

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

Prepared By:
Hajeong Lim (HRCG)

DDC Project No.:	BBJ Q DSS	Period Start: 06/01/23 End 06/30/23
Project Name:	NYC Borough Based Jails System - Queens Dismantle and Swing Space	
DDC Pin No.:	8502020CR0046P	

1) Community Air Monitoring Monthly Status Summary

TWA – Time Weighted Average
ug/m³- micrograms 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 (100 ug/m ³ 15 minute TWA)	Comments
25	1	None	Per the environmental management plan reviewed and approved by DDC dated February 2, 2022, two days of peak demolition activities for each of the five dismantle phases are required to be monitored, as well as monthly monitoring during non-peak activities of each phase. Initial peak air monitoring for Phases I through III was performed last month. One monthly off-peak follow-up air monitoring was performed for Phase III this month. Phases I and II did not last a month. Therefore, monthly off-peak follow-up air monitoring for Phase I and II was not performed.

Community Air Monitoring Monthly Excursions and Corrective Actions

Action Concentration = 0.100 mg/m³ 15 minute TWA above background concentration
Stop Work Concentration = 0.150 mg/m³ 15 minute TWA above background concentration

Date: Time	Maximum Dust Reading Before Corrective Action 15 Minute TWA (mg/m ³)	Maximum Dust Reading After Corrective Action 15 Minute TWA (mg/m ³)	Corrective Action
6/19/23 08:24 AM	0.3908 (Background Level at 0.014. Action Level at 0.114. Stop Work Level at 0.164)	0.0804 (Background Level at 0.014. Action Level at 0.114. Stop Work Level at 0.164)	The Upwind CAMP Station (PM10) briefly housed a large particle in the dust track tubing for a short period of time, resulting in skewed results. This is shown in the data with a short spike at approx. 08:24. On-site consultant (AKRF) was able to remediate the issue quickly with the help of the equipment vendor (Eco-Rental).

Narrative Summary of Air Monitoring, Excursions and Corrective Actions:

In June 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, and did not cause air quality concerns to the public or on-site workers.

There was one exceedance on June 19 at about 8:24 am caused by the equipment blockage explained above. After the blockage was removed, the levels remain lower than the thresholds throughout the day.

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
25	11	None	Per the environmental management plan reviewed and approved by DDC dated February 2, 2022, noise levels would be collected on the first five days of each phase of the dismantle, and bi-weekly thereafter. Initial noise level reading for Phases I through III was performed last month. This month, 11 days were monitored on noise level.

Community Noise Monitoring Monthly Excursions and Corrective Actions

Noise Monitoring Location 1 Action Level (Day/Night): 75/NA

Noise Monitoring Location 2 Action Level (Day/Night): 75/NA

Noise Monitoring Location 3 Action Level (Day/Night): 69/68

Noise Monitoring Location 4 Action Level (Day/Night): 65/55

Noise Monitoring Location 5 Action Level (Day/Night): 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 June 2023, noise levels remained below the set thresholds at all five locations. Construction-related activities in the month stayed within or below the 75 dB warning limit at various sites: location #1 at Queens Borough Hall, location #2 at the Southwest Corner of QDA Wing, location #3 at the corner of 134th St and Hoover Ave (69 dB), location #4 (200 ft from Kew Garden Rd on 82nd Rd, 65 dB), and location #5 (between 82nd Rd and 83rd Ave on Queens Blvd, 68 dB). In the residential areas, noise readings encompassed construction, lawn mowing, and traffic sounds. No corrective actions were required as noise levels didn't surpass the limits.

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
25	25	6	Vibration Monitoring was continued throughout the month and six exceedance events were recorded as below.

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
June 26 at 8:16 AM	1.54	<1 min	N/A	On June 26, workers were erecting scaffolding adjacent to the vibration monitor, and each exceedance event was confirmed by Hunter Roberts Construction Group to be caused by direct contact with the transducer rather than vibrations in the structure. No corrective actions were taken. Each of the exceedance events on June 27 through June 29, lasted for less than 30 seconds and did not reoccur after the construction team were alerted. No corrective actions were taken.
June 26 at 9:28 AM	1.09	<2 min	N/A	
June 26 at 9:50 AM	0.533	<2 min	N/A	
June 27 at 4:02 PM	0.69	<30 sec	N/A	
June 28 at 3:10 PM	1.03	<30 sec	N/A	
June 29 at 4:09 PM	0.565	<30 sec	N/A	

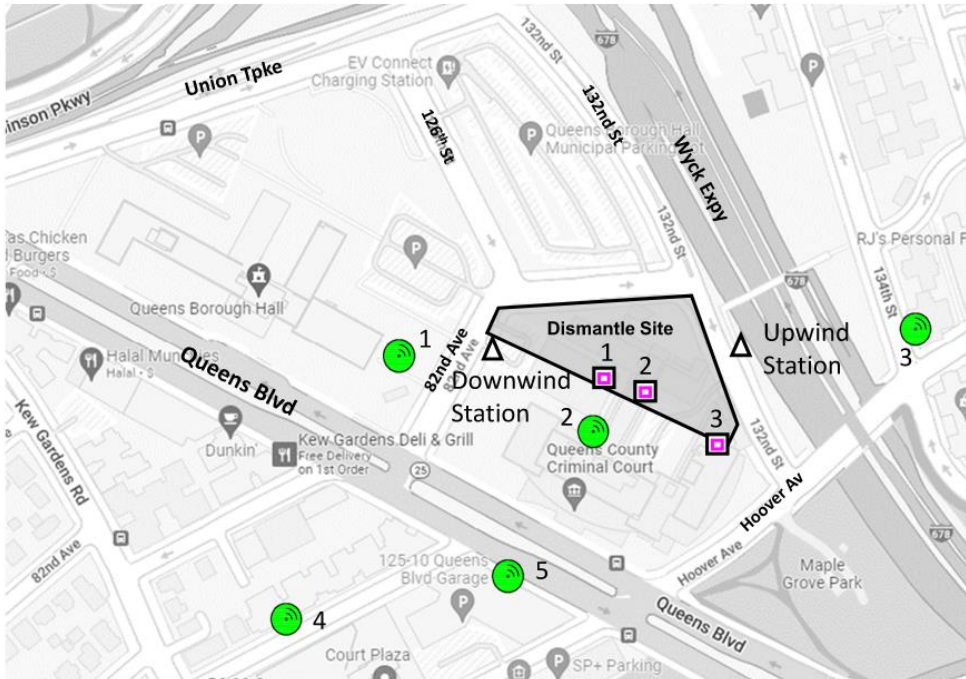
Narrative Summary of Vibration Monitoring, Excursions and Corrective Actions:

In June 2023, there were six instances of vibration monitor exceedances at the QDA Wing vibration monitor site. However, the Family Justice Center and Annex Basement monitors indicated vibrations below the 0.3 (in/sec) warning limit and the 0.5 (in/sec) stop work limit. Toward the end of June, activities in Dismantle Phase III to disconnect the QDA Wing from the Detention Center matched the vibration levels of the QDA Wing. Following the last exceedance event reported on June 29, 2023, no further vibration monitor exceedances were recorded. Completion of Phase III is anticipated by mid-July.

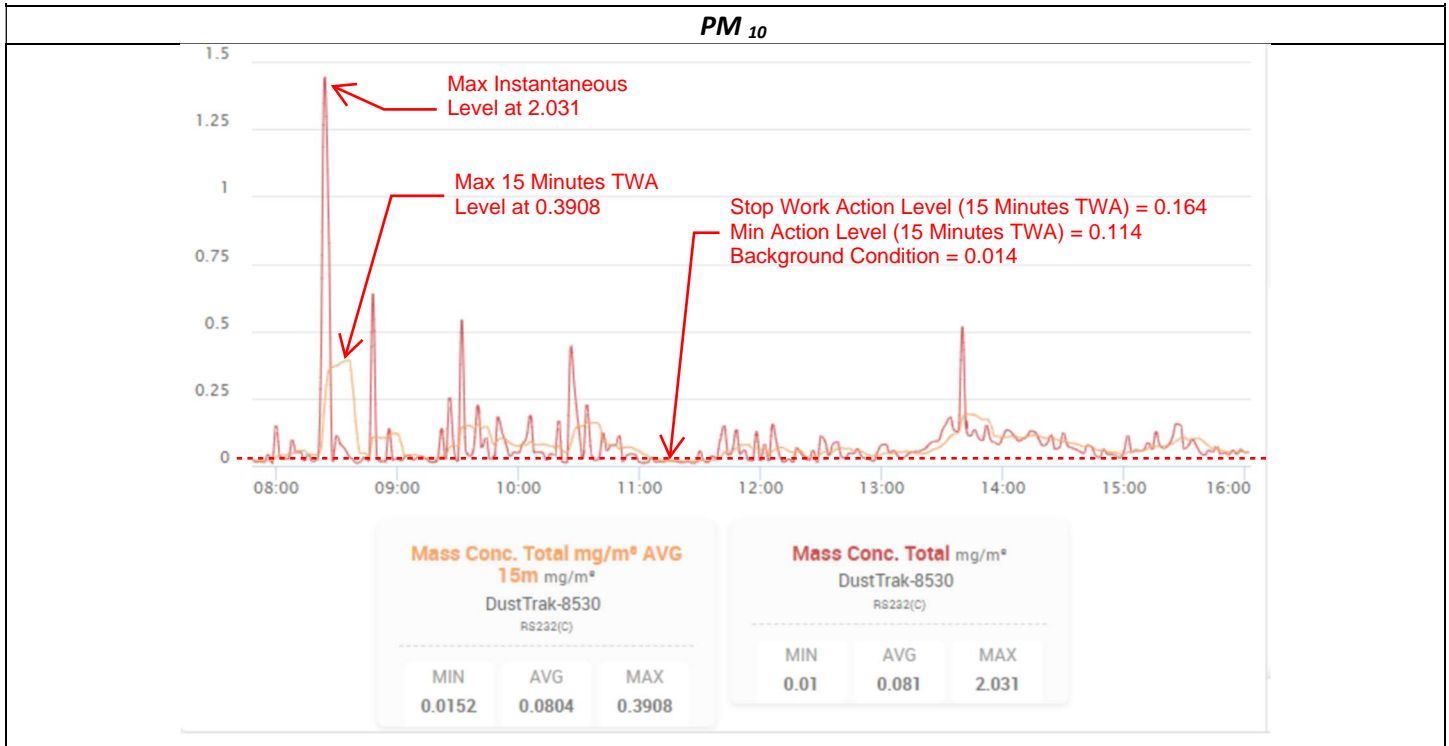
ATTACHMENTS:

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

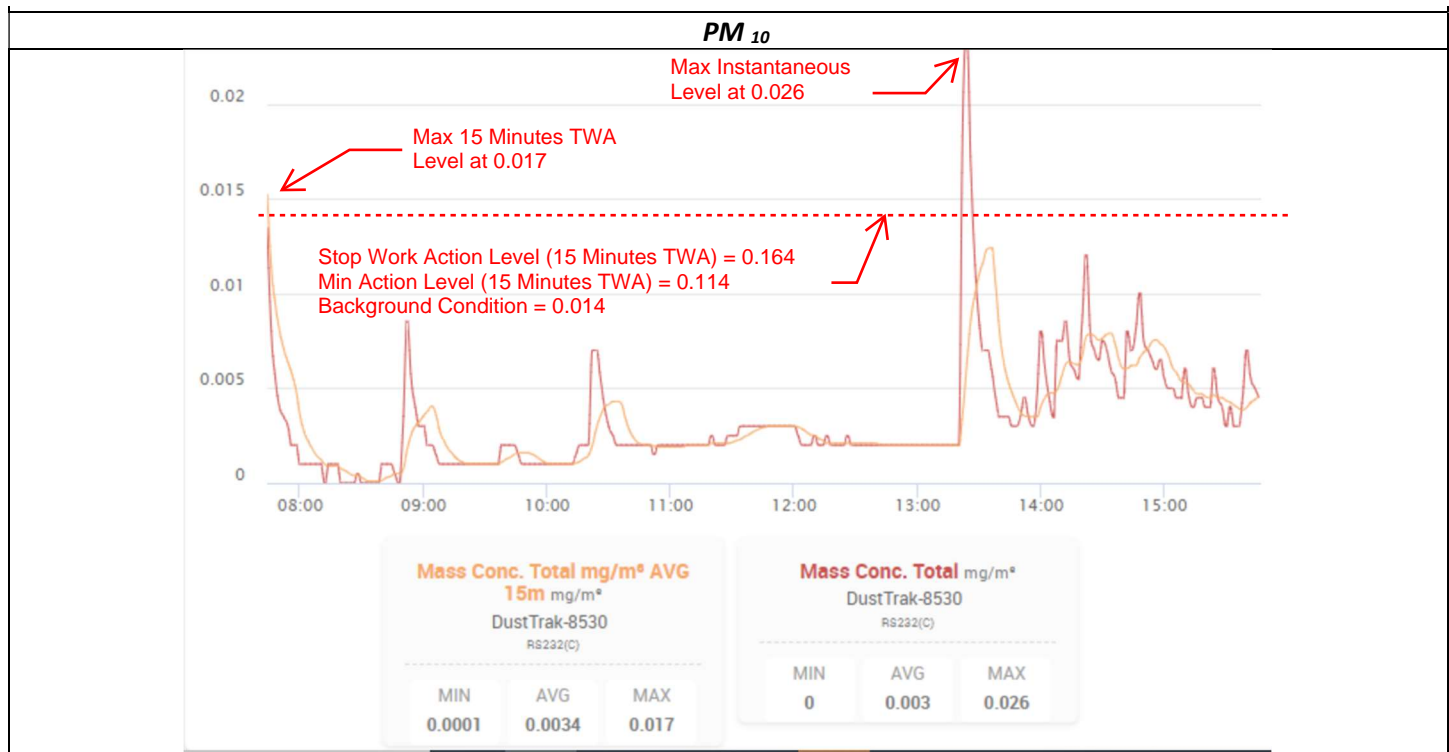
Environmental Monitoring Queens



Air Monitoring Upwind Station – Monthly Off Peak Follow Up on June 19, 2023



Air Monitoring Downwind Station – Monthly Off Peak Follow Up on June 19, 2023



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



Noise Monitoring

Project: DDC Queens Dismantle & Swing Space

Date: 6/6/2023 Tues Weather: 76°F Mostly Sunny

Work Activities: Demolish mech room slab & walls and remove scaffold south side.

Prepared by: Yao

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1 1A	Queens Borough Hall NW corner	13:22	62.3	< 75 dBA	
2	Southwest corner of DA wing	12:57	62.4	< 75 dBA	
3	Corner of 134 th ST and Hoover Ave.			69 dBA/ 68 dBA	
4	200 ft away from Kew Garden Road on 82 nd Road			65 dBA/ 55 dBA	
5	Between 82 nd road and 83 rd Ave on Queens Blvd			68 dBA/ 67 dBA	

Corrective Action: N/A



Noise Monitoring

Project: DDC Queens Dismantle & Swing Space

Date: 6/5/2023 Mon Weather: 64°F Mostly Sunny

Work Activities: Demo mech room slab & wall at south side.

Prepared by: Yao

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1 1A	Queens Borough Hall NW corner	10:14	66.4	< 75 dBA	
2	Southwest corner of DA wing	9:49	66.5	< 75 dBA	
3	Corner of 134 th ST and Hoover Ave.			69 dBA/ 68 dBA	
4	200 ft away from Kew Garden Road on 82 nd Road	10:42	65	= 65 dBA/ 55 dBA N/A	other construction around
5	Between 82 nd road and 83 rd Ave on Queens Blvd			68 dBA/ 67 dBA	

Corrective Action: N/A



Noise Monitoring

Project: DDC Queens Dismantle & Swing Space

Date: 6/17/2023 Sat Weather: 65°F Cloudy

Work Activities: Handily demo brick at south day room

Prepared by: Yao

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1	Queens Borough Hall			75 dBA	
2	Southwest corner of DA wing			75 dBA	
3	Corner of 134 th ST and Hoover Ave.			69 dBA/ 68 dBA	
4	200 ft away from Kew Garden Road on 82 nd Road	10:03	61.2 <	65 dBA/ 55 dBA N/A	
5	Between 82 nd road and 83 rd Ave on Queens Blvd	10:27	67.2 <	68 dBA/ 67 dBA N/A	bus horn, car horn

Corrective Action: N/A.



Noise Monitoring

Project: DDC Queens Dismantle & Swing Space

Date: 6/16/2023 Fri Weather: 75°F Cloudy

Work Activities: Demo reh fl slab south day room

Prepared by: Yeo

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1	Queens Borough Hall	10:08	70.4	< 75 dBA	
2	Southwest corner of DA wing	9:44	72.6	< 75 dBA	
3	Corner of 134 th ST and Hoover Ave.			69 dBA/ 68 dBA	
4	200 ft away from Kew Garden Road on 82 nd Road			65 dBA/ 55 dBA	
5	Between 82 nd road and 83 rd Ave on Queens Blvd			68 dBA/ 67 dBA	

Corrective Action: N/A



Noise Monitoring

Project: DDC Queens Dismantle & Swing Space

Date: 6/13/2023 Tues Weather: Mostly Sunny 67°

Work Activities: Demo 8th fl mezz slab & walls at south day room

Prepared by: Juo

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1 <i>1A</i>	Queens Borough Hall <i>NW corner</i>	<i>09:42</i>	<i>62.5</i>	< 75 dBA	
2	Southwest corner of DA wing	<i>09:17</i>	<i>67.2</i>	< 75 dBA	<i>bus horn</i>
3	Corner of 134 th ST and Hoover Ave.	<i>11:01</i>	<i>66.2</i>	< 69 dBA/ 68 dBA N/A	
4	200 ft away from Kew Garden Road on 82 nd Road	<i>10:10</i>	<i>63</i>	< 65 dBA/ 55 dBA N/A	
5	Between 82 nd road and 83 rd Ave on Queens Blvd	<i>10:35</i>	<i>67.6</i>	< 68 dBA/ 67 dBA N/A	<i>car horn, bus horn, truck noise</i>

Corrective Action: *N/A*

Noise Monitoring



Project: DDC Queens Dismantle & Swing Space

Date: 6/20/2023 Tues Weather: 68°F cloudy

Work Activities: Demo 7th fl slab and Remove scaffolding around day room South

Prepared by: YAO

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1 <i>1A</i>	Queens Borough Hall <i>NW corner</i>	<i>10:24</i>	<i>66.1</i>	< 75 dBA	<i>lawn trim</i>
2	Southwest corner of DA wing	<i>10:00</i>	<i>63.6</i>	< 75 dBA	
3	Corner of 134 th ST and Hoover Ave.	<i>10:51</i>	<i>68.2</i>	< 69 dBA/ 68 dBA N/A	<i>other construction activities</i>
4	200 ft away from Kew Garden Road on 82 nd Road			65 dBA/ 55 dBA	
5	Between 82 nd road and 83 rd Ave on Queens Blvd			68 dBA/ 67 dBA	

Corrective Action:



Noise Monitoring

Project: DDC Queens Dismantle & Swing Space

Date: 6/23/2023 Fri Weather: 70°F cloudy

Work Activities: cut steel beams at 6th Mezz & Remove debris at 6th

Prepared by: Yao

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1	Queens Borough Hall <i>NW corner</i>	<i>13:30</i>	<i>59.6</i>	< 75 dBA	
2	Southwest corner of DA wing	<i>13:06</i>	<i>64.2</i>	< 75 dBA	
3	Corner of 134 th ST and Hoover Ave.			69 dBA/ 68 dBA	
4	200 ft away from Kew Garden Road on 82 nd Road			65 dBA/ 55 dBA	
5	Between 82 nd road and 83 rd Ave on Queens Blvd			68 dBA/ 67 dBA	

Corrective Action:

Noise Monitoring



Project: DDC Queens Dismantle & Swing Space

Date: 6-24-2023 Sat Weather: 72°F cloudy

Work Activities: Demo 6th floor slab at south dayroom

Prepared by: Yao

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1	Queens Borough Hall			75 dBA	
2	Southwest corner of DA wing			75 dBA	
3	Corner of 134 th ST and Hoover Ave.	9:36	68.2	< 69 dBA/ 68 dBA N/A	truck noise, car noise
4	200 ft away from Kew Garden Road on 82 nd Road	10:28	62.2	< 65 dBA/ 55 dBA N/A	
5	Between 82 nd road and 83 rd Ave on Queens Blvd	10:05	68	= 68 dBA/ 67 dBA N/A	car horn, truck noise

Corrective Action:

N/A.

Noise Monitoring



Project: DDC Queens Dismantle & Swing Space

Date: 6/27/23 ~~Wed~~ Tue Weather: 78°F partly cloudy & Rain

Work Activities: Burning steel beams at 6th floor, 5th floor exterior brick removal

Prepared by: Hajeong Gim

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1	Queens Borough Hall			75 dBA	
2	Southwest corner of DA wing	14:35	62.5	< 75 dBA	
3	Corner of 134 th ST and Hoover Ave.			69 dBA/ 68 dBA	
4	200 ft away from Kew Garden Road on 82 nd Road			65 dBA/ 55 dBA	
5	Between 82 nd road and 83 rd Ave on Queens Blvd			68 dBA/ 67 dBA	

Corrective Action:

Noise Monitoring



Project: DDC Queens Dismantle & Swing Space

Date: 6/28/23 Weather: Sunny, showers

Work Activities: 5th fl Mezz level demo: burning steel beam @ ~~5th fl Mezz~~ 5th Mezz
5th fl Mezz slab demo, wall demo

Prepared by: Hajeong Lim

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1	Queens Borough Hall	11:32	65	< 75 dBA	
2	Southwest corner of DA wing			75 dBA	
3	Corner of 134 th ST and Hoover Ave.			69 dBA/ 68 dBA	
4	200 ft away from Kew Garden Road on 82 nd Road			65 dBA/ 55 dBA	
5	Between 82 nd road and 83 rd Ave on Queens Blvd			68 dBA/ 67 dBA	

Corrective Action:



Noise Monitoring

Project: DDC Queens Dismantle & Swing Space

Date: 6/29/30 Weather: SUNNY

Work Activities: 5th floor Demolition - burning steel beams, 4th floor slab
Demo exterior brick @ 4th floor chopping

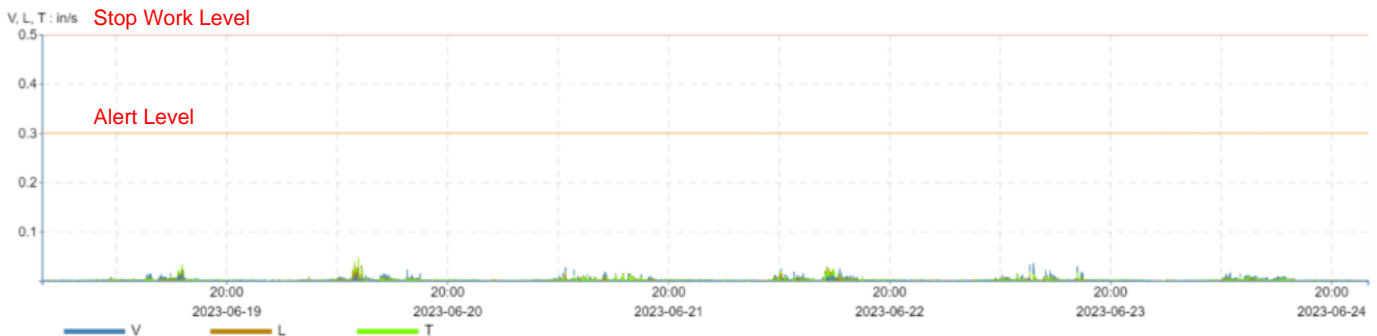
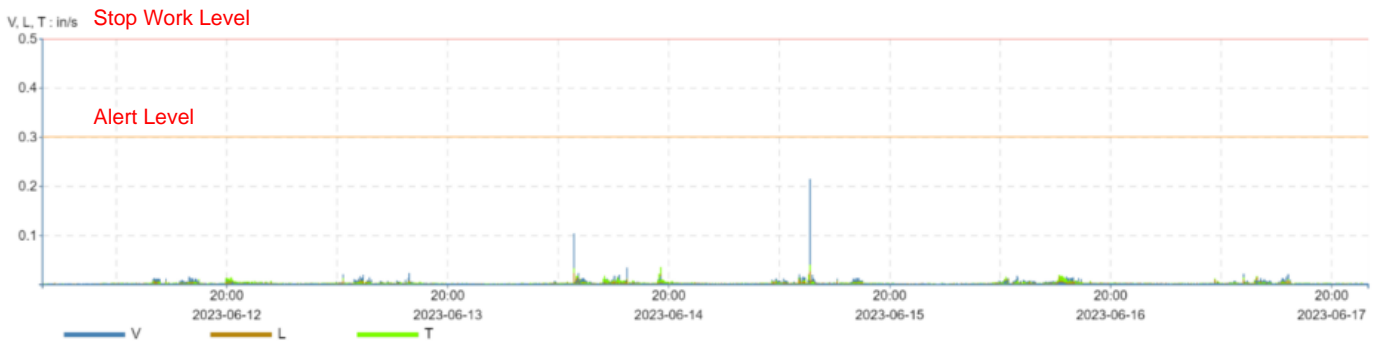
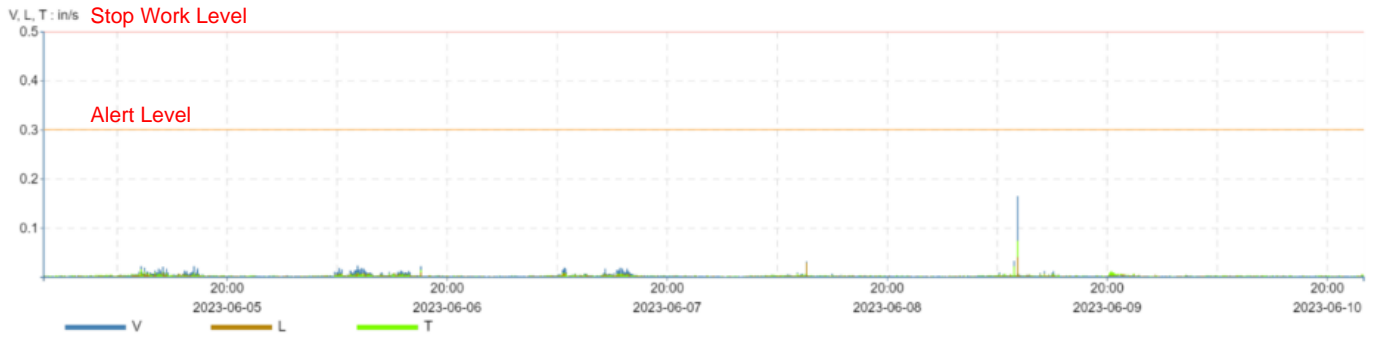
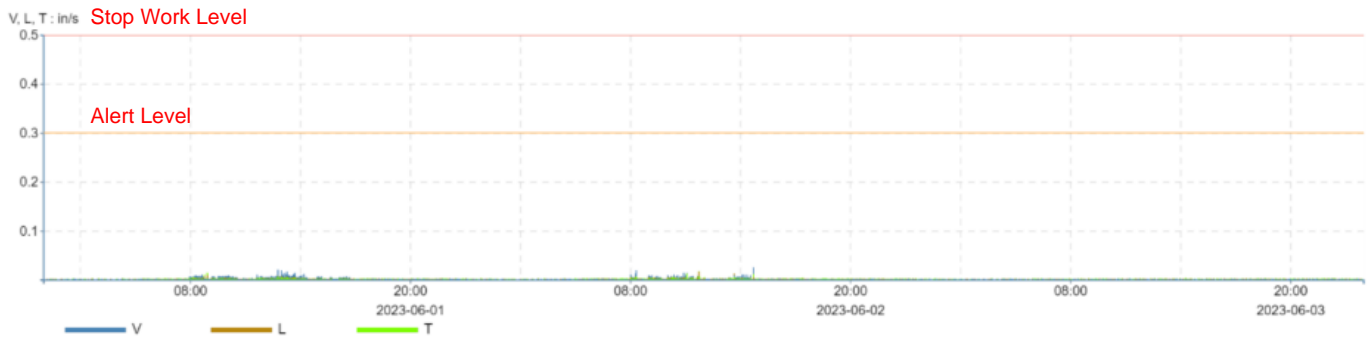
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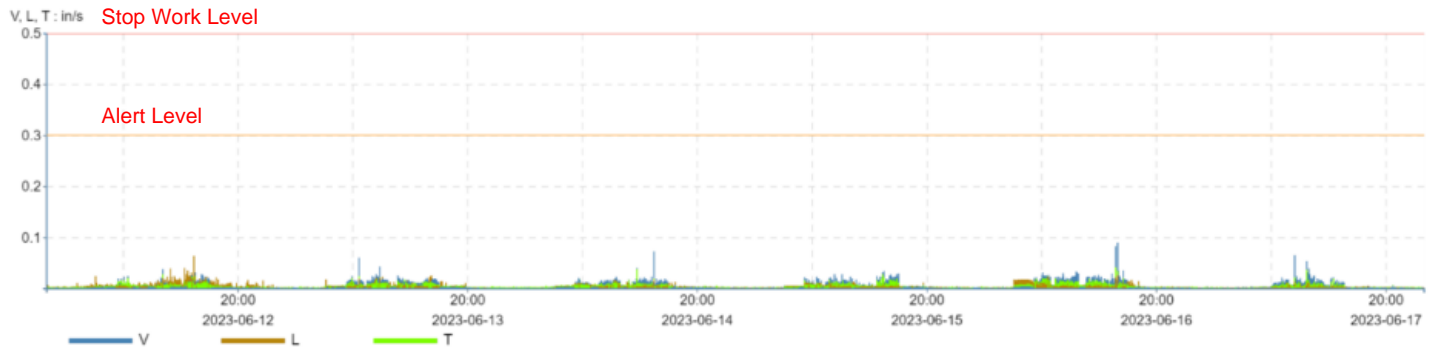
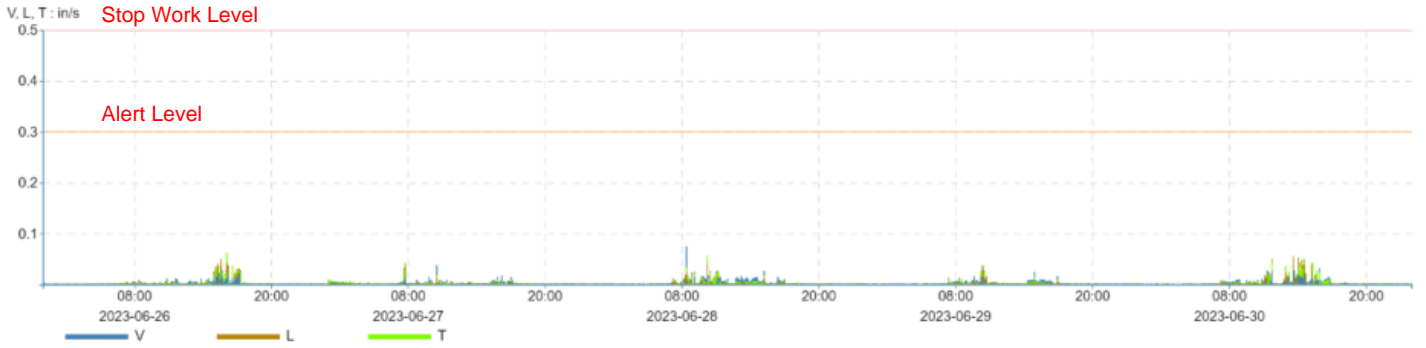
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1	Queens Borough Hall			75 dBA	
2	Southwest corner of DA wing			75 dBA	
3	Corner of 134 th ST and Hoover Ave.			69 dBA/ 68 dBA	
4	200 ft away from Kew Garden Road on 82 nd Road	08:13	58.5	65 dBA/ 55 dBA N/A	
5	Between 82 nd road and 83 rd Ave on Queens Blvd			68 dBA/ 67 dBA	

Corrective Action:

Vibration Monitor – VM1 June 2023

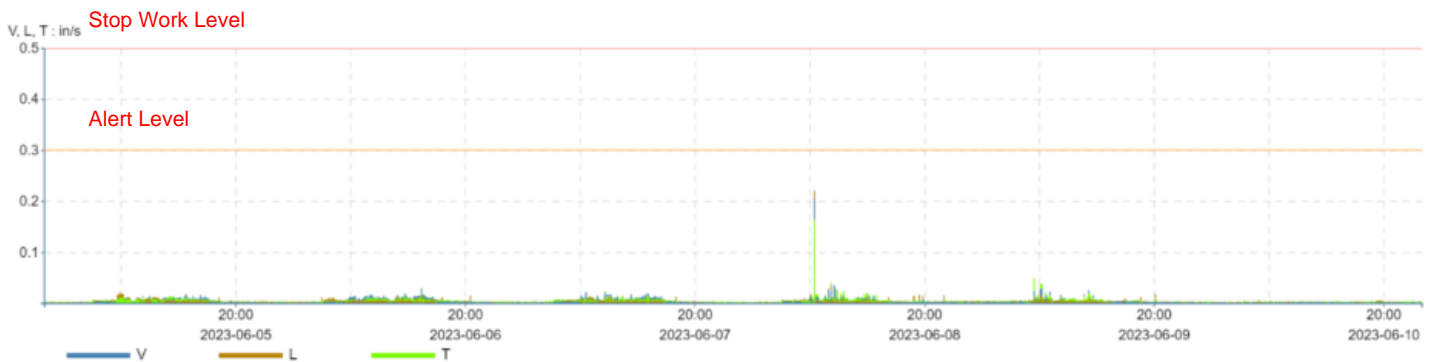
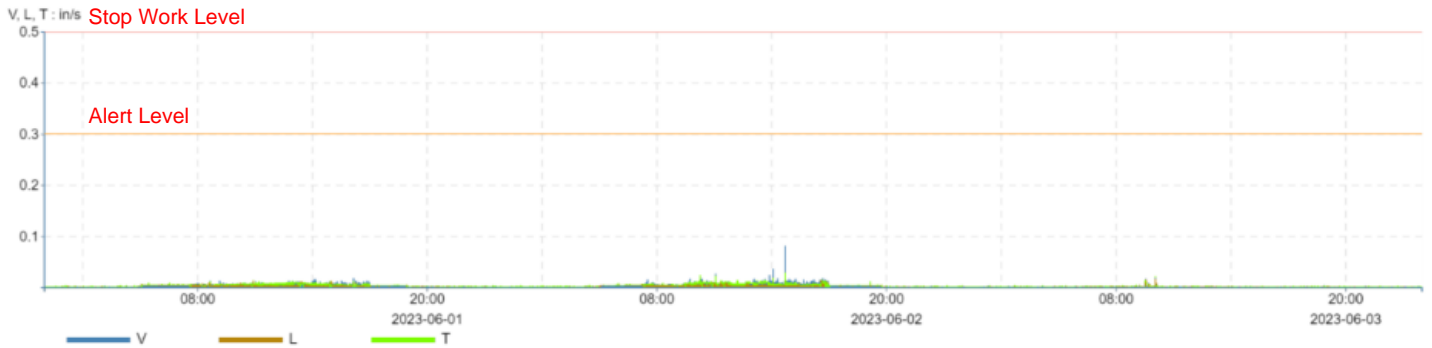
FAMILY JUSTICE CENTER – NORTHEAST CORNER

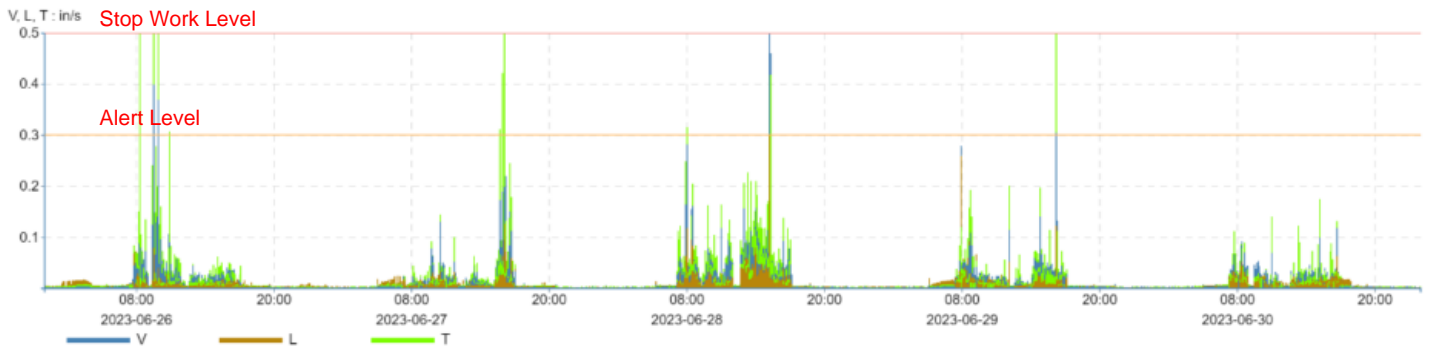
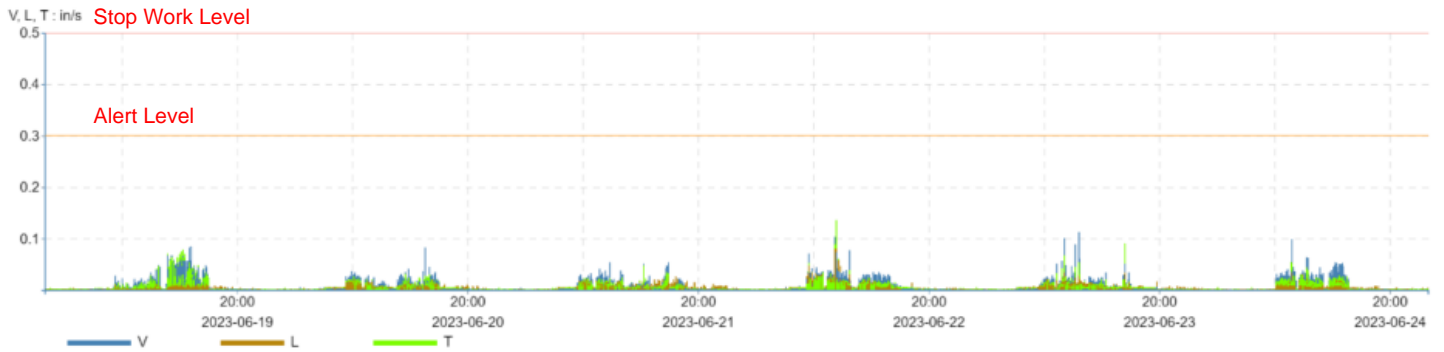




Vibration Monitor – VM2 June 2023

DA WING – EASTERN FAÇADE EXTERIOR





Vibration Monitor – VM3 June 2023

ANNEX – BASEMENT FIRE PUMP ROOM

