Appendix G:
Noise Supporting Information

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Project Number: 1723.0001 Sheet 1 of 1
Project Name: Chico Walmart
Test Personnel: Jana W.

Calibrate: -0.19 dB

Noise Measurement Survey

Site Number: ST1 Date: 1-20-15 Time: From 12:55pm To

Site Location: North side of Whitmer Service Department Building approx 15 ft from building on concrete walk area

Primary Noise Sources: Voices, Highway traffic, local traffic, on site traffic Music from car lot, intercom calls from car lot, UPS delivery truck, water meter main

Measurement Results

	dBA
Leq	62.8
Lmax	90.6
Lmin	54.1
Lpeak	112.1
L5	61.0
L10	58.9
L50	56.0
L90	53.6
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA

Comments: Water meter main on building made a continuous hissing sound (water running through pipes) during entire measurement. Highway noise was persistent.

Equipment: Calibration Offset: -0.19 dBA
Settings: A-Weighted☐ Other☐ Slow☐ Fast☐ Windscreen☒

Atmospheric Conditions: Overcast

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
1.6	1.0	61		
Comments:				

LxT_Data_091

Project Number: M23.0001
Project Name: Chico Walmart
Test Personnel: Jamia N.

Sheet 1 of 2

Noise Measurement Survey

Site Number: ST2 Date: _____ Time: From 3:02 To 3:16

Site Location: East side of Forest Ave just off sidewalk opposite empty field, adjacent to 2101 Forest Ave Suite 100.

Primary Noise Sources: Cars on Forest Ave. Hwy 99 noise

Measurement Results

	dBA
Leq	70.5
Lmax	84.8
Lmin	51.1
Lpeak	99.3
L5	75.4
L10	74.1
L50	67.6
L90	61.7
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA
	Airplane near end of time	

Comments: _____

Equipment: _____
Settings: A-Weighted☐ Other☐ _____

Calibration Offset: 0.02 dBA
Slow☐ Fast☐ Windscreen☑

Atmospheric Conditions: Overcast

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
5.7	1.4	58		
Comments:				

LXT-Data 095

Photos Taken:

Photo Number	Location/Description

Traffic Description:

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

Diagram/Further Comments:

Airplane

NOTES

Cars/Trucks ←

Bus ← Trg Truck/Fire Truck

Cars/Trucks →

Bus/Trg Truck →

RESULTS

Cars/Trucks SB ←	Bus/Trg Truck/Fire Truck SB ←
149	5
NB →	NB →
127	0

Project Number: 1723.0001 Sheet 1 of 1
Project Name: Chico Walmart
Test Personnel: Jamian

Noise Measurement Survey

Site Number: ST3 Date: 1/20/15 Time: From 2:28 To 2:45

Site Location: East of Oxford Suites pool deck - outside of fence

Primary Noise Sources: Airplane fly over x2; local traffic on Bangor Ln & parking lot; voices from walmart tire center; pool pump hum w/intermittent clicks noise continuous; Highway 99 noise is perceptible

Measurement Results

	dBA
Leq	56.2
Lmax	69.7
Lmin	53.5
Lpeak (max)	83.8
L5	59.9
L10	57.0
L50	54.6
L90	54.0
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA

Comments:

Equipment:
Settings: A-Weighted☐ Other☐

Calibration Offset: -0.07 dBA
Slow☐ Fast☐ Windscreen☒

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
4.3	1.2	63		
Comments:				

LxT Data - 093

Project Number: 1723.0001 Sheet 1 of 1
Project Name: Chico Walmart
Test Personnel: Danna W.

Noise Measurement Survey

Site Number: ST4 Date: 1-20-15 Time: From 1:55pm To 2:13

Site Location: East side of Krispy Kreme in parking spot opposite drive thru window (3rd space from northern end of parking row

Primary Noise Sources: Highway traffic; drive thru noise #8 (cars) cars driving behind walmart

Measurement Results

	dBA
Leq	64.1
Lmax	82.4
Lmin	54
Lpeak (max)	98.6
L5	67.3
L10	66.0
L50	63.1
L90	59.6
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA

Comments: @ 2:04 Ambulance back up into parking spot + set siren off for brief second

Equipment: _____ Calibration Offset: 0.03 dBA
Settings: A-Weighted☐ Other☐ _____ Slow☐ Fast☐ Windscreen☑

Atmospheric Conditions: Overcast

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
3.2	2.2	60°		
Comments:				

LXI Data-092

Summary							
Filename	LxT_Data.097						
Serial Number	4228						
Model	SoundTrack LxT®						
Firmware Version	2.206						
User							
Location							
Job Description							
Note							
Measurement Description							
Start	20/01/2016 15:49:16						
Stop	21/01/2016 14:14:12						
Duration	22:24:56.0						
Run Time	22:24:56.0						
Pause	0:00:00.0						
Pre Calibration	20/01/2016 15:47:22						
Post Calibration	None						
Calibration Deviation	---						
Overall Settings							
RMS Weight	A Weighting						
Peak Weight	A Weighting						
Detector	Slow						
Preamp	PRMLxT2B						
Microphone Correction	Off						
Integration Method	Exponential						
Overload	145.6	dB					
	A		**C**		**Z**		
Under Range Peak	**101.7**		98.7		103.7	dB	
Under Range Limit	**37.9**		35.9		43.9	dB	
Noise Floor	25.2		25.7		33.1	dB	
Results							
LASeq	57.1	dB					
LASE	106.1	dB					
EAS	4.555	mPa²h					
EAS8	1.626	mPa²h					
EAS40	8.128	mPa²h					
LApeak (max)	20/01/2016 15:51:37		108.9	dB			
LASmax	21/01/2016 05:47:24		85.9	dB			
LASmin	21/01/2016 01:01:47		36.7	dB			
SEA	-99.9	dB					
LAS > 85.0 dB (Exceedence Counts / Duration)	1		3.4	s			
LAS > 115.0 dB (Exceedence Counts / Duration)	0		0.0	s			
LApeak > 135.0 dB (Exceedence Counts / Duration)	0		0.0	s			
LApeak > 137.0 dB (Exceedence Counts / Duration)	0		0.0	s			
LApeak > 140.0 dB (Exceedence Counts / Duration)	0		0.0	s			
Community Noise	**Ldn**	**LDay 06:00-22:00**	**LNight 22:00-06:00**		**Lden**	**LDay 06:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-06:00**
	61.4	58.0	54.5		62.0	57.7	59.0	54.5
LCSeq	67.4	dB						
LASeq	57.1	dB						
LCSeq - LASeq	10.3	dB						
LAIeq	61.3	dB						
LAeq	57.1	dB						
LAIeq - LAeq	4.2	dB						
# Overloads	0							
Overload Duration	0.0	s						
Dose Settings								
Dose Name	OSHA-1		OSHA-2					
Exch. Rate	5		5	dB				
Threshold	90		80	dB				
Criterion Level	90		90	dB				
Criterion Duration	8		8	h				
Results								
Dose	-99.9		0.02	%				
Projected Dose	-99.9		0.01	%				
TWA (Projected)	-99.9		20.4	dB				
TWA (t)	-99.9		27.8	dB				
Lep (t)	61.5		61.5	dB				
Statistics								
LAS5.00	60.3	dB						
LAS10.00	58.5	dB						
LAS33.30	54.6	dB						
LAS50.00	52.1	dB						
LAS66.60	48.5	dB						
LAS90.00	41.6	dB						

Summary							
Filename	LxT_Data.099						
Serial Number	4228						
Model	SoundTrack LxT®						
Firmware Version	2.206						
User							
Location							
Job Description							
Note							
Measurement Description							
Start	02/01/2016 10:45:33						
Stop	02/02/2016 10:00:24						
Duration	23:14:51.2						
Run Time	23:14:51.2						
Pause	0:00:00.0						
Pre Calibration	02/01/2016 10:42:09						
Post Calibration	None						
Calibration Deviation	---						
Overall Settings							
RMS Weight	A Weighting						
Peak Weight	A Weighting						
Detector	Slow						
Preamp	PRMLxT2B						
Microphone Correction	Off						
Integration Method	Exponential						
Overload	145.7 dB						
	A		**C**		**Z**		
Under Range Peak	**101.8**		98.8		103.8 dB		
Under Range Limit	**37.9**		35.9		43.9 dB		
Noise Floor	25.3		25.8		33.1 dB		
Results							
LASeq	64.3 dB						
LASE	113.5 dB						
EAS	24.846 mPa²h						
EAS8	8.550 mPa²h						
EAS40	42.750 mPa²h						
LApeak (max)	02/01/2016 10:48:54		120.0 dB				
LASmax	02/01/2016 18:24:15		95.6 dB				
LASmin	02/02/2016 1:59:43		42.6 dB				
SEA	130.0 dB						
LAS > 85.0 dB (Exceedence Counts / Duration)	12		23.6 s				
LAS > 115.0 dB (Exceedence Counts / Duration)	0		0.0 s				
LApeak > 135.0 dB (Exceedence Counts / Duration)	0		0.0 s				
LApeak > 137.0 dB (Exceedence Counts / Duration)	0		0.0 s				
LApeak > 140.0 dB (Exceedence Counts / Duration)	0		0.0 s				
Community Noise	**Ldn**	**LDay 06:00-22:00**	**LNight 22:00-06:00**	**Lden**	**LDay 06:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-06:00**
	66.7	65.7	58.2	67.1	66.3	61.6	58.2
LCSeq	73.7 dB						
LASeq	64.3 dB						
LCSeq - LASeq	9.4 dB						
LAIeq	67.6 dB						
LAeq	64.3 dB						
LAIeq - LAeq	3.3 dB						
# Overloads	0						
Overload Duration	0.0 s						
Dose Settings							
Dose Name	OSHA-1	OSHA-2					
Exch. Rate	5	5 dB					
Threshold	90	80 dB					
Criterion Level	90	90 dB					
Criterion Duration	8	8 h					
Results							
Dose	0.02	0.09 %					
Projected Dose	0.01	0.03 %					
TWA (Projected)	19.4	32.0 dB					
TWA (t)	27.1	39.7 dB					
Lep (t)	68.9	68.9 dB					
Statistics							
LAS5.00	68.4 dB						
LAS10.00	66.9 dB						
LAS33.30	63.7 dB						
LAS50.00	61.8 dB						
LAS66.60	59.2 dB						
LAS90.00	50.5 dB						

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/14/2016
Case Description: Demolition Phase

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Hotel - north of site	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20	89.6	540	0	
Excavator	No	40	80.7	560	0	
Dozer	No	40	81.7	560	0	
Concrete Saw	No	20	89.6	580	0	
Excavator	No	40	80.7	580	0	
Dozer	No	40	81.7	600	0	
Excavator	No	40	80.7	600	0	
Dozer	No	40	81.7	620	0	
Excavator	No	40	80.7	620	0	

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	68.9	61.9	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	59.7	55.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	60.7	56.7	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw	68.3	61.3	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	59.4	55.4	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	60.1	56.1	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	59.8	55.8	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	58.8	54.9	N/A	N/A	N/A	N/A	N/A	N/A
Total	68.9	67.4	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
Commercial - south of site	Commercial	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20	89.6	700	0	
Excavator	No	40	80.7	720	0	
Dozer	No	40	81.7	720	0	
Concrete Saw	No	20	89.6	740	0	
Excavator	No	40	80.7	740	0	
Dozer	No	40	81.7	760	0	
Excavator	No	40	80.7	760	0	
Dozer	No	40	81.7	780	0	
Excavator	No	40	80.7	780	0	

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	66.7	59.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	57.5	53.6	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	58.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw	66.2	59.2	N/A	N/A	N/A	N/A	N/A	N/A

Excavator		57.3	53.3	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		58	54.1	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		57.1	53.1	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		57.8	53.8	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		56.8	52.9	N/A	N/A	N/A	N/A	N/A	N/A
	Total	66.7	65.3	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
Residential - east of site on Robailey Dr.	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	1215	0
Excavator	No	40		80.7	1235	0
Dozer	No	40		81.7	1235	0
Concrete Saw	No	20		89.6	1255	0
Excavator	No	40		80.7	1255	0
Dozer	No	40		81.7	1275	0
Excavator	No	40		80.7	1275	0
Dozer	No	40		81.7	1295	0
Excavator	No	40		80.7	1295	0

	Calculated (dBA)		Results		Noise Limits (dBA)			
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	61.9	54.9	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	52.9	48.9	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	53.8	49.8	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw	61.6	54.6	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	52.7	48.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	53.5	49.6	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	52.6	48.6	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	53.4	49.4	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	52.4	48.5	N/A	N/A	N/A	N/A	N/A	N/A
Total	61.9	60.7	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
Residential - east of site on Marilyn Dr.	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	1080	0
Excavator	No	40		80.7	1100	0
Dozer	No	40		81.7	1100	0
Concrete Saw	No	20		89.6	1120	0
Excavator	No	40		80.7	1120	0
Dozer	No	40		81.7	1140	0
Excavator	No	40		80.7	1140	0
Dozer	No	40		81.7	1160	0
Excavator	No	40		80.7	1160	0

	Calculated (dBA)		Results		Noise Limits (dBA)			
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	62.9	55.9	N/A	N/A	N/A	N/A	N/A	N/A

Excavator		53.9	49.9	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		54.8	50.8	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw		62.6	55.6	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		53.7	49.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		54.5	50.5	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		53.6	49.6	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		54.4	50.4	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		53.4	49.4	N/A	N/A	N/A	N/A	N/A	N/A
	Total	62.9	61.7	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential - east of site on Parkway Village Dr.	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	1140	0
Excavator	No	40		80.7	1160	0
Dozer	No	40		81.7	1160	0
Concrete Saw	No	20		89.6	1180	0
Excavator	No	40		80.7	1180	0
Dozer	No	40		81.7	1200	0
Excavator	No	40		80.7	1200	0
Dozer	No	40		81.7	1220	0
Excavator	No	40		80.7	1220	0

	Calculated (dBA)		Results		Noise Limits (dBA)			
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	62.4	55.4	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	53.4	49.4	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	54.4	50.4	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw	62.1	55.1	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	53.3	49.3	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	54.1	50.1	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	53.1	49.1	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	53.9	49.9	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	53	49	N/A	N/A	N/A	N/A	N/A	N/A
Total	62.4	61.2	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Northern project boundary	Commercial	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	370	0
Excavator	No	40		80.7	390	0
Dozer	No	40		81.7	390	0
Concrete Saw	No	20		89.6	410	0
Excavator	No	40		80.7	410	0
Dozer	No	40		81.7	430	0
Excavator	No	40		80.7	430	0
Dozer	No	40		81.7	450	0
Excavator	No	40		80.7	450	0

	Calculated (dBA)		Results		Noise Limits (dBA)	

Equipment	*Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Concrete Saw	72.2	65.2	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	62.9	58.9	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63.8	59.8	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw	71.3	64.3	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	62.4	58.5	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63	59	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	62	58	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	62.6	58.6	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	61.6	57.6	N/A	N/A	N/A	N/A	N/A	N/A
Total	72.2	70.5	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #7 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Western project boundary	Commercial	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	135	0
Excavator	No	40		80.7	155	0
Dozer	No	40		81.7	155	0
Concrete Saw	No	20		89.6	175	0
Excavator	No	40		80.7	175	0
Dozer	No	40		81.7	195	0
Excavator	No	40		80.7	195	0
Dozer	No	40		81.7	215	0
Excavator	No	40		80.7	215	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Concrete Saw	81	74	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	70.9	66.9	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	71.8	67.9	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw	78.7	71.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	69.8	65.8	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
Excavator	68.9	64.9	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	69	65	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	68	64.1	N/A	N/A	N/A	N/A	N/A	N/A
Total	81	78.3	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #8 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Southern project boundary	Commercial	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	525	0
Excavator	No	40		80.7	545	0
Dozer	No	40		81.7	545	0
Concrete Saw	No	20		89.6	565	0
Excavator	No	40		80.7	565	0
Dozer	No	40		81.7	585	0
Excavator	No	40		80.7	585	0
Dozer	No	40		81.7	600	0
Excavator	No	40		80.7	600	0

		Results							
		Calculated (dBA)		Noise Limits (dBA)					
				Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw		69.2	62.2	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		60	56	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		60.9	56.9	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw		68.5	61.5	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		59.6	55.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		60.3	56.3	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		59.3	55.4	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		60.1	56.1	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		59.1	55.1	N/A	N/A	N/A	N/A	N/A	N/A
	Total	69.2	67.7	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #9 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Eastern project boundary	Commercial	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Concrete Saw	No	20	89.6	845	0	
Excavator	No	40	80.7	865	0	
Dozer	No	40	81.7	865	0	
Concrete Saw	No	20	89.6	885	0	
Excavator	No	40	80.7	885	0	
Dozer	No	40	81.7	905	0	
Excavator	No	40	80.7	905	0	
Dozer	No	40	81.7	925	0	
Excavator	No	40	80.7	925	0	

		Results							
		Calculated (dBA)		Noise Limits (dBA)					
				Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw		65	58	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		55.9	52	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		56.9	52.9	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw		64.6	57.6	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		55.8	51.8	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		56.5	52.5	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		55.6	51.6	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		56.3	52.3	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		55.4	51.4	N/A	N/A	N/A	N/A	N/A	N/A
	Total	65	63.7	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: 1/5/2016
Case Description: Site Preparation Phase

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Hotel - north of site	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	540	0
Tractor	No	40	84		560	0
Front End Loader	No	40		79.1	560	0
Backhoe	No	40		77.6	580	0
Dozer	No	40		81.7	580	0
Tractor	No	40	84		600	0
Dozer	No	40		81.7	600	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	61	57	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	63	59	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	58.1	54.1	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	56.3	52.3	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	60.4	56.4	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	62.4	58.4	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	60.1	56.1	N/A	N/A	N/A	N/A	N/A	N/A
Total	63	65.2	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
Commercial - south of site	Commercia	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	275	0
Tractor	No	40	84		295	0
Front End Loader	No	40		79.1	295	0
Backhoe	No	40		77.6	315	0
Dozer	No	40		81.7	315	0
Tractor	No	40	84		335	0
Dozer	No	40		81.7	335	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	66.9	62.9	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	68.6	64.6	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	63.7	59.7	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	61.6	57.6	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	65.7	61.7	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	67.5	63.5	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	65.1	61.2	N/A	N/A	N/A	N/A	N/A	N/A
Total	68.6	70.6	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
Residential - east of site on Robailey Dr.	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	470	0
Tractor	No	40	84		490	0
Front End Loader	No	40		79.1	490	0
Backhoe	No	40		77.6	510	0
Dozer	No	40		81.7	510	0
Tractor	No	40	84		530	0
Dozer	No	40		81.7	530	0

Results

		Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		62.2	58.2	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		64.2	60.2	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader		59.3	55.3	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe		57.4	53.4	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		61.5	57.5	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		63.5	59.5	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		61.2	57.2	N/A	N/A	N/A	N/A	N/A	N/A
	Total	64.2	66.3	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
Residential - east of site on Marilyn Dr.	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	400	0
Tractor	No	40	84		420	0
Front End Loader	No	40		79.1	420	0
Backhoe	No	40		77.6	440	0
Dozer	No	40		81.7	440	0
Tractor	No	40	84		460	0
Dozer	No	40		81.7	460	0

Results

		Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		65.5	61.5	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader		60.6	56.6	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe		58.7	54.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		62.8	58.8	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		64.7	60.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		62.4	58.4	N/A	N/A	N/A	N/A	N/A	N/A
	Total	65.5	67.6	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
Residential - east of site on Parkway Village Dr.	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	620	0
Tractor	No	40	84		640	0
Front End Loader	No	40		79.1	640	0
Backhoe	No	40		77.6	660	0
Dozer	No	40		81.7	660	0
Tractor	No	40	84		680	0
Dozer	No	40		81.7	680	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	59.8	55.8	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	61.9	57.9	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	57	53	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	55.1	51.2	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	59.3	55.3	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	61.3	57.3	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	59	55	N/A	N/A	N/A	N/A	N/A	N/A
Total	61.9	64	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
Northern project boundary	Commercia	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	370	0
Tractor	No	40	84		390	0
Front End Loader	No	40		79.1	390	0
Backhoe	No	40		77.6	410	0
Dozer	No	40		81.7	410	0
Tractor	No	40	84		430	0
Dozer	No	40		81.7	430	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	64.3	60.3	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	66.2	62.2	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61.3	57.3	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	59.3	55.3	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63.4	59.4	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	65.3	61.3	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63	59	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.2	68.2	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #7 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Western project boundary	Commercia	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	85	0
Tractor	No	40	84		105	0
Front End Loader	No	40		79.1	105	0
Backhoe	No	40		77.6	125	0
Dozer	No	40		81.7	125	0
Tractor	No	40	84		145	0
Dozer	No	40		81.7	145	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	77.1	73.1	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	72.7	68.7	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	73.7	69.7	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	74.8	70.8	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	72.4	68.4	N/A	N/A	N/A	N/A	N/A	N/A
Total	77.6	79.2	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #8 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Southern project boundary	Commercia	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	85	0
Tractor	No	40	84		105	0
Front End Loader	No	40		79.1	105	0
Backhoe	No	40		77.6	125	0
Dozer	No	40		81.7	125	0
Tractor	No	40	84		145	0
Dozer	No	40		81.7	145	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	77.1	73.1	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	72.7	68.7	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	73.7	69.7	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	74.8	70.8	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	72.4	68.4	N/A	N/A	N/A	N/A	N/A	N/A
Total	77.6	79.2	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #9 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Eastern project boundary	Commercia	65	60	55

	Equipment Spec	Actual	Receptor	Estimated

Description	Impact Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Dozer	No	40		81.7	120	0
Tractor	No	40	84		140	0
Front End Loader	No	40		79.1	140	0
Backhoe	No	40		77.6	160	0
Dozer	No	40		81.7	160	0
Tractor	No	40	84		180	0
Dozer	No	40		81.7	180	0

	Results							
	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	74.1	70.1	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	75.1	71.1	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	70.2	66.2	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	67.5	63.5	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
Tractor	72.9	68.9	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	70.5	66.6	N/A	N/A	N/A	N/A	N/A	N/A
Total	75.1	76.8	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: 1/5/2016
Case Description: Grading Phase

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Hotel - north of site	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	830	0
Grader	No	40	85		850	0
Dozer	No	40		81.7	850	0
Scraper	No	40		83.6	870	0
Tractor	No	40	84		870	0
Front End Loader	No	40		79.1	890	0
Backhoe	No	40		77.6	890	0
Excavator	No	40		80.7	910	0
Grader	No	40	85		910	0
Dozer	No	40		81.7	930	0
Scraper	No	40		83.6	930	0
Excavator	No	40		80.7	950	0
Tractor	No	40	84		950	0

Equipment	Calculated (dBA) *Lmax	Leq	Results Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Excavator	56.3	52.3	N/A	N/A	N/A	N/A	N/A	N/A
Grader	60.4	56.4	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	57.1	53.1	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	58.8	54.8	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	59.2	55.2	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	54.1	50.1	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	52.6	48.6	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	55.5	51.5	N/A	N/A	N/A	N/A	N/A	N/A
Grader	59.8	55.8	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	56.3	52.3	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	58.2	54.2	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	55.1	51.2	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	58.4	54.4	N/A	N/A	N/A	N/A	N/A	N/A
Total	60.4	64.8	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
Commercial - south of site	Commercial	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	275	0
Grader	No	40	85		295	0
Dozer	No	40		81.7	295	0
Scraper	No	40		83.6	315	0
Tractor	No	40	84		315	0
Front End Loader	No	40		79.1	335	0
Backhoe	No	40		77.6	335	0
Excavator	No	40		80.7	355	0
Grader	No	40	85		355	0
Dozer	No	40		81.7	375	0

Scraper	No	40		83.6	375	0
Excavator	No	40		80.7	395	0
Tractor	No	40	84		395	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	65.9	61.9	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
Dozer	66.3	62.3	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	67.6	63.6	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	68	64	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	62.6	58.6	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	61	57.1	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	63.7	59.7	N/A	N/A	N/A	N/A	N/A	N/A
Grader	68	64	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	64.2	60.2	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	66.1	62.1	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	62.8	58.8	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	66	62.1	N/A	N/A	N/A	N/A	N/A	N/A
Total	69.6	73.3	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential - east of site on Robailey Dr.	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Excavator	No	40		80.7	480	0
Grader	No	40	85		500	0
Dozer	No	40		81.7	500	0
Scraper	No	40		83.6	520	0
Tractor	No	40	84		520	0
Front End Loader	No	40		79.1	540	0
Backhoe	No	40		77.6	540	0
Excavator	No	40		80.7	560	0
Grader	No	40	85		560	0
Dozer	No	40		81.7	580	0
Scraper	No	40		83.6	580	0
Excavator	No	40		80.7	600	0
Tractor	No	40	84		600	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	61.1	57.1	N/A	N/A	N/A	N/A	N/A	N/A
Grader	65	61	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	61.7	57.7	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	63.2	59.3	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	63.7	59.7	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	58.4	54.5	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	56.9	52.9	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	59.7	55.7	N/A	N/A	N/A	N/A	N/A	N/A
Grader	64	60	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	60.4	56.4	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	62.3	58.3	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	62.4	58.4	N/A	N/A	N/A	N/A	N/A	N/A
Total	65	69.1	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
Residential - east of site on Marilyn Dr.	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	390	0
Grader	No	40	85		410	0
Dozer	No	40		81.7	410	0
Scraper	No	40		83.6	430	0
Tractor	No	40	84		430	0
Front End Loader	No	40		79.1	450	0
Backhoe	No	40		77.6	450	0
Excavator	No	40		80.7	470	0
Grader	No	40	85		470	0
Dozer	No	40		81.7	490	0
Scraper	No	40		83.6	490	0
Excavator	No	40		80.7	510	0
Tractor	No	40	84		510	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Excavator	62.9	58.9	N/A	N/A	N/A	N/A	N/A	N/A
Grader	66.7	62.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63.4	59.4	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	64.9	60.9	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	65.3	61.3	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	60	56	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	58.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	61.2	57.3	N/A	N/A	N/A	N/A	N/A	N/A
Grader	65.5	61.6	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	61.8	57.9	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	63.8	59.8	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	60.5	56.6	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	63.8	59.8	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.7	70.7	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
Residential - east of site on Parkway Village Dr.	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	580	0
Grader	No	40	85		600	0
Dozer	No	40		81.7	600	0
Scraper	No	40		83.6	620	0
Tractor	No	40	84		620	0
Front End Loader	No	40		79.1	640	0
Backhoe	No	40		77.6	640	0
Excavator	No	40		80.7	660	0
Grader	No	40	85		660	0
Dozer	No	40		81.7	680	0
Scraper	No	40		83.6	680	0
Excavator	No	40		80.7	700	0
Tractor	No	40	84		700	0

Results

		Calculated (dBA)		Noise Limits (dBA)					
				Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator		59.4	55.4	N/A	N/A	N/A	N/A	N/A	N/A
Grader		63.4	59.4	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		60.1	56.1	N/A	N/A	N/A	N/A	N/A	N/A
Scraper		61.7	57.7	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		62.1	58.2	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader		57	53	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe		55.4	51.4	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		58.3	54.3	N/A	N/A	N/A	N/A	N/A	N/A
Grader		62.6	58.6	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		59	55	N/A	N/A	N/A	N/A	N/A	N/A
Scraper		60.9	56.9	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		57.8	53.8	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		61.1	57.1	N/A	N/A	N/A	N/A	N/A	N/A
	Total	63.4	67.6	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Northern project boundary	Commercial	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Excavator	No	40		80.7	700	0
Grader	No	40	85		720	0
Dozer	No	40		81.7	720	0
Scraper	No	40		83.6	740	0
Tractor	No	40	84		740	0
Front End Loader	No	40		79.1	760	0
Backhoe	No	40		77.6	760	0
Excavator	No	40		80.7	780	0
Grader	No	40	85		780	0
Dozer	No	40		81.7	800	0
Scraper	No	40		83.6	800	0
Excavator	No	40		80.7	820	0
Tractor	No	40	84		820	0

Results

		Calculated (dBA)		Noise Limits (dBA)					
				Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator		57.8	53.8	N/A	N/A	N/A	N/A	N/A	N/A
Grader		61.8	57.9	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		58.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A
Scraper		60.2	56.2	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		60.6	56.6	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader		55.5	51.5	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe		53.9	49.9	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		56.8	52.9	N/A	N/A	N/A	N/A	N/A	N/A
Grader		61.1	57.2	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		57.6	53.6	N/A	N/A	N/A	N/A	N/A	N/A
Scraper		59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		56.4	52.4	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		59.7	55.7	N/A	N/A	N/A	N/A	N/A	N/A
	Total	61.8	66.1	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #7 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Western project boundary	Commercial	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	100	0
Grader	No	40	85		120	0
Dozer	No	40		81.7	120	0
Scraper	No	40		83.6	140	0
Tractor	No	40	84		140	0
Front End Loader	No	40		79.1	160	0
Backhoe	No	40		77.6	160	0
Excavator	No	40		80.7	180	0
Grader	No	40	85		180	0
Dozer	No	40		81.7	200	0
Scraper	No	40		83.6	200	0
Excavator	No	40		80.7	220	0
Tractor	No	40	84		220	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A
Grader	77.4	73.4	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
Scraper	74.6	70.7	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	75.1	71.1	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	69	65	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	67.5	63.5	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A
Grader	73.9	69.9	N/A	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	N/A
Scraper	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	67.8	63.9	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	71.1	67.2	N/A	N/A	N/A	N/A	N/A	N/A
Total	77.4	80.2	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #8 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Southern project boundary	Commercial	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	80	0
Grader	No	40	85		100	0
Dozer	No	40		81.7	100	0
Scraper	No	40		83.6	120	0
Tractor	No	40	84		120	0
Front End Loader	No	40		79.1	140	0
Backhoe	No	40		77.6	140	0
Excavator	No	40		80.7	160	0
Grader	No	40	85		160	0
Dozer	No	40		81.7	180	0
Scraper	No	40		83.6	180	0
Excavator	No	40		80.7	200	0
Tractor	No	40	84		200	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	76.6	72.6	N/A	N/A	N/A	N/A	N/A	N/A
Grader	79	75	N/A	N/A	N/A	N/A	N/A	N/A

Dozer		75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A
Scraper		76	72	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		76.4	72.4	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader		70.2	66.2	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
Excavator		70.6	66.6	N/A	N/A	N/A	N/A	N/A	N/A
Grader		74.9	70.9	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		70.5	66.6	N/A	N/A	N/A	N/A	N/A	N/A
Scraper		72.5	68.5	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		68.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		72	68	N/A	N/A	N/A	N/A	N/A	N/A
	Total	79	81.5	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #9 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Eastern project boundary	Commercial	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	120	0
Grader	No	40	85		140	0
Dozer	No	40		81.7	140	0
Scraper	No	40		83.6	160	0
Tractor	No	40	84		160	0
Front End Loader	No	40		79.1	180	0
Backhoe	No	40		77.6	180	0
Excavator	No	40		80.7	200	0
Grader	No	40	85		200	0
Dozer	No	40		81.7	220	0
Scraper	No	40		83.6	220	0
Excavator	No	40		80.7	240	0
Tractor	No	40	84		240	0

	Calculated (dBA)		Results Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A
Grader	76.1	72.1	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	72.7	68.7	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	73.5	69.5	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	66.4	62.5	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	68.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A
Grader	73	69	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	68.8	64.8	N/A	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	N/A
Excavator	67.1	63.1	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
Total	76.1	79	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: 1/5/2016
Case Description: Building Construction Phase

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Hotel - north of site	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	540	0
Man Lift	No	20		74.7	560	0
Generator	No	50		80.6	560	0
Tractor	No	40	84		580	0
Front End Loader	No	40		79.1	580	0
Backhoe	No	40		77.6	600	0
Welder / Torch	No	40		74	600	0
Crane	No	16		80.6	620	0
Man Lift	No	20		74.7	620	0
Generator	No	50		80.6	640	0
Tractor	No	40	84		640	0
Welder / Torch	No	40		74	660	0
Man Lift	No	20		74.7	660	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Crane	59.9	51.9	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	53.7	46.7	N/A	N/A	N/A	N/A	N/A	N/A
Generator	59.6	56.6	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	62.7	58.7	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	57.8	53.8	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	56	52	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	52.4	48.4	N/A	N/A	N/A	N/A	N/A	N/A
Crane	58.7	50.7	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	52.8	45.8	N/A	N/A	N/A	N/A	N/A	N/A
Generator	58.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	61.9	57.9	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	51.6	47.6	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	52.3	45.3	N/A	N/A	N/A	N/A	N/A	N/A
Total	62.7	64.9	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
Commercial - south of site	Commercia	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	430	0
Man Lift	No	20		74.7	450	0
Generator	No	50		80.6	450	0
Tractor	No	40	84		470	0
Front End Loader	No	40		79.1	470	0
Backhoe	No	40		77.6	490	0
Welder / Torch	No	40		74	490	0
Crane	No	16		80.6	510	0

Man Lift	No	20		74.7	510	0
Generator	No	50		80.6	530	0
Tractor	No	40	84		530	0
Welder / Torch	No	40		74	550	0
Man Lift	No	20		74.7	550	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	61.9	53.9	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	55.6	48.6	N/A	N/A	N/A	N/A	N/A	N/A
Generator	61.5	58.5	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	64.5	60.6	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	59.6	55.7	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	57.7	53.8	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	54.2	50.2	N/A	N/A	N/A	N/A	N/A	N/A
Crane	60.4	52.4	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	54.5	47.5	N/A	N/A	N/A	N/A	N/A	N/A
Generator	60.1	57.1	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	63.5	59.5	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	53.2	49.2	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	53.9	46.9	N/A	N/A	N/A	N/A	N/A	N/A
Total	64.5	66.7	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential - east of site on Robailey Dr.	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	560	0
Man Lift	No	20		74.7	580	0
Generator	No	50		80.6	580	0
Tractor	No	40	84		600	0
Front End Loader	No	40		79.1	600	0
Backhoe	No	40		77.6	620	0
Welder / Torch	No	40		74	620	0
Crane	No	16		80.6	640	0
Man Lift	No	20		74.7	640	0
Generator	No	50		80.6	660	0
Tractor	No	40	84		660	0
Welder / Torch	No	40		74	680	0
Man Lift	No	20		74.7	680	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	59.6	51.6	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	53.4	46.4	N/A	N/A	N/A	N/A	N/A	N/A
Generator	59.3	56.3	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	62.4	58.4	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	57.5	53.5	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	55.7	51.7	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	52.1	48.2	N/A	N/A	N/A	N/A	N/A	N/A
Crane	58.4	50.4	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	52.6	45.6	N/A	N/A	N/A	N/A	N/A	N/A
Generator	58.2	55.2	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	61.6	57.6	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	51.3	47.3	N/A	N/A	N/A	N/A	N/A	N/A

Man Lift		52	45	N/A	N/A	N/A	N/A	N/A	N/A
	Total	62.4	64.6	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
Residential - east of site on Marilyn Dr.	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	465	0
Man Lift	No	20		74.7	485	0
Generator	No	50		80.6	485	0
Tractor	No	40	84		505	0
Front End Loader	No	40		79.1	505	0
Backhoe	No	40		77.6	525	0
Welder / Torch	No	40		74	525	0
Crane	No	16		80.6	545	0
Man Lift	No	20		74.7	545	0
Generator	No	50		80.6	565	0
Tractor	No	40	84		565	0
Welder / Torch	No	40		74	585	0
Man Lift	No	20		74.7	585	0

Equipment	Calculated (dBA) *Lmax	Leq	Results Noise Limits (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Crane	61.2	53.2	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	55	48	N/A	N/A	N/A	N/A	N/A	N/A
Generator	60.9	57.9	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	63.9	59.9	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	59	55	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	57.1	53.2	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	53.6	49.6	N/A	N/A	N/A	N/A	N/A	N/A
Crane	59.8	51.8	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	54	47	N/A	N/A	N/A	N/A	N/A	N/A
Generator	59.6	56.6	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	62.9	59	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	52.6	48.7	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	53.3	46.3	N/A	N/A	N/A	N/A	N/A	N/A
Total	63.9	66.1	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
Residential - east of site on Parkway Village Dr.	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	740	0
Man Lift	No	20		74.7	760	0
Generator	No	50		80.6	760	0
Tractor	No	40	84		780	0
Front End Loader	No	40		79.1	780	0
Backhoe	No	40		77.6	800	0
Welder / Torch	No	40		74	800	0
Crane	No	16		80.6	820	0
Man Lift	No	20		74.7	820	0

Generator	No	50		80.6	840	0
Tractor	No	40	84		840	0
Welder / Torch	No	40		74	860	0
Man Lift	No	20		74.7	860	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	57.1	49.2	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	51.1	44.1	N/A	N/A	N/A	N/A	N/A	N/A
Generator	57	54	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	60.1	56.2	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	55.2	51.3	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	53.5	49.5	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	49.9	45.9	N/A	N/A	N/A	N/A	N/A	N/A
Crane	56.3	48.3	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	50.4	43.4	N/A	N/A	N/A	N/A	N/A	N/A
Generator	56.1	53.1	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	49.3	45.3	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	50	43	N/A	N/A	N/A	N/A	N/A	N/A
Total	60.1	62.4	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Northern project boundary	Commercia	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	600	0
Man Lift	No	20		74.7	620	0
Generator	No	50		80.6	620	0
Tractor	No	40	84		640	0
Front End Loader	No	40		79.1	640	0
Backhoe	No	40		77.6	660	0
Welder / Torch	No	40		74	660	0
Crane	No	16		80.6	680	0
Man Lift	No	20		74.7	680	0
Generator	No	50		80.6	700	0
Tractor	No	40	84		700	0
Welder / Torch	No	40		74	720	0
Man Lift	No	20		74.7	720	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	59	51	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	52.8	45.8	N/A	N/A	N/A	N/A	N/A	N/A
Generator	58.8	55.8	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	61.9	57.9	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	57	53	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	55.1	51.2	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	51.6	47.6	N/A	N/A	N/A	N/A	N/A	N/A
Crane	57.9	49.9	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	52	45	N/A	N/A	N/A	N/A	N/A	N/A
Generator	57.7	54.7	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	61.1	57.1	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	50.8	46.9	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	51.5	44.5	N/A	N/A	N/A	N/A	N/A	N/A

Total	61.9	64.1	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #7 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Western project boundary	Commercia	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	85	0
Man Lift	No	20		74.7	105	0
Generator	No	50		80.6	105	0
Tractor	No	40	84		125	0
Front End Loader	No	40		79.1	125	0
Backhoe	No	40		77.6	145	0
Welder / Torch	No	40		74	145	0
Crane	No	16		80.6	165	0
Man Lift	No	20		74.7	165	0
Generator	No	50		80.6	185	0
Tractor	No	40	84		185	0
Welder / Torch	No	40		74	205	0
Man Lift	No	20		74.7	205	0

Equipment	Calculated (dBA) *Lmax	Leq	Results Noise Limits (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Crane	75.9	68	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	68.3	61.3	N/A	N/A	N/A	N/A	N/A	N/A
Generator	74.2	71.2	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	76	72.1	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	68.3	64.3	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	64.8	60.8	N/A	N/A	N/A	N/A	N/A	N/A
Crane	70.2	62.2	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	64.3	57.3	N/A	N/A	N/A	N/A	N/A	N/A
Generator	69.3	66.3	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	72.6	68.7	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	61.7	57.8	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	62.4	55.5	N/A	N/A	N/A	N/A	N/A	N/A
Total	76	77.8	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #8 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Southern project boundary	Commercia	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	250	0
Man Lift	No	20		74.7	270	0
Generator	No	50		80.6	270	0
Tractor	No	40	84		290	0
Front End Loader	No	40		79.1	290	0
Backhoe	No	40		77.6	310	0
Welder / Torch	No	40		74	310	0
Crane	No	16		80.6	330	0
Man Lift	No	20		74.7	330	0
Generator	No	50		80.6	350	0

Tractor	No	40	84	350	0
Welder / Torch	No	40	74	370	0
Man Lift	No	20	74.7	370	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	66.6	58.6	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	60.1	53.1	N/A	N/A	N/A	N/A	N/A	N/A
Generator	66	63	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	68.7	64.8	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	63.8	59.9	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	61.7	57.7	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	58.2	54.2	N/A	N/A	N/A	N/A	N/A	N/A
Crane	64.2	56.2	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	58.3	51.3	N/A	N/A	N/A	N/A	N/A	N/A
Generator	63.7	60.7	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	67.1	63.1	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	56.6	52.6	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	57.3	50.3	N/A	N/A	N/A	N/A	N/A	N/A
Total	68.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #9 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Eastern project boundary	Commercia	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	200	0
Man Lift	No	20		74.7	220	0
Generator	No	50		80.6	220	0
Tractor	No	40	84		240	0
Front End Loader	No	40		79.1	240	0
Backhoe	No	40		77.6	260	0
Welder / Torch	No	40		74	260	0
Crane	No	16		80.6	280	0
Man Lift	No	20		74.7	280	0
Generator	No	50		80.6	300	0
Tractor	No	40	84		300	0
Welder / Torch	No	40		74	320	0
Man Lift	No	20		74.7	320	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	68.5	60.6	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	61.8	54.8	N/A	N/A	N/A	N/A	N/A	N/A
Generator	67.8	64.8	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	65.5	61.5	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	63.2	59.3	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	59.7	55.7	N/A	N/A	N/A	N/A	N/A	N/A
Crane	65.6	57.6	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	59.7	52.7	N/A	N/A	N/A	N/A	N/A	N/A
Generator	65.1	62.1	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
Welder / Torch	57.9	53.9	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	58.6	51.6	N/A	N/A	N/A	N/A	N/A	N/A
Total	70.4	72.3	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: 1/5/2016
Case Description: Paving Phase

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Hotel - north of site	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	830	0
Dump Truck	No	40		76.5	850	0
Roller	No	20		80	850	0
Paver	No	50		77.2	870	0
Dump Truck	No	40		76.5	870	0
Roller	No	20		80	890	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	52.8	49.8	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	51.8	47.9	N/A	N/A	N/A	N/A	N/A	N/A
Roller	55.4	48.4	N/A	N/A	N/A	N/A	N/A	N/A
Paver	52.4	49.4	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	51.6	47.7	N/A	N/A	N/A	N/A	N/A	N/A
Roller	55	48	N/A	N/A	N/A	N/A	N/A	N/A
Total	55.4	56.4	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
Commercial - south of site	Commercia	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	160	0
Dump Truck	No	40		76.5	180	0
Roller	No	20		80	180	0
Paver	No	50		77.2	200	0
Dump Truck	No	40		76.5	200	0
Roller	No	20		80	220	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	67.1	64.1	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	65.3	61.3	N/A	N/A	N/A	N/A	N/A	N/A
Roller	68.9	61.9	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
Dump Truck	64.4	60.4	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
Total	68.9	69.7	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residential - east of site on Robailey Dr.	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	500	0
Dump Truck	No	40		76.5	520	0
Roller	No	20		80	520	0
Paver	No	50		77.2	540	0
Dump Truck	No	40		76.5	540	0
Roller	No	20		80	560	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	57.2	54.2	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	56.1	52.1	N/A	N/A	N/A	N/A	N/A	N/A
Roller	59.7	52.7	N/A	N/A	N/A	N/A	N/A	N/A
Paver	56.6	53.5	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	55.8	51.8	N/A	N/A	N/A	N/A	N/A	N/A
Roller	59	52	N/A	N/A	N/A	N/A	N/A	N/A
Total	59.7	60.6	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
Residential - east of site on Marilyn Dr.	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	410	0
Dump Truck	No	40		76.5	430	0
Roller	No	20		80	430	0
Paver	No	50		77.2	450	0
Dump Truck	No	40		76.5	450	0
Roller	No	20		80	470	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	58.9	55.9	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	57.8	53.8	N/A	N/A	N/A	N/A	N/A	N/A
Roller	61.3	54.3	N/A	N/A	N/A	N/A	N/A	N/A
Paver	58.1	55.1	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	57.4	53.4	N/A	N/A	N/A	N/A	N/A	N/A
Roller	60.5	53.5	N/A	N/A	N/A	N/A	N/A	N/A
Total	61.3	62.2	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
Residential - east of site on Parkway Village Dr.	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)

Paver	No	50	77.2	685	0
Dump Truck	No	40	76.5	705	0
Roller	No	20	80	705	0
Paver	No	50	77.2	725	0
Dump Truck	No	40	76.5	725	0
Roller	No	20	80	745	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	54.5	51.5	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	53.5	49.5	N/A	N/A	N/A	N/A	N/A	N/A
Roller	57	50	N/A	N/A	N/A	N/A	N/A	N/A
Paver	54	51	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	53.2	49.2	N/A	N/A	N/A	N/A	N/A	N/A
Roller	56.5	49.5	N/A	N/A	N/A	N/A	N/A	N/A
Total	57	58	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Northern project boundary	Commercia	65	60	55

Equipment

	Impact		Spec Lmax	Actual Lmax	Receptor Distance	Estimated Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50		77.2	700	0
Dump Truck	No	40		76.5	720	0
Roller	No	20		80	720	0
Paver	No	50		77.2	740	0
Dump Truck	No	40		76.5	740	0
Roller	No	20		80	760	0

Results

	Calculated (dBA)		Noise Limits (dBA)					
			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	54.3	51.3	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	53.3	49.3	N/A	N/A	N/A	N/A	N/A	N/A
Roller	56.8	49.8	N/A	N/A	N/A	N/A	N/A	N/A
Paver	53.8	50.8	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	53	49.1	N/A	N/A	N/A	N/A	N/A	N/A
Roller	56.4	49.4	N/A	N/A	N/A	N/A	N/A	N/A
Total	56.8	57.8	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #7 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Western project boundary	Commercia	65	60	55

Equipment

	Impact		Spec Lmax	Actual Lmax	Receptor Distance	Estimated Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50		77.2	70	0
Dump Truck	No	40		76.5	90	0
Roller	No	20		80	90	0
Paver	No	50		77.2	110	0
Dump Truck	No	40		76.5	110	0
Roller	No	20		80	130	0

				Results					
		Calculated (dBA)			Noise Limits (dBA)				
				Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver		74.3	71.3	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck		71.3	67.4	N/A	N/A	N/A	N/A	N/A	N/A
Roller		74.9	67.9	N/A	N/A	N/A	N/A	N/A	N/A
Paver		70.4	67.4	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck		69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A
Roller		71.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A
	Total	74.9	75.7	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #8 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Southern project boundary	Commercia	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50		77.2	50	0
Dump Truck	No	40		76.5	70	0
Roller	No	20		80	70	0
Paver	No	50		77.2	90	0
Dump Truck	No	40		76.5	90	0
Roller	No	20		80	110	0

				Results					
		Calculated (dBA)			Noise Limits (dBA)				
				Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver		77.2	74.2	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck		73.5	69.5	N/A	N/A	N/A	N/A	N/A	N/A
Roller		77.1	70.1	N/A	N/A	N/A	N/A	N/A	N/A
Paver		72.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck		71.3	67.4	N/A	N/A	N/A	N/A	N/A	N/A
Roller		73.2	66.2	N/A	N/A	N/A	N/A	N/A	N/A
	Total	77.2	78	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #9 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Eastern project boundary	Commercia	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50		77.2	130	0
Dump Truck	No	40		76.5	150	0
Roller	No	20		80	150	0
Paver	No	50		77.2	170	0
Dump Truck	No	40		76.5	170	0
Roller	No	20		80	190	0

				Results					
		Calculated (dBA)			Noise Limits (dBA)				
				Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver		68.9	65.9	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck		66.9	62.9	N/A	N/A	N/A	N/A	N/A	N/A
Roller		70.5	63.5	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
Dump Truck		65.8	61.8	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
	Total	70.5	71.2	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Walmart Chico
Run Info
Existing

Project description

Project title:	Walmart Chico
Project No.:	17230001
Engineer:	P Ault
Customer:	Walmart

Description:
1) Roadway noise analysis
2) Stationary noise analysis - mechanical and parking lot noise sources

Project proposes to: (1) expand the existing Walmart store; (2) develop a fuel station with a convenience market; and (

Run description

Calculation:	Grid Noise Map
Title:	Existing
Group:	
Run file:	RunFile.runx
Result number:	4
Local calculation (ThreadCount=4)	
Calculation start:	2/10/2016 1:28:23 PM
Calculation end:	2/10/2016 1:46:37 PM
Calculation time:	18:00:458 [m:s:ms]
No. of points:	1978
No. of calculated points:	1978
Kernel version:	1/20/2016 (64 bit)

Run parameters

Reflection order	3	
Maximal reflection distance to receiver		200 m
Maximal reflection distance to source		50 m
Search radius	5000 m	
Weighting:	dB(A)	
Tolerance:	0.100 dB	
Create ground effect areas from road surfaces:		Yes

Standards:

Roads:		TNM 2.5
Emission according to:	TNM 2.5	
Road gradient smoothed with smooth length of:		15 m
Air absorption:	ISO 9613	

Calculation with side screening: No
Allow changes (bugs) to be conform with TNM 2.5
Environment:
Air pressure 1013.3 mbar
rel. Humidity 50.0 %
Temperature 20.0 °C
Dissection parameters:
Distance to diameter factor 8
Minimal Distance [m] 1 m
Attenuation
Foliage: ISO 9613-2
Built up area: ISO 9613-2
Industrial site: ISO 9613-2

Industry: ISO 9613-2: 1996
Air absorption: ISO 9613
Using alternative method according to chapter 7.3.2: No (except for sources without a spectrum)
Limitation of screening loss:
single/multiple 20.0 dB /25.0 dB
Calculation with side screening: Yes
Use Eqn (Abar=Dz-Max(Agr,0)) instead of Eqn (12) (Abar=Dz-Agr) for insertion loss
Evaluate extra path length in vertical plane defined by source and receiver
Environment:
Air pressure 1013.3 mbar
rel. Humidity 70.0 %
Temperature 10.0 °C
Meteo. Corr. C0(7-19h)[dB]=0.0; C0(19-22h)[dB]=0.0; C0(22-7h)[dB]=0.0;
Ignore Cmet for Lmax-Industry-Calculation: No
Parameter for screening: C2=20.0
Dissection parameters:
Distance to diameter factor 8
Minimal Distance [m] 1 m
Max. Difference GND+Diffraction 1.0 dB
Max. No. of Iterations 4
Attenuation
Foliage: ISO 9613-2
Built up area: ISO 9613-2
Industrial site: ISO 9613-2

Parking lots: ISO 9613-2: 1996
Emission according to: Parkplatzlärmstudie 2007
Air absorption: ISO 9613
Using alternative method according to chapter 7.3.2: No (except for sources without a spectrum)
Limitation of screening loss:
single/multiple 20.0 dB /25.0 dB
Calculation with side screening: Yes
Use Eqn (Abar=Dz-Max(Agr,0)) instead of Eqn (12) (Abar=Dz-Agr) for insertion loss

Evaluate extra path length in vertical plane defined by source and receiver
Environment:
Air pressure 1013.3 mbar
rel. Humidity 70.0 %
Temperature 10.0 °C
Meteo. Corr. C0(7-19h)[dB]=0.0; C0(19-22h)[dB]=0.0; C0(22-7h)[dB]=0.0;
Ignore Cmet for Lmax-Industry-Calculation: No
Parameter for screening: C2=20.0
Dissection parameters:
Distance to diameter factor 8
Minimal Distance [m] 1 m
Max. Difference GND+Diffraction 1.0 dB
Max. No. of Iterations 4
Attenuation
Foliage: ISO 9613-2
Built up area: ISO 9613-2
Industrial site: ISO 9613-2

Assessment: CNEL (CA)
Grid Map:
Grid space: 20.00 m
Height above ground: 1.500 m
Grid Interpolation:
Field size =
Min/Max =
Difference =

Geometry data

Existing.sit 2/8/2016 12:01:38 PM
- contains:
000-Buildings (Existing).geo 2/8/2016 9:16:22 AM
000-Mechanical Sources(Existing).geo 2/5/2016 11:21:36 AM
000-Parking Lots(Existing).geo 2/8/2016 12:01:38 PM
000-Receptors (Existing).geo 2/8/2016 10:41:16 AM
000-Roads(Existing).geo 2/4/2016 11:15:34 AM
000-Walls (Existing).geo 1/26/2016 12:44:24 PM
DXF_E_BOC(2).geo 2/4/2016 11:42:44 AM
DXF_E_FOC(2).geo 1/29/2016 4:29:20 PM
DXF_RX-PAVE(2).geo 2/2/2016 1:54:14 PM
RDGM0003.dgm 2/5/2016 11:26:10 AM

Walmart Chico
Source level road - Existing

Road	Section name	KM	ADT	Gradient
		km	Veh/24h	%
SR 9 - NB		0.000	30290	0.0
SR 99 - SB		0.000	25660	0.0
SR 99 - NB Off Ramp		0.000	3200	0.0
Forest Avenue		0.000	12870	-0.6
Forest Avenue		0.389	12870	0.0
Forest Avenue		0.418	11700	0.0
Forest Avenue		0.506	12250	0.0
Forest Avenue		0.672	11210	0.0
Baney Lane		0.000	6860	0.0
Baney Lane		0.087	3280	0.0
Baney Lane		0.264	4430	0.0
Baney Lane		0.356	4400	0.0
Wittmeier Drive		0.000	840	0.0
Business Lane		0.000	5920	0.0
Business Lane		0.225	5470	0.4

Walmart Chico
Octave spectra of the sources in dB(A) - Existing

Name	Source type	l or A	Li	R'w	L'w	Lw	KI	KT	LwMax	D-Omega-	Day histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB(A)			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Dumpster/Compactor	Area	38.13	?	6	4	90.4	106.	0.0	0.0		0	fork lifter (loading)	C8.2 Waste compactor	67.4	85.5	97.0	100.4	101.6	98.8	94.6	88.5	
Loading Dock (Existing)	Area	521.99	?	6	4	72.8	100.	0.0	0.0		0	Truck Deliveries Existing	Truck: loading	67.0	77.0	84.0	90.0	93.0	94.0	94.0	92.0	
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	50.0	50.0	0.0	0.0		0	Mechanical Equipment					50.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Parking Lot1(Existing)	Parking lot	26049.77	?	6	4	25.8	70.0	0.0	0.0		0	Parking lot1 (Existing)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parking Lot3 (Existing)	Parking lot	2198.95	?	6	4	37.6	71.0	0.0	0.0		0	Dead-end roads		54.3	65.9	58.4	62.9	63.0	63.4	60.7	54.5	41.7

Walmart Chico
Octave spectra of the sources in dB(A) - Existing

Name	Source type	l or A	Li	R'w	L'w	Lw	KI	KT	LwMax	D-Omega-	Day histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB(A)			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Parking Lot4 (Existing)	Parking lot	808.05	6	4	40.9	70.0	0.0	0.0		0	Parking lot2 (project)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parking Lot5 (Existing)	Parking lot	1954.16	6	4	37.1	70.0	0.0	0.0		0	Parking lot2 (Existing)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parling Lot2(Existing)	Parking lot	3248.55	6	4	31.9	67.0	0.0	0.0		0	Dead-end roads		50.3	61.9	54.4	58.9	59.0	59.4	56.7	50.5	37.7

Walmart Chico
Source level parking lots - Existing

Parking lot	park. lot type	f	Unit B0	Size B	Sep.Mtd.	NRT	KPA dB	KI dB	KD dB	KStrO	TH
Parking Lot1(Existing)	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	11
Parling Lot2(Existing)	cRLE_BPLS07 16	0.5 : 1	1 bed	1			0.0	4.0	0.0	0.0	4
Parking Lot3 (Existing)	Fast food restaurants	0.3 : 1	1 m2 net	1			4.0	4.0	0.0	0.0	4
Parking Lot4 (Existing)	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	10
Parking Lot5 (Existing)	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	12

Walmart Chico
Run Info
Existing+Project

Project description

Project title:	Walmart Chico
Project No.:	17230001
Engineer:	P Ault
Customer:	Walmart

Description:
1) Roadway noise analysis
2) Stationary noise analysis - mechanical and parking lot noise sources

Project proposes to: (1) expand the existing Walmart store; (2) develop a fuel station with a convenience market; and (

Run description

Calculation:	Grid Noise Map
Title:	Existing+Project
Group:	
Run file:	RunFile.runx
Result number:	1
Local calculation (ThreadCount=4)	
Calculation start:	2/10/2016 10:19:41 AM
Calculation end:	2/10/2016 10:39:42 AM
Calculation time:	19:53:543 [m:s:ms]
No. of points:	1978
No. of calculated points:	1978
Kernel version:	1/20/2016 (64 bit)

Run parameters

Reflection order	3	
Maximal reflection distance to receiver		200 m
Maximal reflection distance to source		50 m
Search radius	5000 m	
Weighting:	dB(A)	
Tolerance:	0.100 dB	
Create ground effect areas from road surfaces:		Yes

Standards:

Roads:		TNM 2.5
Emission according to:	TNM 2.5	
Road gradient smoothed with smooth length of:		15 m
Air absorption:	ISO 9613	

Calculation with side screening: No
Allow changes (bugs) to be conform with TNM 2.5
Environment:
Air pressure 1013.3 mbar
rel. Humidity 50.0 %
Temperature 20.0 °C
Dissection parameters:
Distance to diameter factor 8
Minimal Distance [m] 1 m
Attenuation
Foliage: ISO 9613-2
Built up area: ISO 9613-2
Industrial site: ISO 9613-2

Industry: ISO 9613-2: 1996
Air absorption: ISO 9613
Using alternative method according to chapter 7.3.2: No (except for sources without a spectrum)
Limitation of screening loss:
single/multiple 20.0 dB /25.0 dB
Calculation with side screening: Yes
Use Eqn (Abar=Dz-Max(Agr,0)) instead of Eqn (12) (Abar=Dz-Agr) for insertion loss
Evaluate extra path length in vertical plane defined by source and receiver
Environment:
Air pressure 1013.3 mbar
rel. Humidity 70.0 %
Temperature 10.0 °C
Meteo. Corr. C0(7-19h)[dB]=0.0; C0(19-22h)[dB]=0.0; C0(22-7h)[dB]=0.0;
Ignore Cmet for Lmax-Industry-Calculation: No
Parameter for screening: C2=20.0
Dissection parameters:
Distance to diameter factor 8
Minimal Distance [m] 1 m
Max. Difference GND+Diffraction 1.0 dB
Max. No. of Iterations 4
Attenuation
Foliage: ISO 9613-2
Built up area: ISO 9613-2
Industrial site: ISO 9613-2

Parking lots: ISO 9613-2: 1996
Emission according to: Parkplatzlärmstudie 2007
Air absorption: ISO 9613
Using alternative method according to chapter 7.3.2: No (except for sources without a spectrum)
Limitation of screening loss:
single/multiple 20.0 dB /25.0 dB
Calculation with side screening: Yes
Use Eqn (Abar=Dz-Max(Agr,0)) instead of Eqn (12) (Abar=Dz-Agr) for insertion loss

Evaluate extra path length in vertical plane defined by source and receiver
Environment:
Air pressure 1013.3 mbar
rel. Humidity 70.0 %
Temperature 10.0 °C
Meteo. Corr. C0(7-19h)[dB]=0.0; C0(19-22h)[dB]=0.0; C0(22-7h)[dB]=0.0;
Ignore Cmet for Lmax-Industry-Calculation: No
Parameter for screening: C2=20.0
Dissection parameters:
Distance to diameter factor 8
Minimal Distance [m] 1 m
Max. Difference GND+Diffraction 1.0 dB
Max. No. of Iterations 4
Attenuation
Foliage: ISO 9613-2
Built up area: ISO 9613-2
Industrial site: ISO 9613-2

Assessment: CNEL (CA)
Grid Map:
Grid space: 20.00 m
Height above ground: 1.500 m
Grid Interpolation:
Field size = 9x9
Min/Max = 10.0 dB
Difference = 0.2 dB

Geometry data

Existing+Project.sit 2/8/2016 12:04:46 PM
- contains:
000-Buildings (Existing).geo 2/8/2016 9:16:22 AM
000-Mechanical Sources(Existing).geo 2/5/2016 11:21:36 AM
000-Mechanical Sources(Project).geo 2/5/2016 11:21:36 AM
000-Parking Lots (Plus Project).geo 2/8/2016 12:04:46 PM
000-Receptors (Project).geo 2/8/2016 10:28:04 AM
000-Roads(Existing+Project).geo 2/4/2016 11:25:04 AM
000-Walls (Existing).geo 1/26/2016 12:44:24 PM
001-Buildings (Project).geo 2/4/2016 10:40:24 AM
001-Internal Roads (Project).geo 2/4/2016 10:40:24 AM
DXF_A-BLDG(2).geo 1/29/2016 4:29:20 PM
DXF_E_BLDG(2).geo 1/29/2016 4:29:20 PM
DXF_E_BOC(2).geo 2/4/2016 11:42:44 AM
DXF_E_FOC(2).geo 1/29/2016 4:29:20 PM
DXF_P_BLDG(2).geo 1/29/2016 4:29:20 PM
DXF_P_BOC(2).geo 1/29/2016 4:29:22 PM
DXF_P_FOC(2).geo 1/29/2016 4:29:22 PM

Walmart Chico
Run Info
Existing+Project

DXF_RX-PAVE(2).geo	2/2/2016 1:54:14 PM
RDGM0003.dgm	2/5/2016 11:26:10 AM

Walmart Chico
Source level road - Existing+Project

Road	Section name	KM	ADT	Gradient
		km	Veh/24h	%
SR 9 - NB		0.000	30440	0.0
SR 99 - SB		0.000	25690	0.0
SR 99 - NB Off Ramp		0.000	3350	0.0
Forest Avenue		0.000	16740	-0.6
Forest Avenue		0.389	16740	0.0
Forest Avenue		0.418	13490	0.0
Forest Avenue		0.506	13740	0.0
Forest Avenue		0.672	13340	0.0
Baney Lane		0.000	9190	0.0
Baney Lane		0.087	4010	0.0
Baney Lane		0.264	4110	0.0
Baney Lane		0.356	4000	0.0
Wittmeier Drive		0.000	4070	0.0
Business Lane		0.000	5850	0.0
Business Lane		0.225	6100	0.4
Internal Driveway1		0.000	1615	0.0
Internal Driveway2		0.000	1615	0.0

Walmart Chico
Octave spectra of the sources in dB(A) - Existing+Project

Name	Source type	l or A	Li	R'w	L'w	Lw	KI	KT	LwMax	D-Omega-	Day histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB(A)			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
	Area	481.44	6	4	73.2	100.	0.0	0.0		0	Truck Deliveries Fule	Truck: loading	67.0	77.0	84.0	90.0	93.0	94.0	94.0	92.0	
Dumpster/Compactor	Area	47.16	6	4	89.5	106.	0.0	0.0		0	Trash Compactor Area	C8.2 Waste compactor	67.4	85.5	97.0	100.4	101.6	98.8	94.6	88.5	
Dumpster/Compactor	Area	23.29	6	4	79.2	92.9	0.0	0.0		0	Dumpster Area	C8.5 Waste compactor	68.0	80.1	82.6	84.0	89.2	86.4	80.2	70.1	
Loading Dock (Existing)	Area	741.73	6	4	71.3	100.	0.0	0.0		0	Truck Deliveris (Project)	Truck: loading	67.0	77.0	84.0	90.0	93.0	94.0	94.0	92.0	
Loading Dock (Existing)	Area	577.27	6	4	72.4	100.	0.0	0.0		0	Truck Deliveris (Project)	Truck: loading	67.0	77.0	84.0	90.0	93.0	94.0	94.0	92.0	
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	50.0	50.0	0.0	0.0		0	Mechanical Equipment					50.0					

Walmart Chico
Octave spectra of the sources in dB(A) - Existing+Project

Name	Source type	l or A	Li	R'w	L'w	Lw	KI	KT	LwMax	D-Omega-	Day histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB(A)			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Parking Lot1(Existing)	Parking lot	26166.42	6	4	25.8	70.0	0.0	0.0		0	Parking lot1 (Existing)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parking Lot3 (Existing)	Parking lot	2198.95	6	4	37.6	71.0	0.0	0.0		0	gas station day		54.3	65.9	58.4	62.9	63.0	63.4	60.7	54.5	41.7
Parking Lot3 (Existing)	Parking lot	2428.35	6	4	37.1	71.0	0.0	0.0		0	gas station day		54.3	65.9	58.4	62.9	63.0	63.4	60.7	54.5	41.7
Parking Lot5 (Existing)	Parking lot	1954.16	6	4	37.1	70.0	0.0	0.0		0	Parking lot2 (Existing)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parking Lot New1	Parking lot	3103.43	6	4	35.1	70.0	0.0	0.0		0	Parking lot2 (project)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parking Lot New1	Parking lot	6794.92	6	4	31.7	70.0	0.0	0.0		0	Parking lot1 (Project)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parling Lot2(Existing)	Parking lot	3248.55	6	4	31.9	67.0	0.0	0.0		0	Dead-end roads		50.3	61.9	54.4	58.9	59.0	59.4	56.7	50.5	37.7

Walmart Chico
Source level parking lots - Existing+Project

Parking lot	park. lot type	f	Unit B0	Size B	Sep.Mtd.	NRT	KPA dB	KI dB	KD dB	KStrO	TH
Parking Lot1(Existing)	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	11
Parling Lot2(Existing)	cRLE_BPLS07 16	0.5 : 1	1 bed	1			0.0	4.0	0.0	0.0	4
Parking Lot3 (Existing)	Fast food restaurants	0.3 : 1	1 m2 net	1			4.0	4.0	0.0	0.0	13
Parking Lot5 (Existing)	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	12
Parking Lot New1	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	9
Parking Lot New1	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	10
Parking Lot3 (Existing)	Fast food restaurants	0.3 : 1	1 m2 net	1			4.0	4.0	0.0	0.0	13

Walmart Chico
Run Info
Cumulative No Project

Project description

Project title:	Walmart Chico
Project No.:	17230001
Engineer:	P Ault
Customer:	Walmart

Description:
1) Roadway noise analysis
2) Stationary noise analysis - mechanical and parking lot noise sources

Project proposes to: (1) expand the existing Walmart store; (2) develop a fuel station with a convenience market; and (

Run description

Calculation:	Grid Noise Map
Title:	Cumulative No Project
Group:	
Run file:	RunFile.runx
Result number:	5
Local calculation (ThreadCount=4)	
Calculation start:	2/10/2016 1:10:24 PM
Calculation end:	2/10/2016 1:28:09 PM
Calculation time:	17:42:962 [m:s:ms]
No. of points:	1978
No. of calculated points:	1978
Kernel version:	1/20/2016 (64 bit)

Run parameters

Reflection order	3	
Maximal reflection distance to receiver		200 m
Maximal reflection distance to source		50 m
Search radius	5000 m	
Weighting:	dB(A)	
Tolerance:	0.100 dB	
Create ground effect areas from road surfaces:		Yes

Standards:

Roads:		TNM 2.5
Emission according to:	TNM 2.5	
Road gradient smoothed with smooth length of:		15 m
Air absorption:	ISO 9613	

Calculation with side screening: No
Allow changes (bugs) to be conform with TNM 2.5
Environment:
Air pressure 1013.3 mbar
rel. Humidity 50.0 %
Temperature 20.0 °C
Dissection parameters:
Distance to diameter factor 8
Minimal Distance [m] 1 m
Attenuation
Foliage: ISO 9613-2
Built up area: ISO 9613-2
Industrial site: ISO 9613-2

Industry: ISO 9613-2: 1996
Air absorption: ISO 9613
Using alternative method according to chapter 7.3.2: No (except for sources without a spectrum)
Limitation of screening loss:
single/multiple 20.0 dB /25.0 dB
Calculation with side screening: Yes
Use Eqn (Abar=Dz-Max(Agr,0)) instead of Eqn (12) (Abar=Dz-Agr) for insertion loss
Evaluate extra path length in vertical plane defined by source and receiver
Environment:
Air pressure 1013.3 mbar
rel. Humidity 70.0 %
Temperature 10.0 °C
Meteo. Corr. C0(7-19h)[dB]=0.0; C0(19-22h)[dB]=0.0; C0(22-7h)[dB]=0.0;
Ignore Cmet for Lmax-Industry-Calculation: No
Parameter for screening: C2=20.0
Dissection parameters:
Distance to diameter factor 8
Minimal Distance [m] 1 m
Max. Difference GND+Diffraction 1.0 dB
Max. No. of Iterations 4
Attenuation
Foliage: ISO 9613-2
Built up area: ISO 9613-2
Industrial site: ISO 9613-2

Parking lots: ISO 9613-2: 1996
Emission according to: Parkplatzlärmstudie 2007
Air absorption: ISO 9613
Using alternative method according to chapter 7.3.2: No (except for sources without a spectrum)
Limitation of screening loss:
single/multiple 20.0 dB /25.0 dB
Calculation with side screening: Yes
Use Eqn (Abar=Dz-Max(Agr,0)) instead of Eqn (12) (Abar=Dz-Agr) for insertion loss

Evaluate extra path length in vertical plane defined by source and receiver
Environment:
Air pressure 1013.3 mbar
rel. Humidity 70.0 %
Temperature 10.0 °C
Meteo. Corr. C0(7-19h)[dB]=0.0; C0(19-22h)[dB]=0.0; C0(22-7h)[dB]=0.0;
Ignore Cmet for Lmax-Industry-Calculation: No
Parameter for screening: C2=20.0
Dissection parameters:
Distance to diameter factor 8
Minimal Distance [m] 1 m
Max. Difference GND+Diffraction 1.0 dB
Max. No. of Iterations 4
Attenuation
Foliage: ISO 9613-2
Built up area: ISO 9613-2
Industrial site: ISO 9613-2

Assessment: CNEL (CA)
Grid Map:
Grid space: 20.00 m
Height above ground: 1.500 m
Grid Interpolation:
Field size = 9x9
Min/Max = 10.0 dB
Difference = 0.2 dB

Geometry data

Cumulative No Project.sit 2/5/2016 11:23:28 AM
- contains:
000-Buildings (Existing).geo 2/8/2016 9:16:22 AM
000-Mechanical Sources(Existing).geo 2/5/2016 11:21:36 AM
000-Parking Lots(Existing).geo 2/8/2016 12:01:38 PM
000-Receptors (Existing).geo 2/8/2016 10:41:16 AM
000-Roads(Cum No Project).geo 2/5/2016 8:32:16 AM
000-Walls (Existing).geo 1/26/2016 12:44:24 PM
DXF_E_BOC(2).geo 2/4/2016 11:42:44 AM
DXF_E_FOC(2).geo 1/29/2016 4:29:20 PM
DXF_RX-PAVE(2).geo 2/2/2016 1:54:14 PM
RDGM0003.dgm 2/5/2016 11:26:10 AM

Walmart Chico
Source level road - Cumulative No Project

Road	Section name	KM	ADT	Gradient
		km	Veh/24h	%
SR 9 - NB		0.000	39600	0.0
SR 99 - SB		0.000	40770	0.0
SR 99 - NB Off Ramp		0.000	3610	0.0
Forest Avenue		0.000	14420	-0.6
Forest Avenue		0.389	14420	0.0
Forest Avenue		0.418	12510	0.0
Forest Avenue		0.506	12880	0.0
Forest Avenue		0.672	11930	0.0
Baney Lane		0.000	6480	0.0
Baney Lane		0.087	3280	0.0
Baney Lane		0.264	4430	0.0
Baney Lane		0.356	4400	0.0
Wittmeier Drive		0.000	960	0.0
Business Lane		0.000	5920	0.0
Business Lane		0.225	5470	0.4

Walmart Chico
Octave spectra of the sources in dB(A) - Cumulative No Project

Name	Source type	l or A	Li	R'w	L'w	Lw	KI	KT	LwMax	D-Omega-	Day histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB(A)			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Dumpster/Compactor	Area	38.13	6	4	90.4	106.	0.0	0.0		0	fork lifter (loading)	C8.2 Waste compactor	67.4	85.5	97.0	100.4	101.6	98.8	94.6	88.5	
Loading Dock (Existing)	Area	521.99	6	4	72.8	100.	0.0	0.0		0	Truck Deliveries Existing	Truck: loading	67.0	77.0	84.0	90.0	93.0	94.0	94.0	92.0	
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	50.0	50.0	0.0	0.0		0	Mechanical Equipment					50.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Parking Lot1(Existing)	Parking lot	26049.77	6	4	25.8	70.0	0.0	0.0		0	Parking lot1 (Existing)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parking Lot3 (Existing)	Parking lot	2198.95	6	4	37.6	71.0	0.0	0.0		0	Dead-end roads		54.3	65.9	58.4	62.9	63.0	63.4	60.7	54.5	41.7

Walmart Chico
Octave spectra of the sources in dB(A) - Cumulative No Project

Name	Source type	l or A	Li	R'w	L'w	Lw	KI	KT	LwMax	D-Omega-	Day histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB(A)			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Parking Lot4 (Existing)	Parking lot	808.05	6	4	40.9	70.0	0.0	0.0		0	Parking lot2 (project)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parking Lot5 (Existing)	Parking lot	1954.16	6	4	37.1	70.0	0.0	0.0		0	Parking lot2 (Existing)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parling Lot2(Existing)	Parking lot	3248.55	6	4	31.9	67.0	0.0	0.0		0	Dead-end roads		50.3	61.9	54.4	58.9	59.0	59.4	56.7	50.5	37.7

Walmart Chico
Source level parking lots - Cumulative No Project

Parking lot	park. lot type	f	Unit B0	Size B	Sep.Mtd.	NRT	KPA dB	KI dB	KD dB	KStrO	TH
Parking Lot1(Existing)	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	11
Parling Lot2(Existing)	cRLE_BPLS07 16	0.5 : 1	1 bed	1			0.0	4.0	0.0	0.0	4
Parking Lot3 (Existing)	Fast food restaurants	0.3 : 1	1 m2 net	1			4.0	4.0	0.0	0.0	4
Parking Lot4 (Existing)	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	10
Parking Lot5 (Existing)	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	12

Walmart Chico
Run Info
Cumulative+Project

Project description

Project title:	Walmart Chico
Project No.:	17230001
Engineer:	P Ault
Customer:	Walmart

Description:
1) Roadway noise analysis
2) Stationary noise analysis - mechanical and parking lot noise sources

Project proposes to: (1) expand the existing Walmart store; (2) develop a fuel station with a convenience market; and (

Run description

Calculation:	Grid Noise Map
Title:	Cumulative+Project
Group:	
Run file:	RunFile.runx
Result number:	6
Local calculation (ThreadCount=4)	
Calculation start:	2/10/2016 12:50:53 PM
Calculation end:	2/10/2016 1:10:21 PM
Calculation time:	19:25:401 [m:s:ms]
No. of points:	1978
No. of calculated points:	1978
Kernel version:	1/20/2016 (64 bit)

Run parameters

Reflection order	3	
Maximal reflection distance to receiver		200 m
Maximal reflection distance to source		50 m
Search radius	5000 m	
Weighting:	dB(A)	
Tolerance:	0.100 dB	
Create ground effect areas from road surfaces:		Yes

Standards:

Roads:		TNM 2.5
Emission according to:	TNM 2.5	
Road gradient smoothed with smooth length of:		15 m
Air absorption:	ISO 9613	

Calculation with side screening: No
Allow changes (bugs) to be conform with TNM 2.5
Environment:
Air pressure 1013.3 mbar
rel. Humidity 50.0 %
Temperature 20.0 °C
Dissection parameters:
Distance to diameter factor 8
Minimal Distance [m] 1 m
Attenuation
Foliage: ISO 9613-2
Built up area: ISO 9613-2
Industrial site: ISO 9613-2

Industry: ISO 9613-2: 1996
Air absorption: ISO 9613
Using alternative method according to chapter 7.3.2: No (except for sources without a spectrum)
Limitation of screening loss:
single/multiple 20.0 dB /25.0 dB
Calculation with side screening: Yes
Use Eqn (Abar=Dz-Max(Agr,0)) instead of Eqn (12) (Abar=Dz-Agr) for insertion loss
Evaluate extra path length in vertical plane defined by source and receiver
Environment:
Air pressure 1013.3 mbar
rel. Humidity 70.0 %
Temperature 10.0 °C
Meteo. Corr. C0(7-19h)[dB]=0.0; C0(19-22h)[dB]=0.0; C0(22-7h)[dB]=0.0;
Ignore Cmet for Lmax-Industry-Calculation: No
Parameter for screening: C2=20.0
Dissection parameters:
Distance to diameter factor 8
Minimal Distance [m] 1 m
Max. Difference GND+Diffraction 1.0 dB
Max. No. of Iterations 4
Attenuation
Foliage: ISO 9613-2
Built up area: ISO 9613-2
Industrial site: ISO 9613-2

Parking lots: ISO 9613-2: 1996
Emission according to: Parkplatzlärmstudie 2007
Air absorption: ISO 9613
Using alternative method according to chapter 7.3.2: No (except for sources without a spectrum)
Limitation of screening loss:
single/multiple 20.0 dB /25.0 dB
Calculation with side screening: Yes
Use Eqn (Abar=Dz-Max(Agr,0)) instead of Eqn (12) (Abar=Dz-Agr) for insertion loss

Evaluate extra path length in vertical plane defined by source and receiver
Environment:

Air pressure	1013.3 mbar
rel. Humidity	70.0 %
Temperature	10.0 °C

Meteo. Corr. C0(7-19h)[dB]=0.0; C0(19-22h)[dB]=0.0; C0(22-7h)[dB]=0.0;
Ignore Cmet for Lmax-Industry-Calculation: No
Parameter for screening: C2=20.0
Dissection parameters:

Distance to diameter factor	8
Minimal Distance [m]	1 m
Max. Difference GND+Diffraction	1.0 dB
Max. No. of Iterations	4

Attenuation

Foliage:	ISO 9613-2
Built up area:	ISO 9613-2
Industrial site:	ISO 9613-2

Assessment: CNEL (CA)

Grid Map:

Grid space:	20.00 m
Height above ground:	1.500 m

Grid Interpolation:

Field size =	9x9
Min/Max =	10.0 dB
Difference =	0.2 dB

Geometry data

Cumulative+Project.sit 2/8/2016 9:20:36 AM
- contains:

000-Buildings (Existing).geo	2/8/2016 9:16:22 AM
000-Mechanical Sources(Existing).geo	2/5/2016 11:21:36 AM
000-Mechanical Sources(Project).geo	2/5/2016 11:21:36 AM
000-Parking Lots (Plus Project).geo	2/8/2016 12:04:46 PM
000-Receptors (Project).geo	2/8/2016 10:28:04 AM
000-Roads(Cum+Project).geo	2/4/2016 2:34:40 PM
000-Walls (Existing).geo	1/26/2016 12:44:24 PM
001-Buildings (Project).geo	2/4/2016 10:40:24 AM
001-Internal Roads (Project).geo	2/4/2016 10:40:24 AM
DXF_A-BLDG(2).geo	1/29/2016 4:29:20 PM
DXF_E_BLDG(2).geo	1/29/2016 4:29:20 PM
DXF_E_BOC(2).geo	2/4/2016 11:42:44 AM
DXF_E_FOC(2).geo	1/29/2016 4:29:20 PM
DXF_P_BLDG(2).geo	1/29/2016 4:29:20 PM
DXF_P_BOC(2).geo	1/29/2016 4:29:22 PM
DXF_P_FOC(2).geo	1/29/2016 4:29:22 PM

Walmart Chico
Run Info
Cumulative+Project

DXF_RX-PAVE(2).geo	2/2/2016 1:54:14 PM
RDGM0003.dgm	2/5/2016 11:26:10 AM

Walmart Chico
Source level road - Cumulative+Project

Road	Section name	KM	ADT	Gradient
		km	Veh/24h	%
SR 9 - NB		0.000	39750	0.0
SR 99 - SB		0.000	40800	0.0
SR 99 - NB Off Ramp		0.000	3660	0.0
Forest Avenue		0.000	18110	-0.6
Forest Avenue		0.389	18110	0.0
Forest Avenue		0.418	14300	0.0
Forest Avenue		0.506	14370	0.0
Forest Avenue		0.672	14050	0.0
Baney Lane		0.000	9190	0.0
Baney Lane		0.087	4010	0.0
Baney Lane		0.264	4110	0.0
Baney Lane		0.356	4000	0.0
Wittmeier Drive		0.000	4070	0.0
Business Lane		0.000	5850	0.0
Business Lane		0.225	6100	0.4
Internal Driveway1		0.000	1615	0.0
Internal Driveway2		0.000	1615	0.0

Walmart Chico
Octave spectra of the sources in dB(A) - Cumulative+Project

Name	Source type	l or A	Li	R'w	L'w	Lw	KI	KT	LwMax	D-Omega-	Day histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB(A)			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
	Area	481.44	6	4	73.2	100.	0.0	0.0		0	Truck Deliveries Fule	Truck: loading	67.0	77.0	84.0	90.0	93.0	94.0	94.0	92.0	
Dumpster/Compactor	Area	47.16	6	4	89.5	106.	0.0	0.0		0	Trash Compactor Area	C8.2 Waste compactor	67.4	85.5	97.0	100.4	101.6	98.8	94.6	88.5	
Dumpster/Compactor	Area	23.29	6	4	79.2	92.9	0.0	0.0		0	Dumpster Area	C8.5 Waste compactor	68.0	80.1	82.6	84.0	89.2	86.4	80.2	70.1	
Loading Dock (Existing)	Area	741.73	6	4	71.3	100.	0.0	0.0		0	Truck Deliveris (Project)	Truck: loading	67.0	77.0	84.0	90.0	93.0	94.0	94.0	92.0	
Loading Dock (Existing)	Area	577.27	6	4	72.4	100.	0.0	0.0		0	Truck Deliveris (Project)	Truck: loading	67.0	77.0	84.0	90.0	93.0	94.0	94.0	92.0	
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rooftop Mechanical	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point		6	4	50.0	50.0	0.0	0.0		0	Mechanical Equipment					50.0					

Walmart Chico
Octave spectra of the sources in dB(A) - Cumulative+Project

Name	Source type	l or A	Li	R'w	L'w	Lw	KI	KT	LwMax	D-Omega-	Day histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB(A)			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Rootop mechanical systems	Point	?	6	4	60.0	60.0	0.0	0.0		0	Mechanical Equipment					60.0					
Parking Lot1(Existing)	Parking lot	26166.42	6	4	25.8	70.0	0.0	0.0		0	Parking lot1 (Existing)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parking Lot3 (Existing)	Parking lot	2198.95	6	4	37.6	71.0	0.0	0.0		0	gas station day		54.3	65.9	58.4	62.9	63.0	63.4	60.7	54.5	41.7
Parking Lot3 (Existing)	Parking lot	2428.35	6	4	37.1	71.0	0.0	0.0		0	gas station day		54.3	65.9	58.4	62.9	63.0	63.4	60.7	54.5	41.7
Parking Lot5 (Existing)	Parking lot	1954.16	6	4	37.1	70.0	0.0	0.0		0	Parking lot2 (Existing)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parking Lot New1	Parking lot	3103.43	6	4	35.1	70.0	0.0	0.0		0	Parking lot2 (project)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parking Lot New1	Parking lot	6794.92	6	4	31.7	70.0	0.0	0.0		0	Parking lot1 (Project)		53.3	64.9	57.4	61.9	62.0	62.4	59.7	53.5	40.7
Parling Lot2(Existing)	Parking lot	3248.55	6	4	31.9	67.0	0.0	0.0		0	Dead-end roads		50.3	61.9	54.4	58.9	59.0	59.4	56.7	50.5	37.7

Walmart Chico
Source level parking lots - Cumulative+Project

Parking lot	park. lot type	f	Unit B0	Size B	Sep.Mtd.	NRT	KPA dB	KI dB	KD dB	KStrO	TH
Parking Lot1(Existing)	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	11
Parling Lot2(Existing)	cRLE_BPLS07 16	0.5 : 1	1 bed	1			0.0	4.0	0.0	0.0	4
Parking Lot3 (Existing)	Fast food restaurants	0.3 : 1	1 m2 net	1			4.0	4.0	0.0	0.0	13
Parking Lot5 (Existing)	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	12
Parking Lot New1	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	9
Parking Lot New1	Discounter	1.0 : 1	1 parking	1			3.0	4.0	0.0	0.0	10
Parking Lot3 (Existing)	Fast food restaurants	0.3 : 1	1 m2 net	1			4.0	4.0	0.0	0.0	13

Traffic Volumes and Speeds

Existing	PM Peak Hour Traffic Volumes [1]	Selected Volume (peak hr)	Vehicle Distribution			Vehicle Speed (mph)			ADT
			Auto	Medium	Heavy	Auto	Medium	Heavy	
Forest Avenue 1	1287	1287	97.0%	2.0%	1.0%	35	35	35	12870
Forest Avenue 2	1170	1170	97.0%	2.0%	1.0%	35	35	35	11700
Forest Avenue 3	1225	1225	97.0%	2.0%	1.0%	35	35	35	12250
Forest Avenue 4	1121	1121	97.0%	2.0%	1.0%	35	35	35	11210
Barney Lane1	686	686	97.0%	2.0%	1.0%	35	35	35	6860
Barney Lane2	328	328	97.0%	2.0%	1.0%	35	35	35	3280
Barney Lane3	443	443	97.0%	2.0%	1.0%	35	35	35	4430
Barney Lane4	440	440	97.0%	2.0%	1.0%	35	35	35	4400
Wittmeier Drive	84	84	97.0%	2.0%	1.0%	35	35	35	840
Business Lane1	547	547	97.0%	2.0%	1.0%	35	35	35	5470
Business Lane2	592	592	97.0%	2.0%	1.0%	35	35	35	5920
SR 99 NB	3029	3029	93.4%	4.4%	2.2%	65	65	55	30290
SR 99 SB	2566	2566	93.4%	4.4%	2.2%	65	65	55	25660
SR 99 NB Ramp	320	320	93.4%	4.4%	2.2%	55	45	40	3200

Existing Plus Project	PM Peak Hour Traffic Volumes [1]	Selected Volume (peak hr)	Vehicle Distribution			Vehicle Speed (mph)			ADT
			Auto	Medium	Heavy	Auto	Medium	Heavy	
Forest Avenue 1	1674	1674	97.0%	2.0%	1.0%	35	35	35	16740
Forest Avenue 2	1349	1349	97.0%	2.0%	1.0%	35	35	35	13490
Forest Avenue 3	1374	1374	97.0%	2.0%	1.0%	35	35	35	13740
Forest Avenue 4	1334	1334	97.0%	2.0%	1.0%	35	35	35	13340
Barney Lane1	919	919	97.0%	2.0%	1.0%	35	35	35	9190
Barney Lane2	401	401	97.0%	2.0%	1.0%	35	35	35	4010
Barney Lane3	411	411	97.0%	2.0%	1.0%	35	35	35	4110
Barney Lane4	400	400	97.0%	2.0%	1.0%	35	35	35	4000
Wittmeier Drive	407	407	97.0%	2.0%	1.0%	35	35	35	4070
Business Lane1	610	610	97.0%	2.0%	1.0%	35	35	35	6100
Business Lane2	585	585	97.0%	2.0%	1.0%	35	35	35	5850
SR 99 NB	3044	3044	93.4%	4.4%	2.2%	65	65	55	30440
SR 99 SB	2569	2569	93.4%	4.4%	2.2%	65	65	55	25690
SR 99 NB Ramp	335	335	93.4%	4.4%	2.2%	55	45	40	3350

Cumulative No Project	PM Peak Hour Traffic Volumes [1]	Selected Volume (peak hr)	Vehicle Distribution			Vehicle Speed (mph)			ADT
			Auto	Medium	Heavy	Auto	Medium	Heavy	
Forest Avenue 1	1442	1442	97.0%	2.0%	1.0%	35	35	35	14420
Forest Avenue 2	1251	1251	97.0%	2.0%	1.0%	35	35	35	12510
Forest Avenue 3	1288	1288	97.0%	2.0%	1.0%	35	35	35	12880
Forest Avenue 4	1193	1193	97.0%	2.0%	1.0%	35	35	35	11930
Barney Lane1	648	648	97.0%	2.0%	1.0%	35	35	35	6480
Barney Lane2	328	328	97.0%	2.0%	1.0%	35	35	35	3280
Barney Lane3	443	443	97.0%	2.0%	1.0%	35	35	35	4430
Barney Lane4	440	440	97.0%	2.0%	1.0%	35	35	35	4400
Wittmeier Drive	96	96	97.0%	2.0%	1.0%	35	35	35	960
Business Lane1	547	547	97.0%	2.0%	1.0%	35	35	35	5470
Business Lane2	592	592	97.0%	2.0%	1.0%	35	35	35	5920
SR 99 NB	3960	3960	93.4%	4.4%	2.2%	65	65	55	39600
SR 99 SB	4077	4077	93.4%	4.4%	2.2%	65	65	55	40770
SR 99 NB Ramp	361	361	93.4%	4.4%	2.2%	55	45	40	3610

Cumulative Plus Project	PM Peak Hour Traffic Volumes [1]	Selected Volume (peak hr)	Vehicle Distribution			Vehicle Speed (mph)			ADT
			Auto	Medium	Heavy	Auto	Medium	Heavy	
Forest Avenue 1	1811	1811	97.0%	2.0%	1.0%	35	35	35	18110
Forest Avenue 2	1430	1430	97.0%	2.0%	1.0%	35	35	35	14300
Forest Avenue 3	1437	1437	97.0%	2.0%	1.0%	35	35	35	14370
Forest Avenue 4	1405	1405	97.0%	2.0%	1.0%	35	35	35	14050
Barney Lane1	919	919	97.0%	2.0%	1.0%	35	35	35	9190
Barney Lane2	401	401	97.0%	2.0%	1.0%	35	35	35	4010
Barney Lane3	411	411	97.0%	2.0%	1.0%	35	35	35	4110
Barney Lane4	400	400	97.0%	2.0%	1.0%	35	35	35	4000
Wittmeier Drive	407	407	97.0%	2.0%	1.0%	35	35	35	4070
Business Lane1	610	610	97.0%	2.0%	1.0%	35	35	35	6100
Business Lane2	585	585	97.0%	2.0%	1.0%	35	35	35	5850
SR 99 NB	3975	3975	93.4%	4.4%	2.2%	65	65	55	39750
SR 99 SB	4080	4080	93.4%	4.4%	2.2%	65	65	55	40800
SR 99 NB Ramp	366	366	93.4%	4.4%	2.2%	55	45	40	3660

Existing Receptor Results2

	Receiver	Usage	Fl	Dir	Ldn dB(A)	Leq,d dB(A)	Leq,e dB(A)	Leq,n dB(A)
1	Hotel	CG	G		57.9	51.7	51.7	51.1
2	Krispy Kreme	CG	G	E	68.4	61.8	61.7	61.7
3	Office Bldg1	CG	G	W	69.2	62.5	62.5	62.5
4	Office Bldg2	CG	G	W	68.4	61.8	61.8	61.8
5	Office Bldg3	CG	G	W	67.9	61.3	61.3	61.2
6	Office Bldg4	CG	G	W	66.2	59.6	59.6	59.5
7	Office Bldg5	CG	G	W	59.7	53.1	53	53
8	Office Bldg6	CG	G	W	66	59.4	59.3	59.3
9	Office Bldg7	CG	G	W	59.7	53.1	53.1	53
10	Office Bldg8	CG	G	W	54.8	48.5	48.2	48.1
11	Office Bldg9	CG	G	W	56	49.4	49.3	49.3
12	Office Bldg10	CG	G	W	67.3	60.7	60.6	60.6
13	Office Bldg11	CG	G	SW	65.9	59.3	59.2	59.2
14	Office Bldg12	CG	G	W	66.7	60.1	60.1	60.1
15	Office Bldg13	CG	G	W	66.9	60.3	60.2	60.2
16	Office Bldg14	CG	G	W	67	60.3	60.3	60.3
17	Office Bldg15	CG	G	W	67	60.3	60.3	60.3
18	Office Bldg16	CG	G	W	56.1	49.5	49.4	49.4
19	Office Bldg17	CG	G	W	53.4	47.1	46.7	46.6
20	Office Bldg18	CG	G	W	54.3	47.8	47.7	47.7
21	Office Bldg19	CG	G	W	58.1	51.4	51.4	51.4
22	Office Bldg20	CG	G	W	59	52.3	52.3	52.3
23	Office Bldg21	CG	G	W	67.8	61.1	61.1	61.1
24	Office Bldg22	CG	G	W	55.4	48.8	48.8	48.8
25	Residential1	RS	G		49.5	43	42.9	42.8
26	Residential2	RS	G		49.2	42.7	42.7	42.5
27	Residential3	RS	G		52.5	45.9	45.9	45.8
28	Residential4	RS	G		54.9	48.3	48.3	48.2
29	Residential5	RS	G		51.7	45.2	45.2	45
30	Residential6	RS	G		50.7	44.2	44.1	44
31	Residential7	RS	G		52.1	45.6	45.4	45.3
32	Residential8	RS	G		48.7	42.4	42.2	42
33	Residential9	RS	G		46.4	39.9	39.9	39.8
34	Residential10	RS	G		48.2	41.9	41.5	41.4
35	Residential11	RS	G		48.3	42.1	41.7	41.5
36	Residential12	RS	G		47.1	40.7	40.5	40.4
37	Residential13	RS	G		45.1	38.6	38.5	38.5
38	Residential14	RS	G		46.8	40.4	40.1	40.1
39	Residential15	RS	G		48.1	41.5	41.4	41.4
40	Residential16	RS	G		49.8	43.1	43.1	43.1
41	Wittmeier Auto Dealership	CG	G	N	58.9	52.5	52.3	52.2
42	Wittmeier Auto Shop	CG	G	N	64.9	58.3	58.3	58.3
43	Long-term measurement location (LT1)	CG	G		55.8	49.5	49.2	49.1
44	Long-term measurement location (LT2)	CG	G		71.5	67.2	64.4	64.4

	Receiver	Usage	Fl	Dir	Ldn dB(A)	Leq,d dB(A)	Leq,e dB(A)	Leq,n dB(A)
1	Hotel	CG	G		58.2	52.6	52.1	51.3
2	Krispy Kreme	CG	G	E	69.7	64.2	63.2	62.9
3	Office Bldg1	CG	G	W	70.1	63.5	63.5	63.4
4	Office Bldg2	CG	G	W	69.1	62.5	62.5	62.5
5	Office Bldg3	CG	G	W	68.6	62.0	62.0	61.9
6	Office Bldg4	CG	G	W	66.8	60.2	60.2	60.1
7	Office Bldg5	CG	G	W	60.2	53.8	53.8	53.5
8	Office Bldg6	CG	G	W	66.6	60.2	60.1	59.9
9	Office Bldg7	CG	G	W	60.5	54.0	54.0	53.7
10	Office Bldg8	CG	G	W	55.4	49.1	49.0	48.6
11	Office Bldg9	CG	G	W	56.7	50.6	50.5	49.8
12	Office Bldg10	CG	G	W	68	61.6	61.6	61.3
13	Office Bldg11	CG	G	SW	66.8	60.3	60.3	60.0
14	Office Bldg12	CG	G	W	67.6	61.1	61.1	60.9
15	Office Bldg13	CG	G	W	67.7	61.2	61.1	61.0
16	Office Bldg14	CG	G	W	67.7	61.1	61.1	61.0
17	Office Bldg15	CG	G	W	67.7	61.0	61.0	61.0
18	Office Bldg16	CG	G	W	57.4	51.0	51.0	50.7
19	Office Bldg17	CG	G	W	54.7	48.8	48.7	47.8
20	Office Bldg18	CG	G	W	55.1	48.8	48.8	48.3
21	Office Bldg19	CG	G	W	58.5	52.0	52.0	51.8
22	Office Bldg20	CG	G	W	59.4	52.8	52.8	52.7
23	Office Bldg21	CG	G	W	68.4	61.7	61.7	61.7
24	Office Bldg22	CG	G	W	56.2	49.6	49.6	49.5
25	Residential1	RS	G		51	44.5	44.5	44.3
26	Residential2	RS	G		50.7	44.3	44.2	43.9
27	Residential3	RS	G		53.7	47.3	47.2	47.0
28	Residential4	RS	G		56.1	49.6	49.5	49.4
29	Residential5	RS	G		52.7	46.3	46.3	46.0
30	Residential6	RS	G		51.5	45.1	45.1	44.8
31	Residential7	RS	G		53	46.7	46.7	46.2
32	Residential8	RS	G		49.6	43.3	43.2	42.9
33	Residential9	RS	G		47.7	41.2	41.2	41.0
34	Residential10	RS	G		49.7	43.9	43.9	42.8
35	Residential11	RS	G		49.3	43.2	43.1	42.5
36	Residential12	RS	G		48.3	42.1	42.1	41.5
37	Residential13	RS	G		46.4	40.0	40.0	39.7
38	Residential14	RS	G		47.6	41.2	41.1	40.9
39	Residential15	RS	G		48.8	42.4	42.4	42.1
40	Residential16	RS	G		50.4	43.8	43.8	43.7
41	Wittmeier Auto Dealership	CG	G	N	60.6	54.4	54.4	53.8
42	Wittmeier Auto Shop	CG	G	N	65.5	59.0	59.0	58.8

Cumulative No Project Receptor Results2

	Receiver	Usage	Fl	Dir	Ldn dB(A)	Leq,d dB(A)	Leq,e dB(A)	Leq,n dB(A)
1	Hotel	CG	G		58.5	52.3	52.3	51.7
2	Krispy Kreme	CG	G	E	69.9	63.3	63.2	63.2
3	Office Bldg1	CG	G	W	69.6	63	62.9	62.9
4	Office Bldg2	CG	G	W	68.8	62.2	62.2	62.2
5	Office Bldg3	CG	G	W	68.3	61.7	61.6	61.6
6	Office Bldg4	CG	G	W	66.6	60	59.9	59.9
7	Office Bldg5	CG	G	W	60.3	53.7	53.6	53.6
8	Office Bldg6	CG	G	W	66.5	59.9	59.8	59.8
9	Office Bldg7	CG	G	W	60.2	53.7	53.6	53.6
10	Office Bldg8	CG	G	W	55.8	49.5	49.2	49.1
11	Office Bldg9	CG	G	W	56.8	50.3	50.2	50.1
12	Office Bldg10	CG	G	W	67.9	61.3	61.2	61.2
13	Office Bldg11	CG	G	SW	66.6	59.9	59.9	59.9
14	Office Bldg12	CG	G	W	67.5	60.8	60.8	60.8
15	Office Bldg13	CG	G	W	67.7	61	61	61
16	Office Bldg14	CG	G	W	67.7	61.1	61.1	61
17	Office Bldg15	CG	G	W	67.7	61.1	61.1	61.1
18	Office Bldg16	CG	G	W	57.5	50.9	50.8	50.8
19	Office Bldg17	CG	G	W	54.7	48.3	48	48
20	Office Bldg18	CG	G	W	55.5	49	48.9	48.9
21	Office Bldg19	CG	G	W	59.1	52.5	52.5	52.4
22	Office Bldg20	CG	G	W	60	53.4	53.4	53.3
23	Office Bldg21	CG	G	W	68.5	61.8	61.8	61.8
24	Office Bldg22	CG	G	W	56.7	50.1	50.1	50.1
25	Residential1	RS	G		50.7	44.1	44.1	44
26	Residential2	RS	G		50.3	43.7	43.7	43.6
27	Residential3	RS	G		53.4	46.8	46.8	46.7
28	Residential4	RS	G		55.7	49	49	49
29	Residential5	RS	G		52.6	46.1	46	45.9
30	Residential6	RS	G		51.6	45.1	45.1	44.9
31	Residential7	RS	G		53.2	46.7	46.6	46.5
32	Residential8	RS	G		50	43.7	43.5	43.3
33	Residential9	RS	G		47.8	41.2	41.2	41.1
34	Residential10	RS	G		49.7	43.4	43.1	43
35	Residential11	RS	G		49.2	43	42.6	42.5
36	Residential12	RS	G		48.3	41.9	41.7	41.6
37	Residential13	RS	G		46.5	39.9	39.8	39.8
38	Residential14	RS	G		48.2	41.7	41.6	41.5
39	Residential15	RS	G		49.6	43	42.9	42.9
40	Residential16	RS	G		51.3	44.6	44.6	44.6
41	Wittmeier Auto Dealership	CG	G	N	60.2	53.7	53.6	53.5
42	Wittmeier Auto Shop	CG	G	N	66.3	59.7	59.6	59.6
43	Long-term measurement location (LT1)	CG	G		56.8	50.5	50.2	50.1
44	Long-term measurement location (LT2)	CG	G		72.4	67.7	65.4	65.4

	Receiver	Usage	Fl	Dir	Ldn dB(A)	Leq,d dB(A)	Leq,e dB(A)	Leq,n dB(A)
1	Hotel	CG	G		58.7	53	52.5	51.8
2	Krispy Kreme	CG	G	E	71	65.1	64.4	64.1
3	Office Bldg1	CG	G	W	70.4	63.8	63.8	63.8
4	Office Bldg2	CG	G	W	69.5	62.8	62.8	62.8
5	Office Bldg3	CG	G	W	68.9	62.3	62.3	62.2
6	Office Bldg4	CG	G	W	67.1	60.5	60.5	60.4
7	Office Bldg5	CG	G	W	60.7	54.2	54.2	53.9
8	Office Bldg6	CG	G	W	66.9	60.4	60.4	60.2
9	Office Bldg7	CG	G	W	60.8	54.4	54.4	54.1
10	Office Bldg8	CG	G	W	55.9	49.6	49.5	49.2
11	Office Bldg9	CG	G	W	57.2	51.1	51	50.4
12	Office Bldg10	CG	G	W	68.3	61.9	61.9	61.6
13	Office Bldg11	CG	G	SW	67.1	60.7	60.7	60.4
14	Office Bldg12	CG	G	W	68	61.4	61.4	61.3
15	Office Bldg13	CG	G	W	68.1	61.5	61.5	61.4
16	Office Bldg14	CG	G	W	68.1	61.5	61.5	61.4
17	Office Bldg15	CG	G	W	68.1	61.5	61.5	61.4
18	Office Bldg16	CG	G	W	58.1	51.7	51.6	51.3
19	Office Bldg17	CG	G	W	55.4	49.4	49.4	48.5
20	Office Bldg18	CG	G	W	56	49.7	49.7	49.3
21	Office Bldg19	CG	G	W	59.4	52.9	52.8	52.7
22	Office Bldg20	CG	G	W	60.3	53.6	53.6	53.6
23	Office Bldg21	CG	G	W	68.9	62.2	62.2	62.2
24	Office Bldg22	CG	G	W	57.1	50.5	50.5	50.4
25	Residential1	RS	G		51.5	45	45	44.8
26	Residential2	RS	G		51.1	44.7	44.7	44.4
27	Residential3	RS	G		54.2	47.7	47.6	47.5
28	Residential4	RS	G		56.5	50	49.9	49.8
29	Residential5	RS	G		53.3	46.8	46.8	46.6
30	Residential6	RS	G		52.1	45.7	45.6	45.4
31	Residential7	RS	G		53.7	47.4	47.3	47
32	Residential8	RS	G		50.4	44	43.9	43.6
33	Residential9	RS	G		48.4	41.9	41.8	41.7
34	Residential10	RS	G		50.3	44.4	44.4	43.5
35	Residential11	RS	G		49.8	43.7	43.6	43
36	Residential12	RS	G		49	42.7	42.7	42.2
37	Residential13	RS	G		47.1	40.6	40.6	40.4
38	Residential14	RS	G		48.6	42.1	42.1	41.9
39	Residential15	RS	G		49.8	43.3	43.3	43.1
40	Residential16	RS	G		51.5	44.9	44.9	44.8
41	Wittmeier Auto Dealership	CG	G	N	61.3	55	55	54.5
42	Wittmeier Auto Shop	CG	G	N	66.7	60.1	60.1	60