Report
For
Outdoor Air Quality Testing
At The
North Intermediate and High Schools
Wilmington, MA

Study Dates:
January 14-15, 2026

Project# 226 007.00

STUDY CONDUCTED BY:

UNIVERSAL ENVIRONMENTAL CONSULTANTS
12 Brewster Road
Framingham, Massachusetts

UEC universal environmental consultants

January 16, 2026

Ms. Rani Philip
Dore & Whittier Architects
260 Merrimac Street
Newburyport, MA 01950

Reference: **Outdoor Air Quality Testing**
North Intermediate and High Schools, Wilmington, MA

Dear Ms. Philip:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

Enclosed please find the report for Outdoor Air Quality testing at the North Intermediate and High Schools, Wilmington, MA conducted on Wednesday, January 14, 2026, and Thursday, January 15, 2026.

Please do not hesitate to call should you have any questions.

Very truly yours,

Universal Environmental Consultants

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Ammar M. Dieb
President

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Enclosure

Scope:
UEC was contracted to perform an outdoor Air Quality testing at the North Intermediate and High Schools, Wilmington, MA conducted on Wednesday, January 14, 2026, and Thursday, January 15, 2026.

Methodology:
Carbon monoxide (***CO***) was measured using a Q-Trak XP monitor manufactured by TSI Incorporated. The unit is calibrated prior to use and serviced by an independent vendor annually.

Airborne particulate matter (***PM***) levels for PM_{10} and $PM_{2.5}$ were tested using a Q-Trak XP monitor manufactured by TSI Incorporated. This is a state-of-the-art instrument capable of simultaneously detecting PM_{10} and $PM_{2.5}$ in the microgram per cubic meter ($\mu g/m^3$) range. The instrument is a direct reading monitor and provided sampling readings at 1 second intervals over the duration of each test. The instrument was zeroed prior to testing and is serviced annually by the manufacturer or an independent vendor.

Real time ***PM*** Measurement is a useful comparative measure of indoor and outdoor dust levels as well as identifying indoor sources of ***PM***.

Results:

January 14, 2026
North Intermediate School
2'-5' From Bus Loop

Time	Carbon Monoxide	PM 10 (mg/m^3)	PM 2.5 (mg/m^3)	PM 1.0 (mg/m^3)
7:52 AM	0.0	0.008	0.007	0.006
7:54 AM	0.0	0.009	0.006	0.005
7:56 AM	0.0	0.006	0.005	0.004
-	-	-	-	-
8:46 AM	0.0	0.007	0.006	0.004
8:48 AM	0.0	0.011	0.010	0.007
8:50 AM	0.0	0.010	0.008	0.007
8:52 AM	0.0	0.010	0.009	0.004
8:54 AM	0.0	0.013	0.009	0.007
8:56 AM	0.0	0.009	0.009	0.007
8:58 AM	0.0	0.008	0.007	0.005
9:00 AM	0.0	0.010	0.009	0.007
9:02 AM	0.0	0.011	0.007	0.005
9:04 AM	0.0	0.007	0.006	0.004
9:06 AM	0.0	0.008	0.008	0.006
9:08 AM	0.0	0.008	0.007	0.006

15' From Bus Loop

Time	Carbon Monoxide	PM 10 (mg/m^3)	PM 2.5 (mg/m^3)	PM 1.0 (mg/m^3)
7:54 AM	0.0	0.00	0.00	0.00
7:56 AM	0.0	0.00	0.00	0.00
7:58 AM	0.0	0.00	0.00	0.00
-	-	-	-	-
8:46 AM	0.0	0.006	0.005	0.004
8:48 AM	0.0	0.006	0.004	0.004
8:50 AM	0.0	0.005	0.004	0.004
8:52 AM	0.0	0.005	0.005	0.004
8:54 AM	0.0	0.007	0.005	0.004
8:56 AM	0.0	0.007	0.005	0.004
8:58 AM	0.0	0.008	0.005	0.004
9:00 AM	0.0	0.007	0.005	0.004
9:02 AM	0.0	0.007	0.005	0.004
9:04 AM	0.0	0.008	0.005	0.004
9:06 AM	0.0	0.007	0.005	0.004
9:08 AM	0.0	0.006	0.005	0.004

Buses began arriving at 8:51 AM. They would pull into the bus loop, drop the kids off, and promptly leave the site. There were eleven (11) buses total that came through only reaching a maximum of three (3) buses in the loop at one (1) time. The buses stopped arriving at 9:07 AM.

January 15, 2026
North Intermediate School
2'-5' From Bus Loop

Time	Carbon Monoxide	PM 10 (mg/m^3)	PM 2.5 (mg/m^3)	PM 1.0 (mg/m^3)
7:54 AM	0.0	0.006	0.005	0.004
7:56 AM	0.0	0.005	0.004	0.004
7:58 AM	0.0	0.006	0.006	0.005
-	-	-	-	-
8:46 AM	0.0	0.004	0.003	0.002
8:48 AM	0.0	0.005	0.004	0.003
8:50 AM	0.0	0.004	0.004	0.003
8:52 AM	0.0	0.006	0.005	0.004
8:54 AM	0.0	0.007	0.006	0.006
8:56 AM	0.0	0.005	0.004	0.003
8:58 AM	0.0	0.003	0.002	0.001
9:00 AM	0.0	0.004	0.003	0.002
9:02 AM	0.0	0.007	0.005	0.004
9:04 AM	0.0	0.006	0.005	0.004
9:06 AM	0.0	0.004	0.003	0.003
9:08 AM	0.0	0.008	0.007	0.006

15' From Bus Loop

Time	Carbon Monoxide	PM 10 (mg/m^3)	PM 2.5 (mg/m^3)	PM 1.0 (mg/m^3)
7:54 AM	0.0	0.004	0.003	0.002
7:56 AM	0.0	0.005	0.003	0.002
7:58 AM	0.0	0.005	0.004	0.003
-	-	-	-	-
8:46 AM	0.0	0.004	0.004	0.003
8:48 AM	0.0	0.003	0.003	0.002
8:50 AM	0.0	0.005	0.004	0.002
8:52 AM	0.0	0.004	0.004	0.003
8:54 AM	0.0	0.004	0.003	0.002
8:56 AM	0.0	0.003	0.002	0.001
8:58 AM	0.0	0.005	0.004	0.004
9:00 AM	0.0	0.006	0.004	0.004
9:02 AM	0.0	0.004	0.003	0.002
9:04 AM	0.0	0.003	0.002	0.001
9:06 AM	0.0	0.004	0.003	0.002
9:08 AM	0.0	0.005	0.004	0.003

Buses began arriving at 8:50 AM. They would pull into the bus loop, drop the kids off, and promptly leave the site. There were eleven (11) buses total that came through only reaching a maximum of three (3) buses in the loop at one (1) time. The buses stopped arriving at 9:08 AM.

January 14, 2026
High School
2'-5' From Bus Loop

Time	Carbon Monoxide	PM 10 (mg/m^3)	PM 2.5 (mg/m^3)	PM 1.0 (mg/m^3)
2:16 PM	0.0	0.010	0.007	0.005
2:18 PM	0.0	0.006	0.004	0.004
2:20 PM	0.0	0.008	0.007	0.005
2:22 PM	0.0	0.006	0.005	0.004
2:24 PM	0.0	0.008	0.004	0.003
2:26 PM	0.0	0.008	0.007	0.005
2:28 PM	0.0	0.008	0.008	0.006
2:30 PM	0.0	0.007	0.006	0.005
2:32 PM	0.0	0.009	0.007	0.005
2:34 PM	0.0	0.006	0.004	0.003
2:36 PM	0.0	0.007	0.006	0.005
2:38 PM	0.0	0.006	0.003	0.003
2:40 PM	0.0	0.009	0.006	0.004
2:42 PM	0.0	0.006	0.006	0.005
2:44 PM	0.0	0.006	0.005	0.004
2:46 PM	0.0	0.005	0.005	0.004
2:48 PM	0.0	0.007	0.006	0.005
2:50 PM	0.0	0.011	0.009	0.006
2:52 PM	0.0	0.007	0.005	0.004
2:54 PM	0.0	0.008	0.007	0.004
2:56 PM	0.0	0.006	0.005	0.003
2:58 PM	0.0	0.007	0.006	0.006
3:00 PM	0.0	0.009	0.008	0.007

Buses began arriving at 2:16 PM. By 2:26 PM, five (5) buses had arrived. From 2:32-2:34PM two (2) more buses arrived. At 2:40 PM all seven (7) buses left the lot. Starting when the other buses left until 2:44 PM, four (4) more buses arrived, dropped off Middle Schoolers, picked up High Schoolers, and left again. There was one last bus at 2:50 PM which had the same drop off and pickup.

January 15, 2026
High School
2'-5' From Bus Loop

Time	Carbon Monoxide	PM 10 (mg/m^3)	PM 2.5 (mg/m^3)	PM 1.0 (mg/m^3)
2:16 PM	0.0	0.004	0.004	0.004
2:18 PM	0.0	0.003	0.002	0.002
2:20 PM	0.0	0.005	0.005	0.004
2:22 PM	0.0	0.005	0.005	0.004
2:24 PM	0.0	0.006	0.005	0.004
2:26 PM	0.0	0.005	0.004	0.004
2:28 PM	0.0	0.006	0.004	0.004

2:30 PM	0.0	0.006	0.004	0.003
2:32 PM	0.0	0.004	0.004	0.003
2:34 PM	0.0	0.005	0.005	0.005
2:36 PM	0.0	0.004	0.004	0.003
2:38 PM	0.0	0.005	0.004	0.004
2:40 PM	0.0	0.006	0.006	0.006
2:42 PM	0.0	0.004	0.004	0.003
2:44 PM	0.0	0.007	0.007	0.005
2:46 PM	0.0	0.005	0.005	0.004
2:48 PM	0.0	0.007	0.007	0.006
2:50 PM	0.0	0.006	0.006	0.005
2:52 PM	0.0	0.007	0.007	0.006
2:54 PM	0.0	0.008	0.008	0.007
2:56 PM	0.0	0.007	0.007	0.006
2:58 PM	0.0	0.006	0.006	0.005
3:00 PM	0.0	0.005	0.005	0.004

Buses began arriving at 2:16 PM. By 2:32 PM, seven (7) buses had arrived. At 2:40 PM the buses had already loaded up and all seven (7) left the lot. From 2:42-2:48 PM, nine (9) buses came through the loop. They would pull up, drop off kids, pick up more kids, and leave. The last bus had come and gone by 2:48 PM.

Legend:
mg/m^3 - milligrams per cubic meter.

Observations and Interpretation of Results:

Carbon Monoxide
No ***CO*** was detected during testing.

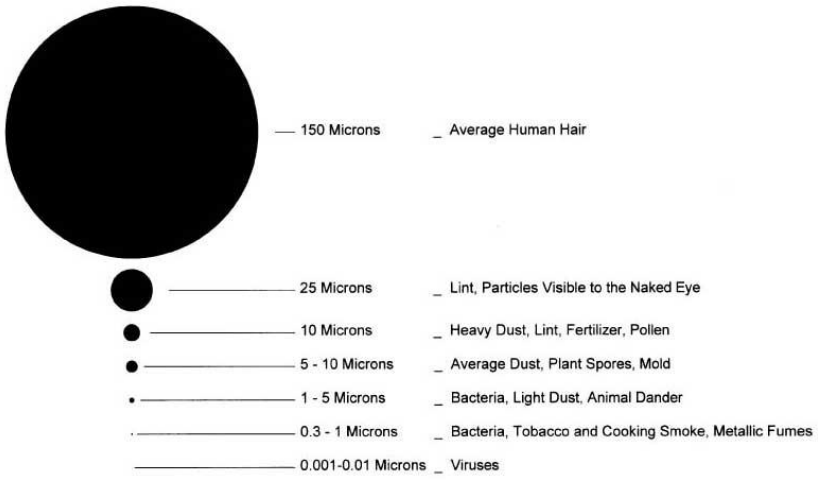
Airborne Particulate Matter (Dust):
Dust monitoring is one aspect of air quality that an industrial hygienist can use to determine the amount of dust particles present in the workplace, cities, or communities over a given period.

The Particulate Matter (PM) monitoring focused on measuring a range of particulate sizes in the air that are equal to or less than 10 micrometers (PM10) and equal to or less than 2.5 micrometers (PM2.5) in diameter (course dust and fine dust respectively), i.e., PM capable of penetrating the outer defenses of the respiratory tract, such as the mouth and nose, and can pass into the lungs based on PM size. PM air pollutants include but are not limited to soot, smoke, salts, metals, acids and soil and road dust. These pollutants are typically monitored along work site fence lines, industrial complexes, during wildfires, and high traffic areas (vehicle exhaust).

Environmental Protection Agency (EPA) health-based National Ambient Air Quality Standard (NAAQS) for PM10 is 150-µg/m^3 and for PM2.5 is 35-µg/m^3 (measured as a 24-hours period concentration) for outdoor (ambient) air. The OSHA Permissible Exposure Limit (PEL) for occupational exposure for respirable dust is 5-mg/m^3 (5,000-µg/m^3) for a time-weighted average (8 hour) exposure. While the EPA NAAQS is an outdoor, ambient air standard, it is a useful reference guide for acceptable air quality in general with limits far below OSHA worker compliance requirement levels.

The TSI Q-Trak XP monitor used in this survey can measure PM simultaneously as PM10, PM2.5, and PM1, i.e., particles in the size range categories of 10, 2.5, and 1 micrometer diameter.

Figure 1.1-Visual Particle Size Comparison Chart.



Levels of PM10 recorded in areas tested during the survey ranged from **0.0 to 0.013-mg/m^3**. EPA's health-based National Ambient Air Quality Standard (NAAQS) recommended level for PM10 is **0.150-mg/m^3**. All areas tested were much lower than the EPA recommended level.

Levels of PM2.5 recorded in areas tested during the survey ranged from **0.0 to 0.010-mg/m^3**. EPA's health-based National Ambient Air Quality Standard (NAAQS) recommended level for PM2.5 is **0.035-mg/m^3**. All areas tested were much lower the the EPA recommended level.

Limitations and Conditions:
This report has been completed based on visual and physical observations made and information available at the time of the site visits. This report is intended to be used as a summary of available information on existing conditions with conclusions based on a reasonable and knowledgeable review of evidence found in accordance with normally accepted industry standards, state, and federal protocols, and within the scope and budget established by the client. Any additional data obtained by further review must be reviewed by UEC and the conclusions presented herein may be modified accordingly.

This report and attachments, prepared for the exclusive use of Owner for use in an environmental evaluation of the subject site, are an integral part of the inspections and opinions should not be formulated without reading the report in its entirety. No part of this report may be altered, used, copied, or relied upon without prior written permission from UEC, except that this report may be conveyed in its entirety to parties associated with Owner for this subject study.