

Lynn Hartmann
Manager, Community Board 1

Dear Ms. Hartmann,

I'm writing to community board 1 regarding a problem that has plagued one of local our schools for years. Every day the K-5 students at PS85Q (located at 23-70 31st Street, Astoria) are subjected to constant and dangerous levels of noise from the elevated subway tracks that are fewer than 100 feet from the windows of the classrooms in that building.

We are asking the board to appropriate funds to solve this problem or to help the community to address our representatives in fighting this problem that not only makes it difficult for our students to learn but that actually damages their hearing.

It is a well-known fact among the administrators, teachers, and students at PS85Q that whenever a subway train goes by that classroom activities must often come to a complete stop. Teachers have devised hand signs and other signals for the students to use and to recognize in order to combat the problem. The hand signals allow educators and students to communicate to a speaker that the speaker should pause speaking until a subway train has passed by the school. This is a daily practice in most of the classrooms that face the front of the school, and which are fewer than 100 feet from the elevated train tracks. During rush hour, which covers about the first 90 minutes of school, subway trains pass the school about every 6 minutes. During the full 7 hour school day, subway trains pass the school dozens of times.

This constant halting of lessons is reason enough for the community to immediately end this problem. The loss of concentration by students due to the loud trains passing by, even when a teacher is not speaking is should be reason enough to end the problem.

But, actual readings of the noise levels inside and outside of the school when trains are passing reveal that the sound levels are so loud, they are potentially damaging our children's hearing. We have used hand-held decibel meters (simple and common apps found on and used by any smartphone nowadays) to measure sound levels around our school.

According to NIOSH (The National Institute for Occupational Safety and Health—a part of the CDC and US Dept. of Health and Human Services) and to OSHA (The Occupational Health and Safety Administration—created by the US government in 1970) have issued clear and precise rules and guidelines for noise in the workplace. (For a précis on noise exposure levels, see http://www.etymotic.com/pdf/er_noise_exposure_whitepaper.pdf.) According to OSHA/NIOSH, hearing damage can begin to occur at approximately 95 decibels. (A "decibel" is a unit of measure of loudness of sound. 1 decibel equals, approximately, the smallest increment of increased loudness perceptible to human ears. Average street noise is approximately 70 decibels. A jet plane taking off is about 140 decibels. 130 or more decibels causes pain to most human listeners.)

OSHA requires that workplaces provide hearing protection when workers are exposed to 95 decibels for 4 hours per day. Exposure to 100 decibels is limited to 2 hours per day. (For more information, see the whitepaper listed above.) Meanwhile, NIOSH recommends that human beings should not be exposed to 94 decibels for more than 1 hour each day. NIOSH recommends that exposure to 97 decibels should not exceed 30 minutes each day.

What are the decibel levels at PS85Q when a train passes by? On a typical day, here are the readings we've taken:

Place	peak/sustained
In front of school, on steps at front door when train passes	98/94
Empty cafeteria when train passes	95/92
50+ children in cafeteria when train passes	100/95
Empty auditorium when train passes	97/90
Auditorium with students when train passes	97/90
Empty classroom when train passes	98/92

The sustained decibel level occurs over about 15-25 seconds, depending on the speed of the passing train. The peak decibel level is the highest reading during the pass, and the peak may be achieved multiple times during that time period.

We are prepared to take multiple readings at multiple times of the day under multiple situations in order to satisfy the board's need for data and factual information. The readings listed above were taken during simple visits by parents at the school. We did not take readings during class periods, because we did not want to interrupt classes and because we would want to receive permission for the principal of the school (Anne Gordon Chang) first.

We kindly ask community board 1 to help the parents of PS85Q to solve this educational and health problem.

Thank you,

Rebecca Bratspies
Professor of Law
Director
CUNY Center for Urban Environmental Reform