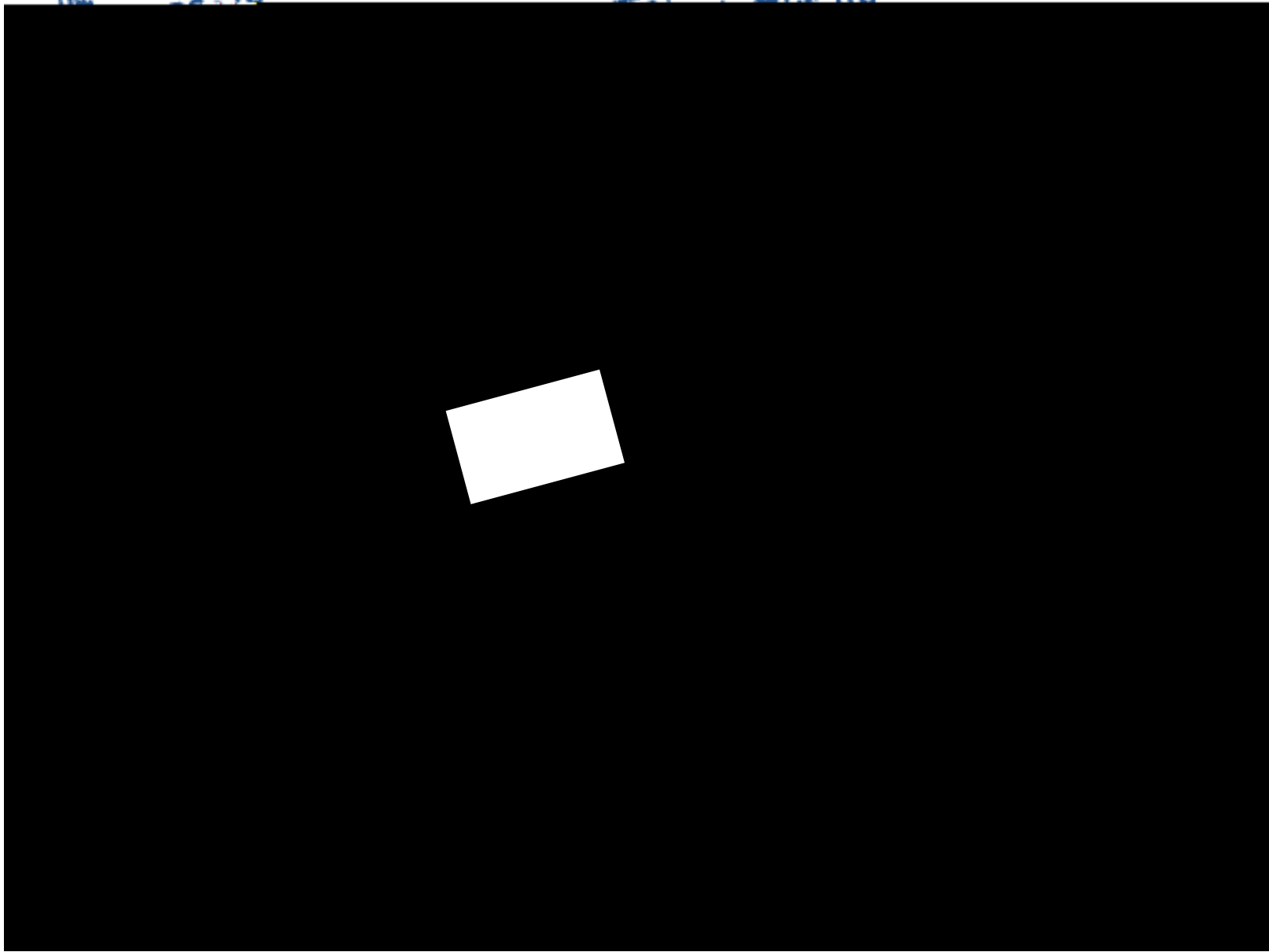


| Building Committee Meeting  
| Wellesley

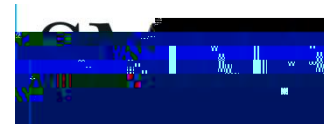


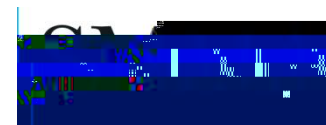


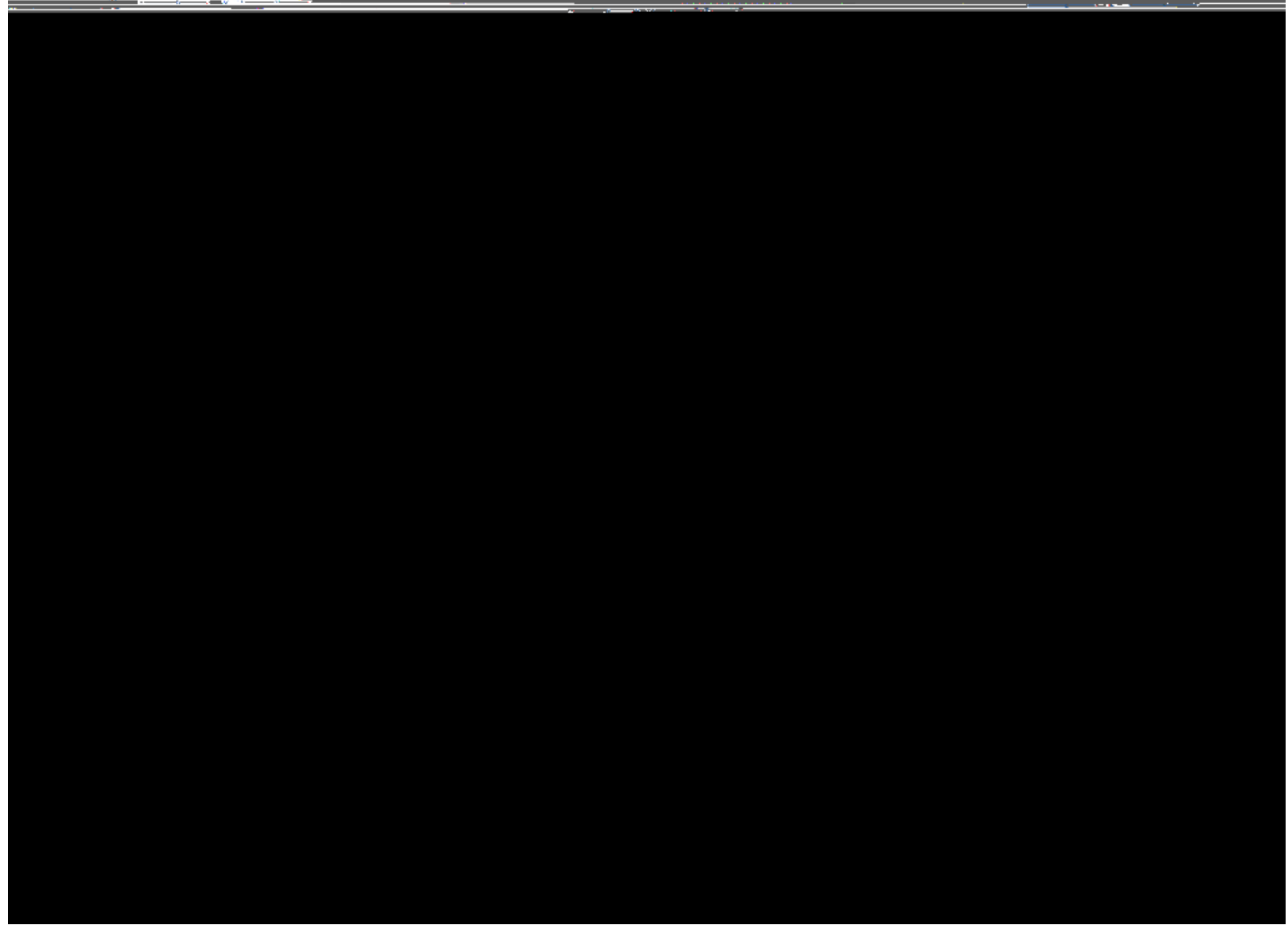


# HVAC Configuration

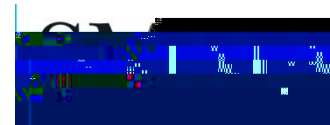
*Plan of Classroom 121*







Schematic  
*Unit Ventilator*



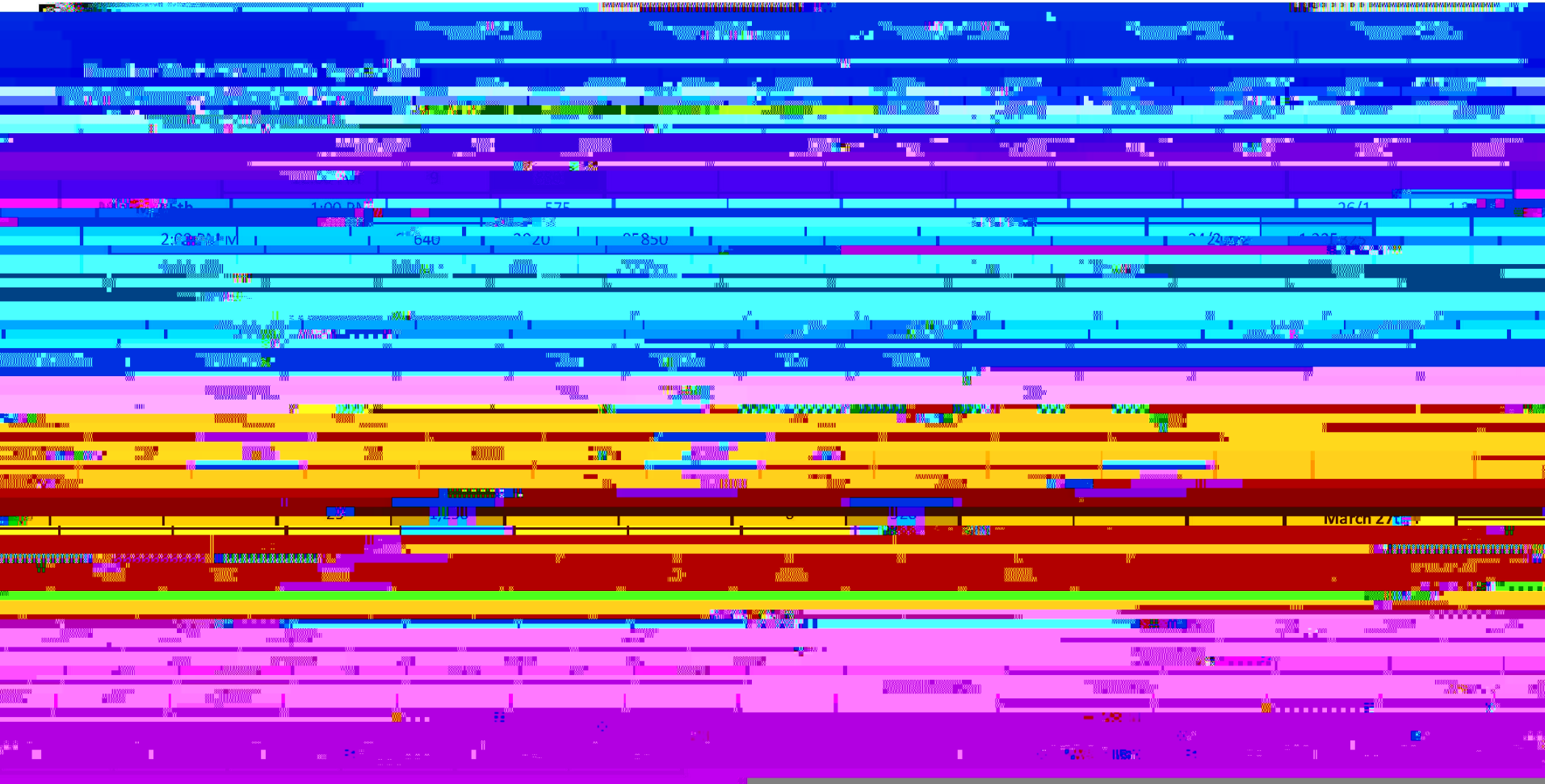
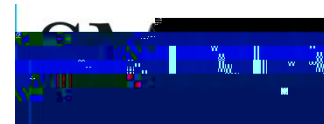


Figure 1. IJC IAD Report, March 25-29, 2010

March 25-29 period (from IJC IAD Report)



# ASHRAE 90.1 Std for Indoor Air Quality

Ambient plus 700 : Target 1,060 ppm

## Massachusetts DPH

Public Buildings: Target 800 ppm

Schools: Target 600 ppm

## OSHA

5,000 ppm for 8 hours

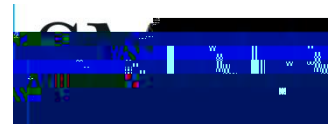


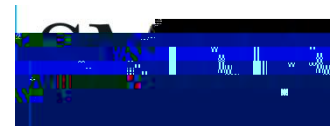


Table 1: Outdoor Air Requirements, This and Norm

Standard	Supply	Outdoor Air	Outdoor Air	Outdoor Air	Outdoor Air
	(l/s)	(l/s)	(l/s)	(l/s)	(l/s)
ASHRAE 62.1-2001	10	10	10	10	10
ASHRAE 62.1-2004	10	10	10	10	10
ASHRAE 62.1-2009	10	10	10	10	10
ASHRAE 62.1-2010	10	10	10	10	10
ASHRAE 62.1-2013	10	10	10	10	10
ASHRAE 62.1-2015	10	10	10	10	10
ASHRAE 62.1-2018	10	10	10	10	10
ASHRAE 62.1-2021	10	10	10	10	10
ASHRAE 62.1-2022	10	10	10	10	10
ASHRAE 62.1-2023	10	10	10	10	10
ASHRAE 62.1-2024	10	10	10	10	10
ASHRAE 62.1-2025	10	10	10	10	10
ASHRAE 62.1-2026	10	10	10	10	10
ASHRAE 62.1-2027	10	10	10	10	10
ASHRAE 62.1-2028	10	10	10	10	10
ASHRAE 62.1-2029	10	10	10	10	10
ASHRAE 62.1-2030	10	10	10	10	10
ASHRAE 62.1-2031	10	10	10	10	10
ASHRAE 62.1-2032	10	10	10	10	10
ASHRAE 62.1-2033	10	10	10	10	10
ASHRAE 62.1-2034	10	10	10	10	10
ASHRAE 62.1-2035	10	10	10	10	10
ASHRAE 62.1-2036	10	10	10	10	10
ASHRAE 62.1-2037	10	10	10	10	10
ASHRAE 62.1-2038	10	10	10	10	10
ASHRAE 62.1-2039	10	10	10	10	10
ASHRAE 62.1-2040	10	10	10	10	10
ASHRAE 62.1-2041	10	10	10	10	10
ASHRAE 62.1-2042	10	10	10	10	10
ASHRAE 62.1-2043	10	10	10	10	10
ASHRAE 62.1-2044	10	10	10	10	10
ASHRAE 62.1-2045	10	10	10	10	10
ASHRAE 62.1-2046	10	10	10	10	10
ASHRAE 62.1-2047	10	10	10	10	10
ASHRAE 62.1-2048	10	10	10	10	10
ASHRAE 62.1-2049	10	10	10	10	10
ASHRAE 62.1-2050	10	10	10	10	10

# NO Study - 1993 Wing

Tables 1 and 2



Classroom HVAC equipment is in reasonably good condition and appears to be well maintained.

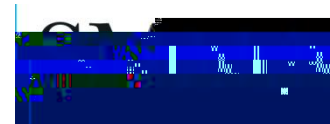
Above-design occupancy correlates with high CO<sub>2</sub> readings from March 2013 IAQ study.

Operable windows are in each classroom and can be used to enhance ventilation.

Guidelines for ventilation design under consideration by the MSBA are relevant to the issue of indoor air quality.

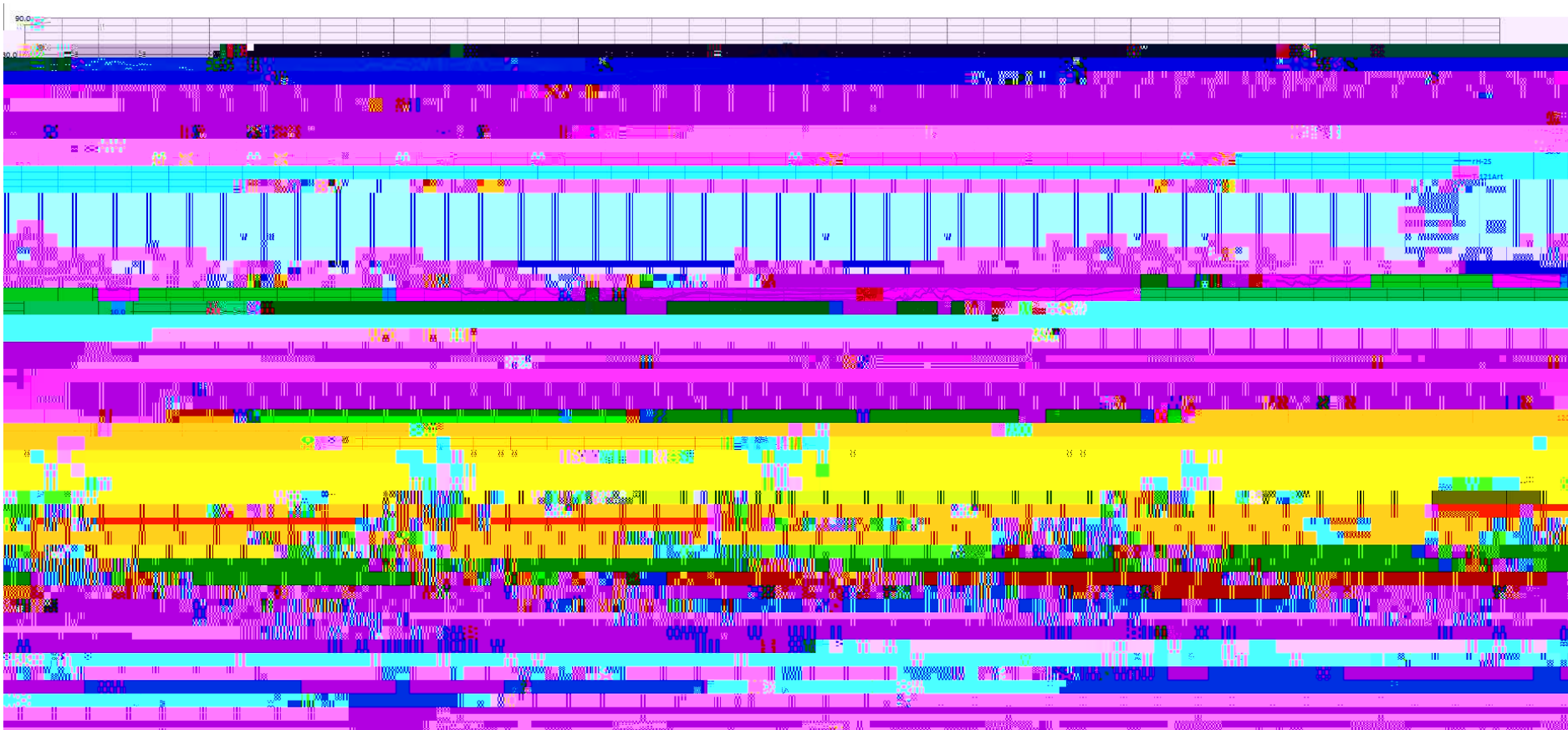
1. Continue a course of preventive maintenance for the installed systems, including periodic equipment tune-ups.
2. Consider making adjustments to the unit ventilators to increase the amount of fresh air delivered to the classrooms.
3. Consider upgrades to the classroom exhaust systems to provide a corresponding increase in exhaust air from each classroom to match the increase in outdoor air provided through Item 2. (Anticipated cost may warrant this being done at a later date.)

## Summary of Recommendations



Building Committee Meeting

Thank you



*Based on UEC March 2013 Report*

