

*MacKay*  
*06.08.15 RR*

**From:** Parker Grimmer  
**To:** Susan Willis  
**Date:** 3/12/2017 10:45 PM  
**Subject:** Co

Susan,

I am not sure if you are already aware, but I wanted to provide you with an FYI. keep you in the loop and up-to-date regarding several breaches in protocols with removing lead paint and asbestos ceiling tiles at TOSH the construction group working on the renovations last week. PSB staff (Chris Keefe, Mac Fuller, Andrew MacArdle, Gerard MacCormack) met with TIE and APM, and changes have been made to safeguard future work.

There were the three breaches by workers who did not follow proper protocols. While Chris feels the exposures in these cases are low and hopefully the risk to students and staff is also low, it will be an issue that needs to be communicated to TOSH staff, and at some point in the near future, someone will likely need to communicate these events to others also. I will fill you in on this further if you wish. Thanks,

Parker

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<b>Date:</b>	<b>April 18, 2018</b>
<b>Client Name:</b>	<b>PEI Department of Transportation, Infrastructure &amp; Energy</b>
<b>Client Contact:</b>	<b>Tyler Richardson</b>
<b>Project No:</b>	<b>PE8097</b>
<b>Project Description</b>	<b>Indoor Air Quality Testing</b>
<b>Site Name:</b>	<b>Three Oaks Senior High School</b>
<b>Site Address:</b>	<b>Summerside, Prince Edward Island</b>
<b>Report No.</b>	<b>01</b>

**1. Details to be noted:**

On April 16 & 17, 2018 ALL-TECH Environmental Services conducted indoor air quality (IAQ) testing in various areas within Three Oaks Senior High School in Summerside, PEI.

The testing was completed to establish ambient baseline conditions and to compare to the on-going construction within the school.

The air quality parameters tested for assessing conditions included the following:

- Carbon Dioxide (CO<sub>2</sub>)
- Carbon Monoxide (CO)
- Total Volatile Organic Compounds (TVOCs)
- Airborne Particulates

On April 16, 2018 three areas on the main floor were tested and are noted as the following construction phase areas and are noted on the included site drawing at the end of this report:

- 1A5
- 1B2
- 1C1
- Exterior (comparison)

On April 17, 2018 two areas on the main floor were tested and are noted as the following construction phase areas:

- 2A1

- 2B1

For the purposes of the project, various target values established by Health Canada and the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) Standard 69 have been used as a guide for comparing results and are referenced below in table 1. Sample results for each test location are presented in section 2.

Parameters	Guidelines
Carbon Dioxide	< 1000 ppm (ASHRAE)
Carbon Monoxide	< 5 ppm (Health Canada)
Airborne Particulates	0.05 mg/m <sup>3</sup> (annual) 0.15 mg/m <sup>3</sup> (24-hr)
Total Volatile Organic Compounds	Target Level 1 mg/m <sup>3</sup> (Health Canada) Action Level 5 mg/m <sup>3</sup> (Health Canada)

ppm – parts per million  
mg/m<sup>3</sup> – milligrams per cubic metre

## 2. Indoor Air Quality Monitoring Results

Sample Location (Construction Phase)	Sample Date (m/d/y)	Sample Duration (min)	CO <sub>2</sub> (ppm)	CO (ppm)	TVOC's (mg/m <sup>3</sup> )	Particulates (mg/m <sup>3</sup> )
Exterior	04/16/18	54	397	0.3	0.2	0.021
1A5	04/16/18	46	407	0.2	0.1	0.028
1B2	04/16/18	44	587	0.2	0	0.039
1C1	04/16/18	46	665	0.2	0.1	0.020
2A1	04/17/18	58	400	1.7	0.2	<b>* 0.230</b>
2C2	04/17/18	56	374	0.3	0	0.003
<b>Health Canada / **ASHRAE Guidelines</b>			<b>**1000</b>	<b>5</b>	<b>1</b>	0.05 (annual) 0.15 (24-hr)

\*Bold values note areas exceeding recommended guideline

## 3. Interpretation of Results

Particulate monitoring results within four of the five areas tested were found to be below Health Canada guidelines for airborne particulates for indoor (non-industrial) sites. One area, 2A1, was noted to be above typical indoor environments for both annual and 24-hour recommended exposure guidelines. Particulate levels were noted to be consistently above the guidelines during the test period as indicated on the attached particulate data summary report for the area.

During testing on April 17, 2018 school was closed for students and staff due to weather conditions. On this day it was noted that the contractor was cutting steel beams inside construction zone 2B1.

Upon speaking with the contractor, it was recommended to install additional negative air units within the work area. It was also noted that the ventilation system for construction zone 1A1 be checked to ensure it has been totally isolated from the adjacent area (2A1) directly above the work area.

All other air quality parameters were acceptable at the time of testing.

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.



**Larry Koughan, CET, CRSP**  
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*Incl. IAQ data summary report*  
*Particulate data summary report*  
*Site Drawing with sample locations*



environmental safety risk. Dust and vapours from removal of the floor tiles escaped the construction into the rest of the school.

### **Environmental test results for TOSH projects**

Question to the education minister: Will you publically release all the air quality, water, and other environmental testing results for Three Oaks during this project?

**Speaker:** The hon. Minister of Transportation, Infrastructure and Energy.

**Ms. Biggar:** Thank you, Mr. Speaker.

Again, I want to assure everyone that's listening: parents, staff, and students that the air quality at the school is safe. It's monitored through environmental services every day. All abatement is taken place to ensure that as little possible dust is infiltrated into the area. I believe there was a bit of a breach on one occasion and so we had followed up with that, working with the school staff, working with workers compensation to ensure everyday at the school, whether there are students there, that it is a safe environment.

Mr. Speaker, anything that I have – I'll certainly find any other information that may be available.

**Speaker:** The hon. Member from Kensington-Malpeque.

**Mr. MacKay:** Thank you, Mr. Speaker.

Last week a letter was sent to parents said extra measures are being taken to deal with this issue, but that school transfers would be considered if it were in the best interest of students' health and learning.

### **Changing schools due to environmental risks**

Question to the education minister: Do you think uprooting students in the middle of the school year and changing schools is a solution to these issues?

**Speaker:** The hon. Minister of Education, Early Learning and Culture.

**Mr. J. Brown:** Thank you very much, Mr. Speaker.

Mr. Speaker, this email was sent out by the principal of the school and the –

[audio malfunction]

**Mr. J. Brown:** – has been working together with the Department of Transportation, Infrastructure and Energy to make this renovation – a \$23 million renovation of a high school as seamless as it possibly can be. They've done great work to do that.

With any construction project there are unforeseen events and the Public Schools Branch and the school staff have committed to working together with parents to ensure that where there are students that feel that they aren't as comfortable as they possibly can be in that learning environment, they'll work with them to ensure that they are comfortable in whatever learning environment suits them best.

Thank you, Mr. Speaker.

**Speaker:** The hon. Member from Kensington-Malpeque.

**Mr. MacKay:** Thank you, Mr. Speaker.

When this project began in 2016, just before the District 21 by-election, the cost was \$15 million. Two years later the cost was projected to be over \$23 million, which the minister has stated twice.

### **TOSH project 50% over budget**

Question to the education minister: How did this project manage to go 50% over budget?

**Speaker:** The hon. Minister of Education, Early Learning and Culture.

**Mr. J. Brown:** Thank you very much, Mr. Speaker.

I must say we are very proud of the capital projects that we are undertaking in this department and last year we announced a \$50 million capital program for the next five years and that's following on the heels of this capital improvement to Three Oaks High School.

Hoarding walls are ensured on a regular basis to be in place and to be airtight. Every day, as I indicated, principal Clow meets with the construction crew. They make an effort to ensure that students are not being educated immediately adjacent to construction particularly where it might be noisy or where dust might be created.

Every effort is being made, but we do recognize that this is a \$23 million construction project that's being undertaken at the same time as school is going on. Though, extreme efforts are being made to ensure that the two don't overlap to the greatest extent possible, there is still minimal interruptions that do occur and we acknowledge that and have taken steps to try and help students through it.

**Speaker:** The hon. Leader of the Opposition.

**Leader of the Opposition:** Thanks very much, Mr. Speaker.

The minister mentioned some of the measures that they've taken to protect and secure the students and the staff at that school. He also mentioned some of the temporary walls that are put up to block off construction.

In fact, one female student was in a hallway when a temporary construction wall fell on her and actually fractured her knee. I don't know how something like that could happen if the procedures were put in place correctly. Now, this girl's parents are considering litigation against this government.

As troubling and concerning as the health issues are, many of these students have also experienced lower academic performance and higher anxiety and stress. To further document these physical and mental health issues, government is being asked, they're being asked to send a survey to all students and staff.

**Government refusal to parents and students re: survey**

Question to the minister of education: Why is government refusing to address this simple request from students and parents, and actually conduct a survey?

**Speaker:** The hon. Minister of Education, Early Learning and Culture.

**Mr. J. Brown:** Thank you very much, Mr. Speaker.

We, being the Public Schools Branch, the construction committee, the principal of the school have had regular meetings with parents and staff. Through that process, concerns have been heard; extra security has been added to ensure that folks are not going into construction areas.

I will say here: we do not have any reports of any fractures that have been – occurred as a result of any particular results. We wouldn't speak to any specific incidents in relation to students in any event, but I do want to indicate that that kind of a thing has not happened.

And, I should say that through all of the air quality testing that's been done through professional services, all of the results have come back as being positive and meeting Health Canada standards through the month of April.

Thank you.

**Speaker:** The hon. Leader of the Opposition.

**Leader of the Opposition:** Mr. Speaker, government refusing this simple request to help address the health concerns isn't instilling confidence in the students or the staff.

They want answers. They don't just want a deflection.

**Chief public health officer investigate health issues at TOSH**

Question to the minister of education: Will you have the chief public health officer investigate these environmental health issues and interview all students and staff at TOSH?

**Speaker:** The hon. Minister of Education, Early Learning and Culture.

**Mr. J. Brown:** Thank you, Mr. Speaker.

What I will say is that workers compensation has been present through the course of planning in terms of what we might do. They have actually consulted with, it's my understanding, different government departments that would give advice as to what testing might be done. We're doing all of that testing.

In fact, at the direction/concern of parents, we added an additional test. All of that testing has come back fine. What I will say here is we are open to any input as to what might be done. I think there has been a very good track record of doing things that have been suggested as potentially being of assistance in this situation. We will continue to do that kind of a thing, Mr. Speaker.

Thank you.

**Speaker:** The hon. Member from Kensington-Malpeque.

**Mr. MacKay:** Thank you, Mr. Speaker.

Six weeks ago, I asked for air quality, water and other environmental testing results for the Three Oaks renovation project to be publicly released.

#### **Testing results for Three Oaks for tabling**

Question to the transportation minister: Do you have that information with you to table today?

**Speaker:** The hon. Minister of Transportation, Infrastructure and Energy.

**Ms. Biggar:** Thank you, Mr. Speaker.

As was just mentioned by the minister of education, the air test for April has certainly come back clear in regard to Canada health standards.

I don't have that with me, but I'll certainly go back to the department and see if that's available.

**Speaker:** The hon. Member from Kensington-Malpeque.

**Mr. MacKay:** Thank you, Mr. Speaker.

It shouldn't take six weeks for this to be done unless you're foot dragging for a

reason. I'm not the only one asking. Concerned parents at TOSH have been asking for these results, as well.

#### **Testing results shared with parents of TOSH**

Question to the transportation minister: How many environmental test results has your department shared with concerned parents of TOSH?

**Speaker:** The hon. Minister of Transportation, Infrastructure and Energy.

**Ms. Biggar:** Thank you, Mr. Speaker.

All results have been shared with the principal of the school. They have, in turn, sent messages out, I believe, from what I understand, through the school and the team that is working with our construction team, to parents.

There is ongoing testing. Those fall within the regulations of Canada – Health Canada. We have put extra air quality and exhaust systems in place.

In regard to the recent tests that just came back this week, I certainly will go back and find out if that's where that's at.

**Speaker:** The hon. Member from Kensington-Malpeque.

**Mr. MacKay:** Thank you, Mr. Speaker.

Your department did provide one test result to concerned TOSH parents: a copy of the March 28<sup>th</sup> asbestos (Indistinct) air monitoring report was given to parents in April.

Question to the transportation minister: We're almost two years into the TOSH project now. Why did you only give one day's test results to concerned parents?

**Speaker:** The hon. Minister of Transportation, Infrastructure and Energy.

**Ms. Biggar:** Thank you, Mr. Speaker.

As I just noted, the results that came back from April have been shared with the Public Schools Branch, the school staff and