

APPENDIX D

Noise Technical Memo

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 9/30/2021
 Case Description: World Oil Fueling Station No. 51 Project - Demolition

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
686 Downing Avenue	Residential	60	60	50

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	7	0
Tractor	No	40	84		7	0
Dozer	No	40		81.7	7	0
Front End Loader	No	40		79.1	7	0

Results

Calculated (dBA)

Equipment	Lmax	Leq
Concrete Saw	106.7	99.7
Tractor	101.1	97.1
Dozer	98.7	94.8
Front End Loader	96.2	92.2
Total	108.5	102.8

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 9/30/2021
 Case Description: World Oil Fueling Station No. 51 Project - Site Preparation

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
686 Downing Avenue	Residential	60	60	50

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Grader	No	40	85		7	0
Tractor	No	40	84		7	0

Results

Equipment	Calculated (dBA)	
	Lmax	Leq
Grader	102.1	98.1
Tractor	101.1	97.1
Total	104.6	100.6

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 9/30/2021

Case Description: World Oil Fueling Station No. 51 Project - Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
686 Downing Avenue	Residential	60	60	50

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Grader	No	40	85		7	0
Tractor	No	40	84		7	0
Dozer	No	40		81.7	7	0

Results

Calculated (dBA)

Equipment	Lmax	Leq
Grader	102.1	98.1
Tractor	101.1	97.1
Dozer	98.7	94.8
Total	105.6	101.6

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 9/30/2021
 Case Description: World Oil Fueling Station No. 51 Project - Building Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
686 Downing Avenue	Residential	60	60	50

Description	Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	7	0
Gradall	No	40		83.4	7	0
Gradall	No	40		83.4	7	0
Front End Loader	No	40		79.1	7	0
Tractor	No	40	84		7	0

Results

Calculated (dBA)

Equipment	Lmax	Leq
Crane	97.6	89.7
Gradall	100.5	96.5
Gradall	100.5	96.5
Front End Loader	96.2	92.2
Tractor	101.1	97.1
Total	106.6	102.2

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 9/30/2021
 Case Description: World Oil Fueling Station No. 51 Project - Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
686 Downing Avenue	Residential	60	60	50

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Paver	No	50		77.2	7	0
Roller	No	20		80	7	0
Tractor	No	40	84		7	0
Concrete Mixer Truck	No	40		78.8	7	0
Concrete Mixer Truck	No	40		78.8	7	0
Concrete Mixer Truck	No	40		78.8	7	0
Concrete Mixer Truck	No	40		78.8	7	0

Results

Calculated (dBA)

Equipment	Lmax	Leq
Paver	94.3	91.3
Roller	97.1	90.1
Tractor	101.1	97.1
Concrete Mixer Truck	95.9	91.9
Concrete Mixer Truck	95.9	91.9
Concrete Mixer Truck	95.9	91.9
Concrete Mixer Truck	95.9	91.9
Total	105.6	101.4

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 9/30/2021

Case Description: World Oil Fueling Station No. 51 Project - Architectural Coating

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
686 Downing Avenue	Residential	60	60	50

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	7	0

Results

Equipment	Calculated (dBA)	
	Lmax	Leq
Compressor (air)	94.7	90.8
Total	94.7	90.8