

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

Prepared By:
Hajeong Lim (HRCG)

DDC Project No.: BBJ Q DSS	Period Start: 04/01/24 End 04/11/24
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 (0.1 mg/m ³ 15 minute TWA)	Comments
10	7	None	Daily dust monitoring were not scheduled when it rained on 4/3 Mon & 4/4 Tue. No daily monitoring was required on 4/6 Sat when only interior work was scheduled.

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*

* Background concentration values vary daily. See Prestart/Background Condition Level in the attached graphs.

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

Narrative Summary of Air Monitoring, Excursions and Corrective Actions:

In April 2024, site grading 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.

The Design Builder, Hunter Roberts Construction Group, in conjunction with the Design Builder’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.

Dust monitoring concluded on April 11, 2024.

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
10	1	0	According to the monitoring plan for the site, the number of days performing noise monitoring (1) is more than the requirement of (0) day.

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

Narrative Summary of Noise Monitoring, Excursions and Corrective Actions:

In April 2024, noise levels remained below the set thresholds at all five locations. Dismantle-related site 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 due to ongoing dismantle activities.

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.

Noise monitoring concluded on April 11, 2024.

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
10	8	1	

Community Vibration Monitoring Monthly Excursions and Corrective Actions

Alert / Action Level = 0.3 in/s

Stop Work Level = 0.5 in/s

Date: Time	Maximum Vibration Level before Corrective Action (in/s)	Exceedance Duration	Maximum Vibration Level Followed Exceedance without Corrective Action (in/s)	Corrective Action
(1) exceedance April 4 approx. 8:30 am to 11:30 am at VM2 by DA Wing	0.4 to 2.27	< 30 sec, each exceedance	< 0.05	The cause of the alerts were direct contacts from overhead protection removal activities in the adjacent area. After these activities were completed in that area, less than 0.05 PPV level was followed.

Narrative Summary of Vibration Monitoring, Excursions and Corrective Actions:

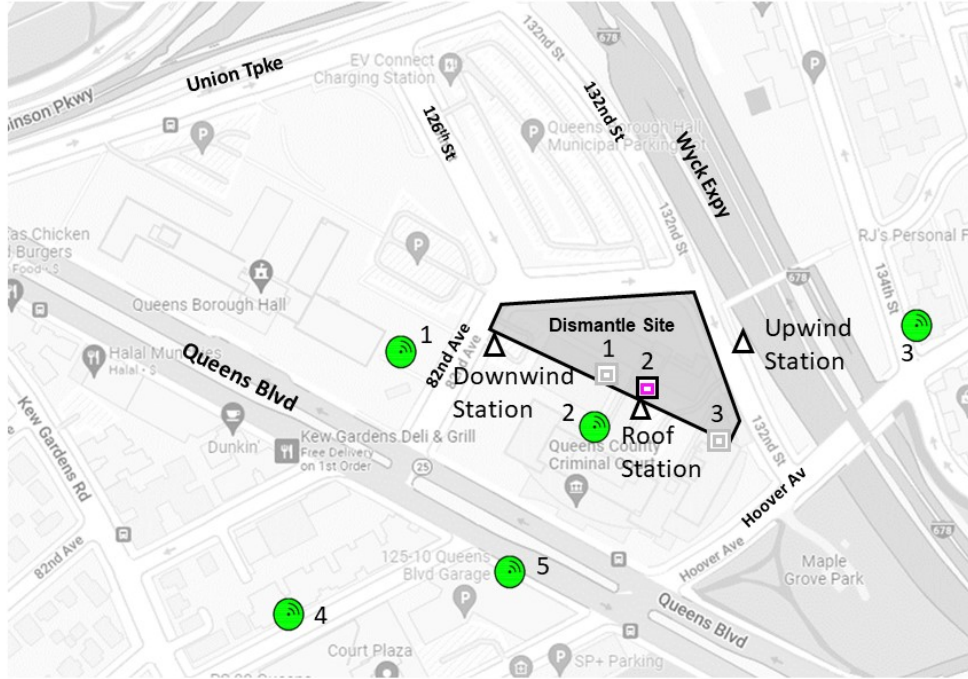
During the Month of April 2024, there was Zero vibration monitor exceedance caused by dismantle or site grading activities. All monitors showed results of vibration being under the warning limit of 0.3(in/sec) / stop work limit of 0.5(in/sec), except 4/4 when the vibration monitoring equipment #2 by DA Wing was in direct contact with the overhead protection removal activities.

Vibration monitoring concluded on April 11, 2024.


ATTACHMENTS:




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

Environmental Monitoring Queens – 03/05/24



As of 03/05/2024 Vibration Monitor Equipment 1 & 3 were demobilized.

 Inactive Vibration Monitor as of 03/05/2024

-  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

Site Grading Activity Daily Air Monitoring on April 1, 2024

Upwind Station Data Chart (PM₁₀)



Mass Conc. Total mg/m ³ DustTrak-8530 RS222(C)			Mass Conc. Total mg/m ³ AVG 15m mg/m ³ DustTrak-8530 RS222(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0.007	0.013	0.032	0.0083	0.0126	0.0187

Name BBJ Upwind
S/N 2B354001
Description FA06004
Location 126-01 82nd Ave, Kew Gardens, NY 11415, USA

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Downwind Station Data Chart (PM₁₀)



Mass Conc. Total mg/m ³ DustTrak-8530 RS222(C)			Mass Conc. Total mg/m ³ AVG 15m mg/m ³ DustTrak-8530 RS222(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0.008	0.015	0.074	0.0087	0.0143	0.0199

Name BBJ #3
S/N 2B354535
Description FA06003
Location 125-01 Queens Blvd, Kew Gardens, NY 11415, USA

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Site Grading Activity Air Daily Monitoring on April 4, 2024

Upwind Station Data Chart (PM₁₀)



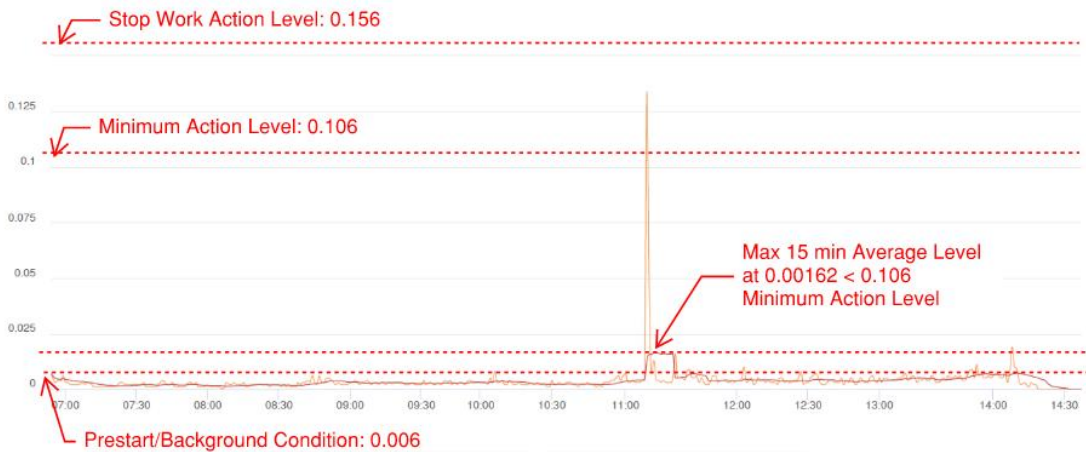
Mass Conc. Total mg/m ³ DustTrak-8530 R5232(C)			Mass Conc. Total mg/m ³ AVG 15m mg/m ³ DustTrak-8530 R5232(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0	0.001	0.006	0	0.001	0.006

Name BBJ Upwind
S/N 2B354001
Description FA06004
Location Queens Blvd/82 Av,
Queens, NY 11415, USA

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Downwind Station Data Chart (PM₁₀)

04/04/2024 0:00:21 – 04/05/2024 0:00:00
(GMT-05:00) Eastern Time (US & Canada)



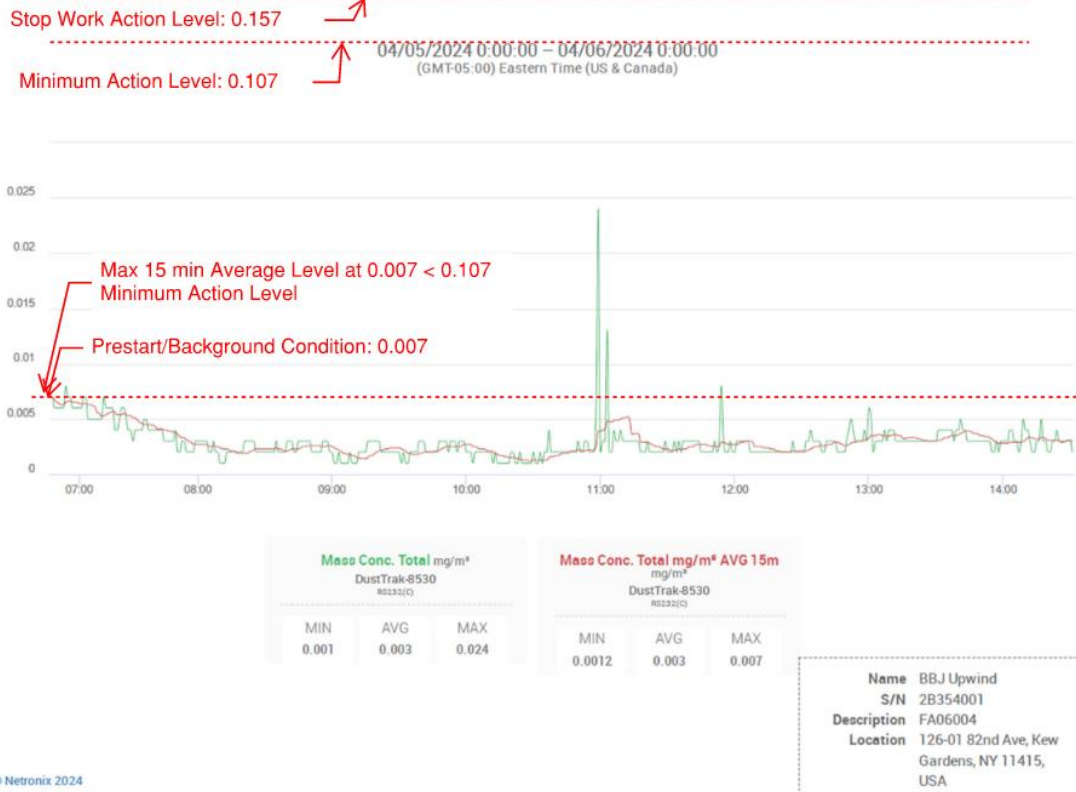
Mass Conc. Total mg/m ³ DustTrak-8530 R5232(C)			Mass Conc. Total mg/m ³ AVG 15m mg/m ³ DustTrak-8530 R5232(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0	0.004	0.134	0	0.0036	0.0162

Name BBJ #3
S/N 2B354535
Description FA06003
Location 82-35 134th St,
Jamaica, NY 11435,
USA

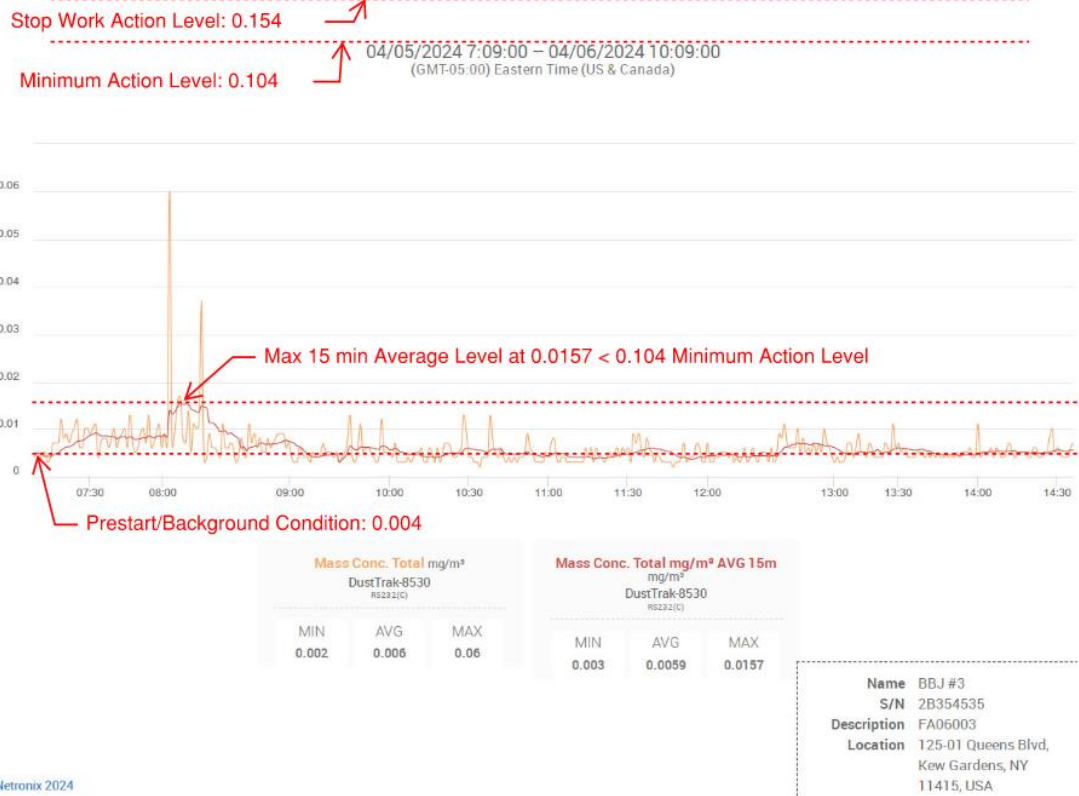
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Site Grading Activity Daily Air Monitoring on April 5, 2024

Upwind Station Data Chart (PM₁₀)

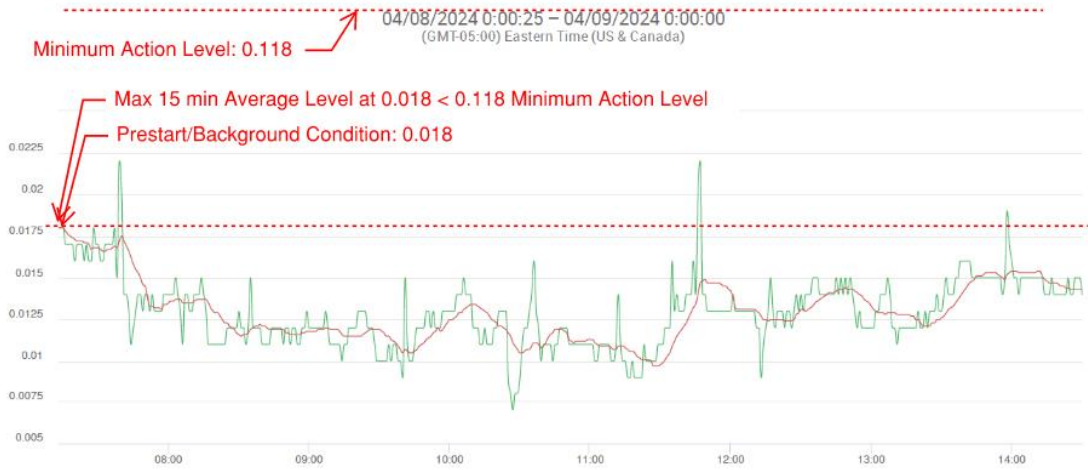


Downwind Station Data Chart (PM₁₀)



Site Grading Activity Daily Air Monitoring on April 8, 2024

Stop Work Action Level: 0.168 **Upwind Station Data Chart (PM₁₀)**



Mass Conc. Total mg/m³ DustTrak-8530 R5232(C)			Mass Conc. Total mg/m³ AVG 15m mg/m³ DustTrak-8530 R5232(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0.007	0.013	0.022	0.0097	0.013	0.018

Name BBJ Upwind
S/N 2B354001
Description FA06004
Location Queens County Criminal Building, Kew Gardens, NY 11415, USA

Netronix 2024

Downwind Station Data Chart (PM₁₀)



Mass Conc. Total mg/m³ DustTrak-8530 R5232(C)			Mass Conc. Total mg/m³ AVG 15m mg/m³ DustTrak-8530 R5232(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0.007	0.015	0.111	0.007	0.015	0.0337

Name BBJ #3
S/N 2B354535
Description FA06003
Location 125-01 Queens Blvd, Kew Gardens, NY 11415, USA

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Site Grading Activity Daily Air Monitoring on April 9, 2024

Upwind Station Data Chart (PM₁₀)

Stop Work Action Level: 0.177 04/09/2024 0:00:45 – 04/10/2024 0:00:00
(GMT-05:00) Eastern Time (US & Canada)

Minimum Action Level: 0.127



Mass Conc. Total mg/m ³ DustTrak-8530 R0222(C)			Mass Conc. Total mg/m ³ AVG 15m mg/m ³ DustTrak-8530 R0222(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0.01	0.027	0.085	0.0112	0.0266	0.0405

Name BBJ Upwind
S/N 2B354001
Description FA06004
Location 69 Kew Gardens Rd,
Kew Gardens, NY
11415, USA

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Downwind Station Data Chart (PM₁₀)

Stop Work Action Level: 0.178 04/09/2024 0:00:10 – 04/10/2024 0:00:00
(GMT-05:00) Eastern Time (US & Canada)

Minimum Action Level: 0.128



Mass Conc. Total mg/m ³ DustTrak-8530 R0222(C)			Mass Conc. Total mg/m ³ AVG 15m mg/m ³ DustTrak-8530 R0222(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0.012	0.033	0.095	0.0136	0.0328	0.0564

Name BBJ #3
S/N 2B354535
Description FA06003
Location 8185 126th St, Kew
Gardens, NY 11415,
USA

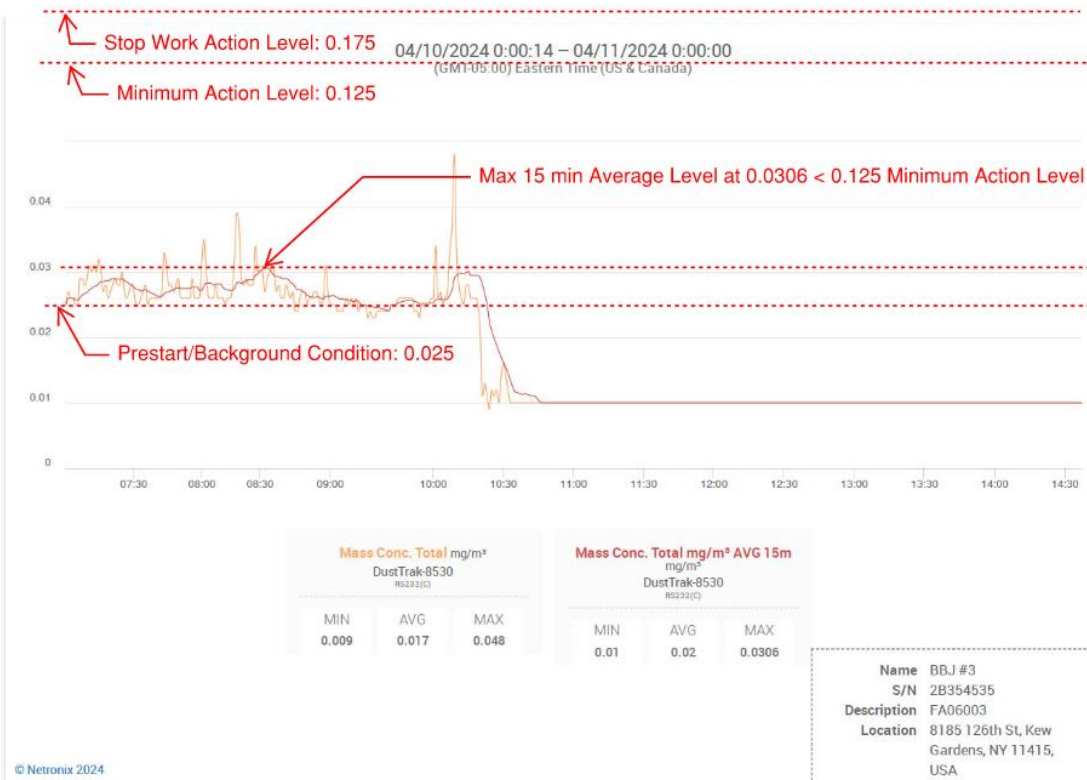
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Site Grading Activity Daily Air Monitoring on April 10, 2024

Upwind Station Data Chart (PM₁₀)



Downwind Station Data Chart (PM₁₀)



Note: The downwind fixed station recorded constant readings at approximately 1045 due to dust levels near the dust meter's detection limit.

Site Grading Activity Daily Air Monitoring on April 11, 2024

Upwind Station Data Chart (PM₁₀)



Mass Conc. Total mg/m ³ DustTrak-8530 R5232(C)			Mass Conc. Total mg/m ³ AVG 15m mg/m ³ DustTrak-8530 R5232(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0.009	0.037	0.077	0.009	0.0373	0.0725

Name BBJ Upwind
S/N 2B354001
Description FA06004
Location 125-01 Queens Blvd,
Kew Gardens, NY
11415, USA

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Downwind Station Data Chart (PM₁₀)



Mass Conc. Total mg/m ³ DustTrak-8530 R5232(C)			Mass Conc. Total mg/m ³ AVG 15m mg/m ³ DustTrak-8530 R5232(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0.017	0.043	0.076	0.0183	0.0435	0.074

Name BBJ #3
S/N 2B354535
Description FA06003
Location 8185 126th St, Kew
Gardens, NY 11415,
USA

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Noise Monitoring – Biweekly Follow Up during Dismantle Phase V

Noise Monitoring



Project: DDC Queens Dismantle & Swing Space

Date: 4-5-2024 Fri Weather: cloudy 46°F

Work Activities: site grading & pour concrete of sidewalk on 132nd st.

Prepared by: Jao

NO.	Location	Time	Noise (dBA)	Noise Action Threshold (Day/Night)	Note
1	Queens Borough Hall	12:57	62	75 dBA	Daytime noise action threshold not exceeded.
2	Southwest corner of DA wing	12:33	63	75 dBA	Daytime noise action threshold not exceeded.
3	Corner of 134 th ST and Hoover Ave.	1:25 PM	68.2	69 dBA/ 68 dBA NA	Daytime noise action threshold not exceeded.
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

Vibration Monitor – VM2 April 2024

APPENDIX

DA WING – NORTHWEST CORNER

2024-04-04 approx. 8:30 am to 11:30 am PPV Level reached 2.27 in/sec. We were removing the overhead protection in that area. The cause of the alerts were direct contacts from these activities. After the overhead protection removal was completed in that area, less than 0.05 PPV level was followed.

