

**Appendix G:  
Noise Measurement Data Sheets**

Project Number: 4435.0011 Sheet 1 of       
 Project Name: 270 E. Central Ave  
 Test Personnel: C. Renfrew

### Noise Measurement Survey

Site Number: 1 Date: 12.23.15 Time: From 1114 To 1124

Site Location: 270 E. Central Ave. San Bernardino  
@ street side

Primary Noise Sources: traffic along Central Ave.

#### Measurement Results

	dB(A)
Leq	67.8
Lmax	88.6
Lmin	41.4
Lpeak	
L5	
L10	
L50	
L90	
SEL	

#### Observed Noise Sources/Events

Time	Noise Source/Event	dB(A)
1116	car trav W <u>     </u>	
1116	car trav E <u>   </u>	
1117	car trav W <u>   </u>	
1117	car trav E <u>  </u>	
1118	car trav E <u>  </u>	
1120	car trav W <u>     </u>	
1121	trash truck E <u> </u>	
1121	car trav. W <u>   </u>	
1122	car trav E <u>  </u>	
1123	car trav E <u>  </u>	
1123	car trav W <u>  </u>	

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Equipment: Extech Calibration Offset: \_\_\_\_\_ dB(A)  
 Settings: A-Weighted  Other  Slow  Fast  Windscreen

#### Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)
<u>2</u>	<u>1</u>	<u>55</u>	<u>84</u>
Comments: _____			

Photos Taken:

Photo Number	Location/Description

Traffic Description:

Roadway	# Lanes	Posted Speed	Average Speed	NB/EB Counts	SB/WB Counts
Central Ave	4	35	35		

Diagram/Further Comments:

Project Number: 4455.0011  
 Project Name: 270 E. Central Ave  
 Test Personnel: C. Renfrew

Sheet 3 of     

### Noise Measurement Survey

Site Number: 2 Date: 12.23.15 Time: From 1132 To 1142

Site Location: 270 E. Central Ave. on-site near  
alley of Inland Wholesale Flowers

Primary Noise Sources: Traffic on E. Central Ave

#### Measurement Results

	dB(A)
Leq	<u>46.7</u>
Lmax	<u>67.3</u>
Lmin	<u>40.9</u>
Lpeak	
L5	
L10	
L50	
L90	
SEL	

#### Observed Noise Sources/Events

Time	Noise Source/Event	dB(A)
<u>1133</u>	<u>truck trav. E 1</u>	
<u>1134</u>	<u>car trav W 11</u>	
	<u>car trav E 111</u>	
<u>1135</u>	<u>car trav E 1</u>	
<u>1140</u>	<u>truck trav E 1</u>	
<u>1137</u>	<u>car trav W 11</u>	
<u>1139</u>	<u>forklift in alley</u>	
<u>1140</u>	<u>motorcycle on alley</u>	
<u>1142</u>	<u>truck in alley back up</u>	

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Equipment: Extech  
 Settings: A-Weighted  Other

Calibration Offset: \_\_\_\_\_ dB(A)  
 Slow  Fast  Windscreen

#### Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)
<u>2</u>	<u>1</u>	<u>55</u>	<u>84</u>
Comments: _____			

Photos Taken:

Photo Number	Location/Description

Traffic Description:

Roadway	# Lanes	Posted Speed	Average Speed	NB/EB Counts	SB/WB Counts
Central Ave	4	35	35		

Diagram/Further Comments:

Project Number: 4455 0011 Sheet 5 of       
 Project Name: 270 E. Central Ave  
 Test Personnel: C. Renfrew

### Noise Measurement Survey

Site Number: 3 Date: 12.23.15 Time: From 1146 To 1156

Site Location: Near NE corner of project footprint.

Primary Noise Sources: Ambulance, trash trucks on Central Ave, cars in parking lot.

#### Measurement Results

	dBA
Leq	50.3
Lmax	69.2
Lmin	43.8
Lpeak	
L5	
L10	
L50	
L90	
SEL	

#### Observed Noise Sources/Events

Time	Noise Source/Event	dBA
1147	trash truck trav W 1	
	car trav W III	
	car trav E II	
1148	car start in parking lot	
1149	security gate opening	
1151	ambulance, sirens	
1153	trash truck trav W 1	
1154	loading door @ Summit Wholesale	
1155	car start in parking lot, backfire	

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Equipment: \_\_\_\_\_  
 Settings: A-Weighted  Other

Calibration Offset: \_\_\_\_\_ dBA  
 Slow  Fast  Windscreen

#### Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)
Comments:			

Photos Taken:

Photo Number	Location/Description

Traffic Description:

Roadway	# Lanes	Posted Speed	Average Speed	NB/EB Counts	SB/WB Counts

Diagram/Further Comments:

**Appendix B:  
Traffic Noise Model Data**

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TABLE Existing-01  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016

ROADWAY SEGMENT: Central Avenue - Arrowhead Avenue to West Project West Driveway

NOTES: 270 E Central Avenue - Existing

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\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 6500      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	93.8	199.0

TABLE Existing-02  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Central Avenue - West Project West Driveway to East  
Project Driveway  
NOTES: 270 E Central Avenue - Existing

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 4200      SPEED (MPH): 40      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES	
	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

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\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	71.1	149.2

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TABLE Existing-03  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Central Avenue - East Project Driveway to Waterman Avenue  
NOTES: 270 E Central Avenue - Existing

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 4200      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	71.1	149.2

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TABLE Existing-04  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Arrowhead Avenue - north of Central Avenue  
NOTES: 270 E Central Avenue - Existing

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\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 13700      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	72.5	152.3	326.2

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TABLE Existing-05  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Arrowhead Avenue - south of Central Avenue  
NOTES: 270 E Central Avenue - Existing

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\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 12400      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.01

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	68.1	142.6	305.3

---

TABLE Existing-06  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Waterman Avenue - north of Central Avenue  
NOTES: 270 E Central Avenue - Existing

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 22000      SPEED (MPH): 45      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
88.08	9.34
M-TRUCKS	
1.65	0.19
H-TRUCKS	
0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.76

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
57.1	118.2	252.2	542.1

TABLE Existing-07  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Waterman Avenue - south of Central Avenue  
NOTES: 270 E Central Avenue - Existing

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\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 21700      SPEED (MPH): 45      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.70

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
56.7	117.1	249.9	537.2

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TABLE Existing + Project-01  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016

ROADWAY SEGMENT: Central Avenue - Arrowhead Avenue to West Project West Driveway

NOTES: 270 E Central Avenue - Existing + Project

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 6800      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	NIGHT -----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.40

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn -----	65 Ldn -----	60 Ldn -----	55 Ldn -----
0.0	0.0	96.5	205.0

TABLE Existing + Project-02  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Central Avenue - West Project West Driveway to East  
Project Driveway  
NOTES: 270 E Central Avenue - Existing + Project

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 4200      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	71.1	149.2

---

TABLE Existing + Project-03  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016

ROADWAY SEGMENT: Central Avenue - East Project Driveway to Waterman Avenue

NOTES: 270 E Central Avenue - Existing + Project

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 4200      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	71.1	149.2

TABLE Existing + Project-04  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Arrowhead Avenue - north of Central Avenue  
NOTES: 270 E Central Avenue - Existing + Project

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 13800      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	----	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	72.8	153.0	327.8

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TABLE Existing + Project-05  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Arrowhead Avenue - south of Central Avenue  
NOTES: 270 E Central Avenue - Existing + Project

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 12600      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.08

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	68.8	144.1	308.6

---

TABLE Existing + Project-06  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Waterman Avenue - north of Central Avenue  
NOTES: 270 E Central Avenue - Existing + Project

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\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 22100      SPEED (MPH): 45      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.78

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
57.3	118.5	252.9	543.7

---

TABLE Existing + Project-07  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Waterman Avenue - south of Central Avenue  
NOTES: 270 E Central Avenue - Existing + Project

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\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 21900      SPEED (MPH): 45      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.74

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
57.0	117.8	251.4	540.5

---

TABLE General Plan Buildout No Project-01  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016

ROADWAY SEGMENT: Central Avenue - Arrowhead Avenue to West Project West Driveway

NOTES: 270 E Central Avenue - General Plan Buildout No Project

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 7200      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.65

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	100.1	212.9

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TABLE General Plan Buildout No Project-02  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Central Avenue - West Project West Driveway to East  
Project Driveway  
NOTES: 270 E Central Avenue - General Plan Buildout No Project

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 4800      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
88.08	9.34
M-TRUCKS	
1.65	0.19
H-TRUCKS	
0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.89

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	77.3	162.9

TABLE General Plan Buildout No Project-03  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Central Avenue - East Project Driveway to Waterman Avenue  
NOTES: 270 E Central Avenue - General Plan Buildout No Project

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 4800      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
88.08	9.34
M-TRUCKS	
1.65	0.19
H-TRUCKS	
0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.89

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	77.3	162.9

TABLE General Plan Buildout No Project-04  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Arrowhead Avenue - north of Central Avenue  
NOTES: 270 E Central Avenue - General Plan Buildout No Project

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\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 15100      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	----	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.87

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	77.0	162.4	348.0

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TABLE General Plan Buildout No Project-05  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Arrowhead Avenue - south of Central Avenue  
NOTES: 270 E Central Avenue - General Plan Buildout No Project

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 13600      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	72.1	151.6	324.7

---

TABLE General Plan Buildout No Project-06  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016

ROADWAY SEGMENT: Waterman Avenue - north of Central Avenue

NOTES: 270 E Central Avenue - General Plan Buildout No Project

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 24600      SPEED (MPH): 45      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	----	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.25

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
61.1	127.1	271.6	584.0

TABLE General Plan Buildout No Project-07  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016

ROADWAY SEGMENT: Waterman Avenue - south of Central Avenue

NOTES: 270 E Central Avenue - General Plan Buildout No Project

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 24700      SPEED (MPH): 45      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.26

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
61.3	127.4	272.3	585.5

TABLE General Plan Buildout + Project-01  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016

ROADWAY SEGMENT: Central Avenue - Arrowhead Avenue to West Project West Driveway

NOTES: 270 E Central Avenue - General Plan Buildout + Project

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 7500      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	102.8	218.8

TABLE General Plan Buildout + Project-02  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Central Avenue - West Project West Driveway to East  
Project Driveway  
NOTES: 270 E Central Avenue - General Plan Buildout + Project

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 5100      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	80.3	169.6

---

TABLE General Plan Buildout + Project-03  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016

ROADWAY SEGMENT: Central Avenue - East Project Driveway to Waterman Avenue

NOTES: 270 E Central Avenue - General Plan Buildout + Project

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 5100      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	80.3	169.6

TABLE General Plan Buildout + Project-04  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016  
ROADWAY SEGMENT: Arrowhead Avenue - north of Central Avenue  
NOTES: 270 E Central Avenue - General Plan Buildout + Project

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 15200      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
88.08	9.34
M-TRUCKS	
1.65	0.19
H-TRUCKS	
0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.90

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	77.4	163.1	349.6

TABLE General Plan Buildout + Project-05  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016

ROADWAY SEGMENT: Arrowhead Avenue - south of Central Avenue

NOTES: 270 E Central Avenue - General Plan Buildout + Project

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\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 13800      SPEED (MPH): 40      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	----	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	72.8	153.0	327.8

TABLE General Plan Buildout + Project-06  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016

ROADWAY SEGMENT: Waterman Avenue - north of Central Avenue

NOTES: 270 E Central Avenue - General Plan Buildout + Project

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\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 24700      SPEED (MPH): 45      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.26

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
61.3	127.4	272.3	585.5

TABLE General Plan Buildout + Project-07  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/25/2016

ROADWAY SEGMENT: Waterman Avenue - south of Central Avenue

NOTES: 270 E Central Avenue - General Plan Buildout + Project

---

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 24900      SPEED (MPH): 45      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 18      SITE CHARACTERISTICS: SOFT

---

\* \* CALCULATED NOISE LEVELS \* \*

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.30

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
61.6	128.1	273.8	588.7

## Appendix C: Construction Noise Modeling

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Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 12/30/2015  
 Case Description: Site Preparation Phase

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R1- residence southwest of project site	Residential	65	55	50

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Dozer	No	40		81.7	220	0
Tractor	No	40	84		240	0
Front End Loader	No	40		79.1	260	0
Backhoe	No	40		77.6	280	0
Dozer	No	40		81.7	300	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)					
	*Lmax	Leq	Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	68.8		64.8	N/A	N/A	N/A	N/A	N/A
Tractor	70.4		66.4	N/A	N/A	N/A	N/A	N/A
Front End Loader	64.8		60.8	N/A	N/A	N/A	N/A	N/A
Backhoe	62.6		58.6	N/A	N/A	N/A	N/A	N/A
Dozer	66.1		62.1	N/A	N/A	N/A	N/A	N/A
Total	70.4		70.4	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R2- church south of project site	Residential	65	55	50

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Dozer	No	40		81.7	130	0
Tractor	No	40	84		150	0
Front End Loader	No	40		79.1	170	0
Backhoe	No	40		77.6	190	0
Dozer	No	40		81.7	210	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)					
	*Lmax	Leq	Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	73.4		69.4	N/A	N/A	N/A	N/A	N/A
Tractor	74.5		70.5	N/A	N/A	N/A	N/A	N/A
Front End Loader	68.5		64.5	N/A	N/A	N/A	N/A	N/A
Backhoe	66		62	N/A	N/A	N/A	N/A	N/A
Dozer	69.2		65.2	N/A	N/A	N/A	N/A	N/A
Total	74.5		74.4	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night

R3- residence southeast of project site Residential 65 55 50

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	155	0
Tractor	No	40	84		175	0
Front End Loader	No	40		79.1	195	0
Backhoe	No	40		77.6	215	0
Dozer	No	40		81.7	235	0

Equipment	Calculated (dBA)			Noise Limits (dBA)				
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Dozer	71.8	67.9	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	67.3	63.3	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	64.9	60.9	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	68.2	64.2	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>73.1</b>	<b>73.1</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R4- commercial east of project site	Commercial	65	55	50

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	160	0
Tractor	No	40	84		180	0
Front End Loader	No	40		79.1	200	0
Backhoe	No	40		77.6	220	0
Dozer	No	40		81.7	240	0

Equipment	Calculated (dBA)			Noise Limits (dBA)				
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Dozer	71.6	67.6	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	72.9	68.9	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	67.1	63.1	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	64.7	60.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	68	64.1	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>72.9</b>	<b>72.8</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R5- commercial north of project site	Commercial	65	55	50

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	175	0
Tractor	No	40	84		195	0

Front End Loader	No	40	79.1	215	0
Backhoe	No	40	77.6	235	0
Dozer	No	40	81.7	255	0

Results

Equipment	Calculated (dBA)			Noise Limits (dBA)				
	*Lmax	Leq	Day	Leq	Evening		Night	
			Lmax		Lmax	Leq	Lmax	
Dozer	70.8	66.8	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	72.2	68.2	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	66.4	62.5	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	64.1	60.1	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	67.5	63.5	N/A	N/A	N/A	N/A	N/A	N/A
Total	72.2	72.2	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R6- commercial west of project stie	Commercial	65	55	50

Equipment

Description	Impact	Device	Usage(%)	Spec	Actual	Receptor	Estimated
				Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Dozer	No		40		81.7	80	0
Tractor	No		40	84		100	0
Front End Loader	No		40		79.1	120	0
Backhoe	No		40		77.6	140	0
Dozer	No		40		81.7	160	0

Results

Equipment	Calculated (dBA)			Noise Limits (dBA)				
	*Lmax	Leq	Day	Leq	Evening		Night	
			Lmax		Lmax	Leq	Lmax	
Dozer	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	78	74	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	71.5	67.5	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	68.6	64.6	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	71.6	67.6	N/A	N/A	N/A	N/A	N/A	N/A
Total	78	78	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 12/30/2015  
 Case Description: Grading Phase

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R1- residence southwest of project site	Residential	65	55	50

Description	Impact Device	Usage(%)	Equipment			
			Spec (dBA)	Actual (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		220	0
All Other Equipment > 5 HP	No	50	85		240	0
Dozer	No	40		81.7	260	0
Scraper	No	40		83.6	280	0
Tractor	No	40	84		300	0
Front End Loader	No	40		79.1	320	0
Backhoe	No	40		77.6	340	0
Grader	No	40	85		360	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)					
	*Lmax	Leq	Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	72.1	68.2	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	71.4	68.4	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	67.3	63.4	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	68.6	64.6	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	68.4	64.5	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	63	59	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	60.9	56.9	N/A	N/A	N/A	N/A	N/A	N/A
Grader	67.9	63.9	N/A	N/A	N/A	N/A	N/A	N/A
Total	72.1	74	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R2- church south of project site	Residential	65	55	50

Description	Impact Device	Usage(%)	Equipment			
			Spec (dBA)	Actual (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		130	0
All Other Equipment > 5 HP	No	50	85		150	0
Dozer	No	40		81.7	170	0
Scraper	No	40		83.6	190	0
Tractor	No	40	84		210	0
Front End Loader	No	40		79.1	230	0
Backhoe	No	40		77.6	250	0
Grader	No	40	85		270	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)					
	*Lmax	Leq	Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	76.7	72.7	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	75.5	72.4	N/A	N/A	N/A	N/A	N/A	N/A

Dozer	71	67.1	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	72	68	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	65.9	61.9	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A
Grader	70.4	66.4	N/A	N/A	N/A	N/A	N/A	N/A
Total	76.7	77.8	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R3- residence southeast of project site	Residential	65	55	50

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		155	0
All Other Equipment > 5 HP	No	50	85		175	0
Dozer	No	40		81.7	195	0
Scraper	No	40		83.6	215	0
Tractor	No	40	84		235	0
Front End Loader	No	40		79.1	255	0
Backhoe	No	40		77.6	275	0
Grader	No	40	85		295	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)					
	*Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Grader	75.2	71.2	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	74.1	71.1	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	69.8	65.9	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	70.9	66.9	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	70.6	66.6	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	65	61	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	62.8	58.8	N/A	N/A	N/A	N/A	N/A	N/A
Grader	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A
Total	75.2	76.5	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R4- commercial east of project site	Commercial	65	55	50

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		160	0
All Other Equipment > 5 HP	No	50	85		180	0
Dozer	No	40		81.7	200	0
Scraper	No	40		83.6	220	0
Tractor	No	40	84		240	0
Front End Loader	No	40		79.1	260	0
Backhoe	No	40		77.6	280	0
Grader	No	40	85		300	0

Results

Calculated (dBA)	Noise Limits (dBA)
------------------	--------------------

Equipment	*Lmax	Leq	Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	74.9		70.9	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	73.9		70.9	N/A	N/A	N/A	N/A	N/A
Dozer	69.6		65.6	N/A	N/A	N/A	N/A	N/A
Scraper	70.7		66.7	N/A	N/A	N/A	N/A	N/A
Tractor	70.4		66.4	N/A	N/A	N/A	N/A	N/A
Front End Loader	64.8		60.8	N/A	N/A	N/A	N/A	N/A
Backhoe	62.6		58.6	N/A	N/A	N/A	N/A	N/A
Grader	69.4		65.5	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>74.9</b>		<b>76.3</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R5- commercial north of project site	Commercial	65	55	50

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Grader	No	40	85		175	0
All Other Equipment > 5 HP	No	50	85		195	0
Dozer	No	40		81.7	215	0
Scraper	No	40		83.6	235	0
Tractor	No	40	84		255	0
Front End Loader	No	40		79.1	275	0
Backhoe	No	40		77.6	295	0
Grader	No	40	85		315	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)					
	*Lmax	Leq	Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	74.1		70.1	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	73.2		70.2	N/A	N/A	N/A	N/A	N/A
Dozer	69		65	N/A	N/A	N/A	N/A	N/A
Scraper	70.1		66.2	N/A	N/A	N/A	N/A	N/A
Tractor	69.8		65.9	N/A	N/A	N/A	N/A	N/A
Front End Loader	64.3		60.3	N/A	N/A	N/A	N/A	N/A
Backhoe	62.1		58.2	N/A	N/A	N/A	N/A	N/A
Grader	69		65	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>74.1</b>		<b>75.7</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R6- commercial west of project stie	Commercial	65	55	50

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Grader	No	40	85		80	0
All Other Equipment > 5 HP	No	50	85		100	0
Dozer	No	40		81.7	120	0
Scraper	No	40		83.6	140	0
Tractor	No	40	84		160	0
Front End Loader	No	40		79.1	180	0
Backhoe	No	40		77.6	200	0

Grader	No	40	85	220	0
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Equipment	Results								
	Calculated (dBA)		Noise Limits (dBA)						
	*Lmax	Leq	Day	Evening	Night				
		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	80.9	76.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79	76	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	74.1	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	74.6	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	73.9	69.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	68	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	65.5	61.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	72.1	68.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	80.9	81.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 12/30/2015  
 Case Description: Building Construction Phase

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R1- residence southwest of project site	Residential	65	55	50

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Crane	No	16		80.6	220	0
Man Lift	No	20		74.7	240	0
Generator	No	50		80.6	260	0
All Other Equipment > 5 HP	No	50	85		280	0
Tractor	No	40	84		300	0
Front End Loader	No	40		79.1	320	0
Backhoe	No	40		77.6	340	0
Welder / Torch	No	40		74	360	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				
	*Lmax	Leq	Day Lmax	Evening Leq	Evening Lmax	Night Leq	Night Lmax
Crane	67.7	59.7	N/A	N/A	N/A	N/A	N/A
Man Lift	61.1	54.1	N/A	N/A	N/A	N/A	N/A
Generator	66.3	63.3	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	70	67	N/A	N/A	N/A	N/A	N/A
Tractor	68.4	64.5	N/A	N/A	N/A	N/A	N/A
Front End Loader	63	59	N/A	N/A	N/A	N/A	N/A
Backhoe	60.9	56.9	N/A	N/A	N/A	N/A	N/A
Welder / Torch	56.9	52.9	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>70</b>	<b>71</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R2- church south of project site	Residential	65	55	50

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Crane	No	16		80.6	130	0
Man Lift	No	20		74.7	150	0
Generator	No	50		80.6	170	0
All Other Equipment > 5 HP	No	50	85		190	0
Tractor	No	40	84		210	0
Front End Loader	No	40		79.1	230	0
Backhoe	No	40		77.6	250	0
Welder / Torch	No	40		74	270	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				
	*Lmax	Leq	Day Lmax	Evening Leq	Evening Lmax	Night Leq	Night Lmax
Crane	72.3	64.3	N/A	N/A	N/A	N/A	N/A
Man Lift	65.2	58.2	N/A	N/A	N/A	N/A	N/A

Generator	70	67	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	73.4	70.4	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	65.9	61.9	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	59.4	55.4	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>73.4</b>	<b>74.4</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA)			Equipment			
		Daytime	Evening	Night	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
R3- residence southeast of project site	Residential	65	55	50				
Description	Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)		
Crane	No	16		80.6	155	0		
Man Lift	No	20		74.7	175	0		
Generator	No	50		80.6	195	0		
All Other Equipment > 5 HP	No	50	85		215	0		
Tractor	No	40	84		235	0		
Front End Loader	No	40		79.1	255	0		
Backhoe	No	40		77.6	275	0		
Welder / Torch	No	40		74	295	0		

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)					
	*Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Crane	70.7	62.8	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	63.8	56.8	N/A	N/A	N/A	N/A	N/A	N/A
Generator	68.8	65.8	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	72.3	69.3	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	70.6	66.6	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	65	61	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	62.8	58.8	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	58.6	54.6	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>72.3</b>	<b>73.3</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA)			Equipment			
		Daytime	Evening	Night	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
R4- commercial east of project site	Commercial	65	55	50				
Description	Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)		
Crane	No	16		80.6	160	0		
Man Lift	No	20		74.7	180	0		
Generator	No	50		80.6	200	0		
All Other Equipment > 5 HP	No	50	85		220	0		
Tractor	No	40	84		240	0		
Front End Loader	No	40		79.1	260	0		
Backhoe	No	40		77.6	280	0		
Welder / Torch	No	40		74	300	0		

Results

Calculated (dBA)	Noise Limits (dBA)
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Equipment	*Lmax	Leq	Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	70.4		62.5	N/A	N/A	N/A	N/A	N/A
Man Lift	63.6		56.6	N/A	N/A	N/A	N/A	N/A
Generator	68.6		65.6	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	72.1		69.1	N/A	N/A	N/A	N/A	N/A
Tractor	70.4		66.4	N/A	N/A	N/A	N/A	N/A
Front End Loader	64.8		60.8	N/A	N/A	N/A	N/A	N/A
Backhoe	62.6		58.6	N/A	N/A	N/A	N/A	N/A
Welder / Torch	58.4		54.5	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>72.1</b>		<b>73.1</b>	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R5- commercial north of project site	Commercial	65	55	50

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Crane	No	16		80.6	175	0
Man Lift	No	20		74.7	195	0
Generator	No	50		80.6	215	0
All Other Equipment > 5 HP	No	50	85		235	0
Tractor	No	40	84		255	0
Front End Loader	No	40		79.1	275	0
Backhoe	No	40		77.6	295	0
Welder / Torch	No	40		74	315	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)					
	*Lmax	Leq	Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	69.7		61.7	N/A	N/A	N/A	N/A	N/A
Man Lift	62.9		55.9	N/A	N/A	N/A	N/A	N/A
Generator	68		65	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	71.6		68.5	N/A	N/A	N/A	N/A	N/A
Tractor	69.8		65.9	N/A	N/A	N/A	N/A	N/A
Front End Loader	64.3		60.3	N/A	N/A	N/A	N/A	N/A
Backhoe	62.1		58.2	N/A	N/A	N/A	N/A	N/A
Welder / Torch	58		54	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>71.6</b>		<b>72.6</b>	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R6- commercial west of project stie	Commercial	65	55	50

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Crane	No	16		80.6	80	0
Man Lift	No	20		74.7	100	0
Generator	No	50		80.6	120	0
All Other Equipment > 5 HP	No	50	85		140	0
Tractor	No	40	84		160	0
Front End Loader	No	40		79.1	180	0
Backhoe	No	40		77.6	200	0

Welder / Torch

No

40

74

220

0

Results

Calculated (dBA)

Noise Limits (dBA)

Equipment

Crane

Man Lift

Generator

All Other Equipment > 5 HP

Tractor

Front End Loader

Backhoe

Welder / Torch

Total

	Calculated (dBA)		Noise Limits (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Crane	76.5	68.5	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	68.7	61.7	N/A	N/A	N/A	N/A	N/A	N/A
Generator	73	70	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	76.1	73	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	73.9	69.9	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	68	64	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	65.5	61.5	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	61.1	57.2	N/A	N/A	N/A	N/A	N/A	N/A
Total	76.5	77.2	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 12/30/2015  
 Case Description: Paving Phase

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R1- residence southwest of project site	Residential	65	55	50

Description	Impact Device	Usage(%)	Equipment			
			Spec (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	220	0
Paver	No	50		77.2	240	0
Paver	No	50		77.2	260	0
Roller	No	20		80	280	0
Tractor	No	40	84		300	0
Front End Loader	No	40		79.1	320	0
Backhoe	No	40		77.6	340	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Night Lmax	Leq
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq		
Concrete Mixer Truck	65.9	62	N/A	N/A	N/A	N/A	N/A	N/A
Paver	63.6	60.6	N/A	N/A	N/A	N/A	N/A	N/A
Paver	62.9	59.9	N/A	N/A	N/A	N/A	N/A	N/A
Roller	65	58	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	68.4	64.5	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	63	59	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	60.9	56.9	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>68.4</b>	<b>69.2</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R2- church south of project site	Residential	65	55	50

Description	Impact Device	Usage(%)	Equipment			
			Spec (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	130	0
Paver	No	50		77.2	150	0
Paver	No	50		77.2	170	0
Roller	No	20		80	190	0
Tractor	No	40	84		210	0
Front End Loader	No	40		79.1	230	0
Backhoe	No	40		77.6	250	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Night Lmax	Leq
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq		
Concrete Mixer Truck	70.5	66.5	N/A	N/A	N/A	N/A	N/A	N/A
Paver	67.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A
Paver	66.6	63.6	N/A	N/A	N/A	N/A	N/A	N/A
Roller	68.4	61.4	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A

Front End Loader	65.9	61.9	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>71.5</b>	<b>72.8</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R3- residence southeast of project site	Residential	65	55	50

Description	Impact Device	Usage(%)	Equipment			Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec (dBA)	Actual Lmax (dBA)			
Concrete Mixer Truck	No	40		78.8	155	0	
Paver	No	50		77.2	175	0	
Paver	No	50		77.2	195	0	
Roller	No	20		80	215	0	
Tractor	No	40	84		235	0	
Front End Loader	No	40		79.1	255	0	
Backhoe	No	40		77.6	275	0	

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Night Lmax	Leq
	*Lmax	Leq	Day		Evening			
			Lmax	Leq	Lmax	Leq		
Concrete Mixer Truck	69	65	N/A	N/A	N/A	N/A	N/A	N/A
Paver	66.3	63.3	N/A	N/A	N/A	N/A	N/A	N/A
Paver	65.4	62.4	N/A	N/A	N/A	N/A	N/A	N/A
Roller	67.3	60.3	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	70.6	66.6	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	65	61	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	62.8	58.8	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>70.6</b>	<b>71.7</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R4- commercial east of project site	Commercial	65	55	50

Description	Impact Device	Usage(%)	Equipment			Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec (dBA)	Actual Lmax (dBA)			
Concrete Mixer Truck	No	40		78.8	160	0	
Paver	No	50		77.2	180	0	
Paver	No	50		77.2	200	0	
Roller	No	20		80	220	0	
Tractor	No	40	84		240	0	
Front End Loader	No	40		79.1	260	0	
Backhoe	No	40		77.6	280	0	

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Night Lmax	Leq
	*Lmax	Leq	Day		Evening			
			Lmax	Leq	Lmax	Leq		
Concrete Mixer Truck	68.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A
Paver	66.1	63.1	N/A	N/A	N/A	N/A	N/A	N/A
Paver	65.2	62.2	N/A	N/A	N/A	N/A	N/A	N/A
Roller	67.1	60.1	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	70.4	66.4	N/A	N/A	N/A	N/A	N/A	N/A

Front End Loader	64.8	60.8	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	62.6	58.6	N/A	N/A	N/A	N/A	N/A	N/A
Total	70.4	71.5	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R5- commercial north of project site	Commercial	65	55	50

Description	Impact Device	Usage(%)	Equipment			
			Spec (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	175	0
Paver	No	50		77.2	195	0
Paver	No	50		77.2	215	0
Roller	No	20		80	235	0
Tractor	No	40	84		255	0
Front End Loader	No	40		79.1	275	0
Backhoe	No	40		77.6	295	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)					
	*Lmax	Leq	Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck	67.9	63.9	N/A	N/A	N/A	N/A	N/A	N/A
Paver	65.4	62.4	N/A	N/A	N/A	N/A	N/A	N/A
Paver	64.6	61.5	N/A	N/A	N/A	N/A	N/A	N/A
Roller	66.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	69.8	65.9	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	64.3	60.3	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	62.1	58.2	N/A	N/A	N/A	N/A	N/A	N/A
Total	69.8	70.8	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
R6- commercial west of project stie	Commercial	65	55	50

Description	Impact Device	Usage(%)	Equipment			
			Spec (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	80	0
Paver	No	50		77.2	100	0
Paver	No	50		77.2	120	0
Roller	No	20		80	140	0
Tractor	No	40	84		160	0
Front End Loader	No	40		79.1	180	0
Backhoe	No	40		77.6	200	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)					
	*Lmax	Leq	Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Mixer Truck	74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A
Paver	71.2	68.2	N/A	N/A	N/A	N/A	N/A	N/A
Paver	69.6	66.6	N/A	N/A	N/A	N/A	N/A	N/A
Roller	71.1	64.1	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	73.9	69.9	N/A	N/A	N/A	N/A	N/A	N/A

Front End Loader	68	64	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	65.5	61.5	N/A	N/A	N/A	N/A	N/A	N/A
Total	74.7	75.9	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.