



Town of East Gwillimbury

MEMORANDUM

To: Council

Date: December 14, 2021

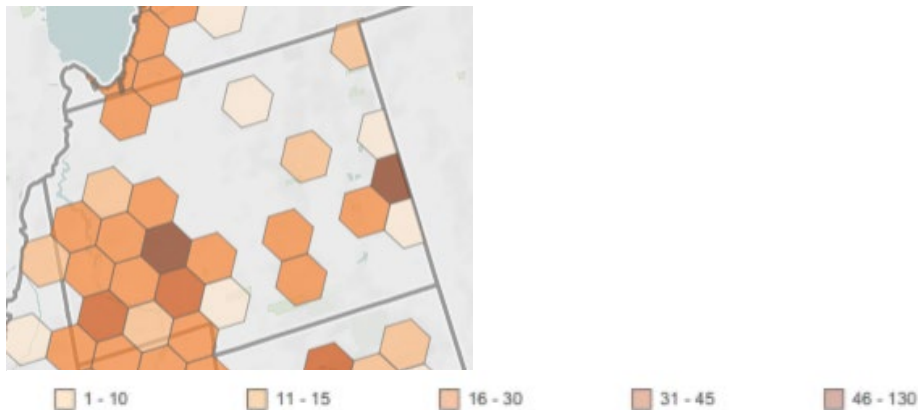
Subject: COVID-19 Update 2021-20

Origin: COVID-19 Control Group

The COVID-19 Control Group continues to meet and is in regular communication with Council, neighbouring municipalities, and York Region. The group also continues to work closely with provincial and York Region Public Health Officials regarding this public health crisis.

East Gwillimbury COVID-19 Data and Statistics

Residents can access COVID-19 data through York Region's website at www.york.ca/covid19. This information can be drilled down to show positive cases through an interactive dashboard for each municipality. This dashboard is available under *maps* at www.york.ca/covid19data. The below image showcases cases in EG throughout COVID-19.



East Gwillimbury Metrics	December 1, 2021	December 9, 2021
Total Confirmed Cases	1266	1292
Total Resolved/Recovered Cases	1248	1261
Total Active Cases	12	25
Total Confirmed Deaths	6	6
Total Cases Reported in last 7 days	11	26
Total Variant Cases Identified	515	530
Total Current Outbreaks (Institutional and workplace)	0	0
Total Current Outbreaks (School and childcare)	1	2
Total Closed Outbreaks	42	42

Provincial Vaccine Stats

Ontarians vaccinated as of December 9, 2021

Total Ontario population Since December 15, 2020	Number of people of all ages	Percentage Of 5+	Percentage Of 12+	Percentage of all ages
Partially vaccination	622,948	4%	3%	4%
Fully vaccinated	11,311,453	81%	87%	77%
Total	11,934,401	85%	90%	81%

Municipal Updates

Safe building environments in East Gwillimbury

The following provides a comprehensive update related East Gwillimbury’s HVAC systems, ventilation and filtration as they relate to COVID-19.

Facilities and Human Resources Health and Safety staff closely monitor and implement industry best practices and standards to ensure a safe environment for staff and the public.

Background

COVID-19 is primarily transmitted via close contact with an infected individual. Although close contact is the dominant way COVID-19 is transmitted, it can be transmitted over longer distances by aerosols under certain conditions. There is an increased risk in crowded, inadequately ventilated settings, and with increasing time spent under these circumstances.

Key measures to reduce transmission risk include limiting contacts, active screening and self-isolation of people with symptoms, physical distancing, hand hygiene and masking. In addition, indoor air quality improvement through ventilation and filtration supports this mitigation strategy by removing and diluting virus laden particles from indoor air. However, ventilation and filtration are not sufficient on their own to control the risk of transmission, and particularly from close contact exposures. Thus, while ventilation and filtration are important for overall indoor air quality as well as COVID-19 risk reduction, they must be used in conjunction with all other public health measures to minimize transmission risk.

Regular inspection and maintenance are also necessary for HVAC systems. Assessment and adjustments to these systems is best managed by qualified HVAC specialists, as there are usually building specific issues and potential unintended effects to consider.

What is the Town doing to enhance air quality and provide a safe environment?

HVAC Measures to Minimize the Risk from Infectious Aerosols

The Town is employing enhanced outdoor air ventilation and/or enhancing filtration where possible, and a well-functioning HVAC system should complement other public health measures by removing and diluting virus from indoor air, thereby lowering exposure to COVID-19.

COVID-19 prevention depends on a combination of interventions which vary in effectiveness and practicality day to day. The key is to always practice as many measures, as consistently as possible. Exposure to virus can be reduced by minimizing occupancy in a space, particularly where it is not possible to increase outdoor air ventilation. Avoiding confined spaces, close contact and being in the way of another person's direct air flow are other measures to reduce exposure. In addition, air quality improvement strategies can reduce the concentration of virus particles in the air. Thus, the Town is employing proper ventilation with outdoor air (i.e., avoiding recirculation) as far as practically possible and ensuring clean filters.

Increase Outdoor Air Ventilation (Minimize Recirculation)

For central air handling units at a building level or serving multiple zones, avoiding recirculation is ideal by operating on as high as possible outdoor air supply where possible. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) provides guidance on COVID-19 which an HVAC specialist assesses specific with each building scenario.

Increase Filter Efficiency

Filtration is another strategy the Town has established to limit virus exposure and other particles from indoor air where practical. Filters require appropriate maintenance and have been upgraded where the system allows to maximize effectiveness. The effectiveness of a filter is rated by the Minimum Efficiency Reporting Value (MERV, ranging from 1 to 16), based on the fraction of particles removed from air passing through it under standard conditions. The Town is implementing ASHRAE's COVID-19 guidance by using as high as a MERV 13 or higher rated filters based on their ability to filter out virus-sized particles. Some higher efficiency filters are not a viable option for some HVAC systems as they may cause greater resistance to air flow than allowable by design specifications, as well as limiting the component of proper ventilation.

Air Change Rates Required

In general, ventilation is improved by more air changes with outdoor air. Standards for air changes are set by various associations for different types of building environments.

The air change rate for a space is the volume of air supplied to and removed from a space, via mechanical systems or through the building enclosure, per unit of time divided by the volume of the space. Standards for air change rates are available from the Canadian Standards Association (CSA) for HVAC systems in specific zones.

ASHRAE Standard 62.1 provides minimum ventilation rates for acceptable indoor air quality according to the type of setting (e.g., correctional facilities, offices, educational settings, hotels, food and beverage settings), occupancy and area. Acceptable indoor air quality is defined by ASHRAE as “air in which there are no known contaminants at harmful concentrations, as determined by cognizant authorities, and with which a substantial majority (80% or more) of the people exposed do not express dissatisfaction”. It is noted in the standard that recommended outdoor air ventilation rates are not specifically meant to address transmission of airborne viruses, bacteria or other infectious agents

CSA guidance for workplaces reinforces that air exchange rates should be modified on a building-by-building basis with careful evaluation of the ventilation system because adjustments can lead to issues related to thermal comfort and humidity, and undesired effects on air circulation.

Inspection & Maintenance

Routine inspections and maintenance for all municipal systems is necessary. Recommended inspection and maintenance measures for municipal air handling systems (including inspection and replacement of filters) are being followed. Adjustments to ventilation (e.g., increased outdoor air) may require more frequent inspections and filter changes.

Municipal HVAC system considerations during COVID-19 include but are not limited to:

- Ensuring that all HVAC equipment is working in accordance with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 62.1-2019 Ventilation for Acceptable Indoor Air Quality;
- Adjusting the air handling unit to maximize outdoor air intake and indoor air exhaust outdoors;
- Visual inspections of all air distribution systems for dust and dirt accumulation, damaged insulation system. Routine inspection of coils, drain pans, ducts, and inside casings;
- Clearing any debris and/or obstructions at outdoor air intakes and bird and insect screens;

- Maintaining HVAC systems in commercial buildings as per ASHRAE Standard 180-2018 Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems;
- Verifying control dampers and actuators are functioning across their full control range;
- Continued seasonal Start ups, increased frequency of filter changes and increased filtration (based on HVAC manufacturer limits).

Continued monitoring and implementation of Industry Best Practices, Standards and Emerging Technology

Both Facilities and Human Resources staff continue to monitor and implement industry best practices, standards and emerging technology to enhance and continuously improve building environments including and not limited to ASRAE and CSA guidance and standards.
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Physical Barriers and PPE

The Provincial regulations, along with guidance documents from various safety associations, require that workers who come within 2-metres of someone who is either unmasked or improperly masked (not fully covering the nose, mouth, and chin), are required to wear PPE consisting of an ASTM-rated medical mask and protective eyewear, unless they are separated by a physical barrier.

(7) A person shall wear appropriate personal protective equipment that provides protection of the person's eyes, nose and mouth if, in the course of providing services, the person,

(a) is required to come within 2 metres of another person who is not wearing a mask or face covering in a manner that covers that person's mouth, nose and chin during any period when that person is in an indoor area; and

(b) is not separated by plexiglass or some other impermeable barrier from a person described in clause (a). - Schedule 1 S. 2 (7) O. Reg 364/20: Rules for Areas at Step 3 and at the Roadmap Exit Step.

As COVID-19 is primarily spread through droplet contact, these controls are required to provide protection to a person's mucous membranes whenever they are required to be in these higher-risk, close contact scenarios.

Continued Monitoring

The Human Resources team will continue to monitor for updates to regulations, public health recommendations, and workplace safety guidance relating to COVID-19 and will amend workplace procedures as may be necessary.