

**AIR, NOISE AND VIBRATION
MONTHLY MONITORING REPORT**

Prepared By:
Hajeong Lim (HRCG)

DDC Project No.:	BBJ Q DSS	Period Start: 09/01/23 End 09/30/23
DDC Pin No.:	8502020CR0046P	
Project Name:	NYC Borough Based Jails System - Queens Dismantle and Swing Space	

1) Community Air Monitoring Monthly Status Summary

TWA – Time Weighted Average
mg/m³- milligrams per cubic meter

Number of Workdays in a Month	Number of Air Monitoring Days in a Month	Number of Days with Dust Concentrations above Action Concentrations by Month (0.100 mg/m ³ 15 minute TWA)	Comments
22	2	1	The initial 2 days of peak dust monitoring the Phase IV dismantle was performed.

Community Air Monitoring Monthly Excursions and Corrective Actions

Action Concentration = 0.100 mg/m³ 15 minute TWA above background concentration*. (9/19/23 = 0.132. 9/27/23 = 0.122)
 Stop Work Concentration = 0.150 mg /m³ 15 minute TWA above background concentration* (9/19/23 = 0.182. 9/27/23 = 0.172)
 * Background concentration values vary daily. See Prestart/Background Condition Level in the attached graphs.
 9/19/23 Background Level = 0.032. 9/27/23 Background Level = 0.022.

Date: Time	Maximum Dust Reading Before Corrective Action 15 Minute TWA (mg/m ³)	Maximum Dust Reading After Corrective Action 15 Minute TWA (ug/m ³)	Corrective Action
N/A	N/A	N/A	N/A

Narrative Summary of Air Monitoring, Excursions and Corrective Actions:

In September 2023, construction-related levels of Particulate Matter (PM) PM10 did not surpass Daily Permissible Exposure Limits (PEL) as set by federal standards for the 24-hour Time Weighted Average (TWA), or daily value, except an equipment error on 9/19/23 at 3 pm, and did not cause air quality concerns to the public or on-site workers.

Instantaneous Exceedance Level at 0.159 at 1:23 PM on Sep 19 did not constitute an exceedance of the 15-minute average action level.

Instantaneous Exceedance Level at 0.75 at 2:56 PM on Sep 19 was recorded due to interference with the roving monitor (i.e. accidentally covering the air intake). This elevated reading was not representative of air conditions and does not constitute an exceedance.

The contractor, Hunter Roberts Construction Group, in conjunction with the contractor’s environmental specialist, has successfully implemented mitigation techniques at Action Level as well as Permissible Exposure Limits (15-Minute TWA) to suppress construction activity effects on air quality throughout the project work-zone.

2) Community Noise Monitoring Monthly Summary

Units to be a weighted decibels (dBA) level

Number of Workdays in a Month	Number of Noise Monitoring Days in a Month	Number of Days with Noise Levels above Action Levels by Month	Comments
22	3	None	3 days of follow-up noise monitoring for Dismantle Phase IV were conducted in this month. Follow-up noise monitoring is required every two weeks.

Community Noise Monitoring Monthly Excursions and Corrective Actions

Noise Monitoring Location 1 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 75 / NA

Noise Monitoring Location 2 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 75 / NA

Noise Monitoring Location 3 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 69 / 68

Noise Monitoring Location 4 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 65 / 55

Noise Monitoring Location 5 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 68 / 67

Date Time	Location	Maximum Noise Reading before Corrective Action (dBA)	Maximum Noise Reading after Corrective Action (dBA)	Baseline Noise Level Day/Night (dBA)	Corrective Action
N/A	N/A	N/A	N/A	N/A	N/A

Narrative Summary of Noise Monitoring, Excursions and Corrective Actions:

Throughout September 2023, noise levels remained below the set thresholds at all five locations. Construction-related activities in the month stayed within or below the warning limit at various locations. No corrective actions were required as noise levels didn't surpass the limits.

Nighttime Action Levels are established for three residential location, location #3, #4, and #5, in case dismantling activities are performed between 5 pm and 7 am.

3) Community Vibration Monitoring Monthly Summary

Units (in/sec)

Number of Workdays in a Month	Number of Vibration Monitoring Days in a Month	Number of Days with Vibration Levels above Action Levels by Month	Comments
22	22	0	

Community Vibration Monitoring Monthly Excursions and Corrective Actions

Alert / Action Level = 0.3 in/s

Stop Work Level = 0.5 in/s

Date: Time (at QDA Wing Vibration Monitor Location)	Maximum Vibration Level before Corrective Action (in/s)	Exceedance Duration	Maximum Vibration Level after Corrective Action (in/s)	Corrective Action
N/A	N/A	N/A	N/A	N/A

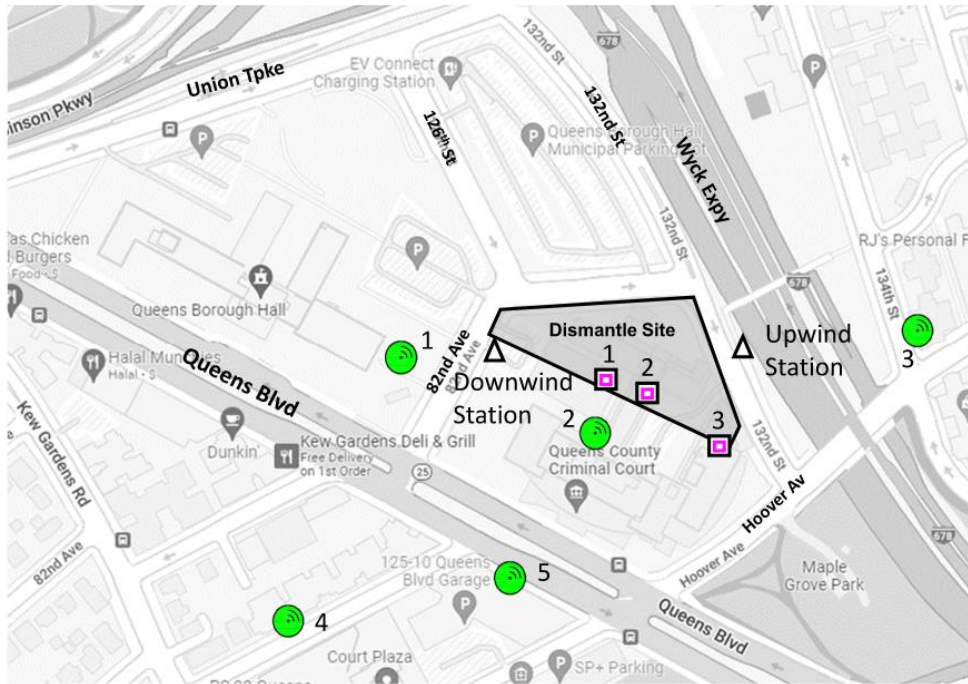
Narrative Summary of Vibration Monitoring, Excursions and Corrective Actions:

During the Month of September 2023, there was Zero vibration monitor exceedance. All monitors showed results of vibration being under the warning limit of 0.3(in/sec) / stop work limit of 0.5(in/sec), so there was no need for corrective action at this time.

ATTACHMENTS:

- 1 – Map of Monitoring Station/Locations
- 2 – Baseline Reference
- 3 – Data Plots

Environmental Monitoring Queens



- Vibration Monitor (VM)
- Air Monitoring Station (DM)
- Noise Monitoring Station (NM)

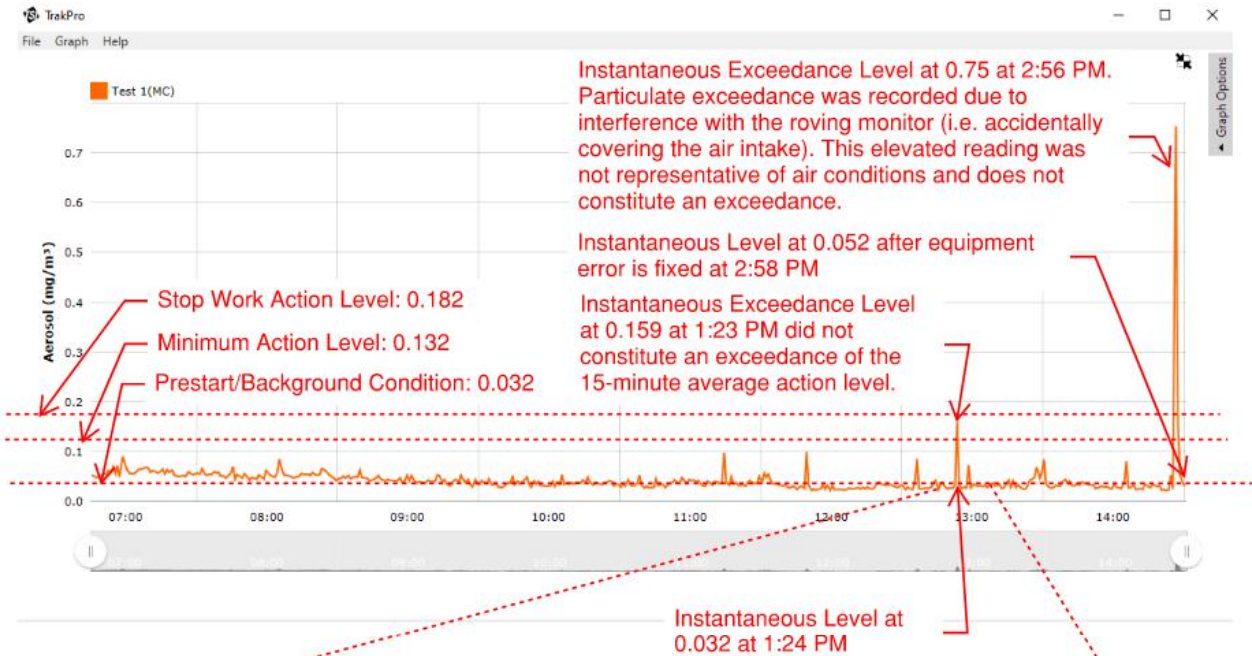
Noise Threshold Limits in dBA – Baseline Survey April 2022

Construction Noise Threshold Limits in dBA

Location	Daytime L_{eq}	Nighttime L_{eq}
Adjacent to the easternmost façade of Queens Borough Hall	75	N/A
At the southwestern corner of the DA Wing	75	N/A
At the residences along 134th Street between 82nd Avenue and Hoover Avenue	69	68
At the residences on 82nd Road between Kew Gardens Road and Queens Boulevard, approximately 200 feet from Kew Gardens Road	65	55
At the residences on Queens Boulevard between 82nd Road and Lefferts Boulevard	68	67

Dismantle Phase IV Off Peak Air Monitoring on September 19, 2023

Downwind Station Data Charts (Instantaneous PM 10 Readings)

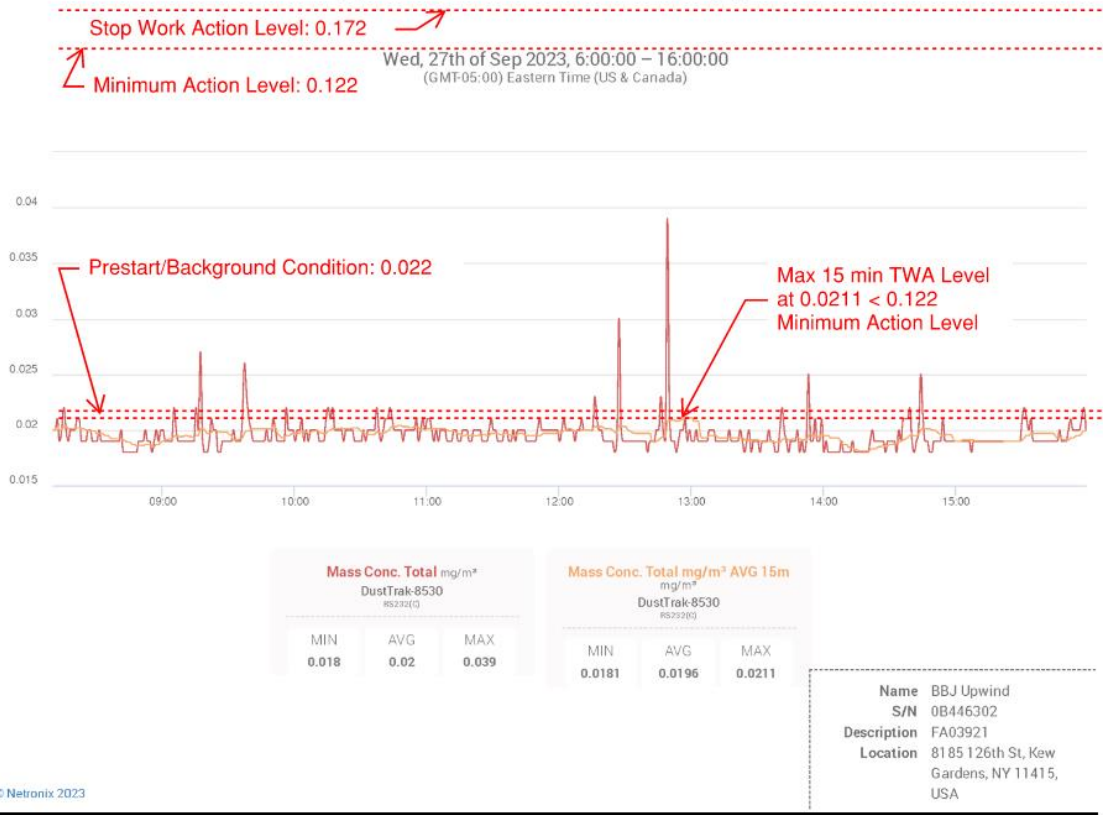


Date	Time	Reading	Notes
9/19/2023	1:15:07 PM	0.023	None
9/19/2023	1:16:07 PM	0.036	None
9/19/2023	1:17:07 PM	0.037	None
9/19/2023	1:18:07 PM	0.029	None
9/19/2023	1:19:07 PM	0.024	None
9/19/2023	1:20:07 PM	0.027	None
9/19/2023	1:21:07 PM	0.025	None
9/19/2023	1:22:07 PM	0.031	None
9/19/2023	1:23:07 PM	0.159	STEL, Threshold, Response Threshold
9/19/2023	1:24:07 PM	0.032	None
9/19/2023	1:25:07 PM	0.025	None
9/19/2023	1:26:07 PM	0.028	None
9/19/2023	1:27:07 PM	0.026	None
9/19/2023	1:28:07 PM	0.072	None
9/19/2023	1:29:07 PM	0.026	None
9/19/2023	1:30:07 PM	0.034	None
9/19/2023	1:31:07 PM	0.031	None

Due to technical issues, hand held monitor equipment was used on this day. 15 minutes Time Weighted Graphic Data is not available. Instead, please see tabulated data above from 1:15 PM to 1:31 PM including 0.159 instantaneous exceedance at 1:23 PM. 15 min TWA between 1:15 PM and 1:31 PM = 0039. 0.039 < Min Action Level 0.132

Dismantle Activity Air Daily Monitoring on September 27, 2023

Upwind Station Data Charts (PM₁₀)

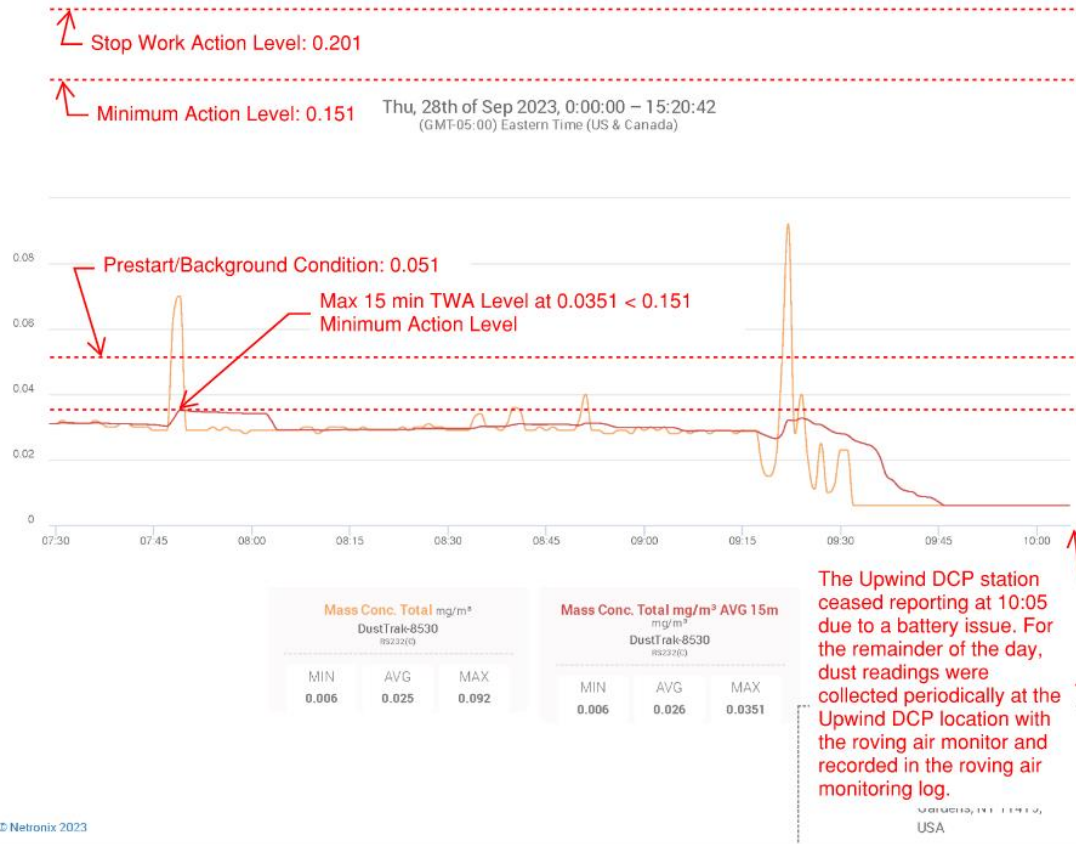


Downwind Station Data Charts (PM₁₀)



Dismantle Activity Daily Air Monitoring on September 28, 2023

Upwind Station Data Charts (PM₁₀)



Downwind Station Data Charts (PM₁₀)



Mass Conc. Total mg/m ³ DustTrak-8530 #5232(G)			Mass Conc. Total mg/m ³ AVG 15m mg/m ³ DustTrak-8530 #5232(G)		
MIN	AVG	MAX	MIN	AVG	MAX
0.025	0.029	0.043	0.0265	0.0291	0.0336

Name BBJ Downwind
S/N 0B288647
Description FA04946
Location 69 Kew Gardens Rd,
Queens, NY 11415, USA

Noise Monitoring



Project: DDC Queens Dismantle & Swing Space

Date: 9-5-2023 Tues **Weather:** 81°F cloudy

Work Activities: Abatement wall at 8th fl & Remove steel beams at 8th fl.

Prepared by: FW

NO.	Location	Time	Noise (dBA)	Noise Action Threshold (Day/Night)	Note
1	Queens Borough Hall	9:57	66 <	75 dBA	Daytime noise action threshold not exceeded.
2	Southwest corner of DA wing	9:31	68 <	75 dBA	Daytime noise action threshold not exceeded.
3	Corner of 134 th ST and Hoover Ave.	11:10	67 <	69 dBA/ 68 dBA N/A	Daytime noise action threshold not exceeded.
4	200 ft away from Kew Garden Road on 82 nd Road	10:20	63 <	65 dBA/ 55 dBA N/A	Daytime noise action threshold not exceeded.
5	Between 82 nd road and 83 rd Ave on Queens Blvd	10:44	66 <	68 dBA/ 67 dBA N/A	Daytime noise action threshold not exceeded.

Corrective Action:

N/A



Noise Monitoring

Project: DDC Queens Dismantle & Swing Space

Date: 9-11-2023 Mon Weather: 73°F Sunny

Work Activities: Demo slab at 8th fl.

Prepared by: Jaw

NO.	Location	Time	Noise (dBA)	Noise Action Threshold (Day/Night)	Note
1	Queens Borough Hall	9:54	68 <	75 dBA	Daytime noise action threshold not exceeded.
2	Southwest corner of DA wing	9:30	69 <	75 dBA	Daytime noise action threshold not exceeded.
3	Corner of 134 th ST and Hoover Ave.	11:10	68 <	69 dBA/ 68 dBA N/A	Daytime noise action threshold not exceeded.
4	200 ft away from Kew Garden Road on 82 nd Road	10:21	63 <	65 dBA/ 55 dBA N/A	Daytime noise action threshold not exceeded.
5	Between 82 nd road and 83 rd Ave on Queens Blvd	10:45	67 <	68 dBA/ 67 dBA N/A	Daytime noise action threshold not exceeded.

Corrective Action: N/A.

Noise Monitoring



Project: DDC Queens Dismantle & Swing Space

Date: 9-20-2023 Wed Weather: 70°F Sunny

Work Activities: Apartment walk at 7th fl & cut steels at 7th fl.

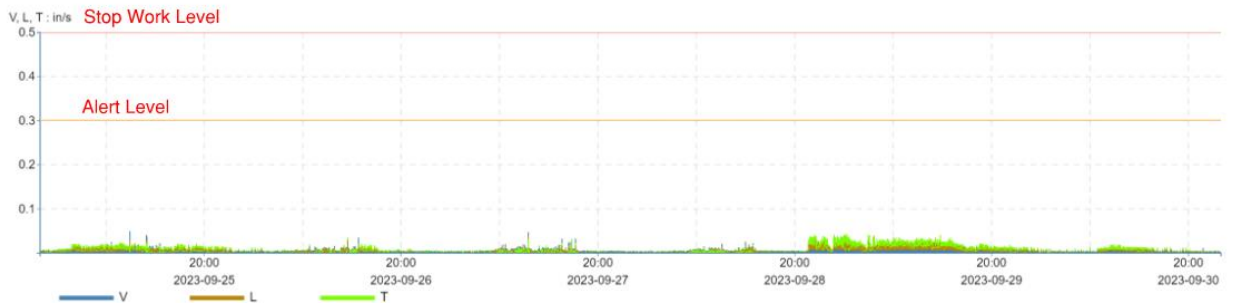
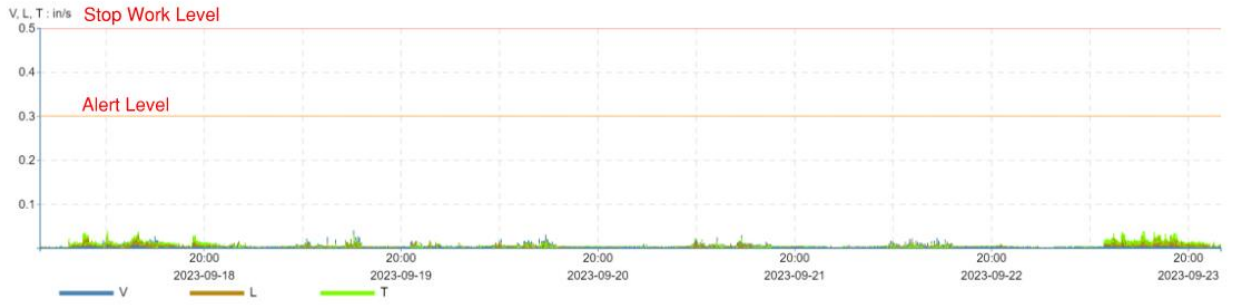
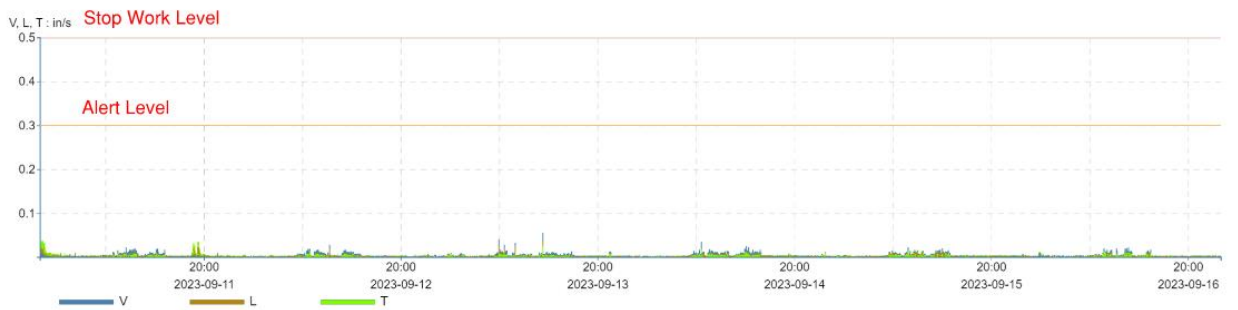
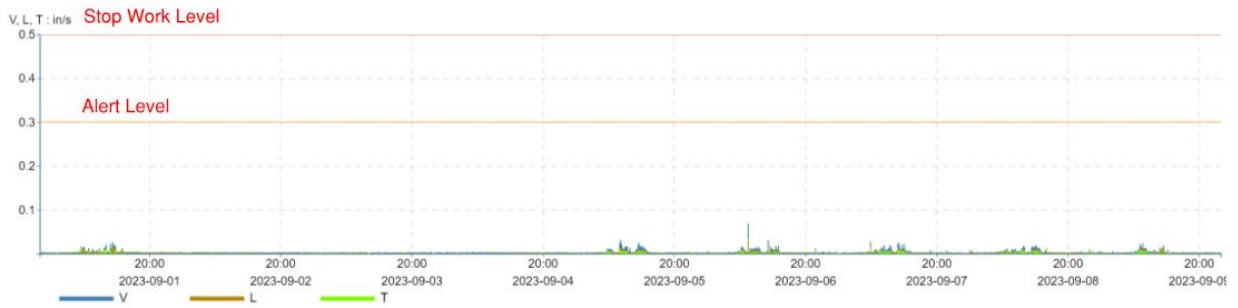
Prepared by: [Signature]

NO.	Location	Time	Noise (dBA)	Noise Action Threshold (Day/Night)	Note
1	Queens Borough Hall	10:03	67.5	< 75 dBA	Daytime noise action threshold not exceeded.
2	Southwest corner of DA wing	9:40	68	< 75 dBA	Daytime noise action threshold not exceeded.
3	Corner of 134 th ST and Hoover Ave.	10:27	68	< 69 dBA/ 68 dBA N/A	Daytime noise action threshold not exceeded.
4	200 ft away from Kew Garden Road on 82 nd Road	10:55	64	< 65 dBA/ 55 dBA N/A	Daytime noise action threshold not exceeded.
5	Between 82 nd road and 83 rd Ave on Queens Blvd	11:20	66	< 68 dBA/ 67 dBA N/A	Daytime noise action threshold not exceeded.

Corrective Action: n/a.

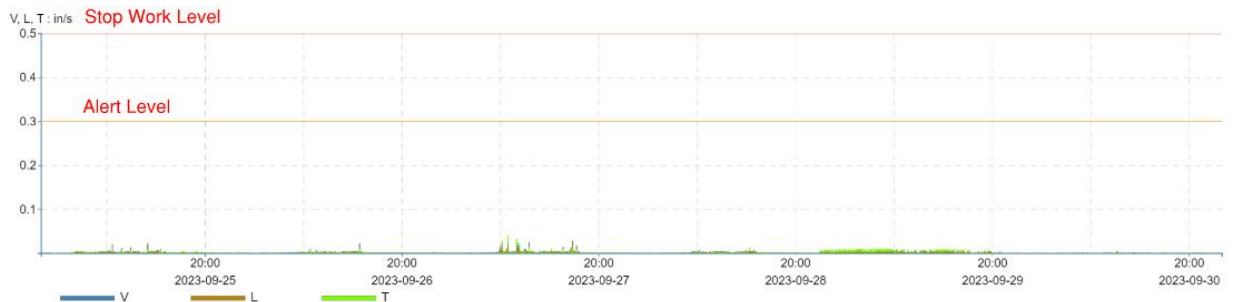
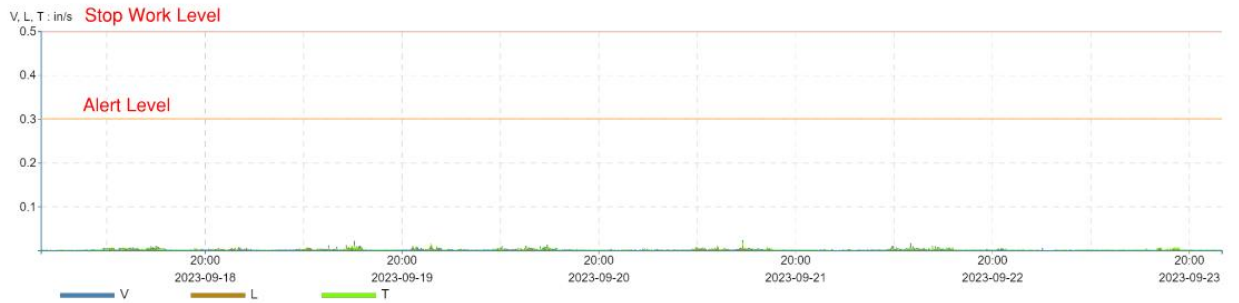
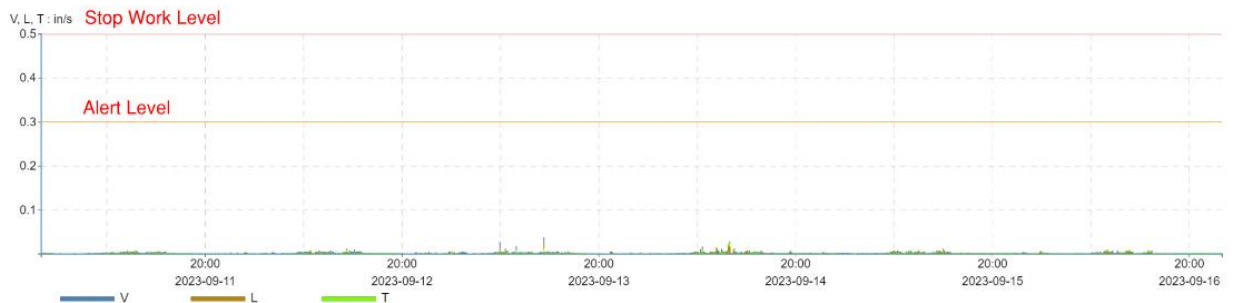
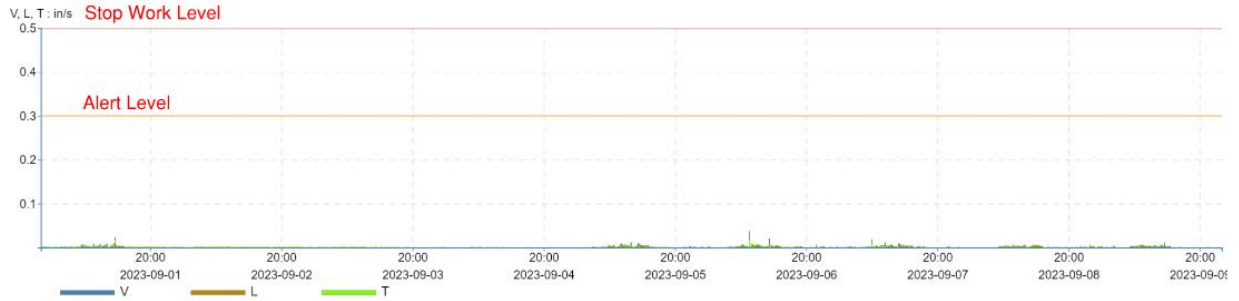
Vibration Monitor – VM1 September 2023

FAMILY JUSTICE CENTER – NORTHEAST CORNER



Vibration Monitor – VM2 September 2023

DA WING – NORTHWEST CORNER



Vibration Monitor – VM3 September 2023

ANNEX – BASEMENT FIRE PUMP ROOM

