan Logisti	cs Cente	er			
Road Name: Orangetho	orpe Av.			Job Nu	mber:	13158						
Road Segment: e/o Acacia	Av.											
SITE SPECIFIC I	NPUT DATA			NC	DISE I	NODE	L INPUT	S				
Highway Data		s	ite Con	ditions (F	lard =	10, So	oft = 15)					
Average Daily Traffic (Adt):	32,284 vehicles					Autos:	15					
Peak Hour Percentage:	7.51%		Me	dium Truc	:ks (2 .	Axles):	15					
Peak Hour Volume:	2,425 vehicles		He	avy Truck	's (3+	Axles):	15					
Vehicle Speed:	45 mph	V	ehicle I	Nix								
Near/Far Lane Distance:	88 feet	F	Vehi	cleType		Day	Evening	Night	Daily			
Site Data				AL	itos:	77.5%	12.9%	9.6%	96.36%			
Barrier Height:	0.0 feet		Me	edium Tru	cks:	84.8%	4.9%	10.3%	2.47%			
Barrier Type (0-Wall, 1-Berm):	0.0		Heavy Trucks: 86.5% 2.7% 10.8% 1.179									
Centerline Dist. to Barrier:	50.0 feet		loise Sc	urco Elo	vation	s (in fi	oot)					
Centerline Dist. to Observer:	50.0 feet	-	0130 00	Autos	0	000						
Barrier Distance to Observer:		Medium Trucks: 2 297										
Observer Height (Above Pad):		Hoay	n Trucks. v Trucks:	2.	004	Grade Ad	iustment	÷ 0 0				
Pad Elevation:	Pad Elevation: 0.0 feet						,					
Road Elevation:	0.0 feet	L	ane Equ	uivalent l	Distan	ce (in	feet)					
Road Grade:	0.0%			Autos:	24.	269						
Left View:	-90.0 degrees		Mediur	n Trucks:	23.	902						
Right View:	90.0 degrees		Heav	y Trucks:	23.	938						
FHWA Noise Model Calculation	าร	1										
VehicleType REMEL	Traffic Flow Di	stance	Finite	Road	Fresi	nel	Barrier Atte	en Bei	m Atten			
Autos: 68.46	6 1.85	4.61		-1.20		-4.65	0.0	000	0.00			
Medium Trucks: 79.45	5 -14.05	4.70)	-1.20		-4.87	0.0	000	0.00			
Heavy Trucks: 84.25	5 -17.31	4.69)	-1.20		-5.43	0.0	000	0.00			
Unmitigated Noise Levels (with	hout Topo and barri	ier attenu	uation)									
VehicleType Leq Peak Ho	our Leq Day	Leq Ev	ening	Leq N	ight		Ldn	C	NEL			
Autos: 7	3.7 73.1		71.3		65.3	2	73.9)	74.			
Medium Trucks: 6	8.9 68.6		62.3		60.	7	69.2	2	69.4			
Heavy Trucks: 7	0.4 70.3		61.2		62.	5	70.8	3	71.0			
Vehicle Noise: 7	6.3 75.8		72.2		68.)	76.5	5	76.9			
Centerline Distance to Noise C	contour (in feet)											
		70 d	BA	65 di	BA	(60 dBA	55	dBA			
	Ldn:		136		292		630		1,357			

	FHV	VA-RD-77-108	HIGH\	NAY N	OISE PF	REDICT	ION MC	DEL					
Scenari Road Nam Road Segmer	o: Existing (20 e: Orangethor nt: e/o Dwy. 6			Project Job N	Name: umber:	Goodn 13158	nan Logisti	cs Cent	er				
SITE	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	S			
Highway Data				5	Site Con	ditions	(Hard =	: 10, So	oft = 15)				
Average Daily	Traffic (Adt):	32,284 vehicle	s		Autos: 15								
Peak Hour	Percentage:	7.51%			Medium Trucks (2 Axles): 15								
Peak H	our Volume:	2,425 vehicles	6		He	avy Truc	cks (3+	Axles):	15				
Ve	hicle Speed:	45 mph			(obiclo I	/iv							
Near/Far La	ne Distance:	88 feet		-	Vohi			Dav	Evening	Niaht	Daily		
Site Data				-	Autos: 77.5% 12.9% 9.6%								
One Data					Me	, dium T	nucks:	84.8%	4 9%	10.39	6 247%		
Bai	rier Height:	0.0 feet			, inc	leavy Ti	rucks:	86.5%	2.7%	10.89	6 1 1 7%		
Barrier Type (0-W	all, 1-Berm):	0.0 50.0 feet				ioury n	uono.	00.07	2.170	10.07	•		
Centerline Dist	a Observer	50.0 feet		٨	loise So	urce El	evatior	ıs (in fe	eet)				
Certienine Dist.	to Observer.	0.0 feet				Auto	s: 0	.000					
Obsonvor Hoight (Abovo Rod):		Mediur	n Truck	s: 2	297							
Diserver neight (ad Elevation:		Heav	y Truck	s: 8	.004	Grade Ad	justmer	t: 0.0				
Ros	d Elevation:	0.0 feet		L	ane Equ	iivalent	Distan	ce (in	feet)				
1.00	Road Grade:	0.0%				Auto	s: 24	.269	,				
-	Left View:	-90.0 degree	s		Mediur	n Truck	s: 23	.902					
	Right View:	90.0 degree	es		Heav	y Truck	s: 23	.938					
FHWA Noise Mode	el Calculation	s											
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten		
Autos:	68.46	1.85		4.61	1	-1.20		-4.65	0.0	000	0.000		
Medium Trucks:	79.45	-14.05		4.70)	-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	84.25	-17.31		4.69	9	-1.20		-5.43	0.0	000	0.000		
Unmitigated Noise	Levels (with	out Topo and	barriei	r atteni	uation)								
VehicleType	Leq Peak Hou	ir Leq Day	·	Leq Ev	rening	Leq	Night		Ldn	0	NEL		
Autos:	73	.7	73.1		71.3		65.	2	73.9	9	74.5		
Medium Trucks:	68	.9	68.6		62.3		60.	7	69.3	2	69.4		
Heavy Trucks:	70	.4	70.3		61.2		62.	5	70.	8	71.0		
Vehicle Noise:	76	.3	75.8		72.2		68.	0	76.	5	76.9		
Centerline Distance	e to Noise Co	ontour (in feet,)					-		_			
			L	70 a	IBA	65	dBA	6	60 dBA	5	5 dBA		
		-	Ldn:		136		292	2	630)	1,357		
		Ci	VEL:		145		311		671		1,446		

Friday, May 15, 2020

	FH\	NA-RD-77-108	HIGHW	AY NO	DISE PR	EDICTIO	N MOD	EL				
Scenar Road Nam Road Segme	io: Existing (20 ne: Orangetho nt: e/o Dwy. 10	020) rpe Av. 0				Project N Job Nur	ame: G nber: 1	ioodm 3158	an Logistic	s Cente	r	
SITE	SPECIFIC IN	IPUT DATA				NO	ISE M	ODE	L INPUTS	;		
Highway Data				S	ite Cond	ditions (H	lard = 1	0, So	ft = 15)			
Average Daily	Traffic (Adt):	32,018 vehicl	es		Autos: 15							
Peak Hour	Percentage:	7.51%			Med	dium Truc	ks (2 A.	xles):	15			
Peak H	lour Volume:	2,405 vehicle	s		Hea	avy Truck	s (3+ A	xles):	15			
Ve	hicle Speed:	45 mph		V	ehicle N	lix						
Near/Far La	ne Distance:	88 feet		-	Vehi	cleType	Ĺ	Day	Evening	Night	Daily	
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	96.36%	
Bai	rrier Heiaht:	0.0 feet			Me	dium Tru	cks: 8	84.8%	4.9%	10.3%	2.47%	
Barrier Type (0-W	all, 1-Berm):	0.0			H	leavy Tru	cks: 8	86.5%	2.7%	10.8%	1.17%	
Centerline Di	st. to Barrier:	50.0 feet		N	oise So	urce Flev	ations	(in fe	et)			
Centerline Dist.	to Observer:	50.0 feet			0.00 00	Autos:	0.0	00				
Barrier Distance	to Observer:	0.0 feet			Mediun	n Trucks:	2.2	97				
Observer Height (Above Pad):	5.0 feet			Heav	v Trucks:	8.0	04	Grade Adj	ustment	0.0	
Pa	ad Elevation:	0.0 feet		-								
Roa	ad Elevation:	0.0 feet		Li	ane Equ	iivalent L	istanc	e (in f	eet)			
	Road Grade:	0.0%			1 4 m al 1 m	Autos:	24.2	69				
	Left View:	-90.0 degre	es		Mediun	n Trucks:	23.9	02				
	Right view:	90.0 degre	es		neav	y mucks.	23.9	38				
FHWA Noise Mode	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	el i	Barrier Atte	en Ber	m Atten	
Autos:	68.46	1.81		4.61		-1.20	-	4.65	0.0	00	0.000	
Medium Trucks:	79.45	-14.09		4.70		-1.20	-	4.87	0.0	00	0.000	
Heavy Trucks:	84.25	-17.35		4.69		-1.20	-	5.43	0.0	00	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 Ni	ght		Ldn	C	VEL	
Autos:	73	3.7	73.0		71.3		65.2		73.8		74.4	
Medium Trucks:	68	3.9	68.6		62.2		60.7		69.2		69.4	
Heavy Trucks:	70).4	70.2		61.2		62.4		70.8		70.9	
Vehicle Noise:	76	5.2	75.8		72.1		67.9		76.5		76.9	
Centerline Distance	ce to Noise Co	ontour (in fee)									
				70 dł	BA	65 dE	BA	6	i0 dBA	55	dBA	
			Ldn:	135 291 626				1,350				
		C	NEL:		144		310		667		1,438	

	FHV	/A-RD-77-108	HIGHW	AY N	OISE PR	EDICTIC	N MOD	EL					
Scenari	o: Existing (20			Project N	lame: Go	oodm	an Logisti	cs Cente	r				
Road Nam	e: Orangethor	pe Av.				Job Nu	mber: 13	158					
Road Segmer	nt: w/o N. State	e College Bl.											
SITE	SPECIFIC IN	PUT DATA				NC	ISE MO	DDEI	INPUT:	S			
Highway Data				S	ite Con	ditions (H	lard = 1	0, So	ft = 15)				
Average Daily	Traffic (Adt):	32,018 vehicle	es				Au	itos:	15				
Peak Hour	Percentage:	7.51%			Mee	dium Truc	ks (2 Ax	les):	15				
Peak H	our Volume:	2,405 vehicle	s		Hea	avy Truck	s (3+ Ax	les):	15				
Ve	hicle Speed:	45 mph		v	ehicle N	lix					-		
Near/Far La	ne Distance:	88 feet		-	Vehi	cleTvpe	D	av	Evenina	Niaht	Dailv		
Site Data						AL	itos: 7	7.5%	12.9%	9.6%	96.36%		
Bai	rier Height	0.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 2.47								
Barrier Type (0-W	all 1-Berm)	0.0 1001			H	leavy Tru	cks: 8	6.5%	2.7%	10.8%	1.17%		
Centerline Dis	st. to Barrier:	50.0 feet		-									
Centerline Dist.	to Observer:	50.0 feet		N	loise So	urce Ele	ations	in fe	et)				
Barrier Distance	to Observer:	0.0 feet				Autos:	0.00	0					
Observer Height (Above Pad);	5.0 feet			Mediur	n Trucks:	2.29	17	0				
Pa	d Elevation:			Heav	y Trucks:	8.00	14	Grade Adj	ustment.	0.0			
Roa	ad Elevation:	0.0 feet		L	ane Equ	ivalent L	Distance	(in f	eet)				
1	Road Grade:	0.0%				Autos:	24.26	69					
	Left View:	-90.0 degree	es		Mediur	n Trucks:	23.90)2					
	Right View:	90.0 degree	es		Heav	y Trucks:	23.93	88					
FHWA Noise Mode	el Calculation:	6											
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	1	Barrier Att	en Ber	m Atten		
Autos:	68.46	1.81		4.61		-1.20	-4	1.65	0.0	000	0.000		
Medium Trucks:	79.45	-14.09		4.70)	-1.20	-4	1.87	0.0	000	0.000		
Heavy Trucks:	84.25	-17.35		4.69)	-1.20	-8	5.43	0.0	000	0.000		
Unmitigated Noise	Levels (with	out Topo and	barrier	attenu	uation)								
VehicleType	Leq Peak Hou	r Leq Day	′ L	eq Ev	ening	Leq N	ight		Ldn	CI	VEL		
Autos:	73	.7	73.0		71.3		65.2		73.8	3	74.4		
Medium Trucks:	68	9	68.6		62.2		60.7		69.2	2	69.4		
Heavy Trucks:	70	.4	70.2		61.2		62.4		70.8	3	70.9		
Vehicle Noise:	76	2	75.8		72.1		67.9		76.5	5	76.9		
Centerline Distanc	e to Noise Co	ntour (in feet)										
				70 d	BA	65 dl	3A	6	0 dBA	55	dBA		
									-				
			Ldn:		135		291		626		1,350		

Friday, May 15, 2020

	FHW	/A-RD-77-108 H	IGH	WAY N	IOISE PF	REDICT	ION MC	DEL					
Scenario: Existing	g (20	20)				Project	Name:	Goodr	nan Logisti	cs Cente	er		
Road Name: Orange	thorp	be Av.				Job N	lumber:	13158					
Road Segment: e/o N. 3	state	College BI.											
SITE SPECIFI	C IN	PUT DATA				N	IOISE I	MODE	L INPUT	5			
Highway Data					Site Con	ditions	(Hard =	: 10, S	oft = 15)				
Average Daily Traffic (Ac	tt):	31,006 vehicles						Autos	15				
Peak Hour Percentag	ie:	7.51%			Me	dium Tr	ucks (2	Axles)	15				
Peak Hour Volum	e:	2,329 vehicles			He	avy Tru	cks (3+	Axles)	15				
Vehicle Spee	d:	45 mph		-	Vahiala	AL.							
Near/Far Lane Distant	e:	88 feet		H	Venicie i Vehi	icleTvpe		Dav	Evenina	Niaht	Dailv		
Site Data				-		,	Autos:	77.5%	6 12.9%	9.6%	96.369		
Barrier Heid	ht.	0.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 2.4								
Barrier Type (0-Wall, 1-Berr	n):	0.0			ŀ	leavy T	rucks:	86.5%	6 2.7%	10.8%	1.17%		
Centerline Dist. to Barri	er:	50.0 feet		H	N 0-			- // 4	41				
Centerline Dist. to Observ	er:	50.0 feet		4	voise So	ource El	evation		eet)				
Barrier Distance to Observ	er:	0.0 feet				Auto	s: 0.	000					
Observer Height (Above Pa		Mealur	n Truck	S: Z.	297	Crada Ad	i otroop						
Pad Elevation	n:	0.0 feet			neav	у писк	s. o.	004	Graue Auj	usunen	. 0.0		
Road Elevation	on:	0.0 feet		1	Lane Equ	uivalent	Distan	ce (in	feet)				
Road Grad	le:	0.0%				Auto	s: 24	269					
Left Vie	w:	-90.0 degrees			Mediur	n Truck	s: 23	.902					
Right Vie	W:	90.0 degrees			Heav	y Truck	s: 23	.938					
FHWA Noise Model Calcula	tions	;											
VehicleType REMEL	-	Traffic Flow	Dist	tance	Finite	Road	Fresi	nel	Barrier Atte	en Be	rm Atten		
Autos: 68	3.46	1.67		4.6	1	-1.20		-4.65	0.0	000	0.00		
Medium Trucks: 79	9.45	-14.23		4.7	0	-1.20		-4.87	0.0	000	0.00		
Heavy Trucks: 84	1.25	-17.49		4.6	9	-1.20		-5.43	0.0	000	0.00		
Unmitigated Noise Levels (vitho	out Topo and ba	arrie	r atten	uation)								
VehicleType Leq Peak	Hou	r Leq Day		Leq E	vening	Leq	Night		Ldn	С	NEL		
Autos:	73.	5 72	2.9		71.1		65.	1	73.7	,	74.		
Medium Trucks:	68.	7 68	8.5		62.1		60.	6	69.0)	69.3		
Heavy Trucks:	70.	3 70).1		61.0		62.	3	70.7	7	70.8		
Vehicle Noise:	76.	1 75	5.6		72.0		67.	8	76.3	3	76.		
Centerline Distance to Nois	e Co	ntour (in feet)											
				70 c	dBA	65	dBA	1	60 dBA	55	dBA		
		Lo	in:		132		285	5	613		1,321		
		01/2							0.50		1 407		

	FH\	NA-RD-77-108	HIGHWA	N NC	DISE PR	REDICT	ION MO	DEL					
Scenar Road Nar Road Segme	io: Existing (20 ne: Orangethor nt: w/o S. Plac	020) pe Av. entia Av.				Projeci Job N	Name: lumber:	Goodr 13158	man Logisti	cs Cen	ter		
SITE	SPECIFIC IN	IPUT DATA				P	IOISE N	/IODE	L INPUT	s			
Highway Data				S	ite Con	ditions	(Hard =	10, S	oft = 15)				
Average Daily	Traffic (Adt):	29,568 vehicle	s		Autos: 15								
Peak Hour	Percentage:	7.51%			Medium Trucks (2 Axles): 15								
Peak H	lour Volume:	2,221 vehicles			Hea	avy Tru	cks (3+)	Axles)	: 15				
Ve	hicle Speed:	45 mph		14	obielo I	Niv							
Near/Far La	ne Distance:	88 feet			Vohi	n ix cloTvna		Dav	Evening	Night	Daily		
Site Data				Autos: 77.5% 12.9% 9.6% 96.3									
Pa	rrior Hoight:	0.0 foot			Ме	edium T	rucks:	84.89	6 4.9%	10.39	% 2.47%		
Barrier Type (0-M	/all_1_Borm)	0.0 1001			E	leavy T	rucks:	86.5%	6 2.7%	10.89	% 1.17%		
Centerline Di	st. to Barrier:	50.0 feet											
Centerline Dist.	to Observer:	50.0 feet		N	oise So	urce E	levation	s (in f	eet)				
Barrier Distance	to Observer:	0.0 feet				Auto	s: 0.	000					
Observer Height	(Above Pad):			Mediur	n Iruck	s: 2.	297	Crada Aa	livetree				
P	ad Elevation:	0.0 feet			Heav	у ттиск	S. 8.	004	Grade Ad	jusunei	<i>n</i> . 0.0		
Ro	ad Elevation:	0.0 feet		La	ane Equ	iivalen	t Distan	ce (in	feet)				
	Road Grade:	0.0%				Auto	s: 24.	269					
	Left View:	-90.0 degree	s		Mediur	n Truck	s: 23.	902					
	Right View:	90.0 degree	s		Heav	y Truck	s: 23.	938					
FHWA Noise Mod	el Calculation	s											
VehicleType	REMEL	Traffic Flow	Distan	ce	e Finite Road Fresnel Barrier Atten					en Be	erm Atten		
Autos:	68.46	1.47		4.61		-1.20		-4.65	0.0	000	0.000		
Medium Trucks:	79.45	-14.44		4.70		-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	84.25	-17.69		4.69		-1.20		-5.43	0.0	000	0.000		
Unmitigated Noise	e Levels (with	out Topo and I	barrier a	ttenu	ation)								
VehicleType	Leq Peak Hou	ur Leq Day	Le	q Eve	ening	Leq	Night		Ldn	(CNEL		
Autos:	73	1.3 7	2.7		70.9		64.9	9	73.	5	74.1		
Medium Trucks:	68	1.5 6	68.3		61.9		60.3	3	68.	В	69.0		
Heavy Trucks:	70).1 6	69.9		60.8		62.1	l	70.4	4	70.6		
Vehicle Noise:	75	5.9 7	75.4		71.8		67.6	6	76.	1	76.5		
Centerline Distant	ce to Noise Co	ontour (in feet)											
				70 dE	BA	65	dBA		60 dBA	5	5 dBA		
		1	dn:		128		276		594		1,280		
		IEL:	136 294 633 1,363					1,363					

	FH	WA-RD-77-108	B HIGHW	AY NC	DISE PI	REDICTIO	N MOE	DEL			
Scenarie Road Name Road Segmen	 D: Existing (2) D: Orangetho D: Placetho 	020) rpe Av. centia Av.				Project N Job Nur	ame: G nber: 1	Goodn 3158	nan Logistic	s Cente	er
SITE S	PECIFIC I	NPUT DATA				NO	ISE M	IODE	L INPUTS	;	
Highway Data				Si	te Con	ditions (H	lard = 1	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	31,698 vehicl	es				A	Autos:	15		
Peak Hour	Percentage:	7.51%			Me	aium Truc	KS (2 A	xies):	15		
Peak He	our volume:	2,381 venicle	es		He	avy Truck	s (3+ A	xies):	15		
Ver	ncle Speed:	45 mpn		Ve	ehicle	Mix					
Near/Far Lar	e Distance:	98 feet			Veh	icleType	l	Day	Evening	Night	Daily
Site Data						Au	tos: T	77.5%	12.9%	9.6%	96.36%
Bar	rier Height:	0.0 feet			М	edium Tru	cks: 8	84.8%	4.9%	10.3%	2.47%
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy Tru	cks: 8	86.5%	2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	60.0 feet		N	oise So	ource Elev	ations	(in fe	et)		
Centerline Dist. t	o Observer:	60.0 feet				Autos:	0.0	00	.,		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Trucks:	2.2	97			
Observer Height (/	Above Pad):	5.0 feet			Hea	/v Trucks:	8.0	04	Grade Adju	ustment	: 0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		Lé	ane Eq	uivalent D	listanc	e (in i	leet)		
F	Road Grade:	0.0%				Autos:	34.9	986			
	Left View:	-90.0 degre	es		Mediu	m Trucks:	34.7	'32			
	Right View:	90.0 degre	es		Hear	/y Trucks:	34.7	57			
FHWA Noise Mode	I Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	el	Barrier Atte	en Bei	rm Atten
Autos:	68.46	6 1.77		2.22		-1.20	-	4.69	0.0	00	0.000
Medium Trucks:	79.45	5 -14.13	5	2.27		-1.20	-	4.88	0.0	00	0.000
Heavy Trucks:	84.25	5 -17.39)	2.27		-1.20	-	5.34	0.0	00	0.000
Unmitigated Noise	Levels (with	nout Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y L	.eq Eve	ening	Leq Ni	ght		Ldn	C	NEL
Autos:	71	1.3	70.6		68.8		62.8		71.4		72.0
Medium Trucks:	66	6.4	66.1		59.8		58.2		66.7		66.9
Heavy Trucks:	67	7.9	67.7		58.7		60.0		68.3		68.4
Vehicle Noise:	73	3.8	73.3		69.7		65.5		74.0		74.4
Centerline Distance	e to Noise C	ontour (in fee	t)	70.							10.4
			🖵	70 dBA 65 dBA 60 dBA			55	aBA			
		-	Lan:		111		240		516		1,112
		C	INEL:		118		255		550		1,185

	FHV	VA-RD-77-108	HIGH	WAY NO	DISE PR	REDICTIO	N MODE	L			
Scenario	o: Existing (20			Project N	lame: Go	odman	Logisti	cs Cente	r		
Road Name	e: Orangethor	pe Av.				Job Nu	mber: 131	158			
Road Segmen	nt: e/o SR-57 S	Southbound Ra	amps								
SITE S	SPECIFIC IN	PUT DATA				NC	ISE MO	DEL I	IPUT	s	
Highway Data				S	ite Con	ditions (H	lard = 10	, Soft =	15)		
Average Daily 1	Traffic (Adt):	35,266 vehicle	es				Au	tos: '	5		
Peak Hour I	Percentage:	7.51%			Mee	dium Truc	ks (2 Axk	es): '	5		
Peak Ho	our Volume:	2,649 vehicle	s		Hea	avy Truck	s (3+ Axl	es): '	5		
Veh	hicle Speed:	45 mph		v	ehicle I	Nix					
Near/Far Lar	ne Distance:	98 feet			Vehi	cleType	De	ay Ev	ening	Night	Daily
Site Data						AL	itos: 77	.5% 1	2.9%	9.6%	96.36%
Bar	rier Heiaht:	0.0 feet			Me	edium Tru	cks: 84	.8%	4.9%	10.3%	2.47%
Barrier Type (0-Wa	all, 1-Berm):	0.0			H	łeavy Tru	cks: 86	.5%	2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	60.0 feet		A	oiso So	urco Elos	vations (in foot)			
Centerline Dist. t	to Observer:	60.0 feet		N	0138 30	Autos:	0.00	n ieel)			
Barrier Distance t	to Observer:	0.0 feet			Modium	n Trucks:	2 20	7			
Observer Height (/	Above Pad):	5.0 feet			Heav	n Trucks.	8.00/	ı 1 Gra	de Ad	iustment	:00
Pa	d Elevation:	0.0 feet			ricav	, muono.	0.00	. 5/0		,	5.0
Roa	d Elevation:	0.0 feet		L	ane Equ	uivalent E	Distance	(in feet)			
F	Road Grade:	0.0%				Autos:	34.986	6			
	Left View:	-90.0 degree	es		Mediur	n Trucks:	34.732	2			
	Right View:	90.0 degree	es		Heav	y Trucks:	34.75	7			
FHWA Noise Mode	Calculations	;									
VehicleType	REMEL	Traffic Flow	Disi	tance	Finite	Road	Fresnel	Bar	rier Att	en Ber	m Atten
Autos:	68.46	2.23		2.22		-1.20	-4.	.69	0.0	000	0.000
Medium Trucks:	79.45	-13.67		2.27		-1.20	-4.	.88	0.0	000	0.000
Heavy Trucks:	84.25	-16.93		2.27		-1.20	-5.	.34	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	r attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq Ev	əning	Leq N	ight	Ldi	n	CI	NEL
Autos:	71.	.7	71.1		69.3		63.2		71.9	Ð	72.5
Medium Trucks:	66.	.8	66.6		60.2		58.7		67.1	1	67.4
Heavy Trucks:	68.	.4	68.2		59.2		60.4		68.8	3	68.
Vehicle Noise:	74.	.2	73.8		70.2		66.0		74.5	5	74.9
Centerline Distance	e to Noise Co	ntour (in feet)	70 -		CE -1	24	60 -	24	55	dD A
			I dn:	70 a.	110	05 GE	257	00 a	5F 4	55	1 104
		~	LUN. NEL		119		201		504		1,194
		Ci Ci	VEL.		121		214		591		1,272

Friday, May 15, 2020

	FHW	/A-RD-77-108	HIGH	I YAWH	NOISE PF	REDICT	ION MO	DEL			I
Scenario: Exi Road Name: Ora Road Segment: e/o	sting (20 ingethor SR-57 N	20) be Av. lorthbound Ra	mps			Project Job N	t Name: lumber:	Goodn 13158	nan Logisti	cs Ce	nter
SITE SPEC	IFIC IN	PUT DATA				P	IOISE I	NODE	L INPUT	s	
Highway Data					Site Con	ditions	(Hard =	10, So	oft = 15)		
Average Daily Traffic	(Adt):	37,050 vehicle	es					Autos:	15		
Peak Hour Perce	ntage:	7.51%			Me	dium Tr	ucks (2 .	Axles):	15		
Peak Hour Vo	olume:	2,783 vehicles	6		He	avy Tru	cks (3+)	Axles):	15		
Vehicle S	peed:	45 mph		-	Vehicle I	Niv					
Near/Far Lane Dis	tance:	98 feet		-	Vehi	cleTvpe		Dav	Evenina	Nial	nt Dailv
Site Data							Autos:	77.5%	5 12.9%	9.	6% 96.36%
Barrier H	eiaht [.]	0.0 feet			Me	edium T	rucks:	84.8%	4.9%	10.	3% 2.47%
Barrier Type (0-Wall, 1-P	Berm):	0.0			ŀ	leavy T	rucks:	86.5%	2.7%	10.	8% 1.17%
Centerline Dist. to E	arrier:	60.0 feet		-	Noice Co	uree E	lovation	o (in fi	a a 4 l		
Centerline Dist. to Obs	erver:	60.0 feet		-	NUISE 30	urce E	evalion	<u>s (III I</u>	eel)		
Barrier Distance to Obs	erver:	0.0 feet			Madiu	AUIO Truck	S: U.	207			
Observer Height (Above	Pad):	5.0 feet			Healur	II Truck	ιδ. Ζ. Ιοι Θ	297	Grado Ad	iuotm	ont: 0.0
Pad Elev	vation:	0.0 feet			neav	у писк	.s. o.	004	Grade Auj	usun	ent. 0.0
Road Elev	/ation:	0.0 feet			Lane Equ	uivalen	t Distan	ce (in	feet)		
Road 0	Grade:	0.0%				Auto	s: 34.	986			
Left	View:	-90.0 degree	es		Mediur	n Truck	s: 34.	732			
Right	View:	90.0 degree	es		Heav	y Truck	s: 34.	757			
FHWA Noise Model Cald	ulations	;									
VehicleType RE	MEL	Traffic Flow	Dis	stance	Finite	Road	Fresi	nel	Barrier Atte	en	Berm Atten
Autos:	68.46	2.45		2.2	22	-1.20		-4.69	0.0	000	0.00
Medium Trucks:	79.45	-13.46		2.2	27	-1.20		-4.88	0.0	000	0.00
Heavy Trucks:	84.25	-16.71		2.2	27	-1.20		-5.34	0.0	000	0.00
Unmitigated Noise Leve	ls (witho	out Topo and	barri	er atter	nuation)						
VehicleType Leq P	eak Hou	r Leq Day	r	Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	71.	.9	71.3		69.5		63.	5	72.1	1	72.
Medium Trucks:	67.	.1	66.8		60.4		58.9	9	67.4	1	67.
Heavy Trucks:	68.	6	68.4		59.4		60.	3	69.0)	69.
Vehicle Noise:	74.	5	74.0		70.4		66.3	2	74.7	7	75.
Centerline Distance to N	loise Co	ntour (in feet,)								
				70	dBA	65	dBA	(60 dBA		55 dBA
			Ldn:		123		266		573		1,234
		CI	VEL:		131		283		610		1,315

	FH\	WA-RD-77-108	HIGHW	AY N	OISE PF	REDICTIO	ON MO	DEL			
Scenar Road Nam Road Segme	Scenario: Existing + Project Road Name: Raymond Av. Road Segment: n/o Kimberly Av. SITE SPECIFIC INPUT DATA					Project I Job NL	Vame: (Imber: ·	Goodr 13158	nan Logisti	cs Cente	er
SITE	SPECIFIC IN	PUT DATA				N	DISE N	IODE		s	
Highway Data				S	ite Con	ditions (Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	23,157 vehicle	s					Autos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Tru	cks (2 A	(xles)	15		
Peak H	lour Volume:	1,740 vehicles			He	avy Truc	ks (3+ A	Axles):	15		
Ve	hicle Speed:	40 mph		v	ehicle I	Mix					
Near/Far La	ne Distance:	53 feet		F	Vehi	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	5 12.9%	9.6%	96.38%
Ba	rrier Heiaht:	0.0 feet			Me	edium Tri	ucks:	84.8%	4.9%	10.3%	2.46%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy Tri	ucks:	86.5%	5 2.7%	10.8%	1.16%
Centerline Di	st. to Barrier:	42.0 feet		Λ	loise So	urce Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	42.0 feet				Autos	: 0.0	000	,		
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	: 2.3	297			
Observer Height (Above Pad):	5.0 feet			Heav	v Trucks	: 8.0	004	Grade Ad	iustment	: 0.0
Pi	ad Elevation:	0.0 feet			_						
Roa	ad Elevation:	0.0 feet		L	ane Equ	livalent	Distand	ce (In	feet)		
	Road Grade:	0.0%				Autos	: 32.	966			
	Left View:	-90.0 degree	s		Mediur	n Trucks	: 32.	696			
	Right View:	90.0 degree	s		Heav	y Trucks	: 32.	723			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	en Bei	rm Atten
Autos:	66.51	0.92		2.61		-1.20		-4.60	0.0	000	0.000
Medium Trucks:	77.72	-15.01		2.66	5	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	82.99	-18.27		2.66	i	-1.20		-5.53	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	uation)						
VehicleType	Leq Peak Hou	ur Leq Day	L	.eq Ev	ening	Leq N	light		Ldn	C	NEL
Autos:	68	3.8	58.2		66.4		60.4	ŀ	69.0)	69.6
Medium Trucks:	64	1.2	53.9		57.5		56.0)	64.5	5	64.7
Heavy Trucks:	66	3.2	6.0		57.0		58.2	2	66.6	6	66.7
Vehicle Noise:	71	1.6	71.1		67.4		63.3	3	71.8	3	72.2
Centerline Distant	ce to Noise Co	ontour (in feet)									
				70 d	BA	65 a	IBA	(60 dBA	55	dBA
			Ldn:		56		120		258		557
	CNEL:				59 128 275					592	

	FH	WA-RD-77-108	BHIGHW	AY NO	ISE PF	REDICTIO	N MOE	DEL			
Scenari Road Nam Road Segmer	o: Existing + I e: Raymond / nt: s/o Kimber	Project Av. Iy Av.				Project N Job Nur	ame: 0 nber: 1	Goodma 3158	an Logistio	s Cente	er
SITE S	SPECIFIC IN	NPUT DATA				NO	ISE N	ODEL	INPUTS	5	
Highway Data				Si	te Con	ditions (H	lard = '	10, Soi	ft = 15)		
Average Daily	Traffic (Adt):	23,636 vehicl	es				A	Autos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 A	xles):	15		
Peak H	our Volume:	1,776 vehicle	s		He	avy Truck	s (3+ A	xles):	15		
Vel	hicle Speed:	40 mph		Ve	hicle I	Mix					
Near/Far Lar	ne Distance:	53 feet		-	Veh	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						Au	tos:	77.5%	12.9%	9.6%	96.38%
Bar	rier Heiaht:	0.0 feet			M	edium Truc	cks: 1	84.8%	4.9%	10.3%	2.46%
Barrier Type (0-W	all, 1-Berm):	0.0			ŀ	leavy Truc	cks: I	86.5%	2.7%	10.8%	1.16%
Centerline Dis	t. to Barrier:	42.0 feet		No	oise Sc	ource Elev	ations	(in fe	of)		
Centerline Dist.	to Observer:	42.0 feet				Autos:	0.0	00			
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	04	Grade Adj	ustment	: 0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		La	ne Eq	uivalent D	ustanc	e (in fe	eet)		
F	Road Grade:	0.0%				Autos:	32.9	966			
	Left View:	-90.0 degre	es		Mediui	m Trucks:	32.6	596			
	Right View:	90.0 degre	es		Heav	y Trucks:	32.7	23			
FHWA Noise Mode	I Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	ice	Finite	Road	Fresne	el E	Barrier Atte	en Ber	m Atten
Autos:	66.51	1.01		2.61		-1.20		4.60	0.0	00	0.000
Medium Trucks:	77.72	-14.92		2.66		-1.20		4.87	0.0	00	0.000
Heavy Trucks:	82.99	-18.18		2.66		-1.20		-5.53	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	ttenua	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y Le	eq Eve	ning	Leq Ni	ght		Ldn	C	NEL
Autos:	68	3.9	68.3		66.5		60.5		69.1		69.7
Medium Trucks:	64	4.3	64.0		57.6		56.1		64.5		64.8
Heavy Trucks:	66	6.3	66.1		57.1		58.3		66.7	'	66.8
Vehicle Noise:	71	1.7	71.2		67.5		63.4		71.9)	72.3
Centerline Distanc	e to Noise C	ontour (in fee	t)								
				70 dB	A	65 dE	BA	60) dBA	55	dBA
			Ldn:		56		122		262		564
		С	NEL:		60		129		278		600

	FHV	/A-RD-77-108	HIGH	NAY NO	DISE PF	REDICTIO	N MOD	EL			
Scenario Road Name	o: Existing + P e: Raymond A	roject v.				Project N Job Nui	lame: G mber: 13	oodm 8158	an Logisti	cs Cente	r
Road Segmen	ot: s/o Oranget	horpe Av.									
SITE S	SPECIFIC IN	PUT DATA				NC	DISE M	DDEI		S	
Highway Data				S	ite Con	ditions (H	lard = 1	0, So	ft = 15)		
Average Daily	Traffic (Adt):	29,971 vehicle	s				A	utos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 Ax	les):	15		
Peak He	our Volume:	2,251 vehicles	6		He	avy Truck	s (3+ Ax	des):	15		
Vel	hicle Speed:	40 mph		V	ehicle I	<i>lix</i>					
Near/Far Lar	ne Distance:	53 feet			Vehi	cleType	D	av	Evening	Night	Daily
Site Data						AL	itos: 7	7.5%	12.9%	9.6%	96.24%
Bar	rier Height:	0.0 feet			Me	edium Tru	cks: 8	4.8%	4.9%	10.3%	2.52%
Barrier Type (0-Wa	all. 1-Berm):	0.0			ŀ	łeavy Tru	cks: 8	6.5%	2.7%	10.8%	1.24%
Centerline Dis	t. to Barrier:	42.0 feet			oloo Co	uree Elev	vationa	(in fo	c 4)		
Centerline Dist. t	to Observer:	42.0 feet		14	0136 30	Autoor	auons		eij		
Barrier Distance t	to Observer:	0.0 feet			Modiur	n Trucks:	2.00	70			
Observer Height (/	Above Pad):	5.0 feet			Hoov	n mucks.	2.28	97) A	Grade Ad	iustment	.00
Pa	d Elevation:	0.0 feet			neav	y muons.	0.00	-	,		0.0
Roa	d Elevation:	0.0 feet		La	ane Equ	iivalent E	Distance	(in f	eet)		
F	Road Grade:	0.0%				Autos:	32.96	66			
	Left View:	-90.0 degree	s		Mediur	n Trucks:	32.69	96			
	Right View:	90.0 degree	es		Heav	y Trucks:	32.72	23			
FHWA Noise Mode	l Calculations	5									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresne	1 1	Barrier Att	en Ber	m Atten
Autos:	66.51	2.03		2.61		-1.20	-4	4.60	0.0	000	0.000
Medium Trucks:	77.72	-13.79		2.66		-1.20	-4	1.87	0.0	000	0.000
Heavy Trucks:	82.99	-16.86		2.66		-1.20	-{	5.53	0.0	000	0.000
Unmitigated Noise	Levels (witho	out Topo and	barrier	r attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day		Leq Eve	ening	Leq N	ight		Ldn	CI	VEL
Autos:	70.	.0	69.3		67.5		61.5		70.1		70.7
Medium Trucks:	65	.4	65.1		58.8		57.2		65.7	7	65.9
Heavy Trucks:	67.	.6	67.4		58.4		59.6		68.0)	68.1
Vehicle Noise:	72.	.8	72.4		68.5		64.5		73.1		73.4
Centerline Distanc	e to Noise Co	ntour (in feet)	70 di	24	65 d	24	6	0 dBA	55	dDA
			L dn	70 02	67	03 UL	145	0	312		671
		C	VEL ·		71		154		331		713
		0/					.04		001		710

Friday, May 15, 2020

						_			
Scenario: Existing +	Project			Project I	Vame: C	Goodn	nan Logisti	cs Cente	er
Road Name: Raymond	Av.			Job Ni	imber: 1	3158			
Road Segment: s/o SR-91	Westbound Ramps								
SITE SPECIFIC I	NPUT DATA			N	DISE N	IODE	L INPUT	S	
Highway Data			Site Con	ditions (Hard =	10, So	oft = 15)		
Average Daily Traffic (Adt):	28,709 vehicles					Autos:	15		
Peak Hour Percentage:	7.51%		Me	dium Tru	cks (2 A	xles):	15		
Peak Hour Volume:	2,157 vehicles		He	avy Truc	ks (3+ A	xles):	15		
Vehicle Speed:	50 mph	-	Vehicle I	Nix					
Near/Far Lane Distance:	45 feet	-	Vehi	cleTvpe		Dav	Evenina	Night	Daily
Site Data				A	utos:	77.5%	12.9%	9.6%	96.37%
Darrior Uninht	0.0 foot		Me	edium Tru	ucks:	84.8%	4.9%	10.3%	2.46%
Barrier Type (0-Wall 1 Porm)	0.0 1001		ŀ	leavy Tru	icks:	86.5%	2.7%	10.8%	1.16%
Centerline Dist to Barrier:	45.0 feet	_							
Centerline Dist. to Observer:	45.0 feet	_	Noise So	ource Ele	vations	; (in f	eet)		
Barrier Distance to Observer:	0.0 feet			Autos	: 0.0	000			
Observer Height (Above Pad):	5.0 feet		Mediur	n Trucks	: 2.2	297			
Pad Elevation:	0.0 feet		Heav	y Trucks	: 8.0	004	Grade Adj	ustment	. 0.0
Road Elevation:	0.0 feet		Lane Equ	uivalent	Distanc	e (in	feet)		
Road Grade:	0.0%			Autos	: 39.2	291			
Left View:	-90.0 degrees		Mediur	n Trucks	: 39.0	065			
Right View:	90.0 degrees		Heav	y Trucks	: 39.0	087			
FHWA Noise Model Calculatio	ns								
VehicleType REMEL	Traffic Flow D	listance	Finite	Road	Fresn	el	Barrier Atte	en Bei	rm Atten
Autos: 70.2	0 0.88	1.4	7	-1.20		-4.62	0.0	000	0.000
Medium Trucks: 81.0	0 -15.04	1.5	50	-1.20		-4.87	0.0	000	0.000
Heavy Trucks: 85.3	8 -18.30	1.5	50	-1.20		-5.49	0.0	000	0.000
Unmitigated Noise Levels (wit	hout Topo and barr	rier atter	nuation)						
VehicleType Leq Peak H	bur Leq Day	Leq E	vening	Leq N	light		Ldn	C	NEL
Autos: 7	1.4 70.7		68.9		62.9		71.5)	72.1
Medium Trucks:	6.3 66.0)	59.6		58.1		66.6	5	66.8
Heavy Trucks:	67.4 67.2		58.2		59.4		67.8	5	67.5
venicie Noise:	3.7 73.2	-	69.7		65.4		73.9	,	74.3
Centerline Distance to Noise (Contour (in feet)	70	-10.4	05 -	DA		0.404		-10.4
	I also		udA oo	00 0	DA 177		DU OBA	55	UBA
	Lan:		82		1//		381		821
	CINELS		88		189		407		876

	FH\	VA-RD-77-108	HIGHW	AY N	OISE PR	EDICTI	ON MO	DEL			
Scenari Road Nam Road Segmer	Scenario: Existing + Project Road Name: Raymond Av. Road Segment: s/o SR-91 Eastbound Ramps SITE SPECIFIC INPUT DATA					Project Job Nu	Name: umber:	Goodr 13158	man Logisti	cs Cent	er
SITE S	SPECIFIC IN	IPUT DATA				N	OISE N	/IODE	L INPUT	s	
Highway Data				S	ite Cond	ditions ('Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	29,228 vehicle	s					Autos	: 15		
Peak Hour	Percentage:	7.51%			Med	dium Tru	icks (2 /	Axles)	: 15		
Peak H	our Volume:	2,196 vehicles			Hea	avy Truc	ks (3+ /	Axles)	: 15		
Vel	hicle Speed:	50 mph		v	ehicle N	lix					
Near/Far Lar	ne Distance:	45 feet		-	Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	6 12.9%	9.6%	96.37%
Bar	rier Height:	0.0 feet			Me	dium Tr	ucks:	84.8%	6 4.9%	10.3%	2.46%
Barrier Type (0-W	all, 1-Berm):	0.0			H	leavy Tr	ucks:	86.5%	6 2.7%	10.8%	1.16%
Centerline Dis	t. to Barrier:	45.0 feet		Ν	loise So	urce Ele	evation	s (in f	eet)		
Centerline Dist.	to Observer:	45.0 feet				Autos	.: 0.	000			
Barrier Distance	to Observer:	0.0 feet			Mediun	n Trucks	. 2.	297			
Observer Height (J	Above Pad):	5.0 feet			Heav	v Trucks	. 8.	004	Grade Ad	ljustmen	t: 0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		L	ane Equ	ivalent	Distan	ce (In	teet)		
F	Road Grade:	0.0%				Autos	:: 39.	291			
	Left View:	-90.0 degree	s		Mediun	n Trucks	:: 39.	065			
	Right View:	90.0 degree	s		Heav	y Trucks	:: 39.	087			
FHWA Noise Mode	Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresr	nel	Barrier Att	en Be	rm Atten
Autos:	70.20	0.96		1.47	,	-1.20		-4.62	0.0	000	0.000
Medium Trucks:	81.00	-14.96		1.50)	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	85.38	-18.22		1.50)	-1.20		-5.49	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	attenı	uation)						
VehicleType	Leq Peak Hou	ir Leq Day	L	eq Ev	ening	Leq I	Vight		Ldn	C	NEL
Autos:	71	.4	70.8		69.0		63.0)	71.	6	72.2
Medium Trucks:	66	.3	56.1		59.7		58.2	2	66.	6	66.9
Heavy Trucks:	67	.5	57.3		58.2		59.5	5	67.	В	68.0
Vehicle Noise:	73	.8	73.3		69.8		65.5	5	74.	D	74.4
Centerline Distance	e to Noise Co	ontour (in feet)									
				70 d	BA	65 c	1BA		60 dBA	55	5 dBA
			Ldn:	83 179 385			831				
		CI	IEL:		89		191	91 412 88			887

	FH	WA-RD-77-108	BHIGHW	VAY NO	ISE PF	REDICTIO	N MOD	EL			
Scenario Road Name Road Segmen	o: Existing + I e: Acacia Av. t: n/o Kimber	Project Iy Av.				Project N Job Nur	ame: G nber: 1	ioodma 3158	an Logistic	s Cente	r
SITE S	PECIFIC IN	IPUT DATA				NO	ISE M	ODEL	INPUTS	;	
Highway Data				Si	te Con	ditions (H	lard = 1	0, Sof	t = 15)		
Average Daily	Traffic (Adt):	7,941 vehicl	es				A	utos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 A.	xles):	15		
Peak He	our Volume:	596 vehicle	s		He	avy Truck	s (3+ A.	xles):	15		
Vel	nicle Speed:	40 mph		Ve	hicle I	Mix					
Near/Far Lar	ne Distance:	45 feet		ve	Veh	icleType	1	Dav	Evenina	Niaht	Daily
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	96.41%
Bar	rior Hoiaht	0.0 feet			M	edium Tru	cks: 8	34.8%	4.9%	10.3%	2.44%
Barrier Type (0-Wa	all 1-Rerm)	0.0			ŀ	Heavy Tru	cks: 8	86.5%	2.7%	10.8%	1.15%
Centerline Dis	t. to Barrier:	40.0 feet						() f			
Centerline Dist. t	o Observer:	40.0 feet		NC	oise so	ource Elev	ations	(In ree	et)		
Barrier Distance t	o Observer:	0.0 feet			Mar alle a	Autos:	0.0	00			
Observer Height (/	Above Pad):	5.0 feet			Mediui	m Trucks:	2.2	97	Grada Adi	ustmont	
Pa	d Elevation:	0.0 feet			Heav	y Trucks:	8.0	04	Siaue Auji	JSUITEIL	. 0.0
Roa	d Elevation:	0.0 feet		La	ne Eq	uivalent D	listanc	e (in fe	et)		
F	Road Grade:	0.0%				Autos:	33.4	48			
	Left View:	-90.0 degre	es		Mediu	m Trucks:	33.1	82			
	Right View:	90.0 degre	es		Heav	y Trucks:	33.2	08			
FHWA Noise Mode	I Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	el E	Barrier Atte	en Ber	m Atten
Autos:	66.51	-3.73		2.52		-1.20	-	4.59	0.0	00	0.000
Medium Trucks:	77.72	-19.70		2.57		-1.20	-	4.87	0.0	00	0.000
Heavy Trucks:	82.99	-22.96		2.56		-1.20	-	5.56	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	attenua	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y L	Leq Eve	ning	Leq Ni	ght	1	Ldn	C	NEL
Autos:	64	4.1	63.4		61.7		55.6		64.2		64.8
Medium Trucks:	59	9.4	59.1		52.8		51.2		59.7		59.9
Heavy Trucks:	61	1.4	61.2		52.2		53.4		61.8		61.9
Vehicle Noise:	66	5.8	66.4		62.6		58.6		67.1		67.5
Centerline Distanc	e to Noise C	ontour (in fee	t)								
			L	70 dE	BA .	65 dE	BA	60) dBA	55	dBA
			Ldn:		26		55		118		255
		C	NEL:		27		58		126		271

	FHW	/A-RD-77-108	HIGHV	VAY NO	DISE PR	REDICTIO	N MODE	L				
Scenari Road Nam Road Segmer	io: Existing + P ne: Acacia Av. nt: s/o Kimberly	roject / Av.				Project N Job Nur	ame: Go nber: 13	odma 158	in Logisti	cs Cente	r	
SITE	SPECIFIC IN	PUT DATA				NO	ISE MC	DEL	INPUT	s		
Highway Data				S	ite Con	ditions (H	lard = 10	, Sof	t = 15)			
Average Daily Peak Hour Peak H Ve	Traffic (Adt): Percentage: lour Volume: hicle Speed:	7,926 vehicle 7.51% 595 vehicle 40 mph	es S	V	Mee Hea ehicle N	dium Truc avy Truck fix	Au ks (2 Axi s (3+ Axi	tos: les): les):	15 15 15			
Near/Far Lai	ne Distance:	45 feet			Vehi	cleType	Da	ay I	Evening	Night	Daily	
Site Data Bar	rrier Height	0 0 feet			Ме	Au dium Tru	tos: 77 cks: 84	.5% .8%	12.9% 4.9%	9.6% 10.3%	96.53% 2.36%	
Barrier Type (0-W	(all. 1-Berm):	0.0			H	leavy Tru	cks: 86	6.5%	2.7%	10.8%	1.11%	
Centerline Dis	st. to Barrier:	40.0 feet			olog Co	uree Eler	ations (in foo	41			
Centerline Dist. to Observer: 40.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: 90.0 degrees Right View: 90.0 degrees					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0 Lane Equivalent Distance (in feet) Autos: 33.448 Medium Trucks: 33.182							
	Right View:	90.0 degree	es		Heav	y Trucks:	33.20	8				
FHWA Noise Mode	el Calculations	;										
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresnel	В	arrier Att	en Ber	m Atten	
Autos: Medium Trucks: Heavy Trucks:	66.51 77.72 82.99	-3.73 -19.85 -23.11		2.52 2.57 2.56		-1.20 -1.20 -1.20	-4 -4 -5	.59 .87 .56	0.0 0.0 0.0	000 000 000	0.000	
Unmitigated Noise	e Levels (witho	out Topo and	barrier	attenu	ation)							
VehicleType	Leq Peak Hou	r Leq Day		Leq Eve	ening	Leq Ni	ght	L	dn	CI	VEL	
Autos:	64.	1	63.4		61.7		55.6		64.2	2	64.8	
Heavy Trucks:	59.	2	59.U 61.1		52.6		51.1 53.2		59.5	2	59.8	
Vehicle Noise:	66.	∠8	66.3		62.6		58.5		67.0)	67.4	
Centerline Distance	e to Noise Co	ntour (in feet)									
Contonine Distante		mour (mreet)		70 dl	BA	65 dE	BA	60	dBA	55	dBA	
			🖵				5.4		117		252	

Friday, May 15, 2020

FH	WA-RD-77-108 HIG	HWAY N	IOISE PF	REDICT	ION MODE	L	
Scenario: Existing + Road Name: N. State C Road Segment: n/o Chapn	Project ollege Bl. nan Av.			Project Job N	Name: Go lumber: 13	odman Logistic: 158	s Center
SITE SPECIFIC I	NPUT DATA			Ν	IOISE MO	DEL INPUTS	
Highway Data		\$	Site Con	ditions	(Hard = 10	, Soft = 15)	
Average Daily Traffic (Adt):	37,160 vehicles				Au	tos: 15	
Peak Hour Percentage:	7.51%		Me	dium Tr	ucks (2 Axl	es): 15	
Peak Hour Volume:	2,791 vehicles		He	avy Tru	cks (3+ Axl	es): 15	
Vehicle Speed:	40 mph	-	Vehicle I	Niv			
Near/Far Lane Distance:	88 feet	-	Venicie i	icleTvpe	De	v Evenina	Night Daily
Site Data					Autos: 77	.5% 12.9%	9.6% 96.26%
Barrier Height:	0.0 feet		Me	edium T	rucks: 84	.8% 4.9%	10.3% 2.51%
Barrier Type (0-Wall 1-Berm):	0.0 1001		ŀ	leavy T	rucks: 86	.5% 2.7%	10.8% 1.23%
Centerline Dist. to Barrier:	50.0 feet	- E					
Centerline Dist. to Observer:	50.0 feet		Noise So	ource El	evations (in teet)	
Barrier Distance to Observer:	0.0 feet			Auto	s: 0.000) 7	
Observer Height (Above Pad):	5.0 feet		Mealur	n Truck	S: 2.29	r Crada Adii	ofmont: 0.0
Pad Elevation:	0.0 feet		Heav	у ттиск	5: 8.004	i Grade Adju	Isuneni. 0.0
Road Elevation:	0.0 feet	1	Lane Equ	uivalent	Distance	(in feet)	
Road Grade:	0.0%			Auto	s: 24.26	9	
Left View:	-90.0 degrees		Mediur	n Truck	s: 23.90	2	
Right View:	90.0 degrees		Heav	y Truck	s: 23.93	В	
FHWA Noise Model Calculation	าร				-		
VehicleType REMEL	Traffic Flow D	listance	Finite	Road	Fresnel	Barrier Atte	n Berm Atten
Autos: 66.5	1 2.97	4.6	1	-1.20	-4	.65 0.00	0.00
Medium Trucks: 77.72	2 -12.87	4.7	0	-1.20	-4	.87 0.00	0.00
Heavy Trucks: 82.9	-15.98	4.6	9	-1.20	-5.	.43 0.00	00.00
Unmitigated Noise Levels (with	hout Topo and barr	rier atten	uation)				
VehicleType Leq Peak Ho	our Leq Day	Leq E	vening	Leq	Night	Ldn	CNEL
Autos: 7	2.9 72.2	2	70.5		64.4	73.0	73.0
Medium Trucks: 6	8.3 68.1		61.7		60.2	68.6	68.9
Heavy Trucks: 7	0.5 70.3	5	61.3		62.5	70.9	71.0
Vehicle Noise: 7	5.7 75.3	5	71.4		67.5	76.0	76.4
Centerline Distance to Noise C	contour (in feet)						
		70 0	авA	65	ara ozo	60 dBA	55 dBA
	Ldn.		125		270	582	1,254
	CNFL		133		287	618	1 3 3 2

	FH\	WA-RD-77-108	HIGHW	HWAY NOISE PREDICTION MODEL							
Scenar Road Nam Road Segme	Scenario: Existing + Project Road Name: N. State College Bl. Road Segment: s/o Chapman Av. SITE SPECIFIC INPUT DATA						Name: (umber:	Goodr 13158	nan Logisti	cs Cente	er
SITE	SPECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUT	5	
Highway Data				S	Site Cond	ditions	(Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	25,921 vehicle	s					Autos:	15		
Peak Hour	Percentage:	7.51%			Mee	dium Tru	icks (2 A	xles):	15		
Peak H	lour Volume:	1,947 vehicles			Hea	avy Truc	cks (3+ A	(xles)	15		
Ve	hicle Speed:	35 mph		L.	(obielo I	liv					
Near/Far La	ne Distance:	88 feet		v	Vehi	nix cleTvne		Dav	Evening	Night	Daily
Site Data					VCIII	cic i ypc	lutos:	77.5%	12.9%	9.6%	96.22%
Ba	wier Heinht	0.0 feet			Me	edium Ti	ucks:	84.8%	4.9%	10.3%	2.52%
Barrier Type (0-M	(all 1-Borm)	0.0 1001			E	leavy Tr	ucks:	86.5%	5 2.7%	10.8%	1.25%
Centerline Di	st. to Barrier:	50.0 feet		-							
Centerline Dist.	to Observer:	50.0 feet		N	loise So	urce El	evation	5 (in f	eet)		
Barrier Distance	to Observer:	0.0 feet				Autos	s: 0.0	000			
Observer Height	Above Pad):	5.0 feet			Mediur	n Trucks	s: 2.2	297			
Pi	ad Elevation:	0.0 feet			Heav	y Trucks	s: 8.0)04	Grade Ad	ustment	: 0.0
Ro	ad Elevation:	0.0 feet		L	ane Equ	iivalent	Distand	e (in	feet)		
	Road Grade:	0.0%				Autos	s: 24.	269			
	Left View:	-90.0 degree	s		Mediur	n Truck	s: 23.	902			
	Right View:	90.0 degree	s		Heav	y Trucks	s: 23.	938			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	се	Finite	Road	Fresn	el	Barrier Att	en Bei	rm Atten
Autos:	64.30	1.98		4.61		-1.20		-4.65	0.0	000	0.000
Medium Trucks:	75.75	-13.83		4.70)	-1.20		-4.87	0.0	000	0.000
Heavy Trucks:	81.57	-16.87		4.69)	-1.20		-5.43	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and I	barrier a	attenu	uation)						
VehicleType	Leq Peak Hou	ur Leq Day	L	eq Ev	rening	Leq	Night		Ldn	С	NEL
Autos:	69	9.7 (69.0		67.3		61.2		69.8	3	70.4
Medium Trucks:	65	5.4 6	65.2		58.8		57.3		65.7	7	65.9
Heavy Trucks:	68	3.2 6	68.0		59.0		60.2		68.6	6	68.7
Vehicle Noise:	72	2.9	2.5		68.4		64.6	i	73.1		73.5
Centerline Distant	ce to Noise Co	ontour (in feet)									
				70 d	IBA	65 (dBA	(60 dBA	55	dBA
		1	dn:	81 174			375		808		
	CNEL:				86 184			397 856			

	FH	WA-RD-77-10	8 HIGH	IWAY NO	DISE P	REDICTIC	N MOD	EL			
Scenario Road Name Road Segmen	b: Existing + e: N. State C t: s/o Comm	Project ollege Bl. onwealth Av.				Project N Job Nu	lame: G mber: 13	oodma 3158	n Logistic	s Cente	r
SITE S	PECIFIC II	NPUT DATA				NC	ISE M	ODEL	INPUTS	;	
Highway Data				S	ite Cor	nditions (H	lard = 1	0, Soft	= 15)		
Average Daily 1	raffic (Adt):	23,581 vehic	les				A	utos:	15		
Peak Hour I	Percentage:	7.51%			Me	edium Truc	ks (2 Ax	des):	15		
Peak Ho	our Volume:	1,771 vehicl	es		He	avy Truck	s (3+ Ax	des):	15		
Veh	icle Speed:	40 mph		V	ohiclo	Mix					
Near/Far Lar	e Distance:	88 feet			Veh	nicleTvpe	D	av E	venina	Niaht	Dailv
Site Data						AL	itos: 7	7.5%	12.9%	9.6%	96.21%
Bar	rier Heiaht:	0.0 feet			Μ	ledium Tru	cks: 8	4.8%	4.9%	10.3%	2.53%
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy Tru	cks: 8	6.5%	2.7%	10.8%	1.26%
Centerline Dis	t. to Barrier:	50.0 feet		N	loise S	ource Elev	vations	(in fee	<i>t</i>)		
Centerline Dist. t	o Observer:	50.0 feet			0.00 0	Autos:	0.00	00	9		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Trucks:	2.20	97			
Observer Height (A	Above Pad):	5.0 feet			Hea	vv Trucks:	8.00)4 G	Grade Adj	ustment	0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalent L	Vistance	e (in tee	et)		
6	load Grade:	0.0%				Autos:	24.2	59			
	Left View:	-90.0 degr	ees		Mediu	m Trucks:	23.90	02			
	Right View:	90.0 degri	ees		Hea	vy Trucks:	23.9	38			
FHWA Noise Mode	I Calculation	15									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresne	l Bi	arrier Atte	en Ber	m Atten
Autos:	66.51	0.9	9	4.61		-1.20	-4	4.65	0.0	00	0.000
Medium Trucks:	77.72	2 -14.8	1	4.70		-1.20	-4	4.87	0.0	00	0.000
Heavy Trucks:	82.99	-17.8	4	4.69		-1.20	-{	5.43	0.0	00	0.000
Unmitigated Noise	Levels (with	nout Topo and	d barrie	er attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	ay	Leq Ev	ening	Leq N	ight	L	.dn	CI	VEL
Autos:	70	0.9	70.3		68.5		62.4		71.1		71.7
Medium Trucks:	6	6.4	66.1		59.8		58.2		66.7		66.9
Heavy Trucks:	6	8.7	68.5		59.4		60.7		69.0		69.2
Vehicle Noise:	73	3.8	73.4		69.5		65.5		74.1		74.4
Centerline Distance	e to Noise C	ontour (in fee	et)			r.					
			L	70 di	BA	65 di	BA	60	dBA	55	dBA
			Ldn:		93		201		432		932
	CNEL:				99		213		459		989

	FHV	A-RD-77-108	HIGHW	AY NO	ISE PRI	EDICTI	ON MOE	DEL			
Scenari Road Nam Road Segmer	o: Existing + P e: N. State Co nt: s/o Kimberly			1	Project Job Nu	Name: G umber: 1	Goodm 3158	nan Logisti	cs Cente	r	
SITES	SPECIFIC IN	PUT DATA				N	OISE M	ODE	L INPUT	S	
Highway Data				Si	e Cond	itions ('Hard = 1	10, So	oft = 15)		
Average Daily	Traffic (Adt):	24,084 vehicle	6				A	lutos:	15		
Peak Hour	Percentage:	7.51%			Med	ium Tru	icks (2 A	xles):	15		
Peak H	our Volume:	1,809 vehicles			Hea	vy Truc	ks (3+ A	xles):	15		
Vel	nicle Speed:	40 mph		Ve	hicle M	ix					
Near/Far Lar	ne Distance:	88 feet			Vehic	leType	1	Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	94.97%
Bar	rier Heiaht:	0.0 feet			Med	dium Tr	ucks: 8	34.8%	4.9%	10.3%	3.06%
Barrier Type (0-W	all, 1-Berm):	0.0			He	eavy Tr	ucks: 8	36.5%	2.7%	10.8%	1.97%
Centerline Dis	t. to Barrier:	50.0 feet		No	vise Sou	urce Ek	vations	(in fe	of)		
Centerline Dist.	o Observer:	50.0 feet		/**	130 000	Autos	. 0.0	00			
Barrier Distance	o Observer:	0.0 feet			Medium	Trucks	. 0.0 . 22	97			
Observer Height (J	Observer Height (Above Pad): 5.0 feet					/ Trucks	: 8.0	04	Grade Ad	iustment.	0.0
Pa											
Roa	d Elevation:	0.0 feet		La	ne Equi	valent	Distanc	e (in 1	eet)		
ŀ	Road Grade:	0.0%				Autos	24.2	69			
	Left View:	-90.0 degree	5		Hoove	Trucks	. 23.8	102			
	Right view.	90.0 degree	5		Tieavy	TTUCKS	. 23.8	130			
FHWA Noise Mode	I Calculations	6									
VehicleType	REMEL	Traffic Flow	Distan	ice	Finite F	Road	Fresne	el	Barrier Att	en Ber	m Atten
Autos:	66.51	1.02		4.61		-1.20	-	4.65	0.0	000	0.00
Medium Trucks:	77.72	-13.90		4.70		-1.20		4.87	0.0	000	0.00
Heavy Trucks:	82.99	-15.80		4.69		-1.20	-	5.43	0.0	000	0.00
Unmitigated Noise	Levels (witho	out Topo and b	arrier a	ttenua	ation)	-					
VehicleType	Leq Peak Hou	r Leq Day	Le	eq Eve	ning	Leq I	Vight		Ldn	CI	VEL
Autos:	70.	.9 7	0.3		68.5		62.5		71.1	I	71.
Medium Trucks:	67.	.3 6	7.1		60.7		59.2		67.6	3	67.
Heavy Trucks:	70.	.7 7	0.5		61.5		62.7		71.1	1	71.
Vehicle Noise:	74.	.7 7	4.3		69.9		66.5		75.0)	75.
Centerline Distanc	e to Noise Co	ntour (in feet)	-	70 45		65 -	ID A			57	dD A
		,	day	70 dE	4 107	65 0	1BA 221	6	U 0BA	55	1 072
			un. El·	107 231 498 1			1,073				
	CNEL:				1.1.0		244		525		1,131

Friday, May 15, 2020

	FHW	VA-RD-77-108 I	HIGHW	AY NO	OISE PF	REDICT	ION MO	DEL			
Scenario: Exi Road Name: N. Road Segment: s/o	sting + P State Co Dwy. 16	roject Ilege BI.				Project Job N	Name: lumber:	Goodr 13158	nan Logistio	s Cente	er
SITE SPEC	IFIC IN	PUT DATA				Ν	IOISE N	/IODE	L INPUTS	5	
Highway Data				S	ite Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily Traffic	(Adt):	24,373 vehicles	5					Autos.	15		
Peak Hour Perce	ntage:	7.51%			Me	dium Tr	ucks (2 /	Axles).	15		
Peak Hour Vo	olume:	1,831 vehicles			Hea	avy Tru	cks (3+ /	Axles).	15		
Vehicle S	Speed:	40 mph		V	ohicle I	Nix					
Near/Far Lane Dis	tance:	88 feet			Vehi	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data							Autos:	77.5%	12.9%	9.6%	94.89%
Barrier H	oight.	0.0 feet			Me	edium T	rucks:	84.8%	4.9%	10.3%	3.09%
Barrier Type (0-Wall, 1-	Berm):	0.0			F	leavy T	rucks:	86.5%	5 2.7%	10.8%	2.02%
Centerline Dist. to E	arrier:	50.0 feet			laiaa Ca	uraa El	ovation	o (in f	a a 4 1		
Centerline Dist. to Obs	server:	50.0 feet		14	ioise 30	Auto	evalion	s (III 1	eel)		
Barrier Distance to Obs	server:	0.0 feet			Madium	Auto	s. 0.	207			
Observer Height (Above Pad): 5.0 feet					Hear	II TIUCK	S. Z.	297	Grada Adi	ustmont	÷ 0 0
Pad Elevation: 0.0 feet					neav	y much	3. 0.	004	Grade Adj	usunom	. 0.0
Road Elev	vation:	0.0 feet		L	ane Equ	uivalent	Distan	ce (in	feet)		
Road 0	Grade:	0.0%				Auto	s: 24.	269			
Left	View:	-90.0 degrees	S		Mediur	n Truck	s: 23.	902			
Right	View:	90.0 degrees	S		Heav	y Truck	s: 23.	938			
FHWA Noise Model Calc	ulations	5									
VehicleType RE	MEL	Traffic Flow	Distar	ice	Finite	Road	Fresr	iel	Barrier Atte	en Ber	m Atten
Autos:	66.51	1.07		4.61		-1.20		-4.65	0.0	00	0.00
Medium Trucks:	77.72	-13.80		4.70		-1.20		-4.87	0.0	00	0.00
Heavy Trucks:	82.99	-15.65		4.69		-1.20		-5.43	0.0	00	0.00
Unmitigated Noise Leve	ls (witho	out Topo and b	arrier a	ttenu	uation)						
VehicleType Leq P	eak Hou	r Leq Day	Le	eq Ev	ening	Leq	Night		Ldn	C	NEL
Autos:	71.	.0 7	0.3		68.6		62.5	5	71.1		71.
Medium Trucks:	67.	.4 6	7.2		60.8		59.2	2	67.7		67.9
Heavy Trucks:	70.	.8 7	0.7		61.6		62.9)	71.2		71.4
Vehicle Noise:	74.	.8 7	4.4		69.9		66.6	6	75.1		75.4
Centerline Distance to N	loise Co	ntour (in feet)									
				70 di	BA	65	dBA		60 dBA	55	dBA
									500		1 090
		L	.an:		109		235		506		1,005

	FH\	WA-RD-77-108	HIGHW.	AY NO	DISE PR	REDICTIO	ON MOI	DEL			
Scenan Road Nam Road Segmei	io: Existing + I e: N. State Co nt: s/o Orange				Project I Job Nu	Vame: (Imber: 1	Goodr 3158	nan Logistic	s Cente	r	
SITE	SPECIFIC IN	IPUT DATA				N	DISE N	IODE	L INPUTS	5	
Highway Data				S	ite Con	ditions (Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	28,704 vehicle	s					Autos:	15		
Peak Hour	Percentage:	7.51%			Mee	dium Tru	cks (2 A	xles):	15		
Peak H	our Volume:	2,156 vehicles	6		Hea	avy Truci	ks (3+ A	xles):	15		
Ve	hicle Speed:	40 mph		V	obiclo I	liv					
Near/Far La	ne Distance:	88 feet		-	Vehi	cleTvne		Dav	Evening	Night	Daily
Site Data					VCIII	A	utos:	77.5%	5 12.9%	9.6%	94.78%
Pa	rior Hoight:	0.0 foot			Me	dium Tru	icks:	84.8%	4.9%	10.3%	3.14%
Barrier Type (0-W	all 1-Berm)	0.0 1001			H	leavy Tru	icks:	86.5%	2.7%	10.8%	2.08%
Centerline Dis	st. to Barrier:	50.0 feet							4)		
Centerline Dist.	to Observer:	50.0 feet		N	01se 50	urce Ele	vations		eet)		
Barrier Distance	to Observer:	0.0 feet			1 4 m all 1 m	Autos.	. 0.0	000			
Observer Height (Above Pad):	5.0 feet			weatur	n Trucks	. 2.4	297	Crada Adi		
Pa	ad Elevation:	0.0 feet			Heav	y Trucks	. 8.0	104	Grade Auj	usuneni	. 0.0
Roa	ad Elevation:	0.0 feet		L	ane Equ	livalent	Distanc	e (in	feet)		
1	Road Grade:	0.0%				Autos.	24.2	269			
	Left View:	-90.0 degree	s		Mediur	n Trucks	: 23.9	902			
	Right View:	90.0 degree	es		Heav	y Trucks	23.9	938			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	ice	Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten
Autos:	66.51	1.78		4.61		-1.20		-4.65	0.0	00	0.000
Medium Trucks:	77.72	-13.02		4.70		-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	82.99	-14.82		4.69		-1.20		-5.43	0.0	00	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Day	' Le	eq Ev	ening	Leq N	light		Ldn	C	VEL
Autos:	71	1.7	71.0		69.3		63.2		71.8		72.4
Medium Trucks:	68	3.2	67.9		61.6		60.0		68.5		68.7
Heavy Trucks:	71	1.7	71.5		62.5		63.7		72.1		72.2
Vehicle Noise:	75	5.6	75.2		70.7		67.4		75.8		76.2
Centerline Distance	e to Noise C	ontour (in feet)					r			
				70 d	BA	65 d	BA		60 dBA	55	dBA
			Ldn:		123		264		569		1,226
		Ci	VEL:		129		278		600		1,293

	FH	WA-RD-77-10	8 HIGH	IWAY N	OISE P	REDICTIO	N MOE	DEL			
Scenario Road Name Road Segmen	Scenario: Existing + Project Road Name: N. State College BI. Road Segment: s/o SR-91 Westbound Ramps						lame: G mber: 1	Goodma 3158	an Logistic	s Cente	r
SITE S	PECIFIC IN	VPUT DATA				NC	DISE M	ODEL	INPUTS	;	
Highway Data				5	Site Cor	nditions (H	lard = 1	10, Soi	ft = 15)		
Average Daily 7	raffic (Adt):	27,585 vehic	les				A	utos:	15		
Peak Hour F	Percentage:	7.51%			Me	edium Truc	ks (2 A	xles):	15		
Peak Ho	our Volume:	2,072 vehicl	es		He	eavy Truck	's (3+ A	xles):	15		
Veh	icle Speed:	55 mph		1	/ohiclo	Mix					-
Near/Far Lan	e Distance:	78 feet		-	Veh	nicleType	1	Dav	Evenina	Niaht	Dailv
Site Data						Au	itos: 1	77.5%	12.9%	9.6%	95.95%
Bari	rier Heiaht:	0.0 feet			M	ledium Tru	cks: 8	34.8%	4.9%	10.3%	2.64%
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy Tru	cks: 8	36.5%	2.7%	10.8%	1.41%
Centerline Dis	t. to Barrier:	53.0 feet			Vinisa S	ource Elev	vations	(in fo	of)		
Centerline Dist. te	o Observer:	53.0 feet		É	10/30 0	Autos:	0.0	00			
Barrier Distance to	o Observer:	0.0 feet			Modiu	m Trucke	2.2	00 07			
Observer Height (A	Above Pad):	5.0 feet			Hea	vv Trucks:	8.0	04	Grade Adi	ustment	: 0.0
Pa	d Elevation:	0.0 feet			1100	ry maono.	0.0	•••			
Roa	d Elevation:	0.0 feet		1	.ane Eq	uivalent D	Distanc	e (in fe	eet)		
R	load Grade:	0.0%				Autos:	36.2	35			
	Left View:	-90.0 degr	ees		Mediu	im Trucks:	35.9	90			
	Right View:	90.0 degr	ees		Hea	vy Trucks:	36.0	14			
FHWA Noise Mode	I Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresne	el E	Barrier Atte	en Ber	m Atten
Autos:	71.78	0.2	8	1.99	Э	-1.20		4.66	0.0	00	0.000
Medium Trucks:	82.40	-15.3	3	2.04	4	-1.20	-	4.87	0.0	00	0.000
Heavy Trucks:	86.40	-18.0	4	2.03	3	-1.20	-	5.40	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	d barrie	er atten	uation)						-
VehicleType	Leq Peak Ho	ur Leq Da	ay	Leg Ev	/ening	Leq N	ight		Ldn	CI	VEL
Autos:	72	2.9	72.2		70.4		64.4		73.0		73.6
Medium Trucks:	67	7.9	67.6		61.3	5	59.7		68.2		68.4
Heavy Trucks:	69	9.2	69.0		60.0)	61.2		69.6		69.7
Vehicle Noise:	75	5.3	74.8		71.3	5	67.0		75.5		75.9
Centerline Distance	e to Noise C	ontour (in fee	et)								
			L	70 c	1BA	65 dE	BA	60	0 dBA	55	dBA
			Ldn:		124		266		574		1,236
		(CNEL:		132		284		612		1,318

	FHW	/A-RD-77-108	HIGHW	AY NC	DISE PR	EDICTIO	N MODE	L		
Scenari	o: Existing + P	roject		Project Name: Goodman Logistics Center						
Road Nam	e: N. State Col	lege Bl.				Job Nu	nber: 131	58		
Road Segmer	nt: s/o SR-91 E	astbound Ram	ips							
SITE S	SPECIFIC IN	PUT DATA				NC	ISE MO	DEL INPUTS	S	
Highway Data				Si	te Cond	ditions (H	lard = 10	, Soft = 15)		
Average Daily	Traffic (Adt):	22,651 vehicle	s				Au	tos: 15		
Peak Hour	Percentage:	7.51%			Med	dium Truc	ks (2 Axle	əs): 15		
Peak H	our Volume:	1,702 vehicles			Hea	avy Truck	s (3+ Axle	es): 15		
Vel	hicle Speed:	55 mph		Ve	ehicle N	lix				
Near/Far Lar	ne Distance:	78 feet			Vehi	cleType	Da	y Evening	Night	Daily
Site Data						AL	tos: 77	.5% 12.9%	9.6%	96.38%
Bar	rier Heiaht:	0.0 feet			Me	dium Tru	cks: 84	.8% 4.9%	10.3%	2.46%
Barrier Type (0-W	all. 1-Berm):	0.0			H	leavy Tru	cks: 86	.5% 2.7%	10.8%	1.16%
Centerline Dis	t. to Barrier:	53.0 feet		A/	sies Co	uree Elev	untiene (i	n foot)		
Centerline Dist.	to Observer:	53.0 feet		N	oise so	urce Elev	ations (I	n reet)		
Barrier Distance	to Observer:	0.0 feet				Autos:	0.000	,		
Observer Height (J	Above Pad):	5.0 feet			Nealun	n Trucks:	2.297	Grade Ad	iustmont	
Pa	ad Elevation:	0.0 feet			Heav	y Trucks:	8.004	Graue Auj	usuneni	. 0.0
Roa	ad Elevation:	0.0 feet		Lá	ane Equ	ivalent D	istance ((in feet)		
F	Road Grade:	0.0%				Autos:	36.235	5		
	Left View:	-90.0 degree	s		Mediun	n Trucks:	35.990)		
	Right View:	90.0 degree	s		Heav	y Trucks:	36.014	1		
FHWA Noise Mode	el Calculations	1								
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite I	Road	Fresnel	Barrier Atte	en Ber	m Atten
Autos:	71.78	-0.56		1.99		-1.20	-4.	66 0.0	000	0.000
Medium Trucks:	82.40	-16.49		2.04		-1.20	-4.	87 0.0	000	0.000
Heavy Trucks:	86.40	-19.74		2.03		-1.20	-5.	40 0.0	000	0.000
Unmitigated Noise	Levels (witho	out Topo and	barrier a	attenu	ation)					
VehicleType	Leq Peak Hou	r Leq Day	L	eq Eve	ening	Leq N	ight	Ldn	CI	VEL
Autos:	72.	0	71.4		69.6		63.5	72.2	2	72.8
Medium Trucks:	66.	8 (6.5		60.1		58.6	67.0)	67.3
Heavy Trucks:	67.	5	67.3		58.3		59.5	67.9)	68.0
Vehicle Noise:	74.	2	73.7		70.3		65.9	74.4	1	74.9
Centerline Distanc	e to Noise Co	ntour (in feet)	- 1	70 /		05.0		0.0 10.4		10.4
Centerline Distanc	e to Noise Co	ntour (in feet)		70 dE	BA	65 dE	BA	60 dBA	55	dBA
Centerline Distanc	e to Noise Co	ntour (in feet)	Ldn:	70 dE	3A 104	65 dE	225	60 dBA 484	55	dBA 1,044

Friday, May 15, 2020

FI	IWA-RD-7	77-108 HIG	GHWAY	NOISE PI	REDICTIO	ON MO	DEL			
Scenario: Existing + Road Name: S. Placen Road Segment: n/o Kimbe	Project tia Av. erly Av.				Project N Job Nu	lame: mber:	Goodn 13158	nan Logisti	cs Cent	er
SITE SPECIFIC	NPUT D	ATA			NO	DISE N	/IODE	L INPUT	s	
Highway Data				Site Con	ditions (I	Hard =	10, Sc	oft = 15)		
Average Daily Traffic (Adt):	21,107	vehicles					Autos:	15		
Peak Hour Percentage:	7.51%			Me	dium True	cks (2 /	Axles):	15		
Peak Hour Volume:	1,586 v	ehicles		He	avy Truck	(3+ /	Axles):	15		
Vehicle Speed:	40 n	nph	ŀ	Vahiala	Mix					
Near/Far Lane Distance:	53 f	eet	-	Venicle	icleType		Dav	Evenina	Night	Daily
Site Data				1011	A	utos:	77.5%	12.9%	9.6%	96.389
Barriar Haight	0.0	foot		М	edium Tru	icks:	84.8%	4.9%	10.3%	2.469
Barrier Type (0-Wall 1-Berm)	0.0	IEEL		1	Heavy Tru	icks:	86.5%	2.7%	10.8%	1.169
Centerline Dist. to Barrier:	42.0	feet	-							
Centerline Dist. to Observer:	42.0	feet	-	Noise So	burce Ele	vation	s (in te	eet)		
Barrier Distance to Observer:	0.0	feet		1 4 m - 10 m	Autos:	0.0	000			
Observer Height (Above Pad):	Observer Height (Above Pad): 5.0 feet					2.	297	Crada Ad	iu otmon	
Pad Elevation:		Heat	y Trucks:	8.	004	Grade Ad	jusunen	1. 0.0		
Road Elevation:	0.0	feet		Lane Eq	uivalent l	Distan	ce (in i	feet)		
Road Grade:	0.0%				Autos:	32.	966			
Left View:	-90.0	degrees		Mediu	m Trucks:	32.	696			
Right View:	90.0	degrees		Heav	y Trucks:	32.	723			
FHWA Noise Model Calculatio	ns									
VehicleType REMEL	Traffic	Flow L	Distance	Finite	Road	Fresr	iel	Barrier Att	en Be	rm Atten
Autos: 66.5	1	0.52	2.6	51	-1.20		-4.60	0.0	000	0.00
Medium Trucks: 77.7	2 .	-15.41	2.6	56	-1.20		-4.87	0.0	000	0.00
Heavy Trucks: 82.9	9.	-18.67	2.6	66	-1.20		-5.53	0.0	000	0.00
Unmitigated Noise Levels (with	hout Top	o and ban	rier attei	nuation)						
VehicleType Leq Peak H	our Le	eq Day	Leq E	vening	Leq N	light		Ldn	0	NEL
Autos:	58.4	67.8	3	66.0		60.0)	68.6	6	69.
Medium Trucks:	53.8	63.5	5	57.1		55.6	6	64.1	1	64.
Heavy Trucks:	65.8	65.6	3	56.6		57.8	3	66.2	2	66.
Vehicle Noise:	71.2	70.7	7	67.0		62.9	9	71.4	4	71.
Centerline Distance to Noise	Contour (i	in feet)	70							
		1 -1	/0	aBA	65 a	BA 110		O OBA	55	D GBA
		Lan		52 113 243 5				523		
		UNEL		90		120		208		200

	FHW	A-RD-//-108 HIG	HWAYN	NOISE PH	REDICTION	MODEL			
Scenar Road Narr Road Segme	io: Existing + Pi ne: S. Placentia nt: s/o Kimberly	roject Av. v Av.			Project Na Job Numi	me: Good ber: 1315	lman Logisti B	cs Cente	۶r
SITE	SPECIFIC INI	PUT DATA			NOI	SE MOD	EL INPUT	s	
Highway Data				Site Con	ditions (Ha	rd = 10, S	Soft = 15)		
Average Daily Peak Hour Peak F Ve	Traffic (Adt): 2 Percentage: lour Volume: hicle Speed:	20,974 vehicles 7.51% 1,576 vehicles 40 mph	_	Me He	dium Trucks avy Trucks	Auto: s (2 Axles (3+ Axles	s: 15): 15): 15		
Near/Far La	ne Distance:	53 feet	-	Venicie i Veh	icleType	Dav	Evening	Night	Daily
Site Data				Ven	Cierype Auto	2775	% 12.9%	9.6%	06 38%
Barrier Type (0-W	rrier Height: /all. 1-Berm):	0.0 feet		Me F	edium Truck Ieavy Truck	s: 84.8 s: 86.5	% 4.9% % 2.7%	10.3% 10.8%	2.46%
Centerline Di	st. to Barrier:	42.0 feet	H	Naiaa Ca	uree Elevie	tiono (in	fact		
Centerline Dist. Barrier Distance Observer Height	to Observer: to Observer: (Above Pad): ad Elevation:	42.0 feet 0.0 feet 5.0 feet		Mediur Heav	Autos: n Trucks: ny Trucks:	0.000 2.297 8.004	Grade Adj	justment	t: 0.0
Ro	ad Elevation: ad Elevation:	0.0 feet	7	Lane Equ	uivalent Dis	stance (ir	feet)		
	Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					32.966 32.696 32.723			
FHWA Noise Mod	el Calculations								
VehicleType	REMEL	Traffic Flow D	Distance	Finite	Road F	resnel	Barrier Att	en Ber	rm Atten
Autos:	66.51	0.49	2.6	1	-1.20	-4.60	0.0	000	0.000
Medium Trucks: Heavy Trucks:	77.72 82.99	-15.44 -18.70	2.6 2.6	6 6	-1.20 -1.20	-4.8) -5.5)	7 0.0 3 0.0)00)00	0.000
Unmitigated Noise	e Levels (witho	ut Topo and bar	rier atten	uation)					
VehicleType	Leq Peak Hour	r Leq Day	Leq E	vening	Leq Nig	ht	Ldn	C	NEL
Autos:	68.4	4 67.8	3	66.0		59.9	68.6	3	69.2
Medium Trucks:	63.	7 63.5	5	57.1		55.6	64.0)	64.3
Heavy Trucks:	65.	8 65.6	3	56.5		57.8	66.1		66.3
Vehicle Noise:	71.	2 70.7	r	66.9		62.9	71.4	ţ	71.8
Centerline Distant	ce to Noise Co	ntour (in feet)							
			70 (dBA	65 dBA		60 dBA	55	dBA
		Ldn	¢.	52		112	242		521
		CNEL	:	55		119	257		554

	FH\	WA-RD-77-108	B HIGHV	VAY NO	ISE PF	REDICTIO	N MOD	EL			
Scenario Road Name Road Segmen	o: Existing + F e: Kimberly A t: e/o Raymo	Project v. nd Av.				Project N Job Nur	ame: G nber: 1	ioodma 3158	n Logistio	cs Cente	er
SITE S	PECIFIC IN	IPUT DATA				NO	ISE M	ODEL	INPUTS	5	
Highway Data				Sit	e Con	ditions (H	ard = 1	0, Soft	t = 15)		
Average Daily 1	Traffic (Adt):	2,142 vehicl	es				A	utos:	15		
Peak Hour I	Percentage:	7.51%			Me	dium Truc	ks (2 A)	xles):	15		
Peak Ho	our Volume:	161 vehicle	s		He	avy Truck	s (3+ A)	xles):	15		
Veh	nicle Speed:	45 mph		Ve	hicle l	Mix					
Near/Far Lar	e Distance:	25 feet			Veh	icleTvpe	E	Dav E	Evenina	Niaht	Dailv
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	96.78%
Bar	rier Heiaht:	0.0 feet			M	edium Truc	cks: 8	84.8%	4.9%	10.3%	2.18%
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	Heavy Truc	cks: 8	86.5%	2.7%	10.8%	1.03%
Centerline Dis	t. to Barrier:	30.0 feet		No	iso Sr	urce Flev	ations	(in foo	đ)		
Centerline Dist. t	o Observer:	30.0 feet		140	130 00	Autos:	0.0	00	9		
Barrier Distance t	o Observer:	0.0 feet			Modiu	m Trucke	2.2	00 07			
Observer Height (A	Above Pad):	5.0 feet			Heav	N Trucks:	8.0	04 G	Grade Adi	ustment	:0.0
Pa	d Elevation:	0.0 feet			mour	y maono.	0.0				
Roa	d Elevation:	0.0 feet		La	ne Eq	uivalent D	istance	e (in fe	et)		
F	Road Grade:	0.0%				Autos:	27.7	26			
	Left View:	-90.0 degre	es		Mediui	m Trucks:	27.4	05			
	Right View:	90.0 degre	es		Heav	y Trucks:	27.4	37			
FHWA Noise Mode	I Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresne	el B	arrier Atte	en Bei	m Atten
Autos:	68.46	-9.91		3.74		-1.20	-	4.49	0.0	00	0.000
Medium Trucks:	79.45	-26.38		3.81		-1.20	-	4.86	0.0	00	0.000
Heavy Trucks:	84.25	-29.63		3.81		-1.20	-	5.77	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	attenua	tion)						
VehicleType	Leq Peak Ho	ur Leq Da	y I	Leq Eve	ning	Leq Ni	ght	L	_dn	С	NEL
Autos:	61	1.1	60.4		58.7		52.6		61.2	2	61.8
Medium Trucks:	55	5.7	55.4		49.1		47.5		56.0)	56.2
Heavy Trucks:	57	7.2	57.0		48.0		49.3		57.6	1	57.7
Vehicle Noise:	63	3.4	62.9		59.4		55.1		63.6	i	64.0
Centerline Distance	e to Noise C	ontour (in fee	t)								
				70 dB	A	65 dE	8A -	60	dBA	55	dBA
			Ldn:		11		24		52		113
		C	NEL:		12		26		56		120

	FHW	/A-RD-77-108	HIGHWA	AY NOI	SE PR	EDICTIO	N MODE	L			
Scenari	io: Existing + P	roject				Project N	ame: Go	odm	an Logisti	cs Cente	er
Road Nam	e: Kimberly Av					Job Nui	nber: 13	158			
Road Segmer	nt: e/o Dwy. 5										
SITE	SPECIFIC IN	PUT DATA				NC	ISE MO	DEL		s	
Highway Data				Site	e Conc	litions (H	lard = 10), So	ft = 15)		
Average Daily	Traffic (Adt):	2,481 vehicle	es				AL	itos:	15		
Peak Hour	Percentage:	7.51%			Med	dium Truc	ks (2 Ax	les):	15		
Peak H	our Volume:	186 vehicles	6		Hea	avy Truck	s (3+ Ax	les):	15		
Ve	hicle Speed:	45 mph		Vel	nicle N	lix					
Near/Far La	ne Distance:	25 feet			Vehic	cleType	D	aγ	Evening	Night	Daily
Site Data						AL	tos: 7	7.5%	12.9%	9.6%	91.70%
Bai	rrier Height:	0.0 feet			Me	dium Tru	cks: 84	1.8%	4.9%	10.3%	4.37%
Barrier Type (0-W	all 1-Berm)	0.0			н	leavy Tru	cks: 86	6.5%	2.7%	10.8%	3.93%
Centerline Dis	st. to Barrier:	30.0 feet			_						
Centerline Dist.	to Observer:	30.0 feet		NOI	se So	urce Elev	ations (in te	et)		
Barrier Distance	to Observer:	0.0 feet				Autos:	0.00	0			
Observer Height (Above Pad):	5.0 feet		/	neaiun	n Trucks:	2.29	<u></u>	Crada Ad	i untra n	
Pa	ad Elevation:	0.0 feet			Heavy	y Trucks:	8.00	4	Grade Auj	Jusunen	. 0.0
Roa	Road Elevation: 0.0 feet						istance	(in fe	eet)		
I	Road Grade:	0.0%				Autos:	27.72	6			
	Left View:	-90.0 degree	s	Λ	Aediun	n Trucks:	27.40	5			
	Right View:	90.0 degree	s		Heavy	y Trucks:	27.43	7			
FHWA Noise Mode	el Calculations	;		-							
VehicleType	REMEL	Traffic Flow	Distan	се	Finite I	Road	Fresnel	1	Barrier Att	en Be	rm Atten
Autos:	68.46	-9.51		3.74		-1.20	-4	.49	0.0	000	0.000
Medium Trucks:	79.45	-22.73		3.81		-1.20	-4	.86	0.0	000	0.000
Heavy Trucks:	84.25	-23.19		3.81		-1.20	-5	.77	0.0	000	0.000
Unmitigated Noise	e Levels (witho	out Topo and	barrier a	ttenua	tion)						
VehicleType	Leq Peak Hou	r Leq Day	Le	q Even	ing	Leq N	ght		Ldn	С	NEL
Autos:	61.	5	60.8		59.1		53.0		61.6	3	62.2
Medium Trucks:	59.	3	59.1		52.7		51.2		59.6	3	59.9
	63	7	63.5		54.5		55.7		64.1	1	64.2
Heavy Trucks:	03.		cc 2		61.0		58.5		66.9	9	67.2
Heavy Trucks: Vehicle Noise:	66.	6	00.3								
Heavy Trucks: Vehicle Noise: Centerline Distanc	66. ce to Noise Co	6 ntour (in feet)	00.3								
Heavy Trucks: Vehicle Noise: Centerline Distanc	66. ce to Noise Co	6 ntour (in feet))	70 dBA	1	65 dE	BA	6	0 dBA	55	i dBA
Heavy Trucks: Vehicle Noise: Centerline Distanc	66. ce to Noise Co	6 ntour (in feet)	Ldn:	70 dBA	19	65 dE	8A 40	6	0 dBA 87	55	<i>dBA</i> 187

Friday, May 15, 2020

	FHW	A-RD-77-108	HIG	HWAY N	IOISE PF	REDICT	ION MC	DEL			
Scenario: Existing Road Name: Kimber Road Segment: e/o Dw	i + Pi y Av. /. 11	roject				Project Job N	Name: lumber:	Goodr 13158	man Logisti	cs Cente	er
SITE SPECIFIC	: INI	PUT DATA				Ν	IOISE	MODE	L INPUT	s	
Highway Data				4	Site Con	ditions	(Hard =	: 10, S	oft = 15)		
Average Daily Traffic (Ad	t):	2,671 vehicle	es					Autos	: 15		
Peak Hour Percentag	e:	7.51%			Me	dium Tr	ucks (2	Axles)	: 15		
Peak Hour Volum	e:	201 vehicles	s		He	avy Tru	cks (3+	Axles)	: 15		
Vehicle Spee	d:	45 mph			Vehicle I	Mix					
Near/Far Lane Distanc	e:	25 feet		F	Vehi	cleType	2	Dav	Evenina	Night	Daily
Site Data							Autos:	77.5%	6 12.9%	9.6%	87.01%
Barrier Heigh	nt.	0 0 feet			Me	edium T	rucks:	84.8%	6 4.9%	10.3%	6.38%
Barrier Type (0-Wall, 1-Bern	n):	0.0			ŀ	leavy T	rucks:	86.5%	6 2.7%	10.8%	6.61%
Centerline Dist. to Barrie	er:	30.0 feet		- H	Noiso Sa	urco E	lovation	ne (in f	oot)		
Centerline Dist. to Observe	ər:	30.0 feet		Ľ	140/36 30	Auto	evaluon	000	eel)		
Barrier Distance to Observe	er:	0.0 feet			Modiu	Auto n Truck	s. 0	207			
Observer Height (Above Pad): 5.0 feet					Hoov	n Truck	o. 2	004	Grade Ad	iustmon	H 0 0
Pad Elevation: 0.0 feet					near	y much	3. 0	.004	0/000/10	laounom	0.0
Road Elevation	n:	0.0 feet		1	Lane Equ	uivalen	t Distan	ce (in	feet)		
Road Grad	le:	0.0%				Auto	s: 27	.726			
Left Vie	w:	-90.0 degree	es		Mediur	n Truck	s: 27	.405			
Right Vie	W:	90.0 degree	es		Heav	y Truck	s: 27	.437			
FHWA Noise Model Calculat	ions										
VehicleType REMEL		Traffic Flow	Di	istance	Finite	Road	Fres	nel	Barrier Atte	en Be	rm Atten
Autos: 68	.46	-9.42		3.7	4	-1.20		-4.49	0.0	000	0.000
Medium Trucks: 79	.45	-20.76		3.8	1	-1.20		-4.86	0.0	000	0.000
Heavy Trucks: 84	.25	-20.61		3.8	1	-1.20		-5.77	0.0	000	0.000
Unmitigated Noise Levels (v	vitho	ut Topo and	barr	ier atten	uation)						
VehicleType Leq Peak	Hour	r Leq Day	<i>'</i>	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	61.	6	60.9		59.2		53.	1	61.7	7	62.3
Medium Trucks:	61.3	3	61.0		54.7		53.	1	61.6	3	61.8
Heavy Trucks:	66.	2	66.1		57.0		58.	3	66.6	3	66.8
Vehicle Noise:	68.	5	68.2		62.1		60.	3	68.8	3	69.0
Centerline Distance to Noise	e Col	ntour (in feet)								
				70 (dBA	65	dBA		60 dBA	55	i dBA
			Ldn:		25		54	1	115		248
		-									0.50

	FH\	NA-RD-77-108	HIGHV	VAY N	OISE PF	REDICTIO	ом ис	DEL							
Scenari Road Nam Road Segmei	Scenario: Existing + Project Road Name: Orangethorpe Av. Road Segment: w/o Raymond Av.						Project Name: Goodman Logistics Center Job Number: 13158								
SITE	SPECIFIC IN	IPUT DATA				N	OISE I	NODE		s					
Highway Data				S	Site Con	ditions (Hard =	10, So	oft = 15)						
Average Daily	Traffic (Adt):	34,644 vehicle	s					Autos:	15						
Peak Hour	Percentage:	7.51%			Me	dium Tru	cks (2 .	Axles):	15						
Peak H	lour Volume:	2,602 vehicles	6		He	avy Truc	ks (3+ .	Axles):	15						
Ve	hicle Speed:	40 mph		L.	/ohiclo I	/iv									
Near/Far La	ne Distance:	88 feet		-	Vehi	cleTvpe		Dav	Evenina	Niaht	Daily				
Site Data				-		A	utos:	77.5%	12.9%	9.69	% 96.26%				
Pa	rrior Hoight	0.0 foot			Me	edium Tru	ucks:	84.8%	4.9%	10.39	% 2.51%				
Barrier Type (0-W	(all 1-Berm)	0.0 1001			F	leavy Tri	ucks:	86.5%	2.7%	10.89	% 1.23%				
Centerline Di	st. to Barrier	50.0 feet		-											
Centerline Dist.	to Observer:	50.0 feet		^	voise So	urce Ele	vation	s (in te	eet)						
Barrier Distance	to Observer:	0.0 feet				Autos	: 0.	000							
Observer Height (Above Pad);	5.0 feet			Mediur	n Trucks	: 2.	297	0						
Pa	ad Elevation:	0.0 feet			Heav	y Trucks	: 8.	004	Grade Ad	justmei	11: 0.0				
Roa	ad Elevation:	0.0 feet		L	ane Equ	livalent	Distan	ce (in i	feet)						
1	Road Grade:	0.0%				Autos	: 24	269							
	Left View:	-90.0 degree	s		Mediur	n Trucks	: 23	902							
	Right View:	90.0 degree	es		Heav	y Trucks	: 23	938							
FHWA Noise Mode	el Calculation	s													
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresi	nel	Barrier Att	en Be	erm Atten				
Autos:	66.51	2.66		4.61	1	-1.20		-4.65	0.0	000	0.000				
Medium Trucks:	77.72	-13.17		4.70)	-1.20		-4.87	0.0	000	0.000				
Heavy Trucks:	82.99	-16.27		4.69	9	-1.20		-5.43	0.0	000	0.000				
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	uation)										
VehicleType	Leq Peak Hou	ır Leq Day		Leq Ev	<i>ening</i>	Leq N	light		Ldn	(CNEL				
Autos:	72	2.6	71.9		70.2		64.	1	72.7	7	73.3				
Medium Trucks:	68	3.0	67.8		61.4		59.	9	68.3	3	68.6				
Heavy Trucks:	70	0.2	70.0		61.0		62.	3	70.6	3	70.7				
Vehicle Noise:	75	i.4	75.0		71.1		67.:	2	75.7	7	76.1				
Centerline Distance	ce to Noise Co	ontour (in feet))	70 -	04	05 -	DA		0.0		C -1D 4				
			L day	70 d	120	65 0	BA		DU aBA	5	3 aBA				
		<i>C</i> 1	Lan:		120		208		556		1,197				
		CI	VEL:		127		274		590		1,272				

	FH\	NA-RD-77-108	B HIGHW	AY NO	DISE PR	REDICTIO	N MOE	DEL			
Scenarie Road Name Road Segmen	o: Existing + F e: Orangetho nt: e/o Raymo	Project rpe Av. nd Av.				Project N Job Nur	ame: G nber: 1	Goodma 3158	an Logistio	cs Cente	er
SITE S	SPECIFIC IN	IPUT DATA				NO	ISE M	ODEL	INPUTS	5	
Highway Data				Si	te Con	ditions (H	lard = 1	10, Soi	ft = 15)		
Average Daily	Traffic (Adt):	33,444 vehicl	es				A	utos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 A	xles):	15		
Peak He	our Volume:	2,512 vehicle	s		He	avy Truck	s (3+ A	xles):	15		
Vel	hicle Speed:	45 mph		Ve	hicle l	Mix					
Near/Far Lar	ne Distance:	88 feet		-	Veh	icleType	1	Day	Evening	Night	Daily
Site Data						Au	tos: 1	77.5%	12.9%	9.6%	96.14%
Bar	rier Heiaht:	0.0 feet			M	edium Truc	cks: 8	34.8%	4.9%	10.3%	2.56%
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	Heavy Truc	cks: 8	36.5%	2.7%	10.8%	1.30%
Centerline Dis	t. to Barrier:	50.0 feet		No	nise Sr	ource Flev	ations	(in fe	of)		
Centerline Dist. t	to Observer:	50.0 feet		-		Autos:	0.0	00			
Barrier Distance t	to Observer:	0.0 feet			Mediu	m Trucks:	2.2	97			
Observer Height (/	Above Pad):	5.0 feet			Heav	v Trucks:	8.0	04	Grade Adj	ustmen	: 0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		La	ne Eq	uivalent D	istanc	e (in fe	eet)		
F	Road Grade:	0.0%				Autos:	24.2	69			
	Left View:	-90.0 degre	es		Mediui	m Trucks:	23.9	02			
	Right view:	90.0 degre	es		neav	ly mucks.	23.8	38			
FHWA Noise Mode	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresne	el E	Barrier Atte	en Be	m Atten
Autos:	68.46	1.99		4.61		-1.20	-	4.65	0.0	00	0.000
Medium Trucks:	79.45	-13.75		4.70		-1.20	-	4.87	0.0	00	0.000
Heavy Trucks:	84.25	-16.69		4.69		-1.20	-	5.43	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	attenua	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y L	eq Eve	ening	Leq Ni	ght		Ldn	С	NEL
Autos:	73	3.9	73.2		71.4		65.4		74.0)	74.6
Medium Trucks:	69	9.2	68.9		62.6		61.0		69.5	5	69.7
Heavy Trucks:	71	.1	70.9		61.8		63.1		71.4		71.6
Vehicle Noise:	76	5.6	76.1		72.4		68.3		76.8		77.2
Centerline Distanc	e to Noise C	ontour (in fee	t)					_			
				70 dE	BA	65 dE	8A -	60) dBA	55	dBA
			Ldn:		142		306		660		1,422
		С	NEL:		151		326		702		1,513

	FHW	/A-RD-77-108	HIGHW.	AY NO	DISE PR	REDICTIC	N MODI	ΞL			
Scenari	o: Existing + P	roject				Project N	lame: Go	oodm	an Logisti	cs Cente	r
Road Nam	e: Orangethorp	be Av.				Job Nu	mber: 13	158			
Road Segmer	nt: e/o Acacia A	۸v.									
SITE	SPECIFIC IN	PUT DATA				NC	ISE MO	DDEI	INPUT:	S	
Highway Data				S	ite Cond	ditions (H	lard = 1	0, So	ft = 15)		
Average Daily	Traffic (Adt):	32,768 vehicle	s				Au	itos:	15		
Peak Hour	Percentage:	7.51%			Med	dium Truc	ks (2 Ax	les):	15		
Peak H	our Volume:	2,462 vehicles	5		Hea	avy Truck	s (3+ Ax	les):	15		
Vel	hicle Speed:	45 mph		V	ehicle N	<i>lix</i>					-
Near/Far Lar	ne Distance:	88 feet			Vehi	cleType	D	ay	Evening	Night	Daily
Site Data						AL	tos: 7	7.5%	12.9%	9.6%	96.16%
Bar	rier Heiaht:	0.0 feet			Me	edium Tru	cks: 8	4.8%	4.9%	10.3%	2.55%
Barrier Type (0-W	all, 1-Berm):	0.0			H	łeavy Tru	cks: 8	6.5%	2.7%	10.8%	1.29%
Centerline Dis	st. to Barrier:	50.0 feet		N	oico So	urco Elo	ations	(in fo	of)		
Centerline Dist.	to Observer:	50.0 feet		14	use su	Autoo		in ie	el)		
Barrier Distance	to Observer:	0.0 feet			Modium	Autos. n Trucke:	2.20	10			
Observer Height (J	Above Pad):	5.0 feet			Hoove	II TTUCKS.	2.28	4	Grade Ad	iustment	.00
Pa	ad Elevation:	0.0 feet			neav,	y muchs.	0.00	4	0/440 / 14	dounom	0.0
Roa	ad Elevation:	0.0 feet		La	ane Equ	ivalent L	Distance	(in f	eet)		
F	Road Grade:	0.0%				Autos:	24.26	69			
	Left View:	-90.0 degree	s		Mediun	n Trucks:	23.90)2			
	Right View:	90.0 degree	s		Heav	y Trucks:	23.93	88			
FHWA Noise Mode	el Calculations	;									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite I	Road	Fresnel	1	Barrier Att	en Ber	m Atten
Autos:	68.46	1.90		4.61		-1.20	-4	4.65	0.0	000	0.000
Medium Trucks:	79.45	-13.86		4.70		-1.20	-4	1.87	0.0	000	0.000
Heavy Trucks:	84.25	-16.82		4.69		-1.20	-8	5.43	0.0	000	0.000
Unmitigated Noise	Levels (witho	out Topo and	barrier a	attenu	ation)						-
VehicleType	Leq Peak Hou	r Leq Day	Le	eq Eve	ening	Leq N	ight		Ldn	CI	VEL
Autos:	73.	8	73.1		71.3		65.3		73.9	9	74.
Medium Trucks:	69.	1	68.8		62.5		60.9		69.4	ļ.	69.
Heavy Trucks:	70.	9	70.7		61.7		63.0		71.3	3	71.4
Vehicle Noise:	76.	5	76.0		72.3		68.2		76.7	7	77.:
Centerline Distanc	e to Noise Co	ntour (in feet)		70.0							10.4
				70 aE	5A	65 al	SA	6	и авА	55	abA
			l dau		140		202		650		1 400
		0	Ldn:		140		302		650		1,400

Friday, May 15, 2020

FI	WA-RD-77-108	HIGHWAY	V NOISE P	REDICTIO			
			1101021	EBIOINO			
Scenario: Existing +	Project			Project Na	ame: Good	man Logistics	Center
Road Name: Orangeth	orpe Av.			JOD NUN	nber: 13158	3	
Road Segment: e/o Dwy.	0						
SITE SPECIFIC	NPUT DATA			NO	ISE MOD	EL INPUTS	
Highway Data			Site Cor	ditions (H	ard = 10, S	oft = 15)	
Average Daily Traffic (Adt):	32,756 vehicles	в			Autos	: 15	
Peak Hour Percentage:	7.51%		Me	dium Truci	ks (2 Axles)	: 15	
Peak Hour Volume:	2,461 vehicles		He	avy Trucks	s (3+ Axles)	: 15	
Vehicle Speed:	45 mph		Vehicle	Mix			
Near/Far Lane Distance:	88 feet		Veh	icleType	Dav	Evening I	Vight Daily
Site Data			101	Au	tos: 77.5°	6 12.9%	9.6% 95.97%
Banda Malakt	0.0.6		м	edium Truc	ks: 84.8°	% 4.9%	10.3% 2.64%
Barrier Ture (0 Well 1 Berm)	0.0 feet			Heavy Truc	ks: 86.5	% 2.7%	10.8% 1.40%
Contorling Dist to Barrier	0.0 50.0 feet			,			
Contorlino Dist. to Obsonior:	50.0 feet		Noise S	ource Elev	ations (in i	feet)	
Barriar Distance to Observer.	0.0 feet			Autos:	0.000		
Observer Height (Above Pad):	5.0 feet		Mediu	m Trucks:	2.297		
Pad Elevation:	0.0 feet		Hea	/y Trucks:	8.004	Grade Adju	stment: 0.0
Road Elevation:	0.0 feet		Lane Eo	uivalent D	istance (in	feet)	
Road Grade:	0.0%			Autos:	24 269		
Left View:	-90 0 degree		Mediu	m Trucks:	23.902		
Right View:	90.0 degree	5	Hea	v Trucks:	23,938		
right fion.	00.0 009.00	5		,			
FHWA Noise Model Calculatio	ns						
VehicleType REMEL	Traffic Flow	Distanc	e Finite	Road	Fresnel	Barrier Atter	Berm Atten
Autos: 68.4	6 1.89	4	4.61	-1.20	-4.65	0.00	0 0.000
Medium Trucks: 79.4	5 -13.71	4	4.70	-1.20	-4.87	0.00	0 0.000
Heavy Trucks: 84.2	5 -16.48	4	4.69	-1.20	-5.43	0.00	0 0.000
Unmitigated Noise Levels (wit	hout Topo and b	arrier at	enuation)				
VehicleType Leg Peak H	our Lea Dav	Leo	i Evenina	Lea Ni	aht	Ldn	CNEL
Autos:	3.8 7	3.1	71.3		65.3	73.9	74.5
Medium Trucks:	9.2 6	9.0	62.6		61.1	69.5	69.8
Heavy Trucks:	1.3 7	1.1	62.1		63.3	71.7	71.8
Vehicle Noise:	6.6 7	6.1	72.3		68.3	76.8	77.2
Centerline Distance to Noise (Contour (in feet)						
		7	'0 dBA	65 dB	A	60 dBA	55 dBA
	L	dn:	143		307	662	1,427
	CN	EL:	152		327	704	1,516

	FHV	NA-RD-77-108	HIGHW	AY N	OISE PF	REDICTI		DEL				
Scenar Road Nam Road Segme	Scenario: Existing + Project Road Name: Orangethorpe Av. Road Segment: e/o Dwy. 10						Name: (umber:	Goodr 13158	nan Logisti	ics Ce	nter	
SITE	SPECIFIC IN	IPUT DATA				N	OISE N	/IODE	L INPUT	s		
Highway Data				S	Site Con	ditions	(Hard =	10, S	oft = 15)			
Average Daily Peak Hour Peak H Veak H	Traffic (Adt): Percentage: lour Volume: hicle Speed:	32,785 vehicle 7.51% 2,463 vehicles 45 mph	s		Me Hei	dium Tru avy Truc	ucks (2 A cks (3+ A	Autos. Axles). Axles).	15 15 15			
Near/Far La	ne Distance:	88 feet		V	Vohi	aloTypo		Dav	Evoning	Niak	τ	Daily
Site Data				_	veni	cierype	1utoo:	77 E0	Evening 12.0%	Nigh		ally
Barrier Type (0-W	r rier Height: /all, 1-Berm):	0.0 feet 0.0			Me F	r edium Tr leavy Tr	ucks: ucks: ucks:	84.8% 86.5%	6 12.9% 6 4.9% 6 2.7%	10.3 10.8	3% 2 3% 2	2.81% 1.63%
Centerline Di	st. to Barrier:	50.0 feet		٨	loise So	urce El	evation	s (in f	eet)			
Centerline Dist.	to Observer:	50.0 feet			10/30 00	Autos	s: 0.0	200	000			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	s: 2.1	297				
Observer Height (Above Pad):	5.0 feet			Heav	y Trucks	s: 8.0	004	Grade Ad	ljustme	ent: 0.	.0
Pa	ad Elevation:	0.0 feet			_					-		
Roa	ad Elevation:	0.0 feet		L	ane Equ	livalent	Distant	ce (in	feet)			
	Road Grade:	0.0%				Autos	s: 24.:	269				
	Left View: Right View:	-90.0 degree 90.0 degree	s		Mediur Heav	n Trucks y Trucks	s: 23. s: 23.	902 938				
FHWA Noise Mode	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite	Road	Fresh	el	Barrier At	ten E	Berm /	Atten
Autos:	68.46	1.88		4.61	ĺ	-1.20		-4.65	0.	000		0.000
Medium Trucks:	79.45	-13.44		4.70)	-1.20		-4.87	0.	000		0.000
Heavy Trucks:	84.25	-15.80		4.69)	-1.20		-5.43	0.	000		0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	attenu	uation)							-
VehicleType	Leq Peak Hou	ur Leq Day	L	eq Ev	ening	Leq I	Night		Ldn		CNEL	<u> </u>
Autos:	73	3.7	73.1		71.3		65.3	3	73.	9		74.5
Medium Trucks:	69	.5	69.3		62.9		61.3	3	69.	8		70.0
Heavy Trucks:	71	.9	71.8		62.7		64.0)	72.	3		72.5
Vehicle Noise:	76	5.8	6.4		72.4		68.6	6	77.	1		77.5
Centerline Distant	ce to Noise Co	ontour (in feet)										
-				70 d	IBA	65 0	dBA	1	60 dBA		55 dB.	A
			dn:		148		320		689)		1,485
		CI	IEL:		157		339		731			1,574

	FH	WA-RD-77-108	B HIGHW	AY NC	ISE PF	REDICTIO	N MOE	DEL			
Scenari Road Nam Road Segmer	o: Existing + I e: Orangetho nt: w/o N. Stat	Project rpe Av. te College Bl.				Project N Job Nur	ame: 0 nber: 1	Goodm 3158	an Logistio	cs Cente	er
SITE S	SPECIFIC IN	NPUT DATA				NO	ISE N	IODEI		5	
Highway Data				Si	te Con	ditions (H	lard = '	10, So	ft = 15)		
Average Daily	Traffic (Adt):	33,169 vehicl	es				A	Autos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 A	xles):	15		
Peak H	our Volume:	2,492 vehicle	s		He	avy Truck	s (3+ A	xles):	15		
Vel	hicle Speed:	45 mph		Ve	hicle l	Mix					
Near/Far Lar	ne Distance:	88 feet		-	Veh	icleType	1	Day	Evening	Night	Daily
Site Data						Au	tos:	77.5%	12.9%	9.6%	95.36%
Bar	rier Heiaht:	0.0 feet			M	edium Truc	cks: I	84.8%	4.9%	10.3%	2.89%
Barrier Type (0-W	all, 1-Berm):	0.0			ŀ	leavy Truc	cks: I	86.5%	2.7%	10.8%	1.75%
Centerline Dis	t. to Barrier:	50.0 feet		No	oise Sc	ource Elev	ations	in fe	et)		
Centerline Dist.	to Observer:	50.0 feet				Autos:	0.0	000			
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	04	Grade Adj	ustmen	t: 0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		La	ne Eq	uivalent D	ustanc	e (in f	eet)		
ŀ	Road Grade:	0.0%			A da alla a	Autos:	24.2	269			
	Left View:	-90.0 degre	es		Mediui	TTTUCKS:	23.9	902			
	Right view:	90.0 degre	es		neav	y mucks.	23.5	338			
FHWA Noise Mode	l Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	el I	Barrier Atte	en Be	rm Atten
Autos:	68.46	1.92	2	4.61		-1.20		-4.65	0.0	00	0.000
Medium Trucks:	79.45	-13.26	5	4.70		-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	84.25	-15.45	5	4.69		-1.20		-5.43	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	attenua	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y L	.eq Eve	ning	Leq Ni	ght		Ldn	С	NEL
Autos:	73	3.8	73.1		71.4		65.3		73.9)	74.5
Medium Trucks:	69	9.7	69.4		63.1		61.5		70.0)	70.2
Heavy Trucks:	72	2.3	72.1		63.1		64.3		72.7	'	72.8
Vehicle Noise:	71	7.0	76.6		72.5		68.8		77.3	1	77.6
Centerline Distanc	e to Noise C	ontour (in fee	t)								
				70 dE	8A -	65 dE	BA	6	0 dBA	55	5 dBA
			Ldn:		152		328		708		1,525
		C	NEL:		161		348		750		1,615

	FHW	VA-RD-77-108 I	IIGHW	AY NC	ISE PRI	EDICTI	ON MOL	DEL			
Scenario Road Name Road Segmen	o: Existing + P e: Orangethorp nt: e/o N. State	roject pe Av. College Bl.				Project I Job Ni	Vame: 0 Imber: 1	Goodn 3158	nan Logisti	cs Cente	r
SITE S	SPECIFIC IN	PUT DATA				N	OISE N	IODE	L INPUT	5	
Highway Data				Si	te Cond	itions (Hard = '	10, So	oft = 15)		
Average Daily Peak Hour Peak He Vel	Traffic (Adt): Percentage: our Volume: nicle Speed:	32,032 vehicles 7.51% 2,406 vehicles 45 mph	5	Ve	Med Hea	ium Tru vy Truc ix	A cks (2 A ks (3+ A	Autos: Ixles): Ixles):	15 15 15		
Near/Far Lar	ne Distance:	88 feet		-	Vehic	leTvpe		Dav	Evenina	Niaht	Dailv
Site Data Bar	rier Height:	0.0 feet		_	Med	A dium Tri	utos: ucks:	77.5% 84.8%	12.9% 4.9%	9.6% 10.3%	95.63% 2.77%
Barrier Type (0-W	all, 1-Berm):	0.0			He	eavy Tri	ucks:	86.5%	2.7%	10.8%	1.60%
Centerline Dis	t. to Barrier:	50.0 feet		No	oise Sou	irce Ele	vations	s (in fe	eet)		
Barrier Distance t Observer Height (/ Pa	o Observer: o Observer: Above Pad): d Elevation:	0.0 feet 5.0 feet 0.0 feet			Medium Heavy	Autos Trucks Trucks	: 0.0 : 2.2 : 8.0	000 297 004	Grade Ad	iustment.	: 0.0
Roa	d Elevation:	0.0 feet		La	ne Equi	valent	Distanc	e (in :	feet)		
F	Road Grade:	0.0%				Autos	: 24.2	269			
	Left View: Right View:	-90.0 degrees 90.0 degrees	3		Medium Heavy	Trucks Trucks	: 23.9 : 23.9	902 938			
FHWA Noise Mode	I Calculations	5									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite F	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	68.46	1.78		4.61		-1.20		-4.65	0.0	000	0.00
Medium Trucks:	79.45	-13.59		4.70		-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	84.25	-15.98		4.69		-1.20		-5.43	0.0	000	0.00
Unmitigated Noise	Levels (witho	out Topo and b	arrier	attenua	ation)						
VehicleType	Leq Peak Hou	r Leq Day	L	.eq Eve	ning	Leq N	light		Ldn	CI	VEL
Autos:	73.	.6 7	3.0		71.2		65.2		73.8	3	74.
Medium Trucks:	69.	.4 6	9.1		62.7		61.2		69.6	6	69.
Heavy Trucks:	71.	.8 7	1.6		62.6		63.8		72.2	2	72.
Vehicle Noise:	76.	.7 7	6.3		72.3		68.5		77.0)	77.
Centerline Distanc	e to Noise Co	ntour (in feet)	1	70 dF	24	65.0	ID A		C dBA	55	dD A
				70 aE	M	05 0	DA		OU UDA	55	
		,			4 4 5						
		L CN	dn: Fl·		145 154		313		0/5 716		1,454

Friday, May 15, 2020

FI	-IWA-RD-	77-108 HIG	HWAY	NOISE P	REDICTIC	ON MO	DEL			
Scenario: Existing + Road Name: Orangeth Road Segment: w/o S. Pla	 Project orpe Av. acentia Av 				Project N Job Nu	lame: (mber: ·	Goodm 13158	nan Logisti	cs Cente	er
SITE SPECIFIC	INPUT D	ATA			NC	DISE N	IODE	L INPUT	s	
Highway Data				Site Cor	nditions (H	lard =	10, Sc	oft = 15)		
Average Daily Traffic (Adt):	30,594	vehicles				,	Autos:	15		
Peak Hour Percentage	7.51%	5		Me	edium Truc	cks (2 A	(xles):	15		
Peak Hour Volume:	2,298 \	/ehicles		He	eavy Truck	is (3+ A	(xles):	15		
Vehicle Speed:	45 r	nph		Vahiala	Misc					
Near/Far Lane Distance:	88 f	eet		Venicle	iolo Tuno		Dav	Evoning	Night	Daily
Site Data				VEI	IICIE I ype Δι	itos:	77 5%	12 Q%	0.6%	05 50%
				N	nedium Tru	icks:	84.8%	4.9%	10.3%	2 79%
Barrier Height	0.0	feet		10.	Hoovy Tru	icke:	86.5%	2.7%	10.0%	162%
Barrier Type (U-Wall, 1-Berm).	0.0	6			neavy na	0/13.	00.070	2.170	10.0 %	, 1.02
Centerline Dist. to Barrier.	50.0	feet		Noise S	ource Ele	vation	s (in fe	eet)		
Centerline Dist. to Observer.	50.0	ieel			Autos:	0.0	000			
Barrier Distance to Observer.	0.0	ieel		Mediu	m Trucks:	2.2	297			
Observer Height (Above Pad).	5.0	ieel		Hea	vy Trucks:	8.0	004	Grade Ad	justmen	t: 0.0
Pad Elevation.	0.0	ieel		Lane Fo	uivalent l	Distant	o (in i	foot)		
Road Elevation.	0.0	Teel		Lane Ly	Autoo	24	260	001)		
Road Grade.	0.0%			Madi	Autos.	24.	209			
Left View.	-90.0	degrees		Hoo	III TTUCKS.	23.	902 039			
Right View.	90.0	degrees		i ica	vy muchs.	20.	550			
FHWA Noise Model Calculation	ons									
VehicleType REMEL	Traffic	Flow D	Distance	Finite	Road	Fresn	el	Barrier Atte	en Be	rm Atten
Autos: 68.4	6	1.58	4.	61	-1.20		-4.65	0.0	000	0.00
Medium Trucks: 79.4	5	-13.77	4.	70	-1.20		-4.87	0.0	000	0.00
Heavy Trucks: 84.2	5	-16.13	4.	69	-1.20		-5.43	0.0	000	0.00
Unmitigated Noise Levels (wi	thout Top	o and bari	rier atte	nuation)						
VehicleType Leg Peak H	our L	eq Day	Legi	Evening	Leg N	light		Ldn	C	NEL
Autos:	73.4	72.8	3	71.0)	65.0)	73.6	3	74.
Medium Trucks:	69.2	68.9)	62.6	5	61.0)	69.5	5	69.
Heavy Trucks:	71.6	71.4	1	62.4		63.7	,	72.0)	72.
Vehicle Noise:	76.5	76.1	I	72.1		68.3	5	76.8	3	77.
Centerline Distance to Noise	Contour (in feet)								
		,	70	dBA	65 di	BA	e	0 dBA	55	ō dBA
		Ldn	c.	141		305		657		1,415
		CNEL	2	150		323		696		1,500

	FH\	NA-RD-77-108 HI	GHWAY	NOISE PF	REDICTIO	N MODEL		
Scenar Road Nam Road Segme	io: Existing + F le: Orangethor nt: e/o S. Place	Project rpe Av. entia Av.			Project N Job Nur	lame: Good mber: 13158	man Logistics	s Center
SITE	SPECIFIC IN	IPUT DATA			NO	ISE MOD	EL INPUTS	
Highway Data				Site Con	ditions (H	lard = 10, S	oft = 15)	
Average Daily	Traffic (Adt):	32,599 vehicles				Autos	: 15	
Peak Hour	Percentage:	7.51%		Me	dium Truc	ks (2 Axles)	: 15	
Peak H	lour Volume:	2,449 vehicles		He	avy Truck	s (3+ Axles)	: 15	
Ve	hicle Speed:	45 mph		Vohiclo	liv			
Near/Far La	ne Distance:	98 feet		Vehicle	icleTvne	Dav	Evening	Night Daily
Site Data					Au	tos: 77.5	6 12.9%	9.6% 95.63%
Ba	rrier Height	0.0 feet		Me	edium Tru	cks: 84.8	6 4.9%	10.3% 2.78%
Barrier Type (0-W	all. 1-Berm):	0.0		ŀ	leavy Tru	cks: 86.5	6 2.7%	10.8% 1.60%
Centerline Di	st. to Barrier:	60.0 feet		Noiso Sa	urco Elos	ations (in	(aat)	
Centerline Dist.	to Observer:	60.0 feet		140136 30	Autor:	0.000	eelj	
Barrier Distance	to Observer:	0.0 feet		Modiu	n Trucks:	2 297		
Observer Height (Above Pad):	5.0 feet		Heav	n Trucks:	8 004	Grade Adiu	istment: 0.0
Pi	ad Elevation:	0.0 feet		near	y mucks.	0.004	0/440 / 14/4	
Roa	ad Elevation:	0.0 feet		Lane Equ	uivalent D	Distance (in	feet)	
	Road Grade:	0.0%			Autos:	34.986		
	Left View:	-90.0 degrees		Mediur	n Trucks:	34.732		
	Right View:	90.0 degrees		Heav	y Trucks:	34.757		
FHWA Noise Mode	el Calculation	s						
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atte	n Berm Atten
Autos:	68.46	1.86	2.	22	-1.20	-4.69	0.00	0.000 0.000
Medium Trucks:	79.45	-13.51	2.	27	-1.20	-4.88	0.00	0.000 0.000
Heavy Trucks:	84.25	-15.91	2.	27	-1.20	-5.34	0.00	0.000
Unmitigated Noise	e Levels (with	out Topo and bar	rier atte	nuation)				
VehicleType	Leq Peak Hou	ur Leq Day	Leq I	Evening	Leq Ni	ight	Ldn	CNEL
Autos:	71	.3 70.	7	68.9		62.9	71.5	72.1
Medium Trucks:	67	.0 66.	7	60.4		58.8	67.3	67.5
Heavy Trucks:	69	.4 69.3	2	60.2		61.4	69.8	69.9
Vehicle Noise:	74	.4 73.	9	70.0		66.1	74.6	75.0
Centerline Distant	ce to Noise Co	ontour (in feet)						
			70	dBA	65 dE	BA	60 dBA	55 dBA
		Ldr	n:	122		263	566	1,220
		CNEL	2	129		279	601	1,294

	FH	WA-RD-77-10	8 HIGH	IWAY N	OISE P	REDICTIO	N MOD	EL			
Scenario Road Name Road Segmen	b: Existing + I e: Orangetho t: e/o SR-57	Project rpe Av. Southbound F	Ramps			Project N Job Nur	lame: G mber: 1	ioodma 3158	an Logistic	s Cente	r
SITE S	PECIFIC IN	VPUT DATA				NC	DISE M	ODEL	INPUTS	;	
Highway Data				5	Site Cor	nditions (H	lard = 1	0, Sof	t = 15)		
Average Daily 7	raffic (Adt):	35,780 vehic	cles				A	utos:	15		
Peak Hour F	Percentage:	7.51%			Me	edium Truc	ks (2 A)	xles):	15		
Peak Ho	our Volume:	2,688 vehicl	es		He	eavy Truck	s (3+ A)	xles):	15		
Veh	icle Speed:	45 mph			/ohiclo	Mix					
Near/Far Lan	e Distance:	98 feet		F	Veh	nicleType	Γ	Dav	Evenina	Niaht	Dailv
Site Data						Au	itos: 7	7.5%	12.9%	9.6%	96.03%
Bari	rier Heiaht:	0.0 feet			M	ledium Tru	cks: 8	84.8%	4.9%	10.3%	2.61%
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy Tru	cks: 8	86.5%	2.7%	10.8%	1.36%
Centerline Dis	t. to Barrier:	60.0 feet			loise S	ource Elev	vations	(in for	af)		
Centerline Dist. te	o Observer:	60.0 feet		-	10/30 0	Autos:	0.0	00	.9		
Barrier Distance to	o Observer:	0.0 feet			Modiu	m Trucke	2.2	00 07			
Observer Height (A	Above Pad):	5.0 feet			Hea	vv Trucks:	8.0	04 (Grade Adi	ustment	0.0
Pa	d Elevation:	0.0 feet		_	1100	ry maono.	0.0				
Roa	d Elevation:	0.0 feet		L	.ane Eq	uivalent D	Distance	e (in fe	et)		
R	load Grade:	0.0%				Autos:	34.9	86			
	Left View:	-90.0 degr	ees		Mediu	In Trucks:	34.7	32			
	Right View:	90.0 degr	ees		Hea	vy Trucks:	34.7	57			
FHWA Noise Mode	I Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresne	el E	Barrier Atte	en Ber	m Atten
Autos:	68.46	2.2	8	2.22	2	-1.20	-	4.69	0.0	00	0.000
Medium Trucks:	79.45	-13.3	8	2.27	7	-1.20	-	4.88	0.0	00	0.000
Heavy Trucks:	84.25	-16.2	0	2.27	7	-1.20	-	5.34	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo an	d barrie	er atteni	uation)						
VehicleType	Leq Peak Ho	ur Leq Da	ay	Leq Ev	rening	Leq N	ight		Ldn	CI	VEL
Autos:	71	1.8	71.1		69.3	5	63.3		71.9		72.5
Medium Trucks:	67	7.1	66.9		60.5	5	59.0		67.4		67.7
Heavy Trucks:	69	9.1	68.9		59.9)	61.2		69.5		69.6
Vehicle Noise:	74	4.5	74.1		70.3	5	66.3		74.8		75.2
Centerline Distance	e to Noise C	ontour (in fee	et)								
				70 a	IBA	65 dE	BA	60) dBA	55	dBA
			Ldn:		125		269		579		1,247
			UNEL:		133		286		616		1,326

	FHV	VA-RD-77-108	HIGH	WAY N	OISE PF	REDICTIO	N MODI	EL			
Scenar Road Nam	io: Existing + F e: Orangethor	Project pe Av.				Project N Job Nur	ame: Go nber: 13	oodm 158	an Logisti	cs Cente	r
Road Segme	nt: e/o SR-57 M	Northbound Ra	mps								
SITE	SPECIFIC IN	IPUT DATA				NO	ISE MO	DDEL		s	
Highway Data				S	ite Con	ditions (H	lard = 1	0, So	ft = 15)		
Average Daily	Traffic (Adt):	37,176 vehicle	s				Au	itos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 Ax	les):	15		
Peak H	lour Volume:	2,793 vehicles	5		He	avy Truck	s (3+ Ax	les):	15		
Ve	hicle Speed:	45 mph		V	ehicle I	<i>lix</i>					
Near/Far La	ne Distance:	98 feet			Vehi	cleType	D	ay	Evening	Night	Daily
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	96.37%
Bai	rrier Heiaht:	0.0 feet			Me	edium Tru	cks: 8	4.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	/all, 1-Berm):	0.0			ŀ	leavy Tru	cks: 8	6.5%	2.7%	10.8%	1.17%
Centerline Dis	st. to Barrier:	60.0 feet			laisa Sa	urco Elos	ations	(in fo	of)		
Centerline Dist.	to Observer:	60.0 feet			10136 30	Autor:	0.00	0	eij		
Barrier Distance	to Observer:	0.0 feet			Modiur	n Trucks:	2.20	17			
Observer Height (Above Pad):	5.0 feet			Heav	v Trucks:	8.00	14	Grade Ad	iustment.	: 0.0
Pa	ad Elevation:	0.0 feet			mour	<i>y maono</i> .	0.00				
Roa	ad Elevation:	0.0 feet		L	ane Equ	iivalent D	istance	(in f	eet)		
1	Road Grade:	0.0%				Autos:	34.98	36			
	Left View:	-90.0 degree	s		Mediur	n Trucks:	34.73	32			
	Right View:	90.0 degree	s		Heav	y Trucks:	34.75	57			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresne	1	Barrier Att	en Ber	m Atten
Autos:	68.46	2.46		2.22	2	-1.20	-4	1.69	0.0	000	0.000
Medium Trucks:	79.45	-13.46		2.27	,	-1.20	-4	1.88	0.0	000	0.000
Heavy Trucks:	84.25	-16.71		2.27	,	-1.20	-8	5.34	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	r attenu	lation)						
VehicleType	Leq Peak Hou	ir Leq Day		Leq Ev	ening	Leq Ni	ight		Ldn	CI	VEL
Autos:	71	.9	71.3		69.5		63.5		72.1	1	72.7
Medium Trucks:	67	.1	66.8		60.4		58.9		67.4	1	67.6
Heavy Trucks:	68	.6	58.4		59.4		60.6		69.0)	69.1
venicle Noise:	74	.5	74.0		70.4		66.2		74.1	(75.1
Centerline Distand	ce to Noise Co	ontour (in feet)		70 -	04	05 -15			0.104		-/0.4
			l day	70 a	104	65 dE	5A 066	6	U aBA	55	4 026
			Lun:		124		200		5/4		1,230
		~ ~			120		201		611		

Friday, May 15, 2020

Fł	HWA-RD-77-108 HI	IGHWAY N	NOISE PR	REDICTI	ON MO	DEL			
Scenario: OYC (202 Road Name: Raymond Road Segment: n/o Kimbe	22) Av. erly Av.			Project Job Ni	Name: Imber:	Goodr 13158	nan Logisti	cs Cente	er
SITE SPECIFIC	NPUT DATA			N	OISE I	NODE	L INPUT	s	
Highway Data			Site Con	ditions ('Hard =	10, S	oft = 15)		
Average Daily Traffic (Adt):	24,580 vehicles					Autos.	15		
Peak Hour Percentage:	7.51%		Me	dium Tru	icks (2 .	Axles).	15		
Peak Hour Volume:	1,846 vehicles		He	avy Truc	ks (3+)	Axles).	15		
Vehicle Speed:	40 mph	-	Vehicle I	Mix					
Near/Far Lane Distance:	53 feet	-	Veh	icleTvpe		Dav	Evening	Niaht	Dailv
Site Data				A	utos:	77.5%	6 12.9%	9.6%	96.36%
Barrier Height:	0.0 feet		M	edium Tr	ucks:	84.8%	6 4.9%	10.3%	2.47%
Barrier Type (0-Wall, 1-Berm):	0.0		ŀ	leavy Tr	ucks:	86.5%	6 2.7%	10.8%	1.17%
Centerline Dist. to Barrier:	42.0 feet	H	Noice Cr	uraa Ek	wation	o (in f	0.041		
Centerline Dist. to Observer:	42.0 feet	-	NOISe SC	Autor	vauon	000	eel)		
Barrier Distance to Observer:	0.0 feet		Madiu	Autos	. 0.	207			
Observer Height (Above Pad):	5.0 feet		Hoo	n Trucks	i. 2.	297	Grade Ad	iustmont	- 0.0
Pad Elevation:	0.0 feet	L	Tieav	y mucka	. 0.	004	Grade Adj	usunem	. 0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent	Distan	ce (in	feet)		
Road Grade:	0.0%			Autos	: 32.	966			
Left View:	-90.0 degrees		Mediu	m Trucks	:: 32.	696			
Right View:	90.0 degrees		Heav	ry Trucks	: 32.	723			
FHWA Noise Model Calculatio	ns								
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresi	nel	Barrier Atte	en Ber	m Atten
Autos: 66.5	1 1.18	2.6	61	-1.20		-4.60	0.0	000	0.000
Medium Trucks: 77.7	2 -14.73	2.6	66	-1.20		-4.87	0.0	000	0.000
Heavy Trucks: 82.9	9 -17.98	2.6	6	-1.20		-5.53	0.0	000	0.000
Unmitigated Noise Levels (wit	hout Topo and ba	rrier atten	nuation)						
VehicleType Leq Peak H	our Leq Day	Leq E	vening	Leq I	Vight		Ldn	C	NEL
Autos: 6	68 68	.4	66.7		60.	6	69.2	2	69.8
Medium Trucks: 6	64.5 64	.2	57.8		56.3	3	64.7	7	65.0
Heavy Trucks: 6	66.5 66	.3	57.3		58.	5	66.9	9	67.0
Vehicle Noise:	71.9 71	.4	67.6		63.	6	72.1	1	72.5
Centerline Distance to Noise	Contour (in feet)								
		70	dBA	65 0	iBA	1	60 dBA	55	dBA
	Ld	In:	58		125		269		580

FHWA-RD-77-108 HIG	HWAY N		REDICTI					
Scenario: OYC (2022) Road Name: Raymond Av. Road Segment: s/o Kimberly Av.			Project Job N	Name: 0 umber: 1	Goodm 3158	nan Logisti	cs Ce	nter
SITE SPECIFIC INPUT DATA			N	OISE N	IODE		s	
Highway Data	S	ite Con	ditions	(Hard =	10, So	oft = 15)		
Average Daily Traffic (Adt): 24,861 vehicles				A	Autos:	15		
Peak Hour Percentage: 7.51%		Me	dium Tru	icks (2 A	xles):	15		
Peak Hour Volume: 1,868 vehicles		He	avy Truc	:ks (3+ A	xles):	15		
Vehicle Speed: 40 mph	L.	(obielo I	<i>Niv</i>					
Near/Far Lane Distance: 53 feet	V	Veh	nik icleTvpo		Dav	Evening	Niah	t Daily
Site Data		ven	5.5 i ype	utos.	77.5%	12.9%	9 P	% 96.36%
Demise Heinkten 0.5.5.5		M	, dium Ti	ucks:	84.8%	4.9%	10.3	3% 2.47%
Barrier Height: 0.0 feet		- F	leavy Ti	ucks:	B6.5%	2.7%	10.8	3% 1.17%
Contorling Dist to Parrier: 42.0 feet							.0.0	
Centerline Dist. to Observer: 42.0 feet	Ν	loise So	ource El	evations	; (in fe	et)		
Barrier Distance to Observer: 0.0 feet			Autos	s: 0.0	00			
Observer Height (Above Pad): 5.0 feet		Mediur	n Truck	s: 2.2	97			
Pad Elevation: 0.0 feet		Heav	y Trucks	s: 8.0	104	Grade Ad	justme	ent: 0.0
Road Elevation: 0.0 feet	L	ane Equ	uivalent	Distanc	e (in f	eet)		
Road Grade: 0.0%			Autos	32.9	966			
Left View: -90.0 degrees		Mediur	n Truck	32.6	696			
Right View: 90.0 degrees		Heav	y Truck	s: 32.7	23			
FHWA Noise Model Calculations								
VehicleType REMEL Traffic Flow Di	istance	Finite	Road	Fresn	el	Barrier Att	en E	Berm Atten
Autos: 66.51 1.23	2.61		-1.20		4.60	0.0	000	0.000
Medium Trucks: 77.72 -14.68	2.66	;	-1.20		4.87	0.0	000	0.000
Heavy Trucks: 82.99 -17.93	2.66	;	-1.20		-5.53	0.0	000	0.000
Unmitigated Noise Levels (without Topo and barri	ier attenı	uation)						
VehicleType Leq Peak Hour Leq Day	Leq Ev	ening	Leq	Night		Ldn		CNEL
Autos: 69.1 68.5		66.7		60.7		69.3	3	69.9
Medium Trucks: 64.5 64.2		57.9		56.3		64.8	3	65.0
Heavy Trucks: 66.5 66.3		57.3		58.6		66.9	9	67.0
Vehicle Noise: 71.9 71.5		67.7		63.6		72.2	2	72.6
Centerline Distance to Noise Contour (in feet)								
	70 d	BA	65 (3BA	6	i0 dBA		55 dBA
Ldn:		58		126		271		584
CNEL:		62		134		288		621

Friday, May 15, 2020

	FH	WA-RD-77-108	HIGHW	AY NO	ISE PF	REDICTIO	N MOE	DEL			
Scenari Road Nam Road Segmer	o: OYC (2022 e: Raymond / nt: s/o Orange	?) Av. ethorpe Av.				Project N Job Nur	ame: 0 nber: 1	Goodma 3158	an Logistio	cs Cente	er
SITE S	SPECIFIC IN	NPUT DATA				NO	ISE N	IODEL	INPUTS	5	
Highway Data				Si	e Con	ditions (H	lard = '	10, Soi	ft = 15)		
Average Daily	Traffic (Adt):	31,037 vehicl	es				A	Autos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 A	xles):	15		
Peak H	our Volume:	2,331 vehicle	s		He	avy Truck	s (3+ A	xles):	15		
Vel	hicle Speed:	40 mph		Ve	hicle I	Mix					
Near/Far Lar	ne Distance:	53 feet			Veh	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						Au	tos:	77.5%	12.9%	9.6%	96.36%
Bar	rier Heiaht:	0.0 feet			M	edium Truc	cks: 1	84.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	all, 1-Berm):	0.0			ŀ	leavy Truc	cks: I	86.5%	2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	42.0 feet		No	ise Sc	ource Elev	ations	(in fe	of)		
Centerline Dist.	to Observer:	42.0 feet				Autos:	0.0	00			
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	04	Grade Adj	ustmen	t: 0.0
Pa	d Elevation:	0.0 feet		-							
Roa	d Elevation:	0.0 feet		La	ne Eq	uivalent D	ustanc	e (in fe	eet)		
F	Road Grade:	0.0%				Autos:	32.9	966			
	Left View:	-90.0 degre	es		Mediui	m Trucks:	32.6	596 196			
	Right View:	90.0 degre	es		Heav	y Trucks:	32.1	23			
FHWA Noise Mode	l Calculation	IS									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresne	el E	Barrier Atte	en Be	rm Atten
Autos:	66.51	2.19		2.61		-1.20		4.60	0.0	00	0.000
Medium Trucks:	77.72	-13.71		2.66		-1.20		4.87	0.0	00	0.000
Heavy Trucks:	82.99	-16.97		2.66		-1.20		-5.53	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	attenua	tion)						
VehicleType	Leq Peak Ho	ur Leq Da	V L	eq Eve	ning	Leq Ni	ght		Ldn	С	NEL
Autos:	70	0.1	69.5		67.7		61.6		70.3	5	70.9
Medium Trucks:	65	5.5	65.2		58.8		57.3		65.8	5	66.0
Heavy Trucks:	67	7.5	67.3		58.3		59.5		67.9)	68.0
Vehicle Noise:	72	2.9	72.4		68.6		64.6		73.1		73.5
Centerline Distanc	e to Noise C	ontour (in fee)								
				70 dB	A	65 dE	BA	60) dBA	55	5 dBA
			Ldn:		68		146		315		678
		С	NEL:		72		155		334		721

	FHW	/A-RD-77-108 HI	GHWAY	NOISE P	REDICTIO	N MODE	L		
Scenario Road Name Road Segmen	2: OYC (2022) 2: Raymond Av	/.	s		Project N Job Nur	ame: Go nber: 131	odman Logisti 58	cs Cente	r
SITE S			5		NO	ISE MO		c .	
Highway Data	LOUIDIN	OT DATA		Site Cor	ditions (H	ard = 10	. Soft = 15)	.	
Average Daily 1	Traffic (Adt)	20 684 vehicles				Au	hs: 15		
Peak Hour F	Percentade:	7 51%		Me	dium Truc	ks (2 Axle	es): 15		
Peak Ho	our Volume:	2.230 vehicles		He	avv Trucks	s (3+ Axle	es): 15		
Veh	icle Speed:	50 mph		Mahiala		•	,		
Near/Far Lan	ne Distance:	45 feet		Venicie	WIX	De		Niaht	Dailu
Site Data				ven	icierype Au	Da	5% 12.0%	NIGHT	Daily 06.269
					nui Adium Truc	103. 11 108. 84	.5% 12.5% 8% 4.0%	10.3%	2 47%
Bari	rier Height:	U.U reet			Heavy Truc	.ks: 86	5% 2.7%	10.8%	1.179
Barrier Type (0-Wa	all, 1-Berm): t_to_Parrier:	0.0 45.0 feet			ioury mu		2.170	10.070	
Centerline Dist	o Obsenver	45.0 feet		Noise Se	ource Elev	ations (i	n feet)		
Barrier Distance t	o Observer:	40.0 feet			Autos:	0.000)		
Observer Height (A	above Pad):	5.0 feet		Mediu	m Trucks:	2.297			
Pa	d Flevation:	0.0 feet		Hear	vy Trucks:	8.004	Grade Ad	justment	: 0.0
Roa	d Elevation:	0.0 feet		Lane Eq	uivalent D	istance	(in feet)		
R	load Grade:	0.0%			Autos:	39.291	1		
	Left View:	-90.0 degrees		Mediu	m Trucks:	39.065	5		
	Right View:	90.0 degrees		Hea	vy Trucks:	39.087	7		
FHWA Noise Mode	I Calculations			1					
VehicleType	REMEL	Traffic Flow	Distance	e Finite	Road	Fresnel	Barrier Att	en Ber	m Atten
Autos:	70.20	1.03	1	.47	-1.20	-4.	62 0.0	000	0.00
Medium Trucks:	81.00	-14.88	1	.50	-1.20	-4.	87 0.0	000	0.00
Heavy Trucks:	85.38	-18.13	1	.50	-1.20	-5.	49 0.0	000	0.00
Unmitigated Noise	Levels (witho	ut Topo and ba	rrier att	enuation)					
VehicleType	Leq Peak Hou	r Leq Day	Leq	Evening	Leq Ni	ght	Ldn	CI	VEL
Autos:	71.	5 70	.8	69.1		63.0	71.	6	72.
Medium Trucks:	66.	4 66	2	59.8		58.3	66.	7	66.
Heavy Trucks:	67.	5 67	4	58.3		59.6	67.	9	68.
Vehicle Noise:	73.	8 73	4	69.9		65.5	74.	1	74.
Centerline Distance	e to Noise Co	ntour (in feet)	7	0 dBA	65 dB	4	60 dBA	55	dBA
			_ <u></u>		00 02	101	300.000	, 50	840
		Id	n:	84		101			

Friday, May 15, 2020

	FHW	A-RD-77-108 HI	GHWAY	NOISE PI	REDICTION	MODE	L			
Scenario: (Road Name: Road Segment: s	DYC (2022) Raymond Av s/o SR-91 E	/. astbound Ramps			Project Na Job Nurr	ame: Go iber: 13 [.]	odman l 158	Logistic	s Cente	r
SITE SPI	ECIFIC INI	PUT DATA			NO	SE MO	DEL IN	IPUTS	5	
Highway Data				Site Con	ditions (Ha	ard = 10	, Soft =	15)		
Average Daily Tra	ffic (Adt):	29,973 vehicles				Au	tos: 1	5		
Peak Hour Per	centage:	7.51%		Me	dium Truck	s (2 Axl	es): 1	5		
Peak Hour	Volume:	2,252 vehicles		He	avy Trucks	(3+ Axl	es): 1	5		
Vehicl	e Speed:	50 mph		Vahiala	Mis					
Near/Far Lane I	Distance:	45 feet		Venicie	viix	0.		oning	Might	Dailu
Sito Data				ven	сіетуре	De 00: 77	1 EVE	2.0%	0.6%	Daily
				14	odium Truc	63. 11 ke: 84	.0%	1 9%	10.3%	2 47%
Barriel	r Height:	0.0 feet		101	Heavy Truc	ks: 86	5%	2.7%	10.8%	1 179
Barrier Type (U-Wall,	1-Berm):	U.U 45.0 feet			loary mao		.070	2.17.0	10.070	,
Contorlino Dist. to (beenvor:	45.0 feet		Noise Se	ource Elev	ations (in feet)			
Barrier Distance to (bserver.	40.0 feet			Autos:	0.000)			
Ohserver Height (Ab	ve Ped)	5.0 feet		Mediu	m Trucks:	2.29	7			
Pad F	levetion:	0.0 feet		Hear	/y Trucks:	8.004	1 Gra	ide Adj	ustment	: 0.0
Road E	levation:	0.0 feet		Lane Eq	uivalent Di	stance	(in feet)			
Roa	d Grade:	0.0%			Autos:	39.29	1			
100	eft View	-90 0 degrees		Mediu	m Trucks:	39.06	5			
Ri	ght View:	90.0 degrees		Hear	vy Trucks:	39.08	7			
FHWA Noise Model C	alculations									
VehicleType I	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barr	rier Atte	en Ber	m Atten
Autos:	70.20	1.07	1.4	47	-1.20	-4.	.62	0.0	00	0.00
Medium Trucks:	81.00	-14.83	1.	50	-1.20	-4.	.87	0.0	00	0.00
Heavy Trucks:	85.38	-18.09	1.	50	-1.20	-5	.49	0.0	00	0.00
Unmitigated Noise Le	vels (witho	ut Topo and bar	rier atte	nuation)						
VehicleType Lee	g Peak Hour	r Leq Day	Leq E	Evening	Leq Nig	tht	Ldr	ו	C	NEL
Autos:	71.	5 70.	9	69.1		63.1		71.7		72.
Medium Trucks:	66.	5 66.	2	59.8		58.3		66.8		67.
Heavy Trucks:	67.	6 67.	4	58.4		59.6		68.0		68.
Vehicle Noise:	73.9	9 73.	4	69.9		65.6		74.1		74.
Centerline Distance to	o Noise Co	ntour (in feet)								
			70	dBA	65 dB.	4	60 dE	BA	55	dBA
		Ldr	n:	85		182		392		846
		CNEL		90		194		419		903

	FH	WA-RD-77-108	HIGHW	AY N	OISE PF	REDICTIO	N MOI	DEL				
Scenar Road Nan Road Segme	io: OYC (2022 ne: Acacia Av. nt: n/o Kimber				Project N Job Nui	lame: (mber: 1	Goodr 13158	nan Logist	ics C	enter		
SITE	SPECIFIC II	NPUT DATA				NC	DISE N	IODE	L INPUT	s		
Highway Data				S	ite Con	ditions (H	lard =	10, So	oft = 15)			
Average Daily	Traffic (Adt):	8,188 vehicle	s				,	Autos:	15			
Peak Hour	Percentage:	7.51%			Me	dium Truc	:ks (2 A	xles):	15			
Peak H	lour Volume:	615 vehicles	3		He	avy Truck	is (3+ A	xles):	15			
Ve	hicle Speed:	40 mph		V	ohicle I	Mix						
Near/Far La	ne Distance:	45 feet			Veh	icleTvpe		Dav	Evening	Nic	ht	Dailv
Site Data						AL	itos:	77.5%	5 12.9%	9	.6%	96.36%
Ba	rrier Height	0.0 feet			Me	edium Tru	cks:	84.8%	4.9%	10	.3%	2.47%
Barrier Type (0-W	/all. 1-Berm):	0.0			ŀ	leavy Tru	cks:	86.5%	5 2.7%	10	.8%	1.17%
Centerline Di	st. to Barrier:	40.0 feet			laise Sc	urce Elev	vation	: (in fi	oot)			
Centerline Dist.	to Observer:	40.0 feet		~	10/30 00	Autos:	0.0	000				
Barrier Distance	to Observer:	0.0 feet			Modiu	n Trucks:	2.2	207				
Observer Height	(Above Pad):	5.0 feet			Hoo	n Trucks.	8.0	104	Grade Ad	liustr	nent [.]	0.0
P	ad Elevation:	0.0 feet			near	y mucho.	0.0	-04	0/440 / 14	ijuou.	10/11.	0.0
Ro	ad Elevation:	0.0 feet		L	ane Equ	uivalent E	Distand	e (in	feet)			
	Road Grade:	0.0%				Autos:	33.4	448				
	Left View:	-90.0 degree	s		Mediur	n Trucks:	33.	182				
	Right View:	90.0 degree	es		Heav	y Trucks:	33.3	208				
FHWA Noise Mod	el Calculation	IS										
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier At	ten	Bern	n Atten
Autos:	66.51	-3.60		2.52	2	-1.20		-4.59	0.	000		0.000
Medium Trucks:	77.72	-19.50		2.57		-1.20		-4.87	0.	000		0.000
Heavy Trucks:	82.99	-22.76		2.56	i	-1.20		-5.56	0.	000		0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenı	uation)							
VehicleType	Leq Peak Ho	ur Leq Day	· L	.eq Ev	ening	Leq N	ight		Ldn		CN	IEL
Autos:	64	1.2	63.6		61.8		55.8		64.	4		65.0
Medium Trucks:	59	9.6	59.3		53.0		51.4		59.	9		60.1
Heavy Trucks:	61	1.6	61.4		52.4		53.6	i	62.	0		62.1
Vehicle Noise:	67	7.0	66.5		62.8		58.7		67.	2		67.6
Centerline Distant	ce to Noise C	ontour (in feet)									
				70 d	BA	65 dE	BA		60 dBA		55 c	1BA
			Ldn:		26		56		12	1		262
		Ci	VEL:		28		60		12	9		278

	FH	WA-RD-77-108	B HIGHW	AY NO	ISE PF	REDICTIO	n Moi	DEL			
Scenari Road Nam Road Segmer	o: OYC (2022 e: Acacia Av. at: s/o Kimber	?) ly Av.				Project N Job Nur	ame: (nber: 1	Goodm 3158	an Logistio	cs Cente	er
SITE S	SPECIFIC IN	NPUT DATA				NO	ISE N	IODE		5	
Highway Data				Si	te Con	ditions (H	lard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	7,772 vehicl	es					Autos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 A	xles):	15		
Peak H	our Volume:	584 vehicle	s		He	avy Truck	s (3+ A	xles):	15		
Vel	hicle Speed:	40 mph		Ve	hicle I	Mix					
Near/Far Lar	ne Distance:	45 feet			Veh	icleType		Dav	Evenina	Niaht	Dailv
Site Data						Au	tos:	77.5%	12.9%	9.6%	96.36%
Bar	rier Heiaht [.]	0.0 feet			M	edium Tru	cks:	84.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	all. 1-Berm):	0.0			F	Heavy Tru	cks:	86.5%	2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	40.0 feet		N	vice Cr	uree Eler	otions	lin fo	o.4)		
Centerline Dist.	to Observer:	40.0 feet		740	136 30	Autoor	auona		ei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	MULOS.	2.0	00			
Observer Height (J	Above Pad):	5.0 feet			Hoo	n Trucks.	2.2	97 104	Grade Adi	ustmen	+ 0 0
Pa	d Elevation:	0.0 feet			neav	y muchs.	0.0	104	0/000/10	uoumom	0.0
Roa	d Elevation:	0.0 feet		La	ne Eq	uivalent D	listanc	e (in f	eet)		
F	Road Grade:	0.0%				Autos:	33.4	148			
	Left View:	-90.0 degre	es		Mediu	m Trucks:	33.1	182			
	Right View:	90.0 degre	es		Heav	y Trucks:	33.2	208			
FHWA Noise Mode	Calculation	IS		_							
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresn	el i	Barrier Atte	en Be	rm Atten
Autos:	66.51	-3.82		2.52		-1.20		4.59	0.0	00	0.000
Medium Trucks:	77.72	-19.73		2.57		-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	82.99	-22.98		2.56		-1.20		-5.56	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	attenua	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y Li	eq Eve	ning	Leq Ni	ght		Ldn	С	NEL
Autos:	64	4.0	63.3		61.6		55.5		64.1		64.8
Medium Trucks:	59	9.4	59.1		52.7		51.2		59.6		59.9
Heavy Trucks:	61	1.4	61.2		52.2		53.4		61.8	1	61.9
Vehicle Noise:	66	5.8	66.3		62.5		58.5		67.0)	67.4
Centerline Distanc	e to Noise C	ontour (in fee	t)								
				70 dE	8A -	65 dE	BA	6	0 dBA	55	dBA
			Ldn:		25		54		117		253
		C	NEL:		27		58		125		269

	FHV	/A-RD-77-108	HIGHV	AY NO	DISE PR	REDICTIO	N MODE	L _			
Scenari	o: OYC (2022)					Project N	lame: Go	odman L	ogistio	cs Cente	r
Road Name	e: N. State Co	llege Bl.				Job Nu	mber: 131	58			
Road Segmen	nt: n/o Chapma	an Av.									
SITE S	SPECIFIC IN	PUT DATA				NC	ISE MO	DEL IN	PUTS	5	
Highway Data				S	te Con	ditions (H	lard = 10	Soft =	15)		
Average Daily	Traffic (Adt):	37,766 vehicle	s				Au	os: 1	5		
Peak Hour	Percentage:	7.51%			Mee	dium Truc	ks (2 Axle	es): 1	5		
Peak He	our Volume:	2,837 vehicles	6		Hea	avy Truck	s (3+ Axle	es): 1	5		
Vel	hicle Speed:	40 mph		V	hicle N	/lix					
Near/Far Lar	ne Distance:	88 feet			Vehi	cleType	Da	y Eve	ning	Night	Daily
Site Data						AL	tos: 77	.5% 12	2.9%	9.6%	96.36%
Bar	rier Heiaht:	0.0 feet			Ме	edium Tru	cks: 84	.8% 4	4.9%	10.3%	2.47%
Barrier Type (0-Wa	all, 1-Berm):	0.0			H	łeavy Tru	cks: 86	.5% 2	2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	50.0 feet		M	nico So	urco Elo	ations (i	n foot)			
Centerline Dist. t	to Observer:	50.0 feet		14	JISE 30	Autos:	0.000	i ieel)			
Barrier Distance t	to Observer:	0.0 feet			Modiur	n Trucks:	2 207				
Observer Height (/	Above Pad):	5.0 feet			Hoov	n mucks.	2.291	Gra	de Adi	ustment	.00
Pa	d Elevation:	0.0 feet			Tieav	y muchs.	0.004	. 0/4	10 / luj	dounom	. 0.0
Roa	d Elevation:	0.0 feet		Li	ane Equ	ıivalent E	Distance	'in feet)			
F	Road Grade:	0.0%				Autos:	24.269)			
	Left View:	-90.0 degree	s		Mediur	n Trucks:	23.902	2			
	Right View:	90.0 degree	es		Heav	y Trucks:	23.938	3			
FHWA Noise Mode	l Calculations	;									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresnel	Barn	ier Atte	en Ber	m Atten
Autos:	66.51	3.04		4.61		-1.20	-4.	65	0.0	000	0.000
Medium Trucks:	77.72	-12.86		4.70		-1.20	-4.	87	0.0	000	0.000
Heavy Trucks:	82.99	-16.12		4.69		-1.20	-5.	43	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	· 1	eq Eve	ening	Leq N	ight	Ldn		CI	VEL
Autos:	73.	.0	72.3		70.5		64.5		73.1		73.7
Medium Trucks:	68	.4	68.1		61.7		60.2		68.6	5	68.9
Heavy Trucks:	70.	.4	70.2		61.2		62.4		70.8	3	70.9
Vehicle Noise:	75.	.7	75.3		71.5		67.5		76.0)	76.4
Centerline Distanc	e to Noise Co	ntour (in feet))	70 -"		CE -1	24	60 dF	• 4	57	dD A
			I dn:	70 at	125	05 GE	270	00 dB	590	55	1 252
									:::::::::::::::::::::::::::::::::::::::		1.203
		~			120		207		610		1 222

Friday, May 15, 2020

	FHW	A-RD-77-108 H	IGHW/	AY NO	OISE PF	REDICTI	ION MO	DEL			
Scenario: OYC (2	022)					Project	Name:	Goodr	nan Logisti	cs Cente	er
Road Name: N. State	e Colle	ege Bl.				Job N	lumber:	13158			
Road Segment: s/o Cha	pmar	n Av.									
SITE SPECIFIC	C INF	PUT DATA				N	IOISE I	NODE	L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily Traffic (Ad	t): 2	6,431 vehicles						Autos:	15		
Peak Hour Percentag	e:	7.51%			Me	dium Tru	ucks (2)	Axles).	15		
Peak Hour Volum	e: 1	1,985 vehicles			Hei	avy Truc	cks (3+)	Axles).	15		
Vehicle Spee	d:	35 mph		v	ohicle I	Nix					
Near/Far Lane Distand	e:	88 feet		F	Vehi	cleTvpe		Dav	Evening	Niaht	Dailv
Site Data							Autos:	77.5%	6 12.9%	9.6%	96.36%
Barrier Heid	nt.	0.0 feet			Me	edium Ti	rucks:	84.8%	6 4.9%	10.3%	2.47%
Barrier Type (0-Wall, 1-Berr	n):	0.0			F	leavy Ti	rucks:	86.5%	6 2.7%	10.8%	1.17%
Centerline Dist. to Barri	ər:	50.0 feet			laisa Sa	urco El	ovation	e (in f	oot)		
Centerline Dist. to Observe	er:	50.0 feet		N	ioise 30	Auto	evauon	s (III I	eel)		
Barrier Distance to Observe	ər:	0.0 feet			Madium	Auto:	s. 0.	207			
Observer Height (Above Pa	d):	5.0 feet			Hoov	n Truck	o. 2.	201	Grada Ad	iustmont	H 0 0
Pad Elevation	n:	0.0 feet			neav	y muck	3. 0.	004	Grade Adj	usuncin	. 0.0
Road Elevation	n:	0.0 feet		L	ane Equ	uivalent	Distan	ce (in	feet)		
Road Grad	le:	0.0%				Auto	s: 24.	269			
Left Vie	W:	-90.0 degrees			Mediur	n Truck	s: 23.	902			
Right Vie	W:	90.0 degrees			Heav	y Truck	s: 23.	938			
FHWA Noise Model Calcula	tions										
VehicleType REMEL		Traffic Flow	Distan	се	Finite	Road	Fresr	nel	Barrier Atte	en Bei	rm Atten
Autos: 64	.30	2.07		4.61		-1.20		-4.65	0.0	000	0.00
Medium Trucks: 75	5.75	-13.83		4.70	1	-1.20		-4.87	0.0	000	0.00
Heavy Trucks: 81	.57	-17.09		4.69	1	-1.20		-5.43	0.0	000	0.00
Unmitigated Noise Levels (vithou	ut Topo and ba	rrier a	ttenu	uation)						
VehicleType Leq Peak	Hour	Leq Day	Le	eq Ev	ening	Leq	Night		Ldn	C	NEL
Autos:	69.8	3 69	.1		67.4		61.3	3	69.9)	70.
Medium Trucks:	65.4	4 65	.2		58.8		57.3	3	65.7	,	65.9
Heavy Trucks:	68.0) 67	.8		58.8		60.0)	68.4	ļ	68.
Vehicle Noise:	72.8	3 72	.4		68.4		64.6	5	73.1		73.
Centerline Distance to Nois	e Cor	ntour (in feet)									
				70 d	BA	65	dBA	1	60 dBA	55	dBA
		1.	ln.		00		170		272		805
		LC			00		173		515		000

	FHV	WA-RD-77-108 HIC	GHWAY	NOISE PR	EDICTI	ON MOE	EL			
Scenan Road Nam Road Segmei	io: OYC (2022 ie: N. State Co nt: s/o Commo) bilege Bl. pnwealth Av.			Project I Job Nu	Vame: G Imber: 1	ioodn 3158	nan Logistic	s Cente	r
SITE	SPECIFIC IN	IPUT DATA		_	N	OISE M	ODE	L INPUTS	5	
Highway Data				Site Con	ditions (Hard = 1	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	24,276 vehicles				A	utos:	15		
Peak Hour	Percentage:	7.51%		Mee	dium Tru	cks (2 A	xles):	15		
Peak H	lour Volume:	1,824 vehicles		Hea	avy Truc	ks (3+ A	xles):	15		
Ve	hicle Speed:	40 mph		Vohiclo I	liv					
Near/Far La	ne Distance:	88 feet		Venicie w Vehi	leTvpe	[Dav	Evenina	Niaht	Dailv
Site Data					A	utos: ī	7.5%	12.9%	9.6%	96.36%
Bai	rrier Height:	0.0 feet		Me	dium Tru	ucks: 8	34.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	(all, 1-Berm):	0.0		H	leavy Tri	ucks: 8	86.5%	2.7%	10.8%	1.17%
Centerline Dis	st. to Barrier:	50.0 feet		Noise So	urce Ele	vations	(in fe	pet)		
Centerline Dist.	to Observer:	50.0 feet			Autos	· 0.0	00	,01)		
Barrier Distance	to Observer:	0.0 feet		Modium	n Trucks	· 22	00 07			
Observer Height (Above Pad):	5.0 feet		Heav	v Trucks	· 80	04	Grade Adii	ustment	0.0
Pa	ad Elevation:	0.0 feet		mour	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	. 0.0	0.	,·		
Roa	ad Elevation:	0.0 feet		Lane Equ	ivalent	Distanc	e (in 1	feet)		
1	Road Grade:	0.0%			Autos	: 24.2	69			
	Left View:	-90.0 degrees		Mediur	n Trucks	: 23.9	02			
	Right View:	90.0 degrees		Heav	y Trucks	: 23.9	38			
FHWA Noise Mode	el Calculation	s								
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresne	el	Barrier Atte	en Ber	m Atten
Autos:	66.51	1.12	4.6	61	-1.20	-	4.65	0.0	00	0.000
Medium Trucks:	77.72	-14.78	4.	70	-1.20	-	4.87	0.0	00	0.000
Heavy Trucks:	82.99	-18.04	4.6	69	-1.20	-	5.43	0.0	00	0.000
Unmitigated Noise	e Levels (with	out Topo and bar	rier atte	nuation)						
VehicleType	Leq Peak Hou	ur Leq Day	Leq E	Evening	Leq N	light		Ldn	CI	VEL
Autos:	71	.0 70.4	4	68.6		62.6		71.2		71.8
Medium Trucks:	66	6.4 66.2	2	59.8		58.3		66.7		67.0
Heavy Trucks:	68	8.5 68.3	3	59.2		60.5		68.8		69.0
Vehicle Noise:	73	0.8 73.4	4	69.6		65.6		74.1		74.5
Centerline Distance	ce to Noise Co	ontour (in feet)								
			70	dBA	65 a	'BA	6	60 dBA	55	dBA
		Ldr	n:	93		201		433		933
		CNEL		99		214		461		992

	FH	WA-RD-77-10	8 HIGH	IWAY NO	DISE PI	REDICTIO	N MOD	EL			
Scenario Road Name Road Segmen	o: OYC (2022 e: N. State C t: s/o Kimber	2) ollege Bl. rly Av.				Project N Job Nur	lame: G nber: 13	oodma 3158	an Logistic	s Cente	ſ
SITE S	PECIFIC II	NPUT DATA				NC	ISE M	ODEL	INPUTS	5	
Highway Data				S	ite Con	ditions (H	lard = 1	0, Sof	t = 15)		
Average Daily	Traffic (Adt):	23,525 vehic	cles				A	utos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 Ax	des):	15		
Peak He	our Volume:	1,767 vehicl	es		He	avy Truck	s (3+ Ax	kles):	15		
Vel	nicle Speed:	40 mph		V	ohiclo	Mix					-
Near/Far Lar	ne Distance:	88 feet			Veh	icleType	D	Dav I	Evenina	Niaht	Daily
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	96.36%
Bar	rier Heiaht [.]	0.0 feet			М	edium Tru	cks: 8	4.8%	4.9%	10.3%	2.47%
Barrier Type (0-Wa	all. 1-Berm):	0.0				Heavy Tru	cks: 8	6.5%	2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	50.0 feet		M	oico Si	ourco Elos	ations	(in for	1		
Centerline Dist. t	o Observer:	50.0 feet		74	0/36 30	Autor:	0.00	00	<i>ay</i>		
Barrier Distance t	o Observer:	0.0 feet			Modiu	m Trucks:	2.00	00 07			
Observer Height (/	Above Pad):	5.0 feet			Hoo	n Trucks.	2.23	ы ри (Grade Adi	ustment	. 0 0
Pa	d Elevation:	0.0 feet			nea	ly muchs.	0.00	04 x	orado riaj	aounom	. 0.0
Roa	d Elevation:	0.0 feet		Li	ane Eq	uivalent D	Distance	e (in fe	et)		
F	Road Grade:	0.0%				Autos:	24.26	69			
	Left View:	-90.0 degr	ees		Mediu	m Trucks:	23.90	02			
	Right View:	90.0 degr	ees		Hear	/y Trucks:	23.93	38			
FHWA Noise Mode	I Calculation	15									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresne	el B	Barrier Atte	en Bei	m Atten
Autos:	66.51	0.9	9	4.61		-1.20	-4	4.65	0.0	00	0.000
Medium Trucks:	77.72	2 -14.9	2	4.70		-1.20	-4	4.87	0.0	00	0.000
Heavy Trucks:	82.99	-18.1	7	4.69		-1.20	-	5.43	0.0	00	0.000
Unmitigated Noise	Levels (with	nout Topo an	d barrie	er attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	ay	Leq Eve	ening	Leq N	ight	l	Ldn	C	NEL
Autos:	70	0.9	70.2		68.5		62.4		71.0		71.7
Medium Trucks:	6	6.3	66.0		59.7		58.1		66.6		66.8
Heavy Trucks:	6	8.3	68.1		59.1		60.4		68.7		68.8
Vehicle Noise:	73	3.7	73.2		69.4		65.4		73.9		74.3
Centerline Distance	e to Noise C	ontour (in fee	et)								-
			L	70 dł	BA	65 dE	BA	60) dBA	55	dBA
			Ldn:		91		197		424		914
			CNEL:		97		209		451		972

	FHW	/A-RD-77-108	HIGHW	AY NO	DISE PR	EDICTIC	N MOD				
Scenari Road Nam Road Segmer	o: OYC (2022) e: N. State Col nt: s/o Dwy. 16	lege Bl.				Project N Job Nu	lame: G mber: 13	oodm 3158	an Logisti	cs Cente	r
SITE	SPECIFIC IN	PUT DATA				NC	DISE M	ODEI		s	
Highway Data				S	ite Cond	ditions (H	lard = 1	0, So	ft = 15)		
Average Daily	Traffic (Adt):	23,716 vehicle	s				A	utos:	15		
Peak Hour	Percentage:	7.51%			Med	dium Truc	:ks (2 A)	des):	15		
Peak H	our Volume:	1,782 vehicles			Hea	avy Truck	s (3+ A)	des):	15		
Vel	hicle Speed:	40 mph		V	ehicle N	lix					
Near/Far Lar	ne Distance:	88 feet		-	Vehi	cleTvpe	E)av	Evenina	Niaht	Daily
Site Data						AL	itos: 7	7.5%	12.9%	9.6%	96.36%
Bar	rier Height	0.0 feet			Me	dium Tru	cks: 8	4.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	all 1-Rerm)	0.0			H	leavy Tru	cks: 8	6.5%	2.7%	10.8%	1.17%
Centerline Dis	t, to Barrier:	50.0 feet									
Centerline Dist.	to Observer:	50.0 feet		N	oise So	urce Ele	vations	(in te	et)		
Barrier Distance	to Observer:	0.0 feet				Autos:	0.0	JU 77			
Observer Height (J	Above Pad):	5.0 feet			Mediun	n Trucks:	2.2	97	Grada Ad	iustmont	
Pa	d Elevation:	0.0 feet			Heav	y Trucks:	8.0	J4	Grade Au	usunen	. 0.0
Roa	d Elevation:	0.0 feet		Li	ane Equ	ivalent L	Distance	e (in f	eet)		
F	Road Grade:	0.0%				Autos:	24.2	69			
	Left View:	-90.0 degree	s		Mediun	n Trucks:	23.9	02			
	Right View:	90.0 degree	s		Heav	y Trucks:	23.9	38			
FHWA Noise Mode	l Calculations	1									
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite	Road	Fresne	1 1	Barrier Att	en Ber	m Atten
Autos:	66.51	1.02		4.61		-1.20	-	4.65	0.0	000	0.000
Medium Trucks:	77.72	-14.88		4.70		-1.20	-	4.87	0.0	000	0.000
Heavy Trucks:	82.99	-18.14		4.69		-1.20	-	5.43	0.0	000	0.000
Unmitigated Noise	Levels (witho	out Topo and I	barrier a	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	L	eq Eve	ening	Leq N	ight		Ldn	CI	VEL
Autos:	70.	9	70.3		68.5		62.5		71.1	I	71.7
Medium Trucks:	66.	3 6	56.1		59.7		58.2		66.6	3	66.9
Heavy Trucks:	68.	4 6	58.2		59.1		60.4		68.7	7	68.9
Vehicle Noise:	73.	7	73.3		69.5		65.5		74.0)	74.4
Centerline Distanc	e to Noise Co	ntour (in feet)		70 d	24	65 di	24	6	OdBA	55	dBA
			dn.	70 01	92	05 01	198	0	426 J		Q10
			IEI ·		02		210		420		977

Friday, May 15, 2020

Fł	IWA-RD-77-108	HIGHWA	Y NOISE P	REDICTIO	N MODEL			
Scenario: OYC (202	2)			Project Na	ame: Good	dman Logisti	s Cente	r
Road Name: N. State 0	College Bl.			Job Nun	nber: 1315	8		
Road Segment: s/o Orang	ethorpe Av.							
SITE SPECIFIC	NPUT DATA			NO	ISE MOD	EL INPUT	6	
Highway Data			Site Con	ditions (H	ard = 10, 3	Soft = 15)		
Average Daily Traffic (Adt):	28,017 vehicle	s			Auto	s: 15		
Peak Hour Percentage:	7.51%		Me	dium Truck	ks (2 Axles	<i>:):</i> 15		
Peak Hour Volume:	2,105 vehicles		He	avy Trucks	(3+ Axles	<i>:):</i> 15		
Vehicle Speed:	40 mph		Vehicle	Mix				
Near/Far Lane Distance:	88 feet		Veh	icleType	Day	Evening	Night	Daily
Site Data				Aut	os: 77.5	% 12.9%	9.6%	96.36%
Barrier Height:	0.0 feet		М	edium Truc	ks: 84.8	% 4.9%	10.3%	2.47%
Barrier Type (0-Wall, 1-Berm):	0.0		1	Heavy Truc	ks: 86.5	% 2.7%	10.8%	1.17%
Centerline Dist. to Barrier:	50.0 feet		Noiso S	ourco Elov	ations (in	foot)		
Centerline Dist. to Observer:	50.0 feet		NOISE SU	Autor:	0.000	leelj		
Barrier Distance to Observer:	0.0 feet		Modiu	m Trucke:	2 207			
Observer Height (Above Pad):	5.0 feet		Heat	n Trucks	8 004	Grade Ad	ustment	· 0 0
Pad Elevation:	0.0 feet		nea	ry mucho.	0.004	0/440 / 14)	uoumoni	. 0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent D	istance (ii	n feet)		
Road Grade:	0.0%			Autos:	24.269			
Left View:	-90.0 degree	s	Mediu	m Trucks:	23.902			
Right View:	90.0 degree	s	Hear	/y Trucks:	23.938			
FHWA Noise Model Calculatio	ns		1					
VehicleType REMEL	Traffic Flow	Distanc	e Finite	Road	Fresnel	Barrier Atte	en Ber	m Atten
Autos: 66.5	1 1.74		4.61	-1.20	-4.6	5 0.0	00	0.00
Medium Trucks: 77.7	2 -14.16		4.70	-1.20	-4.8	7 0.0	00	0.00
Heavy Trucks: 82.9	9 -17.41		4.69	-1.20	-5.4	3 0.0	00	0.00
Unmitigated Noise Levels (wit	hout Topo and I	oarrier at	tenuation)					
VehicleType Leq Peak H	our Leq Day	Le	q Evening	Leq Nig	ght	Ldn	Ci	NEL
Autos:	1.7 7	1.0	69.2		63.2	71.8	1	72.4
Medium Trucks: 6	67.1 6	6.8	60.4		58.9	67.4		67.0
Heavy Trucks: 6	69.1 6	68.9	59.9		61.1	69.5	,	69.0
Vehicle Noise:	74.4 7	4.0	70.2		66.2	74.7	,	75.
Centerline Distance to Noise	Contour (in feet)							
			70 dBA	65 dB	A	60 dBA	55	dBA
	1	dn.	102		221	477		1.027
	-	un.	105		221	411		

	FH/	VA-RD-77-108	HIGHW	AY NC	DISE PF	REDICTI	ON MOI	DEL				
Scenari Road Nam Road Segmer	o: OYC (2022 e: N. State Co at: s/o SR-91 \	nps			Project Job Ni	Name: (umber: 1	Goodn 3158	nan Logisti	cs Ce	nter		
SITE S	SPECIFIC IN	IPUT DATA				N	OISE N	IODE		s		
Highway Data				S	ite Con	ditions (Hard =	10, So	oft = 15)			
Average Daily	Traffic (Adt):	27,501 vehicle	s					Autos:	15			
Peak Hour	Percentage:	7.51%			Me	dium Tru	icks (2 A	xles):	15			
Peak H	our Volume:	2,066 vehicles	6		He	avy Truc	ks (3+ A	xles):	15			
Vel	hicle Speed:	55 mph		14	ohicle I	Nix						
Near/Far Lar	ne Distance:	78 feet			Veh	icleTvpe		Dav	Evening	Nia	nt	Dailv
Site Data					• 011	Δ	utos:	77.5%	12.9%		6%	96.36%
	vier Height	0.0 feet			Me	edium Tr	ucks:	84.8%	4.9%	10	3%	2.47%
Bar Parrior Tupo (0.W	ner neight:	0.0 feet			ŀ	leavv Tr	ucks:	86.5%	2.7%	10.	8%	1.17%
Centerlino Dis	an, r-benn).	53.0 feet										
Contorlino Dist	h Obsenver	53.0 feet		N	oise So	ource Ele	evations	s (in fe	eet)			
Barrier Distance	h Observer	0.0 feet				Autos	: 0.0	000				
Observer Height (Above Pad)	5.0 feet			Mediur	n Trucks	:: 2.2	297				
Pa	d Elevation:	0.0 feet			Heav	y Trucks	:: 8.0	004	Grade Ad	yustm	ent: (0.0
Roa	d Elevation:	0.0 feet		La	ane Equ	uivalent	Distanc	e (in	feet)			
F	Road Grade:	0.0%				Autos	: 36.2	235				
	Left View:	-90.0 degree	s		Mediur	n Trucks	: 35.9	990				
	Right View:	90.0 degree	s		Heav	y Trucks	36.0	014				
FHWA Noise Mode	Calculation	s		I								
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	en	Berm	Atten
Autos:	71.78	0.28		1.99		-1.20		-4.66	0.0	000		0.000
Medium Trucks:	82.40	-15.62		2.04		-1.20		-4.87	0.0	000		0.000
Heavy Trucks:	86.40	-18.88		2.03		-1.20		-5.40	0.0	000		0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	attenu	ation)							-
VehicleType	Leq Peak Hou	ir Leq Day	L	.eq Eve	ening	Leq I	Vight		Ldn		CNI	EL
Autos:	72	.9	72.2		70.4		64.4		73.0	0		73.6
Medium Trucks:	67	.6	67.4		61.0		59.4		67.9	9		68.1
Heavy Trucks:	68	.4	68.2		59.1		60.4		68.7	7		68.9
Vehicle Noise:	75	.0	74.6		71.2		66.7		75.3	3		75.7
Centerline Distanc	e to Noise Co	ontour (in feet)					r .				
			L	70 dł	BA	65 c	IBA	6	50 dBA		55 d	BA
		~	Lan:		119		256		552			1,189
		Ci	VEL:		127		274		590			1,272

	FH	WA-RD-77-108	B HIGHW	AY NO	ISE PF	REDICTIO	N MODEI			
Scenari Road Nam Road Segmer	io: OYC (2022 e: N. State Co nt: s/o SR-91	?) ollege Bl. Eastbound Rai	nps			Project N Job Nur	ame: Goo nber: 131	idman Logist 58	ics Cent	er
SITE	SPECIFIC IN	NPUT DATA				NO	ISE MO	DEL INPUT	S	
Highway Data				Si	te Con	ditions (H	ard = 10,	Soft = 15)		
Average Daily	Traffic (Adt):	22,992 vehicl	es				Aut	os: 15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 Axle	s): 15		
Peak H	our Volume:	1,727 vehicle	s		Hei	avy Truck	s (3+ Axle	s): 15		
Ve	hicle Speed:	55 mph		Ve	hicle I	Nix				
Near/Far La	ne Distance:	78 feet		-	Vehi	cleTvpe	Da	/ Evenina	Night	Dailv
Site Data						Au	tos: 77.	5% 12.9%	9.6%	96.36%
Bai	rier Heiaht:	0.0 feet			Me	edium Truc	cks: 84.	8% 4.9%	10.3%	2.47%
Barrier Type (0-W	all, 1-Berm):	0.0			ŀ	leavy Truc	cks: 86.	5% 2.7%	10.8%	5 1.17%
Centerline Dis	st. to Barrier:	53.0 feet		No	visa Sa	urce Elev	ations (ii	1 foot)		
Centerline Dist.	to Observer:	53.0 feet				Autos:	0.000	11000		
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	2 297			
Observer Height (Above Pad):	5.0 feet			Heav	v Trucks:	8 004	Grade Ad	liustmen	t: 0.0
Pá	ad Elevation:	0.0 feet							·	
Roa	ad Elevation:	0.0 feet		La	ne Equ	iivalent D	istance (in feet)		
	Road Grade:	0.0%				Autos:	36.235			
	Left View:	-90.0 degre	es		Mediur	n Trucks:	35.990			
	Right View:	90.0 degre	es		Heav	y Trucks:	36.014			
FHWA Noise Mode	el Calculation	IS								
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresnel	Barrier At	ten Be	rm Atten
Autos:	71.78	-0.50		1.99		-1.20	-4.0	66 0.	000	0.000
Medium Trucks:	82.40	-16.40		2.04		-1.20	-4.8	37 0.	000	0.000
Heavy Trucks:	86.40	-19.66		2.03		-1.20	-5.4	40 0.	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	attenua	ation)					
VehicleType	Leq Peak Ho	ur Leq Da	y L	eq Eve	ning	Leq Ni	ght	Ldn	C	NEL
Autos:	72	2.1	71.4		69.7		63.6	72.	2	72.8
Medium Trucks:	66	5.8	66.6		60.2		58.7	67.	1	67.4
Heavy Trucks:	67	7.6	67.4		58.4		59.6	68.	0	68.1
Vehicle Noise:	74	4.3	73.8		70.4		66.0	74.	5	74.9
Centerline Distance	e to Noise C	ontour (in fee	t)							
				70 dE	A	65 dE	BA	60 dBA	55	5 dBA
			Ldn:		106		227	490)	1,056
		C	NEL:		113		243	524	1	1,129

	FHV	VA-RD-77-108	HIGHW	AY NC	DISE PRE	DICTIC	N MOD	EL			
Scenario	OYC (2022)			F	Project N	lame: G	oodm	an Logisti	cs Cente	r	
Road Name:	S. Placentia	ı Av.				Job Nu	mber: 13	3158			
Road Segment.	n/o Kimberl	y Av.									
SITE SI	PECIFIC IN	PUT DATA				NC	DISE M	ODEL	INPUT	5	
Highway Data				Si	te Condi	tions (H	lard = 1	0, So	ft = 15)		
Average Daily Tr	affic (Adt):	23,741 vehicle	s				A	utos:	15		
Peak Hour P	ercentage:	7.51%			Medi	um Truc	:ks (2 Ax	des):	15		
Peak Ho	ur Volume:	1,783 vehicles			Hear	ry Truck	is (3+ Ax	des):	15		
Vehi	cle Speed:	40 mph		Ve	ehicle Mi	x					
Near/Far Lane	e Distance:	53 feet			Vehic	eType	D	ay	Evening	Night	Daily
Site Data						AL	itos: 7	7.5%	12.9%	9.6%	96.36%
Barri	er Heiaht:	0.0 feet			Med	lium Tru	cks: 8	4.8%	4.9%	10.3%	2.47%
Barrier Type (0-Wai	I, 1-Berm):	0.0			He	avy Tru	cks: 8	6.5%	2.7%	10.8%	1.17%
Centerline Dist.	to Barrier:	42.0 feet		AL.	nico Scr		vationa	(in fo	ot)		
Centerline Dist. to	Observer:	42.0 feet		140	JISE 30U	Autor		(/////e	ey		
Barrier Distance to	Observer:	0.0 feet			Modium	Trucks:	2.00	7			
Observer Height (A	bove Pad):	5.0 feet			Heavy	Trucks:	2.23	77 14	Grade Ad	iustment	0.0
Pad	Elevation:	0.0 feet			neavy	mucks.	0.00				0.0
Road	Elevation:	0.0 feet		La	ane Equi	valent I	Distance	e (in fe	eet)		
Ro	oad Grade:	0.0%				Autos:	32.96	66			
	Left View:	-90.0 degree	S		Medium	Trucks:	32.69	96			
F	Right View:	90.0 degree	S		Heavy	I rucks:	32.72	23			
FHWA Noise Model	Calculation	5									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite R	oad	Fresne	/ /	Barrier Att	en Ber	m Atten
Autos:	66.51	1.03		2.61		-1.20	-4	4.60	0.0	000	0.000
Medium Trucks:	77.72	-14.88		2.66		-1.20	-4	1.87	0.0	000	0.000
Heavy Trucks:	82.99	-18.13		2.66		-1.20	-{	5.53	0.0	000	0.000
Unmitigated Noise I	evels (with	out Topo and L	arrier a	ttenua	ation)						
VehicleType L	eq Peak Hou	r Leq Day	Le	eq Eve	ening	Leq N	ight		Ldn	CI	VEL
Autos:	68	.9 6	8.3		66.5		60.5		69.1	I	69.7
Medium Trucks:	64	.3 6	64.0		57.7		56.1		64.6	6	64.8
Heavy Trucks:	66	.3 6	6.1		57.1		58.4		66.7	7	66.8
Vehicle Noise:	71	.7 7	'1.3		67.5		63.4		72.0)	72.4
Centerline Distance	to Noise Co	ntour (in feet)		70 /5		05.0					10.4
			de	70 dE	54	65 di	5A 100	6	U aBA	55	aBA EG7
			un:		57		122		263		201
					60		120		200		603

Friday, May 15, 2020

	FHV	VA-RD-77-108	HIGH	WAY N	IOISE PF	REDICTI	ON MO	DEL						
Scenario Road Name Road Segment	: OYC (2022 : S. Placentia : s/o Kimberl) a Av. y Av.				Project Job N	Name: (umber: ·	Goodn 13158	nan Logistio	cs Cent	ter			
SITE S	PECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUTS	5				
Highway Data					Site Con	ditions	(Hard =	10, Sc	oft = 15)					
Average Daily T	raffic (Adt):	22,809 vehicle	s				,	Autos:	15					
Peak Hour F	Percentage:	7.51%			Medium Trucks (2 Axles): 15									
Peak Ho	ur Volume:	1,713 vehicles	5		Heavy Trucks (3+ Axles): 15									
Veh	icle Speed:	40 mph			Vohiclo I	Ai~								
Near/Far Lan	e Distance:	53 feet		H	Venicie N Vehi	icleTvpe		Dav	Evenina	Niaht	Dailv			
Site Data				-		/	Autos:	77.5%	12.9%	9.69	6 96.36%			
Barr	ior Hoiaht	0.0 feet			Me	edium Ti	ucks:	84.8%	4.9%	10.3%	6 2.47%			
Barrier Type (0-Wa	II 1-Berm)	0.0			F	leavy Ti	ucks:	86.5%	2.7%	10.89	6 1.17%			
Centerline Dist	to Barrier:	42.0 feet		-					4)					
Centerline Dist. to	Observer:	42.0 feet		'	voise So	ource El	evation	s (IN Te	eet)					
Barrier Distance to	Observer:	0.0 feet				Auto	s: 0.0	000						
Observer Height (A	bove Pad):	5.0 feet			Mediur	n Truck	S: Z.4	297	Grado Adi	ustmor	±.00			
Pad		neav	y muck	s. 0.1	JU4	Graue Auj	usunei	<i>n</i> . 0.0						
Road	d Elevation:	0.0 feet		1	Lane Equ	uivalent	Distand	ce (in i	feet)					
R	oad Grade:	0.0%				Auto	s: 32.	966						
	Left View:	-90.0 degree	s		Mediur	n Truck	s: 32.	696						
	Right View:	90.0 degree	s		Heav	y Truck	32.	723						
FHWA Noise Model	Calculation	s												
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresn	el	Barrier Atte	en Be	erm Atten			
Autos:	66.51	0.85		2.6	1	-1.20		-4.60	0.0	00	0.000			
Medium Trucks:	77.72	-15.05		2.66	6	-1.20		-4.87	0.0	00	0.00			
Heavy Trucks:	82.99	-18.31		2.60	6	-1.20		-5.53	0.0	00	0.000			
Unmitigated Noise	Levels (with	out Topo and	barrier	r atten	uation)									
VehicleType L	eq Peak Hou	ır Leq Day		Leq E	vening	Leq	Night		Ldn	(ONEL			
Autos:	68	.8	68.1		66.4		60.3	3	68.9)	69.			
Medium Trucks:	64	.1	63.9		57.5		56.0)	64.4		64.6			
Heavy Trucks:	Heavy Trucks: 66.1 66.0				56.9		58.2	2	66.5	i	66.			
Vehicle Noise:	71	.5	71.1		67.3		63.3	5	71.8		72.2			
Centerline Distance	to Noise Co	ontour (in feet)												
				70 c	'BA	65	dBA	e	60 dBA	5	5 dBA			
			Ldn:											
			Ldn:		55		119		256		552			

	FHV	VA-RD-77-108 HI	GHWAY	NOISE PI	REDICTIO		EL						
Scenar Road Nam Road Segme	io: OYC (2022) ne: Kimberly Av nt: e/o Raymor) r. nd Av.		Project Name: Goodman Logistics Center Job Number: 13158									
SITE	SPECIFIC IN	PUT DATA			N	OISE M	DDEL IN	PUTS					
Highway Data				Site Con	ditions (Hard = 1	0, Soft =	15)					
Average Daily	Traffic (Adt):	2,136 vehicles				A	utos: 1	15					
Peak Hour	Percentage:	7.51%		Me	dium Tru	cks (2 Ax	<i>:les):</i> 1	15					
Peak H	lour Volume:	160 vehicles		He	avy Truci	ks (3+ Ax	<i>:les):</i> 1	15					
Ve	hicle Speed:	45 mph		Vehicle	Mix								
Near/Far La	ne Distance:	25 feet		Veh	icleType		av Ev	enina	Night	Daily			
Site Data					A	utos: 7	7.5% 1	2.9%	9.6%	96.36%			
D-		0.0.6		м	edium Tri	ucks: 8	4.8%	4.9%	10.3%	2.47%			
Barrier Tune (0.14	rrier Height:	0.0 feet			Heavy Tri	ucks: 8	6.5%	2.7%	10.8%	1.17%			
Contorlino Di	all, 1-Dellil).	0.0 20.0 feet		-									
Contorlino Dist	to Obsonior:	30.0 feet		Noise So	ource Ele	vations	(in feet)						
Barriar Distance	to Observer:	0.0 feet			Autos	: 0.00	00						
Observer Height	(Abovo Pod):	5.0 feet		Mediu	m Trucks	: 2.29	97						
Observer neight (Above Fau).		Heav	/y Trucks	: 8.00)4 Gra	ade Adji	ustment:	0.0				
Po	ad Elevation:	0.0 feet		Lane Eq	uivalent	Distance	(in feet))					
7.00	Road Grade:	0.0%			Autos	· 27.72	26						
	Left View:	-90 0 degrees		Mediu	m Trucks	· 27.40	15						
	Right View:	90.0 degrees		Heav	/y Trucks	: 27.43	37						
FHWA Noise Mode	el Calculation:	5											
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresne	l Bari	rier Atte	n Ben	m Atten			
Autos:	68.46	-9.94	3	.74	-1.20	-4	1.49	0.0	00	0.000			
Medium Trucks:	79.45	-25.85	3	.81	-1.20	-4	4.86	0.0	00	0.000			
Heavy Trucks:	84.25	-29.10	3	.81	-1.20	-{	5.77	0.0	00	0.000			
Unmitigated Noise	e Levels (with	out Topo and ba	rrier atte	enuation)	_				_				
VehicleType	Leq Peak Hou	r Leq Day	Leq	Evening	Leq N	light	Ldr	1	CI	IEL			
Autos:	61	.1 60	.4	58.6		52.6		61.2		61.8			
Medium Trucks:	56	.2 55	.9	49.6		48.0		56.5		56.7			
Heavy Trucks:	57	.8 57.	.6	48.5		49.8		58.1		58.3			
Vehicle Noise:	63	.6 63	.1	59.5		55.3		63.8		64.2			
Centerline Distant	ce to Noise Co	ntour (in feet)	7) dBA	65 d	RΔ	60 di	RA	55	dBA			
		1 d	n	12	00 0	25	00 01	54	55	116			
		CNE	1. 1.	12		23		58		124			
		CIVE	L .	12		21		50		124			

	FH	WA-RD-77-108	B HIGH	WAY NO	ISE PI	REDICTI	ON MOI	DEL			
Scenario Road Name Road Segmen	o: OYC (2022 e: Kimberly A t: e/o Dwy. 5			Project Job N	Name: (umber: 1	Goodn 13158	nan Logistic	s Cente	er		
SITE S	PECIFIC II	VPUT DATA				N	OISE N	IODE	L INPUTS	;	
Highway Data				Si	te Con	ditions ((Hard =	10, So	oft = 15)		
Average Daily 1	Traffic (Adt):	2,230 vehicl	es					Autos:	15		
Peak Hour I	Percentage:	7.51%			Me	dium Tru	icks (2 A	(xles)	15		
Peak Ho	our Volume:	167 vehicle	s		He	avy Truc	:ks (3+ A	(xles)	15		
Veh	nicle Speed:	45 mph		Ve	hicle	Mix					
Near/Far Lar	e Distance:	25 feet			Veh	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data						A	utos:	77.5%	6 12.9%	9.6%	96.36%
Bar	rier Height:	0.0 feet			М	edium Tr	ucks:	84.8%	6 4.9%	10.3%	2.47%
Barrier Type (0-Wa	all, 1-Berm):	0.0			1	Heavy Tr	ucks:	86.5%	6 2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	30.0 feet		No	oise Sr	ource Ele	evations	s (in fi	eet)		
Centerline Dist. t	o Observer:	30.0 feet				Autos	· 00	000	000		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Trucks	. 21	297			
Observer Height (A	Above Pad):	5.0 feet			Heav	v Trucks	. 2.	207	Grade Adj	ustmen	t: 0.0
Pa	d Elevation:	0.0 feet		_					,		
Roa	d Elevation:	0.0 feet		La	ne Eq	uivalent	Distand	ce (in	feet)		
F	Road Grade:	0.0%				Autos	s: 27.1	726			
	Left View:	-90.0 degre	es		Mediu	m Trucks	s: 27.4	405			
	Right View:	90.0 degre	es		Heat	y Trucks	8: 27.4	437			
FHWA Noise Mode	I Calculation	is									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresn	el	Barrier Atte	en Be	rm Atten
Autos:	68.46	-9.76		3.74		-1.20		-4.49	0.0	00	0.000
Medium Trucks:	79.45	-25.66		3.81		-1.20		-4.86	0.0	00	0.000
Heavy Trucks:	84.25	-28.92		3.81		-1.20		-5.77	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	r attenua	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y	Leq Eve	ning	Leq I	Night		Ldn	С	NEL
Autos:	6	1.2	60.6		58.8		52.8	3	61.4		62.0
Medium Trucks:	50	5.4	56.1		49.8		48.2	2	56.7		56.9
Heavy Trucks:	5	7.9	57.8		48.7		50.0)	58.3		58.5
Vehicle Noise:	6	3.8	63.3		59.7		55.5	5	64.0		64.4
Centerline Distance	e to Noise C	ontour (in fee	t)								
			L	70 dB	A	65 c	IBA	(50 dBA	55	i dBA
		-	Ldn:		12		26		56		120
		C	NEL:		13		27		59		128

	FHW	/A-RD-77-108	HIGHW	AY NO	DISE PR	EDICTIO	N MOD	EL _			
Scenari	Scenario: OYC (2022)						lame: Go	oodm	an Logisti	cs Cente	r
Road Nam Road Segmer	e: Kimberiy Av ht: e/o Dwy. 11					JOD NUI	nber: 13	158			
SITE	SPECIFIC IN	PUT DATA				NC	ISE MO	DDEL		s	
Highway Data				S	te Con	ditions (H	lard = 1	0, Soi	ft = 15)		
Average Daily	Traffic (Adt):	2,148 vehicle	s				Au	utos:	15		
Peak Hour	Percentage:	7.51%			Mee	dium Truc	ks (2 Ax	les):	15		
Peak H	our Volume:	161 vehicles			Hea	avy Truck	s (3+ Ax	les):	15		
Vel	hicle Speed:	45 mph		V	hicle N	lix					
Near/Far Lar	ne Distance:	25 feet		Ē	Vehi	cleTvpe	D	av	Evenina	Niaht	Dailv
Site Data						AL	itos: 7	7.5%	12.9%	9.6%	96.36%
Bar	rier Height	0.0 feet			Ме	dium Tru	cks: 8	4.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	all 1-Rerm)	0.0			H	leavy Tru	cks: 8	6.5%	2.7%	10.8%	1.17%
Centerline Dis	t, to Barrier:	30.0 feet		-							
Centerline Dist.	to Observer:	30.0 feet		N	oise So	urce Elev	ations (in te	et)		
Barrier Distance	to Observer:	0.0 feet			1 4 m all 1 m	Autos:	0.00	10			
Observer Height (J	Above Pad):	5.0 feet			Mediur	n Trucks:	2.29	17 	Grado Ad	iustmont	
Pa	Pad Elevation: 0.0 feet						8.00	14	Graue Au	usuneni	0.0
Roa	d Elevation:	0.0 feet		La	ane Equ	ivalent E	Distance	(in fe	eet)		
F	Road Grade:	0.0%				Autos:	27.72	26			
	Left View:	-90.0 degree	s		Mediur	n Trucks:	27.40)5			
	Right View:	90.0 degree	s		Heav	y Trucks:	27.43	37			
FHWA Noise Mode	Calculations	;									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	l E	Barrier Att	en Ber	m Atten
Autos:	68.46	-9.92		3.74		-1.20	-4	1.49	0.0	000	0.000
Medium Trucks:	79.45	-25.82		3.81		-1.20	-4	1.86	0.0	000	0.000
Heavy Trucks:	84.25	-29.08		3.81		-1.20	-8	5.77	0.0	000	0.000
Unmitigated Noise	Levels (witho	out Topo and I	barrier a	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	L	eq Eve	ening	Leq N	ight		Ldn	CI	VEL
Autos:	61.	1 6	50.4		58.7		52.6		61.2	2	61.8
Medium Trucks:	56.	2 !	56.0		49.6		48.1		56.5	5	56.8
Heavy Trucks:	57.	8 8	57.6		48.6		49.8		58.2	2	58.3
Vehicle Noise:	63.	6 6	53.2		59.5		55.3		63.9)	64.3
Centerline Distanc	e to Noise Co	ntour (in feet)		70 d	24	65 d	24	6		55	dBA
			dn.	70 at	12	03 UL	25	00	50DA 54	- 55	117
		Ch	IFI ·		12		23		58		124
		01	·		14		41				147

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						-					
Scenario: OYC	(2022)					Project	Name:	Goodr	nan Logisti	cs Cente	er
Road Name: Orar	ngethorp	be Av.				JOD IN	umber:	13158			
Road Segment: W/o	Raymon	id AV.									
SITE SPECI	FIC IN	PUT DATA				N	OISE	MODE	L INPUT	s	
Highway Data				Site	e Con	ditions ((Hard =	= 10, S	oft = 15)		
Average Daily Traffic (Adt):	35,670 vehicles						Autos.	15		
Peak Hour Percen	tage:	7.51%			Me	dium Tru	icks (2	Axles).	15		
Peak Hour Vol	ume:	2,680 vehicles			Hea	avy Truc	:ks (3+	Axles).	15		
Vehicle Sp	eed:	40 mph		Vot	viclo I	liv					
Near/Far Lane Dista	ance:	88 feet		ven	Vehi	cleTvne		Dav	Evenina	Night	Daily
Site Data				-	vom	cic i ypc	utos:	77.5%	12 0%	9.6%	96 36%
				1	M	r dium Tr	ucks:	84.8%	4 9%	10.3%	2 47%
Barrier He	ight:	0.0 feet		1	,vie L	leavy Tr	ucks:	86.5%	27%	10.8%	1 17%
Barrier Type (U-Wall, 1-B	erm):	0.0				icavy n	ucho.	00.07	2.170	10.070	1.117
Centerline Dist. to Be	irrier:	50.0 feet		Noi	se So	urce Ele	evatio	ns (in f	eet)		
Centerline Dist. to Obse	erver:	SULU Teet				Autos	s: 0	.000			
Observer Height (Above Pad): 5.0 feet					<i>Nediur</i>	n Trucks	s: 2	.297			
Observer Height (Above I			Heav	y Trucks	s: 8	.004	Grade Ad	justmen	t: 0.0		
Pau Eleva Deed Eleva	allOn.	0.0 feet		Lan	e Fai	iivalent	Distar	ice (in	feet)		
Road C	rada:	0.0 1001		2011	o Lqt	Autos	. 24	260			
Loft	liow:	0.0 /0 00 0 dogroop			Aodiur	n Trucks	. 27	002			
Right	View.	90.0 degrees		1	Heav	v Trucks	23	938			
rught	vicw.	JU.U degrees			mour	y maone	. 20	.000			
FHWA Noise Model Calcu	lations									-	
Vehicle I ype REM	IEL	I rattic Flow	Distance	e 1	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	66.51	2.79	4	.61		-1.20		-4.65	0.0	000	0.00
Medium Trucks:	11.12	-13.11	4	.70		-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	82.99	-16.37	4	.69		-1.20		-5.43	0.0	000	0.00
Unmitigated Noise Levels	s (witho	out Topo and b	arrier att	enuat	tion)						
VehicleType Leq Pe	ak Hou	r Leq Day	Leq	Even	ing	Leq I	Night		Ldn	С	NEL
Autos:	72.	7 73	2.1		70.3		64	2	72.9	9	73.
Medium Trucks: 68.1 67.8					61.5		59	9	68.4	1	68.0
Heavy Trucks:	70.	1 6	9.9		60.9		62	2	70.	5	70.0
Vehicle Noise:	75.	5 7	5.1		71.2		67	2	75.	7	76.
Centerline Distance to No	oise Co	ntour (in feet)									
	-		7	0 dBA	1	65 0	/BA		60 dBA	55	dBA
			Ldn:								
		L	dn:		121		26	C	560		1,206

	FHV	VA-RD-77-108	HIGH\	NAY N	OISE PR	EDICTI		DEL								
Scenar Road Nam Road Segme	Scenario: OYC (2022) Road Name: Orangethorpe Av. Road Segment: e/o Raymond Av.						Project Name: Goodman Logistics Center Job Number: 13158									
SITE	SPECIFIC IN	PUT DATA				N	OISE I	NODE		s						
Highway Data				5	Site Con	ditions (Hard =	10, Sc	oft = 15)							
Average Daily	Traffic (Adt):	33,929 vehicle	es	Γ				Autos:	15							
Peak Hour	Percentage:	7.51%			Mee	dium Tru	cks (2)	Axles):	15							
Peak H	lour Volume:	2,549 vehicle	6		Hea	avy Truc	ks (3+)	Axles):	15							
Ve	hicle Speed:	45 mph			(obielo I	liv										
Near/Far La	ne Distance:	88 feet		-	Vehi	cleTvpe		Dav	Evening	Niaht	Daily					
Site Data				-		A	utos:	77.5%	12.9%	9.6%	96.36%					
Ba	rrior Hoight:	0.0 foct			Me	dium Tri	ucks:	84.8%	4.9%	10.3%	2.47%					
Barrier Type (0-M	all 1-Berm)	0.0 1001			H	leavy Tri	ucks:	86.5%	2.7%	10.8%	1.17%					
Centerline Di	st. to Barrier	50.0 feet		L.												
Centerline Dist.	to Observer:	50.0 feet		/	voise So	urce Ele	vation	s (in fe	eet)							
Barrier Distance	to Observer:	0.0 feet				Autos	: 0.	000								
Observer Height (Above Pad);	5.0 feet			Mediur	n Trucks	: 2.	297	0							
Pi	ad Elevation:	0.0 feet			Heav	y Trucks	: 8.	004	Grade Adj	ustmen	. 0.0					
Roa	ad Elevation:	0.0 feet		L	ane Equ	ivalent	Distan	ce (in i	feet)							
	Road Grade:	0.0%				Autos	: 24.	269	-		-					
	Left View:	-90.0 degree	es		Mediun	n Trucks	: 23.	902								
	Right View:	90.0 degree	es		Heav	y Trucks	: 23.	938								
FHWA Noise Mode	el Calculations	5														
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresr	nel	Barrier Att	en Be	rm Atten					
Autos:	68.46	2.06		4.61	1	-1.20		-4.65	0.0	000	0.000					
Medium Trucks:	79.45	-13.84		4.70)	-1.20		-4.87	0.0	000	0.000					
Heavy Trucks:	84.25	-17.09		4.69	9	-1.20		-5.43	0.0	000	0.000					
Unmitigated Noise	e Levels (with	out Topo and	barrie	ratten	uation)											
VehicleType	Leq Peak Hou	r Leq Day	,	Leq E	/ening	Leq N	light		Ldn	С	NEL					
Autos:	73	.9	73.3		71.5		65.	5	74.1		74.7					
Medium Trucks:	69	.1	68.8		62.5		60.9	9	69.4	ļ	69.6					
Heavy Trucks:	70	.7	70.5		61.4		62.	7	71.0)	71.2					
venicle Noise:	76	.5	76.0		72.4		68.2	2	76.7	r	77.1					
Centerline Distant	ce to Noise Co	ntour (in feet)	70	04	05	04				-10.4					
				70 C	14C	65 0	BA	1 6	ou dBA	55	1 400					
		~	Lan:		140		302		651		1,403					
		Ci	VEL:		149		322		694		1,494					

	FH	WA-RD-77-1	08 HIGI	HWAY	NOISE P	REDICTIO	N MODI	EL			
Scenarie Road Name Road Segmen	o: OYC (2022 e: Orangetho t: e/o Acacia	2) rpe Av. Av.				Project N Job Nui	lame: Go nber: 13	oodman 158	1 Logistic	s Cente	r
SITE S	PECIFIC I	NPUT DATA				NC	ISE MO	DDEL I	NPUTS	;	
Highway Data					Site Cor	nditions (H	lard = 10	0, Soft	= 15)		
Average Daily	Traffic (Adt):	33,295 vehi	cles				AL	utos:	15		
Peak Hour	Percentage:	7.51%			Me	edium Truc	ks (2 Ax	les):	15		
Peak He	our Volume:	2,501 vehic	les		He	eavy Truck	s (3+ Ax	les):	15		
Vel	nicle Speed:	45 mph			Vehicle	Mix					
Near/Far Lar	ne Distance:	88 feet			Veh	nicleType	D	ay E	vening	Night	Daily
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	96.36%
Bar	rier Heiaht:	0.0 feet			Μ	ledium Tru	cks: 84	4.8%	4.9%	10.3%	2.47%
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy Tru	cks: 8	6.5%	2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	50.0 feet			Noise S	ource Elev	ations	(in feet)		
Centerline Dist. t	o Observer:	50.0 feet				Autos:	0.00	0	/		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Trucks:	2 29	17			
Observer Height (/	Above Pad):	5.0 feet			Hea	vv Trucks:	8.00)4 Gi	rade Adji	ustment.	0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet			Lane Eq	uivalent L	Distance	(in fee	t)		
F	Road Grade:	0.0%				Autos:	24.26	39			
	Left View:	-90.0 degi	ees		Mediu	m Trucks:	23.90)2			
	Right View:	90.0 degi	ees		Hea	vy Trucks:	23.93	38			
FHWA Noise Mode	I Calculation	IS									
VehicleType	REMEL	Traffic Flow	/ Di	stance	Finite	Road	Fresnel	l Ba	rrier Atte	en Ber	m Atten
Autos:	68.46	i 1.9	8	4.6	51	-1.20	-4	4.65	0.0	00	0.000
Medium Trucks:	79.45	-13.9	12	4.1	70	-1.20	-4	1.87	0.0	00	0.000
Heavy Trucks:	84.25	-17.1	8	4.6	59	-1.20	-5	5.43	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo an	d barri	er atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq D	ay	Leq E	vening	Leq N	ight	Lo	dn	CI	VEL
Autos:	73	3.8	73.2		71.4		65.4		74.0		74.6
Medium Trucks:	69	9.0	68.8		62.4		60.9		69.3		69.6
Heavy Trucks:	7(0.6	70.4		61.4		62.6		71.0		71.1
Vehicle Noise:	76	6.4	75.9		72.3		68.1		76.6		77.1
Centerline Distance	e to Noise C	ontour (in fe	et)								
			Į	70	dBA	65 dE	BA	60 0	dBA	55	dBA
			Ldn:		139		298		643		1,385
			CNEL:		148		318		685		1,476

	FHV	VA-RD-77-108	HIGHW	AY NO	DISE PF	REDICTI	ON MOL	DEL				
Scenari Road Nam	o: OYC (2022) e: Orangethor		Project Name: Goodman Logistics Center Job Number: 13158									
Road Segmer	nt: e/o Dwy. 6											
SITES	SPECIFIC IN	PUT DATA				N	OISE N	IODE		S		
Highway Data				S	ite Con	ditions	(Hard =	10, So	oft = 15)			
Average Daily	Traffic (Adt):	33,295 vehicle	s				A	Autos:	15			
Peak Hour	Percentage:	7.51%			Me	dium Tru	ıcks (2 A	xles):	15			
Peak H	our Volume:	2,501 vehicles	6		He	avy Truc	cks (3+ A	xles):	15			
Vel	hicle Speed:	45 mph		V	ehicle I	<i>lix</i>						
Near/Far Lar	ne Distance:	88 feet		-	Vehi	cleType		Day	Evening	Night	Daily	
Site Data						A	Autos:	77.5%	12.9%	9.6%	96.36%	
Bar	rier Height:	0.0 feet			Me	edium Ti	ucks:	84.8%	4.9%	10.3%	2.47%	
Barrier Type (0-W	all. 1-Berm):	0.0			ŀ	leavy Tr	ucks:	86.5%	2.7%	10.8%	1.17%	
Centerline Dis	st. to Barrier:	50.0 feet										
Centerline Dist.	to Observer:	50.0 feet		N	oise So	urce El	evations	in te	et)			
Barrier Distance	to Observer:	0.0 feet				Autos	s: 0.0	00				
Observer Height (J	Above Pad):	5.0 feet			Mediur	n Truck	s: 2.2	97	Crada Ad	i colmont		
Pa	Pad Elevation: 0.0 feet						s: 8.0	104	Grade Auj	usunen.	0.0	
Roa	ad Elevation:	0.0 feet		La	ane Equ	ıivalent	Distanc	e (in f	eet)			
F	Road Grade:	0.0%				Autos	s: 24.2	269				
	Left View:	-90.0 degree	s		Mediur	n Truck	s: 23.9	902				
	Right View:	90.0 degree	es		Heav	y Truck	s: 23.9	938				
FHWA Noise Mode	el Calculation:	5										
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten	
Autos:	68.46	1.98		4.61		-1.20		4.65	0.0	000	0.000	
Medium Trucks:	79.45	-13.92		4.70		-1.20		4.87	0.0	000	0.000	
Heavy Trucks:	84.25	-17.18		4.69		-1.20		-5.43	0.0	000	0.000	
Unmitigated Noise	Levels (with	out Topo and	barrier a	attenu	ation)							
VehicleType	Leq Peak Hou	r Leq Day	L	eq Eve	ening	Leq	Night		Ldn	CI	VEL	
Autos:	73	.8	73.2		71.4		65.4		74.0)	74.6	
Medium Trucks:	69	.0	68.8		62.4		60.9		69.3	3	69.6	
Heavy Trucks:	70	.6	70.4		61.4		62.6		71.0)	71.1	
Vehicle Noise:	76	.4	75.9		72.3		68.1		76.6	6	77.1	
Centerline Distanc	e to Noise Co	ntour (in feet))	70 "	D.4	07	10.4		0 -10 4		-10.4	
			ட	70 dł	3A	65 (JBA 000	6	U dBA	55	aBA 4 005	
			Ldn:			139 298 643			1 385			
		0	Lan:		139		298		040		4 470	

Friday, May 15, 2020

F	HWA-R	D-77-108 I	HIGHV	VAY N	IOISE PF	REDICTI	ION MO	DEL			
Scenario: OYC (20 Road Name: Oranget Road Segment: e/o Dwy.	22) horpe Av 10	v.				Project Job N	Name: umber:	Goodr 13158	nan Logistic	s Cent	ter
SITE SPECIFIC	INPUT	DATA				N	OISE N	/IODE	L INPUTS	;	
Highway Data				3	Site Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily Traffic (Adt)	: 33,0	23 vehicles	3					Autos.	: 15		
Peak Hour Percentage	: 7.5	1%			Me	dium Tru	ucks (2 /	Axles).	: 15		
Peak Hour Volume	: 2,48	1 vehicles			Hea	avy Truc	cks (3+ /	Axles).	: 15		
Vehicle Speed	: 4	5 mph		1	/ohiclo I	<i>Ni</i> v					
Near/Far Lane Distance	: 8	8 feet		-	Venicie i	cleTvpe		Dav	Evenina	Niaht	Dailv
Site Data							Autos:	77.5%	6 12.9%	9.6%	6 96.36%
Barrier Height	. (0 feet			Me	dium Ti	rucks:	84.8%	6 4.9%	10.39	6 2.47%
Barrier Type (0-Wall, 1-Berm		0.0			F	leavy Ti	rucks:	86.5%	6 2.7%	10.8%	6 1.17%
Centerline Dist. to Barrie	: 50	0.0 feet		-	Naina Ca	uree El	ovetion	o (in f	o o fi		
Centerline Dist. to Observe	: 50).0 feet		'	voise 30	urce Er	evalion	<u>s (III I</u>	eel)		
Barrier Distance to Observe	: 0).0 feet				Auto	S: 0.0	000			
Observer Height (Above Pad)	: 5	5.0 feet			Hoov	n Truck	5. Z	297	Grado Adi	untmor	±+ 0.0
Pad Elevation	: C).0 feet			neav	y muck	s. o.	004	Graue Auji	JSUIICI	<i>n</i> . 0.0
Road Elevation	: C).0 feet		1	Lane Equ	iivalent	Distan	ce (in	feet)		
Road Grade	: 0.0	1%				Auto	s: 24.	269			
Left View	: -90	0.0 degrees	6		Mediur	n Truck	s: 23.	902			
Right View	: 90	0.0 degrees	6		Heav	y Truck	s: 23.	938			
FHWA Noise Model Calculati	ons										
VehicleType REMEL	Tra	ffic Flow	Dista	ance	Finite	Road	Frest	iel	Barrier Atte	en Be	erm Atten
Autos: 68.	46	1.95		4.6	1	-1.20		-4.65	0.0	00	0.00
Medium Trucks: 79.	45	-13.96		4.70	0	-1.20		-4.87	0.0	00	0.00
Heavy Trucks: 84.	25	-17.21		4.69	9	-1.20		-5.43	0.0	00	0.00
Unmitigated Noise Levels (w	thout T	opo and b	arrier	atten	uation)						
VehicleType Leq Peak H	lour	Leq Day	1	Leq Ev	vening	Leq	Night		Ldn	(ONEL
Autos:	73.8	7	3.2		71.4		65.3	3	74.0		74.0
Medium Trucks:	69.0	6	8.7		62.4		60.8	3	69.3		69.
Heavy Trucks:	70.5	7	0.4		61.3		62.6	6	70.9		71.
Vehicle Noise:	76.4	7	5.9		72.3		68.1		76.6		77.0
Centerline Distance to Noise	Contou	ır (in feet)									
		-		70 c	/BA	65	dBA		60 dBA	5	5 dBA
		L	.dn:	-	138		297		639		1,378

	FHV	NA-RD-77-108	HIGHW	AY NO	DISE PF	REDICTI	ON MOI	DEL					
Scenari Road Nam Road Segmei	io: OYC (2022 ie: Orangethor nt: w/o N. State) 'pe Av. e College Bl.		Project Name: Goodman Logistics Center Job Number: 13158									
SITE	SPECIFIC IN	IPUT DATA				N	OISE N	IODE	L INPUT	S			
Highway Data				S	ite Con	ditions	(Hard =	10, Sc	oft = 15)				
Average Daily	Traffic (Adt):	33,023 vehicle	s				,	Autos:	15				
Peak Hour	Percentage:	7.51%			Me	dium Tru	icks (2 A	xles):	15				
Peak H	lour Volume:	2,481 vehicles			He	avy Truc	cks (3+ A	(xles):	15				
Ve	hicle Speed:	45 mph				#1							
Near/Far La	ne Distance:	88 feet		V	Vohi	aloTypo		Dav	Evoning	Night	Daily		
Sito Data				_	Veni	cierype	lutos:	Day 77 5%	12.0%	0.6%	06.26%		
Sile Dala					Ma	r dium Tr	unos.	84.8%	12.5%	10.3%	2 47%		
Bai	rrier Height:	0.0 feet			L.	loovi Tr	ucks:	86.5%	2.7%	10.0%	1 17%		
Barrier Type (0-W	all, 1-Berm):	0.0			,	icavy ii	ucho.	00.070	2.170	10.070	1.1770		
Centerline Dis	st. to Barrier:	50.0 feet		N	loise So	urce El	evations	s (in fe	eet)				
Centerline Dist.	to Observer:	0.0 feet				Autos	s: 0.0	000					
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks	s: 2.2	297					
Observer Height (Above Pad):			Heav	y Trucks	s: 8.0	004	Grade Ad	iustment	: 0.0			
Pa	ad Elevation:	0.0 feet			ane Foi	ivalent	Distanc	e (in i	feet)				
Rue	Bood Crodo:	0.0 1001		-	uno Equ	Autor	24	260	001)				
	L oft Viow:	0.0%	c .		Modiur	n Trucks	5. 24. s. 23.0	203					
	Len View.	-90.0 degree	5		Hoav	v Trucks	5. 20. s· 23.0	338					
	ragin view.	50.0 degree	5		neav	y maone	J. 20.	500					
FHWA Noise Mode	el Calculation	s											
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresn	el	Barrier Att	en Bei	rm Atten		
Autos:	68.46	1.95		4.61		-1.20		-4.65	0.0	000	0.000		
Medium Trucks:	79.45	-13.96		4.70		-1.20		-4.87	0.0	000	0.000		
Heavy Trucks:	84.25	-17.21		4.69		-1.20		-5.43	0.0	000	0.000		
Unmitigated Noise	e Levels (with	out Topo and I	barrier a	ttenu	uation)								
VehicleType	Leq Peak Hou	ur Leq Day	Le	eq Eve	ening	Leq	Night		Ldn	C	NEL		
Autos:	73	1.8	73.2		71.4		65.3	1	74.0)	74.6		
Medium Trucks:	69	.0 (68.7		62.4		60.8		69.3	3	69.5		
Heavy Trucks:	70).5	70.4		61.3		62.6	;	70.9	9	71.1		
Vehicle Noise:	76	6.4	75.9		72.3		68.1		76.6	6	77.0		
Centerline Distance	ce to Noise Co	ontour (in feet)											
		,		70 dl	BA	65 0	dBA	e	0 dBA	55	dBA		
		1	dn:		138		297		639		1,378		
	Lan: CNEL:						147 316 681 1,4						

	FH\	NA-RD-77-108	BHIGHW	AY NC	DISE PR	EDICTIO	N MOD	EL				
Scenar Road Nam Road Segme	io: OYC (2022 ie: Orangetho nt: e/o N. Stati	!) rpe Av. e College Bl.				Project N Job Nur	lame: G nber: 13	oodm 3158	an Logistic	s Cente	r	
SITE	SPECIFIC IN	IPUT DATA				NC	ISE M	ODEI		5		
Highway Data				Si	te Cond	ditions (H	lard = 1	0, So	ft = 15)			
Average Daily	Traffic (Adt):	31,981 vehicl	es				Α	utos:	15			
Peak Hour	Percentage:	7.51%			Med	dium Truc	ks (2 A)	kles):	15			
Peak H	lour Volume:	2,402 vehicle	s		Hea	avy Truck	s (3+ A)	kles):	15			
Ve	hicle Speed:	45 mph		V	ehicle N	lix						
Near/Far La	ne Distance:	88 feet			Vehi	cleType	Ľ	Day	Evening	Night	Daily	
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	96.36%	
Bai	rrier Heiaht:	0.0 feet			Me	dium Tru	cks: 8	4.8%	4.9%	10.3%	2.47%	
Barrier Type (0-W	all, 1-Berm):	0.0			H	leavy Tru	cks: 8	6.5%	2.7%	10.8%	1.17%	
Centerline Di	st. to Barrier:	50.0 feet		N	nise So	urce Elev	ations	(in fe	et)			
Centerline Dist.	to Observer:	50.0 feet		-	0.00 00	Autos:	0.00	00	017			
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks:	2.29	97				
Observer Height (Above Pad):	5.0 feet			Heav	v Trucks:	8.00	D4	Grade Adj	ustment	0.0	
Pa	ad Elevation:	0.0 feet			_							
Roa	ad Elevation:	0.0 feet		Lä	ane Equ	iivalent L	vistance	e (IN 1	eet)			
	Road Grade:	0.0%				Autos:	24.2	69				
	Left View:	-90.0 degre	es		Mealun	n Trucks:	23.9	02				
	Right view:	90.0 degre	es		neav	y mucks.	23.9	38				
FHWA Noise Mode	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	e/ 1	Barrier Atte	en Ber	m Atten	
Autos:	68.46	1.81		4.61		-1.20		4.65	0.0	00	0.000	
Medium Trucks:	79.45	-14.10		4.70		-1.20		4.87	0.0	00	0.000	
Heavy Trucks:	84.25	-17.35		4.69		-1.20	-	5.43	0.0	00	0.000	
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	ation)							
VehicleType	Leq Peak Ho	ur Leq Da	y L	.eq Eve	ening	Leq N	ight		Ldn	C	VEL	
Autos:	73	3.7	73.0		71.3		65.2		73.8		74.4	
Medium Trucks:	68	3.9	68.6		62.2		60.7		69.1		69.4	
Heavy Trucks:	70).4	70.2		61.2		62.4		70.8		70.9	
Vehicle Noise:	76	5.2	75.8		72.1		67.9		76.5		76.9	
Centerline Distant	ce to Noise Co	ontour (in fee	t)									
				70 dE	BA	65 dE	BA	6	0 dBA	55	dBA	
			Ldn:	135 291 626				1,348				
	CNEL:						144 310 667 1,4					

	FHV	VA-RD-77-108	HIGHV	AY NO	DISE PR	EDICTI	ON MOL	DEL			
Scenari	o: OYC (2022))				Project	Name: C	Goodm	ian Logisti	cs Cente	r
Road Nam	e: Orangethor	pe Av.				Job N	umber: 1	3158			
Road Segmer	It: W/0 S. Place	entia Av.									
SITE S	SPECIFIC IN	PUT DATA				N	OISE N	ODE	LINPUT	S	
Highway Data				S	ite Conc	ditions	Hard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	30,514 vehicle	s				A	lutos:	15		
Peak Hour	Percentage:	7.51%			Med	dium Tru	icks (2 A	xles):	15		
Peak H	our Volume:	2,292 vehicles			Hea	avy Truc	:ks (3+ A	xles):	15		
Vel	hicle Speed:	45 mph		V	ehicle N	lix					
Near/Far Lar	ne Distance:	88 feet			Vehic	cleType	1	Day	Evening	Night	Daily
Site Data						A	lutos:	77.5%	12.9%	9.6%	96.36%
Bar	rier Heiaht:	0.0 feet			Me	edium Ti	ucks:	34.8%	4.9%	10.3%	2.47%
Barrier Type (0-W	all, 1-Berm):	0.0			н	leavy Ti	ucks:	36.5%	2.7%	10.8%	1.179
Centerline Dis	t. to Barrier:	50.0 feet			oiso So	urco El	ovations	(in fe	(of)		
Centerline Dist.	to Observer:	50.0 feet		74	0136 30	Auto		00	ei)		
Barrier Distance	to Observer:	0.0 feet			Madium	AUIO	s. 0.0	00			
Observer Height (J	Above Pad):	5.0 feet			Hoove	Truck	s. 2.2	97	Grada Ad	iustmont	0.0
Pa	d Elevation:	0.0 feet			neav	y mucks	s. o.u	04	Orade Adj	usunon.	0.0
Roa	d Elevation:	0.0 feet		L	ane Equ	iivalent	Distanc	e (in f	eet)		
F	Road Grade:	0.0%				Autos	3: 24.2	69			
	Left View:	-90.0 degree	s		Mediun	n Truck	s: 23.9	02			
	Right View:	90.0 degree	s		Heavy	y Trucks	8: 23.9	38			
FHWA Noise Mode	Calculations	5									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite I	Road	Fresn	el 🛛	Barrier Att	en Ber	m Atten
Autos:	68.46	1.60		4.61		-1.20		4.65	0.0	000	0.00
Medium Trucks:	79.45	-14.30		4.70		-1.20		4.87	0.0	000	0.00
Heavy Trucks:	84.25	-17.56		4.69		-1.20		5.43	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	l	eq Ev	əning	Leq	Night		Ldn	CI	VEL
Autos:	73.	.5	72.8		71.0		65.0		73.6	6	74.
Medium Trucks:	68.	.7	58.4		62.0		60.5		68.9)	69.
Heavy Trucks:	70.	.2	70.0		61.0		62.2		70.6	3	70.
Vehicle Noise:	76.	.0	75.6		71.9		67.7		76.3	3	76.
Centerline Distanc	e to Noise Co	ntour (in feet)		70 4	04	05	10.4		0 -00 4		-/0.4
				70 di	3A 121	65 (JBA 2000	6	U aBA	55	4 207
			_dn:		131		282		607		1,307
		~	151.		400		200		0.40		4 000

Friday, May 15, 2020

Fi	HWA-F	RD-77-108	HIGI	HWAY	NOI	ISE PI	REDICT	ION M	ODE	L				
Scenario: OYC (20) Road Name: Orangeth Road Segment: e/o S. Pla	22) Iorpe A acentia	NV. I AV.					Projeci Job N	t Name lumbe	e: Go r: 13 [.]	odm I 58	ian Li	ogisti	cs Cent	er
SITE SPECIFIC	INPU'	T DATA					r	IOISE	MO	DE	L INI	PUT	s	
Highway Data					Sit	e Con	ditions	(Hard	= 10	, So	ft = 1	5)		
Average Daily Traffic (Adt):	33,4	419 vehicle	s						Au	tos:	15	5		
Peak Hour Percentage	7.	51%				Me	dium Tr	ucks (.	2 Axl	es):	15	5		
Peak Hour Volume:	2,5	10 vehicles				He	avy Tru	cks (3	+ Axl	es):	15	5		
Vehicle Speed:		45 mph			1/-	hists i								
Near/Far Lane Distance:		98 feet			vei	Nob	VIIX		Dr		Evo	aina	Night	Daily
Sito Data						ven	icie i ype	Autos	77	5%	12	0%	0.6%	Dally
						14	odium T	nucke:	8/	.0%	12	Q%	10.3%	50.007
Barrier Height		0.0 feet					Hoovy T	rucke:	86	5%	2	7%	10.07	5 2.477
Barrier Type (U-Wall, 1-Berm).		0.0					icavy i	rucks.	00	.070	-		10.07	0 1.177
Centenine Dist. to Barrier.	. 0	0.0 feet			No	ise So	ource E	levatio	ons (i	n fe	et)			
Centerline Dist. to Observer.	0	0.0 feet					Auto	s:	0.000)				
Barrier Distance to Observer.		0.0 feet			- 1	Mediu	m Truck	s:	2.291	7				
Observer Height (Above Pad).		5.0 feet				Heav	y Truck	s:	8.004	ŧ.	Grad	le Adj	justmer	t: 0.0
Pad Elevation.		0.0 feet			1 21	no Fa	uivələn	t Diets	nco	(in f	oot)			
Road Elevation.		0.0 Teel			Lai	ne Ly	Auto		4 0.00	2	001)			
Road Grade.	0.	070 0.0 degree				Modiu	m Truck	0. U	4.30	2				
Right View.	-9	0.0 degree 0.0 degree	s		,	Heav	y Truck	is: 3	4.75	7				
FHWA Noise Model Calculatio	ons													
VehicleType REMEL	Tra	affic Flow	Di	stance		Finite	Road	Fre	snel		Barrie	er Atte	en Be	rm Atten
Autos: 68.4	16	2.00		2.2	22		-1.20		-4.	69		0.0	000	0.00
Medium Trucks: 79.4	15	-13.90		2.2	27		-1.20		-4	88		0.0	000	0.00
Heavy Trucks: 84.2	25	-17.16		2.2	27		-1.20		-5	34		0.0	000	0.00
Unmitigated Noise Levels (wi	thout	Topo and <i>b</i>	barri	er atte	nua	tion)								
VehicleType Leq Peak H	lour	Leq Day		Leq E	Ever	ning	Leq	Night			Ldn		0	NEL
Autos:	71.5	7	70.8			69.1		6	3.0			71.6	3	72.
Medium Trucks:	66.6	6	6.3			60.0		5	3.4			66.9	9	67.
Heavy Trucks:	68.2	6	6.8			58.9		6).2			68.5	5	68.
Vehicle Noise:	74.0	7	73.6			69.9		6	5.7			74.2	2	74.
Centerline Distance to Noise	Conto	ur (in feet)		70	aD	٨	6E	dDA		6	o de	٨	5	
		,	day	70	uB/	115	60	UDA 2	10	0	U dBi	4 E 2 E	5	1 1 E
			_an: IEI -			110		2	+0 34			570		1,152
		Ch	ILL.			123		2	J4			570		1,220

	FH\	WA-RD-77-108	HIGHWA	Y NOISE P	REDICTIO	N MODEL			
Scenar Road Nam Road Segme	io: OYC (2022 ie: Orangethor nt: e/o SR-57	!) rpe Av. Southbound Rai	nps		Project N Job Nur	ame: Good nber: 1315	lman Logistic 8	s Center	
SITE	SPECIFIC IN	IPUT DATA			NO	ISE MOD	EL INPUTS	5	
Highway Data				Site Con	ditions (H	ard = 10, S	Soft = 15)		
Average Daily	Traffic (Adt):	36,686 vehicle	s			Auto	s: 15		
Peak Hour	Percentage:	7.51%		Me	dium Truci	ks (2 Axles): 15		
Peak H	lour Volume:	2,756 vehicles		He	avy Trucks	s (3+ Axles): 15		
Ve	hicle Speed:	45 mph		Vehicle	Mix				
Near/Far La	ne Distance:	98 feet		Venicle	icleType	Dav	Evening	Night	Dailv
Site Data					Au	tos: 77.5	% 12.9%	9.6% 9	96.36%
Ba	rrier Height	0.0 feet		М	edium Truc	cks: 84.8	% 4.9%	10.3%	2.47%
Barrier Type (0-W	all. 1-Berm):	0.0			Heavy Truc	ks: 86.5	% 2.7%	10.8%	1.17%
Centerline Di	st. to Barrier:	60.0 feet		Noiso S	ourco Elov	ations (in	foot)		
Centerline Dist.	to Observer:	60.0 feet		10136 3	Autos:	0.000	ieel)		
Barrier Distance	to Observer:	0.0 feet		Modiu	m Trucks	2 207			
Observer Height (Above Pad):	5.0 feet		Hoo	a Trucks:	2.237	Grada Adi	ustmont (0
Pi	ad Elevation:	0.0 feet		nea	vy mucks.	0.004	erade ridji	douniont. (
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent D	istance (ir	n feet)		
	Road Grade:	0.0%			Autos:	34.986			
	Left View:	-90.0 degree	s	Mediu	m Trucks:	34.732			
	Right View:	90.0 degree	S	Hea	vy Trucks:	34.757			
FHWA Noise Mode	el Calculation	s							
VehicleType	REMEL	Traffic Flow	Distanc	e Finite	Road	Fresnel	Barrier Atte	en Berm	Atten
Autos:	68.46	2.40		2.22	-1.20	-4.69	9 0.0	00	0.000
Medium Trucks:	79.45	-13.50	:	2.27	-1.20	-4.88	3 0.0	00	0.000
Heavy Trucks:	84.25	-16.76	:	2.27	-1.20	-5.34	4 0.0	00	0.000
Unmitigated Noise	e Levels (with	out Topo and I	arrier at	tenuation)					
VehicleType	Leq Peak Hou	ur Leq Day	Leo	l Evening	Leq Ni	ght	Ldn	CNE	EL
Autos:	71	1.9 7	'1.2	69.5		63.4	72.0		72.6
Medium Trucks:	67	7.0 6	6.8	60.4		58.8	67.3		67.5
Heavy Trucks:	68	3.6 6	68.4	59.3		60.6	69.0		69.1
Vehicle Noise:	74	1.4 7	4.0	70.3		66.1	74.7		75.1
Centerline Distant	ce to Noise Co	ontour (in feet)							
			1	70 dBA	65 dB	A	60 dBA	55 d	BA
		1	.dn:	123		264	569		1,226
		CN	IEL:	131		281	606		1,306

	FH	WA-RD-77-10	8 HIGH	IWAY N	DISE P	REDICTIO	N MOD	EL			
Scenario Road Name Road Segmen	b: OYC (2022 e: Orangetho t: e/o SR-57	2) rpe Av. Northbound F	amps			Project N Job Nui	lame: G nber: 13	oodma 3158	in Logistic	s Cente	r
SITE S	PECIFIC IN	VPUT DATA				NC	ISE M	ODEL	INPUTS	;	
Highway Data				s	ite Cor	nditions (H	lard = 1	0, Soft	t = 15)		
Average Daily 1	raffic (Adt):	38,133 vehic	les				A	utos:	15		
Peak Hour I	Percentage:	7.51%			Me	edium Truc	ks (2 A)	kles):	15		
Peak Ho	our Volume:	2,865 vehicl	es		He	eavy Truck	s (3+ A)	des):	15		
Veh	icle Speed:	45 mph		v	ehicle	Mix					
Near/Far Lan	e Distance:	98 feet		-	Veh	icleType	Ľ	Day E	Evening	Night	Daily
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	96.36%
Bar	rier Height:	0.0 feet			Μ	ledium Tru	cks: 8	4.8%	4.9%	10.3%	2.47%
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy Tru	cks: 8	6.5%	2.7%	10.8%	1.17%
Centerline Dis	t. to Barrier:	60.0 feet		A	loise S	ource Elev	ations	(in fee	t)		
Centerline Dist. t	o Observer:	60.0 feet		-	0.00 0	Autos:	0.00	0	9		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Trucks:	2.29	97			
Observer Height (A	Above Pad):	5.0 feet			Hea	vv Trucks:	8.00	04 G	Grade Adji	ustment	: 0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalent L	vistance	e (in te	et)		
6	load Grade:	0.0%			Marth	Autos:	34.9	86			
	Left View:	-90.0 degr	ees		Mediu	m Trucks:	34.7	32			
	Right view:	90.0 degr	ees		пеа	vy mucks.	34.7	57			
FHWA Noise Mode	I Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresne	el B	arrier Atte	en Ber	m Atten
Autos:	68.46	2.5	7	2.22		-1.20		4.69	0.0	00	0.000
Medium Trucks:	79.45	-13.3	3	2.27		-1.20	-	4.88	0.0	00	0.000
Heavy Trucks:	84.25	-16.5	9	2.27		-1.20	-	5.34	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo an	d barrie	er attenu	ation)	r.					
VehicleType	Leq Peak Ho	ur Leq Da	ay	Leq Ev	ening	Leq N	ight	L	dn	CI	VEL
Autos:	72	2.1	71.4		69.6		63.6		72.2		72.8
Medium Trucks:	67	7.2	66.9		60.6		59.0		67.5		67.7
Heavy Trucks:	68	8.7	68.6		59.5		60.8		69.1		69.2
Venicle Noise:	14	4.6	74.1		70.5		66.3		74.8		75.2
Centerline Distance	e to Noise C	ontour (in fee	et)	70 ~	DA	65 4	- A	60	dBA	FF	dBA
			I dn	70 U	126	05 02	271	00	584	55	1 258
			ONEL ·		120		289		622		1,200
			JIVEL.		154		203		022		1,340

	FHW	/A-RD-77-108	HIGHW	AY NC	DISE PF	REDICTIC	N MODE	EL			
Scenari Road Nam Road Segmer	o: OYCP (2022 e: Raymond Av nt: n/o Kimberly	2) /. / Av.				Project N Job Nu	lame: Go mber: 13	odma 158	n Logistio	cs Cente	r
SITE	SPECIFIC IN	PUT DATA				NC	ISE MC	DEL	INPUT	s	
Highway Data				Si	ite Con	ditions (H	lard = 10), Soft	= 15)		
Average Daily Peak Hour Peak H	Traffic (Adt): Percentage: our Volume:	24,706 vehicle 7.51% 1,856 vehicles	s		Me Hei	dium Truc avy Truck	Au ks (2 Axi s (3+ Axi	itos: les): les):	15 15 15		
Ve	hicle Speed:	40 mph		14	obiele I	liv	-				
Near/Far La	ne Distance:	53 feet		Ve	Vehi	icleTvpe	Di	av F	venina	Niaht	Dailv
Site Data						AL	itos: 77	7.5%	12.9%	9.6%	96.37%
Bai	rior Hoight	0.0 feet			Me	edium Tru	cks: 84	1.8%	4.9%	10.3%	2.46%
Barrier Type (0-W	all. 1-Berm):	0.0			ŀ	leavy Tru	cks: 86	6.5%	2.7%	10.8%	1.16%
Centerline Dis	st. to Barrier:	42.0 feet		A/	oioo Co	uree Ele	(ationa (in foo	4)		
Centerline Dist.	to Observer:	42.0 feet		///	oise so	Autoor		0	9		
Barrier Distance	to Observer:	0.0 feet			Modium	Autos.	0.00	7			
Observer Height (Above Pad):	5.0 feet			Hoov	II TTUCKS.	2.29	1	ade Ad	iustment	0.0
Pa	ad Elevation:	0.0 feet			neav	y mucks.	0.00	4 0	nauc Auj	usunoni	0.0
Roa	ad Elevation:	0.0 feet		Lá	ane Equ	uivalent I	Distance	(in fe	et)		
I	Road Grade:	0.0%				Autos:	32.96	6			
	Left View:	-90.0 degree	s		Mediur	n Trucks:	32.69	6			
	Right View:	90.0 degree	es		Heav	y Trucks:	32.72	3			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Distar	се	Finite	Road	Fresnel	В	arrier Atte	en Ber	m Atten
Autos:	66.51	1.20		2.61		-1.20	-4	.60	0.0	000	0.000
Medium Trucks:	77.72	-14.73		2.66		-1.20	-4	.87	0.0	000	0.000
Heavy Trucks:	82.99	-17.98		2.66		-1.20	-5	.53	0.0	000	0.000
Unmitigated Noise	Levels (witho	ut Topo and	barrier a	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	· L	eq Eve	ening	Leq N	ight	L	.dn	CI	VEL
Autos:	69.	1	68.5		66.7		60.6		69.3	3	69.9
Medium Trucks:	64.	5	64.2		57.8		56.3		64.7	7	65.0
Heavy Trucks:	66.	5	66.3		57.3		58.5		66.9)	67.0
Vehicle Noise:	71.	9	71.4		67.6		63.6		72.1		72.5
Centerline Distanc	e to Noise Co	ntour (in feet,)								
Centerline Distanc	e to Noise Co	ntour (in feet,		70 dE	BA	65 dl	BA	60	dBA	55	dBA
Centerline Distanc	e to Noise Co	ntour (in feet,	Ldn:	70 dE	BA 58	65 dl	BA 125	60	<i>dBA</i> 270	55	<i>dBA</i> 581

Friday, May 15, 2020

FHWA-R	D-77-108 HIGH	VAY NOIS	E PREDICT	ON MODEL		
Scenario: OYCP (2022) Road Name: Raymond Av. Road Segment: s/o Kimberly Av.			Project Job N	Name: Good umber: 1315	lman Logistics 8	Center
SITE SPECIFIC INPUT	DATA		N	OISE MOD	EL INPUTS	
Highway Data		Site	Conditions	(Hard = 10, 3	Soft = 15)	
Average Daily Traffic (Adt): 24,9	87 vehicles			Auto	s: 15	
Peak Hour Percentage: 7.5	1%		Medium Tru	icks (2 Axles): 15	
Peak Hour Volume: 1,87	7 vehicles		Heavy True	cks (3+ Axles): 15	
Vehicle Speed: 4	0 mph	Vohi	olo Mix			
Near/Far Lane Distance: 5	3 feet	veni	VehicleTyne	Dav	Evening N	light Daily
Site Data			/	utos: 77.5	% 12.9%	9.6% 96.37%
Barrior Hoight:	0 foot		Medium T	ucks: 84.8	% 4.9% 1	0.3% 2.46%
Barrier Type (0-Wall 1-Berm): (Heavy Ti	ucks: 86.5	% 2.7% 1	0.8% 1.16%
Centerline Dist. to Barrier: 42	2.0 feet					
Centerline Dist. to Observer: 42	2.0 feet	Nois	e Source El	evations (in	feet)	
Barrier Distance to Observer: ().0 feet		Auto	s: 0.000		
Observer Height (Above Pad):	5.0 feet	Me	edium Truck	s: 2.297	Out de Adius	(man 1 0 0
Pad Elevation:	0.0 feet		Heavy Truck	s: 8.004	Grade Adjus	tment: 0.0
Road Elevation: 0	0.0 feet	Lane	e Equivalent	Distance (ii	1 feet)	
Road Grade: 0.0	1%		Auto	s: 32.966		
Left View: -90).0 degrees	Me	edium Truck	s: 32.696		
Right View: 90	0.0 degrees	ŀ	Heavy Truck	32.723		
FHWA Noise Model Calculations						
VehicleType REMEL Tra	ffic Flow Dist	ance Fi	inite Road	Fresnel	Barrier Atten	Berm Atten
Autos: 66.51	1.25	2.61	-1.20	-4.6	0.000	0.00
Medium Trucks: 77.72	-14.68	2.66	-1.20	-4.8	7 0.000	0.00
Heavy Trucks: 82.99	-17.93	2.66	-1.20	-5.5	3 0.000	0.00
Unmitigated Noise Levels (without 1	opo and barrier	attenuatio	on)			
VehicleType Leq Peak Hour	Leq Day	Leq Evenir	ng Leq	Night	Ldn	CNEL
Autos: 69.2	68.5	6	66.7	60.7	69.3	69.9
Medium Trucks: 64.5	64.2	Ę	57.9	56.3	64.8	65.0
Heavy Trucks: 66.5	66.3	ŧ	57.3	58.6	66.9	67.0
Vehicle Noise: 71.9	71.5	6	67.7	63.7	72.2	72.0
Centerline Distance to Noise Contou	ır (in feet)					
		70 dBA	65	dBA	60 dBA	55 dBA
	Ldn:		59	126	272	586

FHWA-	RD-77-108 HIGI	HWAY N	IOISE PR	EDICTIO	N MODEL		
Scenario: OYCP (2022) Road Name: Raymond Av. Road Segment: s/o Orangethor	pe Av.			Project N Job Nur	lame: Good mber: 1315	lman Logistic 8	s Center
SITE SPECIFIC INPU	T DATA			NO	ISE MOD	EL INPUTS	
Highway Data		-	Site Con	ditions (H	lard = 10, \$	Soft = 15)	
Average Daily Traffic (Adt): 31,	334 vehicles				Auto	s: 15	
Peak Hour Percentage: 7.	51%		Mee	dium Truc	ks (2 Axles): 15	
Peak Hour Volume: 2,3	54 vehicles		Hea	avy Truck	s (3+ Axles	:): 15	
Vehicle Speed:	40 mph	-	Vohiclo I	liv			
Near/Far Lane Distance:	53 feet	H-	Venicie i Vehi	cleTvne	Dav	Evening	Night Daily
Site Data			1011	Au	itos: 77.5	% 12.9%	9.6% 96.25%
Barrior Hoight	0.0 foot		Me	dium Tru	cks: 84.8	% 4.9%	10.3% 2.52%
Barrier Type (0-Wall 1-Berm):	0.0 1001		E	leavy Tru	cks: 86.5	% 2.7%	10.8% 1.24%
Centerline Dist. to Barrier:	12.0 feet	- L					
Centerline Dist. to Observer:	12.0 feet	1	Noise So	urce Elev	ations (in	teet)	
Barrier Distance to Observer:	0.0 feet			Autos:	0.000		
Observer Height (Above Pad):	5.0 feet		Mediur	n Trucks:	2.297	Ora da Arti	
Pad Elevation:	0.0 feet		Heav	y Trucks:	8.004	Grade Adji	Istment: 0.0
Road Elevation:	0.0 feet	1	Lane Equ	ivalent D	Distance (ii	ı feet)	
Road Grade: 0	.0%			Autos:	32.966		
Left View: -9	0.0 degrees		Mediur	n Trucks:	32.696		
Right View: 9	0.0 degrees		Heav	y Trucks:	32.723		
FHWA Noise Model Calculations		-					
VehicleType REMEL Tr	affic Flow Di	stance	Finite	Road	Fresnel	Barrier Atte	n Berm Atten
Autos: 66.51	2.23	2.6	1	-1.20	-4.6	0.0	00 0.000
Medium Trucks: 77.72	-13.60	2.6	6	-1.20	-4.8	7 0.0	00 0.000
Heavy Trucks: 82.99	-16.68	2.6	6	-1.20	-5.5	3 0.0	00 0.000
Unmitigated Noise Levels (without	Topo and barri	ier atten	uation)				
VehicleType Leq Peak Hour	Leq Day	Leq E	vening	Leq Ni	ight	Ldn	CNEL
Autos: 70.1	69.5		67.7		61.7	70.3	70.9
Medium Trucks: 65.6	65.3		58.9		57.4	65.9	66.1
Heavy Trucks: 67.8	67.6		58.6		59.8	68.2	68.3
Vehicle Noise: 73.0	72.6		68.7		64.7	73.2	73.6
Centerline Distance to Noise Conto	our (in feet)						
		70 c	dBA	65 dE	BA	60 dBA	55 dBA
	Ldn:		69		149	321	691
	CNEL:		73		158	341	734

	FH	WA-RD-77-108	BHIGHW	AY NC	DISE PI	REDICTIO	N MOI	DEL			
Scenarie Road Name Road Segmen	o: OYCP (202 e: Raymond / it: s/o SR-91	22) Av. Westbound Ra	imps			Project N Job Nur	ame: (nber: 1	Goodr 3158	nan Logistic	cs Cent	er
SITE S	PECIFIC IN	IPUT DATA				NO	ISE N	IODE	L INPUTS	5	
Highway Data				Si	te Con	ditions (H	lard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	29,810 vehicl	es				/	Autos.	15		
Peak Hour	Percentage:	7.51%			Me	edium Truc	ks (2 A	xles).	: 15		
Peak He	our Volume:	2,239 vehicle	s		He	avy Truck	s (3+ A	xles).	: 15		
Vel	nicle Speed:	50 mph		Ve	ehicle	Mix					
Near/Far Lar	ne Distance:	45 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						Au	tos:	77.5%	6 12.9%	9.6%	96.37%
Bar	rier Height:	0.0 feet			М	edium Tru	cks:	84.8%	6 4.9%	10.3%	2.46%
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy Tru	cks:	86.5%	6 2.7%	10.8%	1.16%
Centerline Dis	t. to Barrier:	45.0 feet		No	oise So	ource Elev	ations	in f	eet)		
Centerline Dist. t	o Observer:	45.0 feet				Autos:	0.0	000			
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Trucks:	2.2	97			
Observer Height (/	Above Pad):	5.0 feet			Hear	/v Trucks:	8.0	004	Grade Adj	ustmen	t: 0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		La	ine Eq	uivalent L	ustanc	e (in	feet)		
F	Road Grade:	0.0%				Autos:	39.2	291			
	Left View:	-90.0 degre	es		Mediu	m Trucks:	39.0)65			
	Right View:	90.0 degre	es		Heal	ly Trucks:	39.0	187			
FHWA Noise Mode	I Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Atte	en Be	rm Atten
Autos:	70.20	1.05		1.47		-1.20		-4.62	0.0	00	0.000
Medium Trucks:	81.00	-14.88		1.50		-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	85.38	-18.13		1.50		-1.20		-5.49	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	attenua	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y L	.eq Eve	ening	Leq Ni	ght		Ldn	C	NEL
Autos:	71	1.5	70.9		69.1		63.0		71.7		72.3
Medium Trucks:	66	5.4	66.2		59.8		58.3		66.7		66.9
Heavy Trucks:	67	7.5	67.4		58.3		59.6		67.9)	68.1
Vehicle Noise:	73	3.8	73.4		69.9		65.6		74.1		74.5
Centerline Distanc	e to Noise C	ontour (in fee	t)			0					
				70 dE	BA .	65 dE	3A	1	50 dBA	55	ō dBA
			Ldn:		84		181		391		842
		C	NEL:		90		194		417		898

	FHW	/A-RD-77-108 F	IIGHW/	AY NC	ISE PF	REDICTIC	ON MO	DEL			
Scenari	o: OYCP (2022	2)				Project N	lame: (Goodm	nan Logisti	cs Cente	r
Road Nam	e: Raymond A	v.				Job Nu	mber: 1	13158			
Road Segmer	nt: s/o SR-91 E	astbound Ramp)S								
SITE	SPECIFIC IN	PUT DATA				NC	DISE N	IODE		s	
Highway Data				Si	te Con	ditions (I	lard =	10, So	oft = 15)		
Average Daily	Traffic (Adt):	30,099 vehicles					,	Autos:	15		
Peak Hour	Percentage:	7.51%			Mee	dium Truc	cks (2 A	(xles)	15		
Peak H	our Volume:	2,261 vehicles			Hea	avy Truck	(3+ A	(xles):	15		
Vel	hicle Speed:	50 mph		Ve	hicle I	<i>lix</i>					
Near/Far Lar	ne Distance:	45 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	itos:	77.5%	12.9%	9.6%	96.37%
Bar	rier Height	0.0 feet			Me	edium Tru	icks:	84.8%	4.9%	10.3%	2.46%
Barrier Type (0-W	all. 1-Berm):	0.0			H	leavy Tru	icks:	86.5%	2.7%	10.8%	1.16%
Centerline Dis	t. to Barrier:	45.0 feet		AL.	ine Ce	uree Ele	votion	in fe	041		
Centerline Dist.	to Observer:	45.0 feet		///	lise 30	Autoo	vauons		el)		
Barrier Distance	to Observer:	0.0 feet			Modium	Autos:	0.0	000			
Observer Height (J	Above Pad):	5.0 feet			Hear	n Trucks.	2.4	297	Grade Ad	iustmont	. 0 0
Pa	d Elevation:	0.0 feet			neav	y mucks.	0.0	JU4	Orade Au	usunon	. 0.0
Roa	d Elevation:	0.0 feet		La	ne Equ	ivalent I	Distand	e (in f	'eet)		
F	Road Grade:	0.0%				Autos:	39.3	291			
	Left View:	-90.0 degrees			Mediur	n Trucks:	39.0	065			
	Right View:	90.0 degrees			Heav	y Trucks:	39.0	087			
FHWA Noise Mode	Calculations	;									
VehicleType	REMEL	Traffic Flow	Distan	ice	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten
Autos:	70.20	1.09		1.47		-1.20		-4.62	0.0	000	0.00
Medium Trucks:	81.00	-14.83		1.50		-1.20		-4.87	0.0	000	0.00
Heavy Trucks:	85.38	-18.09		1.50		-1.20		-5.49	0.0	000	0.00
Unmitigated Noise	Levels (witho	out Topo and b	arrier a	ttenua	ation)						
VehicleType	Leq Peak Hou	r Leq Day	Le	eq Eve	ning	Leq N	light		Ldn	CI	VEL
Autos:	71.	6 7	0.9		69.1		63.1		71.7	7	72.3
Medium Trucks:	66.	5 6	6.2		59.8		58.3		66.8	3	67.
Heavy Trucks:	67.	6 6	7.4		58.4		59.6	1	68.0)	68.
Vehicle Noise:	73.	9 73	3.4		69.9		65.6	i	74.1	1	74.
Centerline Distanc	e to Noise Co	ntour (in feet)		70 45		65 4	DA.	6	OdPA	FF	dBA
		,	dn:	70 dE	271 9.F	05 0	100	C	203	35	0.0A
			un. = .		00		102		393		847
							1110		4/0		904

Friday, May 15, 2020

	FHV	VA-RD-77-108	HIGHW	/AY N	OISE PF	REDICT	ION MO	DEL				
Scenario Road Name Road Segment	: OYCP (202 : Acacia Av. t: n/o Kimberl	2) y Av.				Project Job N	Name: lumber:	Goodr 13158	nan Logist	ics C	enter	
SITE S	PECIFIC IN	PUT DATA				D	IOISE I	NODE	L INPUT	S		
Highway Data				S	Site Con	ditions	(Hard =	10, So	oft = 15)			
Average Daily T	raffic (Adt):	8,314 vehicle	s					Autos:	15			
Peak Hour F	Percentage:	7.51%			Me	dium Tr	ucks (2 .	Axles):	15			
Peak Ho	ur Volume:	625 vehicles	5		He	avy Tru	cks (3+)	Axles):	15			
Veh	icle Speed:	40 mph		1	/ehicle I	Mix						
Near/Far Lan	e Distance:	45 feet			Vehi	icleTvne		Dav	Evenina	Nic	aht	Dailv
Site Data						,	Autos:	77.5%	12.9%	9	.6%	96.41%
Barr	ior Hoiaht	0.0 feet			Me	edium T	rucks:	84.8%	4.9%	10	.3%	2.44%
Barrier Type (0-Wa	II. 1-Berm):	0.0			ŀ	leavy T	rucks:	86.5%	5 2.7%	10	.8%	1.15%
Centerline Dist	to Barrier:	40.0 feet		-	1-1 0-			- // 6	41			
Centerline Dist. to	o Observer:	40.0 feet		-	voise so	ource El	evation	S (IN TO	eet)			
Barrier Distance to	o Observer:	0.0 feet				Auto	s: 0.	000				
Observer Height (A	bove Pad):	5.0 feet			Mediur	TI Truck	S: 2.	297	Grada Av	liucti	nont	0.0
Pad	d Elevation:	0.0 feet			neav	y muck	s. o.	004	Grade Ad	ijusu	nem.	0.0
Road	d Elevation:	0.0 feet		L	ane Equ	uivalen	t Distan	ce (in	feet)			
R	oad Grade:	0.0%				Auto	s: 33.	448				
	Left View:	-90.0 degree	s		Mediur	m Truck	s: 33.	182				
	Right View:	90.0 degree	s		Heav	ry Truck	s: 33.	208				
FHWA Noise Model	Calculation	s										
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresi	nel	Barrier At	ten	Berr	m Atten
Autos:	66.51	-3.53		2.52	2	-1.20		-4.59	0.	000		0.000
Medium Trucks:	77.72	-19.50		2.57	7	-1.20		-4.87	0.	000		0.000
Heavy Trucks:	82.99	-22.76		2.56	3	-1.20		-5.56	0.	000		0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	atteni	uation)							
VehicleType L	eq Peak Hou	r Leq Day	L	.eq Ev	rening	Leq	Night		Ldn		C٨	IEL
Autos:	64	.3	63.6		61.9		55.	В	64.	4		65.0
Medium Trucks:	59	.6	59.3		53.0		51.4	4	59.	9		60.1
Heavy Trucks:	61	.6	61.4		52.4		53.	6	62.	0		62.1
Vehicle Noise:	67	.0	66.6		62.8		58.	В	67.	3		67.7
Centerline Distance	e to Noise Co	ontour (in feet,										
				70 a	IBA	65	dBA	(60 dBA		55	dBA
			Ldn:		26		57		122	2		263
		CI	VEL:		28		60		130	D		280

	FHV	VA-RD-77-108	HIGHV	VAY N	DISE PR	EDICTI					
Scenar Road Nam Road Segme	io: OYCP (202 ne: Acacia Av. nt: s/o Kimberl	2) y Av.				Project I Job Nu	Vame: 0 Imber: 1	Goodm 3158	nan Logisti	cs Cent	er
SITE	SPECIFIC IN	PUT DATA				N	OISE N	IODE		s	
Highway Data				S	ite Cond	litions (Hard =	10, So	oft = 15)		
Average Daily Peak Hour	Traffic (Adt): Percentage:	8,150 vehicle 7.51%	es		Мес	lium Tru	A cks (2 A	Autos: xles):	15 15		
Peak H	lour Volume:	612 vehicle	5		Hea	ivy Truc	ks (3+ A	xles):	15		
Ve	hicle Speed:	40 mph		v	ehicle N	lix					
Near/Far La	ne Distance:	45 feet		Ē	Vehi	leTvpe		Dav	Evenina	Niaht	Dailv
Site Data						A	utos:	77.5%	12.9%	9.6%	96.52%
Pa	rrior Hoight:	0.0 foot			Me	dium Tru	ucks:	84.8%	4.9%	10.3%	2.36%
Barrier Type (0-M	/all_1-Rerm) [.]	0.0 1001			h	eavy Tru	ucks:	86.5%	2.7%	10.8%	5 1.12%
Centerline Di	st. to Barrier:	40.0 feet									
Centerline Dist.	to Observer:	40.0 feet		N	oise So	urce Ele	vations	(In fe	et)		
Barrier Distance	to Observer:	0.0 feet				Autos	: 0.0	000			
Observer Height	(Above Pad);	5.0 feet			Mediun	1 Trucks	: 2.2	97	0		
P	ad Elevation:	0.0 feet			Heav	/ Trucks	: 8.0	104	Grade Adj	Justmen	t: 0.0
Ro	ad Elevation:	0.0 feet		L	ane Equ	ivalent	Distanc	e (in f	eet)		
	Road Grade:	0.0%				Autos	: 33.4	48			
	Left View:	-90.0 degree	s		Mediun	1 Trucks	: 33.1	82			
	Right View:	90.0 degree	es		Heav	/ Trucks	: 33.2	208			
FHWA Noise Mode	el Calculation:	5									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	e/	Barrier Att	en Be	rm Atten
Autos:	66.51	-3.61		2.52		-1.20		4.59	0.0	000	0.000
Medium Trucks:	77.72	-19.73		2.57		-1.20		4.87	0.0	000	0.000
Heavy Trucks:	82.99	-22.98		2.56		-1.20		-5.56	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	lation)						
VehicleType	Leq Peak Hou	r Leq Day	' I	Leq Ev	ening	Leq N	light		Ldn	0	NEL
Autos:	64	.2	63.6		61.8		55.7		64.4	1	65.0
Medium Trucks:	59	.4	59.1		52.7		51.2		59.6	3	59.9
Heavy Trucks:	61	.4	61.2		52.2		53.4		61.8	3	61.9
Vehicle Noise:	66	.9	66.4		62.7		58.6		67.1	1	67.5
Centerline Distant	ce to Noise Co	ntour (in feet)	-		-					
				70 d	BA	65 a	BA	6	i0 dBA	55	5 dBA
			Ldn:		26		55		119		257
		C	NEL:		27		59		127		274

	FH	WA-RD-77-10	8 HIGHV	VAY NC	DISE PR	REDICTIO	N MOD	DEL			
Scenario Road Name Road Segmen	o: OYCP (202 e: N. State Co t: n/o Chapm	22) ollege Bl. an Av.				Project N Job Nur	ame: G nber: 1	Goodma 3158	an Logistio	s Cente	er
SITE S	PECIFIC IN	NPUT DATA				NO	ISE M	ODEL	INPUTS	5	
Highway Data				Si	te Con	ditions (H	ard = 1	10, Soi	ft = 15)		
Average Daily	Traffic (Adt):	38,063 vehic	les				A	utos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 A.	xles):	15		
Peak He	our Volume:	2,859 vehicle	es		He	avy Truck	s (3+ A.	xles):	15		
Vel	nicle Speed:	40 mph		Ve	hicle l	Mix					
Near/Far Lar	e Distance:	88 feet			Veh	icleTvpe	[Dav	Evenina	Niaht	Dailv
Site Data						Au	tos: ī	77.5%	12.9%	9.6%	96.27%
Bar	rier Heiaht:	0.0 feet			M	edium Truc	cks: 8	34.8%	4.9%	10.3%	2.51%
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	Heavy Truc	cks: 8	36.5%	2.7%	10.8%	1.23%
Centerline Dis	t. to Barrier:	50.0 feet		N	nisa Sr	urce Flev	ations	(in fo	at)		
Centerline Dist. t	o Observer:	50.0 feet			//30 00	Autos:	0.0	00			
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Trucks:	2.2	97			
Observer Height (/	Above Pad):	5.0 feet			Heav	N Trucks:	8.0	04	Grade Adi	ustment	:0.0
Pa	d Elevation:	0.0 feet			mour	y maono.	0.0	•••			
Roa	d Elevation:	0.0 feet		Lé	ne Eq	uivalent D	istanc	e (in fe	eet)		
F	Road Grade:	0.0%				Autos:	24.2	69			
	Left View:	-90.0 degre	es		Mediu	m Trucks:	23.9	02			
	Right View:	90.0 degre	es		Heav	y Trucks:	23.9	38			
FHWA Noise Mode	I Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresne	el E	Barrier Atte	en Bei	m Atten
Autos:	66.51	3.07	7	4.61		-1.20	-	4.65	0.0	00	0.000
Medium Trucks:	77.72	-12.7	7	4.70		-1.20	-	4.87	0.0	00	0.000
Heavy Trucks:	82.99	-15.88	3	4.69		-1.20	-	5.43	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	l barrier	attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y I	Leq Eve	ening	Leq Ni	ght		Ldn	C	NEL
Autos:	73	3.0	72.3		70.6		64.5		73.1		73.7
Medium Trucks:	68	3.4	68.2		61.8		60.3		68.7		69.0
Heavy Trucks:	70	0.6	70.4		61.4		62.6		71.0		71.1
Vehicle Noise:	75	5.8	75.4		71.6		67.6		76.1		76.5
Centerline Distance	e to Noise C	ontour (in fee	t)								
				70 dE	BA	65 dE	BA	60) dBA	55	dBA
			Ldn:		127		274		591		1,273
		(NEL:		135		291		628		1,353

	FHV	/A-RD-77-108	HIGHW	AY NC	DISE PR	EDICTIO	N MODE	L						
Scenario: OYCP (2022)					Project Name: Goodman Logistics Center									
Road Nam		Job Number: 13158												
Road Segmen	n. s/o Gnapina	ui Av.		-										
SITE S	SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS									
nigilway Dala				31	le con	uuons (r		, 301	(= 15)					
Average Daily	Traffic (Adt):	26,728 vehicle	s				Au	tos:	15					
Peak Hour	Percentage:	7.51%			Heavy Trucks (2+ Axles): 15									
Peak H	our volume:	2,008 vehicles	6		Hea	avy Truck	s (3+ AXI	es):	15					
Vei Nasa/Ess (au	nicie Speea:	35 mpn		Ve	Vehicle Mix									
Near/Far Lar	ne Distance:	88 ieet			Vehi	cleType	Da	ay .	Evening	Night	Daily			
Site Data						AL	tos: 77	.5%	12.9%	9.6%	96.23%			
Bar	rier Height:	0.0 feet			Me	edium Tru	cks: 84	.8%	4.9%	10.3%	2.52%			
Barrier Type (0-W	all, 1-Berm):	0.0			H	leavy Tru	cks: 86	6.5%	2.7%	10.8%	1.25%			
Centerline Dis	st. to Barrier:	50.0 feet		N	nise So	urce Elev	ations (in fee	of)					
Centerline Dist.	to Observer:	50.0 feet			Autor: 0.000									
Barrier Distance	to Observer:	0.0 feet			Modium	n Trucke	2 20	7						
Observer Height (J	Above Pad):	5.0 feet			Hoov	v Trucke	8.00/	, 1 (Grade Ad	iustment	:00			
Pa	ad Elevation:	0.0 feet			neav,	y mucho.	0.00		,		0.0			
Roa	ad Elevation:	0.0 feet		Lá	ane Equ	iivalent E	listance	(in fe	eet)					
F	Road Grade:	0.0%				Autos:	24.26	9						
Left View: -90.0 degrees				Medium Trucks: 23.902										
	Right View:	90.0 degree	es		Heav	y Trucks:	23.93	8						
FHWA Noise Mode	el Calculations	5												
VehicleType	REMEL	Traffic Flow	Distar	ice	Finite I	Road	Fresnel	E	Barrier Att	en Ber	m Atten			
Autos:	64.30	2.11		4.61		-1.20	-4	.65	0.0	000	0.000			
Medium Trucks:	75.75	-13.70		4.70		-1.20	-4	.87	0.0	000	0.000			
Heavy Trucks:	81.57	-16.75		4.69		-1.20	-5	.43	0.0	000	0.000			
Unmitigated Noise	Levels (with	out Topo and	barrier a	ttenu	ation)						-			
VehicleType	Leq Peak Hou	r Leq Day	Le	eq Eve	ening	Leq N	ight		Ldn	CI	VEL			
Autos:	69.	.8	69.2		67.4	61.3			70.0		70.6			
Medium Trucks:	65.	65.6 65.3			58.9	57.4			65.8		66.1			
Heavy Trucks:	68.3 68.1		68.1		59.1	60.3			68.7		68.8			
Vehicle Noise:	73.	.0	72.6		68.5		64.8		73.3	3	73.6			
	a ta Naisa Ca	ntour (in feet))			05.0	24	60		55	dD A			
Centerline Distanc	e lo noise co			- 70 JE	20						1104			
Centerline Distanc	e lo noise co		L day	70 dE	3A	65 dE	170	00	202	55	0.00			
Centerline Distanc	e to Noise Co		Ldn:	70 dE	82 82	65 dE	178	00	383		825			

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Fł	IWA-RD-77-108 I	HIGHW	AY NO	DISE PF	REDICTI	ON MO	DEL				
Scenario: OYCP (2022)				Project Name: Goodman Logistics Center							
Road Name: N. State College Bl.					JOD NI	umber:	13158				
Road Segment. Sid Comm	ionwealth Av.										
SITE SPECIFIC I	_	NOISE MODEL INPUTS									
Highway Data			Si	te Con	ditions (Hard =	10, S	oft = 15)			
Average Daily Traffic (Adt):	24,573 vehicles	5					Autos.	15			
Peak Hour Percentage:	7.51%			Me	dium Tru	icks (2 /	Axles).	15			
Peak Hour Volume:	1,846 vehicles			Hea	avy Truc	:ks (3+)	Axles).	15			
Vehicle Speed:	40 mph		V	ehicle N	<i>lix</i>						
Near/Far Lane Distance:	88 feet		-	Vehi	cleType		Day	Evening	Night	Daily	
Site Data					A	utos:	77.5%	5 12.9%	9.6%	96.22%	
Barrier Height:	0.0 feet			Me	edium Tr	ucks:	84.8%	4.9%	10.3%	2.53%	
Barrier Type (0-Wall, 1-Berm):	0.0			ŀ	leavy Tr	ucks:	86.5%	2.7%	10.8%	1.26%	
Centerline Dist. to Barrier:	50.0 feet		N	nise So	urce Ele	evation	s (in f	eet)			
Centerline Dist. to Observer:	50.0 feet		-	0.00 00	Autos	. 0	000	501)			
Barrier Distance to Observer:	0.0 feet			Mediur	n Trucks	. 0. . 2	297				
Observer Height (Above Pad):	5.0 feet			Heav	v Trucks	. 2.	004	Grade Ad	iustment	0.0	
Pad Elevation:	0.0 feet			mour	,	. 0.		,			
Road Elevation:	0.0 feet		La	ane Equ	iivalent	Distan	ce (in	feet)			
Road Grade:	0.0%				Autos	8: 24.	269				
Left View:	-90.0 degree:	S		Mediur	n Trucks	s: 23.	902				
Right View:	90.0 degrees	S		Heav	y Trucks	s: 23.	938				
FHWA Noise Model Calculatio	ns										
VehicleType REMEL	Traffic Flow	Distan	се	Finite	Road	Fresr	nel	Barrier Atte	en Ber	m Atten	
Autos: 66.5	1 1.17		4.61		-1.20		-4.65	0.0	000	0.00	
Medium Trucks: 77.7	2 -14.64		4.70		-1.20		-4.87	0.0	000	0.00	
Heavy Trucks: 82.9	9 -17.67		4.69		-1.20		-5.43	0.0	000	0.00	
Unmitigated Noise Levels (wit	hout Topo and b	arrier a	ttenu	ation)							
VehicleType Leq Peak He	our Leq Day	Le	eq Eve	ening	Leq I	Vight		Ldn	C	NEL	
Autos: 7	'1.1 7	0.4		68.7		62.6	5	71.2	2	71.	
Medium Trucks: 6	6.6 6	6.3		60.0		58.4	1	66.9)	67.	
Heavy Trucks: 6	8.8 6	8.6		59.6		60.9	9	69.2	2	69.3	
Vehicle Noise: 7	4.0 7	3.5		69.7		65.7	7	74.2	2	74.0	
Centerline Distance to Noise (Contour (in feet)										
			70 dE	BA	65 0	1BA	1	60 dBA	55	dBA	
	L	.dn:		96		206		444		957	

	FHV	NA-RD-77-108	HIGH	WAY N	OISE PI	REDICT	ION MC	DEL						
Scenario: OYCP (2022) Road Name: N. State College Bl. Road Segment: s/o Kimberly Av.					Project Name: Goodman Logistics Center Job Number: 13158									
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS									
Highway Data				5	Site Conditions (Hard = 10, Soft = 15)									
Average Daily	Traffic (Adt):	24,551 vehicle	es					Autos:	15					
Peak Hour	Percentage:	7.51%			Medium Trucks (2 Axles): 15									
Peak H	our Volume:	1,844 vehicles	5		Heavy Trucks (3+ Axles): 15									
Ve	hicle Speed:	40 mph			/ehicle	Mix								
Near/Far La	ne Distance:	88 feet		F	Veh	icleTvpe		Dav	Evenina	Niaht	Dailv			
Site Data							Autos:	77.5%	12.9%	9.69	% 95.00%			
Bai	rrier Height:	0.0 feet			M	edium T	rucks:	84.8%	4.9%	10.39	% 3.05%			
Barrier Type (0-W	all. 1-Berm):	0.0			ŀ	leavy Ti	rucks:	86.5%	2.7%	10.89	% 1.96%			
Centerline Dis	st. to Barrier:	50.0 feet			laisa Sa		ovation	ne (in fr	ant)					
Centerline Dist. to Observer: 50.0 feet					Noise Source Elevations (in feet)									
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck	s. U	207						
Observer Height (Above Pad):	5.0 feet			Hoo	n Truck	o. 2	004	Grade Ad	liustmei	ot: 0.0			
Pa	ad Elevation:	0.0 feet			near	y mach	3. 0	.004	0/000/10	Juounoi				
Road Elevation: 0.0 feet					Lane Equivalent Distance (in feet)									
Road Grade: 0.0%					Autos: 24.269									
Left View: -90.0 degrees					Medium Trucks: 23.902									
Right View: 90.0 degrees					Heavy Trucks: 23.938									
FHWA Noise Mode	el Calculation	s												
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	erm Atten			
Autos:	66.51	1.11		4.61	1	-1.20		-4.65	0.0	000	0.000			
Medium Trucks:	77.72	-13.83		4.70)	-1.20		-4.87	0.0	000	0.000			
Heavy Trucks:	82.99	-15.75		4.69	9	-1.20		-5.43	0.0	000	0.000			
Unmitigated Noise	Levels (with	out Topo and	barrie	er atteni	uation)									
VehicleType	Leq Peak Hou	ır Leq Day	·	Leq Ev	ening	Leq	Night		Ldn	(CNEL			
Autos:	71	.0	70.4		68.6		62.	5	71.	2	71.8			
Medium Trucks:	67	.4	67.1		60.8		59.	2	67.	7	67.9			
Heavy Trucks:	70).7	70.6		61.5		62.	8	71.	1	71.3			
Vehicle Noise:	74	74.8 74.4			69.9		66.6		75.0		75.4			
Centerline Distance	e to Noise Co	ontour (in feet)					T						
			L	70 a	IBA	65	dBA	6	60 dBA	5	5 dBA			
Ldn:					108	108 233			503	503 1,084				
		Ci	VEL:		114		240	5	531		1,143			

Friday, May 15, 2020
	FH\	NA-RD-77-1	08 HIG	HWAY	NOISE PI	REDICTIO	N MODEL			
Scenari Road Nam Road Segmer	io: OYCP (202 e: N. State Co nt: s/o Dwy. 16	22) bilege Bl. 3				Project N Job Nur	lame: Goo nber: 1315	dman Logistio 8	cs Cente	r
SITE	SPECIFIC IN	IPUT DATA	4			NC	ISE MOD	EL INPUTS	5	
Highway Data					Site Con	ditions (H	lard = 10,	Soft = 15)		
Average Daily	Traffic (Adt):	24,844 vehi	cles				Auto	s: 15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 Axles	s): 15		
Peak H	our Volume:	1,866 vehic	les		He	avy Truck	s (3+ Axles	s): 15		
Ve	hicle Speed:	40 mph			Vehicle	Mix				
Near/Far La	ne Distance:	88 feet			Veh	icleTvpe	Dav	Evenina	Night	Dailv
Site Data						Au	tos: 77.5	5% 12.9%	9.6%	94.92%
Bai	rier Height:	0.0 feet			М	edium Tru	cks: 84.8	4.9%	10.3%	3.08%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy Tru	cks: 86.5	5% 2.7%	10.8%	2.00%
Centerline Dis	st. to Barrier:	50.0 feet			Noise S	ource Elev	ations (in	foot)		
Centerline Dist.	to Observer:	50.0 feet				Autos:	0.000	1000		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks:	2 297			
Observer Height (Above Pad):	5.0 feet			Hear	N Trucks:	8 004	Grade Adi	ustment	: 0.0
Pá	ad Elevation:	0.0 feet				,				
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent L	Distance (i	n feet)		
	Road Grade:	0.0%				Autos:	24.269			
	Left View:	-90.0 degi	rees		Mediu	m Trucks:	23.902			
	Right View:	90.0 degi	rees		Hear	/y Trucks:	23.938			
FHWA Noise Mode	el Calculation	s								
VehicleType	REMEL	Traffic Flow	/ D	istance	Finite	Road	Fresnel	Barrier Atte	en Ber	m Atten
Autos:	66.51	1.1	16	4.6	51	-1.20	-4.6	5 0.0	00	0.000
Medium Trucks:	77.72	-13.7	73	4.1	70	-1.20	-4.8	7 0.0	00	0.000
Heavy Trucks:	82.99	-15.6	60	4.6	69	-1.20	-5.4	3 0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo an	d barr	ier atte	nuation)					
VehicleType	Leq Peak Ho	ur Leq D	ay	Leq E	vening	Leq N	ight	Ldn	CI	VEL
Autos:	71	.1	70.4		68.7		62.6	71.2	2	71.8
Medium Trucks:	67	7.5	67.2		60.9		59.3	67.8	1	68.0
Heavy Trucks:	70).9	70.7		61.7		62.9	71.3		71.4
Vehicle Noise:	74	1.9	74.5		70.0		66.7	75.1		75.5
Centerline Distance	e to Noise C	ontour (in fe	et)							-
				70	dBA	65 dE	BA	60 dBA	55	dBA
			Ldn:		110		237	511		1,100
			CNEL:		116		250	539		1,160

	FHW	/A-RD-77-108	HIGHW	VAY NO	DISE PR	EDICTIO	N MODI	EL			
Scenari Road Nam Road Segmer	o: OYCP (2022 e: N. State Col nt: s/o Oranget	2) lege Bl. horpe Av.				Project N Job Nur	ame: Go nber: 13	oodm 158	an Logistio	cs Cente	r
SITE	SPECIFIC IN	PUT DATA				NO	ISE MO	DDEL		5	
Highway Data				S	ite Con	ditions (H	ard = 1	0, So	ft = 15)		
Average Daily Peak Hour Peak H Ve	Traffic (Adt): Percentage: our Volume: hicle Speed:	29,269 vehicle 7.51% 2,199 vehicles 40 mph	es S	V	Mea Hea	dium Truc avy Truck flix	Aı ks (2 Ax s (3+ Ax	ıtos: les): les):	15 15 15		
Near/Far La	ne Distance:	88 feet		-	Vehi	cleTvpe	D	av	Evenina	Night	Dailv
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	94.81%
Bai	rier Heiaht:	0.0 feet			Ме	dium Tru	cks: 8	4.8%	4.9%	10.3%	3.13%
Barrier Type (0-W	all, 1-Berm):	0.0			E	leavy Tru	cks: 8	6.5%	2.7%	10.8%	2.06%
Centerline Dis	st. to Barrier:	50.0 feet		N	laise Sa	urce Elev	ations	(in fo	of)		
Barrier Distance Observer Height (Pa Roa	to Observer: Above Pad): ad Elevation: ad Elevation: Road Grade: Left View:	0.0 feet 0.0 feet 0.0 feet 0.0 feet 0.0 feet 0.0% -90.0 degree	es	L	Mediur Heav ane Equ Mediur	Autos: n Trucks: y Trucks: iivalent E Autos: n Trucks:	0.00 2.29 8.00 Vistance 24.26 23.90	10 17 14 14 19 12	Grade Adj eet)	iustment.	: 0.0
	Right view:	90.0 degree	es		neav	y mucks.	23.93	88			
FHWA Noise Mode	el Calculations	;									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresnel		Barrier Atte	en Ber	m Atten
Autos:	66.51	1.86		4.61		-1.20	-4	1.65	0.0	000	0.000
Heavy Trucks:	82.99	-12.95 -14.77		4.70		-1.20 -1.20	-4	5.43	0.0	00	0.000
Unmitigated Noise	Levels (witho	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	· 1	Leq Ev	ening	Leq Ni	ght		Ldn	CI	VEL
Autos:	71.	8	71.1		69.4		63.3		71.9)	72.5
Medium Trucks:	68.	3	68.0		61.6		60.1		68.6	5	68.8
Heavy Trucks:	71.	7	71.5		62.5		63.8		72.1		72.2
Vehicle Noise:	75.	6	75.3		70.7		67.4		75.9)	76.3
Centerline Distanc	e to Noise Co	ntour (in feet))	70 .	D 4	05 1		~	0.004		-/0.4
			∟	70 di	BA	65 dE	267	6	U dBA	55	1 220
									6/h		1 239

Friday, May 15, 2020

FH	WA-RD-77-108 HI	GHWAY I	NOISE PR	REDICTI		DEL			
Scenario: OYCP (20	22)			Project	Name: G	Goodn	nan Logistic	s Cente	er
Road Name: N. State C	ollege Bl.			Job Ni	imber: 1	3158			
Road Segment: s/o SR-91	Westbound Ramp	s							
SITE SPECIFIC I	NPUT DATA			N	OISE M	ODE	L INPUTS	5	
Highway Data			Site Con	ditions (Hard = 1	10, Sc	oft = 15)		
Average Daily Traffic (Adt):	28,141 vehicles				A	utos:	15		
Peak Hour Percentage:	7.51%		Me	dium Tru	cks (2 A	xles):	15		
Peak Hour Volume:	2,114 vehicles		He	avy Truc	ks (3+ A	xles):	15		
Vehicle Speed:	55 mph	ŀ	Vehicle I	Nix					
Near/Far Lane Distance:	78 feet	ŀ	Vehi	cleTvpe	1	Dav	Evenina	Night	Dailv
Site Data			-	A	utos:	77.5%	12.9%	9.6%	95.96%
Barrier Height:	0.0 feet		Me	edium Tri	ucks: 8	34.8%	4.9%	10.3%	2.64%
Barrier Type (0-Wall, 1-Berm):	0.0		ŀ	leavy Tr	ucks: 8	36.5%	2.7%	10.8%	1.41%
Centerline Dist. to Barrier:	53.0 feet	ŀ	Noiso Sa	urco Ek	wations	(in f	not)		
Centerline Dist. to Observer:	53.0 feet	ŀ	140/36 30	Autos	· 0.0	00			
Barrier Distance to Observer:	0.0 feet		Modiu	n Trucks	. 0.0	00			
Observer Height (Above Pad):	5.0 feet		Hoay	n Trucks	· 2.2	04	Grade Adi	ustment	- 0.0
Pad Elevation:	0.0 feet		near	y mucho	. 0.0	04	Grado Maj	aounom	. 0.0
Road Elevation:	0.0 feet		Lane Equ	uivalent	Distanc	e (in :	feet)		
Road Grade:	0.0%			Autos	: 36.2	35			
Left View:	-90.0 degrees		Mediur	n Trucks	: 35.9	90			
Right View:	90.0 degrees		Heav	y Trucks	: 36.0	14			
FHWA Noise Model Calculation	ıs								
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresne	e/	Barrier Atte	en Ber	m Atten
Autos: 71.7	3 0.36	1.9	99	-1.20	-	4.66	0.0	00	0.000
Medium Trucks: 82.4	-15.25	2.0)4	-1.20	-	4.87	0.0	00	0.000
Heavy Trucks: 86.4) -17.97	2.0)3	-1.20	-	5.40	0.0	00	0.000
Unmitigated Noise Levels (with	hout Topo and ba	rrier atter	nuation)						
VehicleType Leq Peak Ho	our Leq Day	Leq E	vening	Leq I	Vight		Ldn	C	NEL
Autos: 7	2.9 72.	.3	70.5		64.5		73.1		73.7
Medium Trucks: 6	8.0 67.	.7	61.4		59.8		68.3		68.5
Heavy Trucks: 6	9.3 69.	.1	60.0		61.3		69.7		69.8
Vehicle Noise: 7	5.4 74.	.9	71.3		67.1		75.6		76.0
Centerline Distance to Noise C	contour (in feet)								
		70	dBA	65 a	IBA	6	60 dBA	55	dBA
	Ld	n:	125		270		581		1,252
	01/5	*			000		000		1 2 2 5

	FHV	NA-RD-77-108	HIGHW	AY NO	DISE PR	EDICTI	ON MO	DEL			
Scenar Road Nam Road Segme	io: OYCP (202 ie: N. State Co nt: s/o SR-91 E	22) bllege Bl. Eastbound Ram	ps			Project Job Ni	Name: Imber:	Goodr 13158	nan Logist	ics Ce	nter
SITE	SPECIFIC IN	IPUT DATA				N	OISE N	NODE	L INPUT	S	
Highway Data				S	ite Con	ditions (Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	23,118 vehicle	s					Autos.	15		
Peak Hour	Percentage:	7.51%			Mee	dium Tru	cks (2 /	Axles).	: 15		
Peak H	lour Volume:	1,737 vehicles			Hea	avy Truc	ks (3+ /	Axles)	: 15		
Ve	hicle Speed:	55 mph		V	ehicle N	lix					
Near/Far La	ne Distance:	78 feet			Vehi	cleType		Day	Evening	Nigh	t Daily
Site Data						A	utos:	77.5%	6 12.9%	9.6	6% 96.38%
Ba	rrier Heiaht:	0.0 feet			Me	edium Tr	ucks:	84.8%	6 4.9%	10.3	3% 2.46%
Barrier Type (0-W	/all, 1-Berm):	0.0			H	leavy Tr	ucks:	86.5%	6 2.7%	10.8	3% 1.16%
Centerline Di	st. to Barrier:	53.0 feet		N	loise So	urce Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	53.0 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.	004	Grade Ad	djustme	ent: 0.0
Pa	ad Elevation:	0.0 feet								-	
Roa	ad Elevation:	0.0 feet		L	ane Equ	livalent	Distan	ce (In	feet)		
	Road Grade:	0.0%				Autos	: 36.	235			
	Left View:	-90.0 degree	s		Mediur	n Trucks	: 35.	990			
	Right View:	90.0 degree	s		Heav	y Trucks	: 36.	014			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	ice	Finite	Road	Fresr	nel	Barrier At	ten E	Berm Atten
Autos:	71.78	-0.47		1.99		-1.20		-4.66	0.	000	0.000
Medium Trucks:	82.40	-16.40		2.04		-1.20		-4.87	0.	000	0.000
Heavy Trucks:	86.40	-19.66		2.03		-1.20		-5.40	0.	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Hou	ur Leq Day	Le	eq Ev	ening	Leq I	Vight		Ldn		CNEL
Autos:	72	2.1	71.4		69.7		63.6	6	72.	2	72.9
Medium Trucks:	66	6.8	6.6		60.2		58.7	7	67.	.1	67.4
Heavy Trucks:	67	.6	67.4		58.4		59.6	6	68.	.0	68.1
Vehicle Noise:	74	.3	73.8		70.4		66.0)	74.	5	74.9
Centerline Distant	ce to Noise Co	ontour (in feet)									
				70 di	BA	65 0	IBA		60 dBA		55 dBA
			dn:		106		228		49	1	1,058
		CI	IEL:		113		244		52	5	1,131

	FH	WA-RD-77-108	BHIGHW	AY NO	ISE PF	REDICTIO	n Moi	DEL			
Scenari Road Nam Road Segmer	o: OYCP (202 e: S. Placenti at: n/o Kimber	22) ia Av. 1y Av.				Project N Job Nur	ame: (nber: 1	Goodm 13158	an Logistio	cs Cente	er
SITE S	SPECIFIC IN	VPUT DATA				NO	ISE N	IODEI		5	
Highway Data				Sit	e Con	ditions (H	ard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	23,867 vehicl	es					Autos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 A	(xles):	15		
Peak H	our Volume:	1,793 vehicle	s		He	avy Truck	s (3+ A	(xles):	15		
Vel	hicle Speed:	40 mph		Ve	hicle I	Mix					
Near/Far Lar	ne Distance:	53 feet			Vehi	icleType		Day	Evening	Night	Daily
Site Data						Au	tos:	77.5%	12.9%	9.6%	96.37%
Bar	rier Heiaht:	0.0 feet			Me	edium Truc	cks:	84.8%	4.9%	10.3%	2.46%
Barrier Type (0-W	all, 1-Berm):	0.0			ŀ	leavy Truc	cks:	86.5%	2.7%	10.8%	1.16%
Centerline Dis	t. to Barrier:	42.0 feet		No	ise Sc	ource Elev	ations	: (in fe	et)		
Centerline Dist.	to Observer:	42.0 feet			100 00	Autos:	0.0	000	01/		
Barrier Distance	to Observer:	0.0 feet			Mediuu	m Trucks:	2.2	97			
Observer Height (Above Pad):	5.0 feet			Heav	v Trucks:	8.0	004	Grade Adj	ustmen	t: 0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		La	ne Equ	uivalent D	istanc	e (in f	eet)		
F	Road Grade:	0.0%				Autos:	32.9	966			
	Left View:	-90.0 degre	es		Mediui	m Trucks:	32.6	596			
	Right View:	90.0 degre	es		Heav	y Trucks:	32.1	/23			
FHWA Noise Mode	I Calculation	is									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresn	el I	Barrier Atte	en Be	rm Atten
Autos:	66.51	1.05		2.61		-1.20		-4.60	0.0	00	0.000
Medium Trucks:	77.72	-14.88		2.66		-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	82.99	-18.13		2.66		-1.20		-5.53	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	ttenua	tion)						
VehicleType	Leq Peak Ho	ur Leq Da	y Le	eq Eve	ning	Leq Ni	ght		Ldn	С	NEL
Autos:	69	9.0	68.3		66.5		60.5		69.1		69.7
Medium Trucks:	64	4.3	64.0		57.7		56.1		64.6	i	64.8
Heavy Trucks:	66	6.3	66.1		57.1		58.4		66.7	·	66.8
Vehicle Noise:	71	1.7	71.3		67.5		63.5		72.0)	72.4
Centerline Distanc	e to Noise C	ontour (in fee	t)								
				70 dB.	A	65 dE	BA	6	0 dBA	55	dBA
			Ldn:		57		122		264		568
		C	NEL:		60		130		280		604

	FHV	VA-RD-77-108	HIGHW	AY NO	ISE PF	REDICTIO	N MOD	EL			
Scenari	o: OYCP (202	2)				Project N	lame: G	oodm	an Logisti	cs Cente	r
Road Nam	e: S. Placentia	Av.				Job Nu	mber: 1	3158	-		
Road Segmer	nt: s/o Kimberl	y Av.									
SITES	SPECIFIC IN	PUT DATA				NC	ISE M	ODE		S	
Highway Data				Si	te Con	ditions (H	lard = 1	0, So	ft = 15)		
Average Daily	Traffic (Adt):	22,935 vehicle	s				A	utos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 A	kles):	15		
Peak H	our Volume:	1,723 vehicles	5		He	avy Truck	s (3+ A	xles):	15		
Vel	hicle Speed:	40 mph		Ve	hicle I	Nix					
Near/Far Lar	ne Distance:	53 feet			Vehi	icleType	L	Day	Evening	Night	Daily
Site Data						AL	itos: 7	7.5%	12.9%	9.6%	96.38%
Bar	rier Height:	0.0 feet			Me	edium Tru	cks: 8	4.8%	4.9%	10.3%	2.46%
Barrier Type (0-W	all. 1-Berm):	0.0			ŀ	leavy Tru	cks: 8	6.5%	2.7%	10.8%	1.16%
Centerline Dis	t. to Barrier:	42.0 feet		Ne	vico So	urco Elo	ations	(in fe	(of)		
Centerline Dist.	to Observer:	42.0 feet		740	136 30	Autos:	0.0	00	eij		
Barrier Distance	to Observer:	0.0 feet			Modiur	n Trucks:	2.2	00 07			
Observer Height (J	Above Pad):	5.0 feet			Hoov	n Trucks.	8.0	04	Grade Ad	iustment	:00
Pa	d Elevation:	0.0 feet			neav	y mucho.	0.0	04			0.0
Roa	d Elevation:	0.0 feet		La	ne Equ	uivalent E	Distance	e (in f	eet)		
F	Road Grade:	0.0%				Autos:	32.9	66			
	Left View:	-90.0 degree	s		Mediur	n Trucks:	32.6	96			
	Right View:	90.0 degree	s		Heav	y Trucks:	32.7	23			
FHWA Noise Mode	Calculation:	5									
VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresne	e/	Barrier Att	en Ber	m Atten
Autos:	66.51	0.88		2.61		-1.20	-	4.60	0.0	000	0.000
Medium Trucks:	77.72	-15.05		2.66		-1.20	-	4.87	0.0	000	0.000
Heavy Trucks:	82.99	-18.31		2.66		-1.20	-	5.53	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier a	attenua	ation)						
VehicleType	Leq Peak Hou	r Leq Day	L	eq Eve	ning	Leq N	ight		Ldn	CI	VEL
Autos:	68	.8 (68.1		66.4		60.3		68.9)	69.5
Medium Trucks:	64	.1 (63.9		57.5		56.0		64.4	Ļ	64.6
Heavy Trucks:	66	.1 (66.0		56.9		58.2		66.5	5	66.7
Vehicle Noise:	71	.5	71.1		67.3		63.3		71.8	3	72.2
Centerline Distanc	e to Noise Co	ntour (in feet)		70 -15		05 -1	24		0 -/04		-/0.4
				70 dE	м	65 at	D/A	c	U UDA	55	UDA
			l dn:		6F		110		257		66.0
		C	Ldn:		55 50		119		257		553

Friday, May 15, 2020

Fł	IWA-RD-77-108 H	IGHWAY	NOISE P	REDICTION	MODEL			
Scenario: OYCP (20	022)			Project Na	me: Good	man Logistic	s Cente	r
Road Name: Kimberly	Av.			Job Num	ber: 13158	3		
Road Segment: e/o Raym	ond Av.							
SITE SPECIFIC I	NPUT DATA			NO	SE MOD	EL INPUTS	5	
Highway Data			Site Con	ditions (Ha	ard = 10, S	oft = 15)		
Average Daily Traffic (Adt):	2,388 vehicles				Autos	:: 15		
Peak Hour Percentage:	7.51%		Me	dium Truck	s (2 Axles,): 15		
Peak Hour Volume:	179 vehicles		He	avy Trucks	(3+ Axles,): 15		
Vehicle Speed:	45 mph		Vehicle	Mix				
Near/Far Lane Distance:	25 feet		Veh	icleType	Day	Evening	Night	Daily
Site Data				Aut	os: 77.5	% 12.9%	9.6%	96.74%
Barrier Height:	0.0 feet		М	edium Truc	ks: 84.8	% 4.9%	10.3%	2.219
Barrier Type (0-Wall, 1-Berm):	0.0		1	Heavy Truc	ks: 86.5	% 2.7%	10.8%	1.05%
Centerline Dist. to Barrier:	30.0 feet		Noise S	ource Flev	tions (in	foot)		
Centerline Dist. to Observer:	30.0 feet		110/30 00	Autos:	0 000			
Barrier Distance to Observer:	0.0 feet		Mediu	m Trucke	2 207			
Observer Height (Above Pad):	5.0 feet		Hear	n Trucks	8 004	Grade Adi	ustment	· 0.0
Pad Elevation:	0.0 feet		1100	ly maono.	0.001			
Road Elevation:	0.0 feet		Lane Eq	uivalent Di	stance (in	feet)		
Road Grade:	0.0%			Autos:	27.726			
Left View:	-90.0 degrees		Mediu	m Trucks:	27.405			
Right View:	90.0 degrees		Hear	/y Trucks:	27.437			
FHWA Noise Model Calculatio	ns							
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atte	en Ber	m Atten
Autos: 68.4	6 -9.44	3	.74	-1.20	-4.49	0.0	00	0.00
Medium Trucks: 79.4	5 -25.85	3	.81	-1.20	-4.86	6.0	00	0.00
Heavy Trucks: 84.2	5 -29.10	3	.81	-1.20	-5.77	0.0	00	0.00
Unmitigated Noise Levels (wit	hout Topo and ba	nrier atte	enuation)					
VehicleType Leq Peak He	our Leq Day	Leq	Evening	Leq Nig	ht	Ldn	CI	NEL
Autos: 6	60 60	.9	59.1		53.1	61.7		62.
Medium Trucks: 5	6.2 55	i.9	49.6		48.0	56.5		56.
Heavy Trucks: 5	57.8 57	.6	48.5		49.8	58.1		58.
Vehicle Noise: 6	33.9 63	.4	59.9		55.6	64.1		64.
Centerline Distance to Noise (Contour (in feet)							
		70) dBA	65 dB/	4	60 dBA	55	dBA
						50		100
	La	in:	12		26	56		122

	FHV	VA-RD-77-108 H	IGHWAY	NOISE PF	REDICTI					
Scenari Road Nam Road Segmer	o: OYCP (202 e: Kimberly Av at: e/o Dwy. 5	2)			Project Job N	Name: (umber: 1	Goodn 13158	nan Logisti	cs Cente	er
SITE S	SPECIFIC IN	PUT DATA			N	OISE N	IODE	L INPUT	S	
Highway Data				Site Con	ditions ('Hard =	10, So	oft = 15)		
Average Daily Peak Hour Peak H	Traffic (Adt): Percentage: our Volume:	2,794 vehicles 7.51% 210 vehicles		Me He	dium Tr. avy Truc) icks (2 A iks (3+ A	Autos: Axles): Axles):	15 15 15		
Vei Nasa/Ess (au	nicie Speea:	45 mpn		Vehicle I	Nix					
ivear/i-ar Lar	ne Distance:	25 Teet		Vehi	icleType		Day	Evening	Night	Daily
Site Data					A	utos:	77.5%	12.9%	9.6%	92.22%
Bar Barrier Type (0-W	rier Height: all, 1-Berm):	0.0 feet 0.0		Me F	edium Tr Ieavy Tr	ucks: ucks:	84.8% 86.5%	4.9% 2.7%	10.3% 10.8%	4.16% 3.62%
Centerline Dis	t. to Barrier:	30.0 feet		Noise Sc	ource Ele	evations	s (in fe	eet)		
Centerline Dist. Barrier Distance Observer Height (J Pa	to Observer: to Observer: Above Pad): ad Elevation:	30.0 feet 0.0 feet 5.0 feet 0.0 feet		Mediur Heav	Autos n Trucks y Trucks	x: 0.0 x: 2.2 x: 8.0	000 297 004	Grade Ad	iustmen	t: 0.0
Roa	d Elevation:	0.0 feet		Lane Equ	uivalent	Distand	e (in :	feet)		
F	Road Grade:	0.0%			Autos	: 27.	726			
	Left View: Right View:	-90.0 degrees 90.0 degrees		Mediur Heav	n Trucks y Trucks	a: 27.4 a: 27.4	405 437			
FHWA Noise Mode	Calculation	5		1						
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresn	el	Barrier Att	en Be	rm Atten
Autos:	68.46	-8.97	3.	.74	-1.20		-4.49	0.0	000	0.000
Medium Trucks:	79.45	-22.43	3.	.81	-1.20		-4.86	0.0	000	0.000
Heavy Trucks:	84.25	-23.03	3.	.81	-1.20		-5.77	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and ba	rrier atte	enuation)						
VehicleType	Leq Peak Hou	r Leq Day	Leq	Evening	Leq I	Vight		Ldn	C	NEL
Autos:	62	.0 61	.4	59.6		53.6	i	62.2	2	62.8
Medium Trucks:	59	.6 59	.4	53.0		51.5		59.9	9	60.2
Heavy Trucks:	63	.8 63	.6	54.6		55.9)	64.2	2	64.3
Vehicle Noise:	66	.9 66	.6	61.5		58.8		67.2	2	67.5
Centerline Distanc	e to Noise Co	ntour (in feet)								
			70) dBA	65 c	1BA	6	60 dBA	55	ō dBA
		Lo	In:	20		42		91		196
		CNE	EL:	21		44		95		205

	FH	WA-RD-77-108	B HIGHV	VAY NO	ISE PF	REDICTIO	N MOD	EL			
Scenario Road Name Road Segmen	o: OYCP (202 e: Kimberly A at: e/o Dwy. 1	22) v. 1				Project Na Job Nun	ame: G nber: 1	ioodm 3158	an Logistic	s Cente	r
SITE S	SPECIFIC IN	VPUT DATA				NO	ISE M	ODEL	INPUTS	;	
Highway Data				Si	te Con	ditions (H	ard = 1	0, So	ft = 15)		
Average Daily	Traffic (Adt):	2,982 vehicl	es				A	utos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truci	ks (2 A	xles):	15		
Peak He	our Volume:	224 vehicle	s		He	avy Trucks	s (3+ A)	xles):	15		
Vel	hicle Speed:	45 mph		Ve	hiclo	Miv					
Near/Far Lar	ne Distance:	25 feet		Ve	Veh	icleTyne	Г	Dav	Evenina	Niaht	Daily
Site Data					1011	Au	tos: 7	7.5%	12.9%	9.6%	87.99%
Bar	rier Heiaht [.]	0.0 feet			M	edium Truc	:ks: 8	34.8%	4.9%	10.3%	5.97%
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	Heavy Truc	:ks: 8	86.5%	2.7%	10.8%	6.04%
Centerline Dis	t. to Barrier:	30.0 feet		No	visa Sr	urce Elev	ations	(in fo	of)		
Centerline Dist. t	to Observer:	30.0 feet				Autos:	0.0	00			
Barrier Distance t	to Observer:	0.0 feet			Mediu	m Trucks	2.2	97			
Observer Height (/	Above Pad):	5.0 feet			Heav	N Trucks:	8.0	04	Grade Adii	ustment	: 0.0
Pa	d Elevation:	0.0 feet			mour	y maono.	0.0				
Roa	d Elevation:	0.0 feet		La	ne Eq	uivalent D	istance	e (in fe	eet)		
F	Road Grade:	0.0%				Autos:	27.7	26			
	Left View:	-90.0 degre	es		Mediu	m Trucks:	27.4	05			
	Right View:	90.0 degre	es		Heav	y Trucks:	27.4	37			
FHWA Noise Mode	I Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresne	el L	Barrier Atte	en Ber	m Atten
Autos:	68.46	-8.89		3.74		-1.20	-	4.49	0.0	00	0.000
Medium Trucks:	79.45	-20.57		3.81		-1.20	-	4.86	0.0	00	0.000
Heavy Trucks:	84.25	-20.52		3.81		-1.20	-	5.77	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier	attenua	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y I	Leq Eve	ning	Leq Ni	ght		Ldn	C	NEL
Autos:	62	2.1	61.5		59.7		53.6		62.3		62.9
Medium Trucks:	61	1.5	61.2		54.9		53.3		61.8		62.0
Heavy Trucks:	66	5.3	66.2		57.1		58.4		66.7		66.9
Vehicle Noise:	68	8.7	68.4		62.4		60.5		69.0		69.2
Centerline Distance	e to Noise C	ontour (in fee	t)								
				70 dB	A	65 dB	A	6	0 dBA	55	dBA
		-	Ldn:		26		55		119		256
		C	NEL:		27		57		124		266

	FHV	/A-RD-77-108	HIGHW.	AY NO		EDICTIO	N MODE	L _			
Scenari	io: OYCP (202	2)				Project N	ame: Go	odma	n Logisti	cs Cente	er
Road Nam	e: Orangethor	pe Av.				Job Nur	nber: 131	58			
Road Segmer	nt: w/o Raymoi	nd Av.									
SITE	SPECIFIC IN	PUT DATA				NO	ISE MO	DEL	INPUT	s	
Highway Data				S	ite Con	ditions (H	ard = 10	, Soft	t = 15)		
Average Daily	Traffic (Adt):	35,966 vehicle	es				Au	tos:	15		
Peak Hour	Percentage:	7.51%			Mee	dium Truc	ks (2 Axle	es):	15		
Peak H	lour Volume:	2,702 vehicles	5		Hea	avy Truck	s (3+ Axle	es):	15		
Ve	hicle Speed:	40 mph		V	ehicle N	lix					
Near/Far La	ne Distance:	88 feet		-	Vehi	cleType	Da	V E	vening	Night	Daily
Site Data						Au	tos: 77	.5%	12.9%	9.6%	96.26%
Bai	rrier Height	0.0 feet			Me	dium Tru	cks: 84	.8%	4.9%	10.3%	2.51%
Barrier Type (0-W	(all 1-Rerm)	0.0 1001			H	leavy Tru	cks: 86	.5%	2.7%	10.8%	1.23%
Centerline Dis	st. to Barrier:	50.0 feet		-							
Centerline Dist.	to Observer:	50.0 feet		N	oise So	urce Elev	ations (i	n fee	t)		
Barrier Distance	to Observer:	0.0 feet				Autos:	0.000)			
Observer Height (Above Pad);	5.0 feet			Mediur	n Trucks:	2.297				
Pa	ad Elevation:	0.0 feet			Heav	y Trucks:	8.004	Ļ	srade Adj	ustment	: 0.0
Roa	ad Elevation:	0.0 feet		Li	ane Equ	ivalent D	istance	in fe	et)		
1	Road Grade:	0.0%				Autos:	24.269	9			
	Left View:	-90.0 degree	es		Mediur	n Trucks:	23.902	2			
	Right View:	90.0 degree	es		Heav	y Trucks:	23.938	3			
FHWA Noise Mode	el Calculation	5									
VehicleType	REMEL	Traffic Flow	Distar	ice	Finite	Road	Fresnel	В	arrier Att	en Bei	rm Atten
Autos:	66.51	2.83		4.61		-1.20	-4.	65	0.0	000	0.000
Medium Trucks:	77.72	-13.01		4.70		-1.20	-4.	87	0.0	000	0.000
Heavy Trucks:	82.99	-16.11		4.69		-1.20	-5.	43	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	' Le	eq Eve	ening	Leq Ni	ght	L	.dn	C	NEL
Autos:	72	.7	72.1		70.3		64.3		72.9	9	73.5
Medium Trucks:	68	.2	67.9		61.6		60.0		68.5	5	68.7
Heavy Trucks:	70	.4	70.2		61.2		62.4		70.8	3	70.9
	70	.6	75.2		71.3		67.3		75.8	3	76.2
Vehicle Noise:	75	-									
Vehicle Noise: Centerline Distanc	rs ce to Noise Co	ntour (in feet)	70							
Vehicle Noise: Centerline Distanc	ce to Noise Co	ntour (in feet,)	70 dl	BA	65 dE	BA	60	dBA	55	dBA
Vehicle Noise: Centerline Distanc	ro ce to Noise Co	ntour (in feet,) Ldn:	70 dl	BA 123	65 dE	264	60	dBA 570	55	dBA 1,227

Friday, May 15, 2020

FF	WA-RD-77-108 H	HIGHWA	Y NO	ISE PF	REDICTI	ол мо	DEL			
Scenario: OYCP (20	22)				Project	Name:	Goodr	nan Logistio	s Cente	r
Road Name: Orangethe	orpe Av.				Job Ni	umber:	13158			
Road Segment: e/o Raym	ond Av.									
SITE SPECIFIC I	NPUT DATA				N	OISE	NODE	L INPUTS	5	
Highway Data			Si	te Con	ditions (Hard =	10, S	oft = 15)		
Average Daily Traffic (Adt):	34,397 vehicles	;					Autos.	15		
Peak Hour Percentage:	7.51%			Me	dium Tru	icks (2 /	Axles).	15		
Peak Hour Volume:	2,584 vehicles			Hei	avy Truc	ks (3+)	Axles).	15		
Vehicle Speed:	45 mph		Ve	hicle I	Nix					
Near/Far Lane Distance:	88 feet		F	Vehi	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data					A	utos:	77.5%	6 12.9%	9.6%	96.14%
Barrier Height:	0.0 feet			Me	edium Tr	ucks:	84.8%	6 4.9%	10.3%	2.56%
Barrier Type (0-Wall, 1-Berm):	0.0			ŀ	leavy Tr	ucks:	86.5%	6 2.7%	10.8%	1.30%
Centerline Dist. to Barrier:	50.0 feet		NI	vico So	urco Ek	wation	e (in f	oot)		
Centerline Dist. to Observer:	50.0 feet		740	136 30		vauon	000	eel)		
Barrier Distance to Observer:	0.0 feet			Modiur	n Trucks	. 0.	207			
Observer Height (Above Pad):	5.0 feet			Hoav	n Trucks	. 2. . g	004	Grade Adi	ustment	· 0 0
Pad Elevation:	0.0 feet			neav	y mucha	. 0.	004	erade ridj	uoumoni	. 0.0
Road Elevation:	0.0 feet		La	ne Equ	uivalent	Distan	ce (in	feet)		
Road Grade:	0.0%				Autos	: 24.	269			
Left View:	-90.0 degrees	6		Mediur	n Trucks	: 23.	902			
Right View:	90.0 degrees	6		Heav	y Trucks	: 23.	938			
FHWA Noise Model Calculatio	ns		_							
VehicleType REMEL	Traffic Flow	Distand	ce	Finite	Road	Fresr	nel	Barrier Atte	en Ber	m Atten
Autos: 68.4	6 2.11		4.61		-1.20		-4.65	0.0	00	0.000
Medium Trucks: 79.4	5 -13.64		4.70		-1.20		-4.87	0.0	00	0.00
Heavy Trucks: 84.2	5 -16.58		4.69		-1.20		-5.43	0.0	00	0.000
Unmitigated Noise Levels (wit	hout Topo and b	arrier at	tenua	ation)						
VehicleType Leq Peak Ho	our Leq Day	Le	q Eve	ning	Leq I	Vight		Ldn	Ci	NEL
Autos: 7	4.0 7	3.3		71.6		65.5	5	74.1		74.7
Medium Trucks: 6	9.3 6	9.1		62.7		61.1	1	69.6		69.8
Heavy Trucks: 7	1.2 7	1.0		62.0		63.2	2	71.6	;	71.
Vehicle Noise: 7	6.7 7	6.2		72.5		68.4	4	76.9)	77.3
Centerline Distance to Noise C	Contour (in feet)									
			70 dE	BA	65 0	<i>iBA</i>		60 dBA	55	dBA
	L	dn:		145		312		672		1,448

	FHV	VA-RD-77-108 HI	GHWAY	NOISE PF	REDICTIO	N MODEL			
Scenan Road Nam Road Segmei	io: OYCP (202 e: Orangethor nt: e/o Acacia	2) pe Av. Av.			Project Na Job Nun	ame: Good aber: 1315	lman Logistic 8	s Cente	r
SITE	SPECIFIC IN	IPUT DATA			NO	ISE MOD	EL INPUTS	5	
Highway Data				Site Con	ditions (H	ard = 10, \$	Soft = 15)		
Average Daily	Traffic (Adt):	33,779 vehicles				Auto	s: 15		
Peak Hour	Percentage:	7.51%		Me	dium Trucl	s (2 Axles	;): 15		
Peak H	our Volume:	2,537 vehicles		He	avy Trucks	(3+ Axles	;): 15		
Ve	hicle Speed:	45 mph		Vehiele	Mar.				
Near/Far La	ne Distance:	88 feet		Venicie i	icloTupo	Dav	Evoning	Night	Daily
Site Data				ven	Cierype Διπ	08' 77 5	% 12.9%	0.6%	06 17%
Sile Dala				M	Autor Alium Truc	vs: 11.3	% 4.9%	10.3%	2 55%
Bai	rrier Height:	0.0 feet		- AND	Jaavin Truc	ke: 86.5	% 2.7%	10.0%	1 20%
Barrier Type (0-W	all, 1-Berm):	0.0			icavy inac	A3. 00.0	70 2.170	10.070	1.2070
Centerline Dis	st. to Barrier:	50.0 feet		Noise Sc	ource Elev	ations (in	feet)		
Centerline Dist.	to Observer:	50.0 feet			Autos:	0.000			
Barrier Distance	to Observer:	0.0 feet		Mediur	n Trucks:	2.297			
Observer Height (Above Pad):	5.0 feet		Heav	y Trucks:	8.004	Grade Adj	ustment	: 0.0
Pa	ad Elevation:	0.0 feet		Lane Fou	uivalent D	istanco (ii	1 feet)		
Roa	ad Elevation:	0.0 reet		Lune Ly	Autor	24 260	i ieety		
	Loft View	0.0%		Modiu	n Trucke:	24.203			
	Dight View.	-90.0 degrees		Hoo	n Trucks.	23.302			
	Right view.	90.0 degrees		Tieav	y muchs.	23.550			
FHWA Noise Mode	el Calculation	s							
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atte	en Ber	m Atten
Autos:	68.46	2.04	4.	.61	-1.20	-4.6	5 0.0	00	0.000
Medium Trucks:	79.45	-13.74	4.	.70	-1.20	-4.8	7 0.0	00	0.000
Heavy Trucks:	84.25	-16.70	4.	.69	-1.20	-5.4	3 0.0	00	0.000
Unmitigated Noise	e Levels (with	out Topo and ba	rrier atte	enuation)					
VehicleType	Leq Peak Hou	r Leq Day	Leq	Evening	Leq Nig	ght	Ldn	C	VEL
Autos:	73	.9 73	.2	71.5		65.4	74.0	ĺ	74.7
Medium Trucks:	69	.2 69	.0	62.6		61.0	69.5		69.7
Heavy Trucks:	71	.0 70	.9	61.8		63.1	71.4		71.6
Vehicle Noise:	76	.6 76	.1	72.4		68.3	76.8		77.2
Centerline Distance	e to Noise Co	ontour (in feet)							
			70) dBA	65 dB	A	60 dBA	55	dBA
		Ld	n:	143		308	663		1,428
		CNE	L:	152		327	705		1,519

	FH	WA-RD-77-10	8 HIGH	WAY N	IOISE PI	REDICTIO	N MODI	EL			
Scenario Road Name Road Segmen	o: OYCP (202 e: Orangetho t: e/o Dwy. 6	22) rpe Av.				Project N Job Nur	ame: Go nber: 13	oodmar 158	n Logistic	s Cente	r
SITE S	PECIFIC I	VPUT DATA				NO	ISE MO	DDEL	INPUTS	5	
Highway Data					Site Con	ditions (H	lard = 10	0, Soft	= 15)		
Average Daily	Traffic (Adt):	33,767 vehic	les				AL	utos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 Ax	les):	15		
Peak He	our Volume:	2,537 vehicle	es		He	avy Truck	s (3+ Ax	les):	15		
Vel	nicle Speed:	45 mph			Vehicle	Mix					
Near/Far Lar	e Distance:	88 feet			Veh	icleTvpe	D	av E	venina	Niaht	Dailv
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	95.98%
Bar	rier Heiaht:	0.0 feet			M	edium Tru	cks: 84	4.8%	4.9%	10.3%	2.63%
Barrier Type (0-Wa	all, 1-Berm):	0.0			1	leavy Tru	cks: 8	6.5%	2.7%	10.8%	1.39%
Centerline Dis	t. to Barrier:	50.0 feet		H	Noico Se		ations	(in foot	1		
Centerline Dist. t	o Observer:	50.0 feet		ŕ	10/30 00	Autos:	0.00	0	/		
Barrier Distance t	o Observer:	0.0 feet			Modiu	m Trucks	2 20	17			
Observer Height (/	Above Pad):	5.0 feet			Heat	v Trucks:	8.00	14 G	rade Adi	ustment	: 0.0
Pa	d Elevation:	0.0 feet			mour	y maono.	0.00				
Roa	d Elevation:	0.0 feet		1	Lane Eq	uivalent D	listance	(in fee	et)		
F	Road Grade:	0.0%				Autos:	24.26	69			
	Left View:	-90.0 degre	es		Mediu	m Trucks:	23.90)2			
	Right View:	90.0 degre	es		Heav	y Trucks:	23.93	38			
FHWA Noise Mode	I Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresnel	l Ba	arrier Atte	en Ber	m Atten
Autos:	68.46	2.0	3	4.6	1	-1.20	-4	4.65	0.0	00	0.000
Medium Trucks:	79.45	-13.5	9	4.7	0	-1.20	-4	1.87	0.0	00	0.000
Heavy Trucks:	84.25	-16.3	3	4.6	9	-1.20	-5	5.43	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and	l barrie	r atten	uation)						
VehicleType	Leq Peak Ho	ur Leq Da	ay 🛛	Leg E	vening	Leq Ni	ght	L	dn	C	VEL
Autos:	73	3.9	73.2		71.5		65.4		74.0		74.6
Medium Trucks:	69	9.4	69.1		62.7		61.2		69.7		69.9
Heavy Trucks:	71	1.4	71.2		62.2		63.4		71.8		71.9
Vehicle Noise:	76	6.7	76.3		72.4		68.4		77.0		77.4
Centerline Distance	e to Noise C	ontour (in fee	t)								
			L	70 0	dBA	65 dE	BA	60	dBA	55	dBA
			145		313		675		1,454		
		(CNEL:		155		333		717		1,546

	FHW	A-RD-77-108	HIGHW	AY NO	DISE PR	REDICTIO	N MODE	L		
Scenari	o: OYCP (2022	2)				Project N	ame: Go	odman Logist	ics Cente	er
Road Nam	e: Orangethorp	be Av.				Job Nur	nber: 13	158		
Road Segmer	nt: e/o Dwy. 10									
SITES	SPECIFIC IN	PUT DATA				NO	ISE MO	DEL INPUT	s	
Highway Data				S	ite Con	ditions (H	lard = 10	, Soft = 15)		
Average Daily	Traffic (Adt):	33,790 vehicle	es				Au	tos: 15		
Peak Hour	Percentage:	7.51%			Mee	dium Truc	ks (2 Axl	es): 15		
Peak H	our Volume:	2,538 vehicle	6		Hea	avy Truck	s (3+ Axl	es): 15		
Vel	hicle Speed:	45 mph		V	ehicle N	<i>lix</i>				
Near/Far Lar	ne Distance:	88 feet		-	Vehi	cleTvpe	Da	v Evenina	Niaht	Dailv
Site Data						Au	tos: 77	.5% 12.9%	9.6%	95.58%
Bar	rior Hoight	0.0 feet			Me	dium Tru	cks: 84	.8% 4.9%	10.3%	2.80%
Barrier Type (0-W	all 1-Berm)	0.0			E	leavy Tru	cks: 86	.5% 2.7%	10.8%	1.62%
Centerline Dis	st. to Barrier:	50.0 feet								
Centerline Dist.	to Observer:	50.0 feet		N	oise So	urce Elev	ations (in teet)		
Barrier Distance	to Observer:	0.0 feet				Autos:	0.000	-		
Observer Height (J	Above Pad):	5.0 feet			Mediur	n Trucks:	2.29	(Crada Ar	livotroont	
Pa	d Elevation:	0.0 feet			Heav	y Trucks:	8.004	t Grade Ad	ijusimeni	. 0.0
Roa	ad Elevation:	0.0 feet		Li	ane Equ	ıivalent D	istance	(in feet)		
F	Road Grade:	0.0%				Autos:	24.26	9		
	Left View:	-90.0 degree	s		Mediur	n Trucks:	23.90	2		
	Right View:	90.0 degree	s		Heav	y Trucks:	23.93	В		
FHWA Noise Mode	el Calculations									
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite	Road	Fresnel	Barrier At	ten Ber	m Atten
Autos:	68.46	2.01		4.61		-1.20	-4	.65 0.	000	0.000
Medium Trucks:	79.45	-13.32		4.70	1	-1.20	-4	.87 0.	000	0.000
Heavy Trucks:	84.25	-15.71		4.69		-1.20	-5	.43 0.	000	0.000
Unmitigated Noise	Levels (witho	ut Topo and	barrier a	attenu	uation)					
VehicleType	Leq Peak Hou	r Leq Day	· L	eq Eve	ening	Leq Ni	ght	Ldn	C	NEL
Autos:	73.	9	73.2		71.5		65.4	74.	0	74.6
Medium Trucks:	69.	6	69.4		63.0		61.5	69.	9	70.2
Heavy Trucks:	72.	0	71.9		62.8		64.1	72.	4	72.6
Vahiala Maiaa	77	0	76.5		72.5		68.7	77.	2	77.6
venicie ivoise.										-
Centerline Distanc	e to Noise Co	ntour (in feet)						-	
Centerline Distanc	e to Noise Co	ntour (in feet		70 dl	BA	65 dE	BA	60 dBA	55	dBA
Centerline Distanc	e to Noise Co	ntour (in feet	Ldn:	70 dl	BA 151	65 dE	326	60 dBA 702	55 2	dBA 1,512

Friday, May 15, 2020

F⊦	WA-RD-77-108 H	IIGHWA	Y NC	DISE PF	REDICTI	ON MO	DEL			
Scenario: OYCP (20	22)				Project	Name:	Goodr	nan Logistio	cs Cente	er
Road Name: Orangethe	orpe Av.				Job N	umber:	13158			
Road Segment: w/o N. Sta	te College Bl.									
SITE SPECIFIC I	NPUT DATA				N	OISE I	NODE	L INPUTS	5	
Highway Data			Si	ite Con	ditions ((Hard =	10, S	oft = 15)		
Average Daily Traffic (Adt):	34,175 vehicles						Autos.	15		
Peak Hour Percentage:	7.51%			Me	dium Tru	icks (2)	Axles).	15		
Peak Hour Volume:	2,567 vehicles			Hea	avy Truc	:ks (3+)	Axles).	15		
Vehicle Speed:	45 mph		V	ohiclo I	Niv					
Near/Far Lane Distance:	88 feet			Vehi	cleTvpe		Dav	Evenina	Niaht	Daily
Site Data						utos:	77.5%	6 12.9%	9.6%	95.39%
Barrier Height:	0.0 feet			Me	edium Tr	ucks:	84.8%	6 4.9%	10.3%	2.88%
Barrier Type (0-Wall, 1-Berm):	0.0			F	leavy Tr	ucks:	86.5%	6 2.7%	10.8%	1.73%
Centerline Dist. to Barrier:	50.0 feet		A/.	oiso So	urco Ek	ovation	e (in f	oot)		
Centerline Dist. to Observer:	50.0 feet		74	0136 30		evauon	000	eel)		
Barrier Distance to Observer:	0.0 feet			Modiur	n Trucki	s. U.	207			
Observer Height (Above Pad):	5.0 feet			Hoov	n Trucks	. <u>2</u> .	201	Grade Adi	ustmont	- 0.0
Pad Elevation:	0.0 feet			neav	y mucha	s. 0.	004	Orade Adj	usunen	. 0.0
Road Elevation:	0.0 feet		Lá	ane Equ	uivalent	Distan	ce (in	feet)		
Road Grade:	0.0%				Autos	8: 24.	269			
Left View:	-90.0 degrees			Mediur	n Trucks	3: 23.	902			
Right View:	90.0 degrees			Heav	y Trucks	8: 23.	938			
FHWA Noise Model Calculatio	ns									
VehicleType REMEL	Traffic Flow	Distant	ce	Finite	Road	Fresr	nel	Barrier Atte	en Bei	m Atten
Autos: 68.4	6 2.05		4.61		-1.20		-4.65	0.0	00	0.000
Medium Trucks: 79.4	5 -13.15		4.70		-1.20		-4.87	0.0	00	0.000
Heavy Trucks: 84.2	5 -15.36		4.69		-1.20		-5.43	0.0	00	0.000
Unmitigated Noise Levels (wit	hout Topo and b	arrier at	tenu	ation)						
VehicleType Leq Peak Ho	our Leq Day	Le	q Eve	ening	Leq I	Vight		Ldn	C	NEL
Autos: 7	3.9 7	3.3		71.5		65.4	1	74.1		74.7
Medium Trucks: 6	9.8 6	9.5		63.2		61.6	5	70.1		70.3
Heavy Trucks: 7	2.4 7.	2.2		63.2		64.4	1	72.8		72.9
Vehicle Noise: 7	7.1 7	6.7		72.6		68.9	3	77.4		77.8
Centerline Distance to Noise C	Contour (in feet)		70 /		05		1			10.4
	,		7∪ dE	3A	65 0	IBA 004	1 (DU dBA	55	aBA 4 FE4
	L	an:		155		334		/20		1,551
	CN			764		- 464		763		1 643

	FHV	NA-RD-77-108	HIGHW	AY NO	DISE PR	EDICTI	ON MO				
Scenar Road Narr Road Segme	io: OYCP (202 ne: Orangethor nt: e/o N. State	22) pe Av. e College Bl.				Project Job Ni	Name: Imber:	Goodr 13158	nan Logisti	ics Cen	ter
SITE	SPECIFIC IN	IPUT DATA				N	OISE N	/IODE	L INPUT	s	
Highway Data				S	ite Con	ditions (Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	33,007 vehicle	s					Autos.	15		
Peak Hour	Percentage:	7.51%			Mee	dium Tru	cks (2 /	Axles).	: 15		
Peak H	lour Volume:	2,480 vehicles			Hea	avy Truc	ks (3+ /	Axles).	: 15		
Ve	hicle Speed:	45 mph			chiele I	<i></i>					
Near/Far La	ne Distance:	88 feet		v	Vohi			Dav	Evoning	Night	Daily
Sito Data				_	Venn	Lie i ype	utos	77 5%	LVering	night 0.69	05.65%
Sile Dala				_	M	n dium Tr	uios.	01.07	4 006	10.20	% 55.05%
Ba	rrier Height:	0.0 feet			IVIC	loover Tr	ucks:	96.5%	0 4.370 2 70/	10.0	/ 2.70%
Barrier Type (0-W	/all, 1-Berm):	0.0				leavy III	<i>u</i> una.	00.37	0 2.170	10.0	/0 1.39/0
Centerline Di	st. to Barrier:	50.0 feet		N	oise So	urce Ele	vation	s (in f	eet)		
Centerline Dist.	to Observer:	50.0 feet				Autos	: 0.	000			
Barrier Distance	to Ubserver:	0.0 feet			Mediur	n Trucks	: 2.	297			
Observer Height	Above Pad):	5.0 feet			Heav	y Trucks	: 8.	004	Grade Ad	ljustme	nt: 0.0
P	ad Elevation:	0.0 feet		1	ano Fai	ivalent	Distan	no (in	foot)		
Ro	ad Elevation:	0.0 teet		-	une Lyt	Autoo	- 24	260	1000		
	Loft View	0.0%			Modium	n Trucks	. 24.	203			
	Dight View.	-90.0 degree	5		Hoov	v Trucks	. 23.	020			
	ragin view.	50.0 degree	5		neav	y mucho	. 20.	000			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresr	el	Barrier At	ten B	erm Atten
Autos:	68.46	1.91		4.61		-1.20		-4.65	0.	000	0.000
Medium Trucks:	79.45	-13.48		4.70		-1.20		-4.87	0.	000	0.000
Heavy Trucks:	84.25	-15.89		4.69		-1.20		-5.43	0.	000	0.000
Unmitigated Noise	e Levels (with	out Topo and I	barrier a	ttenu	ation)						
VehicleType	Leg Peak Hou	ur Leq Day	Le	q Ev	ening	Leq I	Vight		Ldn		CNEL
Autos:	73	.8	73.1		71.4		65.3	3	73.	9	74.5
Medium Trucks:	69).5 (69.2		62.8		61.3	3	69.	8	70.0
Heavy Trucks:	71	.9	1.7		62.6		63.9)	72.	3	72.4
Vehicle Noise:	76	6.8	76.4		72.4		68.6	6	77.	1	77.5
Centerline Distan	ce to Noise Co	ontour (in feet)									
				70 d	BA	65 c	IBA		60 dBA	5	i5 dBA
		1	dn:		148		319		687	,	1,480
		Ch	IEL:		157		338		729)	1,570

	FH\	NA-RD-77-108	BHIGHW	AY NC	DISE PF	REDICTIO	N MOD	EL			
Scenar Road Nam Road Segme	io: OYCP (202 ie: Orangetho nt: w/o S. Plac	22) rpe Av. sentia Av.				Project N Job Nur	ame: Ge nber: 13	oodma 3158	n Logistic	s Cente	ſ
SITE	SPECIFIC IN	IPUT DATA				NO	ISE MO	ODEL	INPUTS	5	
Highway Data				Si	te Con	ditions (H	lard = 1	0, Soft	t = 15)		
Average Daily	Traffic (Adt):	31,541 vehicl	es				A	utos:	15		
Peak Hour	Percentage:	7.51%			Me	dium Truc	ks (2 Ax	des):	15		
Peak H	lour Volume:	2,369 vehicle	s		Hei	avy Truck	s (3+ Ax	des):	15		
Ve	hicle Speed:	45 mph		V	ehicle N	Nix					
Near/Far La	ne Distance:	88 feet			Vehi	cleType	D	ay E	Evening	Night	Daily
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	95.62%
Bai	rrier Heiaht:	0.0 feet			Me	edium Tru	cks: 8	4.8%	4.9%	10.3%	2.78%
Barrier Type (0-W	all, 1-Berm):	0.0			ŀ	leavy Tru	cks: 8	6.5%	2.7%	10.8%	1.61%
Centerline Di	st. to Barrier:	50.0 feet		N	nise So	urce Flev	ations	(in fee	t)		
Centerline Dist.	to Observer:	50.0 feet		-	0.00 00	Autos:	0.00	0	9		
Barrier Distance	to Observer:	0.0 feet			Mediur	n Trucks:	2.20	97			
Observer Height (Above Pad):	5.0 feet			Heav	v Trucks:	8.00)4 @	Grade Adj	ustment	: 0.0
Pa	ad Elevation:	0.0 feet		_							
Roa	ad Elevation:	0.0 feet		Lá	ane Equ	iivalent D	listance	e (in fe	et)		
	Road Grade:	0.0%				Autos:	24.26	59			
	Left View:	-90.0 degre	es		Mediur	n Trucks:	23.90)2			
	Right View:	90.0 degre	es		Heav	y Trucks:	23.93	58			
FHWA Noise Mode	el Calculation	s									-
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	I B	arrier Atte	en Ber	m Atten
Autos:	68.46	1.71		4.61		-1.20	-4	4.65	0.0	00	0.000
Medium Trucks:	79.45	-13.65		4.70		-1.20	-4	4.87	0.0	00	0.000
Heavy Trucks:	84.25	-16.03		4.69		-1.20	-{	5.43	0.0	00	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Ho	ur Leq Da	y L	.eq Eve	ening	Leq Ni	ight	L	_dn	C	NEL
Autos:	73	3.6	72.9		71.2		65.1		73.7		74.3
Medium Trucks:	69	9.3	69.0		62.7		61.1		69.6		69.8
Heavy Trucks:	71	.7	71.5		62.5		63.8		72.1		72.2
Vehicle Noise:	76	6.6	76.2		72.2		68.4		76.9		77.3
Centerline Distant	e to Noise C	ontour (in fee	t)								-
				70 dE	BA	65 dE	BA	60	dBA	55	dBA
			Ldn:		144		310		669		1,441
		C	NEL:		153		329		709		1,528

	FHV	/A-RD-77-108	HIGHW	AY NO	DISE PR	EDICTIO	N MOD	EL			
Scenari Road Nam	o: OYCP (202)	2) De Av.				Project N	ame: G	oodm 3158	an Logisti	cs Cente	r
Road Segmen	t: e/o S. Place	entia Av.				000 / 10	1001. 10	,			
SITE S	SPECIFIC IN	PUT DATA				NC	ISE M	ODEI		S	
Highway Data				S	ite Cond	ditions (H	lard = 1	0, So	ft = 15)		
Average Daily	Traffic (Adt):	34,320 vehicle	s				A	utos:	15		
Peak Hour	Percentage:	7.51%			Med	dium Truc	ks (2 Ax	des):	15		
Peak He	our Volume:	2,578 vehicle	6		Hea	avy Truck	s (3+ A)	des):	15		
Vel	nicle Speed:	45 mph		v	ehicle N	lix					
Near/Far Lar	ne Distance:	98 feet		Ē	Vehi	cleTvpe	D	av	Evenina	Niaht	Dailv
Site Data						AL	tos: 7	7.5%	12.9%	9.6%	95.66%
Bar	rier Height:	0.0 feet			Me	dium Tru	cks: 8	4.8%	4.9%	10.3%	2.76%
Barrier Type (0-Wa	all 1-Rerm)	0.0			H	leavy Tru	cks: 8	6.5%	2.7%	10.8%	1.58%
Centerline Dis	t. to Barrier:	60.0 feet		-							
Centerline Dist. t	o Observer:	60.0 feet		N	oise So	urce Elev	ations	(in te	et)		
Barrier Distance t	o Observer:	0.0 feet				Autos:	0.00	00			
Observer Height ()	Above Pad):	5.0 feet			Mediun	n Trucks:	2.29	97	Crada Ad	i colmont	
Pa	d Elevation:	0.0 feet			Heav	y Trucks:	8.00	J4	Grade Auj	usuneni.	0.0
Roa	d Elevation:	0.0 feet		L	ane Equ	ivalent D	listance	e (in f	eet)		
F	Road Grade:	0.0%				Autos:	34.9	36			
	Left View:	-90.0 degree	s		Mediun	n Trucks:	34.73	32			
	Right View:	90.0 degree	es		Heav	y Trucks:	34.7	57			
FHWA Noise Mode	l Calculations	6									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	1 1	Barrier Att	en Ber	m Atten
Autos:	68.46	2.08		2.22		-1.20		4.69	0.0	000	0.00
Medium Trucks:	79.45	-13.31		2.27		-1.20	-4	4.88	0.0	000	0.00
Heavy Trucks:	84.25	-15.75		2.27		-1.20	-	5.34	0.0	000	0.00
Unmitigated Noise	Levels (witho	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	L	.eq Ev	ening	Leq N	ght		Ldn	CI	VEL
Autos:	71.	.6	70.9		69.1		63.1		71.7	, -	72.3
Meaium Trucks:	67.	2	66.9		60.6		59.0		67.5	5	67.
Heavy Trucks:	69.	.6	69.4		60.4		61.6		70.0	,	70.
venicle Noise:	74.	6	/4.1		70.2		66.3		74.8	5	75.
Centerline Distanc	e to Noise Co	ntour (in feet)	70 d	DA I	65 40	24	6	0 dBA	55	dD A
				70 a	400	05 GE	071	0	UUDA 504	55	1 259
					1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1				-18/1		1.200
		~	LUN.		120		2/1		610		1 2 2 5

Friday, May 15, 2020

F	HWA-	RD-77-108 H	HIGI	HWAY I	NOISE PF	REDICTI	ON MC	DEL			
Scenario: OYCP (2	2022)	. –				Project	Name:	Goodr	nan Logistio	cs Cente	er
Road Name: Oranget	norpe /	AV. theound Dor				JOD N	umber:	13158			
Road Segment. e/o SR-t	17 30u		nps								
SITE SPECIFIC	INPU	JT DATA				N	OISE	MODE	L INPUTS	5	
Highway Data					Site Con	ditions	(Hard =	: 10, S	oft = 15)		
Average Daily Traffic (Adt,	: 37,	,199 vehicles	5					Autos	15		
Peak Hour Percentage	: 7	.51%			Me	dium Tri	icks (2	Axles)	15		
Peak Hour Volume	: 2,7	794 vehicles			He	avy Truc	:ks (3+	Axles)	: 15		
Vehicle Speed	2	45 mph		-	Vehicle I	Nix					
Near/Far Lane Distance	2	98 feet		F	Vehi	icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data					-		Autos:	77.5%	6 12.9%	9.6%	96.04%
Barrier Heigh		0.0 feet			Me	edium Ti	ucks:	84.8%	6 4.9%	10.3%	2.60%
Barrier Type (0-Wall, 1-Berm	- 1:	0.0			ŀ	leavy Ti	ucks:	86.5%	6 2.7%	10.8%	1.35%
Centerline Dist. to Barrie	. 6	60.0 feet		-	Noiso Sa	urco El	ovation	c (in f	oot)		
Centerline Dist. to Observe	: 6	60.0 feet		F	140/36 30	Auto		000	eel)		
Barrier Distance to Observe	-	0.0 feet			Madiu	Auto:	s. 0.	207			
Observer Height (Above Pad	2	5.0 feet			Hoon	n Truck	s. 2.	004	Grade Adi	ustmont	- 0.0
Pad Elevation	e:	0.0 feet		L	Tieav	y muck.	s. 0.	004	Orade Adj	usunen	. 0.0
Road Elevation		0.0 feet			Lane Equ	uivalent	Distan	ce (in	feet)		
Road Grade	: 0	.0%				Auto	s: 34	.986			
Left View	·: -9	90.0 degrees	8		Mediur	n Truck	s: 34	.732			
Right View	e 9	90.0 degrees	6		Heav	y Truck	s: 34	.757			
FHWA Noise Model Calculati	ons										
VehicleType REMEL	Tr	affic Flow	Di	stance	Finite	Road	Fresi	nel	Barrier Atte	en Bei	m Atten
Autos: 68.	46	2.45		2.2	22	-1.20		-4.69	0.0	00	0.000
Medium Trucks: 79.	45	-13.22		2.2	27	-1.20		-4.88	0.0	00	0.00
Heavy Trucks: 84.	25	-16.06		2.2	27	-1.20		-5.34	0.0	00	0.000
Unmitigated Noise Levels (w	ithout	Topo and b	arri	er atter	nuation)						
VehicleType Leq Peak I	lour	Leq Day		Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	71.9	7	1.3		69.5		63.	5	72.1		72.7
Medium Trucks:	67.3	6	7.0		60.7		59.	1	67.6	5	67.8
Heavy Trucks:	69.3	6	9.1		60.0		61.	3	69.7	·	69.
Vehicle Noise:	74.7	7	4.2		70.5		66.	4	74.9)	75.3
Centerline Distance to Noise	Conto	our (in feet)									
			્રા	70	dBA	65	dBA		50 dBA	55	dBA
		L	.dn:		128		275	0	594		1,279
		CN	FI :		136		293	5	631		1.360

	FH1	NA-RD-77-108 H	IIGHWA	Y NOISE	PREDICT	ION MO	DEL			
Scenar Road Nan Road Segme	io: OYCP (202 ne: Orangethor nt: e/o SR-57 I	22) pe Av. Northbound Ran	nps		Project Job N	Name: (lumber:	Goodr 13158	nan Logisti	cs Cent	er
SITE	SPECIFIC IN	IPUT DATA			M	IOISE N	/IODE	L INPUT	s	
Highway Data				Site Co	nditions	(Hard =	10, Se	oft = 15)		
Average Daily	Traffic (Adt):	38,259 vehicles					Autos:	15		
Peak Hour	Percentage:	7.51%		٨	ledium Tr	ucks (2 A	(xles)	15		
Peak H	lour Volume:	2,874 vehicles		F	leavy Tru	cks (3+ A	(xles)	15		
Ve	hicle Speed:	45 mph		Mahiak						
Near/Far La	ne Distance:	98 feet		Venicie	hicleType		Dav	Evening	Night	Daily
Site Data					incie i ype	Autos:	77 5%	12.9%	9.6%	6 96 37%
ono puta		0.0.6			Medium T	rucks:	84.8%	4.9%	10.3%	6 2.47%
Ba Parriar Tupo (0.14	(all 1 Porm):	0.0 feet			Heavv T	rucks:	86.5%	2.7%	10.8%	6 1.17%
Centerline Di	st to Barrier	60.0 feet								
Centerline Dist	to Observer:	60.0 feet		Noise :	Source E	levation	s (in f	eet)		
Barrier Distance	to Observer:	0.0 feet			Auto	s: 0.0	000			
Observer Height	(Above Pad):	5.0 feet		Med	um Truck	's: 2.1	297			
P	ad Elevation:	0.0 feet		He	avy Truck	's: 8.0	004	Grade Ad	justmen	t: 0.0
Ro	ad Elevation:	0.0 feet		Lane E	quivalen	t Distand	ce (in	feet)		
	Road Grade:	0.0%			Auto	s: 34.	986			
	Left View:	-90.0 degrees		Med	um Truck	s: 34.	732			
	Right View:	90.0 degrees	;	He	avy Truck	s: 34.	757			
FHWA Noise Mod	el Calculation	s								
VehicleType	REMEL	Traffic Flow	Distand	e Finit	e Road	Fresn	el	Barrier At	en Be	erm Atten
Autos:	68.46	2.59		2.22	-1.20		-4.69	0.	000	0.000
Medium Trucks:	79.45	-13.33		2.27	-1.20		-4.88	0.	000	0.000
Heavy Trucks:	84.25	-16.59		2.27	-1.20		-5.34	0.	000	0.000
Unmitigated Noise	e Levels (with	out Topo and b	arrier at	tenuation)					
VehicleType	Leq Peak Hou	ur Leq Day	Le	q Evening	Leq	Night		Ldn	0	NEL
Autos:	72	2.1 7	1.4	69.	6	63.6	6	72.	2	72.8
Medium Trucks:	67	.2 6	6.9	60.	6	59.0)	67.	5	67.7
Heavy Trucks:	68	6.7 6	8.6	59.	5	60.8	3	69.	1	69.2
Vehicle Noise:	74	.6 7	4.1	70.	5	66.3	8	74.	В	75.2
Centerline Distant	ce to Noise Co	ontour (in feet)								
				70 dBA	65	dBA	(60 dBA	5	5 dBA
		L	dn:	12	6	271		585	i	1,260
		CN	EL:	134	1	289		623		1,342



APPENDIX 9.1:

CADNAA OPERATIONAL NOISE MODEL INPUTS



13158

CadnaA Noise Prediction Model: 13158-08.cna Date: 09.07.20 Analyst: B. Lawson

Receiver Noise Levels

Name	M.	ID		Level Lr		Lir	mit. 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		R1	40.0	39.8	46.5	55.0	50.0	0.0				5.00	а	6061255.06	2263602.19	5.00
RECEIVERS		R2	41.8	41.6	48.3	55.0	50.0	0.0				5.00	а	6062341.91	2263701.76	5.00
RECEIVERS		R3	36.6	35.6	42.2	55.0	50.0	0.0				5.00	а	6063844.21	2261916.65	5.00
RECEIVERS		R4	38.4	38.2	44.9	55.0	50.0	0.0				5.00	а	6064095.09	2263474.33	5.00
RECEIVERS		R5	35.9	35.2	41.9	55.0	50.0	0.0				5.00	а	6065023.95	2260526.54	5.00
RECEIVERS		R6	37.9	37.7	44.4	55.0	50.0	0.0				5.00	а	6062239.88	2259139.17	5.00
RECEIVERS		R7	35.7	34.3	41.1	55.0	50.0	0.0				5.00	а	6060360.59	2260263.12	5.00
RECEIVERS		R8	30.1	29.7	36.4	55.0	50.0	0.0				5.00	а	6060281.17	2261118.16	5.00

Point Source(s)

Name	м.	ID	R	esult. PW	'L		Lw/L	i	Op	erating Ti	ime	к0	Height	C	oordinates	
			Day	Evening	Night	Туре	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)	(ft)	(ft)	(ft)
POINTSOURCE		AC01	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00 g	6063870.82	2261495.90	60.00
POINTSOURCE		AC02	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00 g	6063869.09	2260933.40	60.00
POINTSOURCE		AC03	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00 g	6063412.49	2260551.46	60.00
POINTSOURCE		AC04	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00 g	6063424.64	2261499.38	60.00
POINTSOURCE		AC05	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00 g	6062876.03	2261442.08	60.00
POINTSOURCE		AC06	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00 g	6062865.61	2260556.67	60.00
POINTSOURCE		AC07	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00 g	6062558.32	2260560.14	60.00
POINTSOURCE		AC08	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00 g	6062561.79	2261469.86	60.00
POINTSOURCE		AC09	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00 g	6062011.45	2261471.60	60.00
POINTSOURCE		AC10	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00 g	6062006.24	2260565.35	60.00
POINTSOURCE		AC11	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00 g	6061745.82	2260547.99	60.00
POINTSOURCE		AC12	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00 g	6061759.71	2261478.54	60.00
POINTSOURCE		TRASH01	89.0	89.0	89.0	Lw	89		75.00	0.00	45.00	0.0	5.00 a	6061900.34	2260644.50	5.00
POINTSOURCE		TRASH02	89.0	89.0	89.0	Lw	89		75.00	0.00	45.00	0.0	5.00 a	6062718.04	2261395.21	5.00
POINTSOURCE		TRASH03	89.0	89.0	89.0	Lw	89		75.00	0.00	45.00	0.0	5.00 a	6063537.49	2261396.95	5.00
POINTSOURCE		TRASH04	89.0	89.0	89.0	Lw	89		75.00	0.00	45.00	0.0	5.00 a	6063512.20	2260636.70	5.00

Line Source(s)

Name	М.	ID	R	esult. PW	/L	Result. PWL'			Lw / Li		Op	erating Ti	me		Moving	Pt. Src		Height	
			Day	Evening	Night	Day	Day Evening Night Type Value norm. Day Special Night Number				Speed								
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	Day	Evening	Night	(mph)	(ft)
LINESOURCE		DWY03	86.5	76.3	77.3	68.4	58.2	59.3	PWL-Pt	89.7					74.0	7.0	9.0	6.2	8
LINESOURCE		DWY04	86.4	76.2	77.3	68.4	58.2	59.3	PWL-Pt	89.7					74.0	7.0	9.0	6.2	8
LINESOURCE		DWY05	86.1	76.2	77.4	67.4	57.5	58.7	PWL-Pt	89.7					59.0	6.0	8.0	6.2	8
LINESOURCE		DWY06	86.6	76.2	78.0	67.9	57.5	59.3	PWL-Pt	89.7					66.0	6.0	9.0	6.2	8
LINESOURCE		DWY07	85.5	75.6	76.8	67.4	57.5	58.7	PWL-Pt	89.7					59.0	6.0	8.0	6.2	8
LINESOURCE		DWY08	86.4	76.2	77.3	68.4	58.2	59.3	PWL-Pt	89.7					74.0	7.0	9.0	6.2	8
LINESOURCE		DWY09	85.5	75.6	76.8	67.4	57.5	58.7	PWL-Pt	89.7					59.0	6.0	8.0	6.2	8
LINESOURCE		DWY10	86.5	76.2	77.3	68.4	58.2	59.3	PWL-Pt	89.7					74.0	7.0	9.0	6.2	8
LINESOURCE		DWY13	87.9	77.5	78.8	69.6	59.3	60.5	PWL-Pt	89.7					97.0	9.0	12.0	6.2	8
LINESOURCE		DWY13	86.2	75.9	77.1	69.6	59.3	60.5	PWL-Pt	89.7					97.0	9.0	12.0	6.2	8
LINESOURCE		DWY14	86.0	75.6	77.4	67.9	57.5	59.3	PWL-Pt	89.7					66.0	6.0	9.0	6.2	8
LINESOURCE		DWY16	87.4	76.5	78.7	65.4	54.5	56.7	PWL-Pt	89.7					37.0	3.0	5.0	6.2	8

Name	ŀ	lei	ght			Coordinat	es	
	Begin		End		x	у	z	Ground
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
LINESOURCE	8.00	а			6061813.54	2261413.80	8.00	0.00
					6061824.00	2261625.22	8.00	0.00
LINESOURCE	8.00	а			6061813.53	2260631.70	8.00	0.00
					6061806.55	2260424.00	8.00	0.00
LINESOURCE	8.00	а			6061957.54	2261412.12	8.00	0.00
					6061961.10	2261553.20	8.00	0.00
					6062002.77	2261567.08	8.00	0.00
					6062006.28	2261623.98	8.00	0.00
LINESOURCE	8.00	а			6061943.76	2260631.32	8.00	0.00
					6061950.68	2260482.01	8.00	0.00
					6061997.56	2260469.86	8.00	0.00
					6061997.52	2260422.83	8.00	0.00
LINESOURCE	8.00	а			6062627.92	2261409.67	8.00	0.00
					6062629.56	2261619.75	8.00	0.00
LINESOURCE	8.00	а			6062617.35	2260627.79	8.00	0.00
					6062615.58	2260419.06	8.00	0.00
LINESOURCE	8.00	а			6062813.47	2261407.37	8.00	0.00
					6062813.57	2261618.50	8.00	0.00

Name	Height				Coordinat	es	
	Begin		End	х	У	z	Ground
	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
LINESOURCE	8.00	а		6062801.38	2260627.68	8.00	0.00
				6062801.35	2260417.92	8.00	0.00
LINESOURCE	8.00	а		6063481.90	2261406.94	8.00	0.00
				6063485.40	2261488.96	8.00	0.00
				6063527.07	2261544.51	8.00	0.00
				6063527.15	2261613.66	8.00	0.00
LINESOURCE	8.00	а		6063575.74	2261407.63	8.00	0.00
				6063567.00	2261494.17	8.00	0.00
				6063527.07	2261544.51	8.00	0.00
LINESOURCE	8.00	а		6063480.17	2260627.51	8.00	0.00
				6063478.40	2260413.79	8.00	0.00
LINESOURCE	8.00	а		6063563.80	2261021.20	8.00	0.00
				6063563.53	2260865.70	8.00	0.00
				6063846.52	2260857.01	8.00	0.00
				6063923.94	2260888.21	8.00	0.00

Area Source(s)

ID	R	esult. PW	/L	R	esult. PW	L''	Lw	/Li	Op	erating Ti	me	M	oving Pt.	Src	Height
	Day	Evening	Night	Day	Evening	Night	Туре	Value	Day	Special	Night	Number			
	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			(min)	(min)	(min)	Day	Evening	Night	(ft)
DOCK01	111.5	111.5	111.5	67.9	67.9	67.9	Lw	111.5							8
DOCK02	111.5	111.5	111.5	67.3	67.3	67.3	Lw	111.5							8
DOCK03	111.5	111.5	111.5	69.8	69.8	69.8	Lw	111.5							8

Name	ŀ	lei	ght		Coordinat	es	
	Begin		End	x	У	z	Ground
	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
AREASOURCE	8.00	а		6061730.58	2261414.77	8.00	0.00
				6062047.95	2261411.06	8.00	0.00
				6062036.85	2260631.05	8.00	0.00
				6061718.55	2260631.98	8.00	0.00
AREASOURCE	8.00	а		6062534.02	2261410.83	8.00	0.00
				6062901.42	2261406.28	8.00	0.00
				6062891.45	2260627.63	8.00	0.00
				6062528.81	2260627.85	8.00	0.00
AREASOURCE	8.00	а		6063391.93	2261406.28	8.00	0.00
				6063663.11	2261408.27	8.00	0.00
				6063659.13	2261019.44	8.00	0.00
				6063523.60	2261021.95	8.00	0.00
				6063517.86	2260627.85	8.00	0.00
				6063383.96	2260626.63	8.00	0.00

Barrier(s)

			_		-			_			_				
Name	м.	ID	Abso	rption	Z-Ext.	Canti	ilever	⊢ ⊦	lei	ght			Coordinat	es	
			left	right		horz.	vert.	Begin	Begin En			х	У	z	Ground
					(ft)	(ft)	(ft)	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
BARRIERS		BARRIERS00001						6.00	а			6062001.08	2263672.42	6.00	0.00
												6062659.93	2263671.12	6.00	0.00
BARRIERS		BARRIERS00002						6.00	а			6064020.44	2263480.19	6.00	0.00
												6064050.12	2263449.98	6.00	0.00
												6064301.16	2263452.07	6.00	0.00

Building(s)

Name	М.	ID	RB	Residents	Absorption	Height			Coordinat	es	
						Begin		х	У	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING		BUILDING01	х	0		55.00	а	6061435.41	2261535.05	55.00	0.00
								6061785.17	2261530.43	55.00	0.00
								6061788.87	2261413.84	55.00	0.00
								6061730.58	2261414.77	55.00	0.00
								6061718.55	2260631.98	55.00	0.00
								6061776.84	2260633.83	55.00	0.00
								6061773.14	2260508.91	55.00	0.00
								6061422.46	2260513.54	55.00	0.00
BUILDING		BUILDING02	х	0		55.00	а	6061991.51	2261519.32	55.00	0.00
								6062596.52	2261516.74	55.00	0.00
								6062598.25	2261409.10	55.00	0.00
								6062534.02	2261410.83	55.00	0.00
								6062528.81	2260627.85	55.00	0.00
								6062582.63	2260624.38	55.00	0.00
								6062582.63	2260521.95	55.00	0.00
								6061981.33	2260520.94	55.00	0.00
								6061976.70	2260630.13	55.00	0.00
								6062036.85	2260631.05	55.00	0.00

Name	M.	ID	RB	Residents	Absorption	Height	t		Coordinat	es	
						Begin	_	X	y (c)	Z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
							-	6062047.95	2261411.06	55.00	0.00
		BUILDING03	x	0		55.00	a	6062851 57	2201413.84	55.00	0.00
DOILDING		5012511000	~			55.00	ľ	6063040.00	2261475.07	55.00	0.00
								6063038.00	2261526.91	55.00	0.00
								6063451.75	2261527.91	55.00	0.00
								6063453.75	2261406.28	55.00	0.00
								6063391.93	2261406.28	55.00	0.00
								6063383.96	2260626.63	55.00	0.00
								6063443.78	2260625.63	55.00	0.00
								6063439.79	2260514.97	55.00	0.00
								6062833.62	2260519.95	55.00	0.00
								6062834.62	2260627.63	55.00	0.00
								6062891.45	2260627.63	55.00	0.00
								6062901.42	2261406.28	55.00	0.00
						FF 00		6062844.59	2261407.27	55.00	0.00
BUILDING		BUILDING04	x	0		55.00	a	6063605.29	2261524.92	55.00	0.00
							-	6063900.40	2261524.92	55.00	0.00
							-	6063597.31	2260904.79	55.00	0.00
							-	6063600 30	2261020.44	55.00	0.00
	\vdash						\vdash	6063659.13	2261019.44	55.00	0.00
							t	6063663.11	2261408.27	55.00	0.00
							1	6063604.29	2261409.27	55.00	0.00
BUILDING		BUILDING00005	x	0		30.00	a	6062064.46	2260299.41	30.00	0.00
								6062291.31	2260301.96	30.00	0.00
								6062291.31	2259776.90	30.00	0.00
								6062059.36	2259779.44	30.00	0.00
BUILDING		BUILDING00006	х	0		30.00	а	6062371.60	2260161.77	30.00	0.00
								6062510.51	2260159.22	30.00	0.00
								6062509.23	2259863.56	30.00	0.00
								6062434.04	2259863.56	30.00	0.00
								6062436.59	2259818.95	30.00	0.00
						20.00		6062372.87	2259820.23	30.00	0.00
BUILDING		BUILDING00007	x	0		30.00	а	6062533.45	2260234.41	30.00	0.00
							-	6062680.01	2260235.69	30.00	0.00
							-	6062527.27	2260160.49	20.00	0.00
		BUILDING00008	v	0		30.00	a	6062715.69	2260296.86	30.00	0.00
DOILDING		DOILDINGCOOD	^			50.00	ľ	6062785 78	2260296.86	30.00	0.00
								6062787.06	2260161.77	30.00	0.00
								6062716.96	2260163.04	30.00	0.00
BUILDING		BUILDING00009	x	0		30.00	a	6061697.43	2260265.00	30.00	0.00
								6061898.79	2260259.90	30.00	0.00
								6061898.79	2259942.57	30.00	0.00
								6061937.02	2259937.47	30.00	0.00
								6061935.75	2259742.49	30.00	0.00
								6061692.33	2259738.66	30.00	0.00
BUILDING		BUILDING00010	х	0		30.00	а	6062166.42	2259583.18	30.00	0.00
								6062255.62	2259589.56	30.00	0.00
								6062260.72	2259612.50	30.00	0.00
	-		-				\vdash	6062441.69	2259615.04	30.00	0.00
	-						-	6062220 5	2239226.35	30.00	0.00
	-						\vdash	6062329.54	2259227.02	30.00	0.00
	\vdash		-				\vdash	6062126 91	2259202.42	30.00	0.00
	-						╞	6062132 01	2259524 56	30.00	0.00
							t	6062166.42	2259527.11	30.00	0.00
BUILDING		BUILDING00011	x	0		30.00	a	6061450.45	2260243.00	30.00	0.00
			Ė				É	6061569.53	2260243.00	30.00	0.00
								6061566.48	2259913.23	30.00	0.00
								6061446.37	2259912.21	30.00	0.00
BUILDING		BUILDING00012	х	0		30.00	a	6060586.32	2260166.67	30.00	0.00
							Ĺ	6060902.86	2260166.67	30.00	0.00
								6060901.84	2260207.38	30.00	0.00
								6060832.63	2260209.42	30.00	0.00
L								6060832.63	2260277.61	30.00	0.00
	-						\vdash	6061021.94	2260275.57	30.00	0.00
							\vdash	6061019.91	2260206.36	30.00	0.00
	-		-					6060949.68	2260202.29	30.00	0.00
	-						\vdash	6060950.70	2260168.70	30.00	0.00
	-						\vdash	0001259.10	2200164.63	30.00	0.00
	-						\vdash	6060501 41	2239607.43	30.00	0.00
	\vdash	BUILDING00012	x	0		30.00	2	6060483 51	2261178 97	30.00	0.00
			~			30.00	ľ	6060633.86	2261178 97	30.00	0.00
							\vdash	6060617.67	2260744.09	30.00	0.00
L					1		1			22.00	2.00

Name	M.	ID	RB	Residents	Absorption	Height	:		Coordinat	es	
						Begin	_	x	У	Z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
								6060344.71	2260740.62	30.00	0.00
							-	6060483 51	2261122.30	30.00	0.00
BUILDING		BUILDING00014	x	0		30.00	a	6060739 12	2261222.30	30.00	0.00
DOILDING		DOILDINGOODI	~			50.00	ŭ	6061204.07	2261203.26	30.00	0.00
								6061200.60	2261089.91	30.00	0.00
								6060740.27	2261093.38	30.00	0.00
BUILDING		BUILDING00015	х	0		30.00	а	6060948.46	2261042.49	30.00	0.00
								6061209.85	2261037.86	30.00	0.00
								6061212.17	2260884.04	30.00	0.00
								6060947.30	2260881.72	30.00	0.00
BUILDING		BUILDING00016	х	0		30.00	а	6060874.44	2260740.62	30.00	0.00
								6061021.33	2260742.93	30.00	0.00
								6061024.80	2260525.49	30.00	0.00
								6060873.28	2260523.18	30.00	0.00
BUILDING		BUILDING00017	х	0		30.00	а	6061116.17	2260805.39	30.00	0.00
								6061243.39	2260808.86	30.00	0.00
								6061245.71	2260489.63	30.00	0.00
						20.00	_	6061115.01	2260497.73	30.00	0.00
BUILDING		BUILDING00018	x	0		30.00	а	6060676.66	2260910.64	30.00	0.00
	\vdash		-				Η	6060779 44	2200911.79	30.00	0.00
	\vdash						Η	6060820.02	2260851.65	30.00	0.00
							Η	6060822.08	2260523 18	30.00	0.00
	-						H	6060674.35	2260528.96	30.00	0.00
BUILDING		BUILDING00019	x	0		30.00	a	6060189.21	2262251.80	30.00	0.00
								6061240.61	2262248.13	30.00	0.00
								6061251.64	2261854.77	30.00	0.00
								6060200.24	2261862.13	30.00	0.00
BUILDING		BUILDING00020	х	0		30.00	а	6060946.51	2262909.85	30.00	0.00
								6061163.41	2262909.85	30.00	0.00
								6061159.73	2262854.70	30.00	0.00
								6061233.26	2262851.03	30.00	0.00
								6061229.58	2262564.28	30.00	0.00
								6061100.91	2262567.96	30.00	0.00
								6061082.53	2262663.54	30.00	0.00
								6060935.48	2262678.24	30.00	0.00
BUILDING		BUILDING00021	x	0		30.00	а	6061119.29	2263347.32	30.00	0.00
								6061233.26	2263347.32	30.00	0.00
								6061222.23	2263273.79	30.00	0.00
			v	0		30.00	2	6061134.00	22032/3./9	30.00	0.00
DOILDING		DOILDING00022	^	0		30.00	a	6061281.05	2203211.30	30.00	0.00
								6061273.69	2263130.42	30.00	0.00
								6061134.00	2263130.42	30.00	0.00
BUILDING		BUILDING00023	x	0		30.00	а	6061420.74	2263306.88	30.00	0.00
								6061501.62	2263420.84	30.00	0.00
								6061663.37	2263420.84	30.00	0.00
								6061652.34	2263148.80	30.00	0.00
								6061431.77	2263112.04	30.00	0.00
BUILDING		BUILDING00024	х	0		30.00	а	6061439.12	2262906.17	30.00	0.00
								6061575.14	2262898.82	30.00	0.00
								6061586.17	2262604.72	30.00	0.00
L	-							6061450.15	2262597.37	30.00	0.00
BUILDING	-	BUILDING00025	х	0		30.00	а	6061453.83	2263593.62	30.00	0.00
	-							6061656.02	2263604.65	30.00	0.00
							\vdash	6061659.70	2263461.28	30.00	0.00
DUI DUIC	-			-		20.00	$\left \right $	0001457.50	2203461.28	30.00	0.00
BUILDING	-	BUILDING00026	X	0		30.00	a	6061004.33	2203597.30	30.00	0.00
	-						H	6061083 20	2203593.02	30.00	0.00
	\vdash						Η	6061821 /15	2263153.63	30.00	0.00
BUILDING	-	BUILDING00027	x	n		30.00	a	6061670 72	2262869 41	30.00	0.00
			-			2 3.00	-	6061850.86	2262869.41	30.00	0.00
								6061854.54	2262567.96	30.00	0.00
								6061792.04	2262556.93	30.00	0.00
								6061670.72	2262656.19	30.00	0.00
BUILDING		BUILDING00028	х	0		30.00	а	6061997.91	2262942.93	30.00	0.00
								6062159.66	2262935.58	30.00	0.00
								6062148.63	2262454.00	30.00	0.00
								6061983.20	2262454.00	30.00	0.00
BUILDING		BUILDING00029	х	0		30.00	а	6062034.67	2263450.25	30.00	0.00
	-							6062196.42	2263453.93	30.00	0.00
L	⊢							6062207.45	2263358.34	30.00	0.00
								6062810.35	2263350.99	30.00	0.00
								6062788.29	2263119.39	30.00	0.00
								6062019.96	2263126.74	30.00	0.00

Name	M.	ID	RB	Residents	Absorption	Height			Coordinat	es	
						Begin	_	x	У	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING		BUILDING00030	х	0		30.00	а	6062273.62	2262880.44	30.00	0.00
								6062472.14	2262887.79	30.00	0.00
								6062490.52	2262454.00	30.00	0.00
								6062604.48	2262442.97	30.00	0.00
								6062644.92	2262876.76	30.00	0.00
								6062880.20	2262876.76	30.00	0.00
								6062880.20	2262347.39	30.00	0.00
								6062266.27	2262336.36	30.00	0.00
BUILDING		BUILDING00031	х	0		30.00	а	6062292.00	2262273.86	30.00	0.00
								6062865.49	2262266.51	30.00	0.00
								6062858.14	2261880.51	30.00	0.00
								6062336.12	2261854.77	30.00	0.00
BUILDING		BUILDING00032	х	0		30.00	а	6063035.13	2261936.74	30.00	0.00
								6063036.44	2261863.82	30.00	0.00
								6063764.30	2261865.13	30.00	0.00
								6063772.11	2262018.77	30.00	0.00
								6063838.52	2262016.17	30.00	0.00
								6063845.03	2261815.65	30.00	0.00
								6062997.37	2261824.76	30.00	0.00
							Π	6062989.56	2261939.34	30.00	0.00
BUILDING		BUILDING00033	х	0		30.00	a	6064120.77	2262249.43	30.00	0.00
							Π	6064692.12	2262253.35	30.00	0.00
							Н	6064696.04	2261910.93	30.00	0.00
							H	6064122.73	2261895.27	30,00	0.00
BUILDING		BUILDING00034	x	0		30.00	a	6064065.98	2262417.71	30.00	0.00
				-			-	6064737 13	2262415 75	30.00	0.00
			-				Η	6064739 09	2262319.73	30.00	0.00
								6064058 16	2262315.67	30.00	0.00
			v			30.00	2	6064005 22	2262033.33	30.00	0.00
BUILDING		BUILDING00055	^	0		30.00	a	6064656.00	2202547.57	20.00	0.00
							\vdash	6064656.90	2202942.10	30.00	0.00
								6064649.08	2202715.13	30.00	0.00
				-				6064155.99	2262/38.61	30.00	0.00
BUILDING		BUILDING00036	x	0		30.00	а	6063670.73	2262924.49	30.00	0.00
								6063842.92	2262930.36	30.00	0.00
								6063840.96	2262783.61	30.00	0.00
								6063670.73	2262779.70	30.00	0.00
BUILDING		BUILDING00037	х	0		30.00	а	6063727.47	2262748.39	30.00	0.00
								6063844.88	2262746.43	30.00	0.00
								6063840.96	2262558.59	30.00	0.00
								6063729.43	2262562.50	30.00	0.00
BUILDING		BUILDING00038	х	0		30.00	а	6063731.39	2262468.58	30.00	0.00
								6063868.36	2262474.45	30.00	0.00
								6063862.49	2262325.74	30.00	0.00
								6063733.35	2262321.83	30.00	0.00
BUILDING		BUILDING00039	х	0		30.00	а	6064277.31	2263378.44	30.00	0.00
								6064353.62	2263382.36	30.00	0.00
								6064353.62	2263137.77	30.00	0.00
								6064275.35	2263141.68	30.00	0.00
BUILDING		BUILDING00040	x	0		30.00	a	6063643.34	2263546.72	30.00	0.00
							Π	6063794.00	2263542.81	30.00	0.00
							Η	6063788.13	2263169.08	30.00	0.00
							H	6063846.83	2263143.64	30.00	0.00
							Η	6063848 79	2263096 68	30.00	0.00
							H	6063707 91	2263096.68	30.00	0.00
	-		-				Η	6063696 17	2263368 66	30.00	0.00
							H	6063647.25	2263374 52	30.00	0.00
	-		~	-		20.00		6064110.04	2200074.00	30.00	0.00
BOILDING	-	20120110000041	×	- 0		30.00	d	6064206.05	2202021.20	30.00	0.00
							H	6064210.60	2202021.20	30.00	0.00
	-						H	0004210.78	2202482.28	30.00	0.00
B101	<u> </u>			-		00.00	\parallel	6064120.77	2262480.32	30.00	0.00
BUILDING	<u> </u>	BUILDING00042	х	0		30.00	а	6064072.47	2260874.72	30.00	0.00
	<u> </u>		-				\parallel	6064255.58	2260876.22	30.00	0.00
								6064252.58	2260775.67	30.00	0.00
								6064134.01	2260778.67	30.00	0.00
							Ц	6064129.51	2260822.19	30.00	0.00
							Ц	6064076.98	2260828.20	30.00	0.00
BUILDING		BUILDING00043	х	0		30.00	a	6064120.50	2260676.61	30.00	0.00
								6064257.08	2260679.61	30.00	0.00
								6064258.58	2260591.06	30.00	0.00
							Ľ	6064125.00	2260589.56	30.00	0.00
BUILDING		BUILDING00044	х	0		30.00	а	6064143.01	2260492.00	30.00	0.00
								6064240.57	2260507.01	30.00	0.00
							Π	6064233.07	2260443.97	30.00	0.00
								6064143.01	2260436.47	30.00	0.00
BUILDING		BUILDING00045	х	0		30.00	a	6064440.19	2260481.50	30.00	0.00
							Н	6064549.75	2260478.49	30.00	0.00
								6064552.75	2260416,96	30.00	0.00

Name	М.	ID	RB	Residents	Absorption	Height	leight Coordinates				
						Begin		х	У	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
								6064444.69	2260418.46	30.00	0.00
BUILDING		BUILDING00046	х	0		30.00	а	6064788.39	2260558.04	30.00	0.00
								6064872.44	2260552.04	30.00	0.00
								6064866.43	2260433.47	30.00	0.00
								6064785.39	2260428.96	30.00	0.00
BUILDING		BUILDING00047	х	0		30.00	а	6064573.76	2260654.10	30.00	0.00
								6064689.33	2260651.09	30.00	0.00
								6064689.33	2260577.55	30.00	0.00
								6064764.38	2260571.55	30.00	0.00
								6064771.88	2260412.46	30.00	0.00
								6064725.35	2260415.46	30.00	0.00
								6064726.85	2260543.03	30.00	0.00
								6064549.75	2260547.53	30.00	0.00
BUILDING		BUILDING00048	х	0		30.00	а	6064079.98	2261596.64	30.00	0.00
								6064590.27	2261590.64	30.00	0.00
								6064590.27	2261575.63	30.00	0.00
								6065069.05	2261572.63	30.00	0.00
								6065070.55	2261134.37	30.00	0.00
								6064600.78	2261122.37	30.00	0.00
								6064591.78	2261192.91	30.00	0.00
								6064078.48	2261194.41	30.00	0.00
BUILDING		BUILDING00049	х	0		30.00	а	6063565.18	2260805.68	30.00	0.00
								6063926.89	2260805.68	30.00	0.00
								6063923.89	2260742.65	30.00	0.00
								6063665.74	2260744.15	30.00	0.00
								6063665.74	2260708.13	30.00	0.00
								6063572.68	2260709.63	30.00	0.00
BUILDING		BUILDING00050	х	0		30.00	а	6063562.18	2260685.61	30.00	0.00
								6063665.74	2260679.61	30.00	0.00
								6063667.24	2260658.60	30.00	0.00
								6063928.39	2260646.59	30.00	0.00
								6063922.39	2260591.06	30.00	0.00
								6063569.68	2260586.56	30.00	0.00

APPENDIX 10.1:

CADNAA CONSTRUCTION NOISE MODEL INPUTS



13158

CadnaA Noise Prediction Model: 13158-08 ConcreteCrushing.cna Date: 08.07.20 Analyst: B. Lawson

Receiver Noise Levels

Name	М.	ID		Level Lr		Lir	nit. Valı	ue		Land	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		R1	57.1	57.1	63.8	64.9	57.5	0.0				5.00	а	6061255.06	2263602.19	5.00
RECEIVERS		R2	55.6	55.6	62.2	64.9	57.5	0.0				5.00	а	6062341.91	2263701.76	5.00
RECEIVERS		R3	42.9	42.9	49.6	63.0	56.2	0.0				5.00	а	6063844.21	2261916.65	5.00
RECEIVERS		R4	55.1	55.1	61.7	65.4	59.8	0.0				5.00	а	6064095.09	2263474.33	5.00
RECEIVERS		R5	52.4	52.4	59.1	62.5	59.0	0.0				5.00	а	6065023.95	2260526.54	5.00
RECEIVERS		R6	51.7	51.7	58.4	60.0	60.0	0.0				5.00	а	6062239.88	2259139.17	5.00
RECEIVERS		R7	57.9	57.9	64.6	61.4	58.3	0.0				5.00	а	6060358.00	2260057.84	5.00
RECEIVERS		R8	46.3	46.3	52.9	54.8	50.6	0.0				5.00	а	6060281.17	2261118.16	5.00

Area Source(s)

ID	R	esult. PW	Ľ	Re	esult. PW	L''	Lw	/ Li	Op	erating T	me	M	Moving Pt. Src			
	Day	Evening	Night	Day	Evening	Night	Type	Value	Day	Special	Night		Number			
	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			(min)	(min)	(min)	Day	Evening	Night	(ft)	
0	127.5	127.5	127.5	83.0	83.0	83.0	Lw"	83							8	

Name	ŀ	lei	ght			Coordinat	es	
	Begin		End		x	у	z	Ground
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
BATCH	8.00	а			6061781.99	2260774.57	8.00	0.00
					6061845.35	2260780.91	8.00	0.00
					6061853.81	2260779.03	8.00	0.00
					6061861.83	2260775.76	8.00	0.00
					6061869.19	2260771.20	8.00	0.00
					6061875.67	2260765.46	8.00	0.00
					6061881.11	2260758.71	8.00	0.00
					6061885.33	2260751.15	8.00	0.00
				_	6061888.22	2260742.98	8.00	0.00
					6061889.70	2260734.45	8.00	0.00
					6061895.89	2260746.22	8.00	0.00
				-	6061903.92	2260756.84	8.00	0.00
					6061913 57	2260766.00	8.00	0.00
					6061924 59	2260773.46	8.00	0.00
		H			6061936 67	2260779 02	8.00 8.00	0.00
		\vdash			60610/0 51	2200779.05	8.00	0.00
		\vdash			6061062 74	2200702.33	8.00	0.00
		\vdash		-	6061076 02	2200703.93	8.00	0.00
					6061080.00	2200705.14	8.00	0.00
				_	6061989.00	2260780.19	8.00	0.00
					6062001.32	22607/5.17	8.00	0.00
					6062012.66	2260768.20	8.00	0.00
					6062022.71	2260759.47	8.00	0.00
					6062031.20	2260749.23	8.00	0.00
					6062050.19	2260760.06	8.00	0.00
					6062070.22	2260768.84	8.00	0.00
					6062091.06	2260775.46	8.00	0.00
					6062112.48	2260779.87	8.00	0.00
					6062134.24	2260781.99	8.00	0.00
					6062156.11	2260781.83	8.00	0.00
					6062177.83	2260779.36	8.00	0.00
					6062199.18	2260774.63	8.00	0.00
					6062219.91	2260767.69	8.00	0.00
					6062239.80	2260758.60	8.00	0.00
					6062258.63	2260747.48	8.00	0.00
					6062276.18	2260734.45	8.00	0.00
					6062278.99	2260744.43	8.00	0.00
					6062283.46	2260753.80	8.00	0.00
					6062289.44	2260762.27	8.00	0.00
					6062296.78	2260769.61	8.00	0.00
					6062305.25	2260775.59	8.00	0.00
					6062314.62	2260780.05	8.00	0.00
					6062324.61	2260782.86	8.00	0.00
					6062334.93	2260783.93	8.00	0.00
					6062345.28	2260783.24	8.00	0.00
					6062355.36	2260780.80	8.00	0.00
					6062364.89	2260776.68	8.00	0.00
					6062380,07	2260774.73	8.00	0.00
		H			6062394.85	2260770.73	8.00	0.00
		\vdash			6062408 94	2260764 76	8.00	0.00
		H			6062422 10	2260756 02	8.00 8.00	0.00
		\vdash			6062434.07	2260747 38	8.00	0.00

Name	Height Begin End			Coordinates					
	Begin	_	End		x	У	z	Ground	
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)	
					6062444.63	2260736.30	8.00	0.00	
					6062453.59	2260723.89	8.00	0.00	
					6062471.87	2260737.84	8.00	0.00	
					6062491.59	2260749.66	8.00	0.00	
					6062512.51	2260759.20	8.00	0.00	
					6062534.37	2260766.34	8.00	0.00	
					6062556.89	2260770.99	8.00	0.00	
					6062579.79	2260773.09	8.00	0.00	
					6062602 78	2260772 62	8.00	0.00	
					6062625 58	2260769 58	8.00	0.00	
		-			6062623.30	2260764.01	8.00	0.00	
		-			6062647.89	2200704.01	8.00	0.00	
		-			6062659.88	2260765.80	8.00	0.00	
		_			6062672.01	2260765.57	8.00	0.00	
					6062683.93	2260763.32	8.00	0.00	
					6062695.31	2260759.12	8.00	0.00	
					6062705.83	2260753.08	8.00	0.00	
					6062715.21	2260745.38	8.00	0.00	
					6062723.17	2260736.23	8.00	0.00	
					6062729.49	2260725.88	8.00	0.00	
					6062734.01	2260714.62	8.00	0.00	
					6062736.59	2260702.77	8.00	0.00	
		L		L	6062743.77	2260706.84	8.00	0.00	
					6062751.53	2260709.65	8.00	0.00	
	-				6062759.65	2260711.11	8.00	0.00	
					6062767.90	2260711.20	8.00	0.00	
					6062776.05	2260709.90	8.00	0.00	
					6062783.87	2260707.26	8.00	0.00	
				⊢	6062791.13	2260703.34	8.00	0.00	
					6062797 63	2260698.26	8.00	0.00	
		-			60629902.10	2200038.20	8.00	0.00	
		-			0002803.19	2200092.10	8.00	0.00	
		-			6062807.65	2200085.22	8.00	0.00	
					6062810.89	2260677.62	8.00	0.00	
					6062812.80	2260669.60	8.00	0.00	
					6062813.34	2260661.36	8.00	0.00	
					6062812.49	2260653.15	8.00	0.00	
					6062810.28	2260645.20	8.00	0.00	
					6062806.77	2260637.73	8.00	0.00	
					6062802.06	2260630.96	8.00	0.00	
					6062811.02	2260624.61	8.00	0.00	
					6062818.77	2260616.82	8.00	0.00	
					6062825.09	2260607.84	8.00	0.00	
					6062829.80	2260597.91	8.00	0.00	
					6062832.75	2260587.33	8.00	0.00	
					6062833.86	2260576.40	8.00	0.00	
					6062833.11	2260565.44	8.00	0.00	
		-			6062830 51	2260554 77	8.00	0.00	
		-			6062826.13	2260534.77	8.00	0.00	
		-			6062820.13	2200544.70	8.00	0.00	
		-			6062820.11	2200535.51	8.00	0.00	
		-		-	0002812.62	2200527.48	8.00	0.00	
		-		-	0002806.17	2260518.74	8.00	0.00	
					6062798.38	2260511.18	8.00	0.00	
					6062789.47	2260504.98	8.00	0.00	
					6062779.66	2260500.33	8.00	0.00	
					6062769.23	2260497.34	8.00	0.00	
					6062758.44	2260496.09	8.00	0.00	
		Ĺ		L	6062747.60	2260496.61	8.00	0.00	
		L		L	6062736.99	2260498.90	8.00	0.00	
					6062726.89	2260502.89	8.00	0.00	
					6062717.58	2260508.47	8.00	0.00	
					6062709.14	2260496.72	8.00	0.00	
					6062699.00	2260486.40	8.00	0.00	
					6062687.42	2260477.73	8.00	0.00	
				F	6062674 65	2260470 93	8 00	0.00	
				⊢	6062661 00	2260466 15	8 00	0.00	
		-		-	6062646 79	2260462 50	8 nn	0.00	
		-		-	6062632 22	2260403.30	0.00 8 00	0.00	
		-		-	6062617.00	2200403.04	0.00	0.00	
		-		_	0002017.96	2260464.79	8.00	0.00	
		-		_	6062604.04	2260468.70	8.00	0.00	
					6062590.86	2260474.68	8.00	0.00	
					6062569.04	2260472.97	8.00	0.00	
					6062547.16	2260473.82	8.00	0.00	
					6062525.53	2260477.21	8.00	0.00	
		L		L	6062504.44	2260483.10	8.00	0.00	
					6062484.18	2260491.41	8.00	0.00	
					6062465.03	2260502.03	8.00	0.00	
					6062447.25	2260514.80	8.00	0.00	
					6062442.17	2260506.30	8.00	0.00	

Name	Height Begin End			Coordinates					
	Begin	_	End		х	У	z	Ground	
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)	
					6062435.78	2260498.72	8.00	0.00	
					6062428.26	2260492.27	8.00	0.00	
					6062419.79	2260487.12	8.00	0.00	
					6062410.61	2260483.40	8.00	0.00	
					6062400.95	2260481.20	8.00	0.00	
					6062391.05	2260480.59	8.00	0.00	
					6062381.19	2260481.58	8.00	0.00	
					6062371.62	2260484.14	8.00	0.00	
					6062362.59	2260488.21	8.00	0.00	
					6062354.33	2260493.68	8.00	0.00	
					6062334.26	2260489.36	8.00	0.00	
					6062313.82	2260487.51	8.00	0.00	
					6062293.30	2260488.18	8.00	0.00	
					6062273.02	2260491.34	8.00	0.00	
					6062253.28	2260496.95	8.00	0.00	
					6062234.37	2260504.93	8.00	0.00	
					6062216.57	2260515.15	8.00	0.00	
					6062200.16	2260527.48	8.00	0.00	
					6062186.52	2260518.27	8.00	0.00	
					6062171.80	2260510.92	8.00	0.00	
					6062156.24	2260505.57	8.00	0.00	
					6062140.12	2260502.29	8.00	0.00	
-					6062123.71	2260501.15	8.00	0.00	
					6062107.29	2260502.17	8.00	0.00	
					6062091.14	2260505.33	8.00	0.00	
					6062075.55	2260510.58	8.00	0.00	
					6062057.34	2260500.53	8.00	0.00	
				1	6062038.09	2260492.67	8.00	0.00	
					6062018.05	2260487.11	8.00	0.00	
					6061997.49	2260483.92	8.00	0.00	
					6061976.71	2260483.15	8.00	0.00	
					6061955.98	2260484.81	8.00	0.00	
					6061935.58	2260488.88	8.00	0.00	
		\vdash		-	6061915 80	2260495 30	8 00	0.00	
		-		-	6061896 90	2260503.98	8.00	0.00	
					6061879 14	2260503.30	8.00	0.00	
		-		-	6061867 15	2260512 52	8.00 8.00	0.00	
		-			6061854 96	2260512.33	8.00	0.00	
		-			6061842 87	2260512.22	8.00	0.00	
		-			6061831 21	2260517.09	8.00 8.00	0.00	
		-		-	6061820.20	2200317.48	8.00 8.00	0.00	
		-		-	6061810 20	2260522.92	8.00 8.00	0.00	
		-		-	6061201 77	2200330.05	0.00 8 00	0.00	
		-		-	6061704 66	2200338.08	0.00 8.00	0.00	
		-		-	0001/94.66	2200548.59	8.00	0.00	
		-		-	0001/80.44	2200543.00	8.00	0.00	
		-		-	0001/05.54	2200539.59	8.00	0.00	
		-		-	0001/50.30	2260538.44	8.00	0.00	
		-		-	6061735.06	2260539.59	8.00	0.00	
		-		-	6061720.16	2260543.00	8.00	0.00	
		-		-	6061705.94	2260548.60	8.00	0.00	
		-			6061692.72	2260556.27	8.00	0.00	
					6061680.79	2260565.82	8.00	0.00	
				_	6061670.43	2260577.06	8.00	0.00	
					6061661.86	2260589.71	8.00	0.00	
					6061655.27	2260603.51	8.00	0.00	
					6061649.62	2260614.09	8.00	0.00	
					6061645.81	2260625.47	8.00	0.00	
					6061643.95	2260637.32	8.00	0.00	
					6061644.08	2260649.32	8.00	0.00	
					6061646.21	2260661.13	8.00	0.00	
					6061650.28	2260672.42	8.00	0.00	
					6061656.17	2260682.88	8.00	0.00	
					6061663.72	2260692.21	8.00	0.00	
	_				6061663.93	2260706.64	8.00	0.00	
					6061666.61	2260720.83	8.00	0.00	
		L		L	6061671.68	2260734.34	8.00	0.00	
				L	6061679.00	2260746.78	8.00	0.00	
					6061688.34	2260757.79	8.00	0.00	
					6061699.43	2260767.03	8.00	0.00	
					6061711.94	2260774.23	8.00	0.00	
					6061725.50	2260779.17	8.00	0.00	
					6061739.71	2260781.72	8.00	0.00	
					6061754.15	2260781.79	8.00	0.00	
					6061768.38	2260779.38	8.00	0.00	
		_		-					

Barrier(s)

Name	М.	ID	Abso	rption	Z-Ext.	Canti	ilever	н	lei	ght		Coordinat	es	
			left	right		horz.	vert.	Begin		End	х	У	z	Ground
					(ft)	(ft)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
BARRIERS		BARRIERS00001						6.00	а		6062001.08	2263672.42	6.00	0.00
											6062659.93	2263671.12	6.00	0.00
BARRIERS		BARRIERS00002						6.00	а		6064020.44	2263480.19	6.00	0.00
											6064050.12	2263449.98	6.00	0.00
											6064301.16	2263452.07	6.00	0.00

Building(s)

Name	М.	ID	RB	Residents	Absorption	Height			Coordinat	es	
						Begin	_	x	У	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING		BUILDING00005	х	0		30.00	а	6062064.46	2260299.41	30.00	0.00
								6062291.31	2260301.96	30.00	0.00
						-		6062291.31	2259776.90	30.00	0.00
		RUU DINICODOC				20.00	_	6062059.36	2259779.44	30.00	0.00
BUILDING		BUILDING00006	x	0		30.00	а	6062371.60	2260161.77	30.00	0.00
								6062510.51	2260159.22	30.00	0.00
								6062309.23	2209603.00	30.00	0.00
								6062434.04	2235603.30	20.00	0.00
								6062372.87	2255010.55	30.00	0.00
		BUILDING00007	v	0		30.00	a	6062533.45	2255020.25	30.00	0.00
501251110		50125111000007	~			50.00	ŭ	6062680.01	2260235.69	30.00	0.00
								6062680.01	2260160.49	30.00	0.00
								6062537.27	2260159 22	30.00	0.00
BUILDING		BUILDING00008	x	0		30.00	а	6062715.69	2260296.86	30.00	0.00
							-	6062785.78	2260296.86	30.00	0.00
								6062787.06	2260161.77	30.00	0.00
								6062716.96	2260163.04	30.00	0.00
BUILDING		BUILDING00009	x	0		30.00	а	6061697.43	2260265.00	30.00	0.00
								6061898.79	2260259.90	30.00	0.00
								6061898.79	2259942.57	30.00	0.00
								6061937.02	2259937.47	30.00	0.00
								6061935.75	2259742.49	30.00	0.00
								6061692.33	2259738.66	30.00	0.00
BUILDING		BUILDING00010	х	0		30.00	а	6062166.42	2259583.18	30.00	0.00
								6062255.62	2259589.56	30.00	0.00
								6062260.72	2259612.50	30.00	0.00
								6062441.69	2259615.04	30.00	0.00
								6062440.42	2259226.35	30.00	0.00
								6062329.54	2259227.62	30.00	0.00
								6062324.44	2259282.42	30.00	0.00
								6062126.91	2259279.87	30.00	0.00
								6062132.01	2259524.56	30.00	0.00
								6062166.42	2259527.11	30.00	0.00
BUILDING		BUILDING00011	х	0		30.00	а	6061450.45	2260243.00	30.00	0.00
								6061569.53	2260243.00	30.00	0.00
								6061566.48	2259913.23	30.00	0.00
								6061446.37	2259912.21	30.00	0.00
BUILDING		BUILDING00012	х	0		30.00	а	6060586.32	2260166.67	30.00	0.00
								6060902.86	2260166.67	30.00	0.00
								6060901.84	2260207.38	30.00	0.00
								6060832.63	2260209.42	30.00	0.00
								6060832.63	2260277.61	30.00	0.00
								6061021.94	2260275.57	30.06	0.00
							\vdash	6061019.91	2260206.36	30.06	0.00
							H	6060050 70	2260202.29	30.00	0.00
			-				H	5051250.70	2200108./0	30.00	0.00
							H	6061261 12	2200104.03	30.00	0.00
							\vdash	6060501 //1	2233007.43	30.00	0.00
		BUILDING00012	x	0		30.00	2	6060483 51	2261178 97	30.00	0.00
20.00110		- 0.2211000013	<u>^</u>			30.00	4	6060633.86	2261178 97	30.00	0.00
							\vdash	6060617 67	2260744 09	30.00	0.00
							Η	6060344 71	2260740 62	30.00	0.00
							H	6060343.56	2261122.30	30.00	0.00
							H	6060483.51	2261122.30	30.00	0.00
BUILDING		BUILDING00014	x	0		30.00	a	6060739.12	2261209.04	30.00	0.00
			-			2 5.00	-	6061204.07	2261203.26	30.00	0.00
							H	6061200.60	2261089.91	30.00	0.00
								6060740.27	2261093.38	30.00	0.00
BUILDING		BUILDING00015	x	0		30.00	a	6060948.46	2261042.49	30.00	0.00
								6061209.85	2261037.86	30.00	0.00
								6061212.17	2260884.04	30.00	0.00
								6060947.30	2260881.72	30.00	0.00
BUILDING		BUILDING00016	x	0		30.00	a	6060874.44	2260740.62	30.00	0.00
								6061021.33	2260742.93	30.00	0.00

Name	M.	ID	RB	Residents	Absorption	Height	:		Coordinat	es	
						Begin	_	X	y (c)	Z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
							\vdash	6060873.28	2260525.49	30.00	0.00
BUILDING		BUILDING00017	x	0		30.00	a	6061116.17	2260805.39	30.00	0.00
							-	6061243.39	2260808.86	30.00	0.00
								6061245.71	2260489.63	30.00	0.00
							F	6061115.01	2260497.73	30.00	0.00
BUILDING		BUILDING00018	х	0		30.00	a	6060676.66	2260910.64	30.00	0.00
								6060783.07	2260911.79	30.00	0.00
								6060778.44	2260851.65	30.00	0.00
								6060820.08	2260851.65	30.00	0.00
								6060822.39	2260523.18	30.00	0.00
								6060674.35	2260528.96	30.00	0.00
BUILDING		BUILDING00019	х	0		30.00	а	6060189.21	2262251.80	30.00	0.00
								6061240.61	2262248.13	30.00	0.00
							\vdash	6061251.64	2261854.77	30.00	0.00
			~	0		20.00	-	6060200.24	2201802.13	30.00	0.00
BUILDING		BOILDING00020	^	0		30.00	a	6061163.41	2202909.85	30.00	0.00
							\vdash	6061159.73	2262854 70	30.00	0.00
							┢	6061233.26	2262851.03	30.00	0.00
								6061229.58	2262564.28	30.00	0.00
								6061100.91	2262567.96	30.00	0.00
								6061082.53	2262663.54	30.00	0.00
								6060935.48	2262678.24	30.00	0.00
BUILDING		BUILDING00021	х	0		30.00	а	6061119.29	2263347.32	30.00	0.00
								6061233.26	2263347.32	30.00	0.00
								6061222.23	2263273.79	30.00	0.00
								6061115.62	2263273.79	30.00	0.00
BUILDING		BUILDING00022	x	0		30.00	a	6061134.00	2263211.30	30.00	0.00
								6061281.05	2263200.27	30.00	0.00
								6061273.69	2263130.42	30.00	0.00
							\vdash	6061134.00	2263130.42	30.00	0.00
BUILDING		BUILDING00023	x	0		30.00	a	6061420.74	2263306.88	30.00	0.00
								6061501.62	2263420.84	30.00	0.00
							╞	6061653.37	2263420.84	30.00	0.00
							\vdash	6061421 77	2203146.60	20.00	0.00
		BUILDING00024	v	0		30.00	2	6061431.77	2203112.04	30.00	0.00
DOILDING		DOILDING00024	^	0		30.00	a	6061575.14	2262300.17	30.00	0.00
								6061586.17	2262604.72	30.00	0.00
								6061450.15	2262597.37	30.00	0.00
BUILDING		BUILDING00025	x	0		30.00	a	6061453.83	2263593.62	30.00	0.00
								6061656.02	2263604.65	30.00	0.00
								6061659.70	2263461.28	30.00	0.00
								6061457.50	2263461.28	30.00	0.00
BUILDING		BUILDING00026	х	0		30.00	a	6061817.77	2263597.30	30.00	0.00
								6061994.23	2263593.62	30.00	0.00
								6061983.20	2263159.83	30.00	0.00
								6061821.45	2263163.50	30.00	0.00
BUILDING	-	BUILDING00027	х	0		30.00	а	6061670.72	2262869.41	30.00	0.00
	-						\vdash	6061850.86	2262869.41	30.00	0.00
	-		-				\vdash	6061702.04	2202507.96	30.00	0.00
	-		-				-	6061670 72	2202000.93	30.00	0.00
	-	BUILDING00020	v	0		30.00	2	6061997 01	2202030.19	30.00	0.00
JULING	\vdash	20120111000028	<u>^</u>			30.00	d	6062159 66	2262935 58	30.00	0.00
			-					6062148.63	2262454.00	30.00	0.00
							F	6061983.20	2262454.00	30.00	0.00
BUILDING		BUILDING00029	x	0		30.00	a	6062034.67	2263450.25	30.00	0.00
								6062196.42	2263453.93	30.00	0.00
								6062207.45	2263358.34	30.00	0.00
								6062810.35	2263350.99	30.00	0.00
								6062788.29	2263119.39	30.00	0.00
								6062019.96	2263126.74	30.00	0.00
BUILDING		BUILDING00030	х	0		30.00	a	6062273.62	2262880.44	30.00	0.00
	L							6062472.14	2262887.79	30.00	0.00
	L							6062490.52	2262454.00	30.00	0.00
	-						\vdash	6062604.48	2262442.97	30.00	0.00
	-		-				\vdash	6062644.92	2262876.76	30.00	0.00
	-		-				-	0002880.20	22028/6.76	30.00	0.00
	-						\vdash	6062266.27	2202347.39	30.00	0.00
	-		~			30 00	2	6062200.27	2202330.30	30.00	0.00
DOILDING	-	2012011000031	×	- 0		30.00	d	6062865 49	22022/3.00	30.00	0.00
	-		-				\vdash	6062858 14	2261880 51	30.00	0.00
	-						\vdash	6062336.12	2261854.77	30.00	0.00
BUILDING		BUILDING00032	x	0		30.00	a	6063035.13	2261936.74	30.00	0.00
			-				<u> </u>				1.

Name	М.	ID	RB	Residents	Absorption	Height	:		Coordinat	es	
						Begin		X (f+)	У (f+)	Z (ft)	Ground (ft)
						(11)		6063036.44	2261863.82	30.00	0.00
							\square	6063764.30	2261865.13	30.00	0.00
								6063772.11	2262018.77	30.00	0.00
								6063838.52	2262016.17	30.00	0.00
								6063845.03	2261815.65	30.00	0.00
								6062997.37	2261824.76	30.00	0.00
				-		20.00	_	6062989.56	2261939.34	30.00	0.00
BUILDING		BUILDING00033	x	0		30.00	а	6064692.12	2262249.43	30.00	0.00
								6064696.04	2261910.93	30.00	0.00
							H	6064122.73	2261895.27	30.00	0.00
BUILDING		BUILDING00034	х	0		30.00	а	6064065.98	2262417.71	30.00	0.00
								6064737.13	2262415.75	30.00	0.00
								6064739.08	2262319.87	30.00	0.00
						20.00	_	6064058.16	2262335.53	30.00	0.00
BUILDING		BUILDING00035	x	0		30.00	а	6064095.33	2262947.97	30.00	0.00
								6064649.08	2262715 13	30.00	0.00
								6064155.99	2262738.61	30.00	0.00
BUILDING		BUILDING00036	х	0		30.00	а	6063670.73	2262924.49	30.00	0.00
								6063842.92	2262930.36	30.00	0.00
							Ц	6063840.96	2262783.61	30.00	0.00
								6063670.73	2262779.70	30.00	0.00
BUILDING		BUILDING00037	x	0		30.00	а	6063727.47	2262748.39	30.00	0.00
							H	6063840.04	2202/46.43	30.00	0.00
								6063729.43	22625562 50	30.00	0.00
BUILDING		BUILDING00038	x	0		30.00	а	6063731.39	2262468.58	30.00	0.00
								6063868.36	2262474.45	30.00	0.00
								6063862.49	2262325.74	30.00	0.00
								6063733.35	2262321.83	30.00	0.00
BUILDING		BUILDING00039	х	0		30.00	а	6064277.31	2263378.44	30.00	0.00
								6064353.62	2263382.36	30.00	0.00
								6064353.62	2263137.77	30.00	0.00
		BUILDING00040	x	0		30.00	a	6063643 34	2263141.08	30.00	0.00
DOILDING		DOILDINGCOOTO	^			30.00	u	6063794.00	2263540.72	30.00	0.00
								6063788.13	2263169.08	30.00	0.00
								6063846.83	2263143.64	30.00	0.00
								6063848.79	2263096.68	30.00	0.00
								6063707.91	2263096.68	30.00	0.00
								6063696.17	2263368.66	30.00	0.00
			v	0		30.00	2	6064118 81	2263374.53	30.00	0.00
BOILDING		DOILDING00041	^	0		30.00	a	6064206.86	2262621.20	30.00	0.00
								6064210.78	2262482.28	30.00	0.00
								6064120.77	2262480.32	30.00	0.00
BUILDING		BUILDING00042	x	0		30.00	а	6064072.47	2260874.72	30.00	0.00
								6064255.58	2260876.22	30.00	0.00
								6064252.58	2260775.67	30.00	0.00
								6064134.01	2260778.67	30.00	0.00
							Η	6064076 00	2200822.19	30.00	0.00
BUILDING		BUILDING00043	x	0		30.00	a	6064120.50	2260676.61	30.00	0.00
							Ē	6064257.08	2260679.61	30.00	0.00
								6064258.58	2260591.06	30.00	0.00
								6064125.00	2260589.56	30.00	0.00
BUILDING		BUILDING00044	х	0		30.00	а	6064143.01	2260492.00	30.00	0.00
								6064240.57	2260507.01	30.00	0.00
							\parallel	6064143.01	2260426 47	30.00	0.00
		BUILDING00045	×	0		30.00	2	6064440 10	2200430.47	30.00	0.00
20.00110		-0.2011000040	^			30.00	-	6064549.75	2260478.49	30.00	0.00
								6064552.75	2260416.96	30.00	0.00
								6064444.69	2260418.46	30.00	0.00
BUILDING		BUILDING00046	х	0		30.00	а	6064788.39	2260558.04	30.00	0.00
							Ц	6064872.44	2260552.04	30.00	0.00
					<u> </u>		\parallel	6064866.43	2260433.47	30.00	0.00
						20.00		6064785.39	2260428.96	30.00	0.00
BUILDING		DUILUINGUUU47	x	0		30.00	a	6064680 22	2200054.10	30.00	0.00
							\vdash	6064689.33	2260577.55	30.00	0.00
							Η	6064764.38	2260571.55	30.00	0.00
								6064771.88	2260412.46	30.00	0.00
								6064725.35	2260415.46	30.00	0.00
								6064726.85	2260543.03	30.00	0.00
								6064549.75	2260547.53	30.00	0.00

Name	М.	ID	RB	Residents	Absorption	Height			Coordinat	es	
						Begin		х	У	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING		BUILDING00048	х	0		30.00	а	6064079.98	2261596.64	30.00	0.00
								6064590.27	2261590.64	30.00	0.00
								6064590.27	2261575.63	30.00	0.00
								6065069.05	2261572.63	30.00	0.00
								6065070.55	2261134.37	30.00	0.00
								6064600.78	2261122.37	30.00	0.00
								6064591.78	2261192.91	30.00	0.00
								6064078.48	2261194.41	30.00	0.00
BUILDING		BUILDING00049	х	0		30.00	а	6063565.18	2260805.68	30.00	0.00
								6063926.89	2260805.68	30.00	0.00
								6063923.89	2260742.65	30.00	0.00
								6063665.74	2260744.15	30.00	0.00
								6063665.74	2260708.13	30.00	0.00
								6063572.68	2260709.63	30.00	0.00
BUILDING		BUILDING00050	х	0		30.00	а	6063562.18	2260685.61	30.00	0.00
								6063665.74	2260679.61	30.00	0.00
								6063667.24	2260658.60	30.00	0.00
								6063928 39	2260646 59	30.00	0.00
								6063922.39	2260591.06	30.00	0.00
								6063569.68	2260586.56	30.00	0.00
		BUILDING00051	v	0		30.00	a	6060930 72	2260524.05	30.00	0.00
DOILDING		DOILDINGOODSI	^			30.00	u	6061014 79	2260524.05	30.00	0.00
								6061015.00	2260474.08	30.00	0.00
								6060020 50	2200474.00	30.00	0.00
			~	0		30.00	2	6060682.08	2200474.00	30.00	0.00
DOILDING		DOILDING00032	^	0		30.00	a	60600032.00	2200328.00	20.00	0.00
								6060915 53	2200323.43	30.00	0.00
								6060756 05	2200496.09	30.00	0.00
								6060756.33	2200455.57	30.00	0.00
								6060690 70	2200474.32	30.00	0.00
			v	0		20.00	-	606020E 9E	2200473.30	30.00	0.00
BUILDING		BUILDINGUUUSS	~	0		30.00	a	0000393.83	2200396.02	30.00	0.00
								6060604.59	2260600.60	30.00	0.00
								6060602.52	2200458.00	30.00	0.00
								6060518.82	2260455.42	30.00	0.00
								6060517.79	2260519.49	30.00	0.00
						20.00		6060395.34	2260524.14	30.00	0.00
BUILDING		BUILDING00054	х	0		30.00	a	0000898.61	2201586.33	30.00	0.00
								6061182.72	2261585.54	30.00	0.00
							\vdash	0001182.72	2201331.50	30.00	0.00
								6060895.44	2261329.13	30.00	0.00
BUILDING		BUILDING00055	х	0		30.00	а	6060704.72	2261584.75	30.00	0.00
								6060766.45	2261587.92	30.00	0.00
								6060764.07	2261337.04	30.00	0.00
								6060704.72	2261337.83	30.00	0.00
BUILDING		BUILDING00056	х	0		30.00	а	6060542.48	2261614.82	30.00	0.00
								6060639.03	2261613.24	30.00	0.00
								6060640.61	2261533.31	30.00	0.00
								6060540.90	2261534.89	30.00	0.00
BUILDING		BUILDING00057	х	0		30.00	а	6060543.27	2261481.87	30.00	0.00
								6060638.24	2261481.08	30.00	0.00
								6060639.82	2261295.89	30.00	0.00
								6060543.27	2261295.89	30.00	0.00



APPENDIX 10.2:

CADNAA CONCRETE CRUSHING CONSTRUCTION NOISE MODEL INPUTS





13158

CadnaA Noise Prediction Model: 13158-08 ConcreteCrushing.cna Date: 08.07.20 Analyst: B. Lawson

Receiver Noise Levels

Name	M.	ID		Level Lr		Lir	Limit. Value			Land Use			:	Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Туре	Auto	Noise Type			Х	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	57.1	57.1	63.8	64.9	57.5	0.0				5.00	а	6061255.06	2263602.19	5.00
RECEIVERS		R2	55.6	55.6	62.2	64.9	57.5	0.0				5.00	а	6062341.91	2263701.76	5.00
RECEIVERS		R3	42.9	42.9	49.6	63.0	56.2	0.0				5.00	а	6063844.21	2261916.65	5.00
RECEIVERS		R4	55.1	55.1	61.7	65.4	59.8	0.0				5.00	а	6064095.09	2263474.33	5.00
RECEIVERS		R5	52.4	52.4	59.1	62.5	59.0	0.0				5.00	а	6065023.95	2260526.54	5.00
RECEIVERS		R6	51.7	51.7	58.4	60.0	60.0	0.0				5.00	а	6062239.88	2259139.17	5.00
RECEIVERS		R7	57.9	57.9	64.6	61.4	58.3	0.0				5.00	а	6060358.00	2260057.84	5.00
RECEIVERS		R8	46.3	46.3	52.9	54.8	50.6	0.0				5.00	а	6060281.17	2261118.16	5.00

Area Source(s)

ID	R	esult. PW	Ľ	Re	esult. PW	L''	Lw	/ Li	Op	erating T	me	M	oving Pt. S	Src	Height
	Day	Evening	Night	Day	Evening	Night	Type	Value	Day	Special	Night		Number		
	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			(min)	(min)	(min)	Day	Evening	Night	(ft)
0	127.5	127.5	127.5	83.0	83.0	83.0	Lw"	83							8

Name	Height			Coordinates						
	Begin		End		х	у	z	Ground		
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)		
BATCH	8.00	a			6061781.99	2260774.57	8.00	0.00		
					6061845.35	2260780.91	8.00	0.00		
					6061853.81	2260779.03	8.00	0.00		
					6061861.83	2260775.76	8.00	0.00		
					6061869.19	2260771.20	8.00	0.00		
					6061875.67	2260765.46	8.00	0.00		
					6061881 11	2260758 71	8.00	0.00		
					6061885 33	2260751 15	8.00	0.00		
				-	6061888 22	2260731.13	8.00	0.00		
				-	6061889 70	2260734.45	8.00	0.00		
				-	6061805.70	2260734.43	0.00	0.00		
					6061002.02	2200740.22	8.00	0.00		
				_	0001903.92	2200750.84	8.00	0.00		
				_	6061913.57	2260766.00	8.00	0.00		
				_	6061924.59	2260773.46	8.00	0.00		
				_	6061936.67	2260779.03	8.00	0.00		
				_	6061949.51	2260782.55	8.00	0.00		
				_	6061962.74	2260783.93	8.00	0.00		
					6061976.02	2260783.14	8.00	0.00		
					6061989.00	2260780.19	8.00	0.00		
					6062001.32	2260775.17	8.00	0.00		
					6062012.66	2260768.20	8.00	0.00		
					6062022.71	2260759.47	8.00	0.00		
					6062031.20	2260749.23	8.00	0.00		
					6062050.19	2260760.06	8.00	0.00		
					6062070.22	2260768.84	8.00	0.00		
					6062091.06	2260775.46	8.00	0.00		
					6062112.48	2260779.87	8.00	0.00		
					6062134.24	2260781.99	8.00	0.00		
					6062156.11	2260781.83	8.00	0.00		
					6062177.83	2260779 36	8.00	0.00		
				-	6062199 18	2260774 63	8.00	0.00		
		-		-	60622133.10	2200774.03	8.00	0.00		
					6062213.31	2200707.03	8.00	0.00		
		-			6062239.80	2260758.60	8.00	0.00		
		-			0002258.03	2260724.45	8.00	0.00		
				_	0002276.18	2200/34.45	8.00	0.00		
					6062278.99	2260744.43	8.00	0.00		
					6062283.46	2260753.80	8.00	0.00		
					6062289.44	2260762.27	8.00	0.00		
					6062296.78	2260769.61	8.00	0.00		
					6062305.25	2260775.59	8.00	0.00		
					6062314.62	2260780.05	8.00	0.00		
					6062324.61	2260782.86	8.00	0.00		
					6062334.93	2260783.93	8.00	0.00		
					6062345.28	2260783.24	8.00	0.00		
					6062355.36	2260780.80	8.00	0.00		
					6062364.89	2260776.68	8.00	0.00		
					6062380.07	2260774.73	8.00	0.00		
					6062394.85	2260770.73	8.00	0.00		
					6062408.94	2260764.76	8.00	0.00		
					6062422,10	2260756.93	8.00	0.00		
		-			6062434,07	2260747.38	8.00	0,00		

Name	Height Begin End			Coordinates					
	Begin	_	End		x	У	z	Ground	
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)	
					6062444.63	2260736.30	8.00	0.00	
					6062453.59	2260723.89	8.00	0.00	
					6062471.87	2260737.84	8.00	0.00	
					6062491.59	2260749.66	8.00	0.00	
					6062512.51	2260759.20	8.00	0.00	
					6062534.37	2260766.34	8.00	0.00	
					6062556.89	2260770.99	8.00	0.00	
					6062579.79	2260773.09	8.00	0.00	
					6062602 78	2260772 62	8.00	0.00	
					6062625 58	2260769 58	8.00	0.00	
		-			6062623.30	2260763.50	8.00	0.00	
		-			6062647.89	2200704.01	8.00	0.00	
		-			6062659.88	2260765.80	8.00	0.00	
		_			6062672.01	2260765.57	8.00	0.00	
					6062683.93	2260763.32	8.00	0.00	
					6062695.31	2260759.12	8.00	0.00	
					6062705.83	2260753.08	8.00	0.00	
					6062715.21	2260745.38	8.00	0.00	
					6062723.17	2260736.23	8.00	0.00	
					6062729.49	2260725.88	8.00	0.00	
					6062734.01	2260714.62	8.00	0.00	
					6062736.59	2260702.77	8.00	0.00	
		L		L	6062743.77	2260706.84	8.00	0.00	
					6062751.53	2260709.65	8.00	0.00	
	-				6062759.65	2260711.11	8.00	0.00	
					6062767.90	2260711.20	8.00	0.00	
					6062776.05	2260709.90	8.00	0.00	
					6062783.87	2260707.26	8.00	0.00	
				⊢	6062791.13	2260703.34	8.00	0.00	
					6062797 63	2260698.26	8.00	0.00	
		-			60629902.10	2200038.20	8.00	0.00	
		-			0002803.19	2200092.10	8.00	0.00	
		-			6062807.65	2200085.22	8.00	0.00	
					6062810.89	2260677.62	8.00	0.00	
					6062812.80	2260669.60	8.00	0.00	
					6062813.34	2260661.36	8.00	0.00	
					6062812.49	2260653.15	8.00	0.00	
					6062810.28	2260645.20	8.00	0.00	
					6062806.77	2260637.73	8.00	0.00	
					6062802.06	2260630.96	8.00	0.00	
					6062811.02	2260624.61	8.00	0.00	
					6062818.77	2260616.82	8.00	0.00	
					6062825.09	2260607.84	8.00	0.00	
					6062829.80	2260597.91	8.00	0.00	
					6062832.75	2260587.33	8.00	0.00	
					6062833.86	2260576.40	8.00	0.00	
					6062833.11	2260565.44	8.00	0.00	
		-			6062830 51	2260554 77	8.00	0.00	
		-			6062826.13	2260534.77	8.00	0.00	
		-			6062820.13	2200544.70	8.00	0.00	
		-			6062820.11	2200535.51	8.00	0.00	
		-		-	0002812.62	2200527.48	8.00	0.00	
		-		-	0002806.17	2260518.74	8.00	0.00	
					6062798.38	2260511.18	8.00	0.00	
					6062789.47	2260504.98	8.00	0.00	
					6062779.66	2260500.33	8.00	0.00	
					6062769.23	2260497.34	8.00	0.00	
					6062758.44	2260496.09	8.00	0.00	
		Ĺ		L	6062747.60	2260496.61	8.00	0.00	
		L		L	6062736.99	2260498.90	8.00	0.00	
					6062726.89	2260502.89	8.00	0.00	
					6062717.58	2260508.47	8.00	0.00	
					6062709.14	2260496.72	8.00	0.00	
					6062699.00	2260486.40	8.00	0.00	
					6062687.42	2260477.73	8.00	0.00	
				F	6062674 65	2260470 93	8 00	0.00	
				⊢	6062661 00	2260466 15	8 00	0.00	
		-		-	6062646 79	2260462 50	8 nn	0.00	
		-		-	6062632 22	2260403.30	0.00 8 00	0.00	
		-		-	6062617.00	2200403.04	0.00	0.00	
		-		_	0002017.96	2260464.79	8.00	0.00	
		-		_	6062604.04	2260468.70	8.00	0.00	
					6062590.86	2260474.68	8.00	0.00	
					6062569.04	2260472.97	8.00	0.00	
					6062547.16	2260473.82	8.00	0.00	
					6062525.53	2260477.21	8.00	0.00	
		L		L	6062504.44	2260483.10	8.00	0.00	
					6062484.18	2260491.41	8.00	0.00	
					6062465.03	2260502.03	8.00	0.00	
					6062447.25	2260514.80	8.00	0.00	
					6062442.17	2260506.30	8.00	0.00	

Name	Height				Coordinates						
	Begin		End		х	у	z	Ground			
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)			
					6062435.78	2260498.72	8.00	0.00			
					6062428.26	2260492.27	8.00	0.00			
					6062419.79	2260487.12	8.00	0.00			
					6062410 61	2260483.40	8.00	0.00			
					6062400 95	2260481 20	8.00	0.00			
					6062201.05	2200481.20	8.00	0.00			
					0002391.03	2200480.39	8.00	0.00			
					6062381.19	2260481.58	8.00	0.00			
					6062371.62	2260484.14	8.00	0.00			
					6062362.59	2260488.21	8.00	0.00			
					6062354.33	2260493.68	8.00	0.00			
					6062334.26	2260489.36	8.00	0.00			
					6062313.82	2260487.51	8.00	0.00			
					6062293.30	2260488.18	8.00	0.00			
					6062273.02	2260491 34	8.00	0.00			
		-			6062253.28	2260496.95	8.00	0.00			
		-			6062233.28	2200430.33	8.00	0.00			
		-			6062234.37	2260504.95	8.00	0.00			
					6062216.57	2260515.15	8.00	0.00			
					6062200.16	2260527.48	8.00	0.00			
					6062186.52	2260518.27	8.00	0.00			
		Ľ		L	6062171.80	2260510.92	8.00	0.00			
					6062156.24	2260505.57	8.00	0.00			
					6062140.12	2260502.29	8.00	0.00			
					6062123 71	2260501 15	8 00	0.00			
		-		⊢	6062107 20	2260502.17	8 00	0.00			
		-		-	6062001 14	2260502.17	0.00	0.00			
		-		-	6062075 55	2200305.33	0.00	0.00			
		-		-	00020/5.55	2200510.58	8.00	0.00			
				_	6062057.34	2260500.53	8.00	0.00			
					6062038.09	2260492.67	8.00	0.00			
					6062018.05	2260487.11	8.00	0.00			
					6061997.49	2260483.92	8.00	0.00			
					6061976.71	2260483.15	8.00	0.00			
					6061955.98	2260484.81	8.00	0.00			
					6061935 58	2260488 88	8.00	0.00			
					6061015 90	2260106.00	0.00 0.00	0.00			
		-			0001913.80	2200493.30	8.00	0.00			
					6061896.90	2260503.98	8.00	0.00			
					6061879.14	2260514.80	8.00	0.00			
					6061867.15	2260512.53	8.00	0.00			
					6061854.96	2260512.22	8.00	0.00			
					6061842.87	2260513.89	8.00	0.00			
					6061831.21	2260517.48	8.00	0.00			
					6061820.29	2260522.92	8.00	0.00			
					6061810.39	2260530.05	8.00	0.00			
					6061801.77	2260538.68	8.00	0.00			
					6061794.66	2260548.59	8.00	0.00			
					6061780 44	2260543.00	8.00	0.00			
		-		-	6061765 54	2260520 50	2.00 2 00	0.00			
		-		-	6061750 20	2200333.39	0.00	0.00			
		-		-	0001/50.30	2200538.44	8.00	0.00			
				_	6061735.06	2260539.59	8.00	0.00			
					6061720.16	2260543.00	8.00	0.00			
					6061705.94	2260548.60	8.00	0.00			
		L		L	6061692.72	2260556.27	8.00	0.00			
					6061680.79	2260565.82	8.00	0.00			
					6061670.43	2260577.06	8.00	0.00			
					6061661.86	2260589.71	8.00	0.00			
				-	6061655 27	2260603 51	8 00	0.00			
		-		-	6061649 62	2260614 00	8 00	0.00			
		-		-	6061645.02	2200014.09	0.00	0.00			
		-		-	0001045.81	2200025.47	8.00	0.00			
		-		-	bUb1643.95	2260637.32	8.00	0.00			
					6061644.08	2260649.32	8.00	0.00			
					6061646.21	2260661.13	8.00	0.00			
		L		L	6061650.28	2260672.42	8.00	0.00			
					6061656.17	2260682.88	8.00	0.00			
					6061663.72	2260692.21	8.00	0.00			
				-	6061663.93	2260706.64	8.00	0.00			
		-		-	6061666 61	2260700.04	0.00	0.00			
		-		-	0001000.01	2200/20.83	8.00	0.00			
				_	0061671.68	2260/34.34	8.00	0.00			
					6061679.00	2260746.78	8.00	0.00			
					6061688.34	2260757.79	8.00	0.00			
					6061699.43	2260767.03	8.00	0.00			
					6061711.94	2260774.23	8.00	0.00			
					6061725.50	2260779.17	8.00	0.00			
					6061739.71	2260781.72	8.00	0.00			
				-	6061754 15	2260781 79	8 00	0.00			
		-		-	6061768 20	2260770 20	2.00 2 00	0.00			
					3001/00.30	-200713.30	0.00	0.00			

Barrier(s)

Name	М.	ID	Absorption Z-		Z-Ext.	Canti	ilever	Height				Coordinates				
			left	right		horz.	vert.	Begin		End		х	У	z	Ground	
					(ft)	(ft)	(ft)	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)	
BARRIERS		BARRIERS00001						6.00	а			6062001.08	2263672.42	6.00	0.00	
												6062659.93	2263671.12	6.00	0.00	
BARRIERS		BARRIERS00002						6.00	а			6064020.44	2263480.19	6.00	0.00	
												6064050.12	2263449.98	6.00	0.00	
												6064301.16	2263452.07	6.00	0.00	

Building(s)

Name	М.	ID	RB	Residents	Absorption	Height			Coordinates		
						Begin	_	х	У	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING		BUILDING00005	х	0		30.00	а	6062064.46	2260299.41	30.00	0.00
								6062291.31	2260301.96	30.00	0.00
								6062291.31	2259776.90	30.00	0.00
								6062059.36	2259779.44	30.00	0.00
BUILDING		BUILDING00006	х	0		30.00	а	6062371.60	2260161.77	30.00	0.00
								6062510.51	2260159.22	30.00	0.00
								6062509.23	2259863.56	30.00	0.00
								6062434.04	2259863.56	30.00	0.00
								6062436.59	2259818.95	30.00	0.00
								6062372.87	2259820.23	30.00	0.00
BUILDING		BUILDING00007	х	0		30.00	a	6062533.45	2260234.41	30.00	0.00
								6062680.01	2260235.69	30.00	0.00
								6062680.01	2260160.49	30.00	0.00
								6062537.27	2260159.22	30.00	0.00
BUILDING		BUILDING00008	x	0		30.00	a	6062715.69	2260296.86	30.00	0.00
								6062785.78	2260296.86	30.00	0.00
								6062787.06	2260161.77	30.00	0.00
								6062716.96	2260163.04	30.00	0.00
BUILDING		BUILDING00009	x	0		30.00	а	6061697.43	2260265.00	30.00	0.00
							\vdash	6061898.79	2260259.90	30.06	0.00
							\vdash	6061898.79	2259942.57	30.06	0.00
							-	0001937.02	2259937.47	30.00	0.00
							\vdash	6061935.75	2259742.49	30.00	0.00
						20.00	-	6061692.33	2259/38.66	30.00	0.00
BUILDING		BUILDING00010	x	0		30.00	a	6062166.42	2259583.18	30.00	0.00
							\vdash	6062255.62	2259589.50	30.00	0.00
							\vdash	6062260.72	2259012.50	30.00	0.00
							\vdash	6062441.69	2259615.04	30.00	0.00
							-	60622440.42	2259220.35	20.00	0.00
							-	6062329.54	2259227.02	30.00	0.00
							\vdash	6062324.44	2259282.42	20.00	0.00
							\vdash	6062120.91	2239279.07	30.00	0.00
							-	6062152.01	2233324.30	20.00	0.00
			v	0		30.00	-	6061450.45	2259527.11	30.00	0.00
DOILDING		DOILDING00011	^	0		30.00	a	6061569 53	2260243.00	30.00	0.00
							-	6061566.48	2200243.00	30.00	0.00
							\vdash	6061446 37	22555515.25	30.00	0.00
		BUILDING00012	v	0		30.00		6060586 32	2260166.67	30.00	0.00
DOILDING		DOILDINGCOOTZ	^			50.00	ľ	6060902.86	2260166.67	30.00	0.00
							\vdash	6060901.84	2260207 38	30.00	0.00
								6060832.63	2260209.00	30.00	0.00
							╞	6060832.63	2260203.42	30.00	0.00
							\vdash	6061021.94	2260277.01	30.00	0.00
								6061019 91	2260206 36	30.00	0.00
							\vdash	6060949.68	2260202.29	30.00	0.00
							\vdash	6060950.70	2260168.70	30.00	0.00
								6061259.10	2260164.63	30.00	0.00
							F	6061261.13	2259867.43	30.00	0.00
							F	6060591.41	2259876.59	30.00	0.00
BUILDING		BUILDING00013	х	0		30.00	a	6060483.51	2261178.97	30.00	0.00
								6060633.86	2261178.97	30.00	0.00
								6060617.67	2260744.09	30.00	0.00
								6060344.71	2260740.62	30.00	0.00
								6060343.56	2261122.30	30.00	0.00
								6060483.51	2261122.30	30.00	0.00
BUILDING		BUILDING00014	х	0		30.00	a	6060739.12	2261209.04	30.00	0.00
								6061204.07	2261203.26	30.00	0.00
								6061200.60	2261089.91	30.00	0.00
								6060740.27	2261093.38	30.00	0.00
BUILDING		BUILDING00015	х	0		30.00	a	6060948.46	2261042.49	30.00	0.00
								6061209.85	2261037.86	30.00	0.00
							F	6061212.17	2260884.04	30.00	0.00
								6060947.30	2260881.72	30.00	0.00
BUILDING		BUILDING00016	x	0		30.00	a	6060874.44	2260740.62	30.00	0.00
								6061021.33	2260742.93	30.00	0.00

Name	М.	ID	RB	Residents	Absorption	Height	:		Coordinates v z		
						Begin	_	X	y (6)	Z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
							\vdash	6061024.80	2260525.49	30.00	0.00
BUILDING		BUILDING00017	x	0		30.00	a	6061116.17	2260805.39	30.00	0.00
				-			-	6061243.39	2260808.86	30.00	0.00
								6061245.71	2260489.63	30.00	0.00
								6061115.01	2260497.73	30.00	0.00
BUILDING		BUILDING00018	х	0		30.00	а	6060676.66	2260910.64	30.00	0.00
								6060783.07	2260911.79	30.00	0.00
								6060778.44	2260851.65	30.00	0.00
								6060820.08	2260851.65	30.00	0.00
								6060822.39	2260523.18	30.00	0.00
								6060674.35	2260528.96	30.00	0.00
BUILDING		BUILDING00019	х	0		30.00	а	6060189.21	2262251.80	30.00	0.00
								6061240.61	2262248.13	30.00	0.00
								6061251.64	2261854.77	30.00	0.00
								6060200.24	2261862.13	30.00	0.00
BUILDING		BUILDING00020	х	0		30.00	а	6060946.51	2262909.85	30.00	0.00
								6061163.41	2262909.85	30.00	0.00
								6061159.73	2262854.70	30.00	0.00
								6061233.20	2202051.05	30.00	0.00
							Н	6061100 01	2202304.28	30.00	0.00
							H	6061082 52	2262663 54	30.00	0.00
							Η	6060935 48	2262678 24	30.00	0.00
BUILDING		BUILDING00021	х	0		30.00	а	6061119.29	2263347.32	30.00	0.00
							H	6061233.26	2263347.32	30.00	0.00
							Η	6061222.23	2263273.79	30.00	0.00
							Ħ	6061115.62	2263273.79	30.00	0.00
BUILDING		BUILDING00022	х	0		30.00	a	6061134.00	2263211.30	30.00	0.00
								6061281.05	2263200.27	30.00	0.00
								6061273.69	2263130.42	30.00	0.00
								6061134.00	2263130.42	30.00	0.00
BUILDING		BUILDING00023	х	0		30.00	а	6061420.74	2263306.88	30.00	0.00
								6061501.62	2263420.84	30.00	0.00
								6061663.37	2263420.84	30.00	0.00
								6061652.34	2263148.80	30.00	0.00
								6061431.77	2263112.04	30.00	0.00
BUILDING		BUILDING00024	х	0		30.00	а	6061439.12	2262906.17	30.00	0.00
								6061575.14	2262898.82	30.00	0.00
								6061586.17	2262604.72	30.00	0.00
				0		20.00		6061450.15	2262597.37	30.00	0.00
BUILDING		BUILDINGUUU25	x	0		30.00	d	6061656.02	2203593.02	30.00	0.00
							\vdash	6061659.70	2203004.03	30.00	0.00
								6061457.50	2263461.28	30.00	0.00
BUILDING		BUILDING00026	x	0		30.00	a	6061817.77	2263597.30	30.00	0.00
				-			-	6061994.23	2263593.62	30.00	0.00
								6061983.20	2263159.83	30.00	0.00
								6061821.45	2263163.50	30.00	0.00
BUILDING		BUILDING00027	х	0		30.00	а	6061670.72	2262869.41	30.00	0.00
								6061850.86	2262869.41	30.00	0.00
							Π	6061854.54	2262567.96	30.00	0.00
								6061792.04	2262556.93	30.00	0.00
							Ц	6061670.72	2262656.19	30.00	0.00
BUILDING		BUILDING00028	х	0		30.00	а	6061997.91	2262942.93	30.00	0.00
								6062159.66	2262935.58	30.00	0.00
ļ							Ц	6062148.63	2262454.00	30.00	0.00
					ļ,		Ц	6061983.20	2262454.00	30.00	0.00
BUILDING		BUILDING00029	х	0		30.00	a	6062034.67	2263450.25	30.00	0.00
							\parallel	6062196.42	2263453.93	30.00	0.00
							\parallel	6062207.45	2263358.34	30.00	0.00
							H	6062789.20	2203350.99	30.00	0.00
							Н	6062010.00	2203119.39	30.00	0.00
		BUILDING00030	v	0		30.00	2	6062272 62	2263120.74	30.00	0.00
DOILDING		2012011000030	^			30.00	a	6062472 14	2262887 70	30.00	0.00
							H	6062490.52	2262454.00	30.00	0.00
			-				Η	6062604 48	2262442 97	30.00	0.00
							Η	6062644.92	2262876.76	30.00	0.00
							Η	6062880.20	2262876.76	30.00	0.00
							H	6062880.20	2262347.39	30.00	0.00
							H	6062266.27	2262336.36	30.00	0.00
BUILDING		BUILDING00031	x	0		30.00	a	6062292.00	2262273.86	30.00	0.00
							Π	6062865.49	2262266.51	30.00	0.00
								6062858.14	2261880.51	30.00	0.00
							Γ	6062336.12	2261854.77	30.00	0.00
BUILDING		BUILDING00032	х	0		30.00	а	6063035.13	2261936.74	30.00	0.00

					Begin		х	y	z	Ground
					(f+)		(f+)	(f+)	(f+)	(f+)
	-				(11)		6063036.44	2261863.82	30.00	0.00
							6063764.30	2261865.13	30.00	0.00
							6063772.11	2262018.77	30.00	0.00
							6063838.52	2262016.17	30.00	0.00
							6063845.03	2261815.65	30.00	0.00
							6062997.37	2261824.76	30.00	0.00
		BUILDING00033	v	0	30.00	2	6064120.77	2261939.34	30.00	0.00
DOILDING		DOILDINGCOOSS	^		30.00	u	6064692.12	2262253.35	30.00	0.00
							6064696.04	2261910.93	30.00	0.00
							6064122.73	2261895.27	30.00	0.00
BUILDING		BUILDING00034	х	0	30.00	а	6064065.98	2262417.71	30.00	0.00
							6064737.13	2262415.75	30.00	0.00
							6064739.08	2262319.87	30.00	0.00
BUILDING		BUILDING00035	x	0	30.00	а	6064095.33	2262947.97	30.00	0.00
						-	6064656.90	2262942.10	30.00	0.00
							6064649.08	2262715.13	30.00	0.00
							6064155.99	2262738.61	30.00	0.00
BUILDING		BUILDING00036	х	0	30.00	а	6063670.73	2262924.49	30.00	0.00
	-						6063842.92	2262930.36	30.00	0.00
	-					\vdash	6063670 72	2202/83.61	30.00	0.00
BUILDING	-	BUILDING00037	x	0	30.00	a	6063727.47	2262748.39	30.00	0.00
	1		Ė				6063844.88	2262746.43	30.00	0.00
							6063840.96	2262558.59	30.00	0.00
							6063729.43	2262562.50	30.00	0.00
BUILDING		BUILDING00038	х	0	30.00	а	6063731.39	2262468.58	30.00	0.00
							6063868.36	2262474.45	30.00	0.00
						\vdash	6063733 35	2262325.74	30.00	0.00
BUILDING		BUILDING00039	x	0	30.00	а	6064277.31	2263378.44	30.00	0.00
							6064353.62	2263382.36	30.00	0.00
							6064353.62	2263137.77	30.00	0.00
							6064275.35	2263141.68	30.00	0.00
BUILDING		BUILDING00040	х	0	30.00	а	6063643.34	2263546.72	30.00	0.00
							6063794.00	2263542.81	30.00	0.00
							6063846.83	2263103.08	30.00	0.00
							6063848.79	2263096.68	30.00	0.00
							6063707.91	2263096.68	30.00	0.00
							6063696.17	2263368.66	30.00	0.00
							6063647.25	2263374.53	30.00	0.00
BUILDING		BUILDING00041	х	0	30.00	а	6064118.81	2262621.20	30.00	0.00
							6064210.78	2262482.28	30.00	0.00
							6064120.77	2262480.32	30.00	0.00
BUILDING		BUILDING00042	x	0	30.00	а	6064072.47	2260874.72	30.00	0.00
							6064255.58	2260876.22	30.00	0.00
							6064252.58	2260775.67	30.00	0.00
							6064134.01	2260778.67	30.00	0.00
							6064076.98	2260822.19	30.00	0.00
BUILDING		BUILDING00043	x	0	30.00	a	6064120.50	2260676.61	30.00	0.00
							6064257.08	2260679.61	30.00	0.00
							6064258.58	2260591.06	30.00	0.00
L							6064125.00	2260589.56	30.00	0.00
BUILDING	-	BUILDING00044	х	0	30.00	а	6064240	2260492.00	30.00	0.00
	-					Η	6064232.07	2260507.01	30.00	0.00
						H	6064143.01	2260436.47	30.00	0.00
BUILDING		BUILDING00045	x	0	30.00	a	6064440.19	2260481.50	30.00	0.00
							6064549.75	2260478.49	30.00	0.00
							6064552.75	2260416.96	30.00	0.00
					20.00	_	6064444.69	2260418.46	30.00	0.00
BUILDING	-	BUILDING00046	x	0	30.00	а	6064872 44	2260558.04	30.00	0.00
	-					Η	6064866.43	2260433.47	30.00	0.00
							6064785.39	2260428.96	30.00	0.00
BUILDING		BUILDING00047	х	0	30.00	а	6064573.76	2260654.10	30.00	0.00
							6064689.33	2260651.09	30.00	0.00
							6064689.33	2260577.55	30.00	0.00
							6064764.38	2260571.55	30.00	0.00
1	-					\vdash	6064771.88	2260412.46	30.00	0.00
	1					\vdash	6064726.85	2260543.03	30.00	0.00

Name	М.	ID	RB	Residents	Absorption	Height			Coordinat		
						Begin		х	У	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING		BUILDING00048	х	0		30.00	а	6064079.98	2261596.64	30.00	0.00
								6064590.27	2261590.64	30.00	0.00
								6064590.27	2261575.63	30.00	0.00
								6065069.05	2261572.63	30.00	0.00
								6065070.55	2261134.37	30.00	0.00
								6064600.78	2261122.37	30.00	0.00
								6064591.78	2261192.91	30.00	0.00
								6064078.48	2261194.41	30.00	0.00
BUILDING		BUILDING00049	х	0		30.00	а	6063565.18	2260805.68	30.00	0.00
								6063926.89	2260805.68	30.00	0.00
								6063923.89	2260742.65	30.00	0.00
								6063665.74	2260744.15	30.00	0.00
								6063665.74	2260708.13	30.00	0.00
								6063572.68	2260709.63	30.00	0.00
BUILDING		BUILDING00050	х	0		30.00	а	6063562.18	2260685.61	30.00	0.00
								6063665.74	2260679.61	30.00	0.00
								6063667.24	2260658.60	30.00	0.00
								6063928 39	2260646 59	30.00	0.00
								6063922.39	2260591.06	30.00	0.00
								6063569.68	22605351.00	30.00	0.00
			v	0		30.00	2	6060930 72	2260524.05	30.00	0.00
DOILDING		DOILDING00031	^	0		30.00	a	6061014 79	2200524.05	30.00	0.00
								6061014.75	2200323.34	20.00	0.00
								6060020 50	2200474.08	30.00	0.00
			v	0		20.00	-	60606929.30	2200474.08	30.00	0.00
BUILDING		BUILDING00032	~	0		30.00	a	0000082.08	2200328.00	30.00	0.00
								0000815.80	2200525.45	30.00	0.00
								0000815.52	2200498.09	30.00	0.00
								0000730.93	2200455.57	30.00	0.00
								6060756.28	2260474.32	30.00	0.00
				0		20.00	_	COCO205 85	22004/3.98	30.00	0.00
BUILDING		BUILDING00053	х	0		30.00	а	6060395.85	2260598.02	30.00	0.00
								6060604.59	2260600.60	30.00	0.00
								6060602.52	2260458.00	30.00	0.00
								6060518.82	2260455.42	30.00	0.00
								6060517.79	2260519.49	30.00	0.00
				-			\square	6060395.34	2260524.14	30.00	0.00
BUILDING		BUILDING00054	х	0		30.00	а	6060898.61	2261586.33	30.00	0.00
								6061182.72	2261585.54	30.00	0.00
								6061182.72	2261331.50	30.00	0.00
								6060895.44	2261329.13	30.00	0.00
BUILDING		BUILDING00055	х	0		30.00	а	6060704.72	2261584.75	30.00	0.00
								6060766.45	2261587.92	30.00	0.00
								6060764.07	2261337.04	30.00	0.00
								6060704.72	2261337.83	30.00	0.00
BUILDING		BUILDING00056	х	0		30.00	а	6060542.48	2261614.82	30.00	0.00
								6060639.03	2261613.24	30.00	0.00
								6060640.61	2261533.31	30.00	0.00
								6060540.90	2261534.89	30.00	0.00
BUILDING		BUILDING00057	х	0		30.00	а	6060543.27	2261481.87	30.00	0.00
								6060638.24	2261481.08	30.00	0.00
								6060639.82	2261295.89	30.00	0.00
								6060543.27	2261295.89	30.00	0.00

