



September 30, 2019

School District of Philadelphia  
Office of Environmental Management & Services  
440 N. Broad Street  
Suite 373  
Philadelphia, PA 19130

**ATTENTION:** Mr. Brian Joseph

**REFERENCE:** Dust Monitoring  
Benjamin Franklin High School – ULCS #2010  
550 North Broad Street, Philadelphia, PA  
Criterion's Project Number: **192440**

Dear Mr. Joseph,

On September 21, 23, 25, 26 and 27, 2019, Ms. Julie Mui, Mr. Sam Oseroff and Mr. Isa Haj of Criterion Laboratories, Inc. (Criterion) conducted particulate dust monitoring in and around various construction areas at Benjamin Franklin High School.

The dust monitoring was conducted using the Met One Aerocet-531S Mass Particle Counter/Dust Monitor. This monitor measures PM 1, PM 2.5, PM 7, PM 10 (respirable dust) and Total Dust. The results for this monitoring are attached to this report.

### **Current Federal Regulations**

Occupational Safety and Health Administration (OSHA) has set a limit of 5 milligrams/cubic meter ( $\text{mg}/\text{m}^3$ ) for PM 10 (respirable dust) and  $15 \text{ mg}/\text{m}^3$  for Total Dust.

The American Conference of Governmental Industrial Hygienists (ACGIH) has set a threshold limit value (TLV) over an average 8 hour work day over a 40 hour work week of  $10 \text{ mg}/\text{m}^3$  for Total Dust.

The Environmental Protection Agency (EPA) sets a limit of  $35 \text{ mg}/\text{m}^3$  for PM 2.5 over a 24 hour period and  $150 \text{ mg}/\text{m}^3$  for PM 10 over a 24 hour period.

### **Baseline Levels**

On September 21, 2019, baseline levels of various particulates were established while the school was empty of all students, staff and construction personnel. The highest baseline levels recorded outside the work area for PM 10 (respirable dust) and Total Dust plus 50% of this initial highest reading will be used to compare dust levels to the non-construction areas for the remainder of the project.

If the PM 10 or the Total Dust level of dust is found to be higher than the following baseline levels, corrective action must be taken to prevent continued elevated dust levels.

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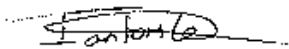
The baseline level to be used for comparison is 0.277mg for PM 10 and 0.413 mg for Total Dust (TD).

**Conclusion**

All air sampling results collected throughout the school on September 23<sup>rd</sup>, 25<sup>th</sup>, 26<sup>th</sup> and 27<sup>th</sup> sampling were found to be within the OSHA, ACGIH, EPA limits quoted above and the baseline level readings the School District is using as a standard.

Should you have any questions or concerns, please feel free to contact me at (215) 244-1300, extension 1033.

Sincerely,



Ian Forster  
Project Manger

Attachment

Benjamin Franklin High School (UCLS# 2010)		Date of Sampling	September 21, 2019				Criterion Project Number	192440
Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust	Comments	
1st Floor - Cafeteria - Ben Franklin Side - Inside Work Area (IWA)	8.40 am	0.000	0.005	0.006	0.012	0.178	Workers setting up containment in Kitchen/Cafeteria	
1st Floor - Cafeteria - Ben Franklin Side - Outside Work Area (OWA)	8.45 am	0.000	0.005	0.008	0.010	0.182	Outside Work Area	
Main Entrance - Broad Street Side - Ben Franklin Side	8.50 am	0.000	0.004	0.022	0.031	0.042		
1st Floor - Common Area - SLA Side (IWA)	8.56 am	0.000	0.014	0.172	0.262	0.395	Workers setting up containment	
1st Floor - Green Street Side - Outside 102	9.00 am	0.000	0.003	0.010	0.016	0.026	Outside work area	
Gymnasium - Entrance	9.03 am	0.000	0.002	0.006	0.006	0.016		
6th Floor - West Side - (IWA)	9.30 am	0.000	0.002	0.017	0.026	0.039	Workers setting up containment	
6th Floor - East Side - (IWA)	9.36 am	0.000	0.001	0.065	0.090	X	X - Meter lost power	
5th Floor - Hallway - (OWA)	11.26 am	0.000	0.004	0.034	0.048	0.063		
5th Floor - Hallway - (IWA)	11.35 am	0.000	0.005	0.028	0.037	0.055	No activity in this area	
5th Floor - Elevator Lobby	11.45 am	0.000	0.015	0.136	0.185	0.229	Workers bringing up supplies.	
1st Floor - Cafeteria - Ben Franklin Side (IWA)	1.00 pm	0.000	0.002	0.011	0.020	0.032	Negative air unit set up in the containment	
1st Floor - Cafeteria - Ben Franklin Side - Outside Work Area (OWA)	1.15 pm	0.000	0.006	0.032	0.044	0.050		
1st Floor - Green Street Side - Outside 102	1.30 pm	0.000	0.005	0.034	0.044	0.051		
4th Floor Hallway	1.45 pm	0.000	0.005	0.005	0.019	0.030		
6th Floor - West Side (IWA)	2.00 pm	0.000	0.001	0.011	0.015	0.015	No activity in this area	
6th Floor - East Side - (IWA)	2.15 pm	0.000	0.000	0.006	0.012	0.048	No activity in this area	
Outside - Exterior	3.30 pm	0.000	0.000	0.005	0.009	0.015		

Benjamin Franklin High School (UCLS# 2010)

Date of Sampling

September 23, 2019

Criterion Project Number

192440

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments
1st Floor - Cafeteria - In Front of Baxter Hall	4.00 pm	0.0000	0.0020	0.0110	0.0160	0.0230	
1st Floor - Elevator Lobby	4.15 pm	0.0000	0.0050	0.0090	0.0011	0.0150	
1st Floor - Green Street Entrance Outside 102	4.35 pm	0.0000	0.0010	0.0080	0.0100	0.0130	
5th Floor - Elevator Lobby	5.00 pm	0.0000	0.0020	0.0060	0.0070	0.0090	
5th Floor - SLA Side - Hallway outside Work Area	5.10 pm	0.0000	0.0001	0.0030	0.0040	0.0060	
Outside - Exterior	8.30 pm	0.0000	0.0000	0.0090	0.0180	0.0028	

Benjamin Franklin High School (UCLS# 2010)

Date of Sampling

September 25, 2019

Criterion Project Number

192440

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments
Exterior	9.18 am	0.000	0.001	0.006	0.009	0.014	
Cafeteria	9.34 am	0.000	0.000	0.006	0.008	0.011	
1st Floor - Elevator Lobby	9.40 am	0.000	0.001	0.020	0.031	0.050	
Green Street Entrance by Room 102	9.48 am	0.000	0.001	0.011	0.016	0.023	
5th Floor - Hallway at Construction Area	9.53 am	0.011	0.015	0.025	0.031	0.039	
Room 507	9.55 am	0.007	0.010	0.013	0.016	0.024	
5th Floor - Hallway at Room 517	9.59 am	0.000	0.001	0.006	0.010	0.020	
Room 518	10.12 am	0.000	0.001	0.008	0.010	0.019	
6th Floor - Stairwell B	10.18 am	0.000	0.003	0.017	0.028	0.047	Stairwell Visibly Dusty
5th Floor - Stairwell B	10.23 am	0.000	0.003	0.017	0.025	0.037	Stairwell Visibly Dusty
5th Floor - Elevator Lobby	10.27 am	0.000	0.003	0.019	0.027	0.037	
Cafeteria	12.25 pm	0.000	0.000	0.005	0.008	0.011	
1st Floor - Elevator Lobby	12.28 pm	0.000	0.002	0.022	0.035	0.048	
Green Street Entrance by Room 102	12.31 pm	0.000	0.001	0.011	0.015	0.020	
6th Floor - Stairwell B	12.34 pm	0.000	0.003	0.025	0.033	0.043	Stairwell Visibly Dusty
5th Floor - Stairwell B	12.35 pm	0.000	0.001	0.037	0.046	0.064	Stairwell Visibly Dusty
1st Floor - Hallway by Gym	12.41 pm	0.000	0.002	0.014	0.019	0.030	
5th Floor - Hallway at Construction Area	12.46 pm	0.001	0.003	0.012	0.015	0.020	
Room 507	12.49 pm	0.002	0.004	0.012	0.019	0.046	
5th Floor Hallway at Room 517	12.54 pm	0.000	0.001	0.005	0.007	0.010	
Room 518	1.00 pm	0.000	0.000	0.001	0.001	0.006	
5th Floor - Elevator Lobby	1.04 pm	0.000	0.004	0.020	0.029	0.040	

Benjamin Franklin High School (UCLS# 2010)		Date of Sampling	26-Sep-19				Criterion Project Number	192440
Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments	
Outdoors	7.37 am	0.000	0.001	0.018	0.023	0.027	Brandywine and Broad	
Cafeteria at Work Area	7.41 am	0.000	0.001	0.015	0.020	0.030		
1st Floor - Elevator Lobby	7.50 am	0.000	0.003	0.023	0.036	0.060		
1st Floor - Hallway by Gym	7.55 am	0.000	0.003	0.026	0.043	0.066		
Green Street Entrance by Room 102	8.04 am	0.000	0.003	0.048	0.091	0.156	Exterior Door open, many people moving through the building	
6th Floor - Stairwell B	8.07 am	0.000	0.006	0.038	0.081	0.146	Workers walking by during sampling	
5th Floor - Stairwell B	8.10 am	0.000	0.005	0.048	0.076	0.122		
5th Floor - Elevator Lobby	8.18 am	0.000	0.005	0.065	0.088	0.112		
5th Floor - Hallway at Room 517	8.23 am	0.000	0.002	0.012	0.015	0.024		
Room 518	8.30 am	0.000	0.001	0.006	0.007	0.008		
5th Floor - Hallway at Room 507	8.34 am	0.000	0.003	0.018	0.027	0.037		
Room 507	8.38 am	0.000	0.001	0.009	0.012	0.017		
Cafeteria at Work Area	12.12 pm	0.000	0.002	0.012	0.017	0.028		
1st Floor - Elevator Lobby	12.15 pm	0.000	0.003	0.027	0.035	0.040		
1st Floor - Hallway by Gym	12.20 pm	0.000	0.001	0.014	0.019	0.029		
Green Street Entrance by Room 102	12.24 pm	0.000	0.001	0.013	0.019	0.032		
6th Floor - Stairwell B	12.30 pm	0.000	0.004	0.021	0.034	0.049		
5th Floor - Stairwell B	12.34 pm	0.000	0.001	0.030	0.045	0.069		
5th Floor - Elevator Lobby	12.37 pm	0.000	0.003	0.018	0.023	0.025		
5th Floor - Hallway at Room 517	12.40 pm	0.000	0.001	0.007	0.010	0.013		
Room 518	12.43 pm	0.000	0.001	0.005	0.006	0.009		
5th Floor - Hallway at Room 507	12.47 pm	0.000	0.002	0.006	0.008	0.011		
Room 507	12.50 pm	0.002	0.003	0.005	0.006	0.007		
Outside Work Area - Cafeteria at Construction	1.13 pm	0.000	0.001	0.011	0.016	0.027		
Outside Work Area - 1st Floor - Elevator Lobby	1.16 pm	0.000	0.005	0.025	0.04	0.062		
Outside Work Area - 1st Floor - Hallway by Gym	1.20 pm	0.000	0.001	0.010	0.015	0.025		
Outside Work Area - 1stFloor Green Street Entrance	1.23 pm	0.000	0.001	0.009	0.015	0.024		
Outside Work Area - 6th Floor - Stairwell B	1.29 pm	0.000	0.004	0.035	0.052	0.076		
Outside Work Area - 5th Floor - Stairwell B	1.33 pm	0.000	0.002	0.009	0.022	0.040		
Outside Work Area - 5th Floor - Elevator Lobby	1.36 pm	0.000	0.001	0.009	0.016	0.031		
Outside Work Area - 5th Floor - Hallway by Room 517	1.42 pm	0.000	0.001	0.004	0.006	0.013		
Outside Work Area - Room 518	1.45 pm	0.000	0.001	0.004	0.006	0.011		
Outside Work Area - 5th Floor Hallway by Room 507	1.47 pm	0.000	0.002	0.007	0.012	0.025		
Outdoors	2.07 pm	0.000	0.002	0.010	0.016	0.029		

Benjamin Franklin High School (UCLS# 2010)		Date of Sampling	27-Sep-19				Criterion Project Number	192440
Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments	
Outside the Work Area - Cafeteria at Construction	7.12 am	0.000	0.000	0.003	0.004	0.005		
Outside the Work Area - Elevator Lobby 1 <sup>st</sup> Floor	7.18 am	0.000	0.001	0.015	0.020	0.029		
Outside the Work Area - 1 <sup>st</sup> Floor Hallway by Gym	7.22 am	0.000	0.001	0.006	0.008	0.010		
Outside the Work Area - 1 <sup>st</sup> Floor Green St. Entrance	7.26 am	0.000	0.001	0.011	0.016	0.026		
Outside the Work Area - Stairwell B – 6 <sup>th</sup> Floor	7.33 am	0.000	0.001	0.011	0.025	0.050		
Outside the Work Area - Stairwell B – 5 <sup>th</sup> Floor	7.36 am	0.000	0.001	0.020	0.032	0.051		
Outside the Work Area - 5 <sup>th</sup> Floor Elevator Lobby	7.39 am	0.000	0.004	0.028	0.042	0.057		
Outside the Work Area - 5 <sup>th</sup> Floor Hallway by Room 517	7.41 am	0.000	0.002	0.026	0.039	0.048		
Outside the Work Area - Room 517	7.45 am	0.000	0.001	0.009	0.012	0.014		
Outside the Work Area - 5 <sup>th</sup> Floor Hallway by Room 507	7.49 am	0.000	0.003	0.021	0.029	0.037		
Outside the Work Area - Room 507	7.52 am	0.000	0.001	0.006	0.009	0.010		
Outdoors	8.00 am	0.000	0.000	0.005	0.006	0.009		
Outside the Work Area - Cafeteria at Construction	10.08 am	0.000	0.001	0.005	0.009	0.015		
Outside the Work Area - Elevator Lobby 1 <sup>st</sup> Floor	10.17 am	0.000	0.003	0.016	0.037	0.065		
Outside the Work Area - 1 <sup>st</sup> Floor Hallway by Gym	10.22 am	0.000	0.001	0.014	0.026	0.040		
Outside the Work Area - 1 <sup>st</sup> Floor Green St. Entrance	10.26 am	0.000	0.004	0.037	0.057	0.075		
Outside the Work Area - Stairwell B – 6 <sup>th</sup> Floor	10.34 am	0.000	0.002	0.013	0.030	0.064		
Outside the Work Area - Stairwell B – 5 <sup>th</sup> Floor	10.38 am	0.000	0.001	0.027	0.047	0.091		
Outside the Work Area - 5 <sup>th</sup> Floor Elevator Lobby	10.41 am	0.000	0.004	0.028	0.041	0.055		
Outside the Work Area - 5 <sup>th</sup> Floor Hallway by Room 517	10.44 am	0.000	0.002	0.016	0.021	0.025		
Outside the Work Area - Room 517	10.47 am	0.000	0.001	0.004	0.006	0.007		
Outside the Work Area - 5 <sup>th</sup> Floor Hallway by Room 507	10.50 am	0.000	0.004	0.031	0.039	0.046		
Outside the Work Area - Room 507	10.5. am	0.000	0.002	0.008	0.009	0.010		
Outdoors	11.06 am	0.000	0.001	0.009	0.013	0.019		
Outside the Work Area - Cafeteria at Construction	1.26 pm	0.000	0.001	0.006	0.009	0.013		
Outside the Work Area - Elevator Lobby 1 <sup>st</sup> Floor	1.29 pm	0.000	0.002	0.007	0.012	0.042		
Outside the Work Area - 1 <sup>st</sup> Floor Hallway by Gym	1.32 pm	0.000	0.001	0.006	0.009	0.013		
Outside the Work Area - 1 <sup>st</sup> Floor Green St. Entrance	1.36 pm	0.000	0.001	0.019	0.031	0.049		
Outside the Work Area - Stairwell B – 6 <sup>th</sup> Floor	1.43 pm	0.000	0.006	0.054	0.084	0.120		
Outside the Work Area - Stairwell B – 5 <sup>th</sup> Floor	1.46 pm	0.000	0.002	0.028	0.041	0.061		
Outside the Work Area - 5 <sup>th</sup> Floor Elevator Lobby	13.49 pm	0.000	0.002	0.033	0.037	0.044		
Outside the Work Area - 5 <sup>th</sup> Floor Hallway by Room 517	1.52 pm	0.000	0.001	0.012	0.015	0.019		
Outside the Work Area - Room 517	1.55 pm	0.000	0.000	0.004	0.006	0.010		
Outside the Work Area - 5 <sup>th</sup> Floor Hallway by Room 507	1.59 pm	0.000	0.001	0.008	0.010	0.012		
Outside the Work Area - Room 507	2.03 pm	0.000	0.001	0.002	0.003	0.003		
Outdoors	2.14 pm	0.000	0.000	0.007	0.011	0.017		