

Appendix D

Noise Calculations

Arch Coating
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 07/14/2017
Case Description: Old Town Sidewalk Infill - Architectural Coating

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Neighborhood Residence	Residential	65.0	45.0	45.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	15.0	0.0

Results

Noise Limit Exceedance (dBA)					Noise Limits (dBA)					
Night	Day	Calculated (dBA)			Day Night		Evening			
		Lmax	Leq	Evening	Lmax	Leq	Lmax	Leq	Lmax	
Equipment										
Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	
Compressor (air)	N/A	N/A	88.1	84.1	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	Total	88.1	84.1	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Construction
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 07/14/2017
Case Description: Old Town Sidewalk Infill - Construction

***** Receptor #1 *****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Neighborhood Residence	Residential	65.0	45.0	45.0

Description	Impact Devi ce	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dump Truck	No	40	76.5	76.5	15.0	0.0
Concrete Pump Truck	No	20	81.4	81.4	15.0	0.0
Compactor (ground)	No	20	83.2	83.2	15.0	0.0
Front End Loader	No	40	79.1	79.1	15.0	0.0
Backhoe	No	40	77.6	77.6	15.0	0.0

Results

		Noise Limit Exceedance (dBA)				Noise Limits (dBA)			
Night	Day	Calculated (dBA)		Day		Evening			
		Evening	Evening	Night	Night	Evening	Evening	Lmax	Lmax
Equipment	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dump Truck	N/A	N/A	86.9	82.9	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	N/A	N/A	91.9	84.9	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	N/A	N/A	93.7	86.7	N/A	N/A	N/A	N/A	N/A
Front End Loader	N/A	N/A	89.6	85.6	N/A	N/A	N/A	N/A	N/A
Backhoe	N/A	N/A	88.0	84.0	N/A	N/A	N/A	N/A	N/A
		Total	93.7	92.0	N/A	N/A	N/A	N/A	N/A

Demolition
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 07/14/2017
Case Description: Old Town Sidwalk Infill - Demolition

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Neighborhood Residence	Residential	65.0	45.0	45.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Jackhammer	Yes	20		88.9	15.0	0.0
Compressor (air)	No	40		77.7	15.0	0.0
Paver	No	50		77.2	15.0	0.0
Roller	No	20		80.0	15.0	0.0
Roller	No	20		80.0	15.0	0.0

Results

Night	Day	Calculated (dBA)		Day		Evening		Noise Limits (dBA)	
		Lmax	Leq	Night	Evening	Lmax	Leq	Lmax	
Equipment									
Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Jackhammer	N/A	N/A	99.3	92.4	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compressor (air)	N/A	N/A	88.1	84.1	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	N/A	N/A	87.7	84.7	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	N/A	N/A	90.5	83.5	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	N/A	N/A	90.5	83.5	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	Total	99.3	94.3	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Grading
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 07/14/2017
Case Description: Old Town Sidewalk Infill - Grading

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Neighborhood Residence	Residential	65.0	45.0	45.0

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Equipment		
				Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	15.0	0.0
Dozer	No	40		81.7	15.0	0.0
Excavator	No	40		80.7	15.0	0.0
Scraper	No	40		83.6	15.0	0.0

Results

Noise Limit Exceedance (dBA) Noise Limits (dBA)

Equipment	Leq	Lmax	Leq	Calculated (dBA)		Day		Evening		Lmax
				Lmax	Leq	Lmax	Leq	Lmax	Leq	
Backhoe	N/A	N/A	N/A	88.0	84.0	N/A	N/A	N/A	N/A	N/A
Dozer	N/A	N/A	N/A	92.1	88.1	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	N/A	91.2	87.2	N/A	N/A	N/A	N/A	N/A
Scraper	N/A	N/A	N/A	94.0	90.1	N/A	N/A	N/A	N/A	N/A
Total				94.0	93.9	N/A	N/A	N/A	N/A	N/A

Paving
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 07/14/2017
Case Description: Old Town Sidewalk Infill - Paving

***** Receptor #1 *****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Neighborhood Residence	Residential	65.0	45.0	45.0

Description	Impact Device	Usage (%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Paver	No	50		77.2	15.0	0.0
Roller	No	20		80.0	15.0	0.0

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

Night	Calculated (dBA)				Day Night		Evening		
	Day		Evening		Night				
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Paver			87.7	84.7	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller			90.5	83.5	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Total	90.5	87.1	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A