

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 8/28/2024

Case Desc: Lynwood Park Stormwater Capture Project Construction (Average)

---- Receptor #1 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
St Francis	Residential			

Description	Device	Impact Usage (%)	Equipment Spec		Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
			Lmax (dBA)	Lmax (dBA)			
Crane	No	16	80.6	80.6	364	0	
Crane	No	16	80.6	80.6	364	0	
Excavator	No	40	80.7	80.7	364	0	
Excavator	No	40	80.7	80.7	364	0	
Front End Loader	No	40	79.1	79.1	364	0	
Front End Loader	No	40	79.1	79.1	364	0	
Front End Loader	No	40	79.1	79.1	364	0	
Impact Pile Driver	Yes	20	101.3	101.3	364	0	

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)				
	Lmax	Leq	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Crane	63.3	55.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	63.3	55.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	63.5	59.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	63.5	59.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61.9	57.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61.9	57.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61.9	57.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Impact Pile Driver	84	77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	84	77.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
Holser Mid	Residential			

Description	Device	Impact Usage (%)	Equipment Spec		Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
			Lmax (dBA)	Lmax (dBA)			
Crane	No	16	80.6	80.6	250	0	
Crane	No	16	80.6	80.6	250	0	
Excavator	No	40	80.7	80.7	250	0	
Excavator	No	40	80.7	80.7	250	0	
Front End Loader	No	40	79.1	79.1	250	0	
Front End Loader	No	40	79.1	79.1	250	0	
Front End Loader	No	40	79.1	79.1	250	0	
Impact Pile Driver	Yes	20	101.3	101.3	250	0	

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)				
	Lmax	Leq	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Crane	66.6	58.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	66.6	58.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	66.7	62.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	66.7	62.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	65.1	61.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	65.1	61.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	65.1	61.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Impact Pile Driver	87.3	80.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	87.3	80.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
Lynwood U	Residential			

Description	Device	Impact Usage (%)	Equipment Spec		Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
			Lmax (dBA)	Lmax (dBA)			
Crane	No	16	80.6	80.6	790	0	
Crane	No	16	80.6	80.6	790	0	
Excavator	No	40	80.7	80.7	790	0	
Excavator	No	40	80.7	80.7	790	0	
Front End Loader	No	40	79.1	79.1	790	0	
Front End Loader	No	40	79.1	79.1	790	0	
Front End Loader	No	40	79.1	79.1	790	0	
Impact Pile Driver	Yes	20	101.3	101.3	790	0	

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)				
	Lmax	Leq	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Crane	56.6	48.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	56.6	48.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	56.7	52.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	56.7	52.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	55.1	51.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	55.1	51.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	55.1	51.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Impact Pile Driver	77.3	70.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	77.3	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
Residential	Residential			

Description	Device	Impact Usage (%)	Equipment Spec		Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
			Lmax (dBA)	Lmax (dBA)			
Crane	No	16	80.6	80.6	1058	0	
Crane	No	16	80.6	80.6	1058	0	
Excavator	No	40	80.7	80.7	1058	0	
Excavator	No	40	80.7	80.7	1058	0	
Front End Loader	No	40	79.1	79.1	1058	0	
Front End Loader	No	40	79.1	79.1	1058	0	
Front End Loader	No	40	79.1	79.1	1058	0	
Impact Pile Driver	Yes	20	101.3	101.3	1058	0	

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)				
	Lmax	Leq	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Crane	54	46.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	54	46.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	54.2	50.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	54.2	50.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	52.6	48.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	52.6	48.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	52.6	48.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Impact Pile Driver	74.8	67.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	74.8	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Construction Vibration

Distance	Receptors															
	North				South				East				West			
	Max (ft) 95				Max (ft) 175				Max (ft) 165				Max (ft) 118			
Equipment	PPVvel (@ 25 ft, in/sec)	PPV (in/sec)	Level (@ 25 ft, VdB)	Lv (VdB)	PPVvel (@ 25 ft, in/sec)	PPV (in/sec)	Level (@ 25 ft, VdB)	Lv (VdB)	PPVvel (@ 25 ft, in/sec)	PPV (in/sec)	Level (@ 25 ft, VdB)	Lv (VdB)	PPVvel (@ 25 ft, in/sec)	PPV (in/sec)	Level (@ 25 ft, VdB)	Lv (VdB)
Vibratory Roller	0.21	0.028	94	77	0.21	0.011	94	69	0.21	0.024	94	75	0.21	0.020	94	74
Hoe Ram	0.089	0.012	87	70	0.089	0.005	87	62	0.089	0.010	87	68	0.089	0.009	87	67
Large Bulldozer	0.089	0.012	87	70	0.089	0.005	87	62	0.089	0.010	87	68	0.089	0.009	87	67
Caisson Drilling	0.089	0.012	87	70	0.089	0.005	87	62	0.089	0.010	87	68	0.089	0.009	87	67
Loaded Trucks	0.076	0.010	86	69	0.076	0.004	86	61	0.076	0.009	86	67	0.076	0.007	86	66
Jackhammer	0.035	0.005	79	62	0.035	0.002	79	54	0.035	0.004	79	60	0.035	0.003	79	59
Small Bulldozer	0.003	0.000	58	41	0.003	0.000	58	33	0.003	0.000	58	39	0.003	0.000	58	38
Maximum Vibration Levels		0.028				0.011				0.024				0.020		
Vibration Damage Threshold		0.30				0.30				0.30				0.30		
Vibration Annoyance Threshold		0.04				0.04				0.04				0.04		
Exceeds Vibration Damage Threshold?		No				No				No				No		
Exceeds Vibration Annoyance Threshold?		No				No				No				No		

Structure and Condition

Older residential structures

Human Response

Distinctly perceptible

Source: FTA 2018

Pile Driver Vibration

	Receptors															
	North				South				East				West			
	Max (ft) 71				Max (ft) 175				Max (ft) 245				Max (ft) 825			
Distance	PPVref (@ 25 ft, in/sec)	PPV (in/sec)	Lvref (@ 25 ft, VdB)	Lv (VdB)	PPVref (@ 25 ft, in/sec)	PPV (in/sec)	Lvref (@ 25 ft, VdB)	Lv (VdB)	PPVref (@ 25 ft, in/sec)	PPV (in/sec)	Lvref (@ 25 ft, VdB)	Lv (VdB)	PPVref (@ 25 ft, in/sec)	PPV (in/sec)	Lvref (@ 25 ft, VdB)	Lv (VdB)
Equipment																
Pile Driver (impact) - Upper Range	1.518	0.317	112	98	1.518	0.082	112	87	1.518	0.049	112	82	1.518	0.008	112	66
Pile Driver (impact) - Typical	0.644	0.135	104	90	0.644	0.035	104	79	0.644	0.021	104	74	0.644	0.003	104	58
Pile Driver (sonic) - Upper Range	0.734	0.153	105	91	0.734	0.040	105	80	0.734	0.024	105	75	0.734	0.004	105	59
Pile Driver (sonic) - Typical	0.17	0.036	93	79	0.17	0.009	93	68	0.17	0.006	93	63	0.17	0.001	93	47
Maximum Vibration Levels		0.317				0.082				0.049				0.008		
Vibration Damage Threshold		0.30				0.30				0.30				0.30		
Vibration Annoyance Threshold		0.04				0.04				0.04				0.04		
Exceeds Vibration Damage Threshold?		Yes				No				No				No		
Exceeds Vibration Annoyance Threshold?		Yes				Yes				Yes				No		

Structure and Condition

Older residential structures

Human Response

Distinctly perceptible

Source: FTA 2018

Roadway Construction Noise Model (RCNM), Version 1.1

Report date 8/21/2024

Case Desc: Lynwood Park Stormwater Capture Project Demolition (Average)

---- Receptor #1 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
St Francis	Residential			

Description	Impact Device	Usage(%)	Equipment Spec		Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
			Lmax (dBA)	Lmax (dBA)			
Excavator	No	40	40	80.7	565	0	
Front End Loader	No	40	40	79.1	565	0	
Front End Loader	No	40	40	79.1	565	0	
Dozer	No	40	40	81.7	565	0	
All Other Equipment > ε	No	50	85	565	0		
All Other Equipment > ε	No	50	85	565	0		

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day		Evening		Night	Day		Evening		Night	Leq	
Excavator	59.6	55.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	58	54.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	58	54.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	60.6	56.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > ε	63.9	60.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > ε	63.9	60.9	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	63.9	65.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
Holser Midi	Residential			

Description	Impact Device	Usage(%)	Equipment Spec		Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
			Lmax (dBA)	Lmax (dBA)			
Excavator	No	40	40	80.7	210	0	
Front End Loader	No	40	40	79.1	210	0	
Front End Loader	No	40	40	79.1	210	0	
Dozer	No	40	40	81.7	210	0	
All Other Equipment > ε	No	50	85	210	0		
All Other Equipment > ε	No	50	85	210	0		

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day		Evening		Night	Day		Evening		Night	Leq	
Excavator	68.2	64.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	66.6	62.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	66.6	62.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	69.2	65.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > ε	72.5	69.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > ε	72.5	69.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	72.5	74.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
Lynwood Li	Residential			

Description	Impact Device	Usage(%)	Equipment Spec		Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
			Lmax (dBA)	Lmax (dBA)			
Excavator	No	40	40	80.7	78	0	
Front End Loader	No	40	40	79.1	78	0	
Front End Loader	No	40	40	79.1	78	0	
Dozer	No	40	40	81.7	78	0	
All Other Equipment > ε	No	50	85	78	0		
All Other Equipment > ε	No	50	85	78	0		

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day		Evening		Night	Day		Evening		Night	Leq	
Excavator	76.8	72.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Front End Loader	75.2	71.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Front End Loader	75.2	71.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dozer	77.8	73.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
All Other Equipment > ε	81.1	78.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
All Other Equipment > ε	81.1	78.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total	81.1	83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
Residential	Residential			

Description	Impact Device	Usage(%)	Equipment Spec		Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
			Lmax (dBA)	Lmax (dBA)			
Excavator	No	40	40	80.7	1394	0	
Front End Loader	No	40	40	79.1	1394	0	
Front End Loader	No	40	40	79.1	1394	0	
Dozer	No	40	40	81.7	1394	0	
All Other Equipment > ε	No	50	85	1394	0		
All Other Equipment > ε	No	50	85	1394	0		

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day		Evening		Night	Day		Evening		Night	Leq	
Excavator	51.8	47.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Front End Loader	50.2	46.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Front End Loader	50.2	46.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dozer	52.8	48.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
All Other Equipment > ε	56.1	53.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
All Other Equipment > ε	56.1	53.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total	56.1	58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

*Calculated Lmax is the Loudest value.

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Report date: 8/21/2024

Case Desc: Lynwood Park Stormwater Capture Project Demolition (Average)

---- Receptor #1 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
St Francis	Residential			

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)	
			Spec Lmax (dBA)	Actual Lmax (dBA)			
Excavator	No	40			80.7	661	0
Front End Loader	No	40			79.1	661	0
Front End Loader	No	40			79.1	661	0
Dozer	No	40			81.7	661	0
All Other Equipment > ε	No	50	85			661	0
All Other Equipment > ε	No	50	85			661	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Excavator	58.3	54.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	56.7	52.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	56.7	52.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	59.2	55.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > ε	62.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > ε	62.6	59.6	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	62.6	64.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
Holser Midl	Residential			

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)	
			Spec Lmax (dBA)	Actual Lmax (dBA)			
Excavator	No	40			80.7	353	0
Front End Loader	No	40			79.1	353	0
Front End Loader	No	40			79.1	353	0
Dozer	No	40			81.7	353	0
All Other Equipment > ε	No	50	85			353	0
All Other Equipment > ε	No	50	85			353	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Excavator	63.7	59.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	62.1	58.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	62.1	58.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	64.7	60.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > ε	68	65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > ε	68	65	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	68	69.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
Lynwood Li	Residential			

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)	
			Spec Lmax (dBA)	Actual Lmax (dBA)			
Excavator	No	40			80.7	340	0
Front End Loader	No	40			79.1	340	0
Front End Loader	No	40			79.1	340	0
Dozer	No	40			81.7	340	0
All Other Equipment > ε	No	50	85			340	0
All Other Equipment > ε	No	50	85			340	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Excavator	64.1	60.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	62.5	58.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	62.5	58.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	65	61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > ε	68.3	65.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > ε	68.3	65.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	68.3	70.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
Residential	Residential			

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)	
			Spec Lmax (dBA)	Actual Lmax (dBA)			
Excavator	No	40			80.7	1487	0
Front End Loader	No	40			79.1	1487	0
Front End Loader	No	40			79.1	1487	0
Dozer	No	40			81.7	1487	0
All Other Equipment > ε	No	50	85			1487	0
All Other Equipment > ε	No	50	85			1487	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Excavator	51.2	47.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	49.6	45.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	49.6	45.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	52.2	48.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > ε	55.5	52.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > ε	55.5	52.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	55.5	57.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date 8/28/2024

Case Desci Lynwood Park Stormwater Capture Project Grading (Average)

---- Receptor #1 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor Land Use		60	60	60
St Francis I Residential				

Description	Impact Device	Usage(%)	Equipment Spec		Actual Lmax (dBA)	Receptor Lmax (dBA)	Distance (feet)	Estimated Shielding (dBA)
			Lmax	Lmax				
Front End Loader	No	40			79.1	364	0	
Excavator	No	40			80.7	364	0	
Excavator	No	40			80.7	364	0	
Grader	No	40	85		364	0		
Grader	No	40	85		364	0		

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Front End Loader	61.9	57.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	63.5	59.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	63.5	59.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	67.8	63.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	67.8	63.8	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	67.8	63.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor Land Use		60	60	60
Holser Midi Residential				

Description	Impact Device	Usage(%)	Equipment Spec		Actual Lmax (dBA)	Receptor Lmax (dBA)	Distance (feet)	Estimated Shielding (dBA)
			Lmax	Lmax				
Front End Loader	No	40			79.1	250	0	
Excavator	No	40			80.7	250	0	
Excavator	No	40			80.7	250	0	
Grader	No	40	85		250	0		
Grader	No	40	85		250	0		

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Front End Loader	65.1	61.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	66.7	62.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	66.7	62.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	71	67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	71	67	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	71	67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor Land Use		60	60	60
Lynwood LI Residential				

Description	Impact Device	Usage(%)	Equipment Spec		Actual Lmax (dBA)	Receptor Lmax (dBA)	Distance (feet)	Estimated Shielding (dBA)
			Lmax	Lmax				
Front End Loader	No	40			79.1	790	0	
Excavator	No	40			80.7	790	0	
Excavator	No	40			80.7	790	0	
Grader	No	40	85		790	0		
Grader	No	40	85		790	0		

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Front End Loader	55.1	51.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	56.7	52.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	56.7	52.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	61	57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	61	57	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	61	57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor Land Use		60	60	60
Residential Residential				

Description	Impact Device	Usage(%)	Equipment Spec		Actual Lmax (dBA)	Receptor Lmax (dBA)	Distance (feet)	Estimated Shielding (dBA)
			Lmax	Lmax				
Front End Loader	No	40			79.1	1058	0	
Excavator	No	40			80.7	1058	0	
Excavator	No	40			80.7	1058	0	
Grader	No	40	85		1058	0		
Grader	No	40	85		1058	0		

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Front End Loader	52.6	48.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	54.2	50.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	54.2	50.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	58.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	58.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	58.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 8/22/2024

Case Desc: Lynwood Park Stormwater Capture Project Paving

---- Receptor #1 ----

		Baselines (dBA)		
Descriptor	Land Use	Daytime	Evening	Night
St Francis	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50	50	77.2	565	0
Roller	No	20	20	80	565	0
Compactor (ground)	No	20	20	83.2	565	0

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Paver	56.2	53.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	58.9	51.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	62.2	55.2	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	62.2	58.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Descriptor	Land Use	Daytime	Evening	Night
Holser Mid	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50	50	77.2	210	0
Roller	No	20	20	80	210	0
Compactor (ground)	No	20	20	83.2	210	0

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Paver	64.8	61.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	67.5	60.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	70.8	63.8	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	70.8	67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Descriptor	Land Use	Daytime	Evening	Night
Lynwood Li	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50	50	77.2	78	0
Roller	No	20	20	80	78	0
Compactor (ground)	No	20	20	83.2	78	0

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Paver	73.4	70.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	76.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	79.4	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	79.4	75.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Descriptor	Land Use	Daytime	Evening	Night
Residential	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50	50	77.2	1394	0
Roller	No	20	20	80	1394	0
Compactor (ground)	No	20	20	83.2	1394	0

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Paver	48.3	45.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	51.1	44.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	54.3	47.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	54.3	50.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 8/22/2024

Case Desc: Lynwood Park Stormwater Capture Project Paving (Average)

---- Receptor #1 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
St Francis	Residential			

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50	77.2	661	0	
Roller	No	20	80	661	0	
Compactor (ground)	No	20	83.2	661	0	

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Paver	54.8	51.8	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	57.6	50.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	60.8	53.8	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	60.8	57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
Holser Mid	Residential			

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50	77.2	353	0	
Roller	No	20	80	353	0	
Compactor (ground)	No	20	83.2	353	0	

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Paver	60.2	57.2	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	63	56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	66.3	59.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.3	62.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
Lynwood Li	Residential			

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50	77.2	340	0	
Roller	No	20	80	340	0	
Compactor (ground)	No	20	83.2	340	0	

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Paver	60.6	57.6	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	63.3	56.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	66.6	59.6	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	66.6	62.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Baselines (dBA)		Daytime	Evening	Night
Descriptor	Land Use	60	60	60
Residential	Residential			

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50	77.2	1487	0	
Roller	No	20	80	1487	0	
Compactor (ground)	No	20	83.2	1487	0	

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Paver	47.8	44.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	50.5	43.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	53.8	46.8	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	53.8	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Phase	North	661 ft	South	353 ft	East	340 ft	West	1,487 ft
Demolition								
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	58.3	54.3	63.7	59.8	64.1	60.1	51.2	47.3
Front End Loader	56.7	52.7	62.1	58.2	62.5	58.5	49.6	45.7
Front End Loader	56.7	52.7	62.1	58.2	62.5	58.5	49.6	45.7
Dozer	59.2	55.3	64.7	60.7	65	61	52.2	48.2
All Other Equipment > 5 HP	62.6	59.6	68	65	68.3	65.3	55.5	52.5
All Other Equipment > 5 HP	62.6	59.6	68	65	68.3	65.3	55.5	52.5
Total	63	65	68	70	68	70	56	57
Phase	North	364 ft	South	250 ft	East	790 ft	West	1,058 ft
Site Preparation								
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Front End Loader	61.9	57.9	65.1	61.2	55.1	51.2	52.6	48.6
Front End Loader	61.9	57.9	65.1	61.2	55.1	51.2	52.6	48.6
Dozer	64.4	60.4	67.7	63.7	57.7	53.7	55.2	51.2
All Other Equipment > 5 HP	67.8	64.7	71	68	61	58	58.5	55.5
Total	68	67	71	71	61	61	59	58
Phase	North	364 ft	South	250 ft	East	790 ft	West	1,058 ft
Grading								
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Front End Loader	61.9	57.9	65.1	61.2	55.1	51.2	52.6	48.6
Excavator	63.5	59.5	66.7	62.8	56.7	52.8	54.2	50.2
Excavator	63.5	59.5	66.7	62.8	56.7	52.8	54.2	50.2
Grader	67.8	63.8	71	67	61	57	58.5	54.5
Grader	67.8	63.8	71	67	61	57	58.5	54.5
Impact Pile Driver	84	77	87.3	80.3	77.3	70.3	74.8	67.8
Total	84	78	87	81	77	71	75	68
Phase	North	364 ft	South	250 ft	East	790 ft	West	1,058 ft
Construction								
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	63.3	55.3	66.6	58.6	56.6	48.6	54	46.1
Crane	63.3	55.3	66.6	58.6	56.6	48.6	54	46.1
Excavator	63.5	59.5	66.7	62.8	56.7	52.8	54.2	50.2
Excavator	63.5	59.5	66.7	62.8	56.7	52.8	54.2	50.2
Front End Loader	61.9	57.9	65.1	61.2	55.1	51.2	52.6	48.6
Front End Loader	61.9	57.9	65.1	61.2	55.1	51.2	52.6	48.6
Front End Loader	61.9	57.9	65.1	61.2	54.3	50.3	52.6	48.6
Total	64	66	67	70	57	60	54	57
Phase	North	661 ft	South	353 ft	East	340 ft	West	1,487 ft
Paving								
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	54.8	51.8	60.2	57.2	60.6	57.6	47.8	44.7
Roller	57.6	50.6	63	56	63.3	56.4	50.5	43.5
Compactor (ground)	60.8	53.8	66.3	59.3	66.6	59.6	53.8	46.8
Total	61	57	66	63	67	63	54	50

Phase	Leq			
	North	South	East	West
Demolition	65	70	70	57
Site Preparation	67	71	61	58
Grading	78	81	71	68
Construction	66	70	60	57
Paving	57	63	63	50
0				
Highest	78	81	71	68

North	South	East	West	
	6.3	13.8	6.4	1.5
	9.1	14.4	-3.3	2.1
	19.4	24.8	7.1	12.4
	8.1	13.5	-4.3	1.2
	-1.2	6.4	-1	-5.9

Phase	North	565 ft	South	210 ft	East	78 ft	West	1,394 ft
Demolition								
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	59.6	55.7	68.2	64.3	76.8	72.9	51.8	47.8
Front End Loader	58	54.1	66.6	62.7	75.2	71.3	50.2	46.2
Front End Loader	58	54.1	66.6	62.7	75.2	71.3	50.2	46.2
Dozer	60.6	56.6	69.2	65.2	77.8	73.8	52.8	48.8
All Other Equipment > 5 HP	63.9	60.9	72.5	69.5	81.1	78.1	56.1	53.1
All Other Equipment > 5 HP	63.9	60.9	72.5	69.5	81.1	78.1	56.1	53.1
Total	64	66	73	74	81	83	56	58
Phase	North	157 ft	South	162 ft	East	531 ft	West	805 ft
Site Preparation								
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Front End Loader	69.2	65.2	68.9	64.9	58.6	54.6	55	51
Front End Loader	69.2	65.2	68.9	64.9	58.6	54.6	55	51
Dozer	71.7	67.8	71.5	67.5	61.1	57.2	57.5	53.6
All Other Equipment > 5 HP	75.1	72.1	74.8	71.8	64.5	61.5	60.9	57.9
Total	75	75	75	74	65	64	61	60
Phase	North	157 ft	South	162 ft	East	531 ft	West	805 ft
Grading								
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Front End Loader	69.2	65.2	68.9	64.9	58.6	54.6	55	51
Excavator	70.8	66.8	70.5	66.5	60.2	56.2	56.6	52.6
Excavator	70.8	66.8	70.5	66.5	60.2	56.2	56.6	52.6
Grader	75.1	71.1	74.8	70.8	64.5	60.5	60.9	56.9
Grader	75.1	71.1	74.8	70.8	64.5	60.5	60.9	56.9
Impact Pile Driver	91.3	84.3	91.1	84.1	80.7	73.8	77.1	70.1
Total	91	85	91	85	81	74	77	71
Phase	North	157 ft	South	162 ft	East	531 ft	West	805 ft
Construction								
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	70.6	62.7	70.3	62.4	60	52.1	56.4	48.5
Crane	70.6	62.7	70.3	62.4	60	52.1	56.4	48.5
Excavator	70.8	66.8	70.5	66.5	60.2	56.2	56.6	52.6
Excavator	70.8	66.8	70.5	66.5	60.2	56.2	56.6	52.6
Front End Loader	69.2	65.2	68.9	64.9	58.6	54.6	55	51
Front End Loader	69.2	65.2	68.9	64.9	58.6	54.6	55	51
Front End Loader	69.2	65.2	68.9	64.9	58.6	54.6	55	51
Total	71	74	71	73	60	63	57	59
Phase	North	565 ft	South	210 ft	East	78 ft	West	1,394 ft
Paving								
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	56.2	53.1	64.8	61.7	73.4	70.3	48.3	45.3
Roller	58.9	51.9	67.5	60.5	76.1	69.1	51.1	44.1
Compactor (ground)	62.2	55.2	70.8	63.8	79.4	72.4	54.3	47.3
Total	62	58	71	67	79	76	54	51

Phase	Leq			
	North	South	East	West
Demolition	66	74	83	58
Site Preparation	75	74	64	60
Grading	85	85	74	71
Construction	74	73	63	59
Paving	58	67	76	51
Highest	85	85	83	71

North	South	East	West	
	7.6	18.3	19.2	2.1
	16.4	18.2	0.2	4.5
	26.7	28.5	10.5	14.8
	15.4	17.3	-0.7	3.5
	0.2	10.9	11.8	-5.3

Roadway Construction Noise Model (RCNM), Version 1.1

Report date 8/21/2024

Case Descr Lynwood Park Stormwater Capture Project Site Preparation

---- Receptor #1 ----

Baselines (dBA)		Daytime	Evening	Night
Description Land Use		60	60	60
St Francis Residential				

Equipment		Spec	Actual	Receptor	Estimated	
Description	Impact Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Front End Loader	No	40		79.1	157	0
Front End Loader	No	40		79.1	157	0
Dozer	No	40		81.7	157	0
All Other Equipment > 5	No	50	85		157	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Front End Loader	69.2	65.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	69.2	65.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	71.7	67.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5	75.1	72.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	75.1	74.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Baselines (dBA)		Daytime	Evening	Night
Description Land Use		60	60	60
Holser Midt Residential				

Equipment		Spec	Actual	Receptor	Estimated	
Description	Impact Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Front End Loader	No	40		79.1	162	0
Front End Loader	No	40		79.1	162	0
Dozer	No	40		81.7	162	0
All Other Equipment > 5	No	50	85		162	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Front End Loader	68.9	64.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	68.9	64.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	71.5	67.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5	74.8	71.8	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	74.8	74.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)		Daytime	Evening	Night
Description Land Use		60	60	60
Lynwood LI Residential				

Equipment		Spec	Actual	Receptor	Estimated	
Description	Impact Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Front End Loader	No	40		79.1	531	0
Front End Loader	No	40		79.1	531	0
Dozer	No	40		81.7	531	0
All Other Equipment > 5	No	50	85		531	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Front End Loader	58.6	54.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	58.6	54.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	61.1	57.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5	64.5	61.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	64.5	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Baselines (dBA)		Daytime	Evening	Night
Description Land Use		60	60	60
Residential Residential				

Equipment		Spec	Actual	Receptor	Estimated	
Description	Impact Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Front End Loader	No	40		79.1	805	0
Front End Loader	No	40		79.1	805	0
Dozer	No	40		81.7	805	0
All Other Equipment > 5	No	50	85		805	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Front End Loader	55	51	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	55	51	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	57.5	53.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5	60.9	57.9	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	60.9	60.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date 8/21/2024

Case Descr Lynwood Park Stormwater Capture Project Site Preparation (Average)

---- Receptor #1 ----

		Baselines (dBA)		
Descriptor Land Use	Daytime	Evening	Night	
St Francis Residential	60	60	60	

		Equipment				
Description	Impact Device	Usage(%)	Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Front End Loader	No	40		79.1	364	0
Front End Loader	No	40		79.1	364	0
Dozer	No	40		81.7	364	0
All Other Equipment > 5 No		50	85		364	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Front End Loader	61.9	57.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61.9	57.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	64.4	60.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5	67.8	64.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	67.8	67.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Descriptor Land Use	Daytime	Evening	Night	
Holser Midt Residential	60	60	60	

		Equipment				
Description	Impact Device	Usage(%)	Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Front End Loader	No	40		79.1	250	0
Front End Loader	No	40		79.1	250	0
Dozer	No	40		81.7	250	0
All Other Equipment > 5 No		50	85		250	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Front End Loader	65.1	61.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	65.1	61.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	67.7	63.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5	71	68	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	71	70.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Descriptor Land Use	Daytime	Evening	Night	
Lynwood LI Residential	60	60	60	

		Equipment				
Description	Impact Device	Usage(%)	Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Front End Loader	No	40		79.1	790	0
Front End Loader	No	40		79.1	790	0
Dozer	No	40		81.7	790	0
All Other Equipment > 5 No		50	85		790	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Front End Loader	55.1	51.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	55.1	51.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	57.7	53.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5	61	58	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	61	60.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Descriptor Land Use	Daytime	Evening	Night	
Residential Residential	60	60	60	

		Equipment				
Description	Impact Device	Usage(%)	Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Front End Loader	No	40		79.1	1058	0
Front End Loader	No	40		79.1	1058	0
Dozer	No	40		81.7	1058	0
All Other Equipment > 5 No		50	85		1058	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Front End Loader	52.6	48.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	52.6	48.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	55.2	51.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5	58.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	58.5	58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.