

**Monitoring Location: Site 1**  
**Monitoring Date: 7/12/2022**

**Monitoring Period**

<b>Time</b>	<b>LAeq</b>	<b>LASmax</b>	<b>LASmin</b>
11:21:10	63.0	67.1	61.0
11:22:10	63.4	65.9	60.9
11:23:10	65.1	69.4	61.5
11:24:10	63.1	66.8	61.0
11:25:10	72.2	75.1	63.1
11:26:10	71.6	75.1	62.6
11:27:10	62.5	64.7	60.4
11:28:10	66.5	72.3	61.3
11:29:10	64.0	68.5	61.2
11:30:10	63.4	66.1	60.8
11:31:10	64.4	68.3	62.2
11:32:10	63.2	65.6	60.8
11:33:10	63.8	66.2	62.2
11:34:10	62.2	65.4	60.6
11:35:10	64.3	67.2	61.6
11:36:10	62.1	64.7	60.7

**15-minute LAeq**

**66.2**

**Monitoring Location: Site 2**  
**Monitoring Date: 7/12/2022**

**Monitoring Period**

<b>Time</b>	<b>LAeq</b>	<b>LASmax</b>	<b>LASmin</b>
10:16:15	57.6	60.8	53.3
10:17:15	56.0	59.9	52.9
10:18:15	56.3	61.5	52.7
10:19:15	56.2	59.0	52.2
10:20:15	54.3	57.7	50.8
10:21:15	53.7	57.2	50.3
10:22:15	55.9	59.9	52.3
10:23:15	55.0	59.7	52.0
10:24:15	55.2	56.7	53.4
10:25:15	57.6	61.9	54.0
10:26:15	58.0	62.5	53.7
10:27:15	59.4	63.9	54.6
10:28:15	57.4	60.9	53.7
10:29:15	56.2	60.3	53.4
10:30:15	55.1	60.0	52.5
10:31:15	57.5	60.0	58.4



**15-minute LAeq**

**56.6**

**Monitoring Location: Site 3**  
**Monitoring Date: 7/12/2022**

**Monitoring Period**

<b>Time</b>	<b>LAeq</b>	<b>LASmax</b>	<b>LASmin</b>
10:59:15	57.1	62.8	49.0
11:00:15	69.3	81.7	49.8
11:01:15	61.7	74.7	48.7
11:02:15	57.8	63.5	49.7
11:03:15	63.4	72.8	51.5
11:04:15	59.7	70.2	50.5
11:05:15	64.9	75.8	50.2
11:06:15	63.1	74.0	52.5
11:07:15	60.2	67.4	50.4
11:08:15	61.7	66.9	55.1
11:09:15	60.4	66.1	53.0
11:10:15	66.1	71.9	53.6
11:11:15	58.6	68.1	50.8
11:12:15	61.4	71.2	51.9
11:13:15	66.4	76.1	52.0
11:14:15	63.5	62.7	61.9



**15-minute LAeq**

**63.5**

**Monitoring Location: Site 4**  
**Monitoring Date: 7/12/2022**

**Monitoring Period**

<b>Time</b>	<b>LAeq</b>	<b>LASmax</b>	<b>LASmin</b>
10:38:02	59.8	67.9	52.1
10:39:02	57.6	63.3	51.3
10:40:02	56.7	63.3	50.5
10:41:02	57.8	61.8	49.4
10:42:02	58.0	64.0	50.2
10:43:02	56.7	64.2	49.8
10:44:02	57.8	62.8	51.5
10:45:02	56.1	62.2	50.8
10:46:02	58.3	63.6	49.8
10:47:02	56.9	60.7	52.5
10:48:02	59.7	70.0	49.7
10:49:02	54.4	59.0	50.6
10:50:02	60.2	63.2	56.3
10:51:02	57.9	60.8	53.1
10:52:02	58.8	67.7	52.9
10:53:02	62.4	64.4	63.6

**15-minute LAeq**

**58.5**

**Monitoring Location: Site 5**  
**Monitoring Date: 7/12/2022**

**Monitoring Period**

<b>Time</b>	<b>LAeq</b>	<b>LASmax</b>	<b>LASmin</b>
11:42:01	69.5	74.4	65.2
11:43:01	66.3	69.4	63.2
11:44:01	71.3	75.5	65.5
11:45:01	69.8	74.6	64.6
11:46:01	69.5	73.4	63.9
11:47:01	66.6	69.9	63.3
11:48:01	69.0	75.4	63.7
11:49:01	71.0	76.9	62.8
11:50:01	67.6	71.2	62.1
11:51:01	70.5	76.0	64.7
11:52:01	69.2	75.2	64.1
11:53:01	71.1	81.6	63.5
11:54:01	69.7	73.6	65.0
11:55:01	68.8	75.9	61.5
11:56:01	69.8	77.9	64.5
11:57:01	71.3	72.0	70.5



**15-minute LAeq**

**69.7**

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/12/2022

Case Description: Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 2	Residential	56.6	56.6	56.6

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Grader	No	40	85		100	5
Dozer	No	40		81.7	100	5
Tractor	No	40	84		100	5
Tractor	No	40	84		100	5

Calculated (dBA)

Equipment	*Lmax	Leq
Grader	74	70
Dozer	70.6	66.7
Tractor	73	69
Tractor	73	69
<b>Total</b>	<b>74</b>	<b>74.8</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 3	Residential	63.5	63.5	63.5

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Grader	No	40	85		950	5
Dozer	No	40		81.7	950	5
Tractor	No	40	84		950	5
Tractor	No	40	84		950	5

Calculated (dBA)

Equipment	*Lmax	Leq
Grader	54.4	50.4
Dozer	51.1	47.1
Tractor	53.4	49.4
Tractor	53.4	49.4
<b>Total</b>	<b>54.4</b>	<b>55.3</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 4	Residential	58.5	58.5	58.5

Description	Device	Impact	Usage(%)	Equipment			
				Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No		40	85		750	5
Dozer	No		40		81.7	750	5
Tractor	No		40	84		750	5
Tractor	No		40	84		750	5

Calculated (dBA)

Equipment	*Lmax	Leq
Grader	56.5	52.5
Dozer	53.1	49.2
Tractor	55.5	51.5
Tractor	55.5	51.5
Total	56.5	57.3

\*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 5	Residential	69.7	69.7	69.7

Description	Device	Impact	Usage(%)	Equipment			
				Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No		40	85		835	0
Dozer	No		40		81.7	835	0
Tractor	No		40	84		835	0
Tractor	No		40	84		835	0

Calculated (dBA)

Equipment	*Lmax	Leq
Grader	60.5	56.6
Dozer	57.2	53.2
Tractor	59.5	55.6
Tractor	59.5	55.6
Total	60.5	61.4

\*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/12/2022  
 Case Description: Building Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 2	Residential	56.6	56.6	56.6

  

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	100	5
Forklift	No	40	85		100	5
Forklift	No	40	85		100	5
Generator	No	50		80.6	100	5
Tractor	No	40	84		100	5
Welder / Torch	No	40		74	100	5

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	69.5	61.6
Forklift	74	70
Forklift	74	70
Generator	69.6	66.6
Tractor	73	69
Welder / Torch	63	59
Total	74	75.4

\*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 3	Residential	63.5	63.5	63.5

  

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	950	5
Forklift	No	40	85		950	5
Forklift	No	40	85		950	5
Generator	No	50		80.6	950	5
Tractor	No	40	84		950	5
Welder / Torch	No	40		74	950	5

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	50	42
Forklift	-30.6	-34.6
Forklift	-30.6	-34.6
Generator	50.1	47
Tractor	53.4	49.4
Welder / Torch	43.4	39.4
Total	53.4	52.1

\*Calculated Lmax is the Loudest value.



---- Receptor #3 ----

Description	Land Use	Baselines (dBA)			Equipment			
		Daytime	Evening	Night	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Site 4	Residential	58.5	58.5	58.5				
Description		Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)	
Crane		No	16		80.6	750	5	
Forklift		No	40	85		750	5	
Forklift		No	40	85		750	5	
Generator		No	50		80.6	750	5	
Tractor		No	40	84		750	5	
Welder / Torch		No	40		74	750	5	

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	52	44.1
Forklift	56.5	52.5
Forklift	56.5	52.5
Generator	52.1	49.1
Tractor	55.5	51.5
Welder / Torch	45.5	41.5
Total	56.5	57.9

\*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA)			Equipment			
		Daytime	Evening	Night	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Site 5	Residential	69.7	69.7	69.7				
Description		Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)	
Crane		No	16		80.6	835	0	
Forklift		No	40	85		835	0	
Forklift		No	40	85		835	0	
Generator		No	50		80.6	835	0	
Tractor		No	40	84		835	0	
Welder / Torch		No	40		74	835	0	

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	56.1	48.1
Forklift	60.5	56.6
Forklift	60.5	56.6
Generator	56.2	53.2
Tractor	59.5	55.6
Welder / Torch	49.5	45.6
Total	60.5	62

\*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/12/2022  
 Case Description: Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 2	Residential	56.6	56.6	56.6

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	100	5
Paver	No	50		77.2	100	5
Paver	No	50		77.2	100	5
Roller	No	20		80	100	5
Roller	No	20		80	100	5
Tractor	No	40	84		100	5

Calculated (dBA)

Equipment	*Lmax	Leq
Concrete Mixer Truck	67.8	63.8
Paver	66.2	63.2
Paver	66.2	63.2
Roller	69	62
Roller	69	62
Tractor	73	69
<b>Total</b>	<b>73</b>	<b>72.5</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 3	Residential	63.5	63.5	63.5

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	950	5
Paver	No	50		77.2	950	5
Paver	No	50		77.2	950	5
Roller	No	20		80	950	5
Roller	No	20		80	950	5
Tractor	No	40	84		950	5

Calculated (dBA)

Equipment	*Lmax	Leq
Concrete Mixer Truck	48.2	44.2
Paver	46.6	43.6
Paver	46.6	43.6
Roller	49.4	42.4
Roller	49.4	42.4
Tractor	53.4	49.4
<b>Total</b>	<b>53.4</b>	<b>52.9</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 4	Residential	58.5	58.5	58.5

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	750	5
Paver	No	50		77.2	750	5
Paver	No	50		77.2	750	5
Roller	No	20		80	750	5
Roller	No	20		80	750	5
Tractor	No	40	84		750	5

Calculated (dBA)

Equipment	*Lmax	Leq
Concrete Mixer Truck	50.3	46.3
Paver	48.7	45.7
Paver	48.7	45.7
Roller	51.5	44.5
Roller	51.5	44.5
Tractor	55.5	51.5
<b>Total</b>	<b>55.5</b>	<b>55</b>

\*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 5	Residential	69.7	69.7	69.7

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	835	0
Paver	No	50		77.2	835	0
Paver	No	50		77.2	835	0
Roller	No	20		80	835	0
Roller	No	20		80	835	0
Tractor	No	40	84		835	0

Calculated (dBA)

Equipment	*Lmax	Leq
Concrete Mixer Truck	54.3	50.4
Paver	52.8	49.8
Paver	52.8	49.8
Roller	55.5	48.6
Roller	55.5	48.6
Tractor	59.5	55.6
<b>Total</b>	<b>59.5</b>	<b>59</b>

\*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/12/2022  
 Case Description: Architectural Coating

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 2	Residential	56.6	56.6	56.6

  

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	100	5

Calculated (dBA)

Equipment	*Lmax	Leq
Compressor (air)	66.6	62.7
Total	66.6	62.7

\*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 3	Residential	63.5	63.5	63.5

  

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	950	5

Calculated (dBA)

Equipment	*Lmax	Leq
Compressor (air)	47.1	43.1
Total	47.1	43.1

\*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 4	Residential	58.5	58.5	58.5

  

Description	Device	Impact	Usage(%)	Equipment			
				Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No		40		77.7	750	5

Calculated (dBA)

Equipment	*Lmax	Leq
Compressor (air)	49.1	45.2
Total	49.1	45.2

\*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Site 5	Residential	69.7	69.7	69.7

  

Description	Device	Impact	Usage(%)	Equipment			
				Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No		40		77.7	835	0

Calculated (dBA)

Equipment	*Lmax	Leq
Compressor (air)	53.2	49.2
Total	53.2	49.2

\*Calculated Lmax is the Loudest value.

**4400 N. University Parkway  
Construction Vibration Model  
(Site 2)**

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance <sup>a</sup>	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	100	0.011	0.003	69
Jackhammer		1	0.035	100	0.004	0.001	61
Large bulldozer		1	0.089	100	0.011	0.003	69
Loaded trucks		1	0.076	100	0.010	0.002	68
Pile Drive (impact)		1	0.644	100	0.081	0.020	86
Vibratory Roller		1	0.210	100	0.026	0.007	76
Small bulldozer		1	0.003	100	0.000	0.000	39

**\* Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment**

**4400 N. University Parkway  
Construction Vibration Model  
(Site 3)**

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance <sup>a</sup>	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	950	0.000	0.000	40
Jackhammer		1	0.035	950	0.000	0.000	31
Large bulldozer		1	0.089	950	0.000	0.000	40
Loaded trucks		1	0.076	950	0.000	0.000	38
Pile Drive (impact)		1	0.644	950	0.003	0.001	57
Vibratory Roller		1	0.210	950	0.001	0.000	47
Small bulldozer		1	0.003	950	0.000	0.000	10

**\* Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment**

**4400 N. University Parkway  
Construction Vibration Model  
(Site 4)**

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance <sup>a</sup>	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	750	0.001	0.000	43
Jackhammer		1	0.035	750	0.000	0.000	35
Large bulldozer		1	0.089	750	0.001	0.000	43
Loaded trucks		1	0.076	750	0.000	0.000	41
Pile Drive (impact)		1	0.644	750	0.004	0.001	60
Vibratory Roller		1	0.210	750	0.001	0.000	50
Small bulldozer		1	0.003	750	0.000	0.000	13

**\* Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment**



**4400 N. University Parkway  
Construction Vibration Model  
(Site 5)**

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance <sup>a</sup>	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	835	0.000	0.000	41
Jackhammer		1	0.035	835	0.000	0.000	33
Large bulldozer		1	0.089	835	0.000	0.000	41
Loaded trucks		1	0.076	835	0.000	0.000	40
Pile Drive (impact)		1	0.644	835	0.003	0.001	58
Vibratory Roller		1	0.210	835	0.001	0.000	49
Small bulldozer		1	0.003	835	0.000	0.000	12

**\* Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment**