Barnett, Daniel

From:
Sent: April 22, 2020 12:32 PM
To: Dear, Andrea
Cc: McKie, Shannon; Wilson, Maureen; Fabac, Anita; Robichaud, Steve
Subject: Re: UHOPA-20-012 and ZAC-20-016

Hello Andrea,

Thank you for the prompt reply.

Could you forward a list of the applicant's submission materials to me and I will canvass the other peer review consultants on own team to determine what they need to review. Ideally getting digital copies of the materials would be preferred. Once we have all of the information I would expect we would need 4-6 weeks to review and prepare a response.

Thank you

On Apr 22, 2020, at 9:57 AM, Dear, Andrea <Andrea.Dear@hamilton.ca> wrote:

Hello .
I have asked for direction on this, but I can assure you that we will be able to accept your comments after April 30th. AS you can imagine, we did not think that this pandemic would last as long as it has. We invite informed participation and will work with you on timelines.
Can you please let me know how much time you need? Also please let me know if you have all of the submitted materials in order to review?
Thanks,
Andrea Dear, MCIP, RPP
Senior Planner

From: .
Sent: Tuesday, April 21, 2020 8:20 AM
To: Dear, Andrea <Andrea.Dear@hamilton.ca>

Cc: McKie, Shannon <Shannon.McKie@hamilton.ca>; Wilson, Maureen <Maureen.Wilson@hamilton.ca>
Subject: UHOPA-20-012 and ZAC-20-016
Hello Ms. Dear,
We are planning consultants retained by residents on Cline Avenue South with regards to the above-noted OPA/ZBA applications at 1107 Main Street West.
We understand that the applications were deemed complete on March 20, 2020 and that the City established a deadline of April 30, 2020 for the submission of public comments.
Due to the current COVID-19 environment, business and physical restrictions we have not had an opportunity to fully evaluate the applications, conduct site visits, attend at City hall or confer with our clients and other affected parties.
As a result we respectfully request an extension of the deadline for comments.
Please advise as soon as possible.
Thank you for your consideration.

June 20, 2020

We, signed below, would like to exercise our right and request City of Hamilton to remove our personal information from this letter before it is made available to the Applicant and the general public and that no personal information of ours appears on the City's website.

To: Andrea Dear, City of Hamilton

Planning and Economic Development Department

Development Planning, Heritage and Design-Urban Team

for Shannon McKie, Senior Project Manager

Regarding:

Urban Hamilton Official Plan Amendment (File No. UHOPA-20-012)

Zoning By-law Amendment (File No. ZAC-20-016)

On March 23rd, 2020 we were notified that a Complete Application has been received by Hamilton's Planning and Economic Development Department from 1107 Main Inc. for an Urban Official Plan Amendment and Zoning by-law Amendment for lands located at 1107 Main St. W. Hamilton (Ward 1).

As this application directly affects us, we would like to submit our comments on the matter. There are several different areas that we would like to address in this opposing letter. Before we express our concerns however, we would like the Planning and Development Department to know that we are fully aware that our city is changing and expanding and that it does not come as a surprise to us that areas considered to be underdeveloped hold a special interest as future developmental opportunities; this holds true in view of the City's intensification efforts as a key component of Hamilton's growth strategy. It is especially true in the area we find ourselves in, that of Transit Oriented Primary Corridor and Neighborhoods with Mixed Use Medium Density (TOC1) Zone. We also understand that the Growth Plan provides directions on how growth is to be accommodated and includes intensification and density targets which municipalities plan on

achieving within the existing built-up areas. We definitely do not want to be perceived by you as NIMBY but we do have specific concerns regarding this development and as residents and taxpayers we deserve our concerns to be heard and appropriately addressed. It is our belief that as Hamiltonians we should strive to preserve the attributes that set Hamilton apart from other GTA cities and make our city such a great place to live, work and play in. With its small neighbourhoods Hamilton allows a sense of being a part of and belonging to a conscientious and considerate community where neighbours are looking out for each other while residing minutes away from urban amenities. It is one of the reasons we have chosen to live here leaving Toronto behind where one does not get to experience this sense of belonging among its many concrete high-rise buildings compared to the tranquility our current, small community offers. We fear that given time, with excessive development Hamilton will lose its title of a "city of many communities" and will in fact begin to resemble Toronto. We will dearly miss the green space the Grace Lutheran Church has provided our family over the years, especially the well-maintained gardens. On the other hand, we recognize that the planned commercial spaces will bring tax revenue to the City and create jobs for Hamiltonians. We are, however, especially sad to see that the contributions of the Church to our City's food banks will cease as the gardens are planned to be replaced with the minimal ground and high rooftop replacements preventing neighbourhood residents' access. Grace Lutheran Church has been a part of this neighbourhood for many decades contributing to the religious nature of this neighbourhood along side Adas Israel Synagogue. To quote Chapter B of Urban Hamilton Official Plan "History and character is based in its communities. Our communities define the City and shape the quality of life for Hamiltonians. The quality of daily life is influenced by the quality of our built, natural, social, and cultural environments and supported by the strength of the economy and the creativity of citizens". The daily well being of all residents is dependent on all these factors, should not be ignored and its positive gains should not be understated. After careful study of the "Planning & Urban Design Rationale" prepared by Bousfields Inc. on behalf of the Applicant 1107 Main Inc. we strongly **OBJECT** the proposed changes to the Zoning By-law and Urban Hamilton Official Plan. The following are the areas of concern for us:

Zoning- Hamilton Growth Plan: Policy E 4.2.2 allows lands of less than 4 hectares to be developed within the Neighborhood Designations specified as Mix Use Medium Density Zoning with 1107 Main St. W. falling in this size range. Policy E.4.6 intends Mix Use-Medium Density designation to permit a full range of retail, service commercial, entertainment and residential accommodation at a **moderate** scale. Policy E.3.0. states that Neighbourhood Designation means living areas of various land uses that are important to the neighbourhood as is the importance of the relationships between theses uses, the locations of the uses, how they function together, how they are designed and how they are accessed by local residents. Furthermore E.3.1.4.and 3.1.5. state that the goal of Neighbourhood Designation is to promote and support design which enhances and respects the character of the existing neighbourhoods and residential intensification of appropriate scale and in appropriate locations throughout the neighbourhoods while at the same time allowing their ongoing evolution. Current scale allowance in the TOC1 Zoning allows a maximum height of 6 storeys (E.4.6.7). Additional height up to a total of 8 storeys (E4.6.8) may be permitted without an amendment to this Plan, provided that the applicant demonstrates: (a)(b)(c) as stated in the policy. We believe the Applicant failed to adequately prove, among

other things, that there will be no adverse shadow impacts created by the 15-storey development thus we insist that the current scale of 6 storey height be maintained.

Intensification:

We recognize that Chapter B policy 2.4 which states that intensification contributes to creating and maintaining vibrant neighborhoods, nodes, and corridors and can provide a wider range of housing types to meet the housing needs of Hamilton's current and future population and develops and transforms targeted areas, such as ours, creating livable, vibrant, compact communities; facilitates and enhances the node and corridor structure of the City, and makes efficient use of the City's public transit network and other infrastructure. As the City states, the goal of increased residential density within existing developed areas is driven by providing a variety of housing choices utilizing existing public infrastructure and reinforcing opportunities for pedestrian and transit friendly neighbourhoods **critically** maintaining the compatibility with the surrounding neighbourhoods. We believe that, as an intensification effort, placing a high rise building directly adjacent to low rise buildings presents a significant departure from the immediate surrounding neighbourhood and is thus inappropriate. It is our position that as our ever-growing population is in need of additional dwelling places, we all should strive to find a middle ground when approving new developments especially such that may not be fully compatible with the surrounding neighbourhoods. Just because the Official Plan does not contain density limitations, does not mean that the Applicant should be free to establish a density based on specific built form design and ignore the surrounding immediate and current neighbourhood density.

Build form:

It does not appear that the development is sensitively designed nor appropriately integrated into the existing neighbourhood. As a key consideration, compatibility stresses harmony of new development with the existing neighbourhood by encouraging development that increases the number of units on the property yet complements the character of the neighbourhood. Although the designer made an attempt by integrating the townhomes along Cline and Dow Avenues with the 2-storey townhouses, the remainder of the proposed development appears to be architecturally bulkier and overbearing from the surrounding residential low-rise contemporary neighbourhood. Due to the excessive number of proposed stories the built form will not complement the current neighbourhood. The commercial buildings immediately located to the proposed development area along Main St.W. are maximum 3 storeys in height. The 1Dow Ave. property picture provided by the Applicant is hardy representative of many area homes. A great number of homes in the neighbourhood have been designed by a renowned Hamilton architect named Joseph B. Singer, please see attached pictures of other area residential homes that better capture the surrounding architecture. On pg. 47 the Applicant states that there will be a "minimal" penetration to the sideline 45-degree angular plane setbacks on the 13-15 levels. We beg to differ, any additional storey of this development will greatly affect the light, view and privacy and we find it insulting that the needs of the neighborhood property owners are so casually dismissed. The scale and development's massing and overall domineering effect will transform our landscape from tranquil to a combination of glass/concrete downtown structure.

Policy Chapter B 3.3.3.3. states that New Developments shall be massed to respect existing and planned street proportions. In our opinion the proposed development is not respecting the existing street proportions along Dow Ave. nor Cline Ave. In addition, multi family high rise dwellings are inconsistent with the neighborhoods developed in the area. The Camelot Towers is currently the only 12 story high building located in Ainslie Woods but unlike the proposed development, is set well off the Main St. to allow ample space around it. Chapter E 2.4.10 of UHOP speaks of a built form along the Urban Corridors to "generally consist of low to mid rise forms, but may vary along the length of the corridors with some areas permitted to accommodate high density and high rise built form". We understand that there are several proposed developments that are very fitting within this policy coming into Ainslie Woods, some of which are also seeking amendments to allow height increases i.e. McMaster and Columbia College Residences. Both projects are desirable and serve a very designated purpose, that to provide residence to students and provide necessary support for a main area employer. On pg.49 the Applicant claims that 1107 Main St. W. is neighbourhood consistent in its height, massing and density and provides McMaster and Columbia collage residences as examples, failing to recognize that it is in fact not consistent with immediate surrounding neighbourhood. Chapter E 2.4.16 speaks of New Developments along the Corridors to be respecting of the existing built form of the adjacent neighbourhood. All other currently planned projects for Ainslie Woods are within the 5-9 storeys in height and are well blending within the residential neighbourhood e.g. 71,75&77 Leland Ave. and 69 Sanders Blvd. projects. We insist that the City respects our current zoning and does not allow a zoning amendment to built above 6 stories in height.

Traffic, Road Safety, Congestion & Parking:

Hamilton has an amazing public transportation system and to the benefit of the developer it has been well presented however the further development of transit in form of the LRT line has been currently suspended which may affect the plans going forward. The Urban Corridors policy 2.4 states "The City's corridors provide a significant opportunity for creating vibrant pedestrian and transit-oriented places through investment in infrastructure, residential intensification…and careful attention to urban design". The developer proposes 156 bike parking spaces to be available for the residents however we desperately lack proper bike lanes on Main Street. At this stretch of the Corridor, Main St. is not a pedestrian oriented street but a two directional fast-moving road and the lack of bike lines on Main St. poses a dangerous idea. We have been living here for the last 16 years and know firsthand how dangerous Main St. is for bikers. We have never allowed our children to bike on the road and instead always had them bike on the sidewalk. I have personally hit a biker with my car while exiting Dow Ave., a biker who just like us was using a sidewalk instead of the road. With the nearby schools, traffic and safety of pedestrians is of major concern for us. Lack of appropriately designed and designated bike use lanes pose additional dangers to area residents and to users themselves. To point it out, the stretch of the corridor where the area developments are planned, including 1107 Main St W., have no planned bike lanes identified in Transportation Master Plan Recommendations Project #TPB186044(7.1) from December 2019. While we would expect the city to make all the necessary improvements to accommodate the increased traffic, especially environmentally friendly modes of transportation, we should not forget many students use not only bikes but also rollerblades,

skateboards, power toys etc. As with any college town we have come to understand that we reside in high bike theft area, having our own 4 bikes stolen over the years. We fear that the new development with its ambitious focus on bikes may certainly increase criminal behaviour in the neighbourhood. It is also worth noting, that due to the property's peculiar shape there is a dangerous, invisible corner that may cause an increase in collisions as a new bulky structure may cause impaired sightline issues. In addition, we already experience a surge in traffic during morning and afternoon hours making it very difficult to exit Dow Ave. and Cline Ave. in either direction, with generally high delays along Main St. between Coots Dr. and Hyw 403 Off-Ramp. It is an expectation that with the implementation of the LRT the traffic would decrease but that is currently not the scenario being considered. We suspect that with the lack of the LRT and with a significantly increased local population the traffic surge will increase further along with pollution (car exhaust fumes) and noise and thus will negatively impact the safety of local residents and school children some of whom are of special care. In preparation of the LRT construction a recent study "Future Conditions Report Ainslie Wood Traffic Management Review" from 1/14/2019 prepared by Wood Environment & Infrastructure Solutions, concluded that our immediate intersections are projected to operate with an overall acceptable level of service in both AM and PM peak hours but some intersections will reach near capacity by the 2031 horizon year and that conclusion was reached before the application of this development. We would ask that this information also be considered when making your decision as any high-rise building is not built to last a mere 11 years but way beyond that. Although, the commercial spaces planned in this development are predominantly designated for resident's use there are no such guaranties that outside customers would not wish to access the services offered thus resulting in additional traffic increase and parking problems. Policy Chapter E of HUOP 4.6.26 states that "Automobile access shall continue to be an important mode of transportation from the surrounding neighbourhoods, but it shall be balanced with he the need to improve pedestrian access and opportunities for active transportation". I believe the Applicant has tried to well balance the different modes of transportations however, we can not ignore that automobiles will remain in use regardless of and in addition to other modes of transportation. The 1107 Main St W. proposes 310 dwelling units yet only 234 parking spaces in total. Our households are generally changing and become smaller and it makes absolute sense that the developer plans to have 54.70% of this structure occupied by singles or couples. Although, the remaining units represent only 45.3% they will be of higher density and the entire project can reach as many as 1000 new people on this small plot of land. The environmental footprint surely needs to be considered. Many residents will move in and adjust their lives accordingly and use the environmental modes of transportation, however the remainder especially the ones with children may still require more than one car. In our opinion the proposed number of parking (181 residents and 31 visitors) may prove inadequate and result in congested street parking. That has already proved a challenge in other areas of Ainslie Woods where it is difficult to back out of the driveways due to the parked vehicles on the streets (Ainslie Wood Traffic Management Study Dec/2019).

Environmental Factors:

Loss of direct **sunlight** is a major concern for us as it represents most of the light we currently enjoy inside our home. One of the best features of this beautifully designed house is the absolute

use of the huge east and west facing windows in an attempt to capture the maximum amount of sun and heat. In addition, as the direct sunlight is captured and solar heat retained it provide us with light and heat reducing our electricity bills. We have no other way to prove this point except by providing the following pictures which have been taken on June 13th, (before the longest day of the year June 21) starting at 8am and continued every hour until 9pm clearly showing the amount of direct sunlight we currently receive. One of the best features of this beautifully designed house is the absolute use of the huge east and west facing windows in an attempt to capture the maximum amount of sun and heat. In its Planning Rationale the Applicant claims to have eliminated the shadow impact on the existing neighbourhoods, yet the shadow study provided clearly shows a significant shadow impact on our house. Page 47 of Design Rationale states that" between the hours of 10am to 4pm the proposed development allows for full 6h of sun coverage for all off-site privet and public areas". That statement is false, and the commissioned study provided should be further investigated. We normally can enjoy about 2 hours of sunlight from the east in the morning. Then we have no sunlight until about 1:30pm when we can enjoy direct sunlight until late into the evening. This scenario, of course is ideal on the nice sunny day regardless of the season (except winter) and will differ on a gloomy day when we only receive daylight but not direct sunlight. With the proposed height of the development it is impossible to receive a minimum of 5 consecutive hours of full sun coverage. New multi story buildings can have a negative impact on adjacent properties and public sidewalks when they cast shadows for long periods of time. In our opinion, the proposed built form, and setbacks of the taller elements of the building are inappropriate and the shadow impact on our property has not been adequately eliminated. The proposed built form even with the setbacks of the taller elements significantly and negatively affect the direct sunlight plunging our house into deep shadows. It is especially important to address the negative overshadowing for buildings along the south side of east/west arterial of which we are. On pg. 44 the Applicant states that there generally exist or are planned greater heights along Mains St. between Longwood Rd. and Cootes Dr. and in fact there is only one such high rise (Camelot Towers) that currently fit that description. Furthermore, the mid-rise intensification of the corridors still refers to the maximum of 6 storeys in height. Policy Chapter E of Urban Systems and Designed 2.4.16 state that "New Developments shall locate and be designed to minimize the effects of shadowing and overview on properties in adjacent neighbourhoods, (OPA98). Pictured below is a picture we took to show the overlooking that will result as a consequence of this development. We of course are concerned about loosing our privacy and resent that not much can be done to decrease it. For if we install privacy blinds, we will lose the little of the light we may get. Although, the loss of a view can not be considered in planning especially such as important as main corridor redevelopment, we wish the Project Manager to see the view we will never see from our front door ever again once this building is built. On pg. 47 the Applicant states that the proposed development will not result in any unacceptable sky view impact; again, we beg to differ with it. **Sound** travels and impacts so much; the negative effect of noise, whether intermittent or continuous can result in physical conditions such as hypertension or sleep disturbance and a wide range of mental/emotional illnesses such as anxiety, anger, and depression. To be clear, we are concerned about the noise disturbance not only during but also after the construction of the proposed development. With a significantly increased resident density we are greatly concerned

with additional noise. The Applicant has provided the noise study but only regarding the future residents of the development and not to the effects the noise will have on current neighbourhood. We are concerned that such a massive structure, which will house so many people, the stationary and constant noise that will be produced will greatly affect our peaceful and relaxing atmosphere in our home and our neighbourhood. We are, of course concerned about the **vibration** the construction will produce but that at least will end when the project is completed. Therefore, we are insisting that the zoning not be allowed to change to accommodate the height the Applicant is applying for. We are very sorry to see the Grace Lutheran Church go. The green space provided us with our own little park right next to the busiest street in town. The massive trees along Dow Ave. will be greatly missed if they cannot be saved. It is especially sad because the new development allows a very limited 2,500 sqf of amenity space. The green amenities within immediate neighbourhoods provide a walkability and are a great source of mental health balance and are vital to the character of our city. The less tangible factor of tranquility that can not be measured will be greatly missed as the little that the development offers in this regard will not be accessible by neighbours.

At last, please note that we have taken every effort to present accurate information for your consideration. This has proven a steep learning curve for us, and we can not accept any responsibility for unintended errors or omissions. We do, however, ask that you please take all factors into consideration before reaching your decision.

Sincerely,


9 DOW AVE


19 DOW AVE


43 DOW AVE


49 DOW AVE


55 DOW AVE

Barnett, Daniel

From:
Sent: May 5, 2020 3:48 PM
To: Dear, Andrea
Subject: Re: [WARNING : A/V UNSCANNABLE] Re: 1107 Main St W.

Hi Andrea,
I am sorry I was not going to bother you today but as I was reading through the material you forwarded yesterday, which is proving to be a very steep learning curve for me, I came across some info that I may need help with. Are there engineers in your department who specialize in shade and noise studies and are able to answer my questions? Or perhaps you or someone else knows of a specialist in these areas and perhaps you could recommend so that I could have my questions answered as I am preparing to submit my comments?
Please let me know. I will try not to bother you too much but unfortunately can't promise it.
Thank you again for your very prompt answers every time.

Sent from my iPhone

> On May 4, 2020, at 2:55 PM, wrote:
>
> Thank you very much Andrea. I now will be able to see the whole project and comment appropriately.
> Have a good day and stay safe
>
> Sent from my iPhone
>
> > On May 4, 2020, at 9:25 AM, Dear, Andrea wrote:
> >
> > https://www.1107mainhamilton.com/
> >
> > Hi ,
> >
> > Above is a link to all the information submitted as part of the application.
> >
> > I am not 100% certain which information you are looking for but this is a valid and complete application. They have met the requirements of the Planning Act.

IF you are looking for additional information on ownership, I recommend contacting the agent David Falletta.

I hope this is helpful.

Andrea Dear MCIP, RPP

Senior Planner

City of Hamilton

From:
Sent: May 1, 2020 3:14 PM
To: Dear, Andrea
Subject: Re: [WARNING : A/V UNSCANNABLE] Re: 1107 Main St W.
Hello Andrea,
It is me again, sorry. I have read through the Application you have emailed yesterday and have a question. I have not noticed any dates nor signatures of city official, I only see the registered owner's signature on pg's 20, 21, 24, 27th. Is this a standard practice? Is this application even valid? Perhaps there is another official document that confirms the receival of this application? I am sorry, as I mentioned before I am unfamiliar with such documentation but it struck me as a bit incomplete...

On Thu, Apr 30, 2020 at 12:17 PM . wrote:

> Thank you. Will do
>
> Sent from my iPhone
>
> > On Apr 30, 2020, at 11:45 AM, Dear, Andrea <Andrea.Dear@hamilton.ca> wrote:
> >
> > David Falletta of Bousfields Inc. is the agent.
> >
> > I have attached the application form. 1107 Main Inc. has a contact at Sage Condos. I assume that this is the owner.
> >
> > If you want to know more, I recommend contacting David.

As for timing, I think 4-5 weeks from receipt of the materials could be allowed. Does this seem reasonable?

Andrea

From:
Sent: April 30, 2020 11:30 AM
To: Dear, Andrea
Subject: Re: 1107 Main St W.
Thank you Andrea for this reply. How much time will you give me to study these materials before I submit my comments and before you begin drafting your report?
Also, do you have the digital access to the application yet? I still would like to have the names associated with the company/applicant, please.
Thank you,

Sent from my iPhone

> On Apr 30, 2020, at 10:30 AM, Dear, Andrea <Andrea.Dear@hamilton.ca> wrote:
>
> Hi Anna,
>
> The applicant is getting a website set up with all of the materials. I have just asked them for an update on the timing. It should be ready in the next day or 2. I will let you know as soon as it becomes available.
>
> Andrea Dear MCIP, RPP
>
> Senior Planner
>
> City of Hamilton
>
> ---
>
> **From:**
> **Sent:** April 30, 2020 1:28 AM
> **To:** Dear, Andrea
> **Subject:** Re: 1107 Main St W.

Good morning Andrea,
It is me again asking for help; so sorry to be such a nuisance. I find it quite difficult to offer my comments as I do not have enough information in regards to the development. Are you able to provide me with the remaining documents I requested?
Thank you,

On Wed, Apr 29, 2020 at 2:11 PM Dear, Andrea <Andrea.Dear@hamilton.ca> wrote:

Hi ,

You can for sure have more time. The April 30 is a suggestion, but comments are welcome up to and including when we get to Planning Committee. You are welcome to comment when you are ready. I have not begun drafting the report.

Andrea Dear, MCIP, RPP

Senior Planner

From:
Sent: Wednesday, April 29, 2020 2:01 PM
To: Dear, Andrea <Andrea.Dear@hamilton.ca>
Subject: Re: 1107 Main St W.

Hello Andrea,

I wanted to notify you that I need more time to research the project before I can submit my comments. As you have stated in your email on March 23rd, April 30th is not a hard deadline I would like to take this time to learn about this development. I really need your assistance in getting as much information as possible. Not sure of which information I am allowed to receive prior to the Planning Committee meeting but could use all the help I can get. I am sure you have a lot of projects to deal with and I appreciate the fact that you have been able to correspond so timely with me. My question from my email from last night still an info I would like to receive as soon as you get a chance.

Thank you,

On Tue, Apr 28, 2020 at 12:40 AM
wrote:

Thank you so much Andrea for the Planning & Urban Design Rationale, I will await the rest of the documents. I am sure it will be an interesting read! Also, on March 23rd you have mentioned in your email that you will try to follow up with the names associated with the company 1107 Main Inc. Would you happen to have this information ready for me?

Have a good day and stay safe,

On Mon, Apr 27, 2020 at 9:50 PM Dear, Andrea <Andrea.Dear@hamilton.ca> wrote:

Hi ,

No worries...these are crazy times and we are all doing the best we can.

Feel free to contact me, but you can also copy Shannon if you like. She is my Senior Project Manager. I copy her to keep her in the loop, but I am the planner on the file.

The applicants have been working to create a webpage where all the information is available to the public. This will be ready by end of week. I will forward you the link as soon as that is available. In the interim, I am attaching the Planning and Urban Design Rationale for you.

Andrea Dear MCIP, RPP

Senior Planner

City of Hamilton

From:
Sent: April 27, 2020 8:52 PM
To: Dear, Andrea
Subject: Re: 1107 Main St W.

Hello Andrea,

Please ignore the first part of my recent email. I clearly found the information in your previous letter. My apologies, again.

I would still, however like to receive the remaining info at your convenience.

Thank you,

On Mon, Apr 27, 2020 at 12:54 PM > wrote:

> Hi Andrea,
>
> Quick question for you: who do I address the comments/opinion letter to? You or Mrs. Shannon McKie?
>
> Also, can I have copies or links to the materials that were submitted as part of the Complete Application? I am specifically interested in the following:
>
> Architectural Plans/Renderings
>
> Environmental Noise Report
>
> Shadow study
>
> Traffic Impact Study
>
> Tree/green space management plan
>
> I am also interested in the City of Hamilton planning and urban design rationale as well as applicant's in regards to this property.
>
> Thank you,
>
> On Fri, Mar 27, 2020 at 2:17 PM Dear, Andrea <Andrea.Dear@hamilton.ca> wrote:
>
> > https://www.hamilton.ca/city-planning/official-plan-zoning-by-law/interactive-zoning-mapping

Hi ,

Above is a link to our interactive zoning map. This will give you the as of right zoning on all properties.

The current zoning for 1107 Main Street West is TOC1 - Transit Oriented Corridor One. The applicant is requesting to add a Site Specific Zone to the existing TOC1 zone in order to permit the height and other items like parking and building setbacks.

Please let me know if you need additional information.

thanks

Andrea Dear MCIP, RPP

Senior Planner

From:
Sent: March 26, 2020 10:41 AM
To: Dear, Andrea
Subject: Re: 1107 Main St W.

Good Morning Mrs. Dear

When you get a moment could you please direct me where (website) I can find the exact description of the following zonings for:

1. 9 Dow Ave city of Hamilton

2. Current 1107 Main St West

3. Proposed Zoning Amendment (File No. ZAC-20-016) for 1107 Main St W.

As I mentioned before, I am quite unfamiliar of the processes but would like to be able to review the differences of current and proposed zoning changes and its possible impacts on me.

Thank you,

On Mon, Mar 23, 2020 at 4:05 PM
> wrote:

Thank you 🙏

Sent from my iPhone

> On Mar 23, 2020, at 3:31 PM, Dear, Andrea <Andrea.Dear@hamilton.ca> wrote:
>
> In this crazy time, I am glad I can help a bit.
>
> The applicant is 1107 Main Inc. (I do not have digital access to the application so I am not able to get the name associated with this company but I will follow up)
>
> The consultant is Bousfields Inc. (c/o David Falletta)
>
> We do not always know who the builder will be until much later in the process but I will see what I can find out.
>
> Please feel free to contact me anytime.
>
> Andrea Dear MCIP, RPP
>
> Senior Planner
>
> ---
>
> **From:**

Sent: March 23, 2020 3:13 PM
To: Dear, Andrea
Subject: Re: 1107 Main St W.

Thank you so much for your swift reply Andrea, it is greatly appreciated. You are correct, there is the date on the last page; I was so rattled when this letter arrived that I have missed it. My apologies.

I do have some additional questions and I am sure I will have more as things move along. Is it ok if I email you when I do?

1. How does one know who has applied to develop this land and who will be the builder? I would like to be able to research these companies as I am sure the quality of their work may affect the surrounding areas... both positively or let's hope not negatively.

2. Are there any public records available to us that can shed light as to the previous projects completed by this Applicant?

On Mon, Mar 23, 2020 at 3:00 PM Dear, Andrea <Andrea.Dear@hamilton.ca> wrote:

> Hi ,
>
> You should see a date on the last page. We have asked for comments by April 30th, but that is not a hard

deadline. Comments can be made right up to, and including, the Planning Committee meeting which has not been scheduled yet. You will receive future notice once a meeting is scheduled. There will also be a sign posted on the property and it will be updated as dates become available.

Rest assured you have plenty of time to comment and participate.

The applicants will also be arranging and hosting public consultations which you will be notified of.

As you mentioned, in light of Covid19 we are all operating on a day by day basis. The notice you received was under legislative timelines and had to be sent out. I can tell you with a fair amount of certainty that the Planning Committee meeting is not likely to be scheduled in this calendar year. I know that the Councillors are looking at ways to keep business moving, but I am not sure what that will look like.

Since you have already provided comments, you have the right to appeal a decision of Council and you will be kept informed on any dates for public meetings related to this application.

So far, we are working from home. Please feel free to contact me with any questions or concerns you may have.

Thanks

Andrea Dear MCIP, RPP

Senior Planner

City of Hamilton, Planning, Heritage and Design

From:

Sent: March 23, 2020 2:42 PM
To: Dear, Andrea
Subject: 1107 Main St W.

Hello Mrs. Dear,

I am writing in regards to the mail I have received today and dated March 20,2020.

I would like to be able to submit comments and opinion in regards to this application (File No. UHOPA-20-012) and (File No. ZAC-20-016) as it directly affects me and my family. However, there are no deadlines specified in your letter. How does one know when the proposed Official Plan Amendments are to be adopted with no specific dates provided? Is this a routine practice?

As I am unfamiliar with the development projects of any sort nor the processes

or procedures I would greatly appreciate additional assistance. Specifically I am looking to receive the deadlines for submissions and the dates of public meetings. With the restrictions of large gatherings due to the COVID-19 outbreak, when and how will you plan a public meeting with all the interested parties being able to attend?

Thank you in advance for answering my inquiry,

Dear, Andrea

From:
Sent: Friday, May 1, 2020 4:59 PM
To: Wilson, Maureen
Cc: Dear, Andrea;

Subject: 1107 Main Street West

Dear Maureen,

I hope that you are keeping safe during the present pandemic. I imagine that you are being run off your feet with issues connected with the new disease that is spreading around the globe. However, other issues remain. In particular, I wanted to express my views on the proposed development of a 15-storey apartment building on Main Street West, on the present site of Grace Lutheran Church.

Although I am a member of the Board of the Ainslie Wood Westdale Community Association, I am writing as an individual. Since AWWCA Board meetings have been suspended indefinitely, I do not have an opportunity to have my reactions to the proposal discussed with other Board members.

First, in general I support the proposal. I attended the meeting on November 26 at Westdale Public Library at which the developer and the architects showed their plans for the development, and at which Rabbi Green of Adas Israel Synagogue explained the background to the proposal. I raised then a question about whether there were enough parking spaces in the proposed development, and the architects subsequently added another floor of underground parking, along with some more units to provide compensating revenue, without changing the overall proposed 15-storey height. I am happy that this change was made. I also asked how the neighbours immediately to the east and west of the site would react to the proposal, and was assured that as members of the synagogue they were all in favour of it; despite the objection of one neighbour to the scope of the project, this assurance has been borne out by the many messages and petitions that Andrea Dear has received from the neighbours in support of the project. Since the synagogue is to the south of the site and a strip mall is to the north of it on the other side of a six-lane arterial road (Main Street West), the proposed development seems quite compatible with its surroundings. The designs that I have seen show a very attractive building, with a mix of sizes of units comparable to that of high-rise buildings in downtown Toronto (except for the very small number of studio apartments, in response to a concern expressed at the November 26 meeting that studio apartments would attract students rather than the synagogue members who are expected to be the main tenants).

Second, I have a concern about whether the proposal as now formulated is compatible with city council's declaration of a climate emergency and its adoption of a goal of reducing Hamilton's net greenhouse gas emissions to zero by 2050. I strongly support both the declaration and the goal, believing that the enormous quantity of very long-lasting greenhouse gases that humans have emitted into the atmosphere and global ocean since the start of the industrial revolution has had on balance very serious adverse consequences for the life-support systems on our beautiful planet and that further greenhouse gas emissions will make these adverse consequences much worse. The sooner humans get to net-zero greenhouse gas emissions and then go to net-negative emissions, the better. Given the goal of net zero by 2050, it makes no sense for the city to approve new buildings whose operation emits greenhouse gases. Buildings are going to have to be net-zero or net-negative in their operations, and it is much more expensive to retrofit them than to make them net-zero or better from the beginning. We have examples of buildings with net-zero heating systems already in Hamilton, such as the City Square development of three high-rise towers near the city centre. At the November 26 meeting, the developer was asked whether the project would receive LEED certification (of which one form is certification as a net-zero emitter of greenhouse gases), and replied that certification would add an expense that was incompatible with the goal of keeping rents in the new building reasonable. I have seen no indication that the building is

being designed to be net zero or better in its operations. I believe that the planning department should negotiate with the developer, as a condition of approval of changing the zoning of the property, a binding enforceable commitment to net-zero operation. Further, as people shift from greenhouse-gas-emitting vehicles to zero-emissions vehicles, the parking spaces in the proposed building will need to be fitted with charging stations for electric cars. It would be much cheaper to rough in the conduits for linking such charging stations to the electrical mains than to drill concrete each time tenants ask for an electrical charging station in their parking space. The planning department should make inclusion of such conduits a condition of approval of the zoning change.

Third, I have a concern about the protection of the proposed development from the kind of bait-and-switch tactics that Hamilton has seen with other proposals. Rabbi Chanan Weiser, Executive Director of Adas Israel, has informed Kenneth Moyle and the AWWCA Board that the builder and developer of the project is IN8 Developments. IN8 Developments has built a number of apartment buildings in the student district of Waterloo that provide off-campus housing for students at the city's two universities. These buildings appear to me to be well-built and well-managed, and in my view Waterloo has found a good solution to providing accommodation for students off campus in a way that does not disrupt neighbourhoods with single-family dwellings. My concern is that it may be more profitable, once approval is given for construction of a 15-storey apartment building on the site, to build it as off-campus student housing rather than as accommodation for members of Adas Israel Synagogue. What control does the city have in the planning and construction phases over the ultimate design and ownership structure of the building? I am told that the developers of the property at 77 Leland St. originally proposed an off-campus student residence with security and that the project was approved on that understanding. However, it is now being marketed as a condominium development, with fully furnished apartments "with the sleek high-end features certain to attract international and local students from McMaster University" (quoted from here). Since students are unlikely to have the money to buy such units, they are evidently being marketed to investors who will rent them out to students—a whole building full of student homes with absentee landlords and none of the governance structures of a university residence. What is to prevent the development at 1107 Main Street West, if it is approved, ending up at a similar place?

P.S. At least one person has questioned whether I have a conflict of interest with regard to this proposal because I live on Cline Avenue, which is the western boundary of the property. I live on the part of Cline Avene on the other side of Main Street, at the far (north) end of the block next to King Street. Because Cline Avenue jogs to the east as one goes south from King Street, I cannot see from my home the part of Cline that is on the other side of Main Street. Since there is a three-storey building at the northeast corner of Cline and Main, I will be unable to see from my home the 15-storey building proposed for 1107 Main Street West. So I believe that I have no conflict of interest in this matter. Subjectively, my motivation for writing about this proposal is a combination of concern for the planet and concern for the quality of life in my community.

P.P.S. There is a certain irony in the proposal to construct an apartment building for families with children near the synagogue because the nearby single-family dwellings are predominantly student homes owned by absentee landlords. Abstractly, the most appropriate accommodation for a family with children is a dwelling with a yard in which the children can play, on a street where they can in the normal course of events meet and get to know other children. And the most appropriate accommodation for McMaster students not living at home or on campus is a room (or room and board) in an owner-occupied dwelling or an apartment rented along with others; students have no interest in having a yard and tend not to take care of it if they rent a place with one. Unfortunately, it is not possible to wave a magic wand and prescribe a time limit for student homes within a specified distance from the synagogue to become owner-occupied.

April 22, 2020

Andrea Dear, City of Hamilton
Planning and Economic Development Department
Development Planning, Heritage and Design – Urban Team
71 Main Street West, 5th floor, Hamilton, ON, L8P 4Y5
andrea.dear@hamilton.ca

RE: Public Input for UHOPA-20-012 & ZAC-20-016 @ 1107 Main Street West, Hamilton

Subject: INSUFFICIENT PARKING

Hello Ms. Dear,

This letter is in response to the City of Hamilton's request for Public Input into the application to amend the Official Plan and Zoning By-Law for the lands located at 1107 Main St. W. Hamilton (UHOPA-20-012 & ZAC-20-016). Please remove my personal information before including these comments in the public record.

I would like to express my concern about the lack of sufficient parking in the above referenced development contributing to increased vehicular traffic, noise and congestion on the streets in the Ainslie Wood neighborhood.

Specifically, the proposal includes **65 too few parking spots** for a building of this size in the proposed zoning. Referencing Zoning By-law No. 05-200, Section 5.6.c.i for Residential, Multiple Dwelling, Commercial and Mixed Use Zone C5, with units > 50 square meters, this development requires 299 parking spots but the application proposes only 234 spots and the supporting documentation references only 217 spot.

Furthermore, there appears to be a **net decrease to parking at grade**, based on the site plan drawing provided. I estimate that up to 16 existing parking spots on the West side of Dow Ave would be eliminated in order to access the proposed 4 at grade parking spots. Street parking is already scarce during daytime hours due to the adjacent school's staff who use the spots.

Finally, it is unclear whether short term parking will be provided below grade for both the residential and commercial building uses, which if not available, risks encouraging vehicle idling on adjacent streets.

Regards,

April 22, 2020

Andrea Dear, City of Hamilton
Planning and Economic Development Department
Development Planning, Heritage and Design – Urban Team
71 Main Street West, 5th floor, Hamilton, ON, L8P 4Y5
andrea.dear@hamilton.ca

RE: Public Input for UHOPA-20-012 & ZAC-20-016 @ 1107 Main Street West, Hamilton

Subject: PLANNING & DEVELOPMENT

Hello Ms. Dear,

This letter is in response to the City of Hamilton's request for Public Input into the application to amend the Official Plan and Zoning By-Law for the lands located at 1107 Main St. W. Hamilton (UHOPA-20-012 & ZAC-20-016). Please remove my personal information before including these comments in the public record.

The proposed **development should be rejected** because it disregards the City's Official Plan, the Ainslie Wood Secondary Plan, the Zoning guidelines, & the City-Wide Corridor Planning Principles.

Section 2.4.2.2 of the **Urban Hamilton Official Plan** lists the considerations for an application for residential intensification. The proposed development is incompatible with the single family residences on the adjacent streets and will cause detrimental sun shadowing, noise, night lighting and other negative effects on the neighborhood.

Section 6.2.7.2 of the **Ainslie Wood Secondary Plan** for Mixed Use Medium Density notes that building height should be limited to 3 storeys (not 17 storey equivalent when considering the mechanical structure on the roof). Also, the residential density target is 30-49 units per hectare (not ~600 per the application), as well as provide sufficient parking and pedestrian safety measures.

Section 10.5 of **Zoning By-law No. 05-200** clarifies that "although residential uses are permitted, either as a single or mixed-use building, this zone [Mixed Use Medium Density (C5)] is predominantly commercial." The development contains less than <5% commercial and would more correctly be described as a High Density Residential, which is incompatible with the surroundings.

Finally, the **City-Wide Corridor Planning Principles and Design Guidelines** note that new developments should be limited in height to a 45 degree plane in order to minimize shadowing. Based on a line at 80% of the adjacent street widths, the permitted height including mechanical structure on the roof should be **no more than 8 stories**. Additionally, there should be a stepping down of height on the South of the building which overlooks the City-funded Dow Parkette. The rear of the building should ideally be tiered so that ice and snow do not fall from the roof onto children playing in the park.

Lastly, in response to I would like to request that the above submission be accepted **without my personal information** for publication on the city website.

I thank you for your time in reading my response and look forward to your return communication.

Sincerely,

Dear, Andrea

From:
Sent: Tuesday, April 14, 2020 5:28 PM
To: Dear, Andrea
Subject: Re: 1107 Main

Thank you Andrea for your reply and follow up on this.

I also appreciate your explanation on your email of what your role with respect to the proposed development.

As a fellow who is new to all this, in response to Shannon McKie's letter of March 20th, there is a lot of information that I trying to learn about at this unprecedented time, especially with the Covid crisis.

Thank you again,

On Tue, Apr 14, 2020 at 9:00 AM Dear, Andrea <Andrea.Dear@hamilton.ca> wrote:

> I am very sorry, I was certain that I provided a response, but I was mistaken.
>
> I have asked the applicant to make the submission materials available via their website, but I have not yet heard back. I will follow up with them. In the event that the applicant is unable to do that, I will see what I can do to share them digitally. As the files are large, I will need to find the best way to share them.
>
> As for the tenure of the development, at this time, I believe that the plan is for it to be condominium, but this could change.
>
> in terms of my evaluation of the proposal, the tenure is not a factor.
>
> Even if it is a condominium, there is nothing to prevent investors from purchasing units and renting them out. My job is to evaluate the proposal in terms of height, massing, design, character and to consider things like parking and amenity space. If the Official Plan and Zoning by-law amendments are approved, the applicant will be required to get site plan approval, and if the building is condominium, they will be required to apply for a Plan of Condominium. If it is rental, there is no such requirement as the building would remain in sole ownership.
>
> I will get back to you as soon as I have figured out how to share the materials.

Thanks,

Andrea Dear MCIP, RPP

Senior Planner

City of Hamilton

From: .
Sent: April 13, 2020 9:15 AM
To: Dear, Andrea
Cc: Wilson, Maureen
Subject: Fwd: 1107 Main
Hi Ms. Dear

I am just following up on the email I send about 11 days ago on March 31st 2020. I have not heard back as of yet.

I noticed the signage that was erected in front of the 1107 Main Grace Lutheran Church with your contact information but as I tried to call the number to reach you, it is unable to connect understandably because of Covid

As per the notice that was distributed on our street, we have been asked to submit a response by the end of the month.

Re: 1107 main

May I ask you please provide copies of the application and all supporting documents for the UHOPA-20-012 & ZAC-20-016 amendments? If these are not yet available publicly, can you please advise how and when I will be able to access the materials?

Additionally, I would like to know when in the process the applicant will need to decide whether the development will be rental units or a condominium?

I am cc'ng Maureen Wilson in case you may be away just to ensure that with time of the essence in your request for neighbourhood response, that we can submit a response.

thank you

---------- Forwarded message ---------
From:
Date: Tue, Mar 31, 2020 at 8:34 AM
Subject: Re: 1107 Main
To: Dear, Andrea <Andrea.Dear@hamilton.ca>

Good morning Ms. Dear,

Thank you very much for your response. Glad to know that we you can work from home and keeping safe indeed!

Re: 1107 main

May I ask you please provide copies of the application and all supporting documents for the UHOPA-20-012 & ZAC-20-016 amendments? If these are not yet available publicly, can you please advise how and when I will be able to access the materials?

Additionally, I would like to know when in the process the applicant will need to decide whether the development will be rental units or a condominium?

Thank you for help on this matter

Will look forward to staying in touch with you on this important matter for our neighbourhood

Best

On Thu, Mar 19, 2020 at 10:03 PM Dear, Andrea <Andrea.Dear@hamilton.ca> wrote:

> Hello ,
>
> I am keeping safe and am now able to work from home so feeling grateful.
>
> I am the planner assigned to the 1107 Main Street West applications.

Can you let me know what you would like to know and I can certainly provide you with that information.

Let me know.

Andrea Dear

Senior Planner

From:
Sent: March 11, 2020 11:51 PM
To: Dear, Andrea
Subject: 1107 Main
Hello Ms. Dear

I hope you are well and keeping infectious safe at this difficult time in our community.

I received your email from Maureen Wilson and was hoping to connect with you on the proposed 1107 Main project.

Thank you in advance for your time in reading and reply,

Best

--

--

Andrea Dear,
City of Hamilton,
Planning and Economic Development Department,
Development Planning, Heritage and Design – Urban team,
71 Main Street West, 5th Floor, Hamilton, ON L8P 4Y5

April 27, 2020

Dear Ms. Dear,

Re: UHOPA-20-012 and ZAC20-016
Application by 1107 Main Inc. to amend Official Plan and Zoning By-Law –
1107 Main Street West

Thank you for the opportunity to provide written comments on the above-named application. We are familiar with the application, having reviewed the materials that you sent and participated in a question and answer discussion with the architect. We are local residents who live on adjacent Dow Avenue where we have lived for almost two decades; we are members of the adjacent local synagogue and our children attended the adjacent Hebrew day school.

We have serious concerns about the application in its present form, as we understand it, as an imposing 15-storey 'mid'-rise structure that includes retail commercial space; we are concerned mainly due to its potential for damaging effects on the character and cultural heritage history of our residential neighbourhood and local adjacent synagogue. We strongly encourage you to require that the applicants modify their application to conform with the reference guidelines identified for such projects, according to the City of Hamilton Residential Intensification Guide and requirements in the Urban Hamilton Official Plan (UHOP), the Ainslie Wood Westdale Secondary Plan, the Provincial Policy Statement and the Golden Horseshoe Growth Plan . Our comments below correspond to the Guide's key issues and how, in our view, the proposal is contrary to the planning and growth thrusts of the four Plans:

1. *Density.* The proposal is for 310 dwelling units which is a drastic increase in both sheer number of dwellings and sheer number of residents (occupancy projections are not specified but could be anticipated to be a flood of 500 – 600 people) for a tiny area, that represents a significant game-changing departure from the existing single family home composition of our local residential neighbourhood and synagogue community. The majority of the units (53.5%) in the proposed mammoth building are very small single-bedroom units, described by the architect as "efficient" in size to make them economical, which we are concerned will have specific appeal to university students, making these 168 units the building's essential heartbeat ("what the market wants", in the words of the architect), and to which we object as local property owners as a violation of our street ambience and cultural character.

2. *Character.* As noted above, a key impact is our concern that the proposed building will vie to house the city's largest private off-campus student residence adjacent to our homes. There are other impacts as well. We are concerned with the potential for the many terrace spaces to become raucous and potentially dangerous outdoor party areas. Further, the proposed commercial space is surprising to us, and is out of character with the adjacent and nearby properties on the south side of Main Street West (we will comment on both parking concerns and serious traffic flow issues related to the commercial space below). Parenthetically, we along with other local residents patronize nearby Westdale retail establishments; the proposal has potential to compete with these existing local businesses. Finally, the existing green space will be replaced by the enormous building structure itself described by the architect as "covering the majority of the property" and which is insufficiently set back and appears to abut up not only to the local streets but directly against the local school yard. In our view, the architectural design features (such as height set-backs) will not hide the space-consuming bulkiness of the edifice.

3. *Height.* We have major objections to what we consider excessive height which is out of keeping with the neighbourhood. We acknowledge that there appears to be architectural use of a 'set-back' design for the upper floors but this, in our view, would not disguise the towering height of the 15-storey structure relative to the surrounding homes and school and synagogue building which max at 2 – 3 storeys. Comparable approved applications have limits at 5-storeys (such as 77 Leland Avenue); this proposal is triple that height, and is the main basis for our objection to zoning amendments to current height restrictions. In particular, we are appalled that the design apparently proposes an intrusive 8-storey façade of residential units abutting and overlooking the Hamilton Hebrew Academy school and children's playground.

4. *Traffic.* The heightened density noted above as well as the new addition of retail traffic will directly impact on the safety of young children particularly at school drop-off and pick-up times in the school zone designated streets. With regard to Main Street West, we are concerned that the traffic generated by the anticipated over 300+ cars plus commercial traffic generated by the building will involve dangerous disruptions to the flow of the already very busy Main Street, the right lane of which serves at this location as an already heavily-trafficked highway on-ramp to Hwy 403.

5. *Parking.* Notwithstanding our concerns for the density of the project, we are concerned that the proposal has insufficient parking, not fully one space per unit, and with no visitor parking or any parking for retail customers. Taken together, the lack of sufficient parking will serve to impact on traffic flow onto our streets (as noted above) and increased demands for limited available parking for local homeowners, school and synagogue staff, parents, members and volunteers.

Taken together, we have serious objections to this application in its current form particularly due to intense density and occupancy level changes, drastic height impositions and disruptive traffic considerations that are contrary to the four Planning documents, that will impact on the character and cultural heritage of our local residential neighbourhood and that are not at all resolved through the architectural design features. We ask that you kindly consider these objections in your consideration of application and oppose any and all proposed amendments to existing zoning by-laws.

Sincerely,

Barnett, Daniel

From:
Sent: April 27, 2020 3:55 PM
To: Dear, Andrea
Cc: Ward 1 Office; McKie, Shannon; Fabac, Anita; Robichaud, Steve
Subject: Re: UHOPA-20-012 and ZAC20-016 comment submission

Dear Ms. Dear,

Thank you for confirming receipt of our letter. In terms of it being a purpose built rental for students, this concern was based not only on the architectural design of the small 'efficient' size of single bedroom units (over half of the building's units), but also the specific mention in the developer's traffic study submission (section 5.2 of that document) which describes the proposal as a 'student rental building'. If you have information from the applicant that indicates the building is not geared for students but rather is truly being designed for families and seniors, that would be helpful to share for clarification purposes.

Best wishes,

On Mon, Apr 27, 2020 at 11:08 AM Dear, Andrea <Andrea.Dear@hamilton.ca> wrote:

> Hello
>
> Thanks you for your email. This will form part of the public record and will be considered as we evaluate the proposed amendments to the Official Plan and Zoning By-law. You will be notified of any future public consultation and of the Planning Committee meeting date once it has been confirmed.
>
> For your information, I am not aware that this is a purpose built rental for students. In speaking with the applicants, it is my understanding that this is a building being designed for families. This is not to say that there would never be students, I just wanted to let you know that it is not my understanding at this time.
>
> Let me know if you have any questions.
>
> thanks
>
> **Andrea Dear, MCIP, RPP**
>
> Senior Planner
>
> **From:**
> **Sent:** Monday, April 27, 2020 10:49 AM
> **To:** Ward 1 Office <ward1@hamilton.ca>; Dear, Andrea <Andrea.Dear@hamilton.ca>
> **Subject:** UHOPA-20-012 and ZAC20-016 comment submission
>
> Dear Ms. Wilson and Ms. Dear,

Thank you for the opportunity to comment and vigorously oppose the proposal for amendments (Re: UHOPA-20-012 and ZAC20-016) to allow a 15-storey mid-rise structure to be built adjacent to the Hamilton Hebrew Academy and local synagogue. The nature of our opposition is outlined in the letter which we have attached for your review and consideration (can you kindly confirm receipt?).

More broadly though, we ask you and your colleagues on City Council and in City Planning to address what is the plan for building projects of this sort, that is, mid-rise structures that are designed to be essentially off-campus student residences. We understand the need to cater to this market, indeed, I am a university faculty member and I recognize the need and desire for decent student housing. However, as local residents and as property owners, we would like to know and anticipate into which neighbourhoods these projects will be potentially located. We are very concerned, as we point out in our letter, about massive towering structures being built on small lots in residential areas and we are concerned that these lots are being utilized in the architectural designs to their very fullest (abutting right up to the edge of the property) and not have the usual set-backs, which maintain the residential community character. Specifically, will this project become the tip of the iceberg for essentially 'free for all' for zoning amendment approvals in our neighbourhood and others?

We are looking to you, we are appealing to you, to enforce existing by-laws and planning restrictions that ensure that neighbourhoods like Westdale do not evolve into an urban core.

Thank you for considering the objections outlined in our letter and to these broader considerations.

Sincerely,

Mr. Daniel Barnett,
City of Hamilton,
Planning and Economic Development Department,
Development Planning, Heritage and Design – Urban team,
71 Main Street West, 5th Floor, Hamilton, ON L8P 4Y5

January 28, 2022

Dear Mr. Barnett,

Re: UHOPA-20-012 and ZAC20-016
Application by 1107 Main Inc. to amend Official Plan and Zoning By-Law – 1107 Main Street West

I am writing to further our objection to the dangerous scope and over-intensification of the proposed 1107 Main Street West development. We have objected in writing previously (April 27, 2020) and find it grossly self-serving when the developer puts forward claims of local resident support as if it is somehow unanimous; we live on the same street as this proposed development and we object strenuously to any bylaw changes to accommodate this plan. Specifically, with regard to violations of the city's Tree Protection Plan, the developer will be wantonly cutting down and disposing of a gorgeous English Oak (whose roots just won't survive the proposed 3m setback and the proposed underground parking excavation) and the beautiful Silver Maple.

And more. The property on Dow Avenue bookended by those two trees was an important garden space providing for those in our city with food insecurity. The proposed plan paves paradise and puts up park benches overlooking their garbage dump (I know it sounds incredible but it's true). The green space in the proposal is on upper levels – public space? No chance – it will be an outdoor party area for high-rise tower student residents who are at risk for throwing bottles onto the streets below – witness headline-grabbing street party destructive outbursts. Did we not learn anything from the pandemic about respect for safe distancing and preserving our spaces including our green spaces?

Finally, we are members of the local Adas Israel community, among those who are opposed to the overwhelming size of this proposal - in our Jewish tradition, we have just celebrated Tu B'shevat, a holy day which is specifically set aside in our calendar to celebrate the vibrant importance of trees in our community lives and our moral environmental responsibilities – it is terribly ironic at a time when we are celebrating such ecological growth that we are told to witness instead the destruction of these heritage trees, only to be seen in photo memories or perhaps, as the folk singer predicted 'in a tree museum where we pay a dollar and a half just to see 'em'.

The developers have an alternative – they can stay within the current city bylaws – they can build a beautiful mixed rental-condo building of 6 – 8 stories, preserving the trees and the land and the local neighbourhood community while still adding needed residential accommodation to our city. But they are preoccupied with profit at all costs, with what appears to be an ecology insensitive and dangerously over-intensive skyscraper that ignores local needs. Please consider this in your deliberations on this ugly plan.

Sincerely,

cc: Maureen Wilson, Councillor, Ward 1

April 21, 2020

Andrea Dear, City of Hamilton
Planning and Economic Development Department
Development Planning, Heritage and Design – Urban Team
71 Main Street West, 5th floor, Hamilton, ON, L8P 4Y5
andrea.dear@hamilton.ca

RE: Public Input for UHOPA-20-012 & ZAC-20-016 @ 1107 Main Street West, Hamilton

Subject: SCHOOL SAFETY & TRAFFIC FLOW

Hello Ms. Dear,

This letter is in response to the City of Hamilton's request for Public Input into the application to amend the Official Plan and Zoning By-Law for the lands located at 1107 Main St. W. Hamilton (UHOPA-20-012 & ZAC-20-016). Please remove my personal information before including these comments in the public record.

The City of Hamilton should be **commended for supporting the Vision Zero** initiative to improve the safety of our streets. The reduced 40 kph speed zones across Ainslie Wood, and a 30 kph School Zone on Dow and Cline Avenues with speed bumps on each street, both contribute positively to the safety and security of the children in the neighborhood.

That being said, the additional vehicular traffic from a high density development adjacent to an approved **Early Years Child Care Center, Elementary School** and the City renovated **Dow Parkette**, appears to conflict with these objectives.

What **additional precaution**s would be put in place by the City and / or the Applicant in order to mitigate the increased risk of a pedestrian accident?

Currently, even without the proposed development, there is often standstill traffic during the morning and afternoon school drop off and pickup times. This situation would inevitably be exacerbated by additional vehicles departing the development during rush hour to go to work, particularly if the vehicles attempt to turn left across 3 lanes of traffic onto Main St. from either Dow Ave or Cline Ave. A full review of the traffic impact from this development should be presented to Council.

Regards,

April 28, 2020

Andrea Dear, City of Hamilton
Planning and Economic Development Department
Development Planning, Heritage and Design – Urban Team
71 Main Street West, 5th floor, Hamilton, ON, L8P 4Y5
andrea.dear@hamilton.ca

RE: Public Input for UHOPA-20-012 & ZAC-20-016 @ 1107 Main Street West, Hamilton

Subject: INSUFFICIENT PARKING

Hello Ms. Dear,

This letter is in response to the City of Hamilton's request for Public Input into the application to amend the Official Plan and Zoning By-Law for the lands located at 1107 Main St. W. Hamilton (UHOPA-20-012 & ZAC-20-016).

I would like to state at the outset that my granddaughter helped me compose this letter as I am francophone and my written English is limited.

We are tenants of , the house owned by our daughter . She had invested in this home for us to move from Quebec to be closer to her. We have been fortunate and appreciative of living in Westdale over the last 5 years, being close to our family, befriending the community and feeling "at home".

The above statement is impactful for us for a few reasons. I am a child of a Holocaust survivor. My father had escaped the Nazis and fled to Belgium for survival. I was raised in post war Belgium with French as my only language. My father always shared with me the importance of feeling "at peace" of where you live while giving back to your community. He also cautioned me and to always be watchful when my peaceful home may be at risk.

We moved from Belgium to Montreal because of the facility of French in the 1983. When our daughter asked us to move to Hamilton a few years ago, my husband and I were nervous. As seniors in their 70s+ moving to a new city is not easy, another move, a different city, less French etc. We decided to follow our daughter, advice to come to Hamilton as she reassured us that all will be safe into a new home that will be quiet and into community that is friendly.

We were blessed to find a warm Westdale community where we have been embraced by neighbors and their children. We have adopted other people's children, like our "grandchildren". We are affectionately known as "[illegible]". We open our home to every neighbor (prior to Covid-19) and affectionately give love back as much as we can.

Sadly, as we have aged, our mobility requires assistance. Both my husband and I require walkers. We try to take walks every day, understandably a little bit less now due to Covid. We are naturally cautious when we go for walks. We are grateful to live independently, close to our daughter.

We have had the experience of seeing the lovely children being dropped off at the Hamilton Hebrew Academy (HHA) on a daily basis. (Many times they come after school for treats). We are witnesses to the fact that Dow Ave is a very busy street with twice daily mini traffic jams, cars dropping off their children and picking them up. We notice children at the beautiful park across the street playing on a daily basis which attracts outside visitors as well, afterschool and on weekends. Finally, we also witness the line of cars parked on Dow Ave. for the teaching staff and McMaster students, who park on a daily basis throughout the year.

Please see attached photos of parents dropping off their children at the HHA.

At this time my husband and I would like your planning committee to analyze and see for yourselves how much activity is already present on Dow Ave.

Please understand that as seniors we do not have the analytic abilities to assess the details of your by-laws and the proposed project at 1107 Main St West. We understand though that it is a large building and for a period of time, up to 3 years, there will be large machines on site. When developed as proposed there will be 310 dwelling units to populate, with cars, parking and traffic to deal with.

We are in our "Golden Years" now and appreciate waking up every day. We would like to continue living in a "safe" environment that I was raised with from my father. We delight to see the children who pass by frequently and wish that they can continue doing so in a safe manner.

We just ask that the planning committee kindly reassess the safety of the proposed project so close to a school and a dwelling where senior citizens live.

We thank you for your time in reading our letter,

Picture 1

Picture 2

Picture 3

May 27, 2020

Andrea Dear, City Planner
Andrea.dear@hamilton.ca

Maureen Wilson
Ward1@hamilton.ca

Re: 1107 Main St. West, Hamilton, ON L8S 1B8 Proposed Development

To Whom It May Concern:

I wish to express my objection and concern regarding the proposed development listed above. Currently, this location supports a low-rise Lutheran church with surrounding houses also all low-rise profiles.

Since inception, the vision for this planned Westdale Community was to house single-family low-density quality homes. Somehow, with the thought of implementing a traffic corridor along Main St. West, the density was changed (without neighbourhood input) from low-density (max. 3 storeys) to medium-density (max. 8 storeys). With this change, all of a sudden, three high rise development proposals (including this one) sprung up within two blocks on either side of this one. The two high rise proposals are for student residents (Columbia College – 22 storeys and the McMaster Residence – 15 storeys). None of the three proposed high rise developments (including this one) falls within the recent medium density edict. It is a big departure from most buildings in the area being no taller than three storeys to every new proposal starting at 15 storeys and higher. All of a sudden, we are being surrounded by high density skyscrapers. Therefore, this development proposal should conform to and stay within the designated medium density allowable limit.

The parking situation with this building proposal is even more concerning. This proposed development offers 234 underground parking spots. There are 310 units proposed of various sizes, some townhouses, and four commercial space units. This does not even provide one parking spot per unit and not enough employee/customer parking let alone visitor parking. Nuclear families generally even own two cars – there is a definite parking shortage and this is grossly inadequate! This does not even take into account the additional developments with Columbia College housing more than 1024 students / 156 parking spots and McMaster Residence with 1400 students and 23 parking spots which we were told will be for staff usage. These will also impact the community as we all fight for parking. I note from the literature that the May 10, 2016 census was quoted for residence statistics. The material fails to take into account that the McMaster students' school year is from Sept. 1 to April 30th, hence, the census material statistics are skewed – the students that normally reside in the area, generally five to a house with several cars each, have moved out. With this being a university / student area, there are a lot of students and residents - all fighting for parking spaces and not much driveway space.

This proposal and the others previously mentioned, relies heavily on public transportation and the slight possibility that there will be an LRT (Light Rail Transit). Given the current pandemic and government cash influx to support people during this crisis, it is highly debatable that the LRT will be implemented anytime soon, if at all. To base developments on this and to provide inadequate parking is short-sighted. Additionally, it can be debated that people wanting any LRT would not be in a rush to use the proposed LRT destinations using the east/west corridor. Most people in my area travel to Ancaster Meadowlands or to Limeridge Mall. Taking the bus to these destinations could take an hour, so, they would much rather use private vehicles for shopping, weekend trips home, or pleasure purposes.

With the current Covid-19 pandemic, we are constantly advised to social distance. It will be difficult to do so now, or in similar future situations, in the Westdale area with such influxes of high-density populations. Given that with just these three proposed developments, there will be a minimum increase of at least 3,500 additional people, let alone the high student density that exists during the school year, that social distancing will be very difficult for the community, businesses, and government to support and implement. Additionally, these are not the only proposed developments in my neighbourhood which would further impact the population density.

I haven't seen the floor plans for this development but I would also advise additional space in elevators and hallways being at least 10 feet wide to allow for social distancing. It would be easier to do this now, before any building takes place, than try to do a workaround after it is built.

Since social distancing is currently in effect and a ban on public gatherings, I would propose expanding the distribution of this building's proposal notifications to several blocks surrounding the development allowing the neighbours to become aware of this proposal and to ask questions. Not every one is a member of a neighbourhood association since they require a membership and they are not recognized by everyone. This development will impact more than just the minimum few neighbours nearby. It will also obstruct our escarpment view and impact our privacy and enjoyment of our properties.

Please keep me apprised of any further developments and progress with regard to this building proposal as my home is also only two blocks away – sandwiched between all the proposed high rises.

Best Regards

Dear, Andrea

From:
Sent: Tuesday, May 5, 2020 3:24 PM
To: Dear, Andrea
Cc: A Andrea Levy Levy; Ward 1 Office
Subject: 1107 Main West @Cline Avenue South

Good afternoon Andrea.

I am writing this email as a home owner of : with respect to the development of the property of 1107 Main Street West. I have owned my home and lived in this community since 2006.

I recognize that this development will likely go ahead, regardless of the sentiment of owners on the abutting streets, but I would like to share my concerns and possible suggestions with you.

My primary concerns revolve around the increase in population density in what is a primarily residential neighborhood and the impact on traffic flow on both Cline and Dow.

Currently, Cline Avenue South is a through fare for Ainsley woods - car traffic barrels down the street at high speeds and without stopping at the stop sign at Paul street. I fear, that with the added population and traffic at the corner, this is only going to get worse.

When we're not in the middle of a pandemic, I commute to Toronto on a daily basis. During normal traffic times, I often have to wait at least 5 minutes to make a right onto Main Street to get to the highway. I can only imagine what this wait will be like when there are hundreds of more vehicles in the cue (not to mention the possibility of the LRT).

To address these issues, I would like to suggest the following remediations to improve the situation.

1) Reduce the number of units in the proposed structure

2) Add a right turn traffic signal or traffic light at Cline Avenue South on the south side, so that traffic from the neighborhood can use Dow Ave as an exit to the highway

3) Consider closing off Cline Ave South at Paul Street so that this section of Cline is a court. Keep the southern section of Cline open to Paul street to allow access to Dow. Barring that, consider making a one way U around the development and synagogue with traffic control measures.

Thank you for your consideration in this matter. I look forward to hearing how these concerns will be addressed.

Kind regards,

Dear, Andrea

From:
Sent: Thursday, June 25, 2020 2:57 PM
To: Dear, Andrea; clerk@hamilton.ca
Cc: Wilson, Maureen
Subject: Excessively high builds planned for Main West (1190 and 1107 Main west, and Columbia College build)

Dear Ms Andrea Dear, and Clerk's office,

I would like to express my objection to the 3 development proposals that have been made to build towers on Main St. West that exceed the current height limit of 6-8 storeys, and in fact are proposing towers that are more than double that size. These proposals include McMaster/Knightsbridge's proposal at 1190 Main west and Columbia Colleges, as well as the 1107 Main St. proposal.

My concern is first and foremost regarding traffic and the safety of the inhabitants of these builds, 2 of which will be occupied by students. Highschool students will be housed in the Columbia College build (which we notice is right across from the heavily populated Westdale High School). Concern for safety and traffic issues at this delicate intersection of Main West and Longwood are paramount.

Pedestrian safety and the lack of parking is a major concern and I want to strongly urge that the current building restriction on Main St. West are adhered to in any and all of the proposed developments. We don't want to put students, residents or motorists at further risk, nor do we want to reduce the quality of life by the extreme and absurd densification that developers are proposing. Quality of life, and reasonable traffic has to be the utmost consideration, not the profits of billionaire developers.

I would appreciate if you could pass my letter on to the decision-makers and have my voice counted with those voices who are proposing to maintain the current building density and height guidelines on Main Street West.

Sincerely,

February 21, 2020

To: Ira Rosen - President
Ainslie Wood Westdale Community Association (AWWCA)

RE: 1107 Main Street West
Developer's Update Report from SRM Architects

Dear Ira,

We are forwarding the attached letter to you concerning the project at 1107 Main Street West and the Developer's Update Report, and we kindly ask if you could have this letter placed on the agenda for consideration by the Board Members at your upcoming Board Meeting.

Please contact us if you have any questions or if you wish any other information.

Yours truly,

February 21, 2020

To the Board of Directors and Officers of the
Ainslie Wood Westdale Community Association (AWWCA)

RE: 1107 Main Street West
Developer's Update Report from SRM Architects

We thank you for the opportunity of being able to attend as guests your February 3, 2020 Board Meeting, and to allowing us to speak to you about our concerns with the proposed high-rise development at 1107 Main Street West.

We took far too much of your time and we truly recognize that there are many other issues that require your involvement and attention. It is therefore with great reluctance that we feel that we must contact you over an urgent matter that has arisen with respect to this project. This relates to the attached Project Update from the developer's architects outlining the redesign of the project based on its meeting with AWWCA representatives.

Project Update Report

The Project Update stated that the meeting with AWWCA representatives was a **"public meeting"**, but we were told on February 3rd that the developer's meeting was by private invitation only and that it was not advertised anywhere, nor was it open to the public. On the contrary it was also mentioned to us on February 3rd that the developer has no intention of meeting with any of the neighbours within the 120-meter required notice boundary, and that the very first time these neighbours will get to find out any information from the developer is at the Planning Department City Hall Meeting. It would therefore appear to us that the meeting was a **"private meeting"** and that if the developer wanted, in its own words, to **"create a positive connection with the community around it"** the developer is doing just the opposite.

Increased Height and Density

Our greatest objection, however, is the fact that the Project Update stated that the project was redesigned based on its meeting with AWWCA and that **AWWCA wanted an 'Increased Height and Density on Main Street Corridor"**. Accordingly, the Developer **revised the building from 13 Storeys and 300 units to 15 Storeys and 310 units because of AWWCA.**

We certainly agree that the AWWCA should support an increased density in the neighbourhood as outlined in the Ainslie Wood Westdale secondary Plan (2005) but we do not believe that

AWWCA should be so anxious and proactive as to push for and recommend an increase in height or density well beyond the 6-storey maximum set out in the recently updated TOC1 zoning by-laws.

We have reviewed all the relevant municipal policies, the provincial policy statement, the planning guidelines regulating development, the zoning by-laws and the Official Plan and we do not see any justification for exceeding the present height restrictions and zoning densities. The initial proposal of 13 storeys and 300 units was objectionable and unjustified, and so we respectfully ask why did AWWCA encourage and recommend that the developer go even higher in height and density.

Bachelor Units changed to One Bedroom Units

The four other listed redesigns and revisions made by the developer based on comments from AWWCA are also very confusing and could only be properly evaluated on examining detailed plans and drawings, including setbacks and unit dimensions. The worst example is the fact that the developer claims that it reduced the project from 48 bachelors to 4 bachelors or from a 16% ratio to a 1.2% ratio. Yet if there was such massive reduction, how did the number of units go up from 300 units to 310 units. Should not the number of units be reduced if bachelors were being converted into one-bedroom apartments. Or is the developer merely now keeping his bachelors the exact same size and just calling them "one-bedrooms".

Meeting Developer without Plans, Drawings or Sufficient Time to Review

The discussions of AWWCA with the developer are very critical for the entire neighbourhood and recommendations should only have been made upon review of detailed plans and drawings freely available to the community at large, and by AWWCA consulting with the rest of the Board, and with their own architect or planner, or an architect or planner paid for by an association member, who could review the entire project to see on what basis the developer was justifying such a major increase in height and density.

Detrimental Impact

The actions of AWWCA certainly will have a detrimental impact on us, the residents across the street from the project, as the AWWCA premature approval of this project, before the formal application has even been filed, will be used by the developer to seek and obtain the approval of the City of Hamilton Planning Department. The developer will even be able to state that it was AWWCA who arrived at and determined the increased height and density. We were also told at the Board Meeting that the developer is already marketing the 15-storey project for lease and wants it 100% rented out before construction and before the zoning amendment is even heard and voted upon by City Council.

Protocol to Follow for Neighbourhood Consultation Requirement

The City of Hamilton has made it a mandatory requirement in their Pre-Consultation Agreement with the developer that the developer has to meet with the neighbourhood association. But this condition does not require the neighbourhood association to endorse, accept or negotiate with the developer before the Application for the Zoning Amendment is filed and all the plans have been reviewed. The condition to meet certainly does require the AWWCA to recommend that the developer increase the height and density of the project.

Perhaps the Officers and Board of Directors of AWWAC should implement a protocol to follow whenever a meeting with a developer has been arranged or an invitation extended by the developer. Important matters and concerns to be included are some of the following:

a) Developer to provide in advance of the meeting, a written justification setting out why it seeks to obtain a zoning amendment increasing the height and/or density from those set out in the current zoning by-laws;
b) Developer to provide to AWWCA a written list setting out the names of the builder, the developer, their respective experience in construction and other construction projects they were associated with, and a written list setting out all other third parties having an interest greater than 20% in the project;
c) Developer to set out in writing the intended purpose of the project, be it rental, condominium investor rental, condominium homeowner, etc., and to set out to whom the project will be marketed to;
d) Developer to provide in advance of the meeting sufficient and detailed plans and drawings setting out unit dimensions, street setbacks, underground parking ramp location, etc. and all other alterations or minor zoning amendments that it will need for the project;
e) Developer to sign prior to the meeting a written commitment to provide all drawings and amendments to AWWCA in a timely manner;
f) Developer to sign prior to the meeting a written commitment to meet with the neighbours within the 120-meter boundary of the project, well in advance of the first public meeting with the City of Hamilton Planning Department, and not to market the project until such time as the developer has met with these neighbours;
g) Developer to sign prior to the meeting a non-disclosure agreement not to report or utilize in any report, update or correspondence to any other party, conversations or comments made by AWWAC as evidence that AWWAC has in any manner endorsed or supported the project or recommended changes or alterations to the project, until such time as AWWAC gives formal written permission to the developer;
h) AWWAC to hold its own meeting to review plans and drawings, and zoning issues and to vote at a general meeting as to whether it approves or rejects the developer's project;
i) Both the representatives of AWWAC and the developer, builder, agents and investors to declare and observe all Conflict of Interest disclosure requirements, as adopted by the City of Hamilton, so as to prevent the appearance of improper influence, and if a conflict of interest arises that such representatives not participate or attend the meeting with the developer.

In light of the fact that the developer has involved AWWCA in its project and stated that AWWCA recommended among other things, the increase in height and zoning, we believe that it is now incumbent upon AWWCA to disavow and disassociate itself, in writing, from the attached Project Update and to forward correspondence confirming the same to the developer, the Ward Councillor and the Planning Department of the City of Hamilton.

We are therefore sending you this letter in order to have it placed on the agenda for your consideration at your next Board meeting. If you should require any further information or wish us to attend the Board meeting to answer any questions, please do not hesitate to contact us.

Yours very truly,

Dear, Andrea

From:
Sent: Monday, February 24, 2020 3:52 PM
To: Pigott, Mary Louise
Cc: Dear, Andrea; Ward 1 Office
Subject: Project at 1107 Main Street West and AWWCA update report
Attachments: BRW68140114C84B_016353.pdf

Hi Mary Louise and Andrea,
Please see the attached letter which my wife and I have sent to the Board members of AWWCA concerning their endorsement of the project and the recommendation that it be even higher and have greater density. Basically, we are asking that a Board member representative recuse oneself from participating as the AWWCA representative if a person is in a conflict of interest and that AWWCA disavow the attached Project Update Post-Community Meeting for the reasons we set out in our letter.
Perhaps it would be good if all neighbourhood associations in the City were supplied with a copy of the Conflict of Interest Guidelines of the City of Hamilton so that all members are aware of their responsibility to disclose and recuse where it is necessary.
I have also found that many members do no know the difference between the various zoning by-laws of the City of Hamilton and that they believe that if you can build a 40-storey high-rise downtown, it means it can be built anywhere. Similarly, members may wrongly believe that if you stopped your neighbour from getting a severance or a minor variance, that the same argument can be used to stop a high-rise building in an area zoned for such buildings.
Perhaps the City of Hamilton Planning Department should put out a small booklet for the Board Members of all neighbourhood associations explaining in general the difference zonings and where they are located in the City so that board members don't mix apples with oranges.
Thank you for your assistance.
Regards

May 25, 2021

Shannon McKie
Planning and Economic Development Department
Development Planning, Heritage and Design – Urban Team
71 Main Street West, 5th Floor
Hamilton, ON L8P 4Y5

Maureen Wilson
Councillor Ward 1
71 Main Street West, 2nd Floor
Hamilton, ON L8P 4Y5

Dear Ms. McKie and Ms. Wilson

RE: UHOPA-20-012 and ZAC20-016
1107 Main Street West, Hamilton (Ward) 1
Three level underground parking garage and inconsistency PPS 2020
Transit -Supportive Developments and reduced need for motor vehicles and parking along the Main Street West transit corridor

In a prior letter dated February 16, 2021 a group of residents objected to the massive and detrimental three-level underground parking garage on the basis of environmental, subwatershed and conservation concerns. The Planning Rationale of the Applicant was also questioned, and the objecting group of residents submitted that a three-level underground parking garage was contrary to the PPS and GP.

I now wish to add additional specifics to that objection letter, based on the PPS 2020 and the introduction and promotion of "transit-supportive development" as set out and defined in the PPS 2020. This is because the residents in the neighbourhood already take advantage of the transit opportunities available in the municipality, and public transit is one of the most important reasons for residing in the neighbourhood. Many of us also rely heavily on GO Transit for travel to other municipalities, and for transportation to and from such destinations as Pearson International Airport, and we greatly appreciate the convenient first Hamilton stop at Main Street West and the 403-exit ramp.

Main Street West Traffic Corridor

In reviewing the Applicant's Planning Rationale and comments made at the On-Line Community Meeting of August 11, 2020 it appears that the Applicant's decision to build a three-level underground parking garage is entirely inconsistent with the policy directives of the PPS 2020 and "transit-supportive development". This is because the Main Street West corridor is already at overcapacity levels as identified by Road Traffic Studies and is identified in City of Hamilton

traffic studies as a corridor subject to rush-hour congestion. It is also to be noted that even after completion of the LRT, the vehicular traffic is still expected to substantially rise, especially because of the large percentage of commercial trucks using Main Street West. With the removal of two of the six lanes of traffic along Main Street West to accommodate the LRT, these levels of congestion will drastically increase.

Accordingly, it is imperative that any "transit-supportive development" be approved only if, among meeting and satisfying other important PPS policies and criterion, it can be shown that it is predicated on the reduction of motor vehicles ownership or usage by the intended occupants of the development, and that the parking garage which is intended to be built, will be of a limited capacity to not encourage motor vehicle ownership. For it is only policies such as this, which will help promote the reduction of traffic related air pollution and allow all of us to live in healthy and safe neighbourhoods abutting busy high order traffic corridors.

Three-Level Underground Garage at a Parking Ratio Triple other Proposed Developments

On May 12, 2020 a letter was written by a person associated with the proposed development, and in this letter it stated that among the features incorporated in the proposed development were

> "3 levels of underground parking (with a parking ratio triple the average size of proposed buildings in the area, with an estimated cost of over 12 million dollars)"

It is respectfully submitted that this higher ratio is also not consistent with the PPS 2020, as it encourages motor vehicle ownership by the occupants in this "transit-supportive development". (nor does it assist in meeting the demand for affordable housing as also stated in the PPS). But perhaps the greatest concern is that this extra surplus capacity of parking stalls will be registered as separate condominium units for sale or lease. This will result in the surplus parking stalls being utilized for other developments, or simply used as a revenue producing parking garage for students attending McMaster University who do not wish to park in the designated parking lots further distant from the main campus.

One development, which was approved by City Council, having extremely limited on-site parking is the McMaster Undergraduate Student Residence on Traymore, which is being developed by Knightstone Capital Management Inc. on behalf of McMaster University. It is not consistent with the PPS, nor does it conform with the GP or UHOP to have our neighbourhood bear all the detrimental impacts, if these surplus parking units/stalls in the present development are purchased by Knightstone or any other future land developer. This is even more disconcerting if the Applicant is able to recoup its related parking garage construction costs by selling or leasing the surplus stalls at a purchase/rental price which reflects the full construction costs of the parking stalls.

It is therefore imperative that triple ratio surplus parking units be denied in a transit-supportive development, as the creation of unnecessary parking units, will turn our neighbourhood streets into an entry point to an immense parking garage. Unnecessary increased traffic volumes within

the neighbourhood will be very detrimental to the health and safety of residents and young children, for all the reasons already delineated in prior objection letters.

In the expectation that approval of the LRT will be imminent, it should be noted that the traffic patterns within the neighbourhood will drastically change as a direct result of the elimination of left-turns from Cline Avenue South and Dow Avenue onto Main Street West, and also left-turns from westbound Main Street West onto Cline Avenue South and Dow Avenue. These critical changes will generate far more traffic congestion within the neighbourhood, and with the three-level triple ratio parking garage, the traffic problems and the health and safety concerns will be greatly magnified. These hazards will include the many anticipated U-turns which the Applicant's own traffic experts have identified in their traffic study, and which will add to the highly dangerous conditions that will be encountered by all pedestrians as a result of the proposed development.

Triple-Parking Ratio being paid for by increased Height and Density

At an On-Line Community Meeting held on August 11, 2020 it was stated by the Applicant's Planner that solely due to comments and input obtained from attendees at a meeting on November 26, 2019 relating to parking and a request to increase the parking amount over what was provided, the decision was made to add an extra level of underground parking. After this meeting the Planner stated that he went back to the architect to have a conversation requesting him to add an additional level of underground parking. It was also stated that in order to provide this increase in parking space with an additional underground level, the Applicant needed additional leasable or saleable space in the proposed building, and therefore the architect increased the height and density from 13-storeys to 15-storeys, or two storeys above ground in consideration for the one level underground.

I also wish to draw to your attention that the residents in the neighbourhood were informed by the Planning Department that a full transcript of the August 11, 2020 meeting, and written responses to all of the questions submitted at the on-lime meeting, would be prepared and posted on the Applicant's website. To date this transcript has not yet been posted, and it would be greatly appreciated if the Planning Department could instruct the Applicant to post the same without any further delay.

Conclusion

It is submitted that the request made to the Applicant at the November 26, 2019 closed meeting was not consistent with the PPS 2020 in that having an extra level of underground parking in excess of the parking ratio requirements is not consistent with a "transit-supportive development" which is intended to discourage reliance on motor vehicles and to promote the use of public transit. There is no issue of lack of parking for residents in the immediate vicinity as we reside in homes that have driveways, which can accommodate three to four vehicles. Furthermore, many of the neighbourhood residents already heavily rely on public transit.

To this extent, the hastily agreed upon trade-off made by the Applicant with a person or persons requesting an additional level of underground parking in consideration of two additional above ground storeys, should be rejected by the Planning Department as being totally contrary to the best interests of the neighbourhood and to the policies being promoted under the PPS 2020 for a transit corridor and a transit-supportive development.

Furthermore, the appropriate level of intensification and the extent to which this particular site can accommodate such intensification can only be determined after a full and complete assessment of all the other relevant policies set out in the PPS, GP and UHOP which have bearing on the proposed development, and the zoning by-law which enacts these very same guidelines and policies into planning principles. Even though the PPS specifically directs a consideration of "transit-supportive development" it is my sincere belief that this policy still has to be regulated and considered in light of these many other competing and conflicting policies within the PPS which speak to the health and safety of neighbourhoods.

It would be counterproductive to permit under the guise of "transit-supportive development" the two subject applications with the proposed height, density, massing and scale, and especially with the requested relief from rear-yard setbacks, if the very effect of the approvals will result in detrimental impacts on the health and safety of the neighbourhood residents, and force us to move out of the existing transit-supportive neighbourhood we already enjoy and wish to call our home.

Yours very truly,

Andrea Dear, City of Hamilton
Planning and Economic Development Department
Development Planning, Heritage and Design – Urban Team
71 Main Street West, 5th Floor
Hamilton, ON
L8P 4Y5

July 2, 2020

Dear Ms. Dear,

RE: UHOPA-20-012 and ZAC20-016
1107 Main Street West, Hamilton (Ward) 1
Noise Feasibility Study submitted by Applicant

I have reviewed the Noise Feasibility Study prepared by HGC Engineering which was dated February 7, 2020 and which was submitted in support of the redevelopment application. It is my opinion that this very Study demonstrates that the proposed project, consisting of a 15-storey high-rise tower and 310 units, is entirely incompatible with the surrounding single-detached residences on Dow Avenue and Cline Avenue South and with the existing institutional uses of the Adas Israel Synagogue and the Hamilton Hebrew Academy Day school and the City of Hamilton playground parkette.

I further believe that the Study offers clear evidence that the Applicant must amend the proposed project to an urban design that is in full conformity with the TOC1 Zoning and which will incorporate ground level acoustic barriers of fully landscaped setbacks from Dow Avenue, Cline Avenue South and the southerly lot boundary shared with the Adas Israel Synagogue and the playground parkette.

The Noise Feasibility Study has set out a series of recommendations based on noise sources and noise criteria, and this will be examined in more detail. Unfortunately, the Study has ignored noise sources which will emanate from within the development and this also will be reviewed in more detail, and for which it is suggested further engineering tests be undertaken to address these important concerns.

Noise Sources from the Adas Israel Synagogue and "Warning Clauses for Nearby Religious Uses"

The Study has concluded that due to noise from the Adas Israel Synagogue there will need to be "**warning clauses in the property tenancy and rental agreements** that warn occupants of the potentially audible noise levels and of the **nearby religious uses**." In addition, the Study states

that these "Warning Clauses should be used to inform future owners of the traffic noise issues, (and) the presence of **nearby commercial/institutional services**".

It is not set out in the Study the exact nature of the "religious uses" that the Engineering Consultants were referring to in their analysis. Were they concerned with ritual hymns and prayers emanating from the sanctuary and chapel, or with congregants walking to and from the synagogue, or were they concerned about the day school students and members of the public that will be playing in the City of Hamilton financed parkette playground, or is it a combination of all of them? These Warning Clause recommendations were set out on the third paragraph on page 1 (section 1); page 9 (section 5.4(c)); and on top of page 12 (section 7(3).

It is my opinion, however, that because of the generality of the Warning Clauses with respect to the "religious uses", they will be considered by a court of law to be unenforceable by the Landlord/Applicant, and that tenants will be entitled to avail themselves of a full range of remedies to address each tenant's noise concerns.

Noise Sources from the Playground and Basketball Net

The children's playground as well as the basketball net located a few feet away from the southerly boundary line of subject proposed development, will undoubtedly be a loud noise source detrimentally impacting on the rental residential units, especially since the exterior walls of the two 10-storey towers do not comply with the minimum zoning setbacks.

I can personally attest to the fact that between the hours of 1:00 am to 4:00 am, when university students in the neighbourhood often played basketball at the playground, the sound of the basketball bouncing on the pavement can be heard through my closed bedroom windows at the back of the my house. During the daytime basketball playing is fine but at night the sound level is sufficiently loud enough to awaken me from my sleep. The window panes at the back of my house are further away from the playground basketball net than most of the windows for the proposed 310 residential units, and there is no doubt that the estimated number of 851 tenants, (based on Applicant's own Functional Servicing Report) in the proposed project, will be equally disturbed by noise throughout the day and also late into the evening.

The noise emanating from children paying in the adjacent playground throughout the day and on weekends will also be equally disturbing to the proposed 851 tenants, especially when there is no ground level acoustic landscaped barrier between the towers and the playground. Is it reasonable to assume that the fact that 851 tenants signed leases in which they acknowledge being warned of noise from the "nearby religious uses" enough to stop them from complaining about children in the future? Is it a good planning principle to address obvious noise concerns only through the suggested noise warning clauses in leases?

Impact on the Development on Itself - Sound Transmission Class (STC)

Perhaps what is most revealing about the architectural design of the proposed high-rise development is the concern over the acoustic features that must be built into the structure in order to protect residents from sound emissions and to effect noise mitigation, from the development on itself. This is made clear on page 11 of the Study in which the glazing of all windows is to meet noise and acoustic specifications as well as constructing the units STC-50 walls to insulate suites from each other.

This important fact is made clear in the Study's reference to Tarion Builder's Bulletin B19R which requires that the internal design of condominium projects integrate suitable acoustic features to insulate the suites from noise from each other and from amenities in accordance with the Ontario Building Code. The Study furthermore recommends that the **"outdoor sound emissions should also be checked to ensure compliance with the City of Hamilton noise by-law".** (see top of page 13 of Study)

While this recommendation pertains to outdoor equipment, can the Applicant ensure that future residents/tenants will refrain from contacting the City of Hamilton noise by-law officers with respect to the children in the playground and those people playing basketball? Can the Applicant further guarantee the noise by-law officers will not be requested by tenants to intervene for the outdoor or indoor "religious uses" by the Adas Israel Congregation or any of its congregants?

The testing of noise levels from the City of Hamilton children's parkette/playground which is used by the Hamilton Hebrew Academy on a daily basis for all school recesses and lunch time school breaks, was not carried out as part of the Noise Feasibility Study even though it was a few feet away from the proposed exterior wall of the proposed residential towers. While it is currently impossible due to the COVID-19 pandemic to reattend at the playground and to test for noise levels, it should be possible for the Consulting Engineers to obtain similar based noise level results from other school/municipal playgrounds studies for other residential projects in the Province of Ontario. It is imperative that the comparable data from these other noise feasibility studies be incorporated into the Study with respect to the subject proposed development, and that the issue of proper identification of noise sources be utilized in the new report, rather than relying on the amorphous terminology of "nearby religious uses".

Balconies and Warning Clauses

The Consultant's Noise Feasibility Study considers that the road traffic and predicted noise levels on Main Street West will be in excess of the permitted guidelines of the Ministry of the Environment, Conservation and Parks (MECP) and the City of Hamilton, which will result in the need for noise mitigation. The Study concludes that the noise levels are significantly greater than 65dBA during the daytime and 60dBA during the nighttime, requiring acoustic mitigation such as noise barriers, and in the building of façade construction and ventilation requirements. Details of the predicted future sound levels dBA are set out in Table III on page 5 of the Study.

It is to be noted, however, that the proposed balconies and patios are excluded from MECP mitigation as the Consultant considered them to be less than 4m in depth and accordingly they were "not considered outdoor amenity areas under MECP guidelines and are therefore exempt from traffic noise assessment."

The major acoustical recommendation to mitigate the noise from traffic and the nearby commercial facilities (i.e. Adas Israel Synagogue) is to adhere to the warning clauses which are to be inserted in the purchase and sale and lease agreements and that pertain to windows and doors. These are set out in Section 5.4 on Page 9 of the Study.

5.4 (a) Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road traffic may on occasion interfere with some activities of the dwelling occupants as the sound levels exceed the levels of the City and the Ministry of Environment, Conservation and Parks.

5.4 (b) This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the Ministry of Environment, Conservation and Parks' noise criteria.

5.4 (c) Purchasers/tenants are advised that due to the proximity of the existing commercial facilities, noise from these facilities may at times be audible.

If the exterior windows and balconies doors are recommended to remain closed in order to enjoy activities within the dwelling unit, and if the balconies are so small that they are not considered amenity area, then it is reasonable to question the rationale for architecturally designing this building with balconies in the first place.

Balconies in a Student Building

GHD, the Applicant's own Traffic and Parking Consultants in the Transportation Study which was submitted on behalf of the Applicant in support of its application, repeatedly referred throughout their report that this proposed 15-storey 310-unit project was a "student rental apartment building" for students attending McMaster University. All statistical data and analytical findings and conclusions set out in the report, such as the number of parking spaces, visitor parking, commercial tenant parking and daily trips in and out of the parking garage were based on the student apartment building premise.

It is to be noted that the generally accepted architectural and planning design for a student apartment building precludes balconies as the neighbourhood residents face a loss of privacy from students being able to go out on balconies and to peer down on the backyards and properties of single-detached residential properties. This was the case specifically for the proposed student building at 354 King Street West, Hamilton in which the entire building has no balconies extending out from the residential units. (see Schedule)

The architect for this proposed application is SRM Architects Inc., which is the same firm that designed the plans for the subject application at 1107 Main Street West. Why were balconies excluded from one student apartment building, but included in the design for this student apartment building? Are not the concerns for lack of privacy by neighbourhood residents just as compelling as for 354 King Street West? Is not privacy for the neighbours an even greater concern when the angular plane diagram submitted by the Applicant indicates that the upper storeys of the high-rise building exceed the 45-degree plane for both Dow Avenue and Cline Avenue South.

Noise from Balconies and the two 10th Floor rooftop amenity areas

If the balconies are used by students, or if the balcony doors are left open for the playing of music, or if there are large gatherings of students at each of the two 10th floor rooftop built-in BBQ stations and picnic tables, it is imperative that another noise study be conducted to obtain data on projected noise emanating from the balconies and the two rooftop terraces.

The Consultants who prepared the present Noise Study only looked a traffic noise affecting the terrace amenity areas, and not the projected noise coming from the balconies and the rooftop terraces. The Noise Study recommended an acoustic barrier of 2.0 m in height to reduce the traffic noise to below 60 dBA. But will the acoustic barrier stop noise from the outdoor rooftops from reaching the single-detached residences on Dow Avenue and Cline Avenue South? Will a noise feasibility study be conducted to determine possible and projected noise levels emanating from the balconies with loud music and from the rooftop amenity areas? Most importantly will the Noise Study recognize, as did the Traffic and Parking Transportation Study, that visitors to the student rental buildings are at their highest level on weekends, which is precisely the same time that coincides with the Sabbath, when there are regular Friday evening services and both Saturday morning services and afternoon services for the Sabbath? Accordingly, the likelihood of parties, loud music, noise from open balcony doors, and the utilization of these rooftop amenity areas with their built in BBQs and picnic tables will coincide with the very time that "religious uses" are observed at the synagogue and by many homeowners of Dow Avenue and Cline Avenue South.

Noise from the Student Café at the corner of Dow Avenue and Main Street West

The proposed commercial anchor tenant is a "café" according to the Applicant. If this "café" is licensed it could also be considered a "pub", but in either case it will allow late night customers entering and leaving the eating/drinking establishment in the proposed building. This will directly impact the neighbours on Dow Avenue and Cline Avenue South, and it is recommended that a noise study be conducted to determine the dBA of a group of 5 or 6 students who are all conversing with each other at the same time. This would give an accurate reading of the noise disruption heard late at night by homeowners.

The noise levels would be an even greater concern if the Applicant allowed any of the following:

1) Outdoor patio with chairs and tables on the corner of Dow Avenue and Main Street West;
2) An elevated outdoor terrace above the commercial area which is connected to the student café;
3) A sound system or speakers that are on the outside of the proposed building;
4) Single entry doors to the student café from the street level which will allow noise to escape when students exit and enter;
5) Live entertainment in the student café in which noise levels are generally higher than normal;
6) A licensed establishment under the LCBO in which students are generally much more boisterous than a passive coffee shop;
7) A percentage commercial lease with rent based on the volume of liquor and beer sales made by the commercial tenant;
8) Hours of operation that allow the student café to be opened after 6:00 pm and to be open on weekends.

The Transportation Study prepared by GHD and submitted by the Applicant confirms in Section 7.3 that the proposed building is a "student rental apartment building" and that "as a rental apartment building, **the proposed commercial component provides services predominately to the students / residents**, and therefore no parking is needed for the commercial use".

The Applicant's desire to have a student café, therefore raises many concerns for the neighbourhood and especially for residents within 120m of the proposed building. If one reads the vast majority of letters of objection filed in virtually every high-rise project that requires an amendment to the Urban Hamilton Official Plan, (as well as some variances before the Committee of Adjustment) it is quickly noted that they all refer to late night noise, vandalism and disruptive behaviour attributable to student drinking, and that the Ainslie Wood Westdale Neighbourhood is vulnerable to irreversible "studentification" whereby the neighbourhood itself is being detrimentally affected by late night student disruption.

Accordingly, the desire of the Applicant to have a student café as the anchor tenant in a student building, causes great alarm, as this type of tenancy may quickly evolve into making the student café a magnet for all students living in the Ainslie Wood Westdale Neighbourhood. It may even succeed in turning Dow Avenue and Cline Avenue South, with the owner occupied single-detached residences, into the two primary streets leading directly to and from the student café.

I have no objection to an apartment building or condominium being constructed on the subject lands in accordance with TOC1 Zoning, nor do I have any objection with ground level commercial units on Main Street West. However, the "bicycle repair shop" tenancy originally touted by the parties who purchased the subject lands, now seems to have transformed into a "student café" tenancy which threatens the viability of the surrounding neighbourhood. The high level of noise, certain to emanate from the proposed project with its balconies, roof top built in

BBQs and picnic tables, and the new proposed commercial tenant, is totally incompatible with the neighbourhood that surrounds it on the east, west and south.

Solution to Competing Noise Sources – "Nearby Religious Uses" vs. Student Balconies, Roof-top Amenity Areas, Student Café

There are three basic solutions to the noise problems arising from the proposed 15-storey 310-unit high-rise project on the subject lands.

1. **Do not allow increased height and density under the requested UHOP Amendment and Zoning Amendment**

The existing TOC1 Zone which limits the height, density, massing and scale of the building will reduce the noise emanating the proposed building and at the same time reduce the number of tenants that are exposed to the noise from the "nearby religious uses". This existing TOC1 Zone will ensure the compatibility within the neighbourhood and that the redevelopment will be in conformity with the PPS, GPGGH, UHOP and the AWWNP.

The elimination of the balconies, which are in excess of the MECP guidelines and which will remain as unmitigated areas, were subject to proposed warning clauses to have balcony doors and windows remain closed for the enjoyment of the rental units. The elimination of the two outdoor roof-top amenity areas will also make the building more compatible with the neighbourhood. These modifications in the architectural design will not only remove a source of projected noise from the proposed building into the neighbourhood, but also remove the privacy concerns of students peering into the neighbouring backyards on Dow Avenue, Cline Avenue South, Southview Place, Haddon Avenue and Westwood. The elimination of the balconies is also consistent with other architectural plans drawn by SRM Architects Inc. for a nearby student high-rise building on King Street West.

It is also suggested that instead of the "light" and "efficient" design of the proposed towers, that a more traditional architectural style be utilized that not only will address the road noise and MECP guidelines and the noise from "nearby religious uses", but be more appealing to a greater cross-section of residents in the Ainslie Wood Westdale who are less likely to make late night noise and cause disruption on the neighbouring streets. The modification of the proposed project to larger sized condominium units and with a height and density in compliance with TOC1 Zoning, will also ensure that the commercial units will be more compatible with the entire Ainslie Wood Westdale Neighbourhood, and be a benefit for the entire neighbourhood, rather than the Applicant's present plan to only serve and address the needs and whims of the proposed student tenants.

2. **Ground level fully Landscaped Acoustic Barrier**

It is a well recognized noise mitigation practice and urban design principle that ground level landscaped areas are most appropriate for noise level reduction. Given the high road noise levels

from Main Street West and the concern with MECP guidelines, and the noise from "nearby religious uses" it is puzzling as to why the architectural plans have virtually no ground level landscaped areas surrounding the proposed building.

A fully landscaped acoustic barrier with deciduous trees and large shrubs between the proposed building and the entire boundary area with the neighbouring Adas Israel Synagogue and the playground parkette on the Hamilton Hebrew Academy day school, would certainly reduce noise levels and offer much needed mitigation. An extension of the acoustic landscaped area around the proposed building onto Main Street West would also help mitigate the noise from the roadway.

Another important aspect of the landscaped acoustic barrier between the proposed building and the Adas Israel Synagogue is that the Grace Lutheran Church grounds should be considered as a Cultural Heritage Landscape which will be demolished. When combined with the fact that the Adas Israel Synagogue is on both the City of Hamilton inventoried list of Places of Worship and on Buildings of Architectural and Historical Interest, making it worthy of designation under the Ontario Heritage Act, the landscaped acoustic barrier area should be considered mandatory to maintain and preserve the historic and architecturally significant character of the neighbourhood.

3. **Ground Level Amenities**

The two 10th floor roof-top amenity areas with built in BBQs and picnic tables are matters of great concern for projected noise into the surrounding neighbourhood and seem to provide limited enjoyment of the building for any tenant with the exception of students. The most important amenity for seniors and retirees is a well landscaped ground level garden with paths and sitting areas. In order to have the building appeal to a wider cross-section of the neighbourhood population, either as tenants or condominium owners, the noise making 10th floor amenity areas should be replaced with the noise mitigation landscaped acoustic barrier area on the ground level.

4. **Restrictive Covenants to be registered on title and in the Development Agreement**

While it is indeed worthwhile to have warning clauses inserted into Purchase Agreements and Leases, these warning clauses should list with specificity the noises emanating from the Adas Israel Synagogue and the Hamilton Hebrew Academy Day School and the City of Hamilton parkette. As pointed out previously, the deemed acknowledgment by Tenants in the lease may be non-binding upon them if the noise warning clauses are not spelled out in detail. If they are found to be non-binding then each tenant could seek their own remedy and even involve the City of Hamilton Noise By-law Department to try to resolve their noise issue with the neighbouring property.

With respect to the noise emanating from the student tenants either on their balconies or 10th floor roof-top terraces, and with respect to noise emanating from the student café, it is strongly

recommended that the City of Hamilton control these projected noise sources right at the start. This can be accomplished by restrictive covenants registered on title and in the Development Agreement that forbid the construction of balconies for the subject property, and forbid roof-top outdoor amenity spaces that have picnic tables and built-in BBQs.

With respect to the commercial tenants at the subject property, the City of Hamilton should likewise forbid student cafes and similar tenancies that have the ability to turn the location into a "party central" for a neighbourhood that deserves and is entitled to ask for compatible uses, and to seek respect for and preservation of its character and its historical and architecturally important buildings.

These restrictive covenants should regulate type of tenancies, outdoor patios, outdoor sound systems and hours of operation. Most importantly the City of Hamilton should endeavour to ensure that the commercial tenancies on the ground floor of the proposed redevelopment, match up to and across the entire spectrum of the identified stakeholders in the Ainslie Wood Westdale Neighbourhood. This far better approach is different than that of the Applicant and its consultants who will only seek out commercial tenancies that are oriented for their student tenants in a student rental high-rise apartment building.

Conclusion

The Noise Feasibility Study prepared by HGC Engineering and submitted on behalf of the Applicant, clearly indicates the competing noise sources for the projected redevelopment of the property from both the neighbouring property and the development itself.

To mitigate the noise problems that are bound to occur at the site and within the neighbourhood, and to avoid the unnecessary involvement of the City of Hamilton Noise By-law Department in trying to resolves noise disputes, it is recommended that the City of Hamilton Planning Department not only insist upon a fully landscaped ground level acoustic barrier surrounding the proposed project, but with a substantial landscaped separation area between the proposed building and the neighbouring lands to the south.

It is further recommended that the Application for the UHOP Amendment and the Zoning By-law Amendment by the Applicant be denied until such time as the Applicant submits a proposed redevelopment that complies with the TOC1 Zoning that is already in place, and which regulates the height, density, massing, scale and character of any redevelopment.

Finally, it is recommended that the City of Hamilton Planning Department take active measures to control and regulate the ground floor commercial tenancies, and to prohibit architectural design plans containing balconies and roof-top terraced amenity areas in student rental apartment buildings located in residential neighbourhoods that contain buildings of architectural and historical interest and important Places of Worship.

Yours truly,

Cc. Maureen Wilson, Councillor Ward 1

5. Proposed development

5.1 Site traffic generation

The proposed development, at full build-out, is expected to consist of 310 residential rental units with 5,760.3 ft² (535.1 m²) gross floor area (GFA) of commercial at grade. The detail residential unit breakdown in the site plan (dated January 2020) is provided in Appendix E.

For comparison purposes, subject site trips were estimated based on the average trip rates as well as based on trip rates derived from the fitted curve equations of High-Rise Multifamily House (LUC #222) provided in Trip Generation, 10th Edition, published by the Institute of Transportation Engineers (ITE). The resultant trip rates, entering and exiting proportions, and estimated total site trips are summarized in Table 3.

Table 3 Site trip generation

Site Development	Units	Parameter	Peak Hour Trip Generation					
			Weekday AM Peak			Weekday PM Peak		
			In	Out	Total	In	Out	Total
Residential (High-Rise Multifamily House)	310	Gross Rate (Average Rate)	0.07	0.24	0.31	0.22	0.14	0.36
		New Trips	23	73	96	68	44	112
	310	Gross Rate (Fitted curve equation)	0.077	0.246	0.323	0.224	0.144	0.368
		New Trips	**24**	**76**	**100**	**70**	**44**	**114**

According to Table 3, to be conservative, the subsequent analysis applied the higher trip rates (derived from the fitted curve equation) of High-Rise Multifamily House.

As a rental apartment building, the proposed commercial component provides services predominately to the residents / students, and therefore it is not expected to generate any vehicular trips.

Although there could be an allowance for transit and active transportation modes, vehicle trip reductions were not considered for this analysis. Accordingly, the total site trips are expected to be 100 two-way vehicle trips during the weekday AM peak hour total and 114 two-way vehicle trips during the weekday PM peak hour.

5.2 Directional distribution and assignment

With the implementation of the Main Street LRT Line, Cline Avenue South and Dow Avenue connecting Main Street will be right-in and right-out. Left turns will not be permitted (or possible) at these unsignalized intersections due to the LRT in the centre of Main Street. In addition, as a student rental building, the majority of the site trips will be to or from the university of McMaster during the weekday AM and PM peak hours.

To be conservative, the analysis assumed that all site traffic will access the site from Main Street and Cline Avenue. Furthermore, all traffic will come from or go to the west (MacMaster University). The site traffic volumes are illustrated in Figure 8.

Table 8 Parking requirements for site visitors

Units	Toronto Requirement		Existing parking demand	
	Parking Rate	Parking Spaces	Parking Rate	Parking Spaces
	Visitor	Visitor	Visitor	Visitor
310	0.10	31	0.091	28

Therefore, the required visitor parking is 28 and 31 spaces, respectively, based on the existing parking demands and the Toronto's By-law for visitor parking.

7.3 Recommended parking ratio and spaces

Parking requirements for residents

For Multiple Dwelling residential use, the City of Hamilton's current parking By-Law requires 181 parking spaces for the site residents (see Table 5). It should be noted that the parking requirements for the student rental apartment building is expected to be less than the typical residential building.

Parking requirements for visitors

Based on the City of Toronto By-law requirement and existing visitor parking survey data, the required visitor parking is 28 and 31 spaces (see Table 8), respectively for the proposed development.

As a rental apartment building, the proposed commercial component provides services predominately to the students / residents, and therefore is no parking needed for the commercial use.

Therefore, the estimated total parking requirement for the proposed development will be 212 (181 resident +31 visitor) parking spaces.

From a review of above, the proposed parking supply of 234 spaces will meet Hamilton's By-law requirements for resident parking and can accommodate anticipated visitor parking demand.

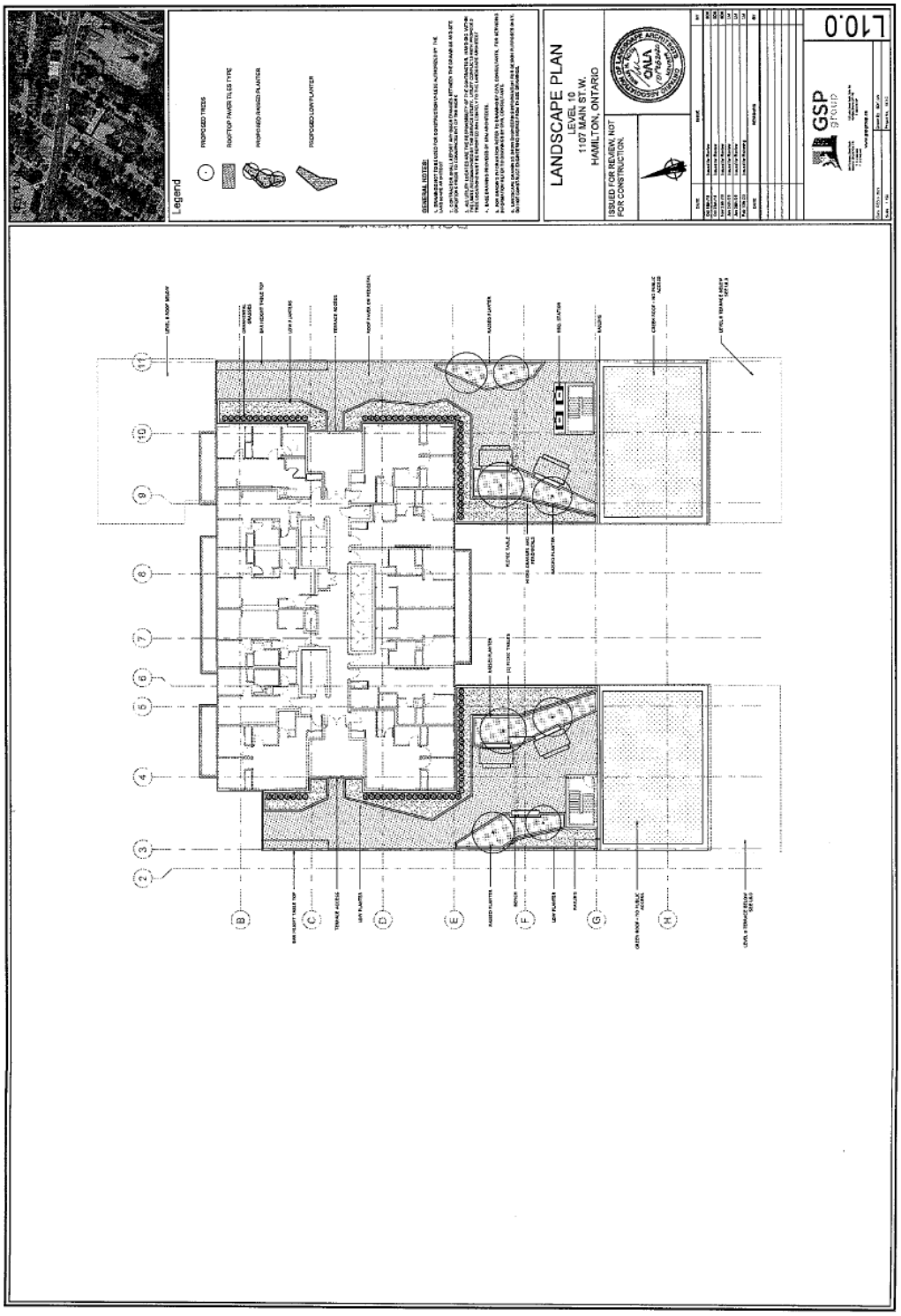
8. Site circulation review

The site plan was reviewed with respect to design vehicle circulation using AutoTURN software.

Based on the analysis, the proposed site plan is sufficient to accommodate the circulation requirements of garbage trucks as well as medium single unit (MSU) trucks. By all indications in Appendix H, there are no truck circulation concerns with the site plan.

The proposed parking level plans are sufficient to accommodate circulation requirements of the passenger car design vehicles, as illustrated in Appendix H.

Therefore, the proposed site plan has been reviewed and found to be acceptable in terms of vehicular flow and parking space accessibility. Therefore, we conclude that the current site plan can accommodate the intended design vehicles.


Legend
PROPOSED TREES
RAISED PLANTER
LOW PLANTER
GENERAL NOTES:
LANDSCAPE PLAN
LEVEL 10
1107 MAIN ST W.
HAMILTON, ONTARIO
ISSUED FOR REVIEW, NOT FOR CONSTRUCTION.
GSP group
L10.0

City of Hamilton
Sanitary Design Flow Review

Project: 1107 Main Street West, Hamilton
File No: 122727
Date: 30-Jan-20
Design By: AH
Checked By: JP
Page: 2 of 2

IBI

REQUIREMENT
Design Flow = Average Dry Weather Flow X Peak Flow Factor + Infiltration Allowance

Proposed Devlopment Maximum Daily Flow

Land Use	Population Density		Units	Area	Equivalent Population
Townhouse					
2 Bedroom[1]	1100.0 L/day	3.06 PPU	11	-	34
3 Bedroom[1]	1600.0 L/day	4.44 PPU	6	-	27
		Subtotal	17	Subtotal	61
13-storey Building				-	
Bachelor[1]	750.0 L/day	2.08 PPU	4	-	9
1 Bedroom[1]	750.0 L/day	2.08 PPU	166	-	346
2 Bedroom[1]	1100.0 L/day	3.06 PPU	99	-	303
3 Bedroom[1]	1600.0 L/day	4.44 PPU	24	-	107
Commercial[2]	450.0 ppha		-	0.0535 ha	25
		Subtotal	293	Subtotal	790
		Total	310	Total	851

Peaking Factor, $M^2 = 5/P^{0.2}$
where: P = design population in thousands

Peaking Factor[2] =	5.00
Average dry weather flow[2]	360 L/day/p
Dry Weather Flow =	306360 L/day
=	306.36 m^3/day
=	3.55 L/s
Drainage area	0.52 ha
Infiltration Allowance[2] =	0.400 L/s/ha
=	0.21 L/s
Total Design Flow =	**17.94 L/s**

1- Ontario Building Code Part 8 - Table 8.2.1.3.A
2- City of Hamilton Engineering Guidelines for Servicing Land Under Development Applications Part 2.4.2.6

Criteria	Response
	edge of the site, avoiding casting any shadows onto Market St sidewalks would be difficult to achieve due to their northern exposure. While the proposed development casts shadows onto the sidewalks at the Ray St N and Market St intersection (March 21st 10:51AM, Sept 21st , 10:36AM) and the Queen St N and Market St intersection (March 21st 3:51PM, Sept 21st 3:36PM), the proposed 25-storey dwelling avoids casting even more adverse shadows by being situated along the southern edge of the site (1.96 – 2.00 metres from the King St W street line), in between Ray St N and Queen St N." A Grading Plan (prepared by MTE Consultants) was approved through the SPA process. The plan (Drawing C1.2) has been updated to reflect the changes made during the OPA/ZBA process including the additional vehicle access on the western lot line and the revised transformer locations. With regards to overlook, no balconies are proposed for both the approved development or additional storeys on the multiple dwelling and hotel. Without balconies, the windows on the upper levels of the buildings will only be passively used in the sense that residents will not be sitting for long periods of time as they would be if there were balconies. The absence of balconies thereby reduces adverse overlook concerns on adjacent land use. Small, 2nd storey balconies are proposed along street-orientated dwelling units along Market Street. These small balconies provide views to the public sidewalk and will not result in adverse overlook impacts on adjacent land uses. The rooftop amenity areas proposed atop the 15th floor and 25th storey are inset 3 m from the building edges, therefore minimizing overlook from residents who are utilizing the outdoor amenity spaces. With regards to noise, King Street West and Queen Street North are identified as a "full time truck route" and see a number of cars, medium, and heavy trucks travel on these routes daily (pg. 5 of the Nosie Study). The additional vehicles and commercial deliveries along King Street West and Queen Street as a result of the additional units will not add a significant amount of noise along these routes as they are already full-time truck routes. The additional traffic in and out of the Market Street access as a result of the additional units will be comprised mainly of resident vehicles

December 10, 2020

Andrea Dear
Planning and Economic Development Department
Development Planning, Heritage and Design – Urban Team
71 Main Street West, 5th Floor
Hamilton, ON L8P 4Y5

Maureen Wilson
Councillor Ward 1
71 Main Street West, 2nd Floor
Hamilton, ON L8P 4Y5

Dear Ms. Dear and Ms. Wilson

RE: UHOPA-20-012 and ZAC20-016
1107 Main Street West, Hamilton (Ward) 1
Environmental concerns and adverse health impacts relating to the proposed development and the inappropriate level of intensification for the site
Failure of Applicant to adhere to required design guidelines and planning principles
Request for: 1) an Environmental Review, 2) a City of Hamilton Health Department Review, 3) additional revised reports pertaining to a Sun/Shadow Impact Study and a Wind Impact Study, and 4) Traffic Vehicle Congestion and Queues Study

I am writing this letter in opposition to the proposed development on the basis of environmental concerns relating to the level of harmful air pollution which currently exists at the subject lands. It is my opinion that if the City of Hamilton allows this development to proceed it will exacerbate an existing critical air pollution problem, that will further jeopardize the health and safety of residents, school children, pedestrians and cyclists in the Ainslie Wood Westdale Neighbourhood, as well as future intended occupants of the proposed development. This environmental problem will occur by reason of the proposed level of intensification with its designed height, density and massing of the project. The proposed development will directly contribute to an increased concentrations of harmful air pollution which are inconsistent with the provisions of the Provincial Policy Statement, and which do not conform to the Growth Plan for the Greater Golden Horseshoe, the UHOP and AWW Secondary Neighbourhood Plan.

To this extent, I propose to address the following issues (**and advise that all markings throughout in bold have been added for my emphasis**):

1) the nature and specifics of the architectural proposed design form contravention and non-conformity;
2) the Applicant's justification for non-compliance;
3) the rationale for avoiding a "Canyon Effect" also known as an "urban or street canyon"
4) an examination and determination of the air quality in and around the site;

5) a road traffic volume analysis for Main Street West and Highway 403;
6) a comparative analysis of the air pollutant measurements of the Hamilton West Ambient Air Monitoring Site located at Main St. W./Hwy 403 with the rest of Ontario and Canada;
7) the Explanatory Notes of the Ontario Ministry of the Environment, Conservation and Parks;
8) the "canyon effect within a canyon" and the impact of lack of wind and sunlight penetration on the dispersion of ambient air pollutants;
9) adverse health effects of air pollution
10) the detrimental effect on adjacent landowners, residents and institutions, pedestrians, school children, particularly female children, and new tenants/occupants of the proposed high-rise, as a result of the proposed high-rise;
11) steps being taken by Municipal jurisdictions in response to the harmful effects of air pollution adjacent to Highways and Traffic Corridors;
12) guiding principles and approaches within the Planning Act and the Provincial Policy Statement with respect to environmental air quality protection;
13) guiding principles and approaches within the Growth Plan of the Greater Golden Horseshoe with respect to environmental air quality protection;
14) the guiding principles and approaches within Urban Hamilton Official Plan with respect to Land Use Compatibility and healthy, safe, liveable communities and air quality protection;
15) provisions of the City-Wide Corridor Planning Principles and Design Guidelines and appropriate and separate approaches for difference Corridors and segments;
16) the appropriate level of intensification of the site and the required modifications to development proposal to bring it into consistency and conformity with all relevant planning policies and to mitigate the adverse health impacts.

1) THE DESIGN BUILT FORM CONTRAVENTION

Upon reviewing the Applicant's Planning Rationale in respect to the City-Wide Corridor Planning Principles and Design Guidelines I ascertained that the Applicant was not in compliance with Guideline 4.9 which states:

> **4.9 Long Buildings**
> **A long multi storey building along the street may negatively impact the quality for the street by creating a canyon effect and shading the street for great lengths.**
>
> **Guideline:**
> **Where a building or portion of a building is greater than 60m long and greater than 3-storeys high it should be divided into two separate built forms above the 3rd storey. This will allow a space for light to reach the street and minimize the canyon effect. This is especially important for buildings along the south side of east/west arterials.**

2) APPLICANT'S JUSTIFICATION FOR NON-COMPLIANCE

It was clear that the Applicant's proposed development falls squarely within this guideline as it is over 60m, over 3-storeys in height, and is on the **south side of Main Street West** which is an arterial route which runs on **an east/west axis**. Yet, the Applicant made no attempt to comply with the guideline and explains in the Planning Rationale its failure to conform with the guideline in the following manner:

> **"The portion of the south sidewalk on Main Street West between Cline Avenue and Dow Avenue area is in shadow for most of the day.**
> **However, it must be noted that this area would still receive 0 hours of full coverage in an as-of-right scenario. In our opinion, the proposed built form and stepbacks of the taller elements of the building are appropriate and the shadow impact on the existing neighbourhoods and public sidewalks has been adequately limited"**

The Applicant goes on to justify its non-compliance by simply stating that "in our opinion and as explained in Section 5 of this report, the proposed development has had **appropriate regard** for the City-Wide Corridor Planning Principles and Design Guidelines.

In Section 5 of the report the Applicant again repeats its **"appropriate regard excuse"** for several of the guidelines, even when it is not in compliance with the exact requirements as it concludes that "in our opinion, the proposed development maintains the general intent of the City-Wide Corridor Planning Principles and Design Guidelines and Transit Oriented Development (TOD) Guidelines, since:

- The proposed building maintains **appropriate** angular planes (Guideline 4.3.1)
- The proposed building's height and front step backs are **appropriate** (Guideline 4.3.2)
- The proposed building provides an **appropriate** built frontage along Main street West (Guideline 4.4)
- The proposed building's ground floor is pulled close to the street lines (Guideline 4.7.3)
- **The site is approximately 60 metres wide and the proposed building has been designed to break up its Main Street West façade (Guideline 4.9)**
- The proposed building has been designed with upper storey step backs, which limits its shadow impacts on the surrounding lands (Guideline 4.12)

The determination of what is appropriate, however, and whether one should merely accept the Applicant's standard of "appropriateness" requires greater examination into the rationale for the guidelines, the reasons why the City of Hamilton wants sunlight penetration onto the sidewalk and the street, and a full determination of all the negative impacts on the environment if a Canyon Effect is created.

3. THE RATIONALE FOR AVOIDING A "CANYON EFFECT" AND ITS IMPACT ON AIR POLLUTION

The City of Hamilton is trying to avoid "urban canyons", also known as "street canyons" as a high-rise building on the south side of an east/west arterial road can modify wind speed and direction and eliminate the penetration of sunlight, both of which are helpful in promoting the rate of dispersion of harmful air pollutants which can collect adjacent to the high-rise building. When wind flow is impeded and sunlight blocked from penetrating into the street, it reduces the "flushing out" of harmful air pollutants. The lack of sunlight and wind can therefore drastically reduce air quality on either side of the high-rise building, as well as adjacent properties and sensitive locations withing the immediate vicinity and throughout the neighbourhood.

4. AIR QUALITY EXAMINATION IN HAMILTON AND SPECIFICALLY IN THE ANSLIE WOOD WESTDALE NEIGHBOURHOOD

A) CBC Article posted May 29, 2019

It was recently reported by the CBC that an Air Quality study from McGill University found that Hamilton has a "striking" level of a deadly blood cancer, known as acute myeloid leukemia (AML). The other cities affected were Sarnia, Sault Ste. Marie and Thunder Bay.

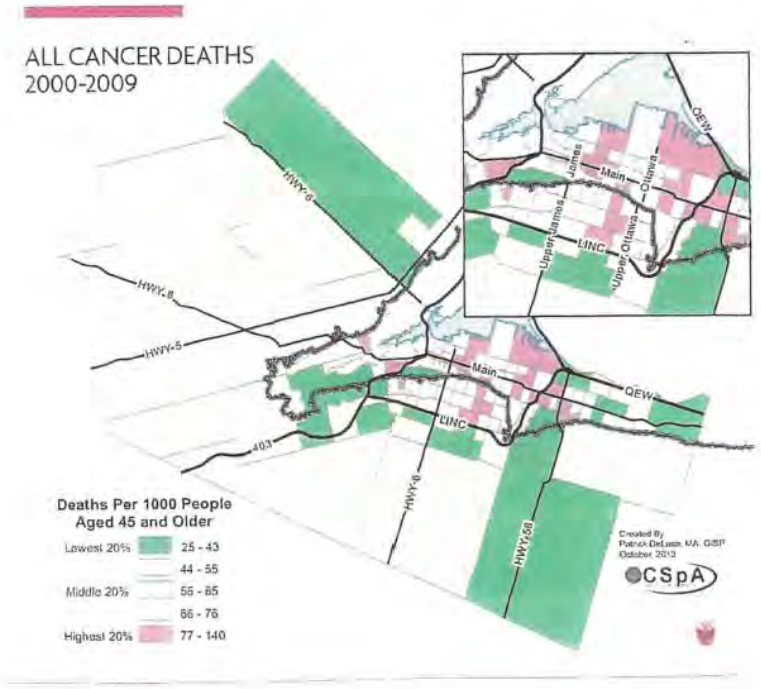
The incidents of **AMR rates were tracked by postal code and one of the noted postal codes with "high incidence" in Hamilton, was L8S** which includes the Ainslie Wood Westdale Neighbourhood and the site of the proposed development at 1107 Main Street West. Lynda Lukasik, the executive Director of Environment Hamilton attributes this to the high rate of air pollution in Hamilton and especially the air borne carcinogen benzene. A copy of the post is attached as a Schedule.

B) Analysis of Acute Myeloid Leukemia Incidence and Geographic Distribution in Canada From 1992 to 2010 Reveals Disease Clusters in Sarnia and Other Industrial US Border Cities in Ontario

This is the article appearing in the CBC news headline and in it the Physician authors outline their methodology, their incidence tracking data, and their conclusion that the "results provide a comprehensive analysis of AML burden in Canada and reveal striking geographic case clustering in industrial Ontario cities and potentially implicate exposure to materials/pollution from these plants as an important risk factor for developing AML in Canada.

C) Hamilton Spectator / McMaster University Code Red Cancer Project Part 1

In reporting on all cancer deaths in Hamilton from the year 2000-2009 the researchers on the project identified the street addresses of those who had died, and prepared a map with the indices of Death Per 1000 People Aged 45 and Older, and colour coded from with the Lowest 20% through the Middle 20% and the Highest 20%. **Based on this Map, which is attached as a Schedule, the area between Main Street West and the 403 Highway (Ainslie Wood Westdale) was shown as being on the highest scale in Hamilton, in common with the neighbourhoods in the industrial core of the City.**



The authors of this report focused on air pollution in urban centres resulting from increased traffic and industry, and recognized that "the detrimental impact on population health has been the focus of many epidemiological studies. Some cities are fortunate to have one, or at most a few, sparsely spaced fixed air quality monitors, which provide much needed daily data. However, fixed monitors do not accurately depict the spatial distribution of air pollution over the extent of an urban area nor can they target areas for focused surveys". The authors therefore relied upon "mobile monitoring to improve spatial coverage of pollution concentrations over the city of Hamilton, Ontario and to enhance our knowledge of the short-term bursts of pollution to which the population is exposed." The authors specifically traced the "results for two pollutants, **oxides of nitrogen (NO(x)) representing traffic sources**, and sulfur dioxide (SO2) representing industry sources" and concluded that "**the data demonstrate very high levels of NO(x) exceeding 600 ppb, near major highways** with SO2 levels up to 249 ppb near industrial sources. **Both values significantly exceed the hourly maxima recorded by fixed monitors. The results also highlight the effect of wind direction on SO2 and NO(x) levels, and the affected population in each scenario."**

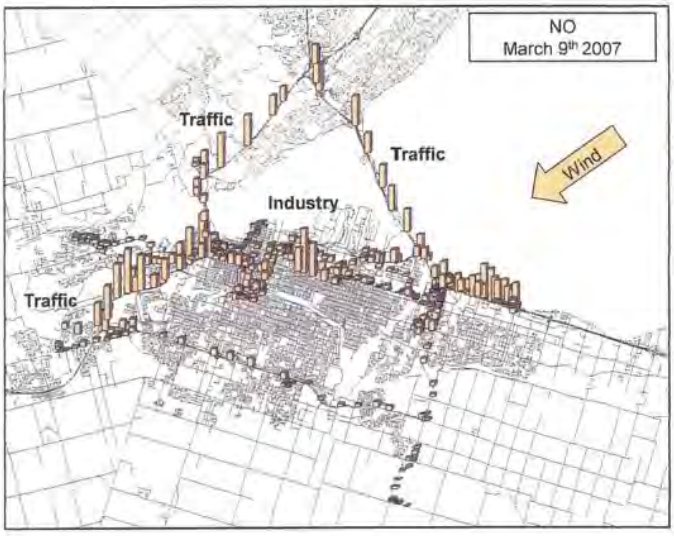


Figure13: Nitric Oxide Traffic Model Predictions and Mobile Monitoring Data, NE Wind.

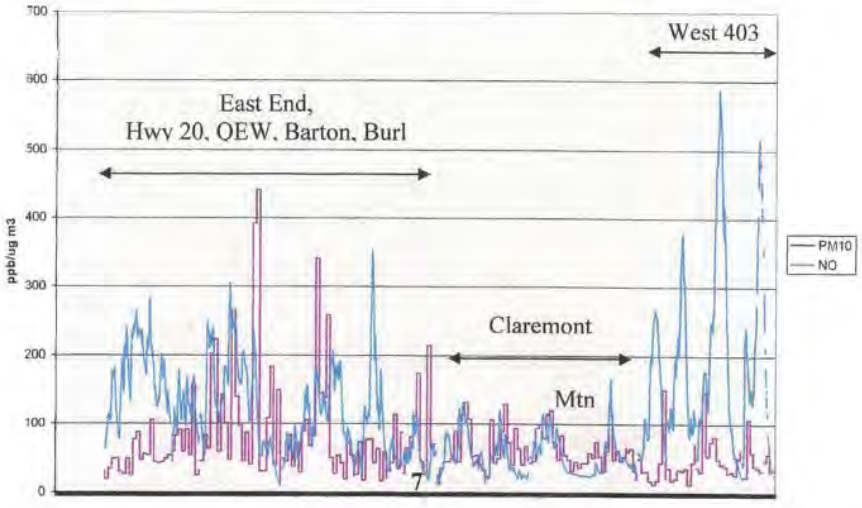
This figure also shows the relative contributions of Nitric Oxide from traffic and industry with traffic contributing relatively high levels of contaminants.

G) Health-Impacting Air Pollutants: A Mobile Monitoring Study to Identify and Rank Sources in Hamilton, Ontario Phases 2/3 by Denis Corr of Rotek Environmental Inc.

This detailed Report was prepared for Clean Air Hamilton, the City of Hamilton, the Ministry of the Environment and Environment Canada and "addressed inversion/smog days, traffic impacts, vehicle idling, drive throughs, road dust resuspension and better air quality modelling. Mobile scans for **NOx (Oxides of Nitrogen),** SO2 (Sulphur Dioxide), PM (Airborne Particulate Matter) and CO (Carbon Monoxide) were performed in traverses across the city, at selected industrial areas, **at traffic intersections and at a school during student pickup and drop-off times. Highest pollutant concentrations were observed near major road intersections** and along heavily used roads affected by dirt track-out in the industrial sectors of the city. **These high levels were attributed to the impacts of city traffic emissions** and the industrial transportation sector, respectively".

"Modelling had indicated that higher pollution incidences would be expected in the east end of the City around the QEW/Hwy 20 intersection, on the Claremont mountain access complex and **in the west end around the Hwy 403/ King/Main/Aberdeen intersections.** Special sampling runs were conducted over a number of days and under different meteorological conditions to evaluate these results and compare the levels of pollutants in these three areas, see Figure 12."

"The Claremont Access and Jolley Cut mountain accesses did not show pollutant levels significantly different from other well traveled roadways, peaking at 132 ug/m3 for PM10 and 158 ppb for NO. However, these concentrations are still well above the residential levels on the mountain of 26 ug/m3 PM10 and 12 ppb NO. **In the 403 Highway valley in the west and on the 403 Ancaster hill, very high levels of NO were detected, reaching a peak of 586 ppb. These are in fact the highest NO levels measured to date in Hamilton, higher than industrial source impacts around major steel companies. The maximum value for NOx (NO + NO2) was 660 ppb.**"



The report examined the aggregated Health Impacts of NO for traffic and although they relied upon this technique the author "also developed an innovative GIS analysis for the total health effects of the pollutants measured. The pollutant effect metrics used were those determined by Jerrett and Sahsorovglou in their **May 2003** report to **Clean Air Hamilton "A Public Health Assessment of Mortality and Hospital Admissions Attributable to Air Pollution in Hamilton" (School of Geography and Geology and McMaster Institute of Environment and Health).**
http://cleanairhamilton.ca/wp-content/uploads/2017/05/Health-Study-Full-Report.pdf

Notation in the following tables includes 'P1997' as the original HAQI report, Pengelly et al. (1997); 'P2000' as the City of Toronto report, Pengelly et al. (2000); 'CAH' as the current reanalysis of HAQI conducted for Clean Air Hamilton; 'Adjusted' as the current results with adjustment of 42% overestimate; 'M-min' (mean minus minimum 20%) represents the baseline 20% model; and 'M-min adj' indicates the baseline model adjusted for the 42% overestimate.

Relatively wide ranges can be observed within the estimated percent changes from increases in pollutants. For an increase of 10 $\mu g/m^3$ in PM_{10}, there was an increase ranging from 0.43% to 1.07% in non-traumatic deaths; 0.7-3.5% for respiratory admissions; and 0.5-2.3% in cardiovascular admissions. In the case of SO_2, the increase per 10ppb resulted in a range of 0.84-3.89% increase in mortality; 1.3-6.1% for respiratory admissions; and 0.2-2.1% in cardiovascular admissions. The other pollutants follow similar ranges, with the higher ranges existing for morbidity results and lower ranges in mortality estimates. Adjusted mean values were slightly higher than the low end of the estimates, except for the association between O_3 and non-traumatic mortality.

Table 1. Summary of Percent Changes per 10 Units of Pollutant: Low, Mean, High, and 42% Adjusted Mean Estimates of Calculated Values

Pollutant	NT mortality[a] (change per 10 units pollutant) range of estimates				Respiratory admissions[b] (change per 10 units pollutant) range of estimates				CV admissions[b] (change per 10 units pollutant) range of estimates			
	low	mean	high	adj mean	low	mean	high	adj mean	low	mean	high	adj mean
PM_{10} ($\mu g/m^3$)	0.43	0.76	1.07	0.44	0.7	2.1	3.5	1.22	0.5	1.4	2.3	0.8
$PM_{2.5}$(μ/m^3)	1.68	2.88	4.46	1.67								
SO_2 (ppb)	0.84	2	3.89	1.16	1.3	3.7	6.1	2.15	0.2	1.1	2.1	0.6
NO_2 (ppb)	1.5	1.9	2.3	1.10	1	4.9	9	2.84	4.4	6.55	8.7	3.8
CO (1 ppm)	2	3.68	4.95	2.13					0.4	1.95	2.5	1.1
O_3 (ppb)	0.94	1.38	1.7	0.80	1.5	2.8	4.9	1.62	1.6	4.5	7.5	2.6

NT= Non-traumatic; CV = cardiovascular;
[a] = Mortality values were calculated on the basis of 2 or 3 estimates
[b] = Morbidity values were calculated on the basis of 1 or 2 estimates; in the case of one estimate, 95% confidence intervals were used as the low and high range of estimates
adj mean = Mean estimate adjusted for 42% overestimate

Table 4 compares the estimates taken from the three studies and adjusted values, calculated on current air quality and health outcome data. Detailed calculations for these estimates can be found in Appendix 3. This table shows the differences in estimated mortality and morbidity counts according to the respective study values. The adjusted estimate is lower than any of the studies for mortality, at 229 annual deaths, but higher than the initial Pengelly study for morbidity at 407 annual respiratory and 1239 cardiovascular admissions.

Table 4. Summary and Comparison of the Mortality and Morbidity Counts Using the Average Dose-response Calculated in the Three Studies with Adjusted Values, Applied to Current Hamilton Data

Pollutant	NT mortality (average incidences/year) average of estimates				Respiratory admissions (incidences/year) average of estimates				CV admissions (incidences/year) average of estimates			
	P1997	P2000	CAH	Adjusted	P1997	P2000	CAH	Adjusted	P1997	P2000	CAH	Adjusted
PM_{10}	102	81	77	45	59	142	176	102	122	466	384	223
SO_2	15	58	51	30	22	81	72	42		629	52	30
NO_2	83	86	137	79	24	147	290	168	135	338	937	543
CO	3	10	10	6					20	50	126	73
O_3	97	29	119	69	53	66	164	95		641	638	370
Total	300	264	394	229	158	436	702	407	277	2124	2137	1239

Table 5 compares the original study, the current study, adjusted risk estimate values, baseline 20% adjustments, and application of both adjustments, all calculated for 1997 values. As the values show, there is a substantial difference in total mortality and morbidity counts, depending on the assumptions underlying the calculations. Our most conservative estimate, the application of both the 42% adjustment and the baseline 20% model, estimated 96 deaths in 1997 due to PM_{10}, compared to HAQI initial estimate of 298, our initial estimate of 374, and 217 deaths if the GAM discrepancy is taken into consideration. For respiratory admissions, the most conservative estimate is only a few admissions lower than HAQI estimates (139 compared to 144, respectively), while the highest estimate stands at 607 admissions. The highest estimate for cardiovascular admissions is our initial estimate of 2000 admissions, while the most conservative estimate is 479 admissions, still higher than the 257 admissions estimated by HAQI in 1997.

Table 5. Summary of the Mortality and Morbidity Counts Using the Average Dose-response in HAQI, CAH and Both Adjustments; Applied to 1997 Hamilton Data

Pollutant	NT mortality (average incidences/year) average of estimates					Respiratory admissions (incidences/year) average of estimates					CV admissions (incidences/year) average of estimates				
	$P1997_{97}$	CAH_{97}	Adj_{97}	M-min 1997	M-min adj	$P1997_{97}$	CAH_{97}	Adj_{97}	M-min 1997	M-min adj	$P1997_{97}$	CAH_{97}	Adj_{97}	M-Min 1997	M-Min adj
PM_{10}	97	73	43	24	14	48	144	83	46	27	112	280	157	84	49
SO_2	16	53	31	27	16	28	69	40	35	20		56	31	45	26
NO_2	81	134	78	46	27	20	244	142	83	48	125	888	497	303	176
CO	3	10	6	6	3						20	118	66	65	38
O_3	102	105	61	62	36	48	150	87	75	44		659	369	329	191
Total	298	374	217	119	96	144	607	352	239	139	257	2000	1120	826	479

3.3 Results of Hamilton-specific Estimates

Hamilton-specific estimates revealed that, for NO_2 and CO, the values were comparable to the lower ranges of the literature estimates. For SO_2, estimates were slightly higher than the mean count from literature estimates, and Hamilton-specific O_3 estimates were at the higher end of the calculations (Table 6). Applying the 42% adjustment brought the Hamilton-specific total down closer to the mean of the literature estimates. The 20% baseline estimate lowered the total to 206 mortality incidences, compared to 248 for the low end of literature estimates. When both adjustments were applied, total mortality fell to 119. This Hamilton-specific value is still higher than the 96 incidences (see Table 5), which results from data averaged across all literature findings.

Table 6. Comparison of the Range of Mortality Counts Using Current Estimates with Averaged Hamilton-specific Estimates and Adjustments

Pollutant	NT mortality (incidences/year) range in estimates						
	low	mean	high	Hamilton	Adj	M-min$_{1997}$	M-min adj
PM_{10}	44	77	109				
CoH				256	148	40	23
SO_2	22	51	100	73	42	37	21
NO_2	108	137	166	108	63	45	26
CO	6	10	14	5	3	4	2
O_3	68	119	122	122	71	81	47
Total	248	394	511	564	327	206	119

CoH= coefficient of haze.

Table 7 summarizes all available calculations performed for non-traumatic mortality estimates.

Table 7. Summary and Comparison of Mortality Counts Estimated for All Available Models, Based on 1997 Hamilton Pollution Values

Pollutant	NT mortality (average incidences/year) average of estimates							
	P1997$_{1997}$	CAH$_{1997}$	Adj$_{1997}$	M-min	M-min adj	Pooled	Hamilton	Chronic
PM_{10}	97	73	43	24	14	31		
$PM_{2.5}$		110	64					232
CoH							256	
SO_2	16	53	31	27	16	22	73	
NO_2	81	134	78	46	27	14	108	
CO	3	10	6	6	3	0	5	
O_3	102	105	61	62	36	23	122	
Total	298	374	217	119	96	90		232
Total **		411	238				564	

M-min adj = Adjusted value of M-min, for overestimate of 42%
Pooled = Pooled random effect model estimates (Stieb et al, 2003)
Hamilton = Hamilton-specific dose-response estimates
Chronic = Estimates based on chronic exposures to particulates (Pope et al., 2002)
CoH= Coefficient of haze
Total ** = Totals calculated with $PM_{2.5}$ or CoH as particulate measure

Calculations for respiratory morbidity for NO_2

NO_2	morbidity	change per 10	%change	pollutant	outcome	42% Adj
1995	resp			(arith mean)		
mean	2249	4.90	0.0049	19.3	213	123
min		1.00	0.001		43	25
max		9.00	0.009		391	227
Pengelly 1996		0.40	0.0004		17	10
Pengelly 2000		2.49	0.00249		108	63

Calculations for cardiovascular morbidity for NO_2

NO_2	morbidity	change per 10	%change	pollutant	outcome	42% Adj
1995	CV			(arith mean)		
mean	5612	6.55	0.00655	19.3	709	411
min		8.70	0.0087		942	547
max		4.40	0.0044		477	276
Pengelly 1996		0.00	0		0	0
Pengelly 2000		4.40	0.0044		477	276

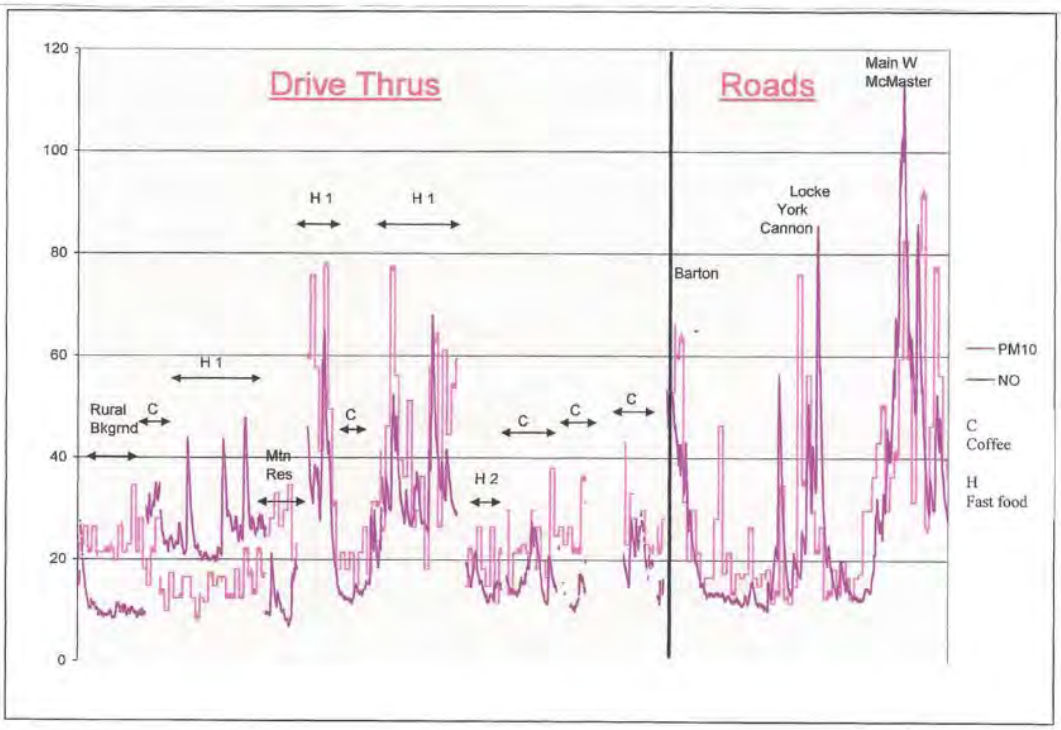
Calculations for NT mortality for NO_2

NO_2	base	change per 10	%change	pollutant	outcome	42% Adj
1995	nt mort			(arith mean)		
our	3730	1.90	0.0019	19.3	137	79
min		1.50	0.0015		108	63
max		2.30	0.0023		166	96
Pengelly 1997		1.15	0.00115		83	48
Pengelly 2000		1.19	0.00119		86	50

Some of the conclusions and recommendations most pertinent to the development of the site at 1107 Main Street West, and its close proximity to Hwy 403 were listed in the Denis Corr report as follows:

1) The majority of direct air pollution exposures of Hamilton citizens **are due to vehicles**, although under NE wind/inversion conditions significant industrial impacts also occur. **Road intersections, highways and any accumulation of idling vehicles exacerbate these exposures**.
2) In the Phase 2 study, **the highest air pollution levels measured by far are on highways and heavily traveled arterial roads, particularly where truck traffic is frequent, i.e. QEW, Hwy 20, 403,** Burlington Street. **If the emissions are confined in a valley or between banks, or trucks have to drive up a hill (403 west), then the ambient levels rise sharply.** These high pollutant levels do seem to be mainly confined to the roadway and immediate vicinity.
3) Nitrogen Dioxide roadway concentrations **are highest in the west end, peaking at 586 ppb.** These values are higher than those downwind of heavy industry in the City. Roadway pollutant levels in the east end are more heavily influenced by particulate, with PM10 levels as high as 442 ug/m3.

4) To our knowledge, the areal extent of inversion related pollution has never been measured before in Hamilton. In this study, measurements were made on several inversion days and showed that **plumes from the industrial area can reach across the City and up through the Dundas valley**.
5) Under inversion conditions there are much higher aggregate exposures to air pollution, because of the greater exposure area and greater numbers of exposed citizens in addition to the higher air pollution concentrations. **The content of pollutant mixtures in inversions is a more toxic mix than in normal conditions, making the situation worse yet again. A further consideration is that there is a wide of range of bronchial reactivity (asthma sensitivity) and cardiac status in the population,** so that reducing these higher pollution levels could bring relief to a sizeable fraction of asthma sufferers and cardiac patients.
6) control of both point and area particulate pollution, NOx and SO2 emissions remains an ongoing priority.
7) **physicians should caution patients with respiratory or cardiac difficulties to avoid areas of higher air pollution, e.g. highways with high levels of diesel truck traffic, particularly under low dispersion conditions, whether weather related or by virtue of valley type effects.**
8) Anti-idling measures should be aggressively promoted.
9) **cycling/walking routes should be separated from heavily travelled roads.**



H) Hamilton's Air Quality: Status and Expected – An Inquiry Submitted by Omar Al-Daggagh

In this Report the air quality of Hamilton is examined, and reasons given for its poor air quality. The author bases it on five factors being: 1) close proximity of heavy industrial facilities in the northeastern section of the City; 2) complex meteorological conditions relating to winds from the southwest and the northeast, and thermal inversions which may cause pollutant build-ups in the lower City; 3) the Niagara Escarpment which separates the lower and upper City and which acts as a downwind barrier, trapping pollution; 4) the major highways, railway and heavily travelled Transit Corridors which are used by local residents, commuters passing through the City and long-distance traffic, and; 5) Transboundary air pollution coming from the industrialised mid-west US.

The Report contains a breakdown of the Types of Air Pollutants found in Hamilton's air, and the sources of each. Of particular concern is that Nitrogen Oxides, Sulphur Dioxides/Oxides and Carbon Monoxide are primarily from Transportation on the roads and highways, and that Tropospheric Ozone is a reaction between the above listed pollutants with oxygen and sunlight in the atmosphere.

Substances associated with traffic emissions	**Substances not associated with traffic emissions**
Acetaldehyde Acrolein Benzene 1,3-Butadiene Cadmium Chromium Chromium VI Formaldehyde Manganese Nickel Nitrogen oxides (NO_X) Nitrogen dioxide (NO_2) Nitric oxide (NO) $PM_{2.5}$ PM_{10} Polyaromatic hydrocarbons (as benzo[a]pyrene) Total suspended particles	Carbon tetrachloride Chloroform 1,4-Dichlorobenzene 1,2-Dichloroethane Dichloromethane Ethylene dibromide Lead Mercury Ozone[2] (O_3) Tetrachloroethylene Trichloroethylene Vinyl Chloride Volatile organic compounds (originating from human activity and nature)

The adverse health effects attributable to Air Pollution is listed, and an analysis is given for the mobile surveys in Hamilton which revealed that **"high levels of pollutants are cause by the automobiles, light trucks and heavy trucks. More particularly, the highest concentrations of pollutants are the intersections of major roads and along heavily used roads…."**

The Report most importantly also examines the manner of dispersion of air pollutants and identifies that the lower and upper city have different dispersion due to the geographical feature of the Niagara Escarpment, which results in different atmospheric conditions. The author also points out that with atmospheric inversions "in which air masses close to the earth surface are unable to more upwards, resulting in trapping more air pollutants and making the situation worse than in normal conditions." He also provides by satellite photograph which shows the air pollution impacts under the prevailing South West wind and the North East wind under inversion conditions in Hamilton.

I) A Land Use Regression Model for Predicting Ambient Concentrations of Nitrogen Dioxide in Hamilton, Ontario By Sahsuvaroglu T, Arain A, Kanaroglou P, Finkelstein N, Newbold B, Jerrett M, Beckerman B, Brook J, Finkelstein M, Gilbert NL.

This paper outlines the methodology of using Land Use Regression (LUR) modelling to predict air pollution exposure in cities, and by the use of 100 mobile tracking stations throughout Hamilton during a two-week period the authors were able to determine Nitrogen Dioxide levels. The study placed monitors close to the highways and heavily travelled roads in the City, physical geography, traffic density. **Of particular concern were lands downwind of Hwy 403 which had positive correlations with Nitrogen Dioxide concentrations**. The paper further analyzed distances from the Highways and road and again found **that wind effects, both upwind and downwind patterns in relation to Hwy 403 were very strong factors in influencing air pollutant concentrations**.

5) ROAD TRAFFIC PEAK VOLUME ASSESSMENT FOR MAIN STREET WEST AND HWY 403

A) MAIN STREET WEST BETWEEN THE 403 EXIT RAMP AND HADDON

GHD Report

The Traffic Study prepared by GHD and submitted by the Applicant confirms the high traffic volume on Main Street West, which consists of six lanes. This volume is recorded for both eastbound and westbound traffic, as well as AM Peak Volume Hour Volumes and PM Peak Volume Hours.

The Total Traffic conditions are as follows:
Westbound AM Peak Hour Volume is estimated at: 2408 vehicles per hour in two lanes
Westbound PM Peak Hour Volume is estimated at: 1898 vehicles per hour in two lanes
Eastbound AM Peak Hour Volume is estimated at: 2074 vehicles per hour in three lanes
Eastbound PM Peak Hour Volumes is estimated at: 2697 vehicles per hour in three lanes.

According to the study the "westbound volume exceeds typical road theoretical planning capacities which are generally in the range of 800 to 1,000 vehicles per hour per lane.

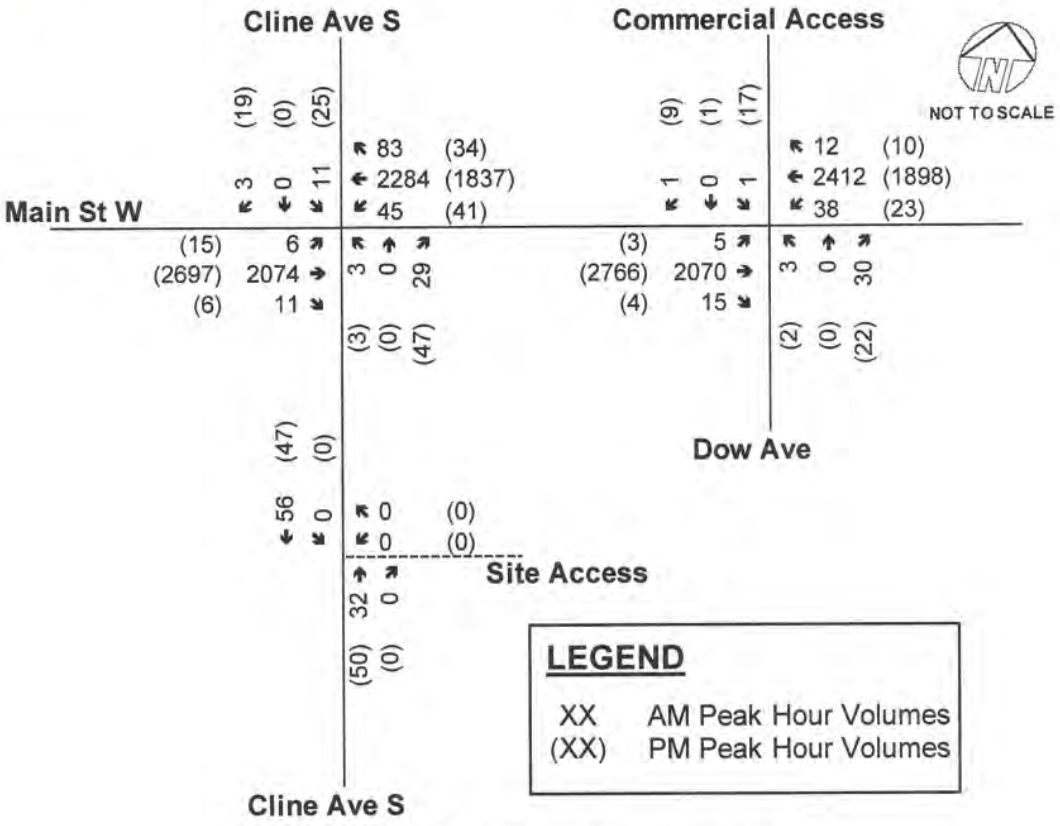


Figure 6 Background traffic volumes

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Summary

Intersection: Main St W & Cline Ave
Municipality: Hamilton
Count Date: Sep 17, 2019

Main St W - Traffic Summary

	East Approach Totals						West Approach Totals					
	Includes Cars, Trucks						Includes Cars, Trucks					
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds
07:00 - 08:00	30	1323	46	0	1399	0	7	1681	6	0	1694	0
08:00 - 09:00	42	2109	77	0	2228	0	6	1915	10	0	1931	0
					BREAK							
16:00 - 17:00	33	1654	27	0	1714	0	15	2478	6	0	2499	0
17:00 - 18:00	41	1659	57	0	1757	0	26	2270	1	0	2297	0
GRAND TOTAL	146	6745	207	0	7098	0	54	8344	23	0	8421	0

Ontario Traffic Inc.
TRAFFIC MONITORING SERVICES & PRODUCTS

Traffic Count Summary

Intersection: Main St W & Dow Ave-Commercial Access
Municipality: Hamilton
Count Date: Sep 17, 2019

Main St W - Traffic Summary

	East Approach Totals						West Approach Totals					
	Includes Cars, Trucks						Includes Cars, Trucks					
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds
07:00 - 08:00	8	1401	7	0	1416	0	3	1706	6	0	1715	1
08:00 - 09:00	35	2227	11	0	2273	0	5	1912	14	0	1931	0
					BREAK							
16:00 - 17:00	17	1704	8	0	1729	1	1	2517	4	0	2522	3
17:00 - 18:00	18	1743	14	0	1775	0	5	2307	5	0	2317	0
GRAND TOTAL	78	7075	40	0	7193	1	14	8442	29	0	8485	4

Dillon Consulting Limited Report

The City of Hamilton also prepared a City of Hamilton Rapid Transit Initiative Assessment Report in March 2009 by Dillon Consulting Limited and in this report the Peak Traffic Volumes along Main Street from West to East, being the route of the proposed LRT starting from West of Cootes/Leland were ascertained. Based on the Table setting out the Current 2008 Peak Traffic Volumes for both Eastbound and Westbound traffic, the segment from Haddon/Bowman to the 403 had a total of **3900 vehicles per hour**. This is the second highest volume of traffic along the entire Main Street Traffic Corridor Route and is only exceeded by a total of 4000 vehicles per hour at the segment of Main Street between Cootes/Leland to McMaster Entrance/Emerson.

It should be noted that GHD found the City of Hamilton Rapid Transit Initiative Assessment Report in March 2009 by Dillon Consulting Limited to be too conservative, "as the Dillon's study estimated the PM peak hour volumes for year 2031 with LRT conditions along Main Street West within the study area, which assumed an applied annual growth rates of **0.73% from 2008 to the 2031 horizon**." To be conservative, this GHD "analysis applied an annual growth rate of **1.0% to all movements to estimate the background traffic growth for the 2027 study horizon**. This would indicate that the Peak Traffic volumes on Main Street West will be even higher than what is predicated by the City of Hamilton.

HGC Engineering

This acoustical report which was submitted by the Applicant was required as it was necessary to assess traffic volume as the firm had identified that "the primary noise sources impacting the site are road traffic on Main Street West and Highway403. Road traffic volume data was obtained from the City of Hamilton and Ministry of Transportation (MTO) personnel."
The Projected traffic data for Main Street West "was obtained from the City of Hamilton. Data was provided in the form of current Turning Movement Counts (TMC) and are provided in Appendix B of the Report. The traffic volumes were grown to the year 2030 using a growth rate of **2.5% per year**. A **commercial vehicle percentage of 3.7%** was obtained and split into **1.4% medium trucks and 2.3% heavy trucks**. A day/night split of 90%/10% and a speed limit of 50 km/h was used in the analysis. (Note: This speed limit may not be accurate as my own observations indicate that the traffic is often in excess of 60 km/h)
Table II summarizes the road traffic data used in the Report.

B) HIGHWAY 403

HGC Engineering

In this Report "Road traffic data for Highway 403 was obtained from the Ministry of Transportation (MTO) in the form of summer average daily traffic volumes (SADT) for the year 2016, and are provided in Appendix B. The data was projected to the year 2030 using **a 2.5% growth rate. A commercial vehicle percentage of 10% was used, split into 3.8% medium trucks and 6.2% heavy trucks**, as per the MTO procedures. A day/night split of 85%/15% and a posted speed limit of 100 kph were used in the analysis.

2.1 Current (2008) Condition

This scenario consists of the current road configuration and current traffic conditions. Existing peak PM traffic volumes for the primary road segments along Main St. and King St. of the study area were provided in Exhibits 1 and 2 in Appendix B of the Rapid Transit Feasibility Study. This data is presented in Table 1.

The percentage of truck traffic was based on traffic volume and class data recorded by the City of Hamilton (the City) at King St. west of Wellington St. N and Main St. west of Wellington St. N. The respective percentages were assumed to be consistent on all road segments of Main St. and King St. that are under study. The percentage truck traffic on Main St. and King St. were estimated to be 3.0% and 2.2%, respectively. Traffic speed was assumed to be 50 km/h along subject routes (except west of Dundurn St. for which a flow speed of 60 km/h was used, based on information provided by the City).

Table 1 – Current 2008 Peak PM Peak Traffic Volumes

Road Segment	PM Peak (veh/ hr)	
	EB	WB
Main Street (West to East)		
West of Cootes/ Leland	1000	1500
Cootes/ Leland to McMaster Entrance/ Emerson	1700	2300
McMaster Entrance/ Emerson to Haddon/ Bowman	1500	1900
Haddon/ Bowman to 403	2200	1700
403 to Longwood	1800	1500
Longwood to Dundurn	2800	-
Dundurn to Locke	2900	-
Locke to Queen	2800	-
Queen to Bay	2400	-
Bay to James	3000	-
James to John	3000	-
John to Catharine	2500	-
Catharine to Wellington	2600	-
Wellington to Victoria	2400	-
Victoria to Wentworth	2400	-
Wentworth to Sanford	2400	-
Sanford to Sherman	2300	-
Sherman to Gage	2400	-
Gage to King	2400	-
King to Ottawa	1400	800
Ottawa to Kenilworth	1200	1000

system in place and two-way traffic on all sections of Main and King Streets. The methodology described above in Section 2.3 was used in predicting the 2031 traffic volumes with the LRT.

To account for the proposed two-way traffic on Main and King streets, traffic volumes for the one-way road segments between Paradise Road South to the King Street and Main Street intersection described above in Option 1, were halved and assigned to the eastbound and westbound traffic. The peak PM traffic volumes for the roadway segments modelled can be found in Table 4. As a result of the reduced volume in non-commercial traffic volumes, the percentage truck traffic on Main St. and King St. were estimated to be 5.6% and 3.5%, respectively.

The current 2008 city bus transit volumes were also assumed to remain the same in 2031 for both the no-build and with-LRT cases. For the future with-LRT scenarios, the express buses along the subject routes were assumed to be replaced by the proposed LRT. Traffic speed was assumed to be 50 km/h along subject routes (except west of Dundurn St. for which a flow speed of 60 km/h was used, based on information provided by the City). The LRT was assumed to be 26 m in length with a speed of 50 km/h. The peak frequency of 12 LRTs per hour on each east-bound and west-bound route was assumed for modelling purposes. For Option 2 the number of traffic lanes on King St. was reduced by two.

Table 4 – Peak PM Volumes for 2031 with-LRT Option 2 Condition

Road Segment	PM Peak (veh/ hr)	
	EB	WB
Main Street (West to East)		
West of Cootes/ Leland	1183	1774
Cootes/ Leland to McMaster Entrance/ Emerson	2011	2720
McMaster Entrance/ Emerson to Haddon/ Bowman	1774	2247
Haddon/ Bowman to 403	2602	2011
403 to Longwood	2129	1774
Longwood to Dundurn	1656	2129
Dundurn to Locke	1715	1951
Locke to Queen	1656	1537
Queen to Bay	1419	1360
Bay to James	1774	946
James to John	1774	946
John to Catharine	1478	710
Catharine to Wellington	1537	1360
Wellington to Victoria	1419	946

It is to be noted that Highway 403 serves as both a major Transportation and trucking route and daily commuter route as it connects the QEW and the 407 with the 401 when heading westbound, and it similarly connects from the 401 to the QEW and the 407 when heading eastbound. Many new subdivisions in the Hamilton area connect into the 403 from the Lincoln Alexander Parkway, and communities further south in Haldimand county, creating a very heavily travelled and congested 403 in the Peak AM and Peak PM hours with highway traffic often being at a standstill at both the Main Street West and East ramps and Aberdeen Avenue exit ramps, which are in the lowest elevation of the Chedoke valley.

Combined Traffic Volumes for Main Street West and Highway 403

Accordingly, both Main Street West and Highway 403 are extremely high-volume traffic volume corridors which are operating at full capacity. Both Main Street West and Highway 403 have a high percentage of large trucks and light trucks, and both serve GO transit with regular bus service to various destinations and utilize the Main Street West exit and entry ramps as part of their service routes. In addition, Main Street West serves eight HSR bus routes which travel along Main Street West.

The **STAMSON 5.0** Report obtained by HGC Engineering and submitted by the Applicant is attached. Based on the data the predicated daytime and nighttime total daily combined traffic volume for cars is **171,410 Cars; 6,179 Medium Trucks; and 22,310 Heavy Trucks** per 24-hour period. The total Road Traffic therefore over a 24-hour period is **199,899 vehicles, or approximately 200,000 total vehicles each day** passing to the north and south of the proposed development at 1107 Main Street West. (also note that there are more Heavy Trucks on Main Street West than on Hwy 403)

Table II: Forecasted Road Traffic Data (2030)

Road Name		Cars	Medium Trucks	Heavy Trucks	Total
Main Street	Daytime	40 162	744	12 219	53 124
	Nighttime	4 462	83	1 358	5 903
	Total	**44 624**	**826**	**13 576**	**59 027**
Highway 403	Daytime	107 768	4 550	7 424	119 742
	Nighttime	19 018	803	1 310	21 131
	Total	**126 786**	**5 353**	**8 734**	**140 873**

12

```
STAMSON 5.0         NORMAL REPORT         Date: 07-02-2020 14:32:07
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b.te                  Time Period: Day/Night 16/8 hours
Description: Predicted daytime and nighttime sound levels at the east façade
of the proposed building, prediction location [B].

Road data, segment # 1: Main St W (day/night)
----------------------------------------------
Car traffic volume  : 40162/4462  veh/TimePeriod  *
Medium truck volume :   744/83    veh/TimePeriod  *
Heavy truck volume  : 12219/1358  veh/TimePeriod  *
Posted speed limit  :    50 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

    24 hr Traffic Volume (AADT or SADT):  44987
    Percentage of Annual Growth         :   2.50
    Number of Years of Growth           :  11.00
    Medium Truck % of Total Volume      :   1.40
    Heavy Truck  % of Total Volume      :  23.00
    Day (16 hrs) % of Total Volume      :  90.00

Data for Segment # 1: Main St W (day/night)
--------------------------------------------
Angle1   Angle2           : -90.00 deg   0.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  25.00 / 25.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      3       (Elevated; no barrier)
Elevation                 :  42.00 m
Reference angle           :   0.00

Road data, segment # 2: HWY 403 (day/night)
--------------------------------------------
Car traffic volume  : 107768/19018 veh/TimePeriod  *
Medium truck volume :  4550/803   veh/TimePeriod  *
Heavy truck volume  :  7424/1310  veh/TimePeriod  *
Posted speed limit  :   100 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

    24 hr Traffic Volume (AADT or SADT):  99700
    Percentage of Annual Growth         :   2.50
    Number of Years of Growth           :  14.00
    Medium Truck % of Total Volume      :   3.80
    Heavy Truck  % of Total Volume      :   6.20
    Day (16 hrs) % of Total Volume      :  85.00
```

6) HAMILTON WEST AMBIENT AIR MONITORING STATION

The Hamilton West Ambient Air Monitoring Station is one of 39 permanent fixed stations located throughout the Province of Ontario and which are operated by The Ontario Ministry of the Environment, Conservation and Parks. The Ministry's Air Quality Index web site provides users with access to hourly pollutant concentration data from each of the ministry's 39 ambient sites.

The Hamilton West site is located approximately 130 - 150m from the southeast corner of the Applicant's proposed development, if the southerly boundary line is extended easterly in a straight line, and the monitoring station can be found on the eastbound exit ramp from Main Street West to the 403. It is also in line with the backyard of the fourth house on the east side of Dow Avenue, and is marked in the red circle on the map below.

This station measures and records every hour three types of ambient air pollutants, being **NITROGEN DIOXIDE (NO2), FINE PARTICULATE MATTER (PM2.5) and OZONE (O3).** A printout for each of pollutant being Hamilton West: Hourly Nitrogen Dioxide Readings from November 7, 2020 to November 9, 2020; Hamilton West: Hourly Fine Particulate Matter Readings from November 7, 2020 to November 10, 2020, and; Hamilton West: Hourly Ozone Readings are attached. The peak period for Nitrogen Dioxide for this period appears to be between 5am November 9 to 11pm on November 9, 2020. The peak period for Fine Particulate Matter appears to be between 10am November 9, 2020 to 11pm November 9, 2020. The peak periods for Ozone appear to be the entire day from 12am to 12 pm on November 7, 2020; from

Hamilton West: Station Information

Sunday, November 15, 2020, 1:00 pm

Photo: Hamilton West Ambient Air Monitoring Site

Station Data for Hamilton West

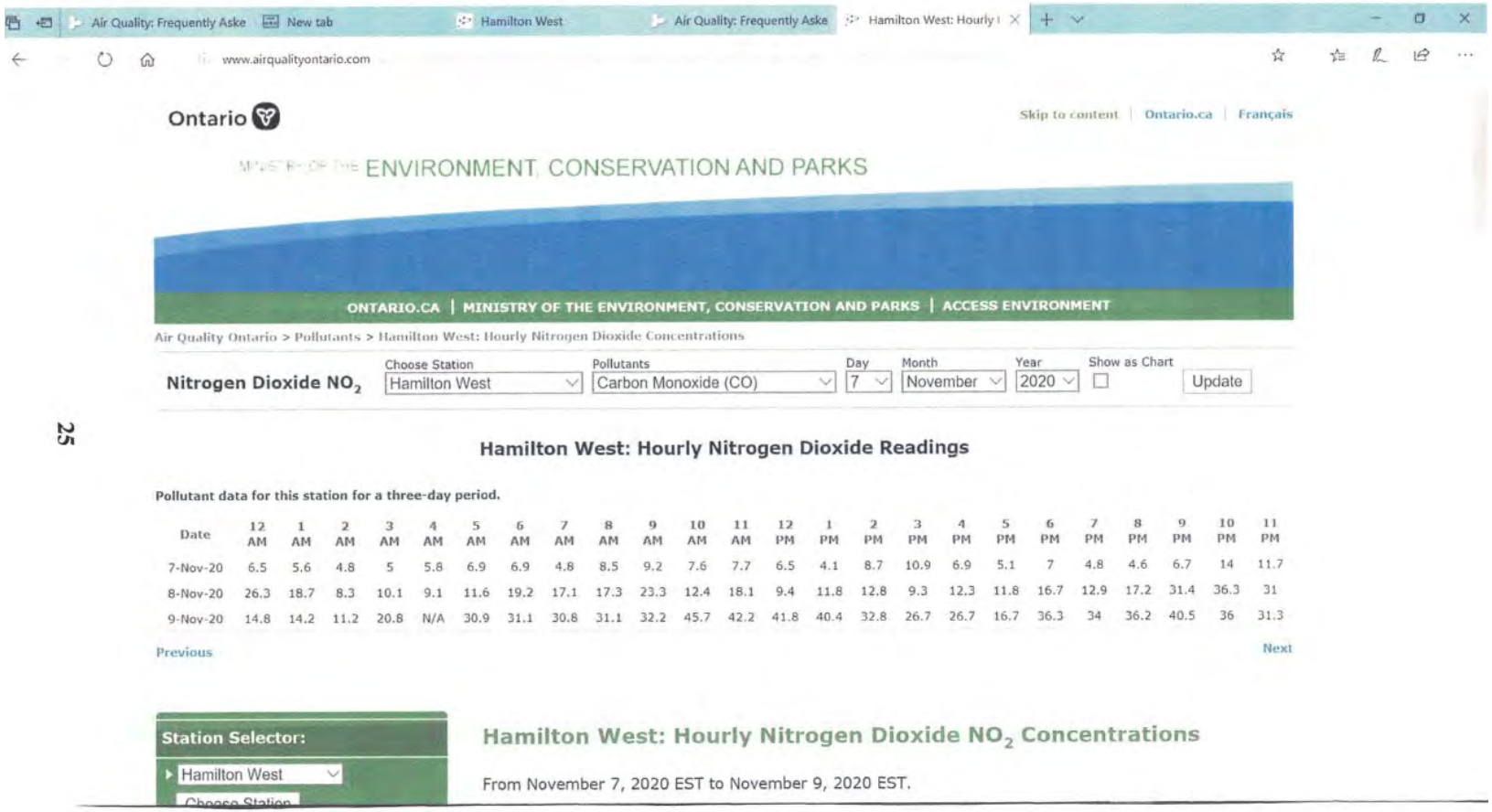
Station Information

Station Name:	Hamilton West
Address:	Main St. W./hwy 403
Latitude:	43.257444
Longitude:	-79.90775
Station Type:	Urban
Height of Air Intake:	3 m
Elevation ASL:	96 m
Pollutants Measured:	O3, PM2.5, NO2

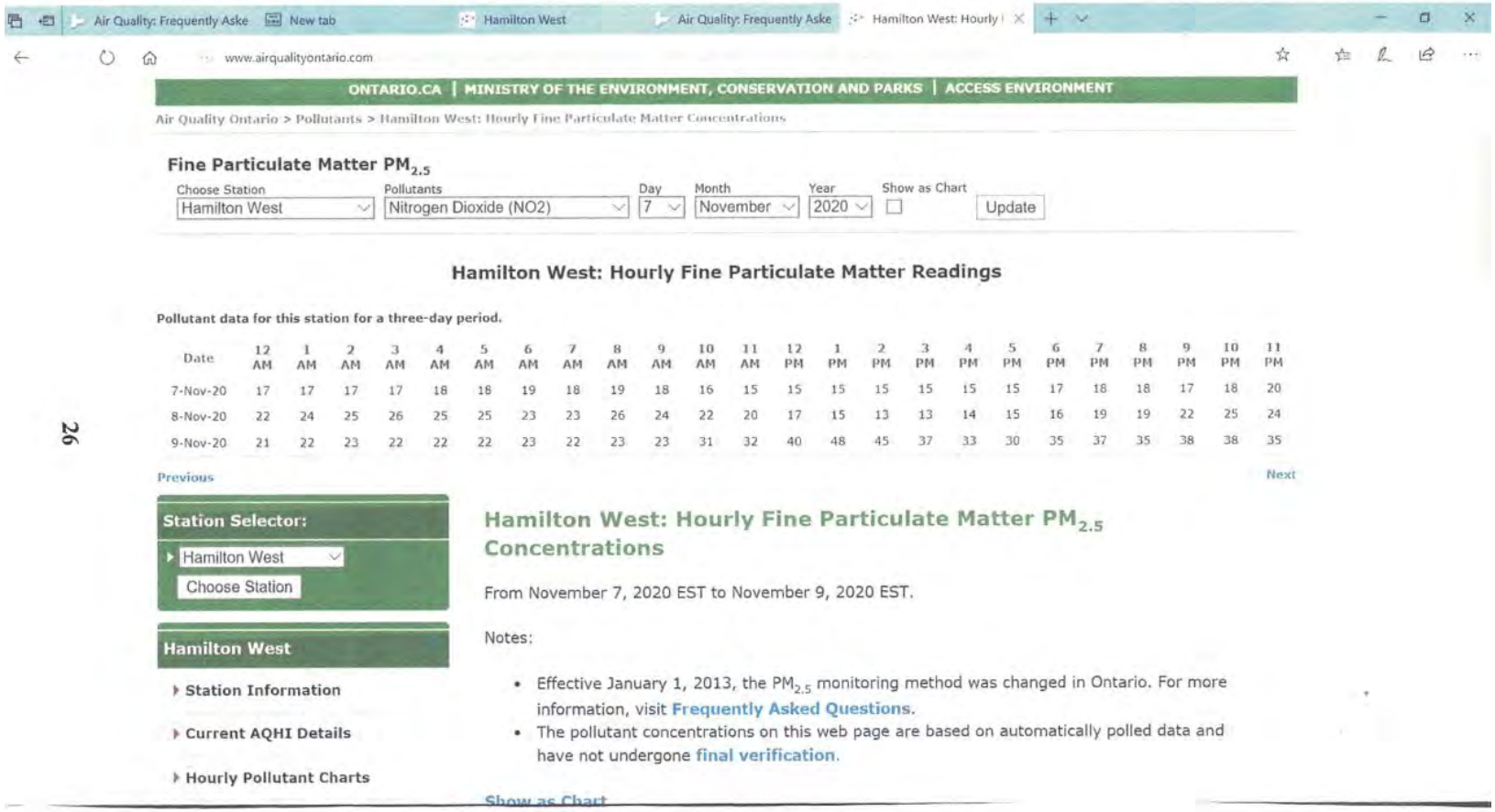
Measured Pollutants at Hamilton West

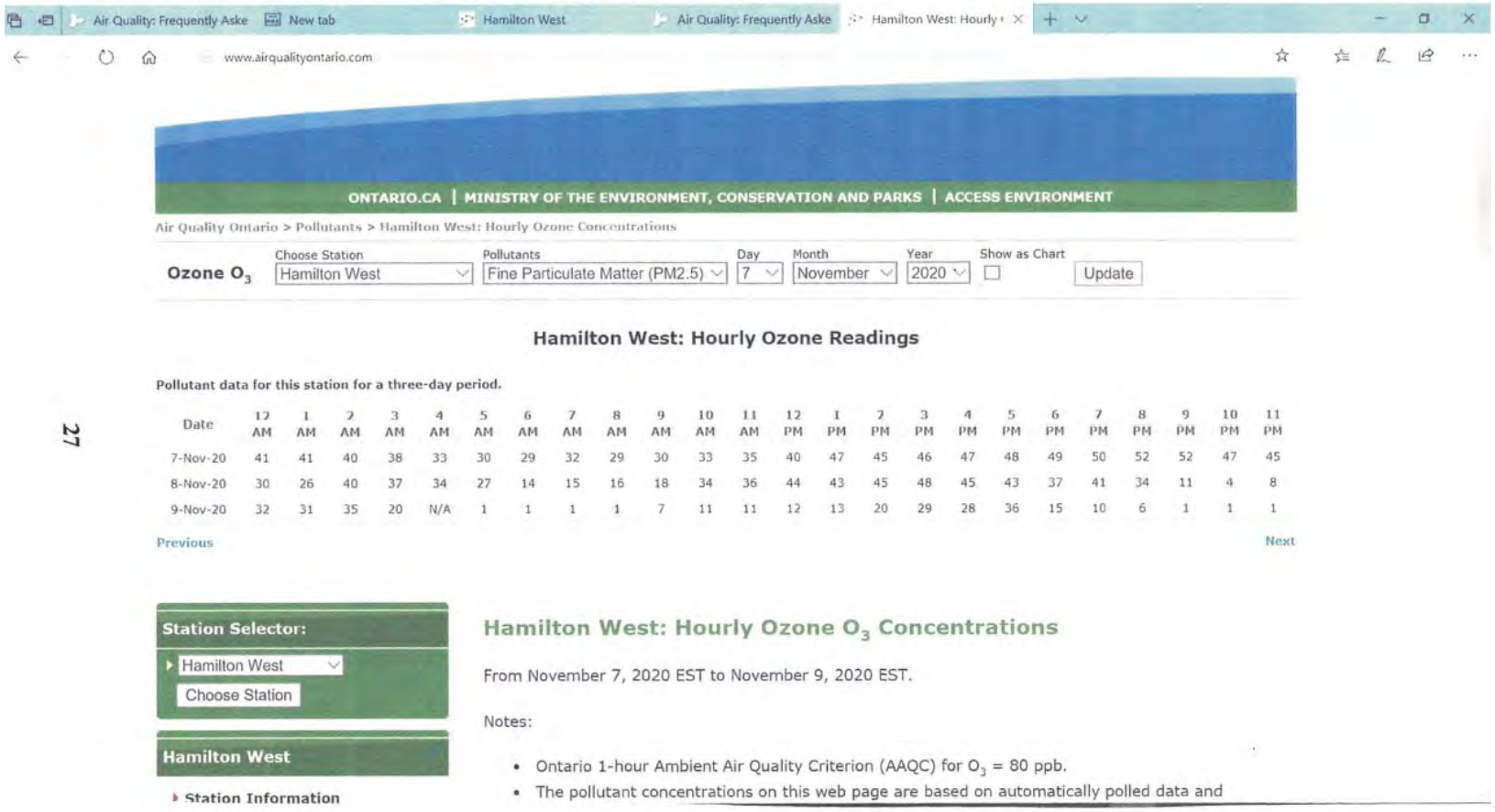
Pollutant	Measured 1-Hour Concentration
O3	(http://www.ontario.ca/history/pollutant.php?stationid=29118&pol_code=122) 33 ppb
PM2.5	(http://www.ontario.ca/history/pollutant.php?stationid=29118&pol_code=124) 6 µg/m3
NO2	(http://www.ontario.ca/history/pollutant.php?stationid=29118&pol_code=36) 3.2 ppb

Ontario 1-hour AAQC for the measured 24



Date	12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM
7-Nov-20	6.5	5.6	4.8	5	5.8	6.9	6.9	4.8	8.5	9.2	7.6	7.7	6.5	4.1	8.7	10.9	6.9	5.1	7	4.8	4.6	6.7	14	11.7
8-Nov-20	26.3	18.7	8.3	10.1	9.1	11.6	19.2	17.1	17.3	23.3	12.4	18.1	9.4	11.8	12.8	9.3	12.3	11.8	16.7	12.9	17.2	31.4	36.3	31
9-Nov-20	14.8	14.2	11.2	20.8	N/A	30.9	31.1	30.8	31.1	32.2	45.7	42.2	41.8	40.4	32.8	26.7	26.7	16.7	36.3	34	36.2	40.5	36	31.3


Air Quality: Frequently Aske
New tab
Hamilton West
Air Quality: Frequently Aske
Hamilton West: Hourly
www.airqualityontario.com
ONTARIO.CA | MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS | ACCESS ENVIRONMENT
Air Quality Ontario > Pollutants > Hamilton West: Hourly Fine Particulate Matter Concentrations
Fine Particulate Matter PM2.5
Choose Station
Hamilton West
Pollutants
Nitrogen Dioxide (NO2)
Day
7
Month
November
Year
2020
Show as Chart
Update
Hamilton West: Hourly Fine Particulate Matter Readings
Pollutant data for this station for a three-day period.
Date | 12 AM | 1 AM | 2 AM | 3 AM | 4 AM | 5 AM | 6 AM | 7 AM | 8 AM | 9 AM | 10 AM | 11 AM | 12 PM | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM | 7 PM | 8 PM | 9 PM | 10 PM | 11 PM
7-Nov-20 | 17 | 17 | 17 | 17 | 18 | 18 | 19 | 18 | 19 | 18 | 16 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 17 | 18 | 18 | 17 | 18 | 20
8-Nov-20 | 22 | 24 | 25 | 26 | 25 | 25 | 23 | 23 | 26 | 24 | 22 | 20 | 17 | 15 | 13 | 13 | 14 | 15 | 16 | 19 | 19 | 22 | 25 | 24
9-Nov-20 | 21 | 22 | 23 | 22 | 22 | 22 | 23 | 22 | 23 | 23 | 31 | 32 | 40 | 48 | 45 | 37 | 33 | 30 | 35 | 37 | 35 | 38 | 38 | 35
Previous
Next
Station Selector:
Hamilton West
Choose Station
Hamilton West
Station Information
Current AQHI Details
Hourly Pollutant Charts
Hamilton West: Hourly Fine Particulate Matter PM2.5 Concentrations
From November 7, 2020 EST to November 9, 2020 EST.
Notes:
Effective January 1, 2013, the PM2.5 monitoring method was changed in Ontario. For more information, visit Frequently Asked Questions.
The pollutant concentrations on this web page are based on automatically polled data and have not undergone final verification.
Show as Chart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New tab
Hamilton West
Air Quality: Frequently Aske
Hamilton West: Hourly
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ONTARIO.CA | MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS | ACCESS ENVIRONMENT
Air Quality Ontario > Pollutants > Hamilton West: Hourly Ozone Concentrations
Ozone O3
Choose Station
Hamilton West
Pollutants
Fine Particulate Matter (PM2.5)
Day
7
Month
November
Year
2020
Show as Chart
Update
Hamilton West: Hourly Ozone Readings
Pollutant data for this station for a three-day period.
Date | 12 AM | 1 AM | 2 AM | 3 AM | 4 AM | 5 AM | 6 AM | 7 AM | 8 AM | 9 AM | 10 AM | 11 AM | 12 PM | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM | 7 PM | 8 PM | 9 PM | 10 PM | 11 PM
7-Nov-20 | 41 | 41 | 40 | 38 | 33 | 30 | 29 | 32 | 29 | 30 | 33 | 35 | 40 | 47 | 45 | 46 | 47 | 48 | 49 | 50 | 52 | 52 | 47 | 45
8-Nov-20 | 30 | 26 | 40 | 37 | 34 | 27 | 14 | 15 | 16 | 18 | 34 | 36 | 44 | 43 | 45 | 48 | 45 | 43 | 37 | 41 | 34 | 11 | 4 | 8
9-Nov-20 | 32 | 31 | 35 | 20 | N/A | 1 | 1 | 1 | 1 | 7 | 11 | 11 | 12 | 13 | 20 | 29 | 28 | 36 | 15 | 10 | 6 | 1 | 1 | 1
Previous
Next
Station Selector:
Hamilton West
Choose Station
Hamilton West
Station Information
Hamilton West: Hourly Ozone O3 Concentrations
From November 7, 2020 EST to November 9, 2020 EST.
Notes:
Ontario 1-hour Ambient Air Quality Criterion (AAQC) for O3 = 80 ppb.
The pollutant concentrations on this web page are based on automatically polled data and

12am to 8pm on November 8, 2020, and; from 12am to 3am, and from 2pm to 5pm on November 9, 2020. These charts are attached.

In addition to the hourly printouts, each ambient air station gives a combined Hourly Air Quality Health Index Reading which is measured on a risk scale from 1 to 10+ and which is on a combined reading of the three air pollutants occurring at the same time. The scale index was created by scientists "by estimating the daily change in mortality risk for ten cities from 1998-2000 and plotting it on a 10 point scale. The higher the number, the greater risk and the need to take precautions."

Air Quality Health Index Categories, Values and Associated Colours

The Hamilton West: Hourly Air Quality Health Index Readings for the three-day period in which this report was written, being **November 8th 2020 to November 10th 2020** indicate Moderate Risk (4-6) from 8am on November 8, 2020 to 4 am on November 9, 2020, with the risk level reaching **Level 6 from 11am to 4pm on November 9, 2020**. The Chart is illustrated below:

Hamilton West: Current
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ONTARIO.CA | MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS | ACCESS ENVIRONMENT
Air Quality Ontario > AQHI > Hamilton West: Current Air Quality Health Index
AQHI Observations
Choose Station
Hamilton West
Day
8
Month
November
Year
2020
Show as Table
Update
Hamilton West: Hourly Air Quality Health Index Readings
From Nov-8-2020 EST to Nov-10-2020 EST.
AQHI 4
12 AM
6 AM
12 PM
6 PM
Nov-8-2020 EST
Nov-9-2020 EST
Nov-10-2020 EST

Hamilton West: AQHI for November 9, 2020

Air Quality Health Index Categories, Values and Associated Colours

Air Quality Health Index Categories and Values

1 2 3	4 5 6	7 8 9 10 +
Low Risk	Moderate Risk	High Risk Very High Risk
(1 - 3)	(4 - 6)	(7 - 10)

Air Quality Health Index readings by date.

Date	Time	AQHI	Category
2020-11-09	12:00 am EST	4	Moderate Risk
2020-11-09	1:00 am EST	4	Moderate Risk
2020-11-09	2:00 am EST	4	Moderate Risk
2020-11-09	3:00 am EST	4	Moderate Risk
2020-11-09	4:00 am EST	4	Moderate Risk
2020-11-09	5:00 am EST	4	Moderate Risk
2020-11-09	6:00 am EST	4	Moderate Risk
2020-11-09	7:00 am EST	4	Moderate Risk
2020-11-09	8:00 am EST	4	Moderate Risk
2020-11-09	9:00 am EST	4	Moderate Risk
2020-11-09	10:00 am EST	5	Moderate Risk
2020-11-09	11:00 am EST	5	Moderate Risk
2020-11-09	12:00 pm EST	6	Moderate Risk
2020-11-09	1:00 pm EST	6	Moderate Risk
2020-11-09	2:00 pm EST	6	Moderate Risk
2020-11-09	3:00 pm EST	6	Moderate Risk
2020-11-09	4:00 pm EST	6	Moderate Risk
2020-11-09	5:00 pm EST	5	Moderate Risk
2020-11-09	6:00 pm EST	5	Moderate Risk
2020-11-09	7:00 pm EST	5	Moderate Risk
2020-11-09	8:00 pm EST	5	Moderate Risk
2020-11-09	9:00 pm EST	5	Moderate Risk
2020-11-09	10:00 pm EST	5	Moderate Risk
2020-11-09	11:00 pm EST	5	Moderate Risk

Choose Search Terms

Select Station: Hamilton West

Nitrogen Dioxide (NO2)

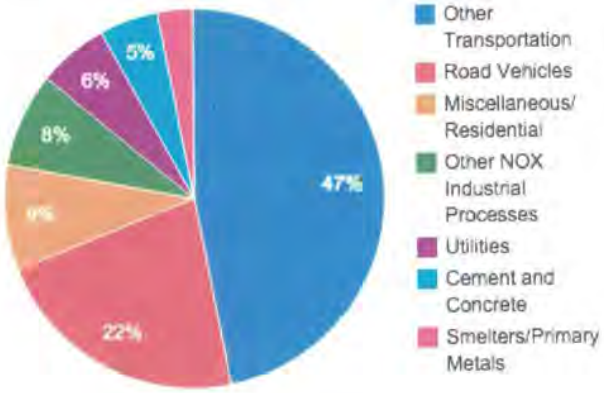
What is Nitrogen Dioxide?

NO2 is a reddish-brown gas with a pungent and irritating odour. It transforms in the air to form gaseous nitric acid and toxic organic nitrates. NO2 also plays a major role in atmospheric reactions that produce ground-level ozone, a major component of smog. It is also a precursor to nitrates, which contribute to increased respirable particle levels in the atmosphere.

What are the sources of NO2?

(NOx)All combustion in air produces oxides of nitrogen (NOx), of which NO2 is a major product. Approximately two-thirds or 69% of NOx emitted in Ontario in 2012 came from the transportation sectors. Miscellaneous/Residential was the second largest source of NOx emissions, accounting for approximately 9%.

Ontario Nitrogen Oxides Emissions by Sector - 2012 Estimates



Ontario Nitrogen Oxides Emissions by Sector - 2012.

Category	Percent
Other Transportation	47%
Road Vehicles	22%
Miscellaneous/Residential	9%
Other NOx Industrial Processes	8%
Utilities	6%
Cement and Concrete	5%
Smelters/Primary Metals	3%

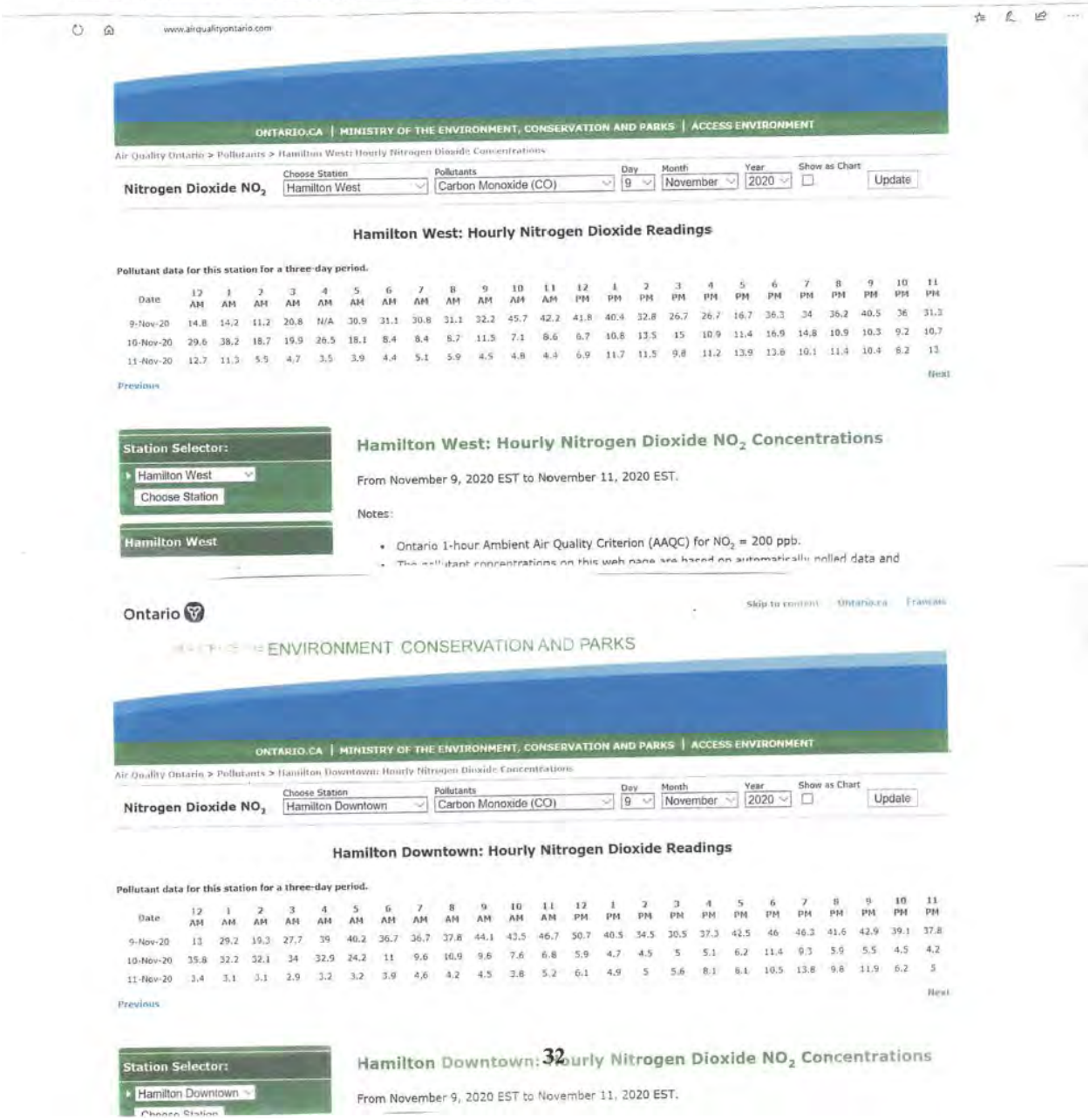
Note: 2012 is the latest complete inventory. Emissions may be revised with updated source/sector information or emission estimation methodologies as they become available.

What are the effects of NO2?

NO2 can irritate the lungs and lower resistance to respiratory infection. Sensitivity increases

for people with asthma and bronchitis. NO2 chemically transforms into nitric acid and, when deposited, contributes to lake acidification. NO2, when chemically transformed to nitric acid, can corrode metals, fade fabrics and degrade rubber. It can damage trees and crops, resulting in substantial losses.

The Ontario Ambient Air Quality Criteria (AAQC) for 1-hour average NO2 concentrations is 200 parts per billion (ppb), which has been incorporated into Ontario's Air Quality Health Index to better protect Ontarians. For more information on how the Air Quality Health Index has been modified for reporting in Ontario, please visit the Frequently Asked Questions (http://www.ontario.ca/press/faq.php) .



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Air Quality Ontario > Pollutants > Hamilton West: Hourly Nitrogen Dioxide Concentrations

Nitrogen Dioxide NO_2 | Choose Station: Hamilton West | Pollutants: Carbon Monoxide (CO) | Day: 9 | Month: November | Year: 2020 | Show as Chart | Update

Hamilton West: Hourly Nitrogen Dioxide Readings

Pollutant data for this station for a three-day period.

Date	12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM
9-Nov-20	14.8	14.2	11.2	20.8	N/A	30.9	31.1	30.8	31.1	32.2	45.7	42.2	41.8	40.4	32.8	26.7	26.7	16.7	36.3	34	36.2	40.5	36	31.3
10-Nov-20	29.6	38.2	18.7	19.9	26.5	18.1	8.4	8.4	8.7	11.5	7.1	8.6	6.7	10.8	13.5	15	10.9	11.4	16.9	14.8	10.9	10.3	9.2	10.7
11-Nov-20	12.7	11.3	5.5	4.7	3.5	3.9	4.4	5.1	5.9	4.5	4.8	4.4	6.9	11.7	11.5	9.8	11.2	13.9	13.8	10.1	11.4	10.4	8.2	13

Previous Next

Station Selector: Hamilton West | Choose Station

Hamilton West

Hamilton West: Hourly Nitrogen Dioxide NO_2 Concentrations

From November 9, 2020 EST to November 11, 2020 EST.

Notes:

- Ontario 1-hour Ambient Air Quality Criterion (AAQC) for NO_2 = 200 ppb.
- The pollutant concentrations on this web page are based on automatically polled data and

Ontario

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ENVIRONMENT CONSERVATION AND PARKS

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Air Quality Ontario > Pollutants > Hamilton Downtown: Hourly Nitrogen Dioxide Concentrations

Nitrogen Dioxide NO_2 | Choose Station: Hamilton Downtown | Pollutants: Carbon Monoxide (CO) | Day: 9 | Month: November | Year: 2020 | Show as Chart | Update

Hamilton Downtown: Hourly Nitrogen Dioxide Readings

Pollutant data for this station for a three-day period.

Date	12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM
9-Nov-20	13	29.2	19.3	27.7	39	40.2	36.7	36.7	37.8	44.1	42.5	46.7	50.7	40.5	34.5	30.5	37.3	42.5	46	46.3	41.6	42.9	39.1	37.8
10-Nov-20	35.8	32.2	32.1	34	32.9	24.2	11	9.6	10.9	9.6	7.6	6.8	5.9	4.7	4.5	5	5.1	6.2	11.4	9.3	5.9	5.5	4.5	4.2
11-Nov-20	3.4	3.1	3.1	2.9	3.2	3.2	3.9	4.6	4.2	4.5	3.8	5.2	6.1	4.9	5	5.6	8.1	8.1	10.5	13.8	9.8	11.9	6.2	5

Previous Next

Station Selector: Hamilton Downtown | Choose Station

Hamilton Downtown: Hourly Nitrogen Dioxide NO_2 Concentrations

From November 9, 2020 EST to November 11, 2020 EST.

During the same time frame the only other provincial monitoring station of the 39 operated by the Province of Ontario, was **Hamilton Downtown** which had a higher risk level and reached **Level 7 – High Risk** at 1:00pm on November 9, 2020 and which consistently remained at **Level 6 – Moderate Risk** from 2:00 pm to 10:00 pm on November 9, 2020. Accordingly, on this day and time, the City of Hamilton had the worst air quality index in Ontario and perhaps the worse air quality in Canada.

In comparing the levels of Nitrogen Dioxide (NO2) in the two stations, **Hamilton Downtown** had readings of **over 30.0 parts per billion (ppb)** for **25 consecutive hours** from 4:00 am on November 9, 2020 to 4:00 am on November 10, 2020. During this same period of time **Hamilton West** had **17 hours of over 30.0 parts per billion** and 7 hours of over 15.0 ppb. This indicates that when the Health Index is Moderate Risk or High Risk in the City of Hamilton, the Nitrogen Dioxide levels are extremely high in both sections of the lower city.

When the Air Quality Health Index is low to moderate risk such as from 5:00 am on November 10, 2020 to 11:00pm on November 11, 2020 the hourly levels of Nitrogen Dioxide indicate that **Hamilton West** had **23 hours of NO2 levels above 10.0 ppb**, while **Hamilton Downtown** had **7 hours of NO2 levels above 10.0 ppb**. This last comparison indicates that when the other air contaminants are lower throughout the lower city and the air quality health index is low to moderate risk, the Nitrogen Dioxide levels are still higher and persist longer in Hamilton West and that this western section of the lower city has its own separate source of Nitrogen Dioxide air pollution.

The Index Categories, Values and Associated Colours for the scale is listed below as well the Health Messages for each category:

Health Risk	Air Quality Health Index	Health Messages	
		At Risk Population*	General Population
Low	1 - 3	Enjoy your usual outdoor activities.	Ideal air quality for outdoor activities.
Moderate	4 - 6	Consider reducing or rescheduling strenuous activities outdoors if you are	No need to modify your usual outdoor activities unless you experience symptoms such as coughing and throat irritation.

Health Risk	Air Quality Health Index	Health Messages	
		At Risk Population*	General Population
		experiencing symptoms.	
High	7 - 10	Reduce or reschedule strenuous activities outdoors. Children and the elderly should also take it easy.	Consider reducing or rescheduling strenuous activities outdoors if you experience symptoms such as coughing and throat irritation.
Very High	Above 10	Avoid strenuous activities outdoors. Children and the elderly should also avoid outdoor physical exertion.	Reduce or reschedule strenuous activities outdoors, especially if you experience symptoms such as coughing and throat irritation.

The table below provides the health messages for each category of the Air Quality Health Index for the "at risk" population and the general population.

* People with heart or breathing problems are at greater risk. Follow your doctor's usual advice about exercising and managing your condition.

7) **THE EXPLANATORY NOTES FROM THE ONTARIO MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS**

How does air pollution affect my health and the health of my family?

Depending on the length of time you are exposed, your health status, your genetic background and the concentration of pollutants, air pollution can have a negative effect on your heart and lungs. It can:

- Make it harder to breathe
- Irritate your lungs and airways
- Worsen chronic diseases such as heart disease, chronic bronchitis, emphysema and asthma

Each person reacts differently to air pollution. Children, seniors and those with diabetes, heart or lung disease are most sensitive to the adverse health effects of air pollution.
Negative health effects increase as air pollution worsens. Small increases in air pollution over a short period of time can increase symptoms for those at risk.

How do I know if I am at risk?

People with diabetes, lung disease (such as chronic bronchitis, asthma, emphysema, lung cancer) or heart disease (such as angina, a history of heart attacks, congestive heart failure, arrhythmia or irregular heartbeat) are more sensitive to air pollution.
Seniors are at higher risk because of weakening of the heart, lungs and immune system and increased likelihood of health problems such as heart and lung disease.
Children are also more vulnerable to air pollution; they have less-developed respiratory and defense systems. Children also spend more time outdoors being physically active, which can increase their exposure to air pollution.
People participating in sports or strenuous work outdoors breathe more deeply and rapidly, allowing more air pollution to enter their lungs. They may experience symptoms like eye, nose or throat irritation, cough or difficulty breathing when air pollution levels are high.

What can the Air Quality Health Index tell me about the health risks I may experience due to the current local air quality?

The Air Quality Health Index provides a number from 1 to 10+ to indicate the level of health risk associated with local air quality. Occasionally, when the amount of air pollution is abnormally high, the number may exceed 10.
The higher the number, the greater the health risk and our need to take precautions.
The index describes the level of health risk associated with this number as 'low', 'moderate', 'high' or 'very high', and suggests steps we can take to reduce our exposure.
It also forecasts local air quality and provides associated health advice.
The index does not measure the effects of odour, pollen, dust, heat or humidity on your health.
You can refer to the Air Quality Health Index to check the quality of outdoor air in your community before heading off to work or play. And you can use the forecasts to plan your activities, whether over the next hour or the next day.
Seniors, children and people suffering from diabetes, heart or lung disease, can use the index to assess the immediate risk air pollution poses to your health and take steps to lessen that risk.
Even if you're relatively healthy, fit and active, you can consult the index to decide when and how much to exercise or work outdoors.

In Ontario, elevated concentrations of ozone are generally observed on hot, sunny days from May to September, between noon and early evening. On such days, fine particulate matter levels are often elevated but unlike ozone they can remain high throughout the day and night and can

occur throughout the entire year. The biggest contributor to nitrogen oxides (NOX) emissions, in Ontario is the transportation sector, so nitrogen dioxide is often highest in cities with heavier traffic. Stagnation periods when meteorological conditions are not conducive for the dispersion of pollutants often lead to elevated levels of fine particulate matter and nitrogen dioxide.

8) THE "CANYON EFFECT WITHIN A CANYON" AND THE IMPACT OF LACK OF WIND AND SUNLIGHT PENETRATION ON THE DISPERSION OF AMBIENT AIR POLLUTANTS

The early Reports on Ambient Air Quality in Hamilton referenced the fact that the escarpment is approximately 90 meters high, which corresponds to the height of a 30-storey high-rise building. Since the escarpment surrounds the lower city on the south and extends through the Dundas Valley to Burlington on the north, this topographic feature is the equivalent of a constant ring of high-rise buildings encircling the lower City, especially the west end. The topographical effect is that of a massive dead-end canyon which traps air pollutants and traffic emissions, which are often exacerbated by temperature inversions and lake breeze effect from the northeast.

A long high-rise building on the southside of a busy Traffic Corridor which is on an east/west axis, is certainly going to have an impact on ambient air pollution. This is because such a structure is already identified by the City of Hamilton as preventing the required light and wind penetration which is necessary to assist in the dispersal of the air pollution. The proposed development at 1107 Main Street West, however, is even more deficient in meeting the required rate of dispersal as it is situated within a **land area lying between a busy high traffic east/west corridor, and a high traffic volume highway with extremely high transportation and vehicle exhaust emissions.** It is also situated in a existing land use where its very geographical location make it vulnerable to the effects of temperature inversion, and to the "lake breeze effect that generates light east to north east winds which blow accumulated industrial and vehicle related pollution back across the City, and to prevailing winds which direct transboundary air pollution coming from the industrialized US mid-west, into the Chedoke valley Highway 403 corridor adjacent to Main Street West.

A tall and long high-rise building comprising the entire ground level envelope on the south side of Main Street West, within close proximity to Hwy 403 will impact upon wind patterns and flows that currently blow across the low-rise Grace Lutheran Church and a large open landscaped area. The prevention of wind flow as well as the penetration of sunlight during periods of inversions as well as other occasions when the Air Quality Health Index is at moderate risk or high risk, will promote the stagnant conditions which will cause "air pollution buildups".

A) Climate Change Leading to more Temperature Inversions and the Rise of "Super Pollution Events **ehn.org**/climate-change-inversions-and-air-pollution-2644464249.html

This online article, which appeared on January 8, 2020 in Environmental Health News is extremely relevant to the air pollution problem in Hamilton. This is because it addresses temperature inversions, midlatitude regions, and cities laying in basins and valleys. The City of Hamilton meets every factor identified in the article, which concludes that climate change will lead to more temperature inversions, and to higher levels of air pollution in the affected cities. Perhaps what is most alarming, is that the article states that extreme air pollution events as a result of temperature inversions are increasing despite reduced levels of emissions, the situation in Hamilton indicates that vehicle emissions from Main Street West and Hwy 403 will be increasing due to higher traffic volumes. This does not bode well for the subject lands because the combination of more temperature inversions due to climate change, plus increased vehicle emissions, will create these super pollution events in the very vicinity of the proposed development and higher concentrations of harmful in the immediate neighbourhood.

Some of the most salient points raised in this article are as follows:

"**The unhealthy air was caused by a combination of U.S. Steel's emissions and a temperature inversion, which occurs during unseasonably temperate winter days when a warm air mass sits above a colder air mass, trapping pollutants that typically blow away close to the ground.** The same type of inversion also caused the worst air pollution disaster in U.S. history — the 1948 "Donora Smog," which killed 20 people in the Mon Valley town of Donora, just 13 miles south of the Clairton Coke Works Plant, spurring the creation of the Federal Clean Air Act."

"Temperature inversions such as these are historically unusual, even in a place such as the Mon Valley, which, like all valleys, is especially prone to stagnant air as the surrounding hills and mountains hem in it. But the last five years were the hottest recorded on the planet, and inversions are becoming more frequent: While the Mon Valley saw just four inversions of this scale in the previous decade, this was the second one to hit the region so far in 2019."

"Some experts say that trend is likely to continue, and that cities around the world could see an influx of similar "super pollution events" as Earth continues to warm. **"For the last at least 60 years we have data for, we can clearly see a trend of increasing temperature inversions in midlatitude regions,"** Shiliang Wu, an atmospheric chemist and associate professor at Michigan Technological University, told EHN. "I believe this trend will continue in the coming decades, which will likely lead to an increase in extreme air pollution episodes."

"Midlatitude regions are the temperate zones between roughly 30 to 60 degrees north or south of the equator. The midlatitudes encompass about 36 countries, including the United States and most of North America, and are home to more than half of the world's population."

"Wu co-authored a 2016 paper on long-term changes in extreme air pollution meteorology, which he believes was the first to look at six decades of global meteorology data, to learn how events such as temperature inversions and heat waves have changed over time. **He found that**

heat waves in the summer and temperature inversions in the winter — both of which can lead to extreme air pollution events — have increased by up to 50 percent in the last 60 years in most midlatitude regions."

"Heat waves often lead to higher ozone levels, **while temperature inversions tend to have a stronger impact on particulate matter pollution.** Like particulate matter pollution, ozone also can cause chest pain, coughing, throat irritation and airway inflammation, reduce lung function and worsen bronchitis, emphysema and asthma. Particulate matter pollution is also linked to heart disease, heart attacks and premature death in people who already have respiratory or heart disease."

"Extreme air pollution events such as the one that recently plagued the Mon Valley also have happened in Salt Lake City, Paris, London and Beijing in recent years. **Many of them were the result of either heat waves or inversions, and some have occurred despite relatively decreased emissions."**

"**Certain geographical regions like those in a basin or valley and major urban areas are more likely to be affected by inversions and see this kind of extreme pollution events,"** Wu said. "What just happened in the Mon Valley is obviously not as deadly as what happened during the Donora Smog, but it's still a serious threat to public health when you have air pollution at this level."

"In the Mon Valley, local environmental organizations have pointed out that this concern is not new to the region, and continually have called for stricter coke oven emission standards in general**. Meanwhile, the local health department has acknowledged that climate change will lead to more temperature inversions, and has announced intentions to create regulations that would allow them to require polluters such as U.S. Steel to reduce their emissions when they know an inversion is coming."**

"[Allegheny County Health Department] recognizes that the increasing frequency of these temperature inversions is associated with climate change," an agency spokesperson said in a statement. "While we will continue to advocate for residents to do what they can to reduce emissions, we must also explore new regulations that would impose corrective action requirements on industry during short-term pollution events. **Other cities — particularly those located in basins and valleys — may need to take a similar approach."**

B) "Topographic and spatial impacts of temperature inversions on air quality using mobile air pollution surveys" by Denis Corr and Julie Wallace

In this Report the authors have clearly stated that "under inversion conditions, however, there are much higher aggregate exposures to air pollution, because of the greater exposure area and greater numbers of exposed citizens in addition to the higher air pollution concentrations. As noted earlier, the content of pollutant mixtures in inversions is a more toxic mix than in normal

conditions, making the situation worse yet again. A further consideration is that there is a wide of range of bronchial reactivity (asthma sensitivity) and cardiac status in the population, so that reducing these higher pollution levels could bring relief to a sizeable fraction of asthma sufferers and cardiac patients."

The authors also identified "changes in prevailing wind direction and lower wind speeds" in the City of Hamilton as leading directly to "decreased long-range transport of pollutants" and atmospheric dispersal. It is therefore detrimental for the health of the neighbourhood to permit a building design which does not have sufficient landscaping and separation distances when wind flow is the critical factor in lessening the toxicity and length of time for air pollution concentrations.

The traffic volume flow in the eastbound curb lane immediately adjacent to the proposed site is frequently **backed up for three blocks during rush hour from the signal lights at the 403 exit ramp to the traffic signal lights at Haddon and Main Street West**. This traffic congestion results in buses, heavy trucks, medium trucks and motor vehicles continually idling for several minutes throughout the rush hour between Cline Avenue South and Dow Avenue. If a long building in excess of 60m width is built along this section of Main Street West, it will again directly contribute to excessive levels of Nitrogen Dioxide, which will remain in a concentrated cloud adjacent to the structure with no means of dispersion. The emission of Nitrogen Dioxide, however, is not just limited to traffic volume and congestion on Main Street West and Hwy 403, but also attributable to the school buses, taxis and motor vehicles dropping-off and picking-up school children at the Hamilton Hebrew Academy on Dow Avenue and Cline Avenue South. This additional idling in the morning and in the afternoon will contribute to the ambient air pollutants through vehicle emissions, and the tall and wide structure proposed to be built on 1107 Main Street West will only worsen the problem.

9) ADVERSE HEALTH EFFECTS OF AIR POLLUTION

The Halton Region Health Department prepared a detailed study in February 2009 on the harmful effects of air pollution on health. In this Report, entitled "Protecting Health: Air Quality and Land Use Compatibility, by Peter Steer, Kim Perotta and Dr. Bob Nosal, of the Halton Region Health Department, the authors set out their reasons for preparing their Land Use report and outlined why air pollution must be taken seriously. The following are excerpts from this document:

> There is a significant burden of illness associated with poor air quality that is commonly experienced in southern Ontario. The Ontario Medical Association estimates that in 2005 air pollution contributed to approximately 190 premature deaths, 540 hospital admissions, 2,010 emergency room visits, and one million minor illness days in Halton Region.
>
> Air quality can vary significantly across a community and differences in air quality

can have a substantial impact on human health. For example, studies conducted along high-volume traffic corridors consistently report associations between proximity to traffic and at least one of the following adverse health effects: asthma and other respiratory diseases, diminished lung function, adverse birth outcomes, childhood cancer, and increased mortality risks.

It is also well understood that certain populations of people are more sensitive to the negative health impacts associated with air pollution. While poor air quality can affect all people, it is the young, the elderly, and those with existing health problems who are more likely to become ill, be hospitalized, or to die prematurely in response to poor air quality, rather than healthy adults.

Human health impacts from air pollution are well documented and include effects related to short-term and long-term exposures. Effects related to short-term exposures include increases in non-traumatic deaths and hospital admissions for respiratory and cardiovascular conditions, increases in asthma symptoms and respiratory infections, and reductions in lung capacity. Long-term exposures are associated with reductions in lung function in children and adults, reductions in life expectancy, increases in chronic heart diseases, and increases in respiratory diseases including asthma and chronic obstructive pulmonary disease and lung cancer (Institute for Risk Research, 2007; Boothe and Shendell, 2008; Gauderman et al., 2005).

For 2005, the Ontario Medical Association (OMA) estimates that the five common air pollutants (ground-level ozone, fine particulate matter, sulphur dioxide, nitrogen dioxide, and carbon monoxide) contributed to about 5,800 premature deaths, almost 17,000 hospital admissions, 60,000 emergency room visits and 29 million minor illness days **in Ontario**. These health impacts cost Ontario almost $8 billion (Ontario Medical Association, 2005a).

The OMA estimates that in 2005 air pollution contributed to approximately 190 premature deaths, 540 hospital admissions, 2,010 emergency room visits, and one million minor illness days **in Halton Region**. It is estimated that these health impacts resulted in almost $17 million in health care costs and almost $13 million in lost productivity costs (Ontario Medical Association, 2005b).

It is also well understood that certain populations of people are more sensitive to the negative health impacts associated with air pollution. While poor air quality can affect all people, it is the young, the elderly, and those with existing health problems who are more likely to become ill, be

hospitalized, or to die prematurely in response to poor air quality, rather than healthy adults (World Health Organization, 2004).

10) THE DETRIMENTAL EFFECT UPON ADJACENT LANDOWNERS/RESIDENTS AND INSTITUTIONS, PEDESTRIANS, SCHOOL CHILDREN, FEMALE CHILDREN AND NEW TENANTS/OCCUPANTS

The relatively high levels of Nitrogen Dioxide in Hamilton West, specifically as recorded by the Ambient Air Monitoring Station at the Main Street West/403 exit ramp which is located less than 150m away from the proposed development, must be considered from an environmental perspective and from a health perspective when evaluating the Application of the developer.

The Developer's intention to have a vibrant streetscape with pedestrians and cyclists on Main Street West between Cline Avenue South and Dow Avenue goes against the policies of a prior Environmental Air Pollution review which recommend that "cycling/walking routes should be separated from heavily travelled roads".

With the width of the proposed building extending over 60m and a height of 15 storeys, (which is approximately 45m and exceeds the angular plane to build as the top three storeys are over the 45 degrees of 80% of the width of the widened right of way of Main Street West, contrary to the Planner's mistaken contention that the Applicant is in compliance) and with the proposed development being on the south side of an extremely high traffic east/west corridor, the building itself will contribute to the low dispersion conditions that keep air contaminants at high levels and in concentrated pockets. Not only will these adverse conditions affect pedestrians and cyclists on Main Street West resulting from less sunlight and wind penetration, but it will potentially have an adverse impact on the health of the proposed tenants as the building is designed with patio doors and balconies, affecting the interior living space of the units.

Sun/Shadow and Wind Impact Studies

The height and width of the proposed development will also create low dispersion conditions on Cline Avenue South and Dow Avenue, as the height again is not in compliance with the angular plane guidelines, and these two streets require higher levels of sunlight and wind to aid in the dispersal of the NO2 contaminants which are recorded at some of the highest levels in Ontario, and perhaps Canada, based on readings at Hwy 403 and Main Street West. The sun/shadow impact study submitted by the Applicant is therefore not relevant to the health concerns raised in this objection letter, as that report only focused upon compliance with the minimum hours of daylight for only one day of the year. Rather a sun/shadow impact study is required for multiple days throughout the year in order to determine and assess the maximum number of hours required to aid in the dispersal of ambient air pollutants. The comparison should be with the existing sun/shadow conditions currently in place and existing with the height and mass of Grace Lutheran Church and its community gardens and cultural heritage landscaping, and the extent to which these current beneficial conditions for contaminant dispersion will be lost with the proposed development.

Similarly, a wind impact study with a full and proper meteorological analysis is required, not to determine whether any new adverse wind conditions will be created by the proposed development, but to determine how existing winds and gentle breezes that are clearing the air, may be diminished by the new structure. It is vitally important to identify and assess the winds and breezes that currently blow across the site and into neighbouring and adjacent properties, as well as the winds and breezes that are transporting air pollutants into the Main Street West/403 corridor. Accordingly, a meteorological report will be a key element in assessing the dispersal of the air contaminants and toxic concentrations that are present from the vehicle emissions of the heavy traffic volumes on Main Street West and Hwy 403.

Additional High-rise Project

The impact of air quality and the lower rate of dispersion of airborne contaminants will be further magnified because associates of the Developer have already commenced a land acquisition of some of the houses along the east side of Dow Avenue opposite to the site, with the supposed intention of building another high-rise development on the lands on the corner of Dow Avenue and Main Street West and which will extend southerly along Dow Avenue. This future development will further detrimentally affect and greatly diminish the dispersal conditions that are required for the health and well-being of the residents in the immediate neighbourhood.

Stakeholders affected by the Proposed Development

The Applicant has submitted the following demographic information in its Stakeholder Analysis regarding the neighbourhood, but it is useful to look at two distinct age groupings, namely 0 to 14 years, and over 55 years.

DEMOGRAPHIC DATA

DEMOGRAPHIC INDICATOR	CENSUS TRACT 5370043.00
Population Change	
Total	3,587
Percentage change, 2011 to 2016	-9.8%
Age	
0 to 14 years	**11%**
15 to 24 years	29%
25 to 34 years	16%
35 to 44 years	8%
45 to 54 years	11%
55 to 64 years	**10%**
65+ years	**14%**
Housing Structure Type	
Single-Detached House	53%
Semi-Detached House	<1%
Row House	0%
Duplex	12%
Apartment <5 Storeys	8%
Apartment 5+ Storeys	27%

Based on this data it can be ascertained that **11%** of the neighbourhood is under 11 years of age, and that **24%** of the neighbourhood is over 55 years of age. If those who are very young, and those who are seniors are both considered the most vulnerable segment of the community, and if these are the two groups which the Province of Ontario is promising active, healthy and safe communities, then an air pollution review and its impact on **35%** of the Ainslie Wood Westdale Neighbourhood should be paramount.

These two groups of residents are most susceptible and vulnerable to the higher categories in each level of the Air Quality Health Index and increases in air pollution. This is because these two age groups are either outside walking to school or walking to local grocery stores, library and shops; playing with friends in the playground or carrying out chores, doing backyard and front yard gardening or playing sports; walking the dog around the block or skipping rope and playing hopscotch; and other similar outside activities.

If the proposed development is allowed and air pollution concentrations increase due to the lack of sunlight and wind penetration by reason of the excessive height, density and massing of the building, should the most vulnerable segment of society add a Level to the Air Quality Health Index (AQHI) so that a Moderate Risk reading is actually a High Risk warning, and that a High Risk reading is actually a Very High Risk warning. Furthermore, is it fair that seniors and youngsters be forced to curtail and modify their activities to be in accord with the Ontario Ministry of the Environment, Conservation and Parks recommendations for these higher levels of Nitrogen Dioxide, if these higher air pollution concentrations are increasing as a direct result of the proposed development:

Adjacent Lands to the South - Hamilton Hebrew Academy, Dow Avenue Parkette, Adas Israel Synagogue

The Applicant has not complied with the angular plane to build for any of the four boundary lines of its property, but no where is the problem more acute than for the rear southerly property line. It is in this very location, adjacent to a private day school playground and a City of Hamilton parkette. It is also in respect of these lands to the south that it is strongly recommended that a full Environmental Report be obtained and that the City of Hamilton Health Department intercede to take immediate steps to ascertain existing health risks and future health risks if the Applicant's project were to be approved.

The Planning Rationale suggests that the architectural drawings and site plan with respect to the southerly boundary line and adjacent property is fine and represents good planning principles. The zoning by-laws **require a 7.5 metre setback from this rear property line**, but the Applicant **only proposes a 1.7 metre setback**, and doesn't even attempt to adhere to any angular plane. Rather they suggest on page 46 of their Planning Rationale that

> "Along the southern portion of the building, the proposed stepped back at level 8 is appropriate, given its interface with the existing surface parking* (*see picture below of the school playground and City of Hamilton parkette) and the 1-storey building* to the south (*see picture below of the southerly wall of the Adas Israel Synagogue/Hamilton Hebrew Academy that may be 10 metres in height) **which locates approximately 18.0 metres from the southern property line**. For the foregoing reasons, it is our opinion that the proposed massing and setbacks are appropriate for the subject site."

While there are major objections to the height, density and massing of the proposed built form under all the Provincial and Municipal planning documents, the objection which warrants attention from an environmental and health risk perspective, is that the two buildings will only be **19.7 metres apart** when the two measurements are added together. Sandwiched between them will be the children's playground and the City of Hamilton parkette, and it is this very aspect of the proposed development which must be thoroughly examined by a health risk analysis.

High Levels of Nitrogen Dioxide and the Development of Asthma in Female Children

The prior studies referred to in this objection letter set out the readings of Nitrogen Dioxide in the City of Hamilton with a particular emphasis on the West end of the lower city, Main Street West and Hwy 403. The articles and reports also expressed the health risks associated with poor air quality but did not connect by scientific study the fact that exposure to high levels of Nitrogen Dioxide can be a cause of childhood illnesses. In order to have any weight with a Planning Department review of the proposed development it is therefore a legitimate concern to request an objector to provide the necessary scientific evidence relating to the current conditions at the children's playground/parkette and to demonstrate that the proposed development will only worsen the conditions that lead to greater childhood illnesses.

Such a scientific medical study, however, is available, and it is extremely relevant and pertinent to the proposed development by the Applicant. The study originally published in Environmental Health and then published online in April 2009 by Sahsuvaroglu T, Jerrett M, Sears MR, McConnell R, Finkelstein N, Arain A, Newbold B, Burnett R. under the title: Spatial analysis of air pollution and childhood asthma in Hamilton, Canada: comparing exposure methods in sensitive subgroups. Environ Health. 2009 Apr 1;8:14. doi: 10.1186/1476-069X-8-14. PMID: 19338672; PMCID: PMC2669065.

The study Abstract is printed below:

> **Background:** Variations in air pollution exposure within a community may be associated with asthma prevalence. However, studies conducted to date have produced inconsistent results, possibly due to errors in measurement of the exposures.
>
> **Methods:** A standardized asthma survey was administered to children in grades one and eight in Hamilton, Canada, in 1994-95 (N approximately 1467). Exposure to air pollution was estimated in four ways: (1) distance from roadways; (2) interpolated surfaces for ozone, sulfur dioxide, particulate matter and nitrous oxides from seven to nine governmental monitoring stations; (3) a kriged nitrogen dioxide (NO2) surface based on a

network of 100 passive NO2 monitors; and (4) a land use regression (LUR) model derived from the same monitoring network. Logistic regressions were used to test associations between asthma and air pollution, controlling for variables including neighbourhood income, dwelling value, state of housing, a deprivation index and smoking.

Results: There were no significant associations between any of the exposure estimates and asthma in the whole population, but large effects were detected the subgroup of children without hayfever (predominately in girls). The most robust effects were observed for the association of asthma without hayfever and NO2LUR OR = 1.86 (95%CI, 1.59-2.16) in all girls and OR = 2.98 (95%CI, 0.98-9.06) for older girls, over an interquartile range increase and controlling for confounders.

Conclusion: Our findings indicate that traffic-related pollutants, such as NO2, are associated with asthma without overt evidence of other atopic disorders among female children living in a medium-sized Canadian city. The effects were sensitive to the method of exposure estimation. More refined exposure models produced the most robust associations.

The important aspects of the study, directly quoting from it, are as follows:
"Although adverse respiratory health outcomes from exposure to ambient air pollution are biologically plausible, research linking exposure to asthma has been inconclusive [1,2]. **Recent research has emphasized the growing contribution and heightened toxic potential of traffic-related air pollution (TAP) near major vehicular corridors [3], as well as significant associations between exposure to TAP and onset of asthma."**

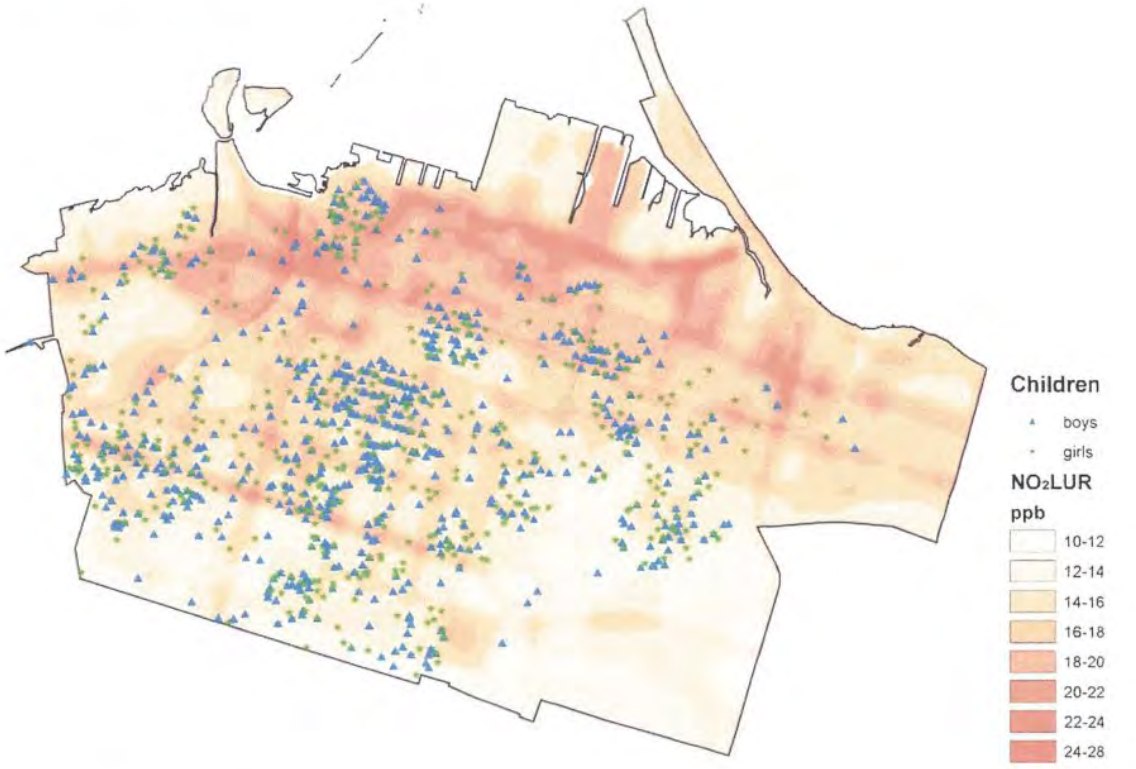
"The inconsistencies in linking TAP and asthma may be due to exposure measurement error in some studies, which arise partly from the way exposures to traffic pollution are estimated and derived. These exposure estimates include: self-reported traffic density at residence [11,12]; **number of cars passing by per 24 hours on the nearest street to a home or school [7,17,18]; distance between the nearest street and home [8,9,16,17,19,20]; identification of the street with highest traffic density relative to a child's school or home [10,21]; perception of residential nuisances related to traffic pollution [22]; indices which combine traffic and distance [14,23,24]; cumulative exposure indices [25,26]; and estimation of pollution exposure at the home using geographic information systems (GIS) and land use regression models [27]."**

"In this article, we examine the relationship between within-city or 'intraurban' contrasts in air pollution exposure and childhood asthma in Hamilton, Canada. Further, we test these associations within asthmatic subgroups stratified by the presence or absence of other atopic diseases, **gender and age to determine whether these susceptibility factors influence the relationship between air pollution and asthma."**

"Hamilton is the ninth largest city in Canada, with a population of over 660,000 in 2001 [35]. The city experiences high levels of pollution exposure for a number of reasons, including traffic

Figure 4

From: Spatial analysis of air pollution and childhood asthma in Hamilton, Canada: comparing exposure methods in sensitive subgroups



NO $_2$ LUR surface.

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and local steel manufacturing plants [36].The city has well-documented spatial variability of air pollution [37-40]. Pollution is higher in the major industrial zone located in the northeast and generally lower in the southern and western parts of the city. **This is mainly due to prevailing winds, the location of industry upwind of major population areas, temperature inversions that trap pollutants near ground level and topographical elevation created by the presence of the approximately 100 m high Niagara Escarpment** [41] (see Figure Figure11)."

"We estimated exposure to air pollution using four techniques. **First, we created buffers of 50 m and 100 m from major roadways to proxy for traffic pollution exposure based on the DMTI spatial data coverage (DMTI Spatial, Markham, ON). Children living within the specified buffer distance from a major road were assigned the number 1;** those who did not were assigned the number 0. Second, we created pollution surfaces for particulates (PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NO_x) and ozone (O_3), using deterministic interpolators applied to three-year averages corresponding to the time of enrolment in the survey. These models were derived from between seven and nine Ontario Ministry of the Environment (MOE) ambient fixed-site pollution monitors located in Hamilton, depending on data availability for the period coinciding with the ISAAC study. Specifically, we derived Theissen polygons, bi-cubic spline and inverse distance weighted (IDW) interpolation techniques [50] for each of the four pollutants."

"The third pollution surface estimation method was based on a **detailed network of 107 monitoring locations deployed throughout Hamilton for a two-week period in 2002**. Passive NO_2 Ogawa monitors (Ogawa & Co., USA) were set up in duplicate at each location. Every monitor had two filters, yielding four readings per site. **Values at each of the 107 locations were based on an average of these four readings.** After field retrieval and data cleaning, 100 readings remained available for analysis. **Pollutant concentrations from these locations were interpolated to estimate the most likely value of NO_2 occurring between the monitored locations**. We used kriging, an optimal stochastic interpolation method that supplies the best linear unbiased estimate of the variable of interest for this type of exposure calculation [50]. While a temporal difference exists between data collection of the ISAAC study and NO_2 observations, the spatial trends of pollution in Hamilton between 1995 and 2002 have been relatively consistent, based on annual air quality reports [39]. The stability of the spatial distribution of pollution with Hamilton is also discussed below in terms of the land use regression model."

"**Our fourth assessment method was a NO_2 surface created using a land use regression (LUR) model, explained elsewhere in detail [51,52]. Based on the same 100 readings from the passive monitors mentioned above, the LUR model [53] was implemented to assess the land use characteristics, transportation, population and physical geography variables most strongly associated with ambient NO_2 concentrations**. Our final seven-variable model explained 76% of the variation in the measured NO_2. **Variables included: traffic density**, open land use within 500 m, industrial land use within 200 m, **presence of a highway within 50 m**, presence within 1000 m from downtown industrial core, **presence downwind from a highway**,

Environmental Health

Table 4 Odds ratios of bivariate associations between asthma without hayfever and both NO_2LUR and confounding variables within subgroups of all girls and boys[+]

From: Spatial analysis of air pollution and childhood asthma in Hamilton, Canada: comparing exposure methods in sensitive subgroups

	All girls		All boys	
	Exp(B)	95% CI	Exp(B)	95% CI
Bivariate Associations				
NO_2LUR	1.137**	(1.012–1.278)	0.967	(0.868–1.078)
Avg Income	0.945	(0.465–1.919)	0.658	(0.335–1.294)
Dwelling Value	0.946	(0.864–1.035)	0.969	(0.898–1.045)
Rate of repair	1.043	(0.983–1.108)	1.004	(0.952–1.060)
Older house	1.009	(0.999–1.020)	1.000	(0.992–1.008)
Smoking	1.044	(0.995–1.096)	1.017	(0.982–1.053)
DI	1.049	(0.952–1.156)	1.025	(0.935–1.123)

**$p < 0.05$,* $p < 0.1$

[+] calculated for a 1-unit increase in pollutant

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Environmental Health

Table 8 Co-pollutant models for asthma without hayfever, controlling for DI and rate of repair+

From: Spatial analysis of air pollution and childhood asthma in Hamilton, Canada: comparing exposure methods in sensitive subgroups

	All girls		Older girls	
	Exp(B)	95% CI	Exp(B)	95% CI
NO_2LUR	1.162**	(1.000–1.350)	1.289**	(1.017–1.634)
SO_2Theissen	1.163	(0.953–1.419)	1.260	(0.832–1.910)
NO_2LUR	1.144*	(0.982–1.331)	1.287**	(1.008–1.643)
PM_{10}Spline	1.063	(0.969–1.666)	1.058	(0.918–1.219)
NO_2LUR	1.171**	(1.004–1.366)	1.304**	(1.025–1.658)
O_3Theissen	1.01	(0.821–1.241)	0.951	(0.685–1.318)
NO_2LUR	1.146*	(0.978–1.334)	1.271*	(0.992–1.627)
PM_{10}Spline	1.045	(0.943–1.158)	1.044	(0.891–1.225)
SO_2Theissen	1.135	(0.912–1.142)	1.246	(0.802–1.934)
O_3Theissen	1.005	(0.802–1.259)	0.998	(0.691–1.440)

**$p < 0.05$,* $p < 0.1$

+ calculated for a 1-unit increase in pollutant

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and distance to the lake. The variables representing traffic density, industrial land use, meteorology, and other activities thought to predict traffic pollution levels had coefficients with the expected sign. Predicted values were used to generate a detailed exposure surface that captured the small-area variability of pollution within the city. Cross validations indicated that the LUR model performed well, demonstrating good predictions for sites not used in model calibration and stable coefficients when assessed with the Chow test [54]. Our seasonal analysis suggested the model was capable of predicting spatial variation within the city for different seasons, probably due to spatial patterns of pollution that remain stable over time [51]."

"**After testing interactions between the pollutants, atopy and subgroups, we found effects suggestive of an interaction between hayfever and pollutants in all girls for NO_2LUR (p = 0.156).** The power to test for interactions in epidemiological studies is often poor, resulting in researchers missing important interactions due to lower power [70]. As noted by Selvin [71], relaxing the type 1 error p value from the traditional 5% to 20% is a common approach in epidemiological studies, one that can allow for interaction tests in studies that are not powered for effect modification. **In this instance, we had substantive reasons to test for interaction, and the sub-group analysis indicates that girls are more susceptible than boys.**"

"Tables Tables3.3, .4.4, .55 and and66 show the associations for the stratified analysis conducted for the non-atopy related asthma population within the subgroups. **Asthma without hayfever was associated with NO_2LUR for all girls and older girls. We also ran trivariate logistic regressions on the significant associations identified in the bivariate tests for asthma without hayfever (see Table Table7).7). The effects of pollutants remained robust. NO_2LUR retained significance with asthma without hayfever in all girls for each confounding variable."**

"There were no significant associations between any of the exposure estimates and asthma in the whole population, **but large effects were detected the subgroup of children without hayfever (predominately in girls). More specifically, after controlling for confounders we observed significant associations between NO_2LUR and non-atopy related asthma in all girls and older girls. The NO_2LUR surface provided the only robust associations with all girls and older girls after running the co-pollutant models and GLM sensitivity analyses.**"

"Other researchers have also commented on the relevance and importance of non-atopy related respiratory symptoms. Heinrich and colleagues [73] evaluated TAP exposure using self-administered subjective questionnaires assessing traffic intensity in a population of 6896 adults. **High traffic intensity increased the risk for non-allergic asthma, but not for atopic symptoms including allergic sensitization.** Non-allergic asthma in this study was identified as having current asthma but a negative screening assay for specific sensitizations to mite, cat, dog, pollen and fungal allergens."

"**In the most stringent analysis controlling for confounders and co-pollutants, effects were observed in all girls and older girls and only for the NO_2LUR model, a result consistent with recent findings from the CHS cohorts in Southern California** [20]. Female sex has shown to increase the risk of a non-allergic type of asthma in an adult population [74] although no mechanism for this difference was suggested**. Gold et al. [80] have suggested that gender differences in asthma rates might be due to differences inherent in the mechanical properties of the lung and inflammatory responses. Alternatively, Venn et al. [81] proposed that hormonal changes occurring in early puberty may affect prevalence rates**, as well as differential exposures to triggers for wheeze or asthma, such as smoking. Berhane et al. [82] have found that duration and age of onset of asthma differs between the sexes, thus having differential impacts on lung function. There may also be additional factors influencing exposure times to pollution levels that we were not able to account for in this study."

"**We found significant associations between exposure to modeled NO_2 and asthma without hayfever outcomes in children living in Hamilton. Girls with asthma without hayfever, and particularly older girls, were most susceptible to the effects of NO_2 or a closely associated co-pollutant.** The effects were sensitive to the method of exposure estimation, and more refined exposure models produced the most robust associations."

Impact of Study

This study clearly indicates the relationship between exposure to Nitrogen Dioxide and development of asthma in young female children. But what is most alarming is that the exposure levels obtained from the mobile ambient air monitoring units and the three fixed sites to obtain air pollutant readings for this, were not even as high as subsequently reported by Denis Corr who wrote:

"In the 403 Highway valley in the west and on the 403 Ancaster hill, very high levels of NO were detected, reaching a peak of 586 ppb. These are in fact the highest NO levels measured to date in Hamilton, higher than industrial source impacts around major steel companies. The maximum value for NOx (NO + NO2) was 660 ppb."

Accordingly, it is Main Street West/403 area which should be the major source of concern for health officials as this area has the highest concentrations of Nitrogen Oxide and it is the area which is closest to elementary schools, such as Dalewood Public School on the north side of Main Street West, and the Canadian Martyrs Catholic Elementary School and the Hamilton Hebrew Academy on the south side of Main Street West. It is the Hamilton Hebrew Academy which is adjacent to the proposed development and it is the Hamilton Hebrew Academy playground and the City of Hamilton Parkette which are situated approximately 120 metres away from the Hamilton West Ambient Air Monitoring Station at Main Street West/403.

Due to the proximity of the Air Monitoring Station to the playground and the parkette, it is extremely likely that the Nitrogen Dioxide readings at the Station would reflect the levels of

Nitrogen Dioxide at the playground and the parkette. This again should be of major concern as the study identifying the correlation between the development of asthma in young girls and exposure to Nitrogen Dioxide were **based on an average exposure level of 14.84 parts per billion.**

The average and range of pollution exposures is more particularly set out in Table 2 of the study which is set out below.

Table 2

Average and range of pollution exposures

	All subjects		Boys		Girls	
Pollutants*	Average	Range	Average	Range	Average	Range
PM_{10}Spline	20.90	26.98	20.88	26.98	20.92	20.10
NO_x Theissen	31.77	20.91	31.69	20.91	31.85	20.91
SO_2 Theissen	5.81	6.04	5.88	6.04	5.74	6.04
O_3Theissen	20.12	4.30	20.10	4.30	20.15	4.30
NO_2Kriged	15.36	8.93	15.37	8.93	15.36	8.85
NO_2LUR	14.84	16.08	14.79	15.55	14.90	12.52

* Particulate matter in micrograms per cubic meter; gaseous pollutants in parts per billion

But if we take the readings of the level of Nitrogen Dioxide from the Hamilton West Ambient Air Monitoring Station for the hours of 8:00 am to 6:00 pm on Monday November 9, 2020 the levels when compared with Table 2 are **"double and triple"** the average exposure level of 14.84 ppm set out in the study. For the hours of 8:00 am to 6:00 pm on Tuesday November 10, 2020 the average exposure level is approximately equal to or slightly below the average. If a youngster, however, lives in the area and is playing outside or walking to school, thereby increasing the hours of exposure in the morning and in the evening, the levels for these additional hours again exceeded the average exposure level used in the study of 14.84 ppm on both November 9 and November 10, 2020.

The readings from the Hamilton West Ambient Air Monitoring Station indicate that the concerns of the authors who provided the data used in Spatial analysis of air pollution and childhood asthma in Hamilton, Canada: comparing exposure methods in sensitive subgroups would be equally concerned about the young girls living in or attending school in the Ainslie West

Westdale neighbourhood, and specifically those girls attending the Hamilton Hebrew or playing in the playground or in the City of Hamilton parkette.

In my opinion it would be prudent to not only conduct an Environmental review based on a site specific meteorological wind pollution impact study and a site specific sunlight dispersion study to analyze the proposed built form to be constructed on the subject lands, but to also once again utilize the services of the City of Hamilton Health Department. Specifically, I am referring to the International Study of Asthma and Allergies in Childhood (ISAAC) phase 1 questionnaire which was administered to 6388 children in Hamilton from ages 6 to 14 as part of the original study.

In light of the high Nitrogen Oxide readings in the Ainslie Wood Westdale neighbourhood, especially that portion which is in close proximity to both Main Street West and Hwy 403, the questionnaire should again be administered to children at the neighbourhood schools and those living on Dow Avenue, Cline Avenue South, Southview Place, Westwood Avenue, Haddon, Gary, Dalewood and Stroud. Other streets further to the south that are backing right up to Hwy 403 should also be involved, as it is possible that the high Nitrogen Oxide concentrations are in their immediate vicinity as well.

The Health Department should also intercede to ensure that it is circulated to the parents of students at the Hamilton Hebrew Academy as these youngsters, especially females, would be most affected and for whom a direct comparison to the hourly readouts of the air pollutants at the Hamilton West Ambient Air Monitoring Station could be matched and validated. This updated health report would be of immeasurable benefit to assessing the extent of the air pollution health risks at and adjacent to the site of the proposed development.

11) STEPS BEING TAKEN BY OTHER JURISDICTIONS IN RESPONSE TO THE HARMFUL EFFECTS OF AIR POLLUTION ADJACENT TO HIGHWAYS AND TRAFFIC CORRIDORS

It is important to recognize that two neighbouring municipalities have already undertaken studies of the adverse effects of air pollution on properties adjacent to highways and traffic corridors, and that these are extremely relevant for the City of Hamilton to consider in regard to the proposed development.

One is the City of Toronto, which presented their findings and recommendation in October 2017 a detailed report entitled "Avoiding the TRAP: Traffic-Related Air Pollution in Toronto and Options for Reducing Exposure"
https://www.toronto.ca/legdocs/mmis/2017/hl/bgrd/backgroundfile-108070.pdf

The second municipality is the Region of Halton, which as mentioned earlier, requested the Halton Region Health Department to prepare an Air Quality and Land Use Compatibility Study to resolve issues such as the conflict between residential mixed-use intensification on traffic corridors and the effect of air pollution, and to recommend policies on this important matter.

https://opha.on.ca/OPHA/media/Resources/Resource%20Documents/AirQuality_LandUse-Feb09_2.pdf?ext=.pdf

A) Toronto – Avoiding the TRAP (Traffic-Related Air Pollution)

This study, written by Toronto Public Health (TPH) and Toronto Environment and Energy Division (EED), examined local air quality in the City of Toronto. It is extremely pertinent to the site and the proposed development by the Applicant as the identical issues are involved, and because the subject lands, being with within 500 metres of a major highway, and within 100 metres of a major arterial road, would be placed in the Greatest TRAP Exposure Location Category. Accordingly, the Report is being heavily relied upon and some of its most pertinent excerpts are as follows:

> "In 2014, Toronto Public Health (TPH) reported that air pollution from all sources gives rise to 1,300 premature deaths and 3,550 hospitalizations in Toronto each year. Traffic-related air pollution (TRAP) is the major local contributor to air pollution in Toronto. **Adverse health impacts attributed to air pollution are amplified for people in close proximity to major highways and roads, where the concentration of common air contaminants (CACs) is significantly increased by local TRAP**. In the 2014 assessment, TRAP accounted for 42% of premature deaths and 55% of hospitalizations attributable to locally emitted air pollution each year (TPH, 2014b)."

> "Based on the city-wide modelling, traffic is a significant source of air pollution in Toronto, and concentrations are especially high near highways and busy roads. **Modelling results indicate that some TRAPs, benzene and PM10, are present at levels that exceed the health benchmarks set by the Ministry of the Environment and Climate Change (MOECC) at times in Toronto.** An assessment of the health risks arising from modelled air pollution on a city-wide scale showed elevated risk for respiratory and cardiovascular illness, cancer, and non-cancer outcomes (e.g., adverse immunological, neurological, and developmental outcomes)."

> "As anticipated, modelled levels of TRAP tend to be higher along highways and major arterial roads of Toronto. **People who live, work, learn or play near these roads are at greatest risk of adverse health outcomes associated with TRAP. Vulnerable populations, including children, seniors,** and people who work or commute in vehicles are at particular risk."

> "Factors that determine the concentration of TRAP include traffic volumes and their patterns of flow, meteorological conditions, built form, and urban topography. **For any given roadway, a key indicator of the presence of TRAP is traffic volume**. Numerous Toronto highways and roadways carry high traffic volumes. Highway 401 within Toronto includes the busiest section of highway in North America. The average daily volume of traffic on Toronto's 116 major and minor arterial roads is over 25,000 vehicles. **TPH**

mapped TRAP exposure zones, defined as 500 metres on either side of a highway with an average of 100,000 vehicles or more per day, 150 metres on either side of a highway with an average of 50,000 vehicles or more per day, and 100 metres on either side of a roadway with an average of 15,000 vehicles or more per day. The maps were used to estimate the number of sensitive sites, including schools, child-care centres and long-term care facilities, that are located in TRAP exposure zones and that may benefit from mitigation measures to reduce exposure of sensitive receptors."

"**TRAP includes some of the common air contaminants (CACs) - sulphur dioxide (SO2), nitrogen dioxide (NO2), carbon monoxide (CO), and fine particulate matter (PM2.5). In addition to these pollutants, vehicle emissions include a range of toxic pollutants such as acrolein, benzene, benzo[a]pyrene, cadmium, chromium, and formaldehyde**. Ozone (O3) is a secondary pollutant that is formed in the atmosphere when CACs, including those emitted by vehicles, and other pollutants react. Carbon dioxide (CO2) is also emitted in large quantities by vehicles. While CO2 does not have direct health impacts, it is a greenhouse gas (GHG) that contributes significantly to global climate change, which is expected to lead to a variety of adverse health outcomes (TPH, 2005; WHO, 2016)."

"TPH's burden of illness findings focus on premature deaths and hospitalizations related to respiratory and cardiovascular illness. However, the impacts of air pollution on health also include less severe effects such as chronic bronchitis and asthma symptom days, visits to physicians, and school and work absences (TPH, 2014b). Using updated estimates for premature death and hospitalization numbers from TRAP, the other health outcomes were adjusted using data from an earlier report (TPH, 2007) on TRAP in Toronto that considered additional cardiovascular and respiratory outcomes. **It is estimated that air pollution in Toronto from traffic sources currently contributes to 800 episodes of acute bronchitis among children, 42,900 asthma symptom days (also mostly among children), 43,500 days where respiratory symptoms such as chest discomfort, wheeze, or sore throat would be experienced, and 128,000 days when people would stay in bed or otherwise cut back on normal activities as a result of air pollution** (TPH, 2014b)."

"**When the proportion of the burden attributable to each individual pollutant is considered, PM2.5, NO2, and O3 contribute the most to cardiovascular and respiratory ill health**. They account for about 69%, 14%, and 13% of premature mortality and about 33%, 35%, and 29% of hospitalizations, respectively. Carbon monoxide and SO2 contribute relatively little to the overall burden of illness, with CO accounting for 3% of deaths and 2% of hospitalizations, and SO2 accounting for 1% of deaths and 1% of hospitalizations (TPH, 2014b)."

"**Both short- and long-term exposure to TRAP can result in adverse health outcomes. Acute respiratory and cardiovascular effects can be experienced from**

exposure periods of minutes or hours, whereas chronic illnesses like diabetes, hypertension, and cancer are the result of long-term exposures (Brauer et al., 2012; TPH, 2007; WHO, 2013). **Reviews of the health evidence have identified that the strongest association between exposure to TRAP and adverse health outcomes is the onset and exacerbation of respiratory disease, particularly asthma (Brauer et al., 2012). Studies have shown that TRAP may also be associated with heart attack and other cardiovascular disease, wheezing, reduced lung function, childhood cancer, lung cancer, adverse birth outcomes, neurodevelopmental issues, reduced cognitive function, dementia, and chronic conditions such as diabetes** (Brauer et al., 2012; Chen et al., 2017; HEI, 2010; WHO, 2013)."

Table 7: Number and percentage of vulnerable sites in TRAP zones and level of TRAP exposure in Toronto[16]

	Greatest exposure	High exposure	Medium-high exposure	Medium exposure	Outside TRAP zones
Location	Within 500 metres of multiple major highways	Within 500 metres of one major highway	Within 150 metres of a highway with AADT > 50,000 vehicles	Within 100 meters of one or more arterial roads with AADT > 15,000 vehicles	Farther from highways & high-volume arterial roads
Facilities	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
Child care centres	11 (1%)	129 (13%)	2 (0.2%)	367 (36%)	497 (49%)
Schools	20 (2%)	131 (12%)	2 (0.2%)	333 (29%)	644 (57%)
Long-term care centres and senior's homes	0 (0%)	27 (16%)	0 (0%)	80 (47%)	65 (38%)

"The conclusions drawn from city-wide modelling significantly enhanced the conclusions of the local air quality studies. City-wide modelling indicates that traffic is a significant source of air pollution in Toronto, **and concentrations are especially high near highways and busy roads. Results indicate that some TRAPs, benzene and PM10, are present at levels that may exceed the health benchmarks set by the Ministry of the Environment and Climate Change (MOECC) at times in Toronto.** AAQCs and Canada-Wide Standards (CWSs) are benchmarks that represent an upper limit of desirable concentrations of contaminants in air, and are intended to be protective of health and/or environmental effects."

"In the case of carcinogens, benzene, chromium, polyaromatic hydrocarbons, and 1,3-butadiene are all among the top contributors to health risk based on modelled levels.

Among the CACs, PM2.5, O3, and NO2 are the primary contributors to excess risk of premature death. As well, maps of health risk (not shown) suggest that for many of these key pollutants, transportation is an important source of pollution and related health risk across Toronto. While more detailed interpretation of these findings is available in previous reports, the estimated health risk attributable to these substances warrants continued action to reduce exposure, especially for the CACs (TPH, 2011a; TPH, 2014a). The city-wide study also suggests that action is warranted to reduce exposures to some substances in Toronto's air based on their non-carcinogenic health endpoints; in particular, acrolein and cadmium."

"As anticipated, results of the air quality modelling indicate that the levels of air pollutants tend to be higher along highways and major arterial roads of Toronto. People who live, work, learn or play near these roads are therefore at greatest risk of adverse health outcomes associated with TRAP (Brauer et al., 2012; PHO, 2016). Specific populations most affected include:

- **Children: Children are especially sensitive to TRAP because they have a faster respiration rate and developing lungs (PHO, 2016). They may also spend more time than adults engaging in physical activity outdoors, and are at increased risk if they attend schools or child care centres that are located near highways or major roadways** (Janssen et al., 2001; Reis et al., 2010).
- **Seniors: Seniors often have existing cardiovascular or respiratory disease which can increase their vulnerability to TRAP (Simoni et al., 2015). Additionally, seniors who live in facilities that are located near highways or major roadways are at increased risk.**

Factors Influencing Dispersion Patterns of Common Air Pollutants

"Many factors influence how pollutants move and concentrations change and therefore the potential for exposure. The concentration of pollutants varies both spatially (by location) and temporally (by time) (WHO, 2013). The concentration of pollutants in air along highways and major arterial roads decreases as the distance from the roadway increases (HEI, 2010; Karner et al., 2010; WHO, 2013). The concentrations of primary pollutants (those emitted directly from vehicles) tend to decrease rapidly as the distance from the roadway increases, whereas secondary pollutants (those that can be formed in the atmosphere) dissipate more slowly (Brauer et al., 2012; HEI, 2010; TPH, 2004). **Although different studies report slightly different ranges, there is consensus that the concentration of pollutants generally decreases to background levels within 100 metres of the edge of major arterial roads and 500 metres of the edge of highways when there are no major meteorological, topographical, or structural interferences** (Brauer et al., 2012; HEI, 2010; TPH, 2004). "

"**Concentrations of TRAP are influenced not only by the distance from the roadway, but also by traffic volumes and patterns, meteorology, topography, and the built environment** (Brauer et al., 2012; PHO, 2016):

Traffic volumes

"The greater the traffic volume, measured as annual average daily traffic (AADT) volumes, the greater the concentration of pollutants. Highways are typically defined as having an AADT of greater than 100,000 vehicles and major arterial roads typically have an AADT of greater than 15,000 vehicles (Brauer et al., 2012)."

Traffic types and patterns

"The concentration of **TRAP is greatest when there is a greater volume of older vehicles and heavy-duty diesel trucks (TPH, 2014b; TPH, 2007). Although diesel trucks comprise only 1.5% of Canada's vehicle fleet, they are responsible for nearly 80% of all traffic-related PM2.5 emissions and more than half of the emissions of nitrogen oxides (NOx) from vehicles in Ontario** (Environment Canada, 2014; NRCan, 2009).

Vehicles also emit more pollutants when traffic moves in a stop-and-go pattern rather than in a continuous flow (Brauer et al., 2012). Ryan and colleagues (2005) reported that stop-and-go traffic patterns may be a more important predictor of adverse health impacts than total traffic volumes."

Meteorological conditions

"**Wind direction and velocity can impact TRAP concentrations near the roadway. Concentrations of pollutants downwind will decline more slowly than those upwind** (Brauer et al., 2012; HEI, 2010; PHO, 2016; Beckerman et al., 2008). Other influential meteorological conditions include solar radiation, which influences the formation of secondary pollutants in the atmosphere, and seasonal conditions – for example, summer rain events can accelerate the deposition of particulate matter (Brauer et al., 2012)."

Built form and urban topography

"**Long rows of buildings with continuous form on either side of a busy urban street can form "street canyons" that trap pollutants and prevent them from dispersing (Brauer et al., 2012). Similar natural topography formed by valleys can have the same effect on the concentration of pollutants** (Brauer et al., 2012; PHO, 2016)."

"Based on this information, TPH set out to estimate how many sites with sensitive users are located in zones with potentially high exposure to TRAP."

"To gain this understanding, TPH mapped "TRAP zones" where levels of TRAP in the air are expected to be higher than background levels in Toronto. **The literature indicates that TRAP exposure zones extend 500 metres from highway with an average of 100,000 vehicles or more per day, and 100 metres from roads with an average of 15,000 vehicles or more per day** (Brauer et al., 2012). For this analysis, TRAP exposure zones were defined as 500 metres on either side of a highway with an average of 100,000 vehicles or more per day, 150 metres on either side of a highway with an average of 50,000 vehicles or more per day, and 100 metres on either side of roadways with an

average of 15,000 vehicles or more per day. As indicated in the literature, beyond these zones it is expected that TRAP is at background levels."

"Locations of facilities with sensitive users were then compared to locations of estimated TRAP zones. Sites with sensitive users included schools, child-care centres, long-term care centres and seniors' residences. It should be noted that in this analysis, schools include public and private, large and small schools. The purpose of the analysis was to understand how many facilities are affected by TRAP and may benefit from measures to mitigate exposure of sensitive users."

"Table 7 summarizes the number of childcare centres, schools, and long-term care centres and seniors' residences that are located in TRAP zones in Toronto, and their level of TRAP exposure. These facilities are categorized as:

- **Sites with the greatest TRAP exposure: located near multiple major highways with an AADT volume of 100,000 vehicles or more, within 500 metres;**
- High exposure sites: located near one major highway with an AADT volume of 100,000 vehicles or more, within 500 metres;
- Medium-high exposure sites: located near one highway with an AADT volume of 50,000 vehicles or more, within 150 metres;
- Medium exposure sites: located near one arterial road with an AADT volume of 15,000 vehicles or more, within 100 metres; and
- Sites outside TRAP zones: located farther away from highways and high-volume arterial roads."

"The results (**Table 7**) indicate that a large proportion of sites with vulnerable users are located within TRAP exposure zones. It is estimated that approximately 50% of child care centres, 43% of schools, and 63% of seniors' facilities identified in the analysis are located near major roads and highways where TRAP levels are expected to be elevated. Eleven child care centres and 20 schools are located close to multiple highways. The large number of sensitive sites near highways and major roads highlights the need to consider mitigation measures to reduce the exposure of building occupants to TRAP."

B) Land-Use Planning at the City-Wide and Neighbourhood Level

Separation distances

"There is an existing body of literature that links the built environment to health outcomes. Land use and urban design characteristics can influence walkability, bikeability and the level of physical activity, all factors that impact exposure to TRAP (TPH, 2011b). Municipalities have a number of tools at their disposal such as official plans, zoning, and other planning policies that allow them to modify the built environment in order to separate vehicular traffic from places where people spend their time (Brauer et al., 2012)."

"In 2012, based on more up-to-date evidence, Brauer and colleagues recommended a separation distance of 100 metres from roads with 15,000 or more AADT. **The British Columbia Ministry of the Environment recommends a setback of 150 metres from busy roads for sensitive uses such as schools, hospitals, long-term care facilities and residences (BC MOE, 2012). It further recommends special consideration for truck routes as elevated air pollutant concentrations have been measured up to 750 metres from such routes.**"

Urban street canyons

"Urban canyons are found in areas of Toronto where tall buildings are built on the existing narrow road network. They occur where multiple buildings on opposite sides of a road face each other and where the buildings are taller than the road is wide. As a result, traffic emissions into air do not disperse as readily and become entrapped at street level which results in an accumulation of pollutants at ground level (City of Toronto, 2016). **This phenomenon can be mitigated by design measures, primarily for new buildings, that encourage greater street ventilation, create fewer confined areas, require step-backs of upper stories and encourage a variety of building heights** (GSA, 2012; LASC, 2014)".

"In 2016 EED completed The Urban Ventilation Study, which quantified the changes to local air quality due to impacts of intensification in combination with the existing urban layout. EED developed an equation to help evaluate streets and identify the level of severity of poor air quality. **The approach can be used to identify streets where changes to existing and future building structure could be used to alleviate air quality impacts due to the street canyon effects. To address the issue, EED also identified options for new-build and existing buildings, in keeping with present urban design guidelines**."

Congestion reduction

"A number of studies have examined the relationship between traffic congestion and adverse health impacts. Brauer and colleagues (2012) reported that reduction in traffic congestion was associated with significant decreases in premature birth and low birth weight in infants. **They further reported that "stop-and-go" traffic may be a more important predictor of adverse health impacts than total traffic volumes. Stop-and-go traffic, or brake-and-accelerate traffic, pollutes a lot more than steady flow traffic** (Berry, 2010)."

C) Land-Use Planning at the Site Level

Site layout

"There are a number of measures available at the site level to mitigate the impact of traffic emissions, **most notably the location and orientation of individual buildings and outdoor play areas. Ideally, both should be located as far as possible away from roadways and be buffered by transitional uses, thereby increasing the physical**

distance from traffic emissions. Special consideration should be given to outdoor recreation areas and courtyards that are designed for individuals to spend prolonged periods of time outside. Consideration should also be given to site open spaces in the interior of "U" or "L" shaped buildings, to create open spaces that are located away from the roadways as this provides a physical barrier between traffic emissions and people using the space (GSA, 2012; LASC, 2014)."

D) **Vegetation and Landscaping**

"It is well known that urban green spaces provide numerous ecological, social, cultural and economic benefits. The ecological services, such as cooling, provided by Toronto's approximately 10.2 million trees are valued at $28.2 million annually (City of Toronto, 2013**). In its recent report, TPH summarized that the presence of green space is associated with reduced health outcomes such as mortality and cardiovascular disease, increased activity levels, improved health and wellbeing, and various environmental health benefits such as improved air quality, relief from extreme heat, and lessening of the urban heat island effect** (TPH, 2015). Recently, there has also been much attention given to vegetation and green spaces as sinks for traffic pollutants; however, there is still only limited evidence of the effectiveness of such approaches for reducing exposure to TRAP (Brauer et al., 2012; BC MOE, 2012; Baldauf et al., 2011)."

E) **Designing vegetation barriers for urban air pollution abatement: a practical review for appropriate plant species selection by Yendle Barwise and Prshat Kumat**

"Vegetation can form a barrier between traffic emissions and adjacent areas, but the optimal configuration and plant composition of such green infrastructure (GI) are currently unclear. We examined the literature on aspects of GI that influence ambient air quality, with a particular focus on vegetation barriers in open-road environments. Findings were critically evaluated in order to identify principles for effective barrier design, and recommendations regarding plant selection were established with reference to relevant spatial scales. As an initial investigation into viable species for UK urban GI, we compiled data on 12 influential traits for 61 tree species, and created a supplementary plant selection framework. **We found that if the scale of the intervention, the context and conditions of the site and the target air pollutant type are appreciated, the selection of plants that exhibit certain biophysical traits can enhance air pollution mitigation.** For super-micrometre particles, advantageous leaf micromorphological traits include the presence of trichomes and ridges or grooves. Stomatal characteristics are more significant for sub-micrometre particle and gaseous pollutant uptake, although we found a comparative dearth of studies into such pollutants. Generally advantageous macromorphological traits include small leaf size and high leaf complexity, but optimal vegetation height, form and density depend on planting configuration with respect to the immediate physical environment. Biogenic volatile organic compound and pollen emissions can be minimised by appropriate species selection, although their significance varies with scale and context. While this review assembled evidence-based recommendations for practitioners, several important areas for future research were identified."

npj Climate and Atmospheric Science (2020) 3:12 ; https://doi.org/10.1038/s41612-020-0115-3

"At local scale, the potential for air pollution exposure reduction by appropriate GI (Green Infrastructure) is well-supported (Table 1), particularly where GI involves the physical separation of people from pollutant sources, such as by the use of vegetation barriers 42,48. Indeed, numerous studies have found that vegetation can act as a physical barrier between air pollution and potential sufferers, effectively extending the distance between source and receptor7,8,20,32,35, although this function is not without provisos (see 'Trade-offs in plant selection'). Studies on the influences of such vegetation barriers on air quality have largely concerned atmospheric dispersion, and many have compared the dispersion effects of GI with those of grey infrastructure or other non-porous barriers (Table 1). For example, Gallagher et al.8 reported that porous (vegetation) barriers can act as a passive method of air pollution amelioration by adjusting dispersion patterns in a similar manner to that which may be achieved by solid barriers."

"**The primary mechanisms by which vegetation may be considered to improve air quality are those concerning dispersion and deposition 29. Dispersion involves the transportation and dilution of pollutants from the pollutant source, and the various roles that vegetation may play in this process were outlined earlier (see 'Local scale' subsection). Dry deposition describes the process by which pollutants are deposited on solid surfaces, thereby reducing ambient atmospheric concentrations. It is through its influences on deposition that vegetation may be seen as passively filtering pollutants from the ambient air**. The capability of vegetation to do so is relatively high in light of its high surface area and complexity in comparison with, for example, grey infrastructure29,76. However, the potential capacity of a species for pollutant deposition is determined by the quality and sum of its individual traits36,37,77,78."

Vegetation traits for enhanced pollutant deposition

"Because the type and size of pollutant determine its means of deposition (Supplementary Section S1), different vegetation traits will be most effective for the deposition of different individual pollutants. A majority of studies have explicitly focussed on PM, and often only on particles >1μm (Supplementary Table S1). Further research into the influences of individual plant traits on sub-micrometre PM and individual gaseous pollutant concentrations is highly recommended. However, empirical evidence from field experiments to date supports the generalisation drawn above that dry deposition to GI is influenced by specific traits, or inherited biophysical characteristics, the most significant of which concern leaf surface area and leaf properties or functions32,36,88–90."

Foliage longevity and leaf phenology

"Foliage longevity describes the length of time that a plant remains in leaf. Evergreen species retain functional leaves throughout the year, whereas deciduous species exist without functional leaves for part of the year and typically during the winter or dry season. The foliage longevity of deciduous species varies between and within species and is influenced not only by genotype but

also by environmental conditions at microscale92. **Due to the significance of leaves in pollutant deposition, the length of time during which GI may be most influential upon deposition is determined by its foliage longevity. In terms of deposition, evergreen species are therefore preferable to deciduous species, and deciduous species that generally exhibit longer in-leaf seasons are preferable to deciduous species that generally exhibit brief in-leaf seasons** 20,36,93. However, evergreen species may be more susceptible to certain stressors (e.g. climate warming94) than deciduous species, with potential implications for sustainable ecosystem service provision."

F) AN OVERVIEW OF THE MITIGATION OF URBAN AIR POLLUTION THROUGH URBAN VEGETATION / FORESTRY

Abstract: This paper provides an overview of the most important air pollutants and main aspects/principles of urban air pollution. It then considers the phenomenon of the abatement of urban air pollutants such as Sulphur Oxides (SOx), nitrogen oxides (NOx), ozone (O3) and Particulate emissions (PM2.5, 10) by urban vegetation, including urban forests which have been studied extensively as well as the recent green roof movement by way of a literature review from various countries and researchers.

The value of open space in cities (economic, ecological and social) is well documented and commonly cited. Vegetation is an important part of such open space for the range of ecosystems services it provides to the inhabitants of a city. The uptake of carbon dioxide CO2 and generation of oxygen (O2) with the help of sunlight (photosynthesis) in return is a natural process that is especially valuable in city environments where pollutants can cause harmful effects to human health and the environment (HHE). **The "cleaning of air" through vegetation is thus a proven empirical truth. Due to their longevity and perennial nature, urban trees and forests are typically used as unit of measurement. They can be counted individually and most cities have urban forestry management units.**

Phytodegradation

Through phytodegradation, organic pollutants can be broken down for metabolic process of the plant. This process can be used for most organic pollutants, such as formaldehyde and benzene, but not all. Certain organics called "Persistent Organic Pollutants" which includes DDT are resistant to breakdown. SO2 and NO2 could in that way combine with water in cells to form sulfurous and nitrous acids which may in turn react with other compounds and use for metabolic processes in various part of the plant. If the concentration in plants becomes too high – reduced growth and damage to the plant can occur. These two pollutants that is mainly responsible for acid rain can be used for metabolic process in plants as part of phytodegradation.

NOx

NOx is metabolized into organic compounds of the plant through the nitrate assimilation pathway into amino acids, for example. Certain enzymes such as nitrate reductase play important roles here. Through genetic manipulation such enzymes can be modified to significantly improve their ability. (Yang & Liu, 2011) Such "transgenic" plants in the environment can possess the

capability to take up more than 50 times the amount of the relevant toxin when compared to control plants. (Dhankher,
Pilon-Smits, Meagher, & Doty, 2012).

G) Halton Region Health Department, Protecting Health: Air Quality and Land Use Compatibility. Oakville, Ontario: 2009

This study by the Halton Region Health Department is equally as important as the Toronto Health Department as the authors examined both Halton Region and other jurisdictions to determine how they addressed air pollution and "sensitive land" use compatibility. The conclusions and recommendations they arrived at in order to assist Halton Region for their planning principles and guidelines is again highly relevant and are therefore listed in great detail. Some of the most important excerpts from this health study are as follows:

"Many jurisdictions provide guidance on avoiding conflicts between sensitive land uses and various other land uses such as industrial facilities, transportation routes, and agricultural operations. The jurisdictions reviewed are: California (state-, air quality management district-, and city-level); Australia (state-level); England (national- and borough-level); British Columbia (provincial level); and Ontario."

"On the basis of our review of the health literature and best practices, the Halton Region Health Department recommends that the following parameters be considered during the Sustainable Halton and Regional Official Plan Review processes, in order to protect human health, particularly sensitive receptors, from incompatible land uses:"

 # 1
Recognizing maturing urban areas, particularly zones of transition and intensification, and Section 38 of the Halton Region Official Plan, Halton Region encourage the MOE to update Guidelines D-1 and D-6 to reflect the changing nature of municipalities and the requirements of the *Places to Grow Plan*. **The update should include the additional experience of environmental officers and public health inspectors gained since 1995, applicable research on separation distances for incompatible land uses,** more specific industrial activity classification criteria, and a clear definition of sensitive land use.

 # 2a
Halton Region develop a made-in-Halton Incompatible Land Use Guideline (as part of the Healthy Communities Guidelines) that will:
- be developed by the Health Department, in consultation with Regional and Local partners;
- be largely based on the Ministry of the Environment D-Series Guidelines;

- be supplemented with best practices from other jurisdictions, and health research on incompatible land uses;
- incorporate the Minimum Distance Separation (MDS) Formulae for agriculture;
- address both greenfields development and infill, urban re-development, and areas of transition to mixed uses;
- identify when an air study will be requested, the parameters to be included in an air study, and how the results of such a study would be interpreted;
- be updated periodically to reflect advances in understanding of human health impacts related to land uses.

3
Sensitive land **uses not be located closer than 150 m to highways anticipated to have greater than 100,000** vehicles per day based on ultimate planned capacity. When applying this guidance, future road widening should be taken into consideration.

4
Sensitive land uses not be located closer than 30 m to roads with greater than 30,000 vehicles/day annual average daily traffic (AADT) based on ultimate planned capacity. Exceptions to this guidance are condominiums and mixed-use buildings, which could locate closer than 30 m provided appropriate controls are incorporated into the building design to protect indoor air quality for the occupants. When applying this guidance, future road widening should be taken into consideration.

"Line sources are linear features associated with air pollution. Probably the best example is roadways and, over the last couple of decades, numerous health studies have been directed at traffic corridors. These studies, discussed in more detail later in this report, consistently report associations between proximity to traffic and at least one of the following negative health effects: asthma and other respiratory diseases, diminished lung function, adverse birth outcomes, childhood cancer, and increased mortality risks (Boothe and Shendell, 2008)."

"These findings are also supported by air studies showing that vehicle related pollutants can be concentrated along traffic corridors. For example, Figures 4 and 5 below show, respectively, modelled particulate concentrations along a road where trucks queue near a border crossing (higher concentrations in the left of figure, declining in the downwind direction towards the right of the figure), and the influence of a highway (across the top of the figure) and a secondary road (down the middle of

the figure) on modelled PM2.5 (warmer colours indicate higher concentrations)."

"This approach does not take into consideration background concentrations (air pollution due to emission sources beyond a community's border) or cumulative impacts (air pollution from other sources from the same facility or from other, nearby, facilities). Consequently, while the Certificate of Approval process ensures that individual point or area sources do not exceed air standards, it does not ensure that air levels within a community stay below air standards."

H) California

State-level

"In 2005, the California Air Resources Board (CARB) released the *Air Quality and Land Use Handbook: A Community Health Perspective* (California Environmental Protection Agency, 2005). The guidance document is neither regulatory nor binding on local agencies but, rather, is **intended to "...highlight the potential health impacts associated with proximity to air pollution sources so planners explicitly consider this issue in planning processes."**

"Sensitive land uses include schools and schoolyards, parks and playgrounds, daycare centres, nursing homes, hospitals and residential communities. The guidance document relies on relevant research to recommend minimum separation distances between new sensitive land uses and eight specific source categories of air pollution.

I) British Columbia

"In 2006, British Columbia's Ministry of the Environment released *Develop With Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia* (British Columbia Ministry of the Environment, 2006)....The Community Planning section provides high-level guidance on good planning principles including the use of buffers to separate incompatible land uses. The only specific recommendations for separating sensitive land uses are provided in Section 2.7 *Guidelines for Air Quality and Climate Change* and refer to major transportation routes. The guidance suggests "...a minimum 150 m setback from busy roads for buildings such as schools, hospitals, long-term care facilities, and residences." A busy road is defined as a road with more than 15,000 vehicles/day."

J) England

"In England, the government-initiated planning system reform in 2002 and subsequently issued a number of planning policy statements to provide guidance to Local Authorities. Land use planning and environmental

quality are addressed in ***Planning Policy Statement 23: Planning and Pollution Control*** **(PPS23) and an annex to PPS23 –** ***Annex 1: Pollution Control, Air and Water Quality*** **(Annex 1). PPS23 advises that "any consideration of the quality of land, air or water and potential impacts arising from development, possibly leading to impacts on health, is capable of being a material planning consideration, in so far as it arises or may arise from or may affect any land use"** (Office of the Deputy Prime Minister, 2004a)."

"PPS23 advises that development plan documents should consider, among other things:
- the possible impact of potentially polluting development on land use including effects on health, the natural environment or general amenity;
- the need to separate potentially polluting and other land uses in order to reduce conflicts;
- the **cumulative impacts on air quality** of a number of smaller developments, particularly in areas **where air quality is already, or is likely to be, poor**."

Local Implementation
"The Royal Borough of Kensington and Chelsea provides an example of how national guidance is implemented at the local level. National policies are reflected in the Royal Borough's *Unitary Development Plan* (UDP) which is the borough's principal policy document shaping decisions related to land use. To supplement the policies of the UDP, the Royal Borough has produced *Supplementary Planning Guidance-05 Air Quality* (Royal Borough of Kensington and Chelsea, 2003), hereafter referred to as SPG-05. While SPG-05 has several objectives, three are of particular interest:
- to emphasize the importance of air quality as a material planning consideration;
- to identify those circumstances where an air quality assessment would be required to accompany a development proposal; and
- to provide technical guidance relating to the provision of an air quality assessment."

"Annex 2 in SPG-05 provides technical guidance for undertaking air quality assessments and two of the general principles are noteworthy:
- "An air quality impact assessment should clearly indicate the likely change in pollutant concentrations (relevant to the air quality objectives) arising from the proposed development. The factor of greatest importance will, generally, be the difference in air quality as a result of the proposed development."
- "For all developments, it is vital that air quality assessments take fully into account the cumulative air quality impacts of committed developments (i.e. proposals that have been granted planning permission at the time the assessment is undertaken)…"

Summary

The jurisdictions that were reviewed recognize if there already exists poor air quality it is necessary to look at the cumulative impact and the acknowledgment that the proposed development will make air quality much worse. It is for this reason that the Developer must be required to provide site-specific tests to assess and quantify the impact. With respect to the development at 1107 Main Street West it is in an area of concentrated emissions from high volume traffic on Main Street West combined with high volume traffic from Hwy 403. There is also the existing effect of idling school buses, taxis, vans and passenger vehicles which currently occurs every school-day morning drop off and every afternoon pickup. Due to the fact that the neighbourhood already suffers from health risks related to the current high levels of Nitrogen Dioxide, affecting both the youngest and oldest segments, who represent a combined 34% of the neighbourhood population, further increases in adverse health and safety impacts must be avoided.

The critical issue is that the proposed built form is a17-storey high-rise, (15 residential plus 2-storey rooftop mechanical penthouse) allows no sunlight onto Main Street West under the Applicant's own sun/shadow impact study. It is also clear that the building will lessen the total sunlight hours on both Dow Avenue and Cline Avenue South from the presently existing hours of sunlight which these two streets are currently receiving with the height and massing of the Grace Lutheran Church building. A new and drastically increased massing and height of the proposed building, with no separation on Main Street West, will also interfere with and lessen the wind and breezes which blow from either the south or from the north. Finally, the removal of the existing cultural heritage landscape gardens and mature trees, and the replacement of these beneficial features with high-rise concrete structures, will remove a much-needed ecological filtering and moderating component necessary to reduce and disperse harmful air contaminants.

With two sources of air contamination occurring from vehicle emissions to the north, Main Street West, and to the south, Hwy 403, and day school idling traffic emissions already occurring on Cline Avenue South, the proposed 17-storey built form will adversely reduce the necessary conditions for dispersion of air contaminants, and permit higher concentrations of Nitrogen Dioxide and other harmful airborne contaminants to increase and remain in the streets, front yards and backyards of the residential neighbourhood, in the adjacent school playground, and in the adjacent City of Hamilton parkette.

The relevant factors in these other jurisdictions are summarized as follows:

1. proximity to traffic corridors leads to health impacts that must be addressed by setbacks from the roadway, or in alternative planning land use compatibility and the proposed built form must address these severe health issues;
2. developments seeking approval must take into account existing air quality, especially when it is already poor, and the cumulative effect of the proposed built form must be considered;

3. air quality and wind impact site-specific technical reports must be obtained to determine the difference in air quality and the level of contaminant dispersion as a result of the proposed development;
4. urban air pollution can be mitigated and abated through urban vegetation/forestry and appropriate plant species selection.

12. GUIDING PRINCIPLES AND APPROACHES WITHIN THE PROVINCIAL INTEREST SET OUT IN SECTION 2 OF THE PLANNING ACT AND THE PROVINCIAL POLICY STATEMENT (PPS) WITH RESPECT TO ENVIRONMENTAL AIR QUALITY, LAND USE COMPATIBILITY AND HEALTHY, SAFE AND LIVEABLE COMMUNTIES

PROVINCIAL INTEREST Section 2 of THE PLANNING ACT

2) The Minister, the council of a municipality, a local board, a planning board and the Tribunal, in carrying out their responsibilities under this Act, shall have regard to, among other matters, matters of provincial interest such as,
(a) the **protection of ecological systems, including natural areas, features and functions**;
(b) the protection of the agricultural resources of the Province;
(c) the conservation and management of natural resources and the mineral resource base;
(d) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest;
(e) the supply, efficient use and conservation of energy and water;
(f) the adequate provision and efficient use of communication, transportation, sewage and water services and waste management systems;
(g) the minimization of waste;
(h) the orderly **development of safe and healthy communities**;
(h.1) the accessibility for persons with disabilities to all facilities, services and matters to which this Act applies;
(i) the adequate provision and distribution of educational, health, social, cultural and recreational facilities;
(j) the adequate provision of a full range of housing, including affordable housing;
(k) the adequate provision of employment opportunities;
(l) the protection of the financial and economic well-being of the Province and its municipalities;
(m) the co-ordination of planning activities of public bodies;
(n) the resolution of planning conflicts involving public and private interests;
(o) **the protection of public health and safety**;
(p) **the appropriate location of growth and development**;
(q) the promotion of development that is designed to be sustainable, to support public transit and to be oriented to pedestrians;
(r) the promotion of built form that,
(i) **is well-designed**,
(ii) **encourages a sense of place**, and

(iii) **provides for public spaces that are of high quality, safe,** accessible, attractive and vibrant; (s) **the mitigation of greenhouse gas emissions and adaptation to a changing climate**. 1994, c. 23, s. 5; 1996, c. 4, s. 2; 2001, c. 32, s. 31 (1); 2006, c. 23, s. 3; 2011, c. 6, Sched. 2, s. 1; 2015, c. 26, s. 12; 2017, c. 10, Sched. 4, s. 11 (1); 2017, c. 23, Sched. 5, s. 80.

The Provincial Policy Statement 2020 (PPS)

The PPS contains numerous guidelines and statements to regional and local municipalities regarding health impacts and air pollution. Some of these excerpts are listed below:

Preamble PPS 2020

"The Provincial Policy Statement provides policy direction on matters of provincial interest related to land use planning and development. As a key part of Ontario's policy-led planning system, the Provincial Policy Statement sets the policy foundation for regulating the development and use of land. It also supports the provincial **goal to enhance the quality of life for all Ontarians."**

"The Provincial Policy Statement provides for **appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment.** The Provincial Policy Statement supports improved land use planning and management, which contributes to a more effective and efficient land use planning system".

Read the Entire Provincial Policy Statement

"The Provincial Policy Statement is **more than a set of individual policies. It is to be read in its entirety and the relevant policies are to be applied to each situation. When more than one policy is relevant, a decision-maker should consider all of the relevant policies to understand how they work together.** The language of each policy, including the Implementation and Interpretation policies, will assist decision-makers in understanding how the policies are to be implemented".

Policies Represent Minimum Standards

"The policies of the Provincial Policy Statement represent minimum standards.
Within the framework of the provincial policy-led planning system, planning authorities and decision-makers may go beyond these minimum standards to address matters of importance to a specific community, **unless doing so would conflict with any policy of the Provincial Policy Statement."**

Vision for Ontario's Land Use Planning System

"The long-term prosperity and social well-being of Ontario depends upon **planning for strong, sustainable and resilient communities for people of all ages, a clean and healthy environment**, and a strong and competitive economy."

"Efficient development patterns optimize the use of land, resources and public investment in infrastructure and public service facilities. **These land use patterns promote a mix of housing,**

including affordable housing, employment, recreation, parks and open spaces, and transportation choices that increase the use of active transportation and transit before other modes of travel. They support the financial well-being of the Province and municipalities over the long term**, and minimize the undesirable effects of development, including impacts on air**, water and other resources. **They also permit better adaptation and response to the impacts of a changing climate, which will vary from region to region.**
Strong, liveable and healthy communities promote and enhance human health and social well-being, are economically and environmentally sound, and are resilient to climate change."

"It is equally important to protect the overall health and safety of the population, including preparing for the impacts of a changing climate. The Provincial Policy Statement directs development away from areas of natural and **human-made hazards. This preventative approach** supports provincial and municipal financial well-being over the long term, **protects public health and safety, and minimizes cost, risk and social disruption.**
Taking action to conserve land and resources avoids the need for costly remedial measures to correct problems and supports economic and environmental principles.
Strong communities**, a clean and healthy environment** and a strong economy are inextricably linked. **Long-term prosperity, human and environmental health and social well-being should take precedence over short-term considerations.**"

1.0 Building Strong Healthy Communities
"Ontario is a vast province with urban, rural, and northern communities with diversity in population, economic activities, pace of growth, service levels and physical and natural conditions. **Ontario's long-term prosperity, environmental health and social well-being depend on wisely managing change and promoting efficient land use and development patterns**. Efficient land use and development patterns **support sustainability by promoting strong, liveable, healthy and resilient communities, protecting the environment and public health and safety**, and facilitating economic growth."

1.1 Managing and Directing Land Use to Achieve Efficient and Resilient Development and Land Use Patterns
1.1.1 Healthy, liveable and safe communities **are sustained by**:
b) accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), **institutional (including places of worship,** cemeteries and long-term care homes), recreation, **park and open space, and other uses to meet long-term needs**;
c) avoiding development and land use patterns which may **cause environmental or public health and safety concerns;**
h) promoting development and land use patterns that **conserve biodiversity**; and
i) **preparing for the regional and local impacts of a changing climate**.

1.1.3 Settlement Areas

1.1.3.2 Land use patterns within settlement areas **shall be based on densities and a mix of land uses which**:
c) **minimize negative impacts to air quality and climate change**, and promote energy efficiency;
d) **prepare for the impacts of a changing climate**;

1.1.3.3 Planning Authorities shall identify **appropriate locations** and promote opportunities for transit-supportive development, accommodating a significant supply and range of housing options **through intensification and redevelopment where this can be accommodated** taking into account existing building stock or areas, including brownfield sites, and the **availability of suitable existing or planned infrastructure** and public service facilities required to accommodate projected needs.

1.1.3.4 Appropriate development standards should be promoted which facilitate *intensification*, *redevelopment* and compact form, **while avoiding or mitigating risks to public health and safety**.

1.1.3.5 Planning authorities are directed to "establish and implement minimum targets for intensification and redevelopment within built-up areas, **based on local conditions"**.

1.5 Public Spaces, Recreation, Parks, Trails and Open Space

1.5.1 Healthy, active communities should be promoted by:
a) planning **public streets**, spaces and facilities **to be safe, meet the needs of pedestrians, foster social interaction and facilitate *active transportation* and community connectivity**.

1.7 Long-Term Economic Prosperity

1.7.1 Long-term economic prosperity should be supported by:
e) **encouraging a sense of place, by promoting well-designed built form** and cultural planning, **and by conserving features that help define character, including *built heritage resources* and *cultural heritage landscapes***;
k) **minimizing negative impacts from a changing climate and considering the ecological benefits provided by nature**.

1.8 Energy Conservation, Air Quality and Climate Change

1.8.1 **Planning authorities shall support** energy conservation and efficiency, **improved air quality**, reduced greenhouse gas emissions, **and preparing for the *impacts of a changing climate* through land use and development patterns which**:
f) **promote design and orientation** which maximizes energy efficiency and conservation, and **considers the mitigating effects of vegetation** and ***green infrastructure***; and
g) **maximize vegetation within *settlement areas*, where feasible**.

3.0 Protecting Public Health and Safety

Ontario's long-term prosperity, **environmental health and social well-being depend on reducing the potential for public cost or risk to Ontario's residents from natural or human-made hazards**.
Development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage, **and not create new or aggravate existing hazards**.
Mitigating potential risk to public health or safety or of property damage from natural hazards, including the risks that may be associated with the impacts of a changing climate, will require the Province, planning authorities, and conservation authorities to work together.

Definitions Section
Adverse effects: as defined in the *Environmental Protection Act*, means one or more of:
a) impairment of the quality of the natural environment for any use that can be made of it;
b) injury or damage to property or plant or animal life;
c) harm or material discomfort to any person;
d) an adverse effect on the health of any person;
e) impairment of the safety of any person;
f) rendering any property or plant or animal life unfit for human use;
g) loss of enjoyment of normal use of property; and
h) interference with normal conduct of business

Sensitive land uses:
means buildings, amenity areas, or outdoor spaces where routine or normal activities occurring at reasonably expected times would experience one or more *adverse effects* from contaminant discharges generated by a nearby *major facility. Sensitive land uses* may be a part of the natural or built environment. **Examples may include, but are not limited to: residences, day care centres, and educational and health facilities**.

Summary
Both the Provincial Interest set out in Section 2 of the Planning Act and the above extracts from the PPS indicate that environmental health is an overriding concern, especially with the challenge of climate change that will increase the prevalence of temperature inversions, and that improved air quality is a goal for planning and land use compatibility. Although the subject site is not adjacent to a "nearby major facility" that is emitting contaminants and pollutant by discharges by a specific facility, the subject site is within a zone which has recorded extremely high air pollution that has a proven adverse effect on the health of residents. As a result of the location of the proposed site being between Main Street West and Highway 403, and with the site being on the southside of a street which is on an east/west axis, the proposed height, density, and massing should not be allowed under PPS guidelines. This is because the proposed height, density and massing will contribute to or aggravate the existing adverse health effects in the immediate neighbourhood.

It is clear that Section 1.1.3.3 directs "Planning authorities to identify appropriate locations and promote opportunities for intensification and redevelopment **where this can be accommodated** taking into account existing building stock or areas, including brownfield sites, and the availability of suitable existing or planned infrastructure and public service facilities required to accommodate projected needs", however, it is equally clear that the proposed level of intensification and redevelopment at this specific site, **cannot be accommodated and ignores local conditions,** as it will endanger the health and safety of residents and schoolchildren in the immediate neighbourhood.

The high-density levels envisioned for "transit-supportive development" which may be suitable in other sections and areas and corridor segments within a municipality, will be ruinous and destructive to a residential neighbourhood which is already suffering from being sandwiched between "transit corridors and highways" with vehicular traffic emissions from 200,000 per day. Furthermore, the amount of traffic on Main Street West is projected to increase, not dimmish, in 2031 even with the LRT or any substituted Potential Rapid Transit Line, as indicated by the Dillon Consulting Limited traffic report.

For the above reasons I respectfully submit that the Applicant's proposed development does not have sufficient regard to the Provincial interests listed in Section 2 of the Planning Act, nor is it consistent with the Provincial Policy Statement (PPS).

13. GUIDING PRINCIPLES AND APPROACHES WITHIN THE GROWTH PLAN (GGH) WITH RESPECT TO ENVIRONMENTAL AIR QUALITY, LAND USE COMPATIBILITY AND HEALTHY, SAFE AND LIVEABLE COMMUNTIES

The Growth Plan for the Greater Golden Horseshoe 2-19 , as amended
The Growth Plan also contains numerous guidelines and statements to regional and local municipalities regarding health impacts and air pollution. Some of these excerpts are listed below:

1.1 The Greater Golden Horseshoe
"As the *GGH* grows and changes, we must continue to value what makes this region unique to ensure the sustained prosperity of Ontario, its people, and future generations. While growth is an important part of vibrant, diversified urban and rural communities and economies, **the magnitude of growth that is expected over the coming decades for the *GGH* presents several challenges**:

- Unmanaged growth can degrade **the region's air quality**; water resources; natural heritage resources, such as rivers, lakes, *woodlands*, and *wetlands*; and *cultural heritage resources*.
- **People over the age of 60 are expected to comprise over 25% of the population by 2041** [footnote 3 [3]], which will **result in the need for more age-friendly development that can address their unique needs and circumstances**. This will include a more appropriate range and mix of housing options, easier access to health care and other

amenities, walkable built environments, and an age-friendly approach to community design that will meet the needs of people of all ages."

Vision for the GGH

"More than anything, the *Greater Golden Horseshoe (GGH)* will continue to be a great place to live, work and play. Its communities will be supported by a strong **economy and an approach that puts people first**. This approach protects the Greenbelt and will **ensure a cleaner environment is passed on to future generations**. A Place to Grow will support the achievement of *complete communities* with access to transit networks, protected employment zones and an increase in the amount and variety of housing available."

"A healthy natural environment with clean air, land, and water will characterize the *GGH*. The Greenbelt, including significant natural features, such as the Oak Ridges Moraine and the Niagara Escarpment, will continue to be enhanced and protected in perpetuity. The *GGH's* rivers and streams, forests and natural areas will be accessible for residents to enjoy their beauty. **Our *cultural heritage* resources and open spaces in our cities, towns, and countryside will provide people with a sense of place."**

Relationship with the Provincial Policy Statement (PPS)

"Like other provincial plans, this Plan builds upon the policy foundation provided by the PPS and provides additional and more specific land use planning policies to address issues facing specific geographic areas in Ontario. This Plan is to be read in conjunction with the PPS. **The policies of this Plan take precedence over the policies of the PPS to the extent of any conflict, except where the relevant legislation provides otherwise...."**

"As provided for in the Places to Grow Act, 2005, this Plan prevails where there is a conflict between this Plan and the PPS. **The only exception is where the conflict is between policies relating to the natural environment or human health. In that case, the direction that provides more protection to the natural environment or human health prevails**."

2.1 Context

"This Plan is about accommodating forecasted growth **in *complete communities***. These are communities that are well designed to meet people's needs for daily living throughout an entire lifetime by providing convenient access to an appropriate mix of jobs, local services, *public service facilities,* and a full range of housing to accommodate a range of incomes and household sizes. ***Complete communities* support quality of life and human health by encouraging the use of *active transportation* and providing high quality public open space, adequate parkland, opportunities for recreation, and access to local and healthy food**."

4.1 Context

"The *GGH* contains a broad array of important hydrologic and *natural heritage features and areas*, a vibrant and diverse agricultural land base, irreplaceable *cultural heritage resources*, and valuable renewable and non-renewable resources. **These lands, features and resources are essential for the long-term quality of life, economic prosperity, environmental health, and *ecological integrity* of the region. They collectively provide essential ecosystem services, including water storage and filtration, cleaner air and habitats, and support pollinators, carbon storage, adaptation and resilience to climate change."**

4.2.9 A culture of conservation

"Municipalities **will develop and implement official plan policies and other strategies in support of the following conservation objectives**:

c) **air quality improvement and protection**, including through reduction in emissions from municipal, commercial, industrial, and residential sources;"

4.2.10 Climate change

1. Upper- and single-tier **municipalities will develop policies in their official plans to identify actions that will reduce greenhouse gas emissions and address climate change adaptation goals, aligned with other provincial plans and policies for environmental protection,** that will include:
    a. **supporting the achievement of *complete communities* as well as the minimum intensification and density targets in this Plan**
2. In planning to reduce greenhouse gas emissions and address the *impacts of a changing climate*, municipalities are encouraged to:
    a. **develop strategies to reduce greenhouse gas emissions and improve resilience through the identification of vulnerabilities to climate change, land use planning**, planning for *infrastructure*, including transit and energy, *green infrastructure*, **and *low impact development***, and the conservation objectives in policy 4.2.9.1

Definition Section

Sensitive land uses:

> "Buildings, amenity areas, or outdoor spaces where routine or normal activities occurring at reasonably expected times would experience one or more adverse effects from contaminant discharges generated by nearby major facilities. *Sensitive land uses* may be a part of the natural or built environment. Examples may include, but are not limited to: **residences, day care centres, and educational and health facilities**. (PPS, 2020)"

Summary

The above extracts from the Growth Plan for the GGH also indicate that environmental health is an overriding concern, and that improved air quality is a goal for planning and land use compatibility. The Growth Plan reflects the identical support for air quality improvement and protection and confirms the provincial commitment to environmental health and to addressing climate change in our communities.

The Growth Plan also reinforces the commitment to maintaining clean air quality in two important regards. First, although the Growth Plan takes precedence of the PPS, it is subject to the exception that whenever there is a conflict between policies relating to **the natural environment or human health**, the direction that **provides more protection to the natural environment or human health prevails.** This affirmation is extremely important as it validates greater protection, not less protection, in taking the full and proper steps necessary to address the adverse effects on health by reason of air pollution and contamination, especially when it results from climatic temperature inversions which trap nitrogen dioxide emissions in the immediate vicinity. Furthermore, is requires the municipality to consider the full impact of any new development on the safety and health of the residents/school children in the area.

The second important provision is that the Growth Plan is already cognizant of the fact that in achieving "complete communities" and a "sense of place" it is necessary to examine the relevant environmental concerns and to determine the best level of development. In this case it is submitted that the most appropriate level is to follow the minimum intensification and density targets. Accordingly, if the minimum intensification and density targets throughout the city are already being met by the municipality, then maximum or hyper -intensification should not be permitted on this site (Pre-Road widening 0.51693-hectare sized lot and a Lot area Post-Road Widening of 0.4157 hectares) because it would be inconsistent and in conflict with the other provisions of the PPS and the Growth Plan in respect of protecting human health and safety.

It is to be noted that the City of Hamilton, Planning and Economic Development submitted a Report to the Planning Committee on October 1, 2019, in which it reviewed both the PPS and the Growth Plan. The Planning Department confirmed that sufficient land is already available and zoned in Hamilton to accommodate required minimum targets through residential intensification and redevelopment. Therefore, if the intensification and density for the Applicant's site were to be lowered to the minimum standards and targets which are set out in the Growth Plan, the overall achievement of UHOP's and the GGH targets would not be in jeopardy. It is also readily apparent that with the Applicant requesting a density more than 5 times higher than what the Growth Plan has currently set for a post-road widening lot area of 0.4157 hectares, the proposed development is inconsistent with and in conflict with both the environmental and health concerns provided for in both the PPS and the Growth Plan.

This is because reducing the height, density and massing to the minimum requirements, and complying with the zoning by-laws for maintaining increased ground level landscaping and setbacks from adjacent roads and property lines, will all aid in allowing and creating the much-needed sunlight penetration and wind dispersion that will reduce the harmful concentrations of air pollutants that currently occur in this very neighbourhood, especially on days of temperature inversions. For the above reasons the Planning Department should reject the Applicant's proposed development as it does not conform to the Growth Plan for the Greater Golden Horseshoe 2019 (GPGGH) given the highly sensitive and vulnerable condition of the neighbourhood, the proposed development's lessening of the dispersal of air contaminants with

decreased sunlight and wind within the neighbourhood, and the resulting increased levels of adverse impacts on the health of its residents .

14. GUIDING PRINCIPLES AND APPROACHES WITHIN THE URBAN HAMILTON OFFICIAL PLAN WITH RESPECT TO ENVIRONMENTAL AIR QUALITY, LAND USE COMPATIBILITY AND HEALTHY, SAFE AND LIVEABLE COMMUNTIES

The Urban Hamilton Official Plan ("UHOP") also has provisions that are applicable to the proposed intensification and density for this site, but it also sets out the City of Hamilton's commitment with respect to clean air, quality of life, pollution and the health of its citizens. Some of the relevant excerpts from the UHOP are as follows:

B.1.0 INTRODUCTION

"The strength and quality of our communities is derived from the individual components of the built, natural, social and cultural environments, supported by a strong economy. This section of the Plan contains policies that direct the physical shape and quality of these distinct, yet interrelated components, and promote a culture of creativity and innovation.

- **Health and safety in our communities is essential**. Policies ensure that our communities are safe and healthy. **A broad interpretation of health recognizes the inter-relationships between all aspects of our environment and the impacts on the health of citizens**. Policies in this section enable healthy lifestyles, **promote a healthy and safe community, and promote a high quality of life**".

2.4 Residential Intensification

"*Residential intensification* is a key component in successfully developing and transforming targeted areas of the City. *Intensification* creates livable, vibrant compact communities; facilitates and enhance the node and corridor structure of the City, and makes efficient use of the City's public transit network and other infrastructure. For *intensification* to make a positive contribution to the City, **careful consideration must be given to design and *compatibility* with existing uses, neighbourhood character,** and cultural and natural heritage. ***Intensification* must represent good planning and not cause unacceptable impacts".**

2.4.1.4 *Residential intensification* developments shall be evaluated based on the following criteria:

a) a balanced evaluation of the criteria in b) through g), as follows;

b) the relationship of the proposal to existing neighbourhood character so that it maintains, and where possible, enhances and builds upon desirable established patterns and built form;

c) the development's contribution to maintaining and achieving a range of dwelling types and tenures;

d) the *compatible* integration of the development with the surrounding area in terms of use, scale, form and character. In this regard, the City encourages the use of innovative and creative urban design techniques;

e) the development's contribution to achieving the planned urban structure as described in Section E.2.0 – Urban Structure;
f) infrastructure and transportation capacity; and,
g) the ability of the development to comply with all applicable policies.

2.4.2.2 When considering an application for a residential intensification *development* within the Neighbourhoods designation, the following matters shall be evaluated:
a) the matters listed in Policy B.2.4.1.4;
b) ***compatibility* with adjacent land uses** including matters such as **shadowing**, overlook, noise, lighting, **traffic, and other nuisance effects;**
c) the relationship of the proposed building(s) with the height, massing, and scale of nearby residential buildings;
d) the consideration of transitions in height and density to adjacent residential buildings;
e) the relationship of the proposed lot(s) with the lot pattern and configuration within the neighbourhood;
f) the provision of amenity space and the relationship to existing patterns of private and public amenity space;
g) the ability to respect and maintain or enhance the streetscape patterns including block lengths, setbacks and building separations;
h) the ability to complement the existing functions of the neighbourhood;
i) the conservation of *cultural heritage resources*; and,
j) infrastructure and transportation capacity and impacts.

2.4.6 The City shall prepare detailed design guidelines for *residential intensification* projects in a variety of contexts.

3.3 Urban Design Policies
The overall future growth and land use vision for the City is based on the development of a nodes and corridors system and is described in Chapter E – Urban Systems and Designations. The transformation of identified node and corridor areas into higher density, mixed use nodes and corridors with enhanced pedestrian environments supported by transit represents a departure from the existing character of some of these areas. **In other places, the development of a node or corridor requires protecting existing built form character. Therefore, the following policies must be read in context with the function, scale, and design intent described in the policies of Chapter E – Urban Systems and Designations and other policies of this Plan.**

3.3.1 Urban Design Goals
The following goals shall apply in the *urban area*:

3.3.1.10 Create urban places and spaces **that improve air quality and are resistant to the impacts of climate change.**

3.3.2 General Policies and Principles

This subsection contains policies describing general design principles and directions that contribute to the achievement of the goals stated in Section B.3.3.1. **The successful integration of new *development* and *redevelopment* of in the *urban area* and its integration with surrounding neighbourhoods requires the form of development to follow appropriate urban design principles. Every design direction will not apply in all situations.**

3.3.2.8 Urban design should promote environmental sustainability by:
b) integrating, **protecting, and enhancing environmental features and landscapes**, including existing topography, forest and **vegetative cover, green spaces and corridors through building and site design;**

e) encouraging the reduction of resource consumption in building and site development and **avoiding the release of contaminants into the environment**; and,

3.3.2.9 Urban design plays a significant role in the **physical and mental health of our citizens. Community health and well-being shall be enhanced and supported through the following actions, where appropriate:**
a) creating high quality, **safe streetscapes, parks, and open spaces that encourage physical activity** and *active transportation*;
d) **reducing air**, noise, and water **pollution** through the following:
ii) **providing adequate green space, landscaped buffering**, and storm water management facilities;

3.3.3 Built Form
Built form shapes the visual qualities of streets and open spaces but **also affects how the public spaces around buildings are used**, experienced, and perceived. Our city is built one building at a time and each building contributes to the overall design of the City, **therefore attention to each building is an important step in the city building process.** Built form plays a large role in defining the character of an area. **New *development* shall serve to maintain and support existing character**, or create and promote the evolution of the character in areas where transformations are appropriate and planned.

3.3.3.2 *New development* shall be designed **to minimize impact on neighbouring buildings and public spaces by:**
a) **creating transitions in scale** to neighbouring buildings;
b) **ensuring adequate** privacy and **sunlight to neighbouring properties**; and,
c) **minimizing the impacts of shadows and wind conditions**.

3.3.3.4 New *development* shall define the **street through consistent setbacks and building elevations.** Design directions for setbacks and heights are found in Chapter E – Urban Systems and Designations and in the Zoning By-law.

3.6.2 Air Quality and Climate Change

"Air quality and climate change have significant direct and indirect impacts on community health, the environment, and the economy of Hamilton. Local sources of air pollutants that can compromise clean air include personal and commercial vehicles, industry, and energy sources used for heating and cooling".

"Climate change can be caused by natural processes and human activities. Increased fossil fuel use and permanent forest loss has increased the concentrations of greenhouse gases, leading to accelerated changes in our climate. A high concentration of heavy industries and **transportation corridors are contributing local sources of greenhouse gases in the City.**
Addressing climate change requires two complementary actions: mitigation (i.e. reduction) and adaptation. Mitigation involves actions to reduce greenhouse gases **or actions to avoid or delay climate change. Adaptation involves actions or planning to minimize a city's vulnerabilities to the impacts of climate change".**

Several goals and policies of this Plan, **both directly and indirectly contribute to the improvement of air quality** and reduce greenhouse gases:
a) promoting compact, mixed use urban communities;
b) integrating the transportation network to include all modes of transportation;
c) **promoting walking, cycling**, and use of public transit;
d) **achieving a natural heritage ecosystem through the protection and enhancement of natural heritage features and functions**;
e) implementing urban design features to reduce fugitive dust;
f) **enhancing vegetative cover;** and,
g) reducing the heat island effect through the use of reflective roofs, green roofs, **natural landscaping, and increasing the tree canopy.**

Many of these goals and policies also contribute to the **adaptation to climate change by minimizing vulnerabilities to climate impacts**. Prohibiting new *development* on *hazard lands*, and incorporating urban design features that reduce climate impacts on public works and urban infrastructure - roads and associated infrastructure, bridges, water and waste water systems, and energy distribution, are **climate change adaptation strategies**.

Partnerships
3.6.2.1 The City shall partner with community groups, such as **Clean Air Hamilton**, to develop actions **to reduce air pollutants and improve air quality**.
3.6.2.2 The City **shall partner and work with other levels of governments**, other municipalities, academics, community groups, and local industries **to develop**:
a) **actions that reduce air pollutants and greenhouse gases, improve air quality, reduce and respond to the impacts of climate change in the City;** and,
b) a **Hamilton Air Quality and Climate Change Plan**.

3.6.2.3 The City **shall promote and support public** and private education and **awareness of air quality and climate change, associated health impacts, and linkages to transportation and land use *development* in the City.**

Monitoring

3.6.2.4 The City shall undertake an air pollutant and greenhouse gas emissions inventory and **assess the conditions of Hamilton's local air quality and climate to inform actions to reduce emissions of air pollutants** and greenhouse gases generated in the City.

3.6.2.5 The City may partner with other organizations to monitor, track, and assess the conditions of Hamilton's local air quality and climate to identify local emission sources and take action to reduce air pollutant and greenhouse gas emissions at these sources.

3.6.2.6 The City shall monitor and reduce air pollutants and greenhouse gases generated by the City's corporate activities and services to achieve the targets set out in the Corporate Air Quality and Climate Change Strategic Plan.

3.6.2.7 The City shall prepare an annual Air Quality and Climate Change report to monitor the City's progress toward its goals and to increase awareness of air quality and climate change.

Summary

The Urban Hamilton Official Plan (UHOP) identifies air quality as a major concern in the City of Hamilton and a desire to stake the necessary actions to respond to air pollution. These concerns are to be an important factor in planning and redevelopment, and the proposed development will certainly impact negatively on the air quality in the neighbourhood. This is because the 17-storey building (15-storeys plus a 2-storey rooftop mechanical penthouse), will a total height of 156.957 meters, will reduce the needed sunlight hours on Dow Avenue and Cline Avenue South that are required to help dissipate the high levels of air contamination from vehicle emissions converging from the heavy traffic volumes on Main Street West, which is often at a standstill right in front of Grace Lutheran Church, Hwy 403 and the exit-entry ramps of Hwy 403/Main Street West, all of which are within 150 meters of the subject site. The vehicle emissions are compounded by the ever-increasing occurrences of temperature inversions days due to climate change and the resulting trapping and containment of harmful air pollution by the topography of the Niagara Escarpment centred within the Hwy 403/Main Street West vicinity. The loss of sunlight hours onto adjacent streets and properties is to the detriment of the health and well-being of neighbourhood residents and the schoolchildren is therefore contrary to the goals set out in the UHOP.

The height, density and massing of the proposed development will also interfere with the required winds and breezes which are necessary to aid in the dispersion of harmful air contaminants, and instead will create pockets of high concentrations of pollutants which will linger longer in the immediate vicinity, be it to the north, south, east or west of the proposed development. This adverse interference with both air quality and the quality of life is again contrary to the goals and policies set out in the UHOP.

Natural vegetation and trees have been considered by many environmental experts as being a critical factor for reducing air contaminants such as Nitrogen Dioxide. The landscaping plans for the proposed development calls for the removal of the largest and most mature trees on the site (25 trees in all) and substitutes the existing ground level landscaping at Grace Lutheran Church, with landscaping plans for the 10th floor of the project consisting of built-in BBQs, picnic tables and planters with ornamental grasses. This proposed landscaping is woefully inadequate to replace the air quality benefits that the neighbourhood is currently receiving in having a landscaped site that is recognized as being able to reduce ground level air pollution. The removal of mature trees, combined with a drastic reduction from existing ground level landscaping requirements through a requested Zoning Amendment, clearly does not conform to the UHOP.

15. PROVISIONS OF THE CITY-WIDE CORRIDOR PLANNING PRINCIPLES AND DESIGN GUIDELINES AND APPROPRIATE AND SEPARATE APPROACHES FOR DIFFERENT CORRIDORS AND SEGMENTS

The City of Hamilton has properly confirmed that a key element of corridor development is intensification, but at the same time the City of Hamilton has recognized that "**a central element of corridor planning will be achieving intensification in a manner that brings the benefits of intensification to a Corridor while respecting and protecting the character of the residential neighbourhoods next to the Corridors.**" Fortunately, the City has set out guidelines which is of assistance in evaluating the level of intensification which is appropriate for a site within a designated Corridor. This is in Section 2.2 which reads as follows:

2.2 Managing Change

"The majority of Hamilton's identified corridors have been in existence for many years, with some areas more than 100 years. Each corridor contains sections that are at various stages of evolution. **The role of planning is to manage land use and built form changes brought about by intensification in order to create high quality, liveable environments**."

"Within each Corridor, development occurs gradually over time and **in specific areas resulting in areas of different character defined by use, function, culture and or aesthetic qualities including built heritage attributes. Corridor planning must recognize these unique character areas and respond with appropriate approaches.** A key element of corridor planning activities, whether corridor wide or area specific strategies, secondary plans or neighbourhood planning activities is to identify the areas where change is desired, **identify the nature and scale of that change and identify mechanisms and processes to manage the change. Change should be directed and managed to ensure high quality environments are achieved**."

"**Conversely, there will be areas along or adjacent to a Corridor where change is not desired and where the existing conditions of land use and/or built form character should be protected. Those areas must be identified**. Finally, identifying the mechanisms for managing

the interface between areas of change and areas for protection must be a key element of planning in corridors.
Planning along the City's corridors can proceed in a variety of geographical scales such as:

- Corridor wide studies, strategies or **secondary plans**;
- **Studies, strategies or secondary plans for smaller segments of a corridor**;
- **Neighbourhood scale studies, strategies or secondary plans that overlap with a Corridor**;
- Transit station or mobility hub areas along a Corridor; and,
- Precinct plans for larger tracts of land along a Corridor."

"It is anticipated that planning for Hamilton's Corridors will utilize a variety of planning studies, tools and mechanisms at a variety of scales to refine the higher level policy directions and achieve the desired outcomes as identified in Section 1.4.2. Not all Corridors will utilize the same processes given the uniqueness of each corridor."

To this extent, the Corridor Guidelines and Principles require than an increase of intensification must take into account the existing nature and character of the neighbourhood in which the proposed development is situate, and to ensure that any neighbourhood adjacent to a corridor, remain as a high quality and liveable environment. If the scale, density, height, and massing of any proposed development, results in adverse impacts on the health of residents, in an area which is already highly vulnerable and sensitive to excessive levels of air contamination, then such a proposed development not only fails to conform with the Corridor guidelines, but it would violate its basic principles.

Accordingly, the health of residents and the appropriate level of intensification should not be considered as a uniquely west end or Westdale problem, in which residents are requesting special treatment. Rather it is a City-wide problem, as the air quality is uniformly bad throughout the corridors traversing the lower city. The west end of Hamilton has just as poor-quality air as the east end and north end of the lower city, and therefore all planning decisions should be cognizant of this fact. All planning approaches respecting air quality must therefore be uniformly applied across the City of Hamilton.

The Corridor Guidelines recognize that each corridor is different and is unique, and that smaller segments may require protection from higher levels of intensification, as change is not desirable in some areas. I respectfully submit that some of the tests that should be applied across the City for corridor planning decisions in respect of air quality are as follows:

1) Is the segment within 50 metres of a major arterial road with vehicle traffic in excess of 50,000 per day;
2) Is the segment within 500 meters of a major highway with vehicle traffic in excess of 100,000 per day;
3) Is the segment within 150 meters of a highway exit/entry ramp;
4) Is the segment adjacent to excessive idling from vehicles at a standstill from rush hour traffic jams, stretching out for three of more city blocks;

5) Is the segment on the south side of an east-west axis traffic corridor;
6) Is the segment within any topographical features or valleys, basins or canyons that will result in a "canyon effect";
7) Is the segment vulnerable to temperature inversions that stagnant or stall over the immediate vicinity creating dangerous air quality conditions;
8) Is the segment subject to proven poor air quality by Provincial/Federal air pollution readings from either a mobile or permanent monitoring station.
9) Is the segment indicating readings for extended periods or days when the air quality is the worst in Ontario and possibly in Canada.

The above only pertain to air quality and the tests to determine appropriate level of intensification. The Principles and Design Guidelines contain other factors, such as traffic safety, which can be equally important for determining the intensification appropriateness for any segment of a traffic corridor in the entire City of Hamilton. These additional tests are as follows:

10) Is the segment on an intersection(s) which is/are unsignalized and which are six (6) lanes of traffic or wider;
11) Is the segment of the corridor subject to a high number of motor vehicle accidents;
12) Is the segment of the corridor a location of pedestrian fatalities;
13) Is the segment near an elementary/private school or have a large number of young children walking on the adjacent sidewalks;

Finally, there are tests which pertain to the appropriateness of the site beyond air quality and traffic safety, such as cultural heritage, and which can be equally applied across the City of Hamilton are as follows:

14) Is the site included in the City of Hamilton's "Inventory of Buildings of Architectural and/or Historical Interest";
15) Is the site a Place of Worship which is included on the "Inventory of Significant Places of Worship in the City of Hamilton", and considered by Hamilton to be an essential aspect of the city's character and heritage;
16) Is the site a Cultural Heritage Landscape;
17) Is the site subject to heritage policies of the Urban Hamilton Official Plan (UHOP) and must be weighed against any proposed development:
18) Is the site adjacent to a building which is included in the City of Hamilton's "Inventory of Buildings of Architectural and/or Historical Interest";
19) Is the site adjacent to a Place of Worship which is included on the "Inventory of Significant Places of Worship in the City of Hamilton", and considered by Hamilton to be an essential aspect of the city's character and heritage;
20) Is the site adjacent to a property which is subject to heritage policies of the Urban Hamilton Official Plan (UHOP) and must be weighed against any proposed development;
21) Is the site adjacent to a school and a school playground;
22) Is the site adjacent to a City of Hamilton park or parkette.

All of these tests are applicable in determining the appropriateness of the level of intensification for this site in accordance with the City of Hamilton's own planning guidelines and principles.

With respect to the air quality tests, being **questions 1-9**, the answers are all in the affirmative, a fact that would rank this site on the Toronto Health Department Chart as even being one of the most vulnerable sites for Traffic Related Pollution Exposure in all of Toronto. The affirmative answers clearly indicate that the overriding factors concerning redevelopment of the site should be towards mitigation and not the hyper intensification suggested by the Applicant in its Planning Rationale. The very high traffic volumes and transportation routes abutting the site referred to in its report are not, however, justifiable grounds for drastic higher over-intensification, but rather the heavy traffic volumes on the north and the south represent the very evidence which demonstrates the problem of air pollution caused by vehicle emissions and the extreme vulnerability of the site.

With respect to traffic safety and cultural heritage **questions 10-22** can also all be answered in the affirmative, clearly demonstrating that this site may be the least appropriate site in the entire City of Hamilton for the level of intensification requested by the Applicant, as the proposed development does not have sufficient regard to the Provincial interests set out in Section 2 of the Planning Act; is inconsistent with the Provincial Policy Statement; does not conform to the Growth Plan for the Greater Golden Horseshoe, and in the case of the Zoning Bylaw Amendment does not conform to the Urban Hamilton Official Plan and the AWW Secondary Plan.

16. THE APPROPRIATE LEVEL OF INTENSIFICATION FOR THE SITE AND THE REQUIRED MODIFICATIONS TO THE DEVELOPMENT PROPOSAL TO BRING IT INTO COMPLIANCE AND CONFORMITY WITH ALL RELEVANT PLANNING POLICIES AND TO MITIGATE ADVERSE HEALTH IMPACTS

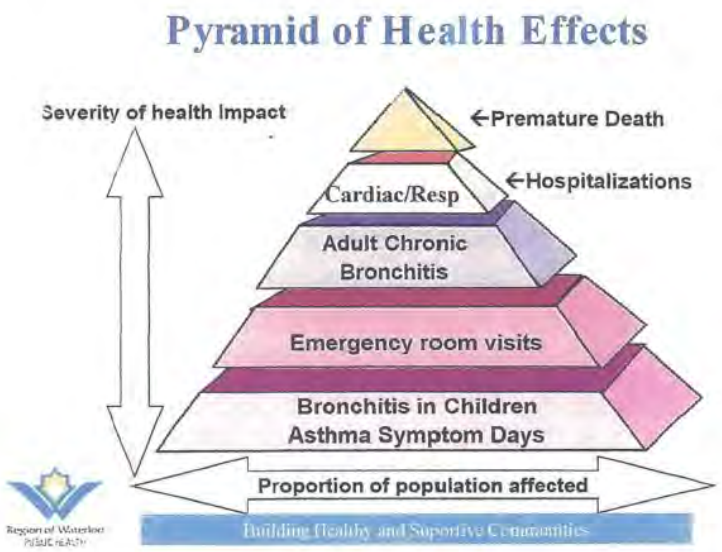
The level of intensification and density which is appropriate for the site, is at a height and number of units which will maintain the exiting levels of sunlight, wind penetration and landscaping vegetation for the benefit of the neighbourhood. This level has been set out in the Secondary Plan as is "Mixed Use- Medium Density". This is the designation which the Applicant acknowledged in the Formal Consultation Document that it entered into with the City of Hamilton and for which it was informed it was required to provide "a strong planning justification as why the increased height is appropriate in this location.

This existing designation is appropriate as Section 6.2.7.2 b) states that permitted heights shall not exceed three storeys". The 15-storey plus 2-storey rooftop mechanical penthouse (17-storeys in total) is not justified given the sensitive and vulnerable nature of the site with the poor air quality, high traffic related air pollution and the adverse health impacts that would be caused by the hyper intensification proposed by the Applicant. (See questions 1-9. The affirmative answers to questions 10-22 will be addressed in other material to be submitted).

The current height of Grace Lutheran Church is not even 3-storeys however, a new project of 3-storeys will still permit existing levels of sunlight to reach the streets and properties in the neighbourhood and thereby continue to aid in air pollution dispersion. The 17-storeys would

drastically and detrimentally reduce the desirable hours of sunlight, thereby jeopardizing the health and safety of not only the residents, especially seniors and retirees living in the area, but the school children in the playground and other children who are utilizing the City of Hamilton parkette.

It must be remembered that air pollution does increase health impacts and mortality rates, and that planning decisions can have a positive impact on health outcomes if exposure times are reduced. This is evident from the following table prepared by the WHO and utilized by McMaster Institute of Environment and Health.



The 3-storey height limit for a development will also permit the same existing breezes and winds to sweep across the site and further aid in air pollution dispersion. The excessive height of 17-storeys will create areas of negative pressure and a containment area on all sides of the proposed development, and this proposed built form design will allow even greater concentrations of harmful air pollutants to occur in and around the neighbouring properties, the school playground and the parkette.

A development, however, limited to 3-storeys in height and with reduced density of 30-49 units per hectare, which in this case of a site of approximately one half of a hectare, will result in approximately 15-25 units. This much more appropriate density and level of intensification conforms to the PPS and the Growth Plan, but most importantly it will also promote the required wind flows to improve or maintain air quality.

This more appropriate level of intensification and resulting adherence to the requirements of the zoning bylaw will also permit some of the existing mature trees and ground level landscaping on the site to be preserved, as it is these very trees which have been an invaluable aid in reducing and absorbing harmful contaminants from the atmosphere. The removal of these trees from the site and their replacement with ornamental grasses and shrubbery on the 10th floor does little in promoting or maintaining the health of the residents who would otherwise be adversely impacted by increased air pollution. The mature trees adjacent to the boundary of the site currently fulfill an essential role in urban air pollution abatement and mitigation, and any redevelopment on the site should take measures to preserve them.

The proposed development should also not have any balconies. Not only did these balconies reduce the privacy of the neighbourhood residents and school children from tenants'''''''''''''''' who would be overlooking them, but the balconies would not be safe amenity space, as the tenants using the balconies would be exposed to harmful outside air pollution.

An additional feature that would assist in air pollution mitigation, and which is desired for wind and sunlight penetration is to separate the project into two buildings of 3-storeys each with the separation occurring above the first storey. This lower one-storey portion fronting on Main Street West could serve as the storefront commercial area for the project, and rear portion on the southerly side, could be the **above ground parking garage** for the 15-25 residential units to be built in the two buildings. This design would also permit increased landscaping on the site, and be in full compliance with the zoning bylaws, rather than the grossly excessive reductions and exemptions that the Applicant is requesting with respect to setbacks from all property lines and in providing the required amenity areas.

Another advantage of the reduced density to 15-25 units is that not only will there be a corresponding reduction in the number of motor vehicles to parking on the site, but there will also be a reduction in the number of visitors, guests, Ubers, taxis, and delivery vans and trucks that will be driving onto either Cline Avenue South or Dow Avenue to drop off or deliver food and parcels. The overall reduction in the idling of motor vehicles in the neighbourhood would result in less emissions and thereby mitigate harmful air pollution. The abatement in emissions will have an even greater effect in the overall traffic making left turns off Dow Avenue or Cline Avenue South onto Main Street West. Often cars are queued on both of these side streets waiting for the traffic to clear before being able to complete a left turn, and the fewer cars at the subject lands and the elimination of the proposed street parking, would have an enormous effect in reducing the motor idling emissions in an already vulnerable neighbourhood.

With the project being limited in height to three-storeys, the project can utilize conventional construction materials and processes, rather than the use of poured concrete, and this will result in tremendous savings for construction costs. Together with the savings on the unnecessary three level underground parking garage, this more appropriate level of intensification will provide an affordable housing alternative, for prospective homeowners and/or tenants. Furthermore, the

savings in construction costs using conventional building for a three-storey building could allow larger sized units with extra space for a home office or study, thereby appealing to a much larger cross-section of the actual residents comprising the neighbourhood, such as seniors, retirees, and young professionals. It is this type of affordable housing option which is most needed in the City of Hamilton, and it is this level of intensification which is most appropriate for the site.

CONCLUSION

I have prepared this detailed objection letter in the expectation that the Planning Department will consider these full environmental concerns and adverse health impacts as part of its evaluation and assessment of the proposed development on the Grace Lutheran Church property.

It is clear that the Applicant envisions the site as being ideal for massive transit-supportive intensification, and that a failure to maximize development to the highest level possible, would be a "waste of underutilized space". The Applicant and its planner have attempted to rely upon the PPS, the Growth Plan of the Greater Golden Horseshoe, and the UHOP as supporting their goal of intensification at any cost. They also refer to the fact that the busy traffic volumes on Main Street West corridor and the proximity of the site to Hwy 403, are evidence for their request to obtain a high level of intensification and that it fully supports the City of Hamilton UHOP and Secondary Plan objective for a "pedestrian focus".

It is my respectful opinion, that with the site fronting on the south side of Main Street West, and with it being sandwiched in between the heavy traffic volumes of Main Street West and Hwy 403, and one block away from the Highway 403 exit/entry ramp, this site is not the ideal nor is it a location that can accommodate the level of density and intensification requested by the Applicant. On the contrary it is a site which is extremely vulnerable to the effects of air pollution and it is a site which must be developed in a manner which maintains and secures the health and safety of an existing neighbourhood - a neighbourhood consisting of a large percentage of seniors and young children, two groups who are most affected by the adverse health impacts from vehicle emissions. For this reason, if two objectives are in conflict, being the "higher density corridor intensification and redevelopment" versus the "health and safety of the existing residents already living in the neighbourhood", the health and safety issue must take precedence and priority.

The vulnerability of the site is further compounded by the topological features of the Niagara Escarpment and the ever-increasing number of temperature inversion days, which trap harmful air contaminants for longer periods in the atmosphere above and adjacent to the site. In fact, the air quality studies all recommended that bicycling and walking trails be moved off the main traffic corridors where traffic emissions are excessive and Nitrogen Dioxide levels are high. It is my belief that the Planning Act, the PPS, the Growth Plan and the UHOP/Secondary Plan support, with their robust policies, the protection of air quality and the liveability of the neighbourhood in which the site is located. It is for these reasons that the Planning Department

should adhere to the restrictive confines of the numerous air quality policies that have been set out, and to only permit an appropriate level of intensification.

I have undertaken to present the evidence of adverse health impacts in the L8S postal area code, which covers the neighbourhood and surrounding area, the correlation of illness with traffic emissions and harmful contaminants, the identification of Hwy 403 and Main Street West as being an area of high air pollution and ambient contaminants, and the readings of the nearby Air Quality Monitoring Station at Hamilton West.

I have further sought to demonstrate the approaches used by other jurisdictions in trying to abate and mitigate air pollution arising from traffic emissions, notably Toronto (with its TRAP report) and Halton Region, and with some other urban municipalities in other parts of the world. The approaches utilized by these urban centres all focus on four areas in respect of development – 1) increased sunlight penetration onto the streets and properties adjacent to a development; 2) wind penetration to aid in dispersion of air contaminants; 3) anti-idling measures and vehicle emission reduction; and, 4) the use of trees and vegetation (green infrastructure) for air pollution mitigation by means of a) barrier control; b) dispersion; and, c) deposition.

Based on the studies, reports and articles set out in this letter, it is clear that the factors which will ensure the health and safety of the residents in the neighbourhood should be implemented as part of the planning approval process for this site. In reading and reviewing the policies and guidelines set out in the four planning documents and the policies respecting air quality, health and safety, liveable communities, and intensification, it is again clear that in arriving at determination of the appropriate level of intensification, the overriding goal is the "protection" of the neighbourhood, rather than its "abandonment" to unmitigated over-intensification.

It is for all these reasons that I have recommended that the Planning Department involve the services of the Hamilton Health Department to make an assessment of the health of children in the L8S postal code area, and that your department also request the Applicant to submit an Environmental Impact Study regarding ambient air pollution and its mitigation for your review. I also believe that it is imperative that the Applicant be required to submit a full Sun/Shadow Impact Study, not for the one day in March, but for 52 days (falling within a whole 52-week period) to indicate the total amount of sunlight hours that will be lost on Dow Avenue, Cline Avenue South and Main Street West in comparison to the amount of sunlight the area is currently receiving with Grace Lutheran Church versus the 17-storey height of the proposed development.

Similarly, a Wind Tunnel modelling study of the prevailing winds over the course of 52 days within a one-year period from a meteorological analysis should be requested to determine the reduction of winds and breezes in the neighbourhood if the proposed development is allowed to proceed. I believe that an updated Traffic Study is also required from the Applicant in order to examine both the length of time and the number of motor vehicles that are queued or idling on Cline Avenue South, Dow Avenue and Main Street West during at least 10 different morning

rush hours and 10 different evening rush hours, (when McMaster University. Columbia College and the Hamilton Hebrew Academy are in session). Furthermore, the number of vehicles making either U-turns or three point turns on Cline Avenue South during these rush hour periods should be ascertained in order to accurately identify the total amount of traffic related emissions occurring in the neighbourhood.

If you require any further information or citations for any of the reports and studies referred to, or if you need any clarification on any matter raised in this objection letter, please do not hesitate to contact me.

Yours very truly.

cc. Ainslie Wood Community Association
Clean Air Hamilton

March 3, 2021

Andrea Dear
Planning and Economic Development Department
Development Planning, Heritage and Design – Urban Team
71 Main Street West, 5th Floor
Hamilton, ON L8P 4Y5

Hannah Kosziwka
Planning and Economic Development Department
Development Planning, Heritage and Design – Urban Team
71 Main Street West, 5th Floor
Hamilton, ON L8P 4Y5

Maureen Wilson
Councillor Ward 1
71 Main Street West, 5th Floor
Hamilton, ON L8P 4Y5

Dear Ms. Dear, Ms. Kosziwka and Ms. Wilson:

RE: UHOPA-20-012 and ZAC20-016
1107 Main Street West, Hamilton (Ward 1)
Supplemental letter regarding deficiencies of the Cultural Heritage Impact Assessment (CHIA) which was submitted by the Applicant
Subject lands formerly owned by Wartime Housing Limited
Aitkinson Park Plan No. 728, Gore of Ancaster

I previously submitted a letter to the Planning Department in response to the CHIA which was filed by the Applicant for this site, however I wish to provide additional information which not only addresses further deficiencies in the Applicant's CHIA report, but which also reinforces the reasons for a fully landscaped, open and public area to promote and preserve the cultural heritage associated with the neighbourhood and specifically in regards to the lands of the proposed development.

The shortcomings relate to the fact that:

1) the lands, immediately prior to the construction of the Grace Lutheran Church were owned by Wartime Housing Limited (WHL) a federal crown corporation which existed from 1941-1947 to build and manage thousands of rental units for wartime factory workers, veterans and their families. This information was obtained by examining Aitchison Park Survey Plan No. 728 in which, under the Owner's Certificate, it reads "**His Majesty the King in Right of Canada herein represented by the Minister of Munitions & Supply of Canada acting through Wartime Housing Limited**". (See the attachment. This extremely important aspect was completely ignored in the CHIA. Although the heritage planner noted the "many houses" in the Fire Insurance Map, which is attached to the CHIA, he failed to make an association with these many houses to

WHL. In addition, wartime houses were not usually "demolished" but rather they were "dismantled" or "disassembled" as most of the prefabricated parts were reused in Veteran's housing)

2) the lands were originally located in the Gore of Ancaster and according to the atlas map of 1875 of the Township of Ancaster they were designated as part of Lot 61(owned by J. Wahling) and part of Lot 60, Concession 1, (owned by G. Cline) in the Gore of Ancaster, each lot consisting of 100 acres. (The CHIA also unfortunately ignores relationship to Ancaster and only discusses the early history of Hamilton, when the Township of Ancaster had its own important history)
3) the lands were extremely close in proximity to the Chedoke Creek Valley, which should deserve recognition for its own history and its critical importance to the watershed of this area, in any cultural heritage assessment of the neighbourhood. (The CHIA avoids mentioning Chedoke Creek Valley and the closest reference to it is as a "wide ravine in the west" on page 9 of that report)
4) prior to the ownership of the lands by Wartime Housing Limited in 1941 the lots appear to have been farmland with only farmhouses belonging to the early Ancaster settlors. The wartime houses, however, were built by using prefabricated parts and were completed within 36 hours by shifts of workers without the need for excavating any basements. Due to the fact that these houses only sat on sunken posts, it may have been possible to locate on the subject site a pre-Confederation farmhouse in the Gore of Ancaster, but such a possibility was never considered in the CHIA. Instead, one of the pictures in the CHIA taken of the site in the fall of 2019, indicates that a large excavation had already been carried out to presumably remove contaminated soil as a result of a non-disclosed Environmental Report (see attachments). This substantial excavation should have been under the supervision of the Heritage Planner and only commenced after the delivery of a full report, not before the date the Heritage Planner was retained.

   Furthermore, if the excavation and replacement with clean infill was carried out after the Applicant signed the Formal Consultation Document but before it submitted its Application to the Planning Department, why has the Applicant never made the Environmental Report publicly available on the Applicant's website? This omission is extremely upsetting to many neighbours as children are playing in an area less than a metre away from where the contaminated soil was removed, and children continue to play on the lawns of the school and Synagogue. If the contamination is in any way attributable to the wartime houses and the use of recyclable materials, this may also affect many of the homeowners of Dow Avenue and Cline Avenue South as their properties were also at one time occupied by wartime houses.

WARTIME HOUSING LIMITED (WHL)

Catherine Jill Wade – Wartime Housing Limited
https://open.library.ubc.ca/cIRcle/collections/ubctheses/831/items/1.0096317
One of the most informative papers written on wartime housing was by Catherine Jill Wade and was entitled "Wartime Housing Limited, 1941 – 1947: Canadian Housing Policy at the Crossroads". The housing was built as close as possible to the factories producing munitions and military parts for the armed forces, and the closest factory to Aitkinson Park Plan 728 was the

Westinghouse factory on Longwood Road and Aberdeen. A web search confirmed that the factory was converted to 100% production to assist the war effort and in fact this factory was ranked as "Canada's Number One War Plant". (see attached page from history of Westinghouse)

Other interesting points made by the author was that WHL was forced to discontinue its operations and dismantle its housing inventory, including the houses between Dow Avenue and Cline Avenue South. This was attributable to the fact that the political climate at the time was fearful of "socialism" and social welfare in the form of government intervention in the housing market in only charging rents as low as $20.00 per month. Rather it was decided after the war that housing and subsidized housing could only be run by private enterprise.

This explanation also helps understand why CMHC, the successor crown corporation to WHL, decided after the houses had been dismantled, to sell the lands for the construction of two Houses of Worship, namely Grace Lutheran Church and Adas Israel Synagogue. Perhaps it troubled the administrators of CMHC to be ordered to abandon "social and subsidized housing" at the very time when the need was still so great, and instead of selling the land to private developers it was decided to sell to two religious non-profit charitable organizations. It also explains why CMHC insisted upon a registered covenant that ran with the land prohibiting any use of the lands for any other purpose, save and except a religious place of worship. (This covenant remained on title from 1957 until 2019 when it was removed by the current owner of the site by instrument No. WE1333517).

Due to the fact that the houses were all made of prefabricated components and were assembled within days, it is even possible that when the houses were disassembled, the very same prefabricated parts were used in the construction of the veteran's housing project only a block further west on Haddon and on the surrounding streets, and which is a designated Cultural Heritage Landscape (CHL) in the Urban Hamilton Official Plan and the Secondary Plan.

I am attaching a copy of the Aitchison Plan No. 728, a copy of the blueprints for the wartime houses that were built, a few relevant pages from Catherine Jill Wade's paper, and the 1947 Fire Insurance Map showing the location of the wartime houses on Dow and Cline Avenue South.

Wartime Housing National Film Board (NFB)
An excellent 17-minute documentary film made in 1943 by Graham McInnes is available online for free viewing at the NFB website. (www.nfb.ca search "wartime housing")
This film is extremely relevant to understanding the cultural heritage history of the neighbourhood, and it is very informative because it explains many of the aspects of wartime housing. In fact, many of the segments of the documentary were filmed in Hamilton and at Dow Avenue and Cline Avenue South.

Joseph Pigott
The President of Wartime Housing Limited was the illustrious Hamiltonian, Joseph Pigott, one of Canada's most highly regarded construction magnates. He was involved in many of the most important decisions made by WHL and as a result of his stewardship he was awarded Commander of The Most Excellent Order of the British Empire in 1946.

The fine work of Joseph Pigott in Hamilton's cultural history should not be forgotten or ignored in the Applicant's CHIA report of the subject site, and the subject site is an excellent example of how important Pigott's efforts were for our City and the entire British Commonwealth.

GORE OF ANCASTER

I have attached articles on the history of Ancaster which has relevance to the history of the subject site and which was ignored in the Applicant's CHIA report and also a Township of Ancaster map from 1852 which indicates the location of the site and the original farmhouses that existed in the Gore of Ancaster at that time. I have also included other maps which help illustrate the early history of these lands.

AERIAL MAP OF THE SUBJECT SITE AND CHEDOKE CREEK VALLEY

Although Google satellite maps show the current state of the subject site and its contextual relationship to the surrounding lands, it is a 1960 aerial picture of the site which indicates the location of the then newly constructed Grace Lutheran Church and the partly completed Adas Israel Synagogue, and their proximity to the Chedoke Creek Valley prior to the construction of Highway 403, which began in 1963 - 1964.

The drastic impact of Highway 403 throughout the valley and the irreparable harm inflicted on the urban forest canopy in this portion of the Chedoke Creek Valley is startling. But one can truly appreciate from these photographs exactly why the two congregations considered their two sites to be the most ideal and beautiful lots upon which to build places of worship when they purchased the lands from CMHC in 1957.

CULTURAL HERITAGE RECOGNITION FOR WARTIME HOUSING BY OTHER MUNICIPALITES

Many municipalities across Canada had wartime houses erected in their neighbourhoods, and many such as Fort Erie, Toronto, St. Catharines, and St. Mary's have taken steps to recognize these former locations for wartime housing in their cultural heritage, by the erection of outdoor interpretive plaques and commemorative plaques. (Attached are two examples of plaques.)

It is also a requirement to have a full Heritage Impact Statement carried out if any infill or redevelopment in Cultural Heritage Landscape or Heritage Designated Area of existing wartime houses. One such Heritage Impact Statement, which is very informative, was carried out for the Malton area of Mississauga by Ann Gillespie, a Heritage Planner and is available online at: http://www7.mississauga.ca/documents/agendas/committees/heritage/2014/Item_6,_Appendix_2.pdf

CONCLUSION

The cultural heritage and history of the subject lands is quite extraordinary, and all necessary measures should be taken to not lose this valuable heritage. It is not only extremely important for understanding the history of Grace Lutheran Church, Adas Israel Synagogue, the neighbourhood

which surrounds these two significant Places of Worship, but it also has continuing relevance to better appreciating the history of both the City of Hamilton, and the Dominion of Canada.

The Applicant, in its presentation to the Design Review Panel, does not even appear interested or willing to have any public or open landscaped area to maintain the cultural heritage history of Grace Lutheran Church. Aside from the much-criticized replication of the front doors of the Church on the front of the high-rise facade, no landscaping plans or architectural courtyard plans were presented to the panel indicating that important components of the Church would be repurposed in an open landscaped area. These include the exterior stone base, the cut limestone accents and the curved corner stone, and other heritage components which have been ignored.

Furthermore, it appears that the narrow courtyard between the two towers is going to be used as a private exclusive-use area for only those residents who will be occupying the seven proposed townhouse units. The lack of an public, open landscaped area with repurposed elements will unfortunately ensure the complete erasing of the heritage of the site, and the disruption of the neighbourhood's connection to the history of Hamilton and of Canada.

The beautiful gardens of Grace Lutheran Church truly warrant recognition as a Cultural Heritage Landscape, and although the actual gardens will be lost through the redevelopment process, this landscape must be restored and replaced in a meaningful and significant new landscaped area which is open to the public and which can be primarily located on the very lands required by City Zoning By-laws for setback requirements from adjoining properties and street frontages.

The required landscape plan should also incorporate a heritage design focused on the many interpretative plaques that should be erected in a fully open and attractive landscaped area. These include CMHC, which has already expressed an interest in erecting such a plaque and the desire to place information about the history of these lands on its website (see attachment); a plaque in honour of William Souter, for whom recognition is certainly warranted and for whom a major religious organization has already agreed to undertake the task of a suitable commemorative plaque; a plaque in honour of Joseph Singer the modernist architect who not only designed the former Board of Education centre across from City Hall, but also designed the modernist Adas Israel Synagogue directly to the south of the subject lands, and the modernist office building (now student residence) to the north of the subject lands on the north side of Main Street West; and, most importantly interpretive plaques for Joseph Pigott and Wartime Housing Limited.

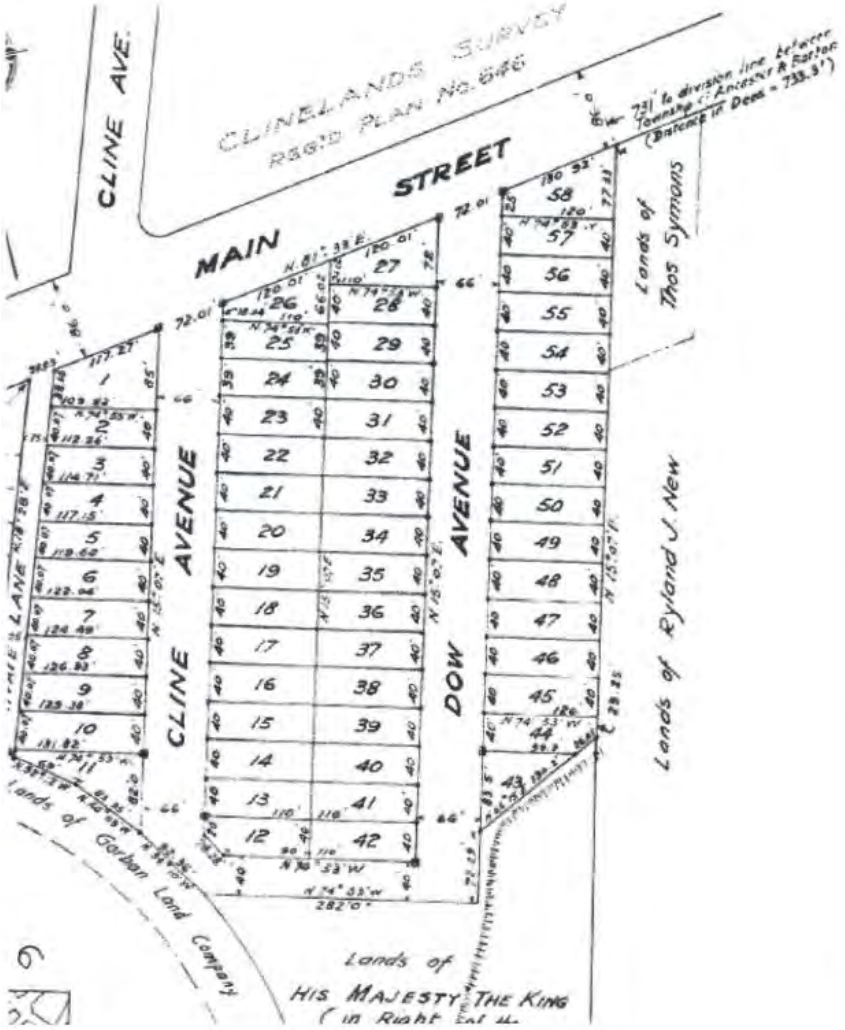
For all the above reasons, the proposed development, as presented to the Design Review Panel, will permanently sever the neighbourhood from its cultural heritage and erase a history of the City of Hamilton which should be preserved. Accordingly, I respectfully request that a public landscaped area, with commemorative and interpretive plaques honouring our history and cultural heritage, be a condition of approval for any redevelopment of the subject lands.

Yours truly,

provisions of the Registry Act and the Surveys Act.

Dated this 18th day of December A.D. 1941

Ontario Land Surveyor



A Notary Public

HIS MAJESTY THE KING in Right of CANADA herein represented by the Minister of MUNITIONS & SUPPLY or CANADA acting through WARTIME HOUSING LIMITED hereby certifies LOTS 1 TO 58 and the AVENUES as outlined in RED on this plan are laid out according to instructions and the said AVENUES are hereby dedicated as PUBLIC HIGHWAYS.

WARTIME HOUSING LIMITED.

per

per

The Municipal Council of the CITY OF HAMILTON doth hereby approve of this pl

Wm Morrison Mayor

J.O. Barry Clerk

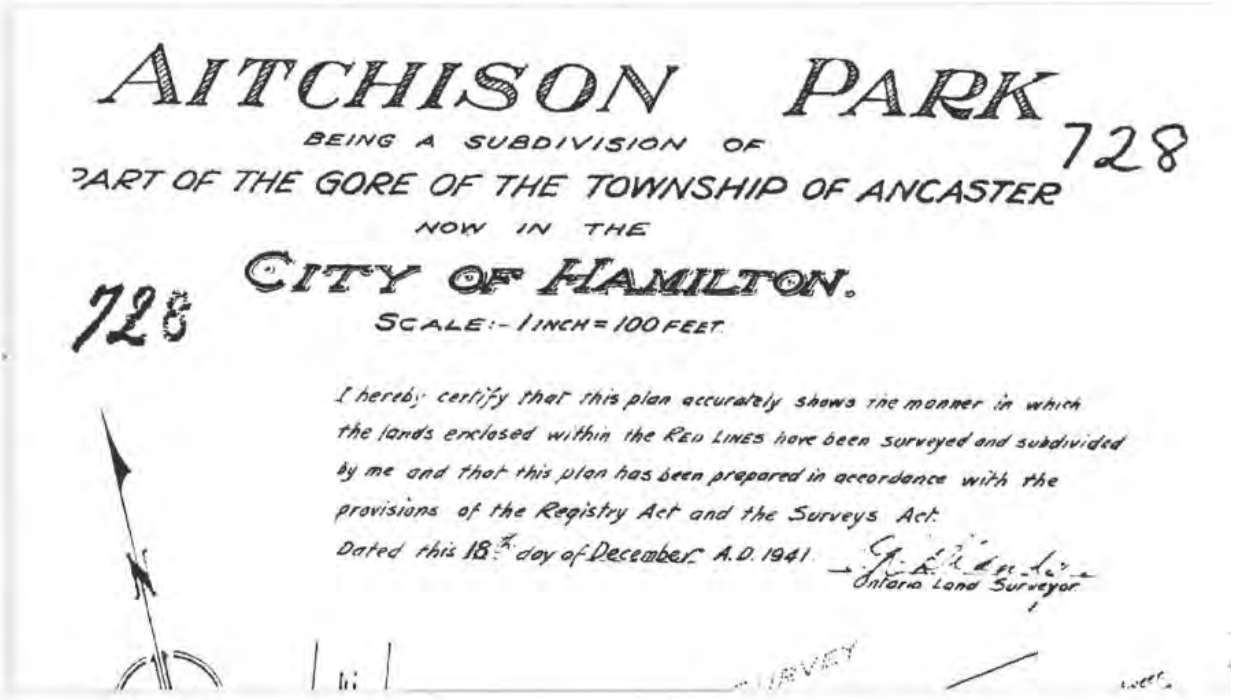
I hereby approve of this plan.

J.L. McPaul.
City Engineer

The Ontario Municipal Board doth hereby approve of this plan.

Secretary

Received from and registered this day of A.D. 1942 at o'clock as PLAN No.



AITCHISON PARK

BEING A SUBDIVISION OF

728

PART OF THE GORE OF THE TOWNSHIP OF ANCASTER

NOW IN THE

CITY OF HAMILTON.

728

SCALE:- 1 INCH = 100 FEET

I hereby certify that this plan accurately shows the manner in which the lands enclosed within the RED LINES have been surveyed and subdivided by me and that this plan has been prepared in accordance with the provisions of the Registry Act and the Surveys Act.

Dated this 18th day of December A.D. 1941

G. A. [illegible]
Ontario Land Surveyor

SURVEY

Sworn before me this. . day of- - - - - - - A.D. 1942.

A Notary Public.

HIS MAJESTY THE KING in Right of CANADA herein represented by the Minister of MUNITIONS & SUPPLY of CANADA acting through Wartime Housing Limited hereby certifies th LOTS 1 TO 58 and the Avenues as outlined in RED on this plan are laid out according to instructions and the said AVENUES are hereby dedicated as PUBLIC HIGHWAYS.

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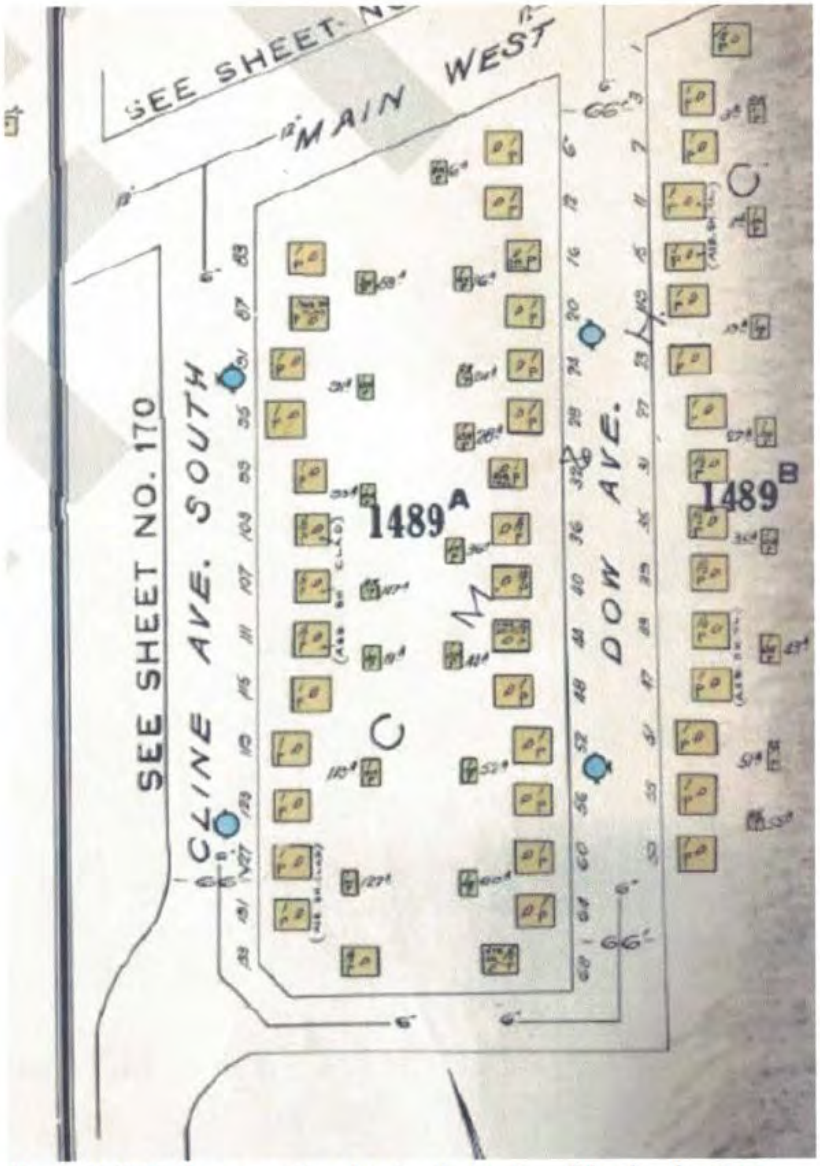
per

per

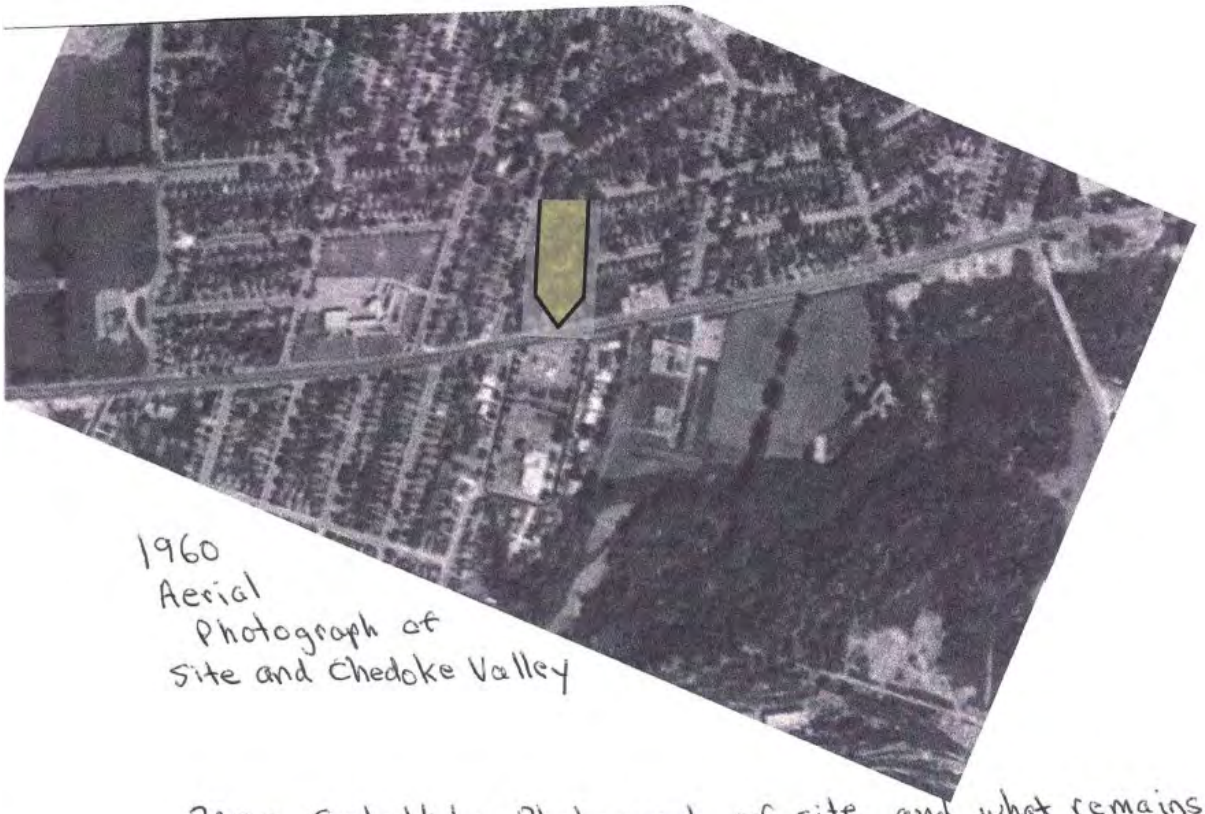
The Municipal Council of the CITY OF HAMILTON doth hereby approve of this plan



Map 5: 1947 Fire Insurance Map showing the location of the church, prior to building. Note the many houses that were demolished for the construction of the church.

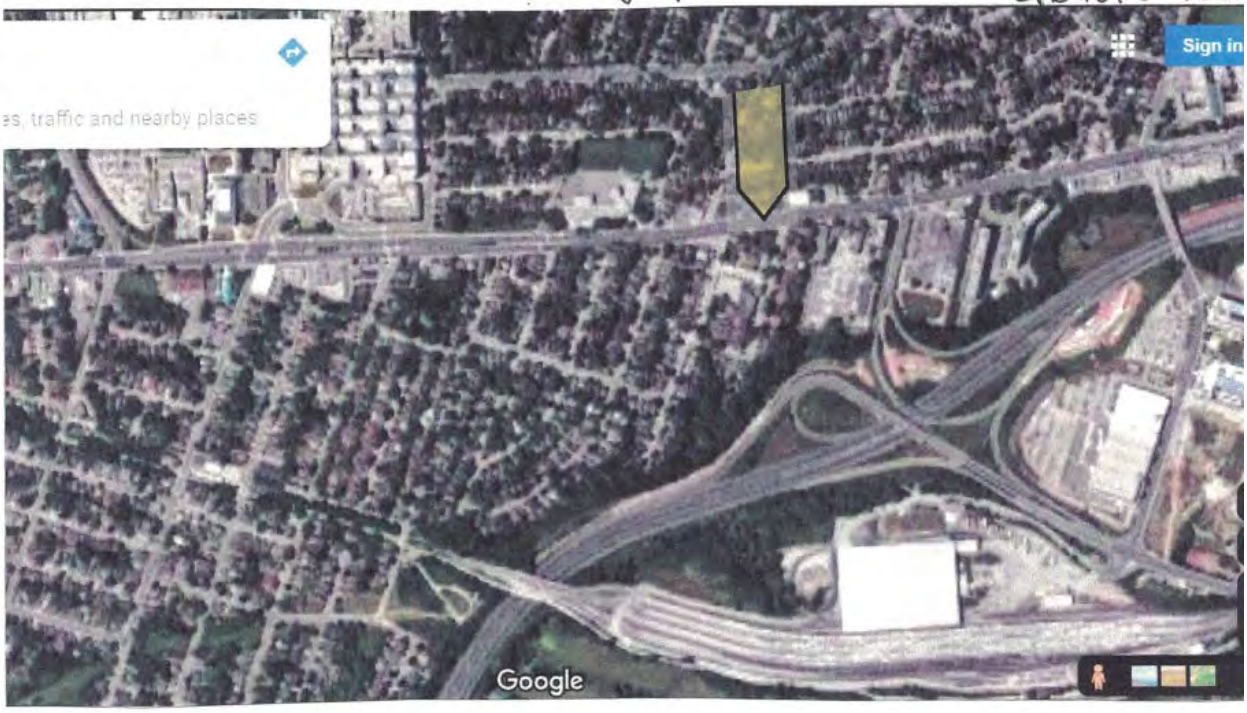
Photo Credit: Don Louck

Soil Excavation for unknown reasons at time of CHIA in 2019



1960
Aerial
Photograph of
Site and Chedoke Valley

2020 Satellite Photograph of site and what remains o
Chedoke Valle



1960 Aerial Photograph

Grace Lutheran Church at top

Unfinished Adas Israel Synagogue at bottom

CULTURAL & STEWARDSHIP HISTORY

The first property in Hamilton to be referred to as Chedoke was the property perched at the edge of the Chedoke Ravine and Falls near Fennell Avenue West and Garth Street (HCA, 2007). Although it is not clearly understood why this area was named Chedoke, some theories have been put forth. One of the most common theories is that Chedoke was a First Nations word, perhaps Iroquoian or Algonkian, and meant a collection of oaks. Another theory is that 'Chedoke' is a corruption of two English words 'seven' and 'oaks'. This theory draws its meaning from the property at the top of the Chedoke Ravine since seven oaks once stood at this location. Today three of those oaks remain and date back over 150 years. It is thought that the local aboriginal people misunderstood the settlers when they referred to this land as 'Seven Oaks' and in turn named it 'Chedoke'. Yet another theory is that 'Chedoke' is derived from the Anishnabek language where this area was referred to as 'Gchi wiidoke gamig' or the 'big healing place'.

The approximate population of the Chedoke Creek subwatershed is 66 000 persons with a population density of about 2629 persons per square kilometre. Current land use within the Chedoke Creek subwatershed is predominantly residential, with transportation corridors being the secondary land use **(Table CH- 2).** When traveling to the City of Hamilton, Chedoke Creek subwatershed is one in which all visitors will pass through when entering from the west as the Lincoln Alexander Parkway and Highway 403 are major corridors, above and below the escarpment, respectively. Institutional and open space is the third most common land use in this subwatershed, complementing the 44% of residential lands **(Map CH- 4).** Commercial land use is evident along major transportation routes with the main commercial areas above the escarpment being Mohawk Road and Upper James Street, and below the escarpment being Main Street and King Street. Major industrial land use is located south of Highway 403 adjacent to stream corridors. Two major utility corridors exist, one above and one below the Niagara Escarpment. Above the escarpment the corridor spans the boundaries of the Chedoke West, Lang's Creek and Mid-Chedoke catchments, while the corridor below the escarpment is used as a rail corridor and travels through Cliffview, Chedoke East and Lower Chedoke Creek catchments. Impervious surfacing within this subwatershed exceeds standards recommended for healthy stream systems.

In this subwatershed there is potential to naturalize an additional 1100 m^2 by enhancing utility corridors to serve as terrestrial habitat. Therefore, it is important to work with our large landowners to restore terrestrial and aquatic habitat in the subwatershed. Additionally, it is equally important to work with our ward councilors to generate support for local stewardship initiatives with the public and private sectors as well as our development industry.

Although there are not many properties in this subwatershed that have natural features present, there are 483 properties that do accommodate forest, wetland, meadow and riparian/aquatic habitat **(Table CH- 3).** Of these landowners, 153 (or 32%) have been contacted by the Hamilton-Halton Watershed Stewardship Program, and 7 (or 5%) have become Watershed Stewards **(Map CH- 5).** This analysis includes rural and urban, public and private landowners by individual property, not landowner name. Therefore, there is much potential within this subwatershed for landowner contact and in turn the establishment of Watershed Stewards. In addition to those landowners who have natural features on their properties, those landowners who do not also act as Watershed Stewards as everyone is affected by what one person does on their property. There is also great opportunity to contact those landowners and create awareness regarding BMPs in an urban environment as they relate to local significant species and storm water management practices.

Currently Watershed Stewards are predominantly located in the Chedoke East catchment surrounding the historical Chedoke Ravine. This area also boasts an active Friends of Chedoke group along Chedoke Avenue, below the escarpment. Isolated steward areas are located adjacent to Iroquoia Heights Conservation Area in Chedoke West catchment, within the Cliffview catchment and adjacent to the Hamilton Escarpment Environmentally Significant Area (ESA). The Royal Botanical Gardens is also named a Watershed Steward for its protection of the ecologically significant lands at Cootes Paradise Marsh in the Lower Chedoke Creek catchment. The majority of landowner contact initiatives have been completed adjacent to the Hamilton Escarpment ESA; therefore there is much opportunity to contact the remaining landowners within this subwatershed, especially public landowners along stream corridors.

Environment Canada has provided guidelines for forest, wetland and riparian habitat for subwatershed areas and in turn a preliminary analysis has been completed using the guidelines set out by this agency. **Table CH- 4** displays the status of Ancaster Creek subwatershed when compared to these Federal guidelines.

Due to the high percentage of impervious surfacing and as a result of this subwatershed being altered to such a great extent through urban development, proper BMPs regarding storm water management must be enforced and must encourage groundwater infiltration in order to maintain or enhance warm water fisheries.

This subwatershed is severely degraded due to urban development and intensification. Much of the natural land cover has been replaced with impervious surfacing and many of the Chedoke Creek tributaries have been buried over time. To de-list Hamilton Harbour as an Area of Concern it is important that restoration occurs within this subwatershed, by reducing sedimentation and phosphorous loading. This can be achieved through the implementation of urban stormwater best management practices (before and after development occurs), by increasing natural cover (upland forest and restoration of historical wetlands), through increased awareness of practices contributing to phosphorus loading, and through the completion of natural channel design projects where viable.

Table CH- 2: Land Use Statistics

Area (km^2)	Agricultural (km^2)	Commercial (km^2)	Industrial (km^2)	Institutional (km^2)	Open Space (km^2)	Residential (km^2)	Transportation (km^2)	Utility (km^2)	Impervious Surfacing (%)
25.1	0.001	0.7	0.6	3.2	3.0	11.0	5.5	1.1	76

Table CH- 3: Stewardship Statistics

Approximate Population	Population Density (persons / km^2)	Total # of Properties with Forest, Wetland, Meadow or Watercourse	# of Landowners with Forest, Wetland, Meadow or Watercourse & Contacted by HCA Stewardship	# of HCA Stewardship Watershed Stewards with Forest, Wetland, Meadow or Watercourse	Total # of Landowners in Subwatershed Contacted by HCA Stewardship	Total # HCA Stewardship Watershed Stewards in Subwatershed
66 000	2629	483	153	7	449	8

F1

Table CH- 4: Environment Canada's How Much Habitat is Enough Guidelines

PARAMETER	% Wetlands	% Stream Naturally Vegetated	Total Suspended Sediments	% Impervious Surfacing	Fish communities	% Forest Cover	Size of largest Forest patch	% Forest Cover 100m & 200m from Forest edge
GUIDELINE	6	75% with 30m buffer on either side	Below 25 mg/L	< 10	Based on historical data / watershed characteristics	30	$2km^2$ & min 500m wide	10% < 100m from forest edge
SUBWATERSHED STATUS	0.02	n/a	n/a	76	Historically warm – now warm	9.6	$0.7km^2$ & a section is > 500m wide	n/a

GEOGRAPHICAL LOCATION

Chedoke Creek subwatershed is 25.1 km^2 in area and is comprised of six catchment basins. In descending order from the headwaters to the outlet these are: Chedoke West, Lang's Creek, Mid-Chedoke, Cliffview, Chedoke East, and Lower Chedoke Creek **(Map CH- 1)**. This subwatershed spans the former municipal boundaries of Ancaster and Hamilton, and is also located within five City of Hamilton wards: 1, 2, 7, 8 and 12. The boundaries of this subwatershed are Stonechurch Road West in the south to Highway 403 in the west; the eastern extent ranges between Upper James Street and Upper Wentworth Street. The subwatershed originates above the Niagara Escarpment and outlets directly into the south shore of Cootes Paradise Marsh, parallel to Highway 403. Highway 403 passes through this subwatershed below the escarpment and three interchanges are present: Main Street East, Main Street West and Aberdeen Avenue. Additionally, the Lincoln M. Alexander Parkway (LINC) travels east to west above the escarpment and three interchanges are present in the subwatershed: Golf Links Road / Mohawk Road, Garth Street and Upper James Street. Major transportation routes found within this subwatershed are Bay Street, Queen Street, Dundurn Street, Upper James Street, West 5th Street, Garth Street, Upper Paradise, Scenic Drive, Main Street, King Street, Aberdeen Avenue, Fennell Avenue, Mohawk Road, and Stonechurch Road.

Chedoke Creek is the only warm water system of the three subwatersheds in this Stewardship Action Plan. The headwaters are located above the Niagara Escarpment with the only tributaries still present above the surface being located within Chedoke West, Lang's Creek and Mid-Chedoke catchments. The headwaters of the Chedoke West catchment are piped upstream but still supply the year round flowing Chedoke Falls. All of the tributaries flow over the escarpment and then travel eastward and align parallel with Highway 403 before outletting into Cootes Paradise. Much of the Chedoke Creek subwatershed has been altered over time as a result of intense urban development within the Hamilton area; subsequently the majority of the stream flow directly results from storm water input. Therefore, erosion, sedimentation and insufficient channel sizes occur at the outlet. The following locations are where natural stream channels can be found within the subwatershed: southwest of Golf Links Road and Scenic Drive, through Iroquoia Heights Conservation Area, through Olympic Park / Hydro lands east of Scenic Drive, through Lang's Park east of Scenic Drive, Hydro lands north of Highway 403, northwest of Upper Paradise Road and Mohawk Road, through Chedoke Golf Course, west of Chedoke Avenue, and parallel to Highway 403.

The Niagara Escarpment is present within all catchments of this subwatershed. Additionally, three municipally designated Environmentally Significant Areas (ESAs) are located within this subwatershed: Iroquoia Heights Conservation Area, Hamilton Escarpment, and Cootes Paradise. These natural areas act as major ecological corridors for terrestrial species as well as serve to maintain water quality and quantity within the stream reaches that pass through these areas, to the benefit of aquatic species.

Significant species found within the natural areas of this subwatershed are noted within Appendix C. The majority of these species are rare or uncommon within the City of Hamilton and where a species has been designated by the OMNR it is indicated in the appendix. The following are species that are designated by the OMNR under the Ontario Endangered Species Act and can be found within this subwatershed:

Endangered
- Bashful Bulrush
- Red Mulberry
- Prothonotary Warbler

Endangered (not regulated)
- American Chestnut
- Butternut

Threatened
- Blanding's Turtle
- Common Musk Turtle
- Eastern Spiny Softshell
- Hooded Warbler
- Least Bittern
- White Wood Aster
- Jefferson Salamander

Special Concern
- Bigmouth Buffalo
- Black Tern
- Broad Beech Fern
- Cerulean Warbler
- Monarch
- Northern Map Turtle
- Yellow-breasted Chat
- Eastern Milksnake
- Northern Ribbon Snake
- Woodland Vole

Not at Risk
- American Coot
- Common Mudpuppy
- Cooper's Hawk
- Longear Sunfish
- Rosyface Shiner

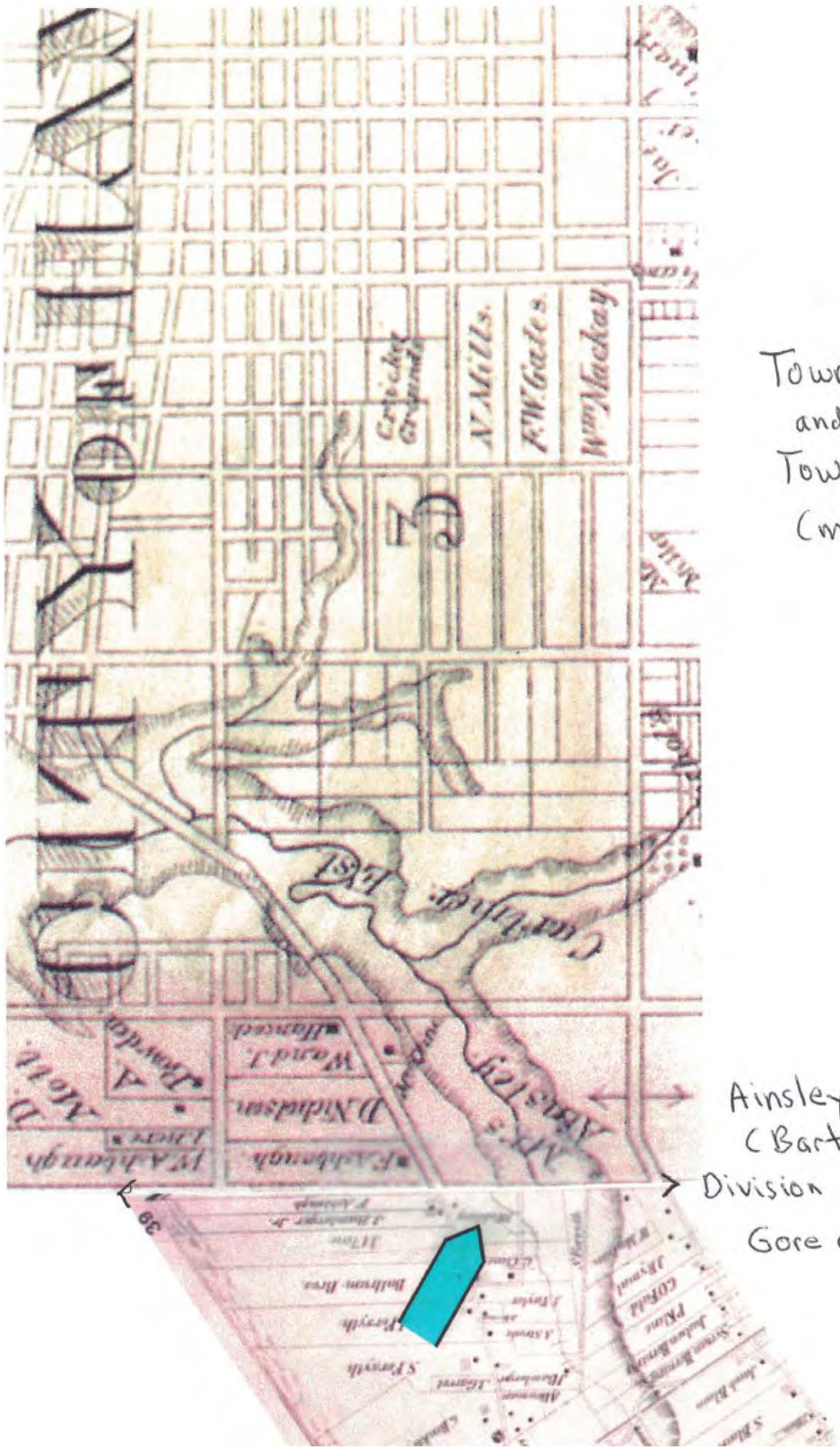
It will be important to create awareness and undertake habitat restoration activities related to these species designated by the OMNR, especially those species that are endangered (not regulated).

Due to the erosivity of the fine silt soils found in this subwatershed, headwater wetlands must be restored to meet the How Much Habitat is Enough Guidelines in order to reduce sedimentation occurring downstream. Historical piping and channelization of this stream system only exacerbate the sedimentation problem occurring in Cootes Paradise. Historical wetland restoration may be achieved through the approval of development applications and resultant compensation projects for the proposed development located along existing stream reaches and on public lands. Alternatively, wetland creation may be possible below the escarpment to mitigate upstream sedimentation and attenuate high flows.

For more information regarding the natural history of this subwatershed please refer to the Preliminary Watershed Description Report: Hamilton Conservation Watersheds (Source Water Protection Halton-Hamilton Region, January 2006) and the Nature Counts: Hamilton Natural Areas Inventory (Dwyer, J. et al., 2003).

Townships of Wentworth County
1852

Gore of Ancaster 1852



1852

Township of Barton
and
Township of Ancaste
(maps not to scale)

19

Department of Militia and Defence 1909

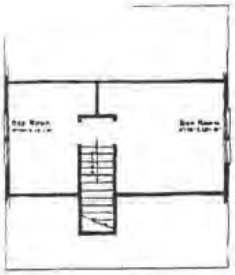
Hamilton Stone Road now known as Main Street West

Department of Militia and Defence, 1909.
Reprinted with corrections 1915.

Contours determined with Aneroid and Clinometer based on Lines of Levels.
Magnetic Declination, March 1909 at Bronte, 5.5i West.
Polyconic Projection.
Elevations in feet above Mean Sea Level, New York.
Surveyed in 1907-09.

99

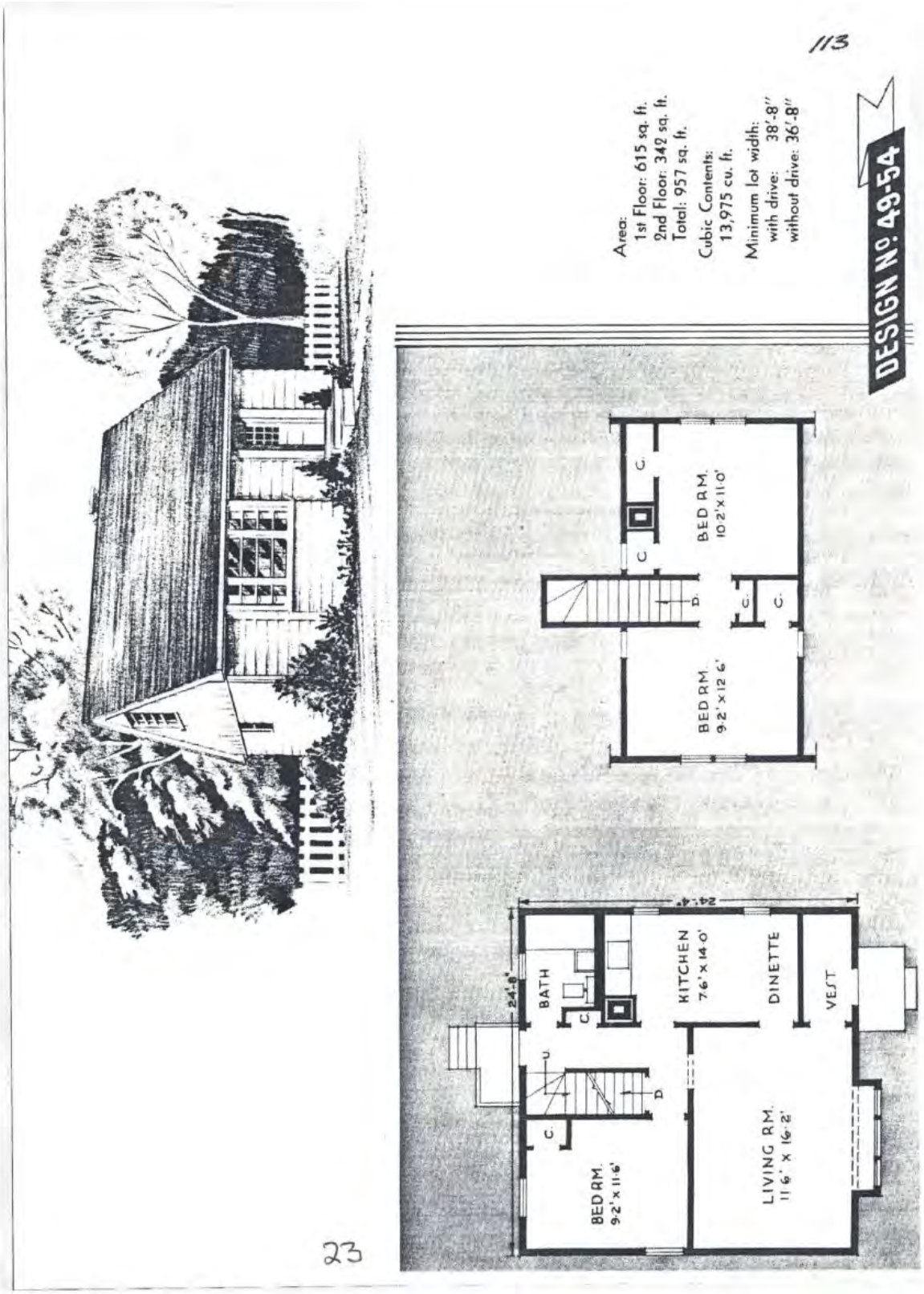
SINGLE FAMILY DWELLING: TYPE H1



SINGLE FAMILY DWELLING: TYPE H12

SINGLE FAMILY DWELLING: TYPE H22

22


113
DESIGN No. 49-54
Area:
1st Floor: 615 sq. ft.
2nd Floor: 342 sq. ft.
Total: 957 sq. ft.
Cubic Contents:
13,975 cu. ft.
Minimum lot width:
with drive: 38'-8"
without drive: 36'-8"
BED RM.
10.2'X11.0'
BED RM.
9.2'X12.6'
24'-4"
24'-8"
BATH
KITCHEN
7.6'X14.0'
DINETTE
VEST
BED RM.
9.2'X11.6'
LIVING RM.
11.6' X 16.2'
23

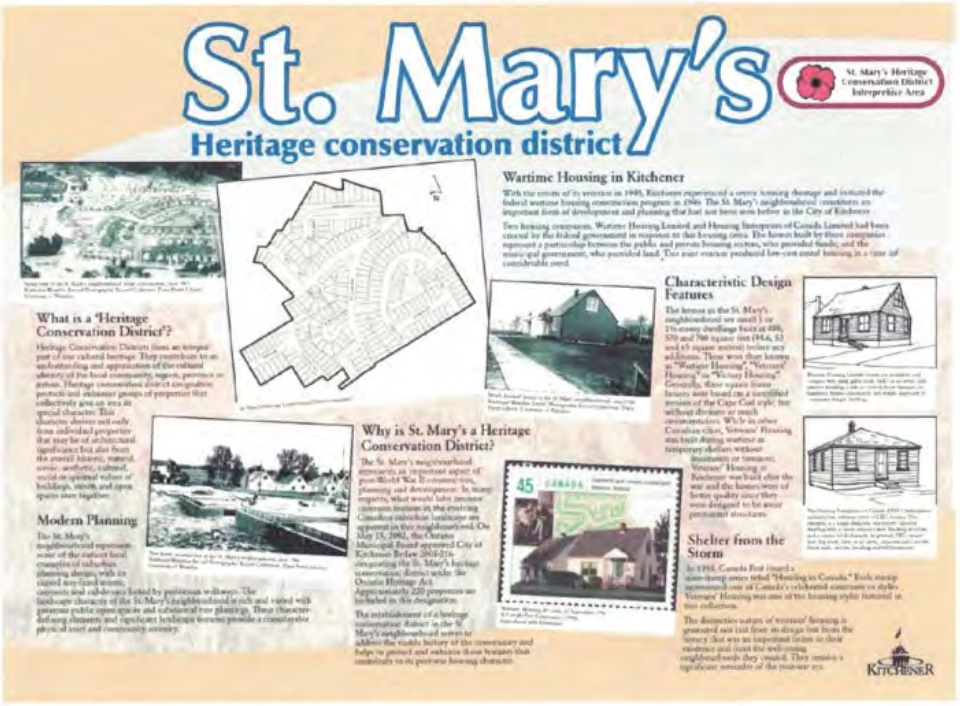


Figure 20: Interpretive plaque for the St. Mary's Heritage Conservation District in Kitchener, showing the boundaries of the district, typical house designs and historic photos.

SOURCE: PDF provided by City of Kitchener Heritage Planner Leon Bensason in 2011 (see accompanying PDF version).


Heritage Wartime Homes
GE WARTIME HOMES
In 2010 we celebrated the 65th Anniversaries of Victory in
Europe (VE) Day on May 8 and Victory in Japan (VJ) Day on August 15

From: Wilbur A. Mclean <wmclean@cmhc-schl.gc.ca>
Sent: May 13, 2020 10:31 AM
To: John Ross
Subject: CMHC plaque

Hi ,

Thank you for the conversation.

My contact information is below for your reference.

As discussed, we find this story fascinating and would like to do some promotion around it.

This is the website I mentioned: www.placetocallhome.ca. You'll see a link there to "Success Stories" (https://www.placetocallhome.ca/stories). There are dozens of stories on housing impacting Canadians that we produce. We promote those stories externally through advertising, social media and pitches to traditional media. I already spoke to the person who oversees those stories. Like everybody else I've mentioned it to, she was fascinated by the historical story of Westdale. We will write a piece for the website on it in the coming months.

We'll talk soon I'm sure.

Thank you,

Wilbur

Wilbur McLean
Executive Engagement and Events
wmclean@cmhc-schl.gc.ca
T: 416-218-3331
100 Sheppard Avenue East, 3-624, Toronto, ON
Canada Mortgage and Housing Corporation (CMHC)
www.cmhc.ca

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100 Avenue Sheppard est, 3-624, Toronto, ON
Société canadienne d'hypothèques et de logement (SCHL)
www.schl.ca

NATIONAL HOUSING STRATEGY | STRATÉGIE NATIONALE

Visit www.cmhc-nhs.ca | Visiter www.schl-snl.ca

WIKIPEDIA

Coordinates: 43°15′20″N 79°55′30″W

Ainslie Wood, Hamilton

Ainslie Wood is a residential neighbourhood in Hamilton, Ontario, Canada. It is centered on Alexander Park and located near McMaster University. It is bordered to the north by Main Street, Cootes Drive and Dundas, to the south and east by Highway 403, and to the west by Dundas and Ancaster.

Contents

Etymology

In 1838, George Howlett Ainslie moved onto a sixty-acre farm near Ancaster. It was south of what is now Main Street West and west of Longwood Road. This greenspace became a popular recreation area for Hamilton residents and gained the name Ainslie Wood, which eventually was applied to the entire area between Hamilton and Ancaster.[1]

History

The land south of what is now Cootes Paradise was inhabited by a series of native societies. In the early 17th century, European explorers and missionaries visited western Lake Ontario, encountering a population of native people, who were referred to as the Neutral Nation, from their neutrality in conflicts between the Iroquois Confederacy and the Huron.

In the mid-17th century, the Iroquois defeated the Neutrals and the Hurons. Ojibway from north Ontario moved south and displaced the Iroquois. Later, Europeans displaced the Ojibway.

Early Settlers

27

Early European pioneers in Ainslie Wood included the Ainslie, Binkley, Bowman, Buttrum, Cline, Ewen, Forsyth, Radford, Stroud and Horning families.

Early farmhouses were located at today's 54 Sanders Boulevard (built in 1847 by the Binkley family, still standing), 19 Lower Horning Road (built by the Ofield family, still standing), 51 Lower Horning Road and 1686 Main Street West (Binkley family, now a huge student residence with some ground-floor storefronts).

Much of the area of north Ainslie Wood was taken up with the Binkley family farm. This multigenerational farm stretched north of Main Street roughly from McMaster University to the Ancaster Creek Valley and into University Gardens in Dundas. Indeed, the junction of the Dundas and Ancaster roads (today the intersection of Main St, Wilson St, and Osler St) was popularly known as "Binkley's Corner." Marks and Mathelena, the original Binkleys to arrive in the Hamilton area, are buried in the Marks Binkley Cemetery at the end of Lakelet Drive. Marks and Mathelena Binkley were originally Palatine Germans, often referred to as "Pennsylvania Dutch," in reference to the low German language spoken by religious non-conformists who hailed from Switzerland, Germany, and Holland. "Binkley" is an Anglicization of their original Swiss-Italian name, which was "Binggeli." Their ancestors had moved to Lancaster County, Pennsylvania, an Amish and Mennonite settlement. The Binkley family prospered in Ainslie Wood and raised hundreds of grand- and great-grandchildren, and the name has appeared on schools, churches, road signs, and cemeteries throughout Ainslie Wood.

George Bamberger started Ainslie Wood's first non-farming business—a hotel/tavern called the Halfway House (so named because it was halfway between Hamilton, Dundas and Ancaster), located on land on Main Street West today used by Canadian Martyrs' School. Trains that crossed the Bamberger property were required, by a contract with the Bamberger family, to stop at the Halfway House for a minimum of five minutes, so that passengers could buy beer. The Halfway House's bartender would give the train operators a free beer each at the four-minute mark, to delay their leaving and provide the thirsty passengers more time to spend money. When the train did get going, passengers could, in season, reach out a train window and pick ripe cherries from the branches as they passed through the Bamberger's orchards.[2]

The area of Colombia International College and Camelot Towers and Highway 403 was, from the earliest days of European settlement, a popular picnicking spot. There were gardens with picnic tables, shade trees, swings, tame raccoons and caged parrots.[1] As it was on forested land owned by the Ainslie Family, the spot was known as Ainslie Wood – a name which would later be applied to the whole community. In the early days, however, the area now known as Ainslie Wood was most often called "the Gore of Ancaster." (A gore is a triangle-shaped piece of land.) Until the 20th century, Ainslie Wood was governed as a part of Ancaster.

During the 19th century, a tannery processed cow-skins into leather at the corner of Main Street and Osler Drive. It was demolished in 1880. Apartment buildings now occupy the site.

Main Street West (then called the Hamilton and Brantford Road) was covered with wooden planks in the early 19th century, covered with stones in 1846 and paved by the 1860s.

In 1908, the Burke Real Estate Company bought the Bamberger farmland, breaking it into smaller lots and building new public streets. Emerson, Broadway and Bowman streets and the streets that crossed them, in the area just to the south of today's McMaster University, featured the first non-farm dwellings in Ainslie Wood. Sales posters boasted of "The Ideal Suburban Survey," with 40' x 140' lots that were advertised as being "20 Minutes from Centre of City" on 5-cents-a-ride electric trains. The new suburb had no indoor plumbing, no sidewalks, muddy roads, no electricity and stray cows. Residents got water from a communal pump at the corner of Emerson Street and Holmes Avenue.

There was a creek that ran through the centre of Ainslie Wood back then, in what is now Ontario Hydro's electricity-transmission field. The Buttrum family farmed potatoes and other vegetables on the hydro field from 1910 on.

Before World War I, there were about 125 families living in Ainslie Wood. There were several stores, a volunteer fire brigade and a resident police constable named George "Fatty" Smith. The people of Ainslie Wood enjoyed a recreation hall, built by George Bowman in 1912, at the North-west end of 4th Avenue (now Royal Ave.) Residents enjoyed costume parties and dances hosted by the West Hamilton Literary Society. In 1912, a soccer team was formed to play against teams from Dundas and Hamilton. An open field on Emerson Street, near Royal Avenue, held sporting events and garden parties. Boxing and baseball were popular.

Rifle Range and World War I

Remains of the rifle range in Ainslie Wood in Hamilton, Ontario

In the late 19th century, soldiers from the 13th Royal Regiment of Hamilton – now called the Royal Hamilton Light Infantry – used land around today's Rifle Range Road for rifle practice, shooting at concrete bunkers on the Escarpment where targets were set up. There are remains of the target bunkers in the forest south of Alexander Park, while further up the escarpment slope, across the 403 highway, are the remains of a tall stone wall built to protect the cars of the Brantford & Hamilton Railway (the wall may be seen from the recreational Chedoke Radial Trail). Rifle Range Road lost its namesake facility in 1928, when the 13th Regiment started practicing elsewhere.

In World War I, young soldiers from all over the Hamilton area trained for the battlefields of Europe in Ainslie Wood. They practiced with rifles, machine guns and hand grenades at the target facilities along Rifle Range Road, also digging practice trenches and using bayonets in what is now Alexander Park. Stray bullets sometimes flew into residential areas.

After World War I, local residents raised $2,200 to buy some land beside Emerson Street's St. Margaret's Church (now St. George's) and plant memorial trees for each of the 14 local men killed in combat.

Sidewalks began to be built in Ainslie Wood after World War I and roads began to be covered with rock-chunks and gravel, reducing but not eliminating the problem of springtime mud. The rock-chunks were hauled in horse-drawn wagons from the Escarpment, where the rock had previously been dynamited to build a railway line; the gravel came from a quarry in Dundas. After that, the roads were able for the first time to carry heavy truck and bus traffic.

World War II and after

In World War II, many small, inexpensive homes were built in Ainslie Wood East for Hamilton's war-expanded industrial labour force. After the war, many empty lots in Ainslie Wood were sold for $1 to veterans. The central area of Emerson Street had a post office and several busy stores, such as Hemingway's Butcher and Bowman's Lumber (now Aitchison Lumber). There was light industry, such as Donald Wire and Rope (where Fortino's and St. Mary's school are now), John Deere (where the Mondelez International candy factory is now) Ralph & Sons Fuels (where Wendy's is now) and candymaker Walter E. Jacques & Sons (on Ewen, where Onyx Condos (http://www.coletara.com/communities/onyx/), a 10-story student residence, is under construction).

In 1925, the neighbouring community of Westdale was built. As only white, Protestant people were allowed to buy property in Westdale, Jews, Catholics, Slavs and people of colour who wanted to live in West Hamilton had no choice but Ainslie Wood. Westdale's restrictive title covenants held sway until the 1950s, with accusations of discrimination continuing for decades afterwards. In Ainslie Wood, minorities were welcome; today, Ainslie Wood is still a diverse community.

With the establishment of McMaster University in 1930, Ainslie Wood gained proximity to its educational and other resources. In the same year, Ainslie Wood left Ancaster and joined Hamilton, after Hamilton Mayor John Peebles promised Ainslie Wood residents fully paved streets and indoor plumbing.

In the poverty-stricken 1930s and after, Hamilton Street Railway buses went up and down unpaved Emerson Street, sharing the dirt road with horse-drawn wagons, farm vehicles, pedestrians, stray dogs and occasional farm animals.

During Prohibition, Ainslie Wood had a resident bootlegger, Chuck Gowdy, who sold moonshine liquor from his shack. After 1934, when retail sales of alcohol were legal again, customers filled Paddy Green's tavern on Main Street West by Longwood Road.

Before World War II, about half the lots in Ainslie Wood were vacant. Only a few streets had sidewalks then and none were paved. By 1955, all of the streets had sidewalks, and almost all were well-paved. Many old frame houses were raised to install full basements. After 1955, it was popular to cover old houses with aluminum siding.

Russ Jackson was a post-war celebrity from Ainslie Wood: a star quarterback at McMaster who went on to win three Grey Cups with the Ottawa Rough Riders in the 1950s and '60s, becoming Canada's most famous athlete.

In the 1960s, Whitney Avenue was extended to Main Street West. New sub-divisions sprang up on the old farms west of central Ainslie Wood. A new park on Whitney Avenue, Alexander Park, was opened by and named after the Governor General of Canada, Field Marshal Alexander. This park now has baseball diamonds and a wading pool. In 1966, the 403 Highway was extended up the side of the Escarpment to the south of Ainslie Wood.

A group of local volunteers based out of St. Margaret's Church (now St. George's) on Emerson Street, the Women's Institute, did much volunteer work. They fed hungry families. They knit wool mittens and donated books for school children. They lobbied successfully for a skating rink to be built on Leland Street, with a hut for children to put on skates. The Women's Institute also lobbied for Ainslie Wood's first traffic light, at the corner of Main Street and Broadway Avenue.

Present

In recent years, Ainslie Wood has faced many challenges, such as illegal lodging homes for students,[3] a lack of recreational facilities[4] and greenspace, the closure of Prince Philip School, poverty, traffic and zoning issues. Ainslie Wood has many strengths, including proximity to McMaster and the forest-covered Escarpment, the Rail Trail, Stroud Park, Alexander Park, two Catholic Schools (Canadian Martyr's and St. Mary's), a Hebrew academy, Columbia International College, several churches of various denominations, a thriving commercial zone along Main Street West and two active community associations: the Ainslie-Wood / Westdale Community Association (AWWCA) (https://awwca.ca/) and the Ainslie Wood Community Association (http://www.ainsliewood.ca/), or A.W.C.A.

Education

The first public school, Binkley School was founded in 1815, followed by Princess Elizabeth (originally the West Hamilton School and now used as the Hamilton Hebrew Academy) in 1922 and Prince Philip in 1953. Binkley was closed in 1979, Princess Elizabeth in 1982 and in 2014 the children of Ainslie Wood lost Prince Philip elementary school after a controversial vote against Prince Philip by the local trustee, who left office soon afterwards.

Student housing

The increase of McMaster University's student population in recent decades has resulted in many Ainslie Wood homes being rented out to students. Multiple high-rise student and mixed-use residences are being planned in the area, at 17 Ewen Rd & 20 Rifle Range Rd, 1629-1655 Main St W and 69 Sanders Blvd & 1630 Main St W.[5]

Transportation

Currently, there are 4 bus routes operated Hamilton Street Railway servicing the Ainslie Wood community.

- 10 B-Line Express (University Plaza - Eastgate Square)
- 1 King
- 5 Delaware
- 5C West Hamilton Loop or Meadowlands (westbound only)
- 52 Head Street or Governers & Pirie (westbound only)
- 5A Greenhill & Cochrane (eastbound only)
- 5E Quigley & Greenhill (eastbound only)
- 51 University (temporarily suspended due to decreased ridership during COVID-19 pandemic[6][7])

Politics

In the next federal and provincial elections, Ainslie Wood will be in the riding of Hamilton West-Ancaster-Dundas. Federally, Ainslie Wood is represented by Member of Parliament Filomena Tassi and Member of Provincial Parliament Ted McMeekin. On the municipal level, Ainslie Wood is the largest part of Ward 1, represented by Maureen Wilson (https://www.maureenwilson.ca/).

References

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6. "Bus News | City of Hamilton, Ontario, Canada" (https://web.archive.org/web/20210108091958/https://www.hamilton.ca/hsr-bus-schedules-fares/riding-hsr/bus-news). *web.archive.org*. 2021-01-08. Retrieved 2021-02-28.
7. "HSR buses return to full capacity, even as COVID-19 numbers accelerate | CBC News" (https://www.cbc.ca/news/canada/hamilton/hsr-1.5694068). *CBC*. Retrieved 2021-02-28.

External links

- Ainslie Wood Community Association (http://www.ainsliewood.ca)
- The Ainslie-Wood Community / Westdale Community Association (http://awwca.ca)

Ancaster
Township Historical Society


Wilson St 1910


Music Club 1890


1907 Pope Auto

Ancaster History

Ancaster History
Postcards of Ancaster

The original Ancaster is found in Lincolnshire, England and is named after a military camp from Roman times, deriving from the latin word "castra" meaning camp. Click here for more information on Ancaster, Lincolnshire.

Ancaster's history stretches back over 200 years. The town was given its name in 1793 by Lieutenant Governor John Graves Simcoe after it had been surveyed as part of a plan to create roads for military reasons.

Several families, wanting to maintain their loyalty to the British Crown, had already settled in the area after fleeing from the United States. These United Empire Loyalists claimed land in Upper Canada (Ontario) and many received grants of land in Ancaster.

Ancaster is the home of several historically significant sites. In 2008 the Historic Sites and Museums Board of Canada designated Ancaster's Griffin House a National Historic Site. The Griffin House stands as a testament to the brave men and women who travelled the Underground Railroad to freedom in Canada in the 19th century.

The boundaries of Ancaster, which contain an area almost triangular in shape, were defined in the late 18th century.

- The southwest boundary was formed in 1785. After the American Revolution, the British Crown granted land to loyal Indians who had been unseated from their historic homes in New York State. This land stretched six miles on either side of the Grand River, and the southwest boundary of Ancaster formed part of the "Indian Line."
- The eastern boundary was formed in 1788 when it became the western boundary of Township Number Eight (Barton), the survey of which was completed in that year.

- The northern boundary was formed in 1793, when the newly appointed Lieutenant Governor of Upper Canada ordered a military road to be built in a straight line to the LaTranche River (now the Thames), starting in the northwest corner of Barton Township. This road is now known as Governor's Road.

You can see a map of old Ancaster at
http://digital.library.mcgill.ca/CountyAtlas/SearchMapframes.php

Search on **Township** of Ancaster for a broader map, or **Town** of Ancaster for a smaller map of the immediate area around Wilson Street and details of some residents.

Historical Ancaster

Established in 1792, Ancaster was briefly known as Wilson's Mills, after James Wilson who had established a saw and gristmill there. The location was ideal as the Mohawk Road was in existence and at the time was one of the major transportation routes in Upper Canada, connecting the Niagara Peninsula with the northern interior. The following year, the community came to be known as the Township of Ancaster, taking its name from Ancaster, a community located south of the city of Lincoln in the Lincolnshire District of England. The Township of Ancaster became a part of Wentworth County in 1816.

Located beside the natural break in the Niagara Escarpment, and beside a significant creek flowing over it, the police village of Ancaster became the location of a large number of mills that took advantage of the available waterpower. When the government of Upper Canada decided that its capital, Newark (now known as Niagara-on-the-Lake) was located too close to the American border, the choice for the new capital was between Ancaster and York (now Toronto). Ancaster's pre-eminence at the Head of Lake Ontario region began to decline with the opening of the Burlington Canal, connecting Hamilton Harbour with Lake Ontario, in the 1820's. Among other factors, competition with the Town of Dundas whose location was on more favourable transportation routes (York Road, Governor's Road, etc.) led to Ancaster's dominant commercial position in the area.

By the mid-19th century, the City of Hamilton had attained the dominant position among municipalities and Ancaster was a relative stable, if not declining, community in terms of population, economic activity etc. With the construction of the Hamilton and Brantford Electric Railway reached as far as Ancaster in 1907,

Historical Ancaster

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the character of the village started to change. More and more Hamilton businessmen found it convenient to work in the city's downtown core, commuting back and forth to their homes in the expanding residential surveys in Ancaster. At the same time, the Hamilton Golf and Country Club relocated from its course in the west end of the city (now Chedoke Golf Course). Internationally famous golf course designer H.S. Colt laid out the Ancaster location for the Hamilton Golf and Country Club. It remains one of Ontario's and Canada's finest golf courses.

In 1973 Bill 155 created the Regional Municipality of Hamilton-Wentworth. As of January 1, 1974, the predominately rural Township of Ancaster as well as the village of Ancaster itself became known as the Town of Ancaster. On January 1, 2002, the Town of Ancaster was amalgamated with several other communities to form the City of Hamilton. Although the formal end of the municipal body known as the Town of Ancaster happened at that time, Ancaster retains a strong community identity and pride. Its history, traditions and location remain as vital components of the new city's community of communities.

Printer-friendly version

WIKIPEDIA

Joseph Pigott

Joseph M. Pigott was a prominent Canadian businessman, who jointly ran Pigott Construction Company, responsible for some of Canada's largest industrial plants and finest buildings.

Contents

Career

He was born in Hamilton, Ontario on February 23, 1885, the son of a prominent Irish contractor (Michael Pigott, himself the founder of Pigott Construction Co. and the son of an Irish farmer who emigrated to Canada and settled near Guelph).

In 1903 he began working for his father's construction company. In 1909 Pigott travelled to Saskatchewan with his younger brother Roy where they secured a large contract to build St. Paul's Hospital in Saskatoon.

While in the West, Pigott met and married Yvonne Prince, daughter of the Honorable Joseph Benjamin Prince of Battlefield, Saskatchewan. They had 6 sons: William, Jean-Jacques, Joseph, Patrick, Ronald and Paul.

Together the brothers would direct Pigott Construction to fortune and fame. Roy looked after the engineering and Joseph took care of the business administration. The first $1,000,000 year came in 1926, and in 1930, Hamilton's earliest skyscraper, the 18-storey Pigott Building, was completed.

After the Second World War, Pigott Construction was Canada's largest privately owned construction company, amassing more than $113,000,000 in business in a single year.

Pigott built some of Canada's largest industrial plants and finest buildings: the Royal Ontario Museum, Toronto; Crown Life Insurance Company head office, Toronto; Bank of Canada, Ottawa; a plant for General Motors, Oshawa, and buildings for A. V. Roe Company in Malton. In Hamilton, buildings built by his firm included: the Canadian Westinghouse offices, Banks of Nova Scotia, Royal and Montreal, McMaster University, the County Court House, Westdale Secondary School, St. Joseph's Hospital, the Pigott Building, the new City Hall and the Cathedral of Christ the King.

Piggot Building, "Hamilton's first skyscraper"

Honours

Pigott was honoured for many of his accomplishments:

Knight Commander of the Order of St. Gregory the Great and later "Con Placa" - in recognition of the Cathedral, by Pope Pius XI.

Commander of The Most Excellent Order of the British Empire (in 1946), in recognition of his services to the Government of Canada during the war, particularly as president of the Wartime Housing Ltd.

Knight of magistral grace of the Sovereign Military Order of Malta (in 1953) and awarded the honorary degree of LL.D by McMaster University (1962) in consideration of his contributions to social welfare and to the political and intellectual life of Christian society.

Other roles

He was a former president of the Canadian Construction Association, Hamilton Chamber of Commerce, a former vice-president and director of the Toronto-Dominion Bank, president of Pigott Realty Ltd., vice-president and director of North American Life Assurance Company, director of Canada Permanent Trust Company, Atlas Steels Ltd., and United Fuel Investments Ltd. Pigott was also a former president of the board of governors of the Art Gallery of Hamilton, a director of the Ontario Heart Foundation, chairman of the advisory committee of St. Joseph's Hospital, a member of the Hamilton Club, the Hamilton Golf and Country Club and the National Club of Toronto. Pigott played an enormous role in the development of Hamilton. He died in Hamilton on 20 April 1969.

See also

- List of tallest buildings in Hamilton, Ontario

References

Sources of this information include content from the Hamilton Hall of Fame Inductees as well as information coming from the University of McMaster archives (whose reflections come from the donation of Joseph M. Pigotts daily journals donated to the University in 2000).

External links

- http://www.hhca.ca/hall%20of%20fame/inductees/j.m.pigott.asp
- http://library.mcmaster.ca/archives/findaids/fonds/p/pigott.htm

“CANADA’S NUMBER ONE WAR PLANT.”
We Can Do It!
EQUIPPING THE ARMED FORCES
ORDERS FOR LARGE APPARATUS RECOVER
BRAKING SYSTEMS FOR THE “RED ROCKET” STREETCARS

shops and then shipped to marine engine builders in Toronto and Montreal for finishing.[39] Due to shortages and substitutions in key metals, wastage rates in the production process were exceedingly high by commercial standards. A standing order at the John Inglis Company in Toronto for 20 ton and 70 ton Worthington-Simpson pumps destined for installation in frigates was delayed because Canadian Westinghouse, Otis-Fensom Elevator Company, and Tallman Brass Company in Hamilton experienced too many rejected castings.[40] The inability of companies to deliver forged parts and components had a trickle down effect on the completion of marine engines and the ships they went into. However, marine work became a sideline for Canadian Westinghouse once Hamilton Munitions Limited, a crown company operating from an adjacent plant, went into gun production. On the electrical side, Hamilton was somewhat better positioned to meet the requirements for electrical fittings and apparatus going into ships from Canadian Westinghouse production.

Canada boasted an advanced electrical manufacturing industry following North American standards and integration centered round the Toronto and Hamilton areas. Over time, this industry was adapted and organized quite comprehensively to meet war purposes in Canada, from the generation of electrical power to the production of armaments and related electrical apparatus in dedicated war plants.[41] Canadian General Electric Company and Canadian Westinghouse, branch plants of American industry leaders, were at the forefront of Canadian electrical manufacturing. Company engineers belonged to American professional associations and kept abreast of the latest developments and production techniques in the field.[42] These connections represented an indispensable means to exchange information about industry-wide practice. The principle problem was the different specifications and voltage called for in British ship and electrical plans, often requiring considerable reworking and redesign on the part of the companies involved. The British Admiralty Technical Mission, which provided overseers and inspection of electrical fittings, accepted some adoption of North American standards, but ships destined for British end-use usually followed Admiralty patterns.[43] To do otherwise created problems with servicing and maintenance when ships became operational with British fleets or operating out of British-controlled ports and bases. Since the Royal Canadian Navy preferred Canadian standards to North American voltage, it was not uncommon for electrical manufacturers like Canadian Westinghouse to be producing the same items for the same class of ship to two entirely different specifications. The range of products made at Canadian Westinghouse included

[39] "Down to the Sea in Ships go Westinghouse marine engine castings...," *Westinghouse Employees' Magazine* Vol. 1 No. 8, (October 1943), 4-5.

[40] Letter, P.J. Baldwin to George C. Bateman, 22 October 1943, City of Toronto Archives, Toronto, John Inglis Company fonds, Fonds 1297 Series A5 Box 16 (196599) File "Department of Munitions and Supply 1943."

[41] "Electrical Firms Devote Plants to Major War Tasks," *Hamilton Spectator* (28 December 1943).

[42] Annual Joint Meeting, Hamilton Branch American Institute of Electrical Engineers, 10 April 1942, QUA, Collection 3621.1 Series I Box 2 File 17.

[43] Letter, Engineer Rear Admiral H. A. Sheridan to Engineer Captain G.L. Stephens, 22 November 1941, LAC, RG 24 Series D-1-a Vol. 5602 File 29-1-31 pt.5.

generators, electric-powered motors, floodlights, and other specialized electrical apparatus. When British-designed motors and blowers failed in Canadian warships under operational conditions, technical engineers in Hamilton designed and tested new models for ventilation purposes." From a material and technical perspective, the amount of Canadian content thereby increased, and less dependence on foreign sources of supply was possible. The war years proved extremely lucrative for Canadian Westinghouse, which recorded $23.1 million in profit after expenses during the tenure of president John Read between 1940 and 1949." Naval work accounted for a fraction of this business, though among Hamilton companies engaged in electrical manufacturing, Canadian Westinghouse could bid with confidence on immediate and future work related to shipbuilding and the Royal Canadian Navy based on its war production record.

Despite the lack of a full-fledged shipyard in Hamilton during the war, some outfitting of minesweepers and fabrication work took place within city limits on behalf of the British. Shipyards on the Ontario side of the Great Lakes were designated mostly for construction of warships due to size limitations and marginal facilities. The Wolvin group, the only established pre-war shipbuilding conglomerate, was run out of Montreal and maintained the illusion of competition to maximize government dry dock subsidies through shipyards situated at Kingston, Collingwood, Midland, and Port Arthur. Hamilton possessed no existing shipbuilding concerns, though vacant lands adjoining the harbour area were suitable for such purposes. The Hamilton Harbour Commission, a quasi public-private body, maintained several harbour-side warehouses for transshipment of freight and goods. Canadian Steamship Lines possessed a large warehouse, and the steel companies built slips and docks for the unloading of coal and raw materials by barges and lake ships. Hamilton's controller A.H. Frame, a long-time advocate of shipbuilding for Hamilton, tirelessly lobbied the Dominion government and local members of parliament: "I have been working in the hope of having shipyards built at Hamilton, as an additional industry, but since the war, and particularly within the last few months, I feel the location of such an industry here could help considerably in the successful prosecution of the war."" Hamilton possessed the advantage of nearby supporting industries for the supply of steel plate, propulsion machinery, and related components, but the harbour was iced up part of the year and an available labour market reaching its ceiling with a looming housing shortage worked against adding the burden of one more industry. For their part, civic and public officials largely looked upon shipbuilding as a means of continued employment once armaments production tapered off and reconstruction began.

But, in the end, no private interests stepped forward to undertake the risks

"How Fighting Ships Breathe," *Westinghouse Employees' Magazine* Vol. 3 No. 7 (September 1945), 7.

"Financial History of Canadian Westinghouse," 1960, McMaster, Canadian Westinghouse Company fonds, Series 3 Box 16 File 4.

"Will Urge Shipbuilding Program for Hamilton," *Hamilton Spectator* (12 April 1941). A later newspaper editorial applauded Frame for his efforts and felt that shipbuilding "is an industrial achievement which Hamilton is well able to perform." "Hamilton Can Build Them," *Hamilton Spectator* (6 February 1942).

May 31, 2021

Shannon McKie
Planning and Economic Development Department
Development Planning, Heritage and Design – Urban Team
71 Main Street West, 5th Floor
Hamilton, ON L8P 4Y5

Maureen Wilson
Councillor Ward 1
71 Main Street West, 2nd Floor
Hamilton, ON L8P 4Y5

Dear Ms. McKie and Ms. Wilson

RE: UHOPA-20-012 and ZAC20-016
1107 Main Street West, Hamilton (Ward) 1
Addendum on Environmental concerns and adverse health impacts relating to the proposed development as a result of updated PPS 2020 policies on better adaptation and response to the impacts of a changing climate and use of green infrastructure

In a prior letter dated December 10, 2020 the concerns relating to the air quality at Main Street West and Hwy 403, as measured by the Province of Ontario Hamilton West Ambient Air Monitoring Station, was presented. The supporting documentation and material relied on readings and level of air quality and air contaminants up to December 2020.

With the revisions to the PPS by adding an increased emphasis on: 1) air quality and a changing climate; 2) the mitigating effects of green infrastructure; and, 3) the recognition that the changing climate can vary from region to region, and from a regional level to a local level, it is incumbent to provide updated material relating to the calendar year 2021.

Just as the PPS recognizes variances between regions, and between a region and local level, so too variances exist between "transit corridors" and even between sections of the same transit corridor. This circumstance is especially true with the Main Street West transit corridor, and the section where Main Street runs parallel and in close proximity to Hwy 403, which is the exact location of the proposed development.

Ambient air readings in the past indicated extremely high nitrogen dioxide levels in excess of 586 ppb. Unfortunately, with a changing climate, and the dramatic increase in the number of temperature inversion days, and projected increased traffic volumes on Hwy 403, as well as truck and commercial traffic along Main Street West, even with a LRT higher order transit corridor, the ambient air pollution levels will only increase and detrimentally impact upon the health of all the residents in the area.

The factors all set out in the earlier letter remain true today, and the Applicant's proposed removal of beneficial green space and the cutting down of 25 mature trees and other vegetation, and the failure to provide any worthwhile green infrastructure in its place, is entirely inconsistent with the policies set out in PPS 2020 for a safer and healthier community in light of the alarming levels of air quality that already exist at the site.

To this extent I have attached the following set of material as Schedules to this letter as follows:

1) Hamilton West: Hourly Nitrogen Dioxide Readings from March 22 to March 24, 2021

It should be noted that the harmful effects of nitrogen dioxide on children were identified in a medical study referred to previously as occurring on average readings of 14.84 ppm. But in the attached chart setting out a 72-hour reading of hourly levels, only 11 hours were below this standard while the other 61 hours were above it and often substantially above.

2) Hamilton West: Hourly Air Quality Health Index Readings (AQHI)

These chart printouts are for the following time frames:

a) Feb. 21, 2021 to Feb. 23, 2021
b) March 22, 2021 to March 24, 2021
c) April 8, 2021 to April 10, 2021
d) May 16, 2021 to May 18, 2021
e) May 19, 2021 to May 21, 2021

3) Special Air Quality Statement as issued by the Environment Canada and Province of Ontario

The Air Ambient Monitoring Station at Main Street West and Hwy 403 issues alerts when air quality levels reach high risk or level **"7"**. It should be noted however, some residents, such as seniors, children and those already suffering health issues, may begin to feel health impacts and symptoms at much lower levels, such as a **"4"** which is considered a moderate risk for the general public. A copy of a Special Air Quality Statement issued at 3:38 pm on May 19, 2021 and sent out by email at 4:01 pm is attached. This Statement corresponds to the high Air Quality Health Index Readings of Level **"7"** at the Hamilton West Air Ambient Monitoring Station.

4) Nitrogen Dioxide NO2 Concentrations across the Province

A sample of the printouts for Nitrogen Dioxide levels at the same hour on the same day from all the ambient air monitoring stations across Ontario, indicate the high levels that are read at the Main Street West Hwy 403 station. Not only is this the highest reading in Hamilton on these dates, but it is substantially higher than all the other stations in Ontario. This higher level for the

Hamilton West station applies when the readings are elevated and also when the readings are at the lower end of the scale. Attached as a Schedule are the following printouts:

a) February 4, 2021
b) March 9, 2021
c) March 22, 2021
d) May 16, 2021
e) May 19, 2021
f) May 20, 2021
g) May 22, 2021
h) May 23, 2021
i) May 24, 2021

Conclusion

In light of the above updated material and readings from 2021 at the Main West Air Ambient Monitoring Station, which confirm the harmful impacts of a changing climate and the increase in temperature inversion days, and based on all the listed factors previously set out in my letter dated December 10, 2020, it is clear that the proposed redevelopment of the property is not consistent with the PPS 2020.

The excessive height, density and massing of this proposed 15-storey high-rise, and the removal of vegetation and mature trees from the site without the much-needed replacement landscape buffering and green infrastructure required to mitigate against ever increasing levels of harmful air pollution from both traffic related emissions and other sources, clearly indicate that the proposed development will detrimentally impact upon the health and safety of the residents living in this neighbourhood.

For this reason, it is submitted that the most appropriate, and indeed the only level of intensification that can be accommodated at this particular and uniquely vulnerable site, is a three to six storey low-rise building. It should be further provided that the built form and design of any low-rise building approved for the site, be required to incorporate all the mitigating and abating benefits of adequate green space landscape buffering and landscaping setbacks, and the full utilization of green infrastructure in order to prepare for the impacts of a changing climate and the greater traffic volumes and congestion arising from Hwy 403 and the Main Street West traffic corridor.

I also kindly request that this letter, as well as my prior letter of December 10, 2020, if not already forwarded, be circulated to the Environmental Review Department and the Health Department of the City of Hamilton for their review and comments, and that their responses be available for the Planning Committee Meeting that will be hearing these two Applications.

Thank you for your assistance and if you have any questions or require any further information, please do not hesitate to contact me.

Yours very truly,

Ontario

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MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS

ONTARIO.CA | MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS | ACCESS ENVIRONMENT

Air Quality Ontario > Pollutants > Hamilton West: Hourly Nitrogen Dioxide Concentrations

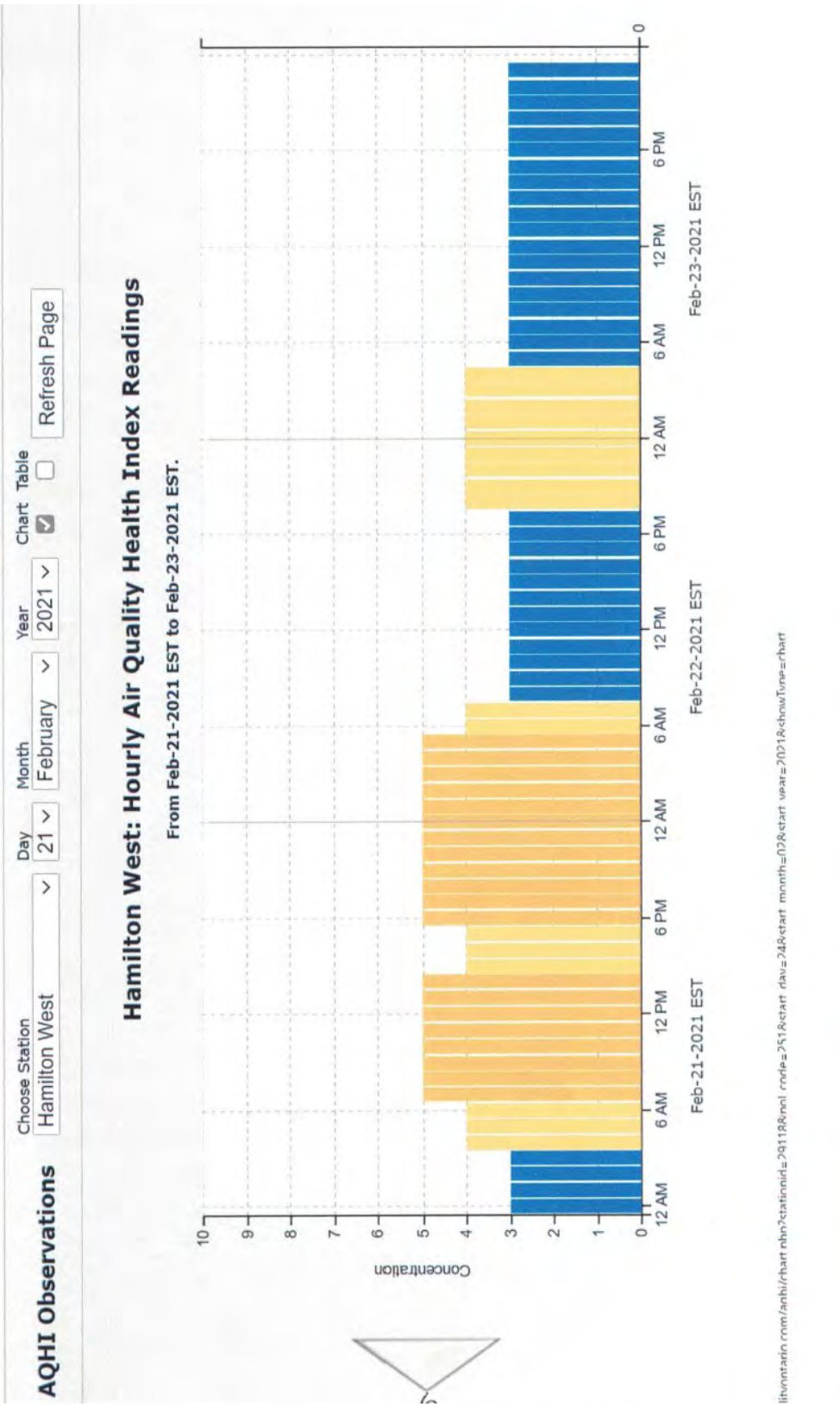
Choose Station: Hamilton West | Pollutants: Nitrogen Dioxide (NO2) | Day: 22 | Month: March | Year: 2021 | Chart | Table | Refresh Page

Hamilton West: Hourly Nitrogen Dioxide Readings

Pollutant data for this station for a three-day period.

Date	12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM
22-Mar-2021	36.9	33.9	33.5	32.8	N/A	32.9	34.7	36.8	40.5	40.3	N/A	N/A	N/A	N/A	N/A	N/A	8.4	3.3	4.9	29.4	36.7	48.5	45.3	43.7
23-Mar-2021	39.2	36.7	35.7	37	36.9	35.9	39.7	40.5	43.9	45.1	46.4	48.3	47.3	42.6	20.3	26.1	26.1	20.3	23.4	13.5	26.4	26.3	19.9	23.3
24-Mar-2021	34	39.1	31.6	24.1	34.2	28.8	35.1	32	35.2	28.8	23.3	16.6	15.5	15.5	20.8	24.9	32	28.5	31.6	36.3	40.2	23.8	31.4	31.4

Previous Nex


AQHI Observations
Choose Station
Hamilton West
Day
21
Month
February
Year
2021
Chart
Table
Refresh Page
Hamilton West: Hourly Air Quality Health Index Readings
From Feb-21-2021 EST to Feb-23-2021 EST.
Concentration
0
1
2
3
4
5
6
7
8
9
10
12 AM
6 AM
12 PM
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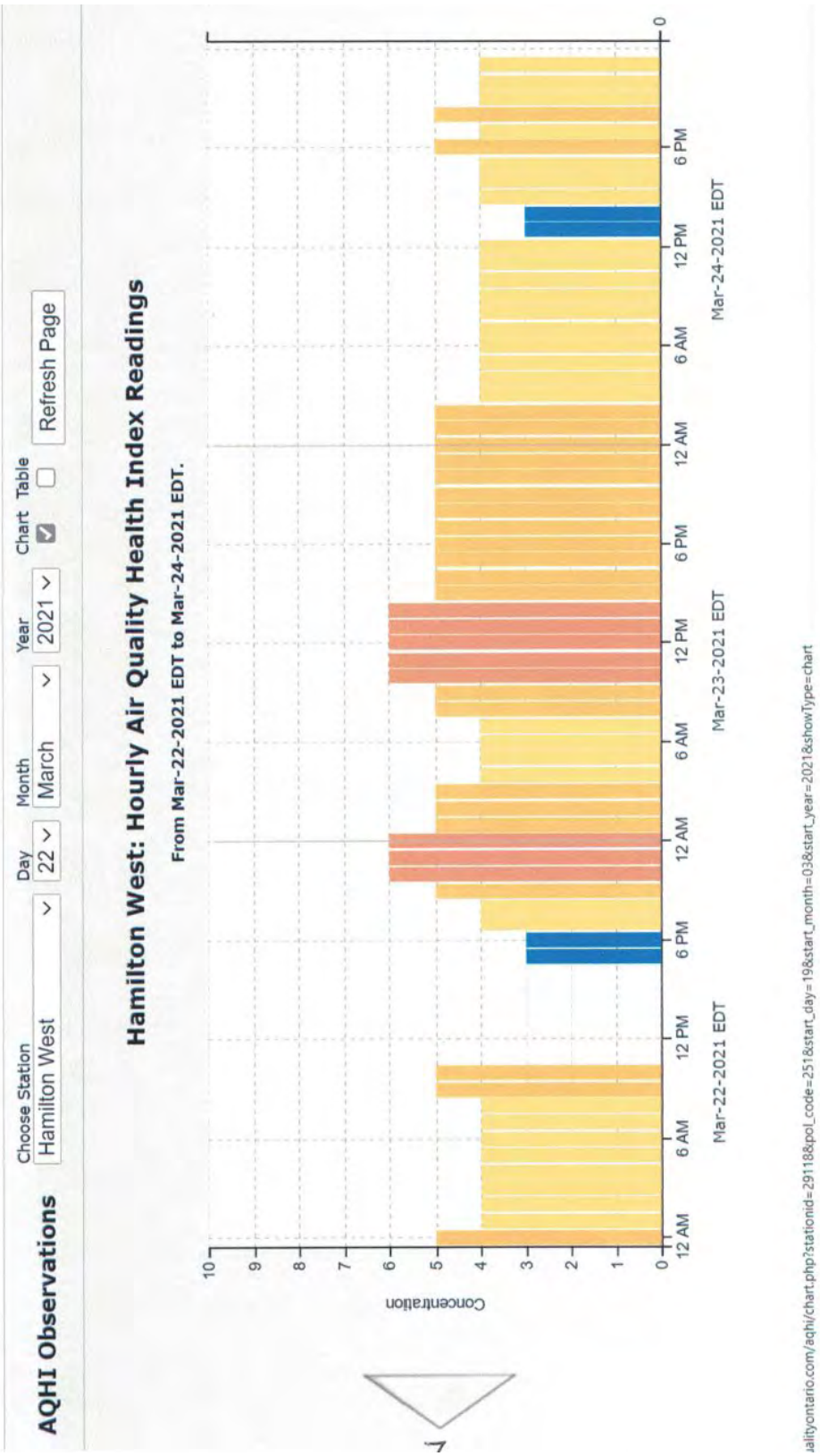
6 PM
Feb-21-2021 EST
Feb-22-2021 EST
Feb-23-2021 EST


AQHI Observations
Choose Station
Hamilton West
Day
22
Month
March
Year
2021
Chart
Table
Refresh Page
Hamilton West: Hourly Air Quality Health Index Readings
From Mar-22-2021 EDT to Mar-24-2021 EDT.
Concentration
10
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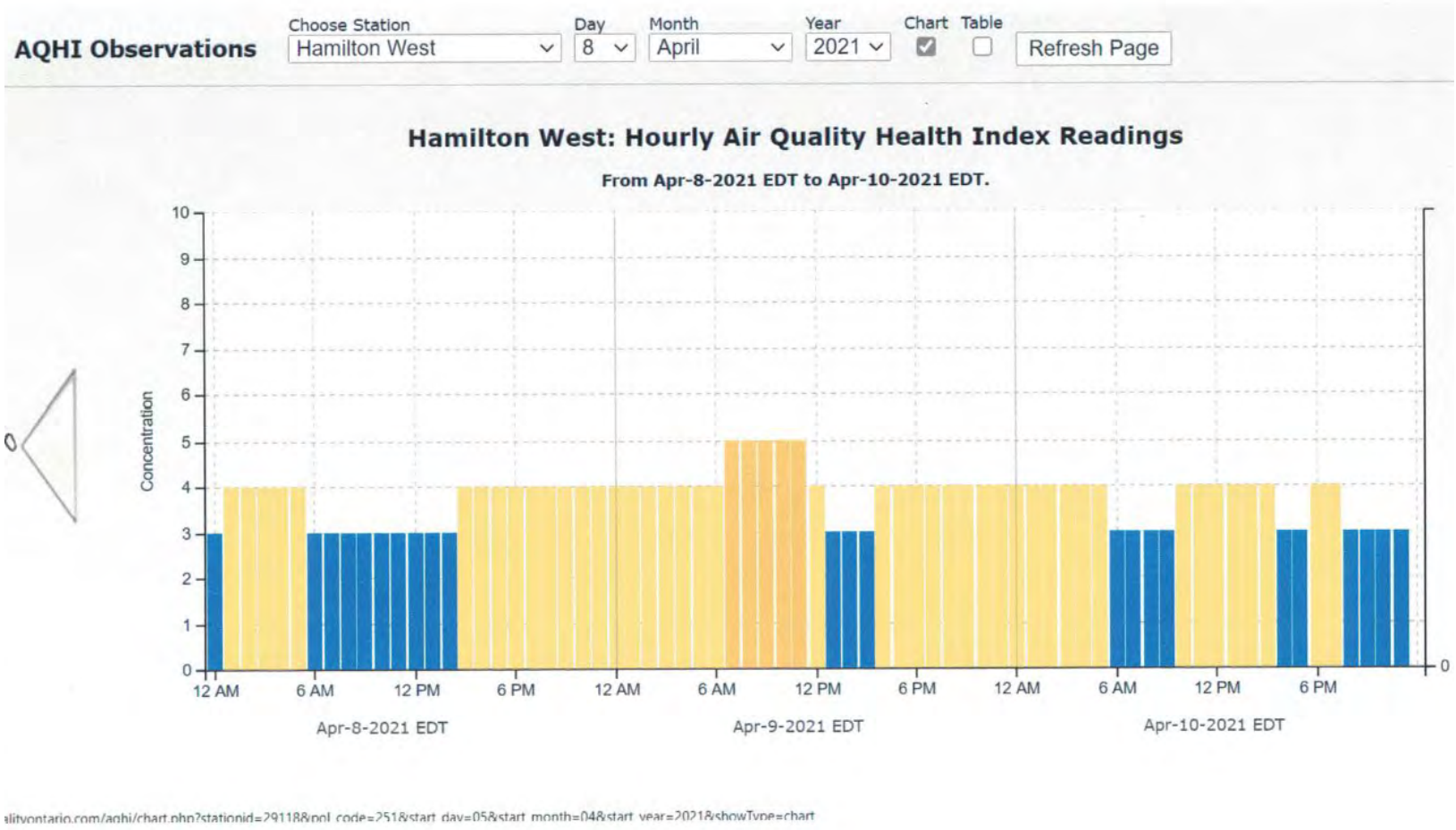
12 AM
6 AM
12 PM
6 PM
12 AM
6 AM
12 PM
6 PM
12 AM
6 AM
12 PM
6 PM
Mar-22-2021 EDT
Mar-23-2021 EDT
Mar-24-2021 EDT
ualityontario.com/aqhi/chart.php?stationid=29118&pol_code=251&start_day=19&start_month=03&start_year=2021&showType=chart


AQHI Observations
Choose Station
Hamilton West
Day
8
Month
April
Year
2021
Chart
Table
Refresh Page
Hamilton West: Hourly Air Quality Health Index Readings
From Apr-8-2021 EDT to Apr-10-2021 EDT.
Concentration
10
9
8
7
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5
4
3
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0
12 AM
6 AM
12 PM
6 PM
Apr-8-2021 EDT
Apr-9-2021 EDT
Apr-10-2021 EDT
alityontario.com/aqhi/chart.php?stationid=29118&pol_code=251&start_day=05&start_month=04&start_year=2021&showType=chart

AQHI Observations
Choose Station
Hamilton West
Day
16
Month
May
Year
2021
Chart
Table
Refresh Page
Hamilton West: Hourly Air Quality Health Index Readings
From May-16-2021 EDT to May-18-2021 EDT.
Concentration
10
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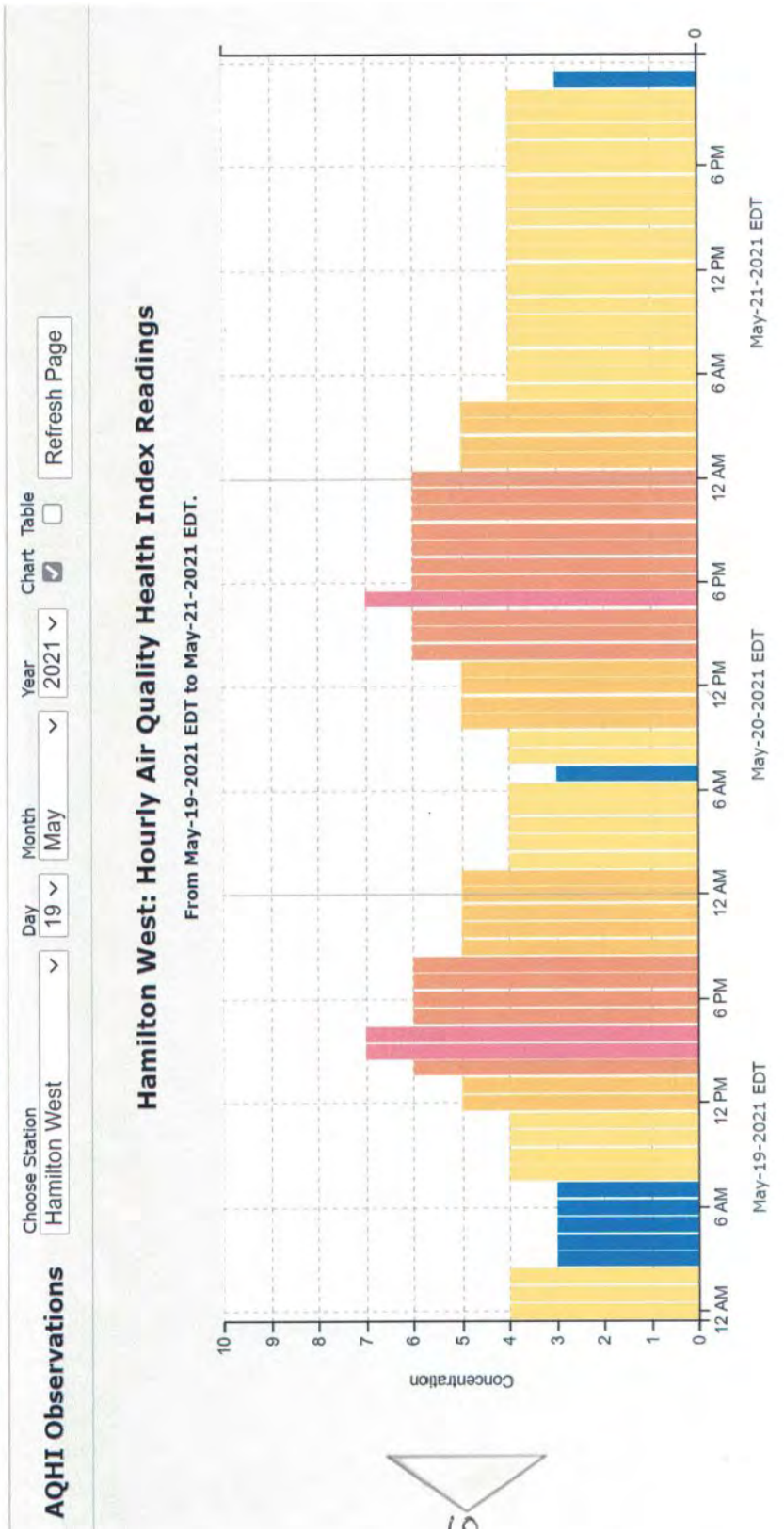
6 AM
12 PM
6 PM
0
May-16-2021 EDT
May-17-2021 EDT
May-18-2021 EDT
alityontario.com/aqhi/chart.php?stationid=29118&pol_code=251&start_day=13&start_month=05&start_year=2021&showType=chart


AQHI Observations
Choose Station
Hamilton West
Day
19
Month
May
Year
2021
Chart
Table
Refresh Page
Hamilton West: Hourly Air Quality Health Index Readings
From May-19-2021 EDT to May-21-2021 EDT.
Concentration
10
9
8
7
6
5
4
3
2
1
0
12 AM
6 AM
12 PM
6 PM
12 AM
6 AM
12 PM
6 PM
12 AM
6 AM
12 PM
6 PM
May-19-2021 EDT
May-20-2021 EDT
May-21-2021 EDT

From: admin@airqualityontario.com
Subject: Special Air Quality Statement
Date: May 19, 2021 at 4:01:41 PM
To: [redacted]

Issued at 2021-05-19 15:38PM EDT by
Environment Canada, the Province of Ontario:
Special air quality statement issued for:
City of Hamilton, Ont. (046100)

Current details:

High levels of air pollution have developed in parts of Hamilton. The observed AQHI values for Hamilton are generally in the moderate risk category, however stagnating weather conditions have resulted in increasing levels of fine particles and nitrogen dioxide in Downtown Hamilton. High risk AQHI values are expected to persist for a few hours at this location.

Individuals may experience symptoms such as increased coughing, throat irritation, headaches or

shortness of breath. Children, seniors, and those with cardiovascular or lung disease, such as asthma, are especially at risk.

Visit www.airhealth.ca for information on how to reduce your health risk and your personal contribution to pollution levels, as well as for current and forecast AQHI values.

Please continue to monitor alerts and forecasts issued by Environment Canada.

If you are experiencing symptoms, such as coughing or throat irritation, consider reducing or rescheduling strenuous outdoor act ivities until the special air quality statement is lifted. Exposure to air pollution is particularly a health concern for people with heart or breathing problems, those with diabetes, children and the elderly.

special air quality statement in effect

The latest status and details on all alerts, including alerts that are not part of your subscription, can be found here: http://www.weather.gc.ca/warnings/index_e.html

This is an automated email from EC Alert me and replies to this message will neither be read nor receive a response.
To unsubscribe from these emails please go to http://www.airqualityontario.com/alerts/signup.php?action=7.
If you wish to contact us, please email us at ec.meteo.ec@canada.ca.

Nitrogen Dioxide NO2:

Day
4
Month
February
Year
2021
Hour
10:00 pm
Pollutant
NO2 (ppb)
Show as Map

Update

Nitrogen Dioxide NO2 Concentrations for Thursday, February 4, 2021, 10:00 pm by Stations.

Station	Location	NO2
Barrie (http://www.ontario.ca/history/station.php?stationid=47045)	83 Perry St.	7.6
Belleville (http://www.ontario.ca/history/station.php?stationid=54012)	2 Sidney St., Water Treatment Plant	6.3
Brampton (http://www.ontario.ca/history/station.php?stationid=46090)	109 Mclaughlin Rd. S.	13.9
Brantford (http://www.ontario.ca/history/station.php?stationid=21005)	324 Grand River Ave.	9.1
Burlington (http://www.ontario.ca/history/station.php?stationid=44008)	North Shore Blvd. E. Lakeshore Rd.	6.1
Chatham (http://www.ontario.ca/history/station.php?stationid=13001)	435 Grand Ave. W.	6.3
Cornwall (http://www.ontario.ca/history/station.php?stationid=56051)	Bedford St. 3rd St. W.	12.5
Grand Bend (http://www.ontario.ca/history/station.php?stationid=15020)	Point Blake Conservation Area	4.6
Guelph (http://www.ontario.ca/history/station.php?stationid=28028)	Exhibition St. Clark St. W.	8.9
Hamilton Downtown (http://www.ontario.ca/history/station.php?stationid=29000)	Elgin St. Kelly St.	38.9
Hamilton Mountain (http://www.ontario.ca/history/station.php?stationid=29214)	250 Fennell Ave. W.	21.6
Hamilton West (http://www.ontario.ca/history/station.php?stationid=29118)	Main St. W. Hwy 403	40.4
Kingston (http://www.ontario.ca/history/station.php?stationid=52023)	23 Beechgrove Lane	4.3
Kitchener (http://www.ontario.ca/history/station.php?stationid=26060)	West Ave. Homewood Ave.	10.6
London (http://www.ontario.ca/history/station.php?stationid=15026)	42 St. Julien St.	5.5
Milton (http://www.ontario.ca/history/station.php?stationid=44029)	1120 Main St. E.	19
Mississauga (http://www.ontario.ca/history/station.php?stationid=46108)	3359 Mississauga Rd. N., U of T Campus	5
Newmarket (http://www.ontario.ca/history/station.php?stationid=48006)	Eagle St. W. McCaffrey Rd.	7.4
North Bay (http://www.ontario.ca/history/station.php?stationid=75010)	Chippewa St. W., Dept. National Defence	7.1
Oakville (http://www.ontario.ca/history/station.php?stationid=44017)	Eighth Line, Glenashton Dr., Halton Res.	8.3
Oshawa (http://www.ontario.ca/history/station.php?stationid=45027)	Brittania Ave. W., Ep Taylor Stables	5.2
Ottawa Downtown (http://www.ontario.ca/history/station.php?stationid=51001)	Rideau St. Wurtemburg St.	38.3
Parry Sound (http://www.ontario.ca/history/station.php?stationid=49005)	7 Bay St.	3.7

Peterborough (http://www.ontario.ca/history/station.php?stationid=59006)	10 Hospital Dr.	17.1
Port Stanley (http://www.ontario.ca/history/station.php?stationid=16015)	43665 Dexter Line, Elgin Water T. Plt	5.2
Sarnia (http://www.ontario.ca/history/station.php?stationid=14111)	700 Christina St. N.	8.5
Sault Ste. Marie (http://www.ontario.ca/history/station.php?stationid=71078)	Sault College	4.1
St. Catharines (http://www.ontario.ca/history/station.php?stationid=27067)	Argyle Cres., Pump Stn.	16.3
Sudbury (http://www.ontario.ca/history/station.php?stationid=77233)	155 Elm St.	13.2
Thunder Bay (http://www.ontario.ca/history/station.php?stationid=63203)	421 James St. S.	2.7
Toronto Downtown (http://www.ontario.ca/history/station.php?stationid=31129)	55 John St.	8
Toronto East (http://www.ontario.ca/history/station.php?stationid=33003)	Kennedy Rd. Lawrence Ave. E.	5
Toronto North (http://www.ontario.ca/history/station.php?stationid=34021)	4905 Dufferin St., Eccc	9.4
Toronto West (http://www.ontario.ca/history/station.php?stationid=35125)	125 Resources Rd.	13
Windsor Downtown (http://www.ontario.ca/history/station.php?stationid=12008)	467 University Ave. W.	6
Windsor West (http://www.ontario.ca/history/station.php?stationid=12016)	College Ave. South St.	3.6

Ontario's Ambient Air Monitoring Stations

Nitrogen Dioxide NO2 Concentrations for Thursday, February 4, 2021, 10:00 pm for Thursday, February 4, 2021, 10:00 pm

Note: The pollutant concentrations on this web page are based on automatically polled data and have not undergone final verification (http://www.ontario.ca/science/data_disclaimer.php)
.

Note: N/A (Not Available) denotes invalid or missing data.
Ontario 1-hour AAQC for NO2 = 200 ppb

Nitrogen Dioxide NO2:

Day
9
Month
March
Year
2021
Hour
9:00 pm
Pollutant
NO2 (ppb)
Show as Map
☐

Update

Nitrogen Dioxide NO2 Concentrations for Tuesday, March 9, 2021, 9:00 pm by Stations.

Station	Location	NO2
Barrie (http://www.ontario.ca/history/station.php?stationid=47045)	83 Perry St.	11.7
Belleville (http://www.ontario.ca/history/station.php?stationid=54012)	2 Sidney St., Water Treatment Plant	11.2
Brampton (http://www.ontario.ca/history/station.php?stationid=46090)	109 Mclaughlin Rd. S.	28
Brantford (http://www.ontario.ca/history/station.php?stationid=21005)	324 Grand River Ave.	6.4
Burlington (http://www.ontario.ca/history/station.php?stationid=44008)	North Shore Blvd. E. Lakeshore Rd.	24.2
Chatham (http://www.ontario.ca/history/station.php?stationid=13001)	435 Grand Ave. W.	6.1
Cornwall (http://www.ontario.ca/history/station.php?stationid=56051)	Bedford St. 3rd St. W.	35.8
Grand Bend (http://www.ontario.ca/history/station.php?stationid=15020)	Point Blake Conservation Area	2.9
Guelph (http://www.ontario.ca/history/station.php?stationid=28028)	Exhibition St. Clark St. W.	18.4
Hamilton Downtown (http://www.ontario.ca/history/station.php?stationid=29000)	Elgin St. Kelly St.	29.9
Hamilton Mountain (http://www.ontario.ca/history/station.php?stationid=29214)	250 Fennell Ave. W.	9.3
Hamilton West (http://www.ontario.ca/history/station.php?stationid=29118)	Main St. W. Hwy 403	39.9
Kingston (http://www.ontario.ca/history/station.php?stationid=52023)	23 Beechgrove Lane	7
Kitchener (http://www.ontario.ca/history/station.php?stationid=26060)	West Ave. Homewood Ave.	21.3
London (http://www.ontario.ca/history/station.php?stationid=15026)	42 St. Julien St.	6.2
Milton (http://www.ontario.ca/history/station.php?stationid=44029)	1120 Main St. E.	19.4
Mississauga (http://www.ontario.ca/history/station.php?stationid=46108)	3359 Mississauga Rd. N., U of T Campus	21.1
Newmarket (http://www.ontario.ca/history/station.php?stationid=48006)	Eagle St. W. McCaffrey Rd.	23.4
North Bay (http://www.ontario.ca/history/station.php?stationid=75010)	Chippewa St. W., Dept. National Defence	18.2
Oakville (http://www.ontario.ca/history/station.php?stationid=44017)	Eighth Line, Glenashton Dr., Halton Res.	23.8
Oshawa (http://www.ontario.ca/history/station.php?stationid=45027)	Brittania Ave. W., Ep Taylor Stables	9.6
Ottawa Downtown (http://www.ontario.ca/history/station.php?stationid=51001)	Rideau St. Wurtemburg St.	32.3
Parry Sound (http://www.ontario.ca/history/station.php?stationid=49005)	7 Bay St.	12.5

Peterborough (http://www.ontario.ca/history/station.php?stationid=59006)	10 Hospital Dr.	20
Port Stanley (http://www.ontario.ca/history/station.php?stationid=16015)	43665 Dexter Line, Elgin Water T. Plt	2
Sarnia (http://www.ontario.ca/history/station.php?stationid=14111)	700 Christina St. N.	7.3
Sault Ste. Marie (http://www.ontario.ca/history/station.php?stationid=71078)	Sault College	2.8
St. Catharines (http://www.ontario.ca/history/station.php?stationid=27067)	Argyle Cres., Pump Stn.	21.3
Sudbury (http://www.ontario.ca/history/station.php?stationid=77233)	155 Elm St.	4.4
Thunder Bay (http://www.ontario.ca/history/station.php?stationid=63203)	421 James St. S.	22.6
Toronto Downtown (http://www.ontario.ca/history/station.php?stationid=31129)	55 John St.	13.7
Toronto East (http://www.ontario.ca/history/station.php?stationid=33003)	Kennedy Rd. Lawrence Ave. E.	19.6
Toronto North (http://www.ontario.ca/history/station.php?stationid=34021)	4905 Dufferin St., Eccc	24.6
Toronto West (http://www.ontario.ca/history/station.php?stationid=35125)	125 Resources Rd.	33.1
Windsor Downtown (http://www.ontario.ca/history/station.php?stationid=12008)	467 University Ave. W.	5.2
Windsor West (http://www.ontario.ca/history/station.php?stationid=12016)	College Ave. South St.	7.2

Ontario's Ambient Air Monitoring Stations

Nitrogen Dioxide NO2 Concentrations for Tuesday, March 9, 2021, 9:00 pm for Tuesday, March 9, 2021, 9:00 pm

Note: The pollutant concentrations on this web page are based on automatically polled data and have not undergone final verification (http://www.ontario.ca/science/data_disclaimer.php)

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Note: N/A (Not Available) denotes invalid or missing data.
Ontario 1-hour AAQC for NO2 = 200 ppb

Nitrogen Dioxide NO2:

Day
22
Month
March
Year
2021
Hour
10:00 pm
Pollutant
NO2 (ppb)
Show as Map

Update

Nitrogen Dioxide NO2 Concentrations for Monday, March 22, 2021, 10:00 pm by Stations.

Station	Location	NO2
Barrie (http://www.ontario.ca/history/station.php?stationid=47045)	83 Perry St.	11.7
Belleville (http://www.ontario.ca/history/station.php?stationid=54012)	2 Sidney St., Water Treatment Plant	11.3
Brampton (http://www.ontario.ca/history/station.php?stationid=46090)	109 Mclaughlin Rd. S.	11.4
Brantford (http://www.ontario.ca/history/station.php?stationid=21005)	324 Grand River Ave.	6
Burlington (http://www.ontario.ca/history/station.php?stationid=44008)	North Shore Blvd. E. Lakeshore Rd.	18.4
Chatham (http://www.ontario.ca/history/station.php?stationid=13001)	435 Grand Ave. W.	7.9
Cornwall (http://www.ontario.ca/history/station.php?stationid=56051)	Bedford St. 3rd St. W.	17.3
Grand Bend (http://www.ontario.ca/history/station.php?stationid=15020)	Point Blake Conservation Area	2.5
Guelph (http://www.ontario.ca/history/station.php?stationid=28028)	Exhibition St. Clark St. W.	13.7
Hamilton Downtown (http://www.ontario.ca/history/station.php?stationid=29000)	Elgin St. Kelly St.	32.4
Hamilton Mountain (http://www.ontario.ca/history/station.php?stationid=29214)	250 Fennell Ave. W.	38.2
Hamilton West (http://www.ontario.ca/history/station.php?stationid=29118)	Main St. W. Hwy 403	48.5
Kingston (http://www.ontario.ca/history/station.php?stationid=52023)	23 Beechgrove Lane	27.1
Kitchener (http://www.ontario.ca/history/station.php?stationid=26060)	West Ave. Homewood Ave.	21.6
London (http://www.ontario.ca/history/station.php?stationid=15026)	42 St. Julien St.	9.8
Milton (http://www.ontario.ca/history/station.php?stationid=44029)	1120 Main St. E.	16.1
Mississauga (http://www.ontario.ca/history/station.php?stationid=46108)	3359 Mississauga Rd. N., U of T Campus	20.3
Newmarket (http://www.ontario.ca/history/station.php?stationid=48006)	Eagle St. W. McCaffrey Rd.	7.5
North Bay (http://www.ontario.ca/history/station.php?stationid=75010)	Chippewa St. W., Dept. National Defence	22.7
Oakville (http://www.ontario.ca/history/station.php?stationid=44017)	Eighth Line, Glenashton Dr., Halton Res.	14.2
Oshawa (http://www.ontario.ca/history/station.php?stationid=45027)	Brittania Ave. W., Ep Taylor Stables	5.2
Ottawa Downtown (http://www.ontario.ca/history/station.php?stationid=51001)	Rideau St. Wurtemburg St.	10.4
Parry Sound (http://www.ontario.ca/history/station.php?stationid=49005)	7 Bay St.	7.3

18

Nitrogen Dioxide NO2:

Day
22
Month
March
Year
2021
Hour
10:00 pm
Pollutant
NO2 (ppb)
Show as Map

Update

Nitrogen Dioxide NO2 Concentrations for Monday, March 22, 2021, 10:00 pm by Stations.

Station	Location	NO2
Barrie (http://www.ontario.ca/history/station.php?stationid=47045)	83 Perry St.	11.7
Belleville (http://www.ontario.ca/history/station.php?stationid=54012)	2 Sidney St., Water Treatment Plant	11.3
Brampton (http://www.ontario.ca/history/station.php?stationid=46090)	109 Mclaughlin Rd. S.	11.4
Brantford (http://www.ontario.ca/history/station.php?stationid=21005)	324 Grand River Ave.	6
Burlington (http://www.ontario.ca/history/station.php?stationid=44008)	North Shore Blvd. E. Lakeshore Rd.	18.4
Chatham (http://www.ontario.ca/history/station.php?stationid=13001)	435 Grand Ave. W.	7.9
Cornwall (http://www.ontario.ca/history/station.php?stationid=56051)	Bedford St. 3rd St. W.	17.3
Grand Bend (http://www.ontario.ca/history/station.php?stationid=15020)	Point Blake Conservation Area	2.5
Guelph (http://www.ontario.ca/history/station.php?stationid=28028)	Exhibition St. Clark St. W.	13.7
Hamilton Downtown (http://www.ontario.ca/history/station.php?stationid=29000)	Elgin St. Kelly St.	32.4
Hamilton Mountain (http://www.ontario.ca/history/station.php?stationid=29214)	250 Fennell Ave. W.	38.2
Hamilton West (http://www.ontario.ca/history/station.php?stationid=29118)	Main St. W. Hwy 403	48.5
Kingston (http://www.ontario.ca/history/station.php?stationid=52023)	23 Beechgrove Lane	27.1
Kitchener (http://www.ontario.ca/history/station.php?stationid=26060)	West Ave. Homewood Ave.	21.6
London (http://www.ontario.ca/history/station.php?stationid=15026)	42 St. Julien St.	9.8
Milton (http://www.ontario.ca/history/station.php?stationid=44029)	1120 Main St. E.	16.1
Mississauga (http://www.ontario.ca/history/station.php?stationid=46108)	3359 Mississauga Rd. N., U of T Campus	20.3
Newmarket (http://www.ontario.ca/history/station.php?stationid=48006)	Eagle St. W. McCaffrey Rd.	7.5
North Bay (http://www.ontario.ca/history/station.php?stationid=75010)	Chippewa St. W., Dept. National Defence	22.7
Oakville (http://www.ontario.ca/history/station.php?stationid=44017)	Eighth Line, Glenashton Dr., Halton Res.	14.2
Oshawa (http://www.ontario.ca/history/station.php?stationid=45027)	Brittania Ave. W., Ep Taylor Stables	5.2
Ottawa Downtown (http://www.ontario.ca/history/station.php?stationid=51001)	Rideau St. Wurtemburg St.	10.4
Parry Sound (http://www.ontario.ca/history/station.php?stationid=49005)	7 Bay St.	7.3

18

Nitrogen Dioxide NO2:

Day
22
Month
March
Year
2021
Hour
10:00 pm
Pollutant
NO2 (ppb)
Show as Map

Update

Nitrogen Dioxide NO2 Concentrations for Monday, March 22, 2021, 10:00 pm by Stations.

Station	Location	NO2
Barrie (http://www.ontario.ca/history/station.php?stationid=47045)	83 Perry St.	11.7
Belleville (http://www.ontario.ca/history/station.php?stationid=54012)	2 Sidney St., Water Treatment Plant	11.3
Brampton (http://www.ontario.ca/history/station.php?stationid=46090)	109 Mclaughlin Rd. S.	11.4
Brantford (http://www.ontario.ca/history/station.php?stationid=21005)	324 Grand River Ave.	6
Burlington (http://www.ontario.ca/history/station.php?stationid=44008)	North Shore Blvd. E. Lakeshore Rd.	18.4
Chatham (http://www.ontario.ca/history/station.php?stationid=13001)	435 Grand Ave. W.	7.9
Cornwall (http://www.ontario.ca/history/station.php?stationid=56051)	Bedford St. 3rd St. W.	17.3
Grand Bend (http://www.ontario.ca/history/station.php?stationid=15020)	Point Blake Conservation Area	2.5
Guelph (http://www.ontario.ca/history/station.php?stationid=28028)	Exhibition St. Clark St. W.	13.7
Hamilton Downtown (http://www.ontario.ca/history/station.php?stationid=29000)	Elgin St. Kelly St.	32.4
Hamilton Mountain (http://www.ontario.ca/history/station.php?stationid=29214)	250 Fennell Ave. W.	38.2
Hamilton West (http://www.ontario.ca/history/station.php?stationid=29118)	Main St. W. Hwy 403	48.5
Kingston (http://www.ontario.ca/history/station.php?stationid=52023)	23 Beechgrove Lane	27.1
Kitchener (http://www.ontario.ca/history/station.php?stationid=26060)	West Ave. Homewood Ave.	21.6
London (http://www.ontario.ca/history/station.php?stationid=15026)	42 St. Julien St.	9.8
Milton (http://www.ontario.ca/history/station.php?stationid=44029)	1120 Main St. E.	16.1
Mississauga (http://www.ontario.ca/history/station.php?stationid=46108)	3359 Mississauga Rd. N., U of T Campus	20.3
Newmarket (http://www.ontario.ca/history/station.php?stationid=48006)	Eagle St. W. McCaffrey Rd.	7.5
North Bay (http://www.ontario.ca/history/station.php?stationid=75010)	Chippewa St. W., Dept. National Defence	22.7
Oakville (http://www.ontario.ca/history/station.php?stationid=44017)	Eighth Line, Glenashton Dr., Halton Res.	14.2
Oshawa (http://www.ontario.ca/history/station.php?stationid=45027)	Brittania Ave. W., Ep Taylor Stables	5.2
Ottawa Downtown (http://www.ontario.ca/history/station.php?stationid=51001)	Rideau St. Wurtemburg St.	10.4
Parry Sound (http://www.ontario.ca/history/station.php?stationid=49005)	7 Bay St.	7.3

Peterborough (http://www.ontario.ca/history/station.php?stationid=59006)	10 Hospital Dr.	4
Port Stanley (http://www.ontario.ca/history/station.php?stationid=16015)	43665 Dexter Line, Elgin Water T. Plt	1.6
Sarnia (http://www.ontario.ca/history/station.php?stationid=14111)	700 Christina St. N.	6.5
Sault Ste. Marie (http://www.ontario.ca/history/station.php?stationid=71078)	Sault College	4.2
St. Catharines (http://www.ontario.ca/history/station.php?stationid=27067)	Argyle Cres., Pump Stn.	6
Sudbury (http://www.ontario.ca/history/station.php?stationid=77233)	155 Elm St.	2.5
Thunder Bay (http://www.ontario.ca/history/station.php?stationid=63203)	421 James St. S.	5
Toronto Downtown (http://www.ontario.ca/history/station.php?stationid=31129)	55 John St.	12.4
Toronto East (http://www.ontario.ca/history/station.php?stationid=33003)	Kennedy Rd. Lawrence Ave. E.	6.1
Toronto North (http://www.ontario.ca/history/station.php?stationid=34021)	4905 Dufferin St., Eccc	4.7
Toronto West (http://www.ontario.ca/history/station.php?stationid=35125)	125 Resources Rd.	3.9
Windsor Downtown (http://www.ontario.ca/history/station.php?stationid=12008)	467 University Ave. W.	4.6
Windsor West (http://www.ontario.ca/history/station.php?stationid=12016)	College Ave. South St.	2.6

Ontario's Ambient Air Monitoring Stations

Nitrogen Dioxide NO2 Concentrations for Sunday, May 16, 2021, 9:00 pm for Sunday, May 16, 2021, 9:00 pm

Note: The pollutant concentrations on this web page are based on automatically polled data and have not undergone final verification (http://www.ontario.ca/science/data_disclaimer.php)

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Note: N/A (Not Available) denotes invalid or missing data.
Ontario 1-hour AAQC for NO2 = 200 ppb

Nitrogen Dioxide NO2:

Day
19
Month
May
Year
2021
Hour
11:00 pm
Pollutant
NO2 (ppb)
Show as Map

Update

Nitrogen Dioxide NO2 Concentrations for Wednesday, May 19, 2021, 11:00 pm by Stations.

Station	Location	NO2
Barrie (http://www.ontario.ca/history/station.php?stationid=47045)	83 Perry St.	8.8
Belleville (http://www.ontario.ca/history/station.php?stationid=54012)	2 Sidney St., Water Treatment Plant	9.2
Brampton (http://www.ontario.ca/history/station.php?stationid=46090)	109 Mclaughlin Rd. S.	6.2
Brantford (http://www.ontario.ca/history/station.php?stationid=21005)	324 Grand River Ave.	6.9
Burlington (http://www.ontario.ca/history/station.php?stationid=44008)	North Shore Blvd. E. Lakeshore Rd.	15.8
Chatham (http://www.ontario.ca/history/station.php?stationid=13001)	435 Grand Ave. W.	3.9
Cornwall (http://www.ontario.ca/history/station.php?stationid=56051)	Bedford St. 3rd St. W.	4.2
Grand Bend (http://www.ontario.ca/history/station.php?stationid=15020)	Point Blake Conservation Area	5.2
Guelph (http://www.ontario.ca/history/station.php?stationid=28028)	Exhibition St. Clark St. W.	12
Hamilton Downtown (http://www.ontario.ca/history/station.php?stationid=29000)	Elgin St. Kelly St.	28.1
Hamilton Mountain (http://www.ontario.ca/history/station.php?stationid=29214)	250 Fennell Ave. W.	17.9
Hamilton West (http://www.ontario.ca/history/station.php?stationid=29118)	Main St. W. Hwy 403	41
Kingston (http://www.ontario.ca/history/station.php?stationid=52023)	23 Beechgrove Lane	7.8
Kitchener (http://www.ontario.ca/history/station.php?stationid=26060)	West Ave. Homewood Ave.	7.7
London (http://www.ontario.ca/history/station.php?stationid=15026)	42 St. Julien St.	5.9
Milton (http://www.ontario.ca/history/station.php?stationid=44029)	1120 Main St. E.	9.8
Mississauga (http://www.ontario.ca/history/station.php?stationid=46108)	3359 Mississauga Rd. N., U of T Campus	9.1
Newmarket (http://www.ontario.ca/history/station.php?stationid=48006)	Eagle St. W. McCaffrey Rd.	11.2
North Bay (http://www.ontario.ca/history/station.php?stationid=75010)	Chippewa St. W., Dept. National Defence	9.2
Oakville (http://www.ontario.ca/history/station.php?stationid=44017)	Eighth Line, Glenashton Dr., Halton Res.	9.5
Oshawa (http://www.ontario.ca/history/station.php?stationid=45027)	Brittania Ave. W., Ep Taylor Stables	5.3
Ottawa Downtown (http://www.ontario.ca/history/station.php?stationid=51001)	Rideau St. Wurtemburg St.	4.1
Parry Sound (http://www.ontario.ca/history/station.php?stationid=49005)	7 Bay St.	5.1

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Peterborough (http://www.ontario.ca/history/station.php?stationid=59006)	10 Hospital Dr.	11.6
Port Stanley (http://www.ontario.ca/history/station.php?stationid=16015)	43665 Dexter Line, Elgin Water T. Plt	2.3
Sarnia (http://www.ontario.ca/history/station.php?stationid=14111)	700 Christina St. N.	4.9
Sault Ste. Marie (http://www.ontario.ca/history/station.php?stationid=71078)	Sault College	3.3
St. Catharines (http://www.ontario.ca/history/station.php?stationid=27067)	Argyle Cres., Pump Stn.	9.7
Sudbury (http://www.ontario.ca/history/station.php?stationid=77233)	155 Elm St.	2.8
Thunder Bay (http://www.ontario.ca/history/station.php?stationid=63203)	421 James St. S.	8.6
Toronto Downtown (http://www.ontario.ca/history/station.php?stationid=31129)	55 John St.	13.1
Toronto East (http://www.ontario.ca/history/station.php?stationid=33003)	Kennedy Rd. Lawrence Ave. E.	7.1
Toronto North (http://www.ontario.ca/history/station.php?stationid=34021)	4905 Dufferin St., Eccc	7.5
Toronto West (http://www.ontario.ca/history/station.php?stationid=35125)	125 Resources Rd.	6.5
Windsor Downtown (http://www.ontario.ca/history/station.php?stationid=12008)	467 University Ave. W.	7.2
Windsor West (http://www.ontario.ca/history/station.php?stationid=12016)	College Ave. South St.	3.2

Ontario's Ambient Air Monitoring Stations

Nitrogen Dioxide NO2 Concentrations for Wednesday, May 19, 2021, 11:00 pm for Wednesday, May 19, 2021, 11:00 pm

Note: The pollutant concentrations on this web page are based on automatically polled data and have not undergone final verification (http://www.ontario.ca/science/data_disclaimer.php)

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Note: N/A (Not Available) denotes invalid or missing data.
Ontario 1-hour AAQC for NO2 = 200 ppb

Nitrogen Dioxide NO2:

Day
20
Month
May
Year
2021
Hour
11:00 pm
Pollutant
NO2 (ppb)
Show as Map
☐

Update

Nitrogen Dioxide NO2 Concentrations for Thursday, May 20, 2021, 11:00 pm by Stations.

Station	Location	NO2
Barrie (http://www.ontario.ca/history/station.php?stationid=47045)	83 Perry St.	8.6
Belleville (http://www.ontario.ca/history/station.php?stationid=54012)	2 Sidney St., Water Treatment Plant	2.1
Brampton (http://www.ontario.ca/history/station.php?stationid=46090)	109 Mclaughlin Rd. S.	18.1
Brantford (http://www.ontario.ca/history/station.php?stationid=21005)	324 Grand River Ave.	5.6
Burlington (http://www.ontario.ca/history/station.php?stationid=44008)	North Shore Blvd. E. Lakeshore Rd.	8.4
Chatham (http://www.ontario.ca/history/station.php?stationid=13001)	435 Grand Ave. W.	3
Cornwall (http://www.ontario.ca/history/station.php?stationid=56051)	Bedford St. 3rd St. W.	5.2
Grand Bend (http://www.ontario.ca/history/station.php?stationid=15020)	Point Blake Conservation Area	3.5
Guelph (http://www.ontario.ca/history/station.php?stationid=28028)	Exhibition St. Clark St. W.	12.2
Hamilton Downtown (http://www.ontario.ca/history/station.php?stationid=29000)	Elgin St. Kelly St.	28.4
Hamilton Mountain (http://www.ontario.ca/history/station.php?stationid=29214)	250 Fennell Ave. W.	22.7
Hamilton West (http://www.ontario.ca/history/station.php?stationid=29118)	Main St. W. Hwy 403	39.8
Kingston (http://www.ontario.ca/history/station.php?stationid=52023)	23 Beechgrove Lane	5.4
Kitchener (http://www.ontario.ca/history/station.php?stationid=26060)	West Ave. Homewood Ave.	15.7
London (http://www.ontario.ca/history/station.php?stationid=15026)	42 St. Julien St.	14.3
Milton (http://www.ontario.ca/history/station.php?stationid=44029)	1120 Main St. E.	14.7
Mississauga (http://www.ontario.ca/history/station.php?stationid=46108)	3359 Mississauga Rd. N., U of T Campus	15.6
Newmarket (http://www.ontario.ca/history/station.php?stationid=48006)	Eagle St. W. McCaffrey Rd.	11.8
North Bay (http://www.ontario.ca/history/station.php?stationid=75010)	Chippewa St. W., Dept. National Defence	15.7
Oakville (http://www.ontario.ca/history/station.php?stationid=44017)	Eighth Line, Glenashton Dr., Halton Res.	17.7
Oshawa (http://www.ontario.ca/history/station.php?stationid=45027)	Brittania Ave. W., Ep Taylor Stables	12
Ottawa Downtown (http://www.ontario.ca/history/station.php?stationid=51001)	Rideau St. Wurtemburg St.	8.9
Parry Sound (http://www.ontario.ca/history/station.php?stationid=49005)	7 Bay St.	5.1

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Peterborough (http://www.ontario.ca/history/station.php?stationid=59006)	10 Hospital Dr.	7.3
Port Stanley (http://www.ontario.ca/history/station.php?stationid=16015)	43665 Dexter Line, Elgin Water T. Plt	1.9
Sarnia (http://www.ontario.ca/history/station.php?stationid=14111)	700 Christina St. N.	5
Sault Ste. Marie (http://www.ontario.ca/history/station.php?stationid=71078)	Sault College	2.4
St. Catharines (http://www.ontario.ca/history/station.php?stationid=27067)	Argyle Cres., Pump Stn.	10.7
Sudbury (http://www.ontario.ca/history/station.php?stationid=77233)	155 Elm St.	2
Thunder Bay (http://www.ontario.ca/history/station.php?stationid=63203)	421 James St. S.	9
Toronto Downtown (http://www.ontario.ca/history/station.php?stationid=31129)	55 John St.	10.8
Toronto East (http://www.ontario.ca/history/station.php?stationid=33003)	Kennedy Rd. Lawrence Ave. E.	11.7
Toronto North (http://www.ontario.ca/history/station.php?stationid=34021)	4905 Dufferin St., Eccc	14.5
Toronto West (http://www.ontario.ca/history/station.php?stationid=35125)	125 Resources Rd.	21.2
Windsor Downtown (http://www.ontario.ca/history/station.php?stationid=12008)	467 University Ave. W.	4.6
Windsor West (http://www.ontario.ca/history/station.php?stationid=12016)	College Ave. South St.	5.7

Ontario's Ambient Air Monitoring Stations

Nitrogen Dioxide NO2 Concentrations for Thursday, May 20, 2021, 11:00 pm for Thursday, May 20, 2021, 11:00 pm

Note: The pollutant concentrations on this web page are based on automatically polled data and have not undergone final verification (http://www.ontario.ca/science/data_disclaimer.php)

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Note: N/A (Not Available) denotes invalid or missing data.
Ontario 1-hour AAQC for NO2 = 200 ppb

Nitrogen Dioxide NO2:

Day
22
Month
May
Year
2021
Hour
7:00 pm
Pollutant
NO2 (ppb)
Show as Map

Update

Nitrogen Dioxide NO2 Concentrations for Saturday, May 22, 2021, 7:00 pm by Stations.

Station	Location	NO2
Barrie (http://www.ontario.ca/history/station.php?stationid=47045)	83 Perry St.	3
Belleville (http://www.ontario.ca/history/station.php?stationid=54012)	2 Sidney St., Water Treatment Plant	1
Brampton (http://www.ontario.ca/history/station.php?stationid=46090)	109 Mclaughlin Rd. S.	1.5
Brantford (http://www.ontario.ca/history/station.php?stationid=21005)	324 Grand River Ave.	2.8
Burlington (http://www.ontario.ca/history/station.php?stationid=44008)	North Shore Blvd. E. Lakeshore Rd.	3.9
Chatham (http://www.ontario.ca/history/station.php?stationid=13001)	435 Grand Ave. W.	2.8
Cornwall (http://www.ontario.ca/history/station.php?stationid=56051)	Bedford St. 3rd St. W.	2.3
Grand Bend (http://www.ontario.ca/history/station.php?stationid=15020)	Point Blake Conservation Area	2.5
Guelph (http://www.ontario.ca/history/station.php?stationid=28028)	Exhibition St. Clark St. W.	2.7
Hamilton Downtown (http://www.ontario.ca/history/station.php?stationid=29000)	Elgin St. Kelly St.	3.5
Hamilton Mountain (http://www.ontario.ca/history/station.php?stationid=29214)	250 Fennell Ave. W.	1
Hamilton West (http://www.ontario.ca/history/station.php?stationid=29118)	Main St. W. Hwy 403	13.4
Kingston (http://www.ontario.ca/history/station.php?stationid=52023)	23 Beechgrove Lane	1.4
Kitchener (http://www.ontario.ca/history/station.php?stationid=26060)	West Ave. Homewood Ave.	2.8
London (http://www.ontario.ca/history/station.php?stationid=15026)	42 St. Julien St.	2.7
Milton (http://www.ontario.ca/history/station.php?stationid=44029)	1120 Main St. E.	3.3
Mississauga (http://www.ontario.ca/history/station.php?stationid=46108)	3359 Mississauga Rd. N., U of T Campus	2.2
Newmarket (http://www.ontario.ca/history/station.php?stationid=48006)	Eagle St. W. McCaffrey Rd.	1.4
North Bay (http://www.ontario.ca/history/station.php?stationid=75010)	Chippewa St. W., Dept. National Defence	1.2
Oakville (http://www.ontario.ca/history/station.php?stationid=44017)	Eighth Line, Glenashton Dr., Halton Res.	2.7
Oshawa (http://www.ontario.ca/history/station.php?stationid=45027)	Brittania Ave. W., Ep Taylor Stables	1.8
Parry Sound (http://www.ontario.ca/history/station.php?stationid=49005)	7 Bay St.	1.2
Peterborough (http://www.ontario.ca/history/station.php?stationid=59006)	10 Hospital Dr.	1.3

Port Stanley ***(http://www.ontario.ca/history/station.php?stationid=16015)***	43665 Dexter Line, Elgin Water T. Plt	1.8
Sarnia ***(http://www.ontario.ca/history/station.php?stationid=14111)***	700 Christina St. N.	5.3
Sault Ste. Marie ***(http://www.ontario.ca/history/station.php?stationid=71078)***	Sault College	1.5
St. Catharines ***(http://www.ontario.ca/history/station.php?stationid=27067)***	Argyle Cres., Pump Stn.	3.4
Sudbury ***(http://www.ontario.ca/history/station.php?stationid=77233)***	155 Elm St.	1.7
Thunder Bay ***(http://www.ontario.ca/history/station.php?stationid=63203)***	421 James St. S.	5.3
Toronto Downtown ***(http://www.ontario.ca/history/station.php?stationid=31129)***	55 John St.	4.5
Toronto East ***(http://www.ontario.ca/history/station.php?stationid=33003)***	Kennedy Rd. Lawrence Ave. E.	3.9
Toronto North ***(http://www.ontario.ca/history/station.php?stationid=34021)***	4905 Dufferin St., Eccc	2.2
Toronto West ***(http://www.ontario.ca/history/station.php?stationid=35125)***	125 Resources Rd.	4.6
Windsor Downtown ***(http://www.ontario.ca/history/station.php?stationid=12008)***	467 University Ave. W.	4
Windsor West ***(http://www.ontario.ca/history/station.php?stationid=12016)***	College Ave. South St.	2.7
Ottawa Downtown ***(http://www.ontario.ca/history/station.php?stationid=51001)***	Rideau St. Wurtemburg St.	N/A

Ontario's Ambient Air Monitoring Stations

Nitrogen Dioxide NO2 Concentrations for Saturday, May 22, 2021, 7:00 pm for Saturday, May 22, 2021, 7:00 pm

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Ontario 1-hour AAQC for NO2 = 200 ppb

Nitrogen Dioxide NO2:

Day
23
Month
May
Year
2021
Hour
11:00 am
Pollutant
NO2 (ppb)
Show as Map
☐

Update

Nitrogen Dioxide NO2 Concentrations for Sunday, May 23, 2021, 11:00 am by Stations.

Station	Location	NO2
Barrie (http://www.ontario.ca/history/station.php?stationid=47045)	83 Perry St.	1.6
Belleville (http://www.ontario.ca/history/station.php?stationid=54012)	2 Sidney St., Water Treatment Plant	.9
Brampton (http://www.ontario.ca/history/station.php?stationid=46090)	109 Mclaughlin Rd. S.	1.8
Brantford (http://www.ontario.ca/history/station.php?stationid=21005)	324 Grand River Ave.	2.9
Burlington (http://www.ontario.ca/history/station.php?stationid=44008)	North Shore Blvd. E. Lakeshore Rd.	3.8
Chatham (http://www.ontario.ca/history/station.php?stationid=13001)	435 Grand Ave. W.	3.4
Cornwall (http://www.ontario.ca/history/station.php?stationid=56051)	Bedford St. 3rd St. W.	.8
Grand Bend (http://www.ontario.ca/history/station.php?stationid=15020)	Point Blake Conservation Area	2.3
Hamilton Downtown (http://www.ontario.ca/history/station.php?stationid=29000)	Elgin St. Kelly St.	5
Hamilton Mountain (http://www.ontario.ca/history/station.php?stationid=29214)	250 Fennell Ave. W.	2.1
Hamilton West (http://www.ontario.ca/history/station.php?stationid=29118)	Main St. W. Hwy 403	7.5
Kingston (http://www.ontario.ca/history/station.php?stationid=52023)	23 Beechgrove Lane	1.3
Kitchener (http://www.ontario.ca/history/station.php?stationid=26060)	West Ave. Homewood Ave.	1.5
London (http://www.ontario.ca/history/station.php?stationid=15026)	42 St. Julien St.	3.7
Milton (http://www.ontario.ca/history/station.php?stationid=44029)	1120 Main St. E.	1.4
Mississauga (http://www.ontario.ca/history/station.php?stationid=46108)	3359 Mississauga Rd. N., U of T Campus	2.1
Newmarket (http://www.ontario.ca/history/station.php?stationid=48006)	Eagle St. W. McCaffrey Rd.	1.2
North Bay (http://www.ontario.ca/history/station.php?stationid=75010)	Chippewa St. W., Dept. National Defence	.8
Oakville (http://www.ontario.ca/history/station.php?stationid=44017)	Eighth Line, Glenashton Dr., Halton Res.	2.3
Oshawa (http://www.ontario.ca/history/station.php?stationid=45027)	Brittania Ave. W., Ep Taylor Stables	1.2
Parry Sound (http://www.ontario.ca/history/station.php?stationid=49005)	7 Bay St.	1.1
Peterborough (http://www.ontario.ca/history/station.php?stationid=59006)	10 Hospital Dr.	1.1
Port Stanley (http://www.ontario.ca/history/station.php?stationid=16015)	43665 Dexter Line, Elgin Water T. Plt	2.6

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Sarnia *(http://www.ontario.ca/history/station.php?stationid=14111)*	700 Christina St. N.	2.9
Sault Ste. Marie *(http://www.ontario.ca/history/station.php?stationid=71078)*	Sault College	1.7
St. Catharines *(http://www.ontario.ca/history/station.php?stationid=27067)*	Argyle Cres., Pump Stn.	5.3
Sudbury *(http://www.ontario.ca/history/station.php?stationid=77233)*	155 Elm St.	1.2
Toronto Downtown *(http://www.ontario.ca/history/station.php?stationid=31129)*	55 John St.	2.3
Toronto East *(http://www.ontario.ca/history/station.php?stationid=33003)*	Kennedy Rd. Lawrence Ave. E.	2.9
Toronto North *(http://www.ontario.ca/history/station.php?stationid=34021)*	4905 Dufferin St., Eccc	1.9
Toronto West *(http://www.ontario.ca/history/station.php?stationid=35125)*	125 Resources Rd.	3.5
Windsor Downtown *(http://www.ontario.ca/history/station.php?stationid=12008)*	467 University Ave. W.	4.8
Windsor West *(http://www.ontario.ca/history/station.php?stationid=12016)*	College Ave. South St.	6.4
Thunder Bay *(http://www.ontario.ca/history/station.php?stationid=63203)*	421 James St. S.	N/A

Ontario's Ambient Air Monitoring Stations

Nitrogen Dioxide NO2 Concentrations for Sunday, May 23, 2021, 11:00 am for Sunday, May 23, 2021, 11:00 am

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Nitrogen Dioxide NO2:

Day
24
Month
May
Year
2021
Hour
7:00 pm
Pollutant
NO2 (ppb)
Show as Map

Update

Nitrogen Dioxide NO2 Concentrations for Monday, May 24, 2021, 7:00 pm by Stations.

Station	Location	NO2
Barrie (http://www.ontario.ca/history/station.php?stationid=47045)	83 Perry St.	2.7
Belleville (http://www.ontario.ca/history/station.php?stationid=54012)	2 Sidney St., Water Treatment Plant	1
Brampton (http://www.ontario.ca/history/station.php?stationid=46090)	109 Mclaughlin Rd. S.	2.3
Brantford (http://www.ontario.ca/history/station.php?stationid=21005)	324 Grand River Ave.	3.3
Burlington (http://www.ontario.ca/history/station.php?stationid=44008)	North Shore Blvd. E. Lakeshore Rd.	5.5
Chatham (http://www.ontario.ca/history/station.php?stationid=13001)	435 Grand Ave. W.	1.9
Cornwall (http://www.ontario.ca/history/station.php?stationid=56051)	Bedford St. 3rd St. W.	1.2
Grand Bend (http://www.ontario.ca/history/station.php?stationid=15020)	Point Blake Conservation Area	1.4
Hamilton Downtown (http://www.ontario.ca/history/station.php?stationid=29000)	Elgin St. Kelly St.	11.9
Hamilton Mountain (http://www.ontario.ca/history/station.php?stationid=29214)	250 Fennell Ave. W.	3.5
Hamilton West (http://www.ontario.ca/history/station.php?stationid=29118)	Main St. W. Hwy 403	14.6
Kingston (http://www.ontario.ca/history/station.php?stationid=52023)	23 Beechgrove Lane	.8
Kitchener (http://www.ontario.ca/history/station.php?stationid=26060)	West Ave. Homewood Ave.	1.8
London (http://www.ontario.ca/history/station.php?stationid=15026)	42 St. Julien St.	2.1
Milton (http://www.ontario.ca/history/station.php?stationid=44029)	1120 Main St. E.	.9
Mississauga (http://www.ontario.ca/history/station.php?stationid=46108)	3359 Mississauga Rd. N., U of T Campus	1.3
Newmarket (http://www.ontario.ca/history/station.php?stationid=48006)	Eagle St. W. McCaffrey Rd.	1.5
North Bay (http://www.ontario.ca/history/station.php?stationid=75010)	Chippewa St. W., Dept. National Defence	.7
Oakville (http://www.ontario.ca/history/station.php?stationid=44017)	Eighth Line, Glenashton Dr., Halton Res.	2.2
Oshawa (http://www.ontario.ca/history/station.php?stationid=45027)	Brittania Ave. W., Ep Taylor Stables	2.7
Parry Sound (http://www.ontario.ca/history/station.php?stationid=49005)	7 Bay St.	1.5
Peterborough (http://www.ontario.ca/history/station.php?stationid=59006)	10 Hospital Dr.	2.1
Port Stanley (http://www.ontario.ca/history/station.php?stationid=16015)	43665 Dexter Line, Elgin Water T. Plt	.9

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Sarnia ***(http://www.ontario.ca/history/station.php?stationid=14111)***	700 Christina St. N.	4.6
Sault Ste. Marie ***(http://www.ontario.ca/history/station.php?stationid=71078)***	Sault College	1.8
St. Catharines ***(http://www.ontario.ca/history/station.php?stationid=27067)***	Argyle Cres., Pump Stn.	1.6
Sudbury ***(http://www.ontario.ca/history/station.php?stationid=77233)***	155 Elm St.	1.6
Toronto Downtown ***(http://www.ontario.ca/history/station.php?stationid=31129)***	55 John St.	10.3
Toronto East ***(http://www.ontario.ca/history/station.php?stationid=33003)***	Kennedy Rd. Lawrence Ave. E.	1.5
Toronto North ***(http://www.ontario.ca/history/station.php?stationid=34021)***	4905 Dufferin St., Eccc	3.1
Toronto West ***(http://www.ontario.ca/history/station.php?stationid=35125)***	125 Resources Rd.	.9
Windsor Downtown ***(http://www.ontario.ca/history/station.php?stationid=12008)***	467 University Ave. W.	3.2
Windsor West ***(http://www.ontario.ca/history/station.php?stationid=12016)***	College Ave. South St.	2.1
Thunder Bay ***(http://www.ontario.ca/history/station.php?stationid=63203)***	421 James St. S.	N/A

Ontario's Ambient Air Monitoring Stations

Nitrogen Dioxide NO2 Concentrations for Monday, May 24, 2021, 7:00 pm for Monday, May 24, 2021, 7:00 pm

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Ontario 1-hour AAQC for NO2 = 200 ppb

February 15th, 2022.

To: Daniel Barnett & Maureen Wilson.

From:

Re: Concerns over the 1107 Main Street West project - Objection of tree removal.

Dear Ms. Wilson & Mr. Barnett,

My name is and I am the owner of , a detached house next to my parents who leave at .

I was born at the Master Hospital and have lived all my life on Dow Avenue. It is home to me in so many ways!

I am writing to you to object and to ask that my concerns about the development of 1107 Main St W be heard. The size of the proposed project would mean that exactly I have known all my life, the character, greenery will disappear forever!

The proposed project would Take on Cline Avenue and Dow Avenue and bring an influx of people, a level of intensification that is far too high for this quiet neighbourhood; on to my sheet!
My driveway will become a turning point, a grand central back up space for garbage trucks and vehicles!
The English oak tree across from my house is a magnificent beauty! It is more then 75 years old!
All steps must be taken to ensure the survival.
I saw the proposed site plan on line and I deeply oppose to the size and plan of this project.
This project is far too close to the sidewalks on Dow Avenue. Set backs should be at least 6 m but they are proposing 3 m and removal of the tree
This tree is a municipal tree that provide shade in the summer and where birds have made numerous nests throughout the years.
With climate change being a reality and air pollution threatening our health, I can ashure you that you please not allow such

project and removal of trees.
A few steps from the Oak tree is a Silver Maple tree that is just as old and beautiful.
These trees are not sick and do not represent a risk to people walking their dogs.
I Thank you for taking the time to read my letter and urge you to please respect the size of this proposed project.

Respectfully yours.

February 16, 2022

Planning and Economic Development Department
71 Main Street West, 5th Floor
Hamilton, ON L8P 4Y5

Attention: Daniel Barnett
daniel.barnett@hamilton.ca Fax: (905) 546-4202

Dear Sir:

RE: UHOPA-20-012 and ZAC20-016
1107 Main Street West, Hamilton (Ward) 1
Objections to project and questions concerning municipal trees and setbacks and 31 Dow Avenue becoming included in a TOC1 zoning as shown in the Application zoning map B.6.2-1

I am the homeowner and occupant of and I wrote an objection letter on September 2, 2020 in which I objected to the proposed building on the basis that the height of 15 storeys is excessive and the number of proposed units is far too large for the neighbourhood.

I now also object to the fact that mature municipal trees will either be removed or have their roots severely cut back to the point that the tree has to be removed, solely due to the fact that the developer is not honouring the setback requirement of 6 metres in the zoning by-law. This is extremely objectionable as the developer should not be able to lessen the enjoyment of the street for other residents merely because he wants to overbuild on the site, and because he refuses to design a building which honours the zoning setbacks. We need more trees to offset the detrimental harm caused by climate change and air pollution. Unnecessarily removing municipal trees goes against this principle, and there is no reason why this particular developer should be allowed to overbuild, as any other developer could have easily designed a building to create more housing in Hamilton while still respecting the neighbourhood residents.

I also still believe that the project will also detrimentally endanger the safety of the many pedestrians and school children walking on the sidewalks or crossing the already busy streets, and for motorists. The loading access driveway on Dow Avenue also shows that trucks will probably be backing out of the driveway as the turn around space for the building is far too small, and this fact makes the project even more dangerous for pedestrians.

I also did not get a letter back explaining how my house, , was included within the TOC1 zoning Map B.6.2-1 when my address was not included in any

Submission or Report to the Planning Committee and when my property was not even shown on any map that was an Appendix to any Report. I ask whether my house was rezoned to allow the developer to build his project, as it appears that both Grace Lutheran Church and my house were rezoned at the exact same time.

Yours sincerely,

March 11, 2022

Daniel Barnett
Planning and Economic Development Department
Development Planning, Heritage and Design – Urban Team
71 Main Street West, 5th Floor
Hamilton, ON L8P 4Y5

Maureen Wilson
Councillor Ward 1
71 Main Street West, 2nd Floor
Hamilton, ON L8P 4Y5

Dear Mr. Barnett and Ms. Wilson

RE: UHOPA-20-012 and ZAC20-016
1107 Main Street West, Hamilton (Ward) 1
Addendum to the Environmental and Health Concerns relating to the Hamilton Airshed, Truck Traffic Volume Flow and Decline of the Urban Forest
Applicant's failure to adhere to zoning by-law setback requirements contrary to provisions set out in the PPS (2020)

Further to my objection letter of January 25, 2022 I wish to attach two additional documents in support of the Environmental and Health Concerns relating to the Hamilton Airshed and the Truck Volume on Main Street West and Highway 403, which I had previously raised.

The first is an article which quoted Dr. Denis Corr in identifying "the 5 worst Hamilton neighbourhoods for air pollution". The news article identifies the number one area as being the neighbourhoods adjacent to the QEW/403 in which he states that "on the busy highways that run through Hamilton the risk of dying from air pollution is 12 per cent higher than the average mortality rate". This supports the contention that the subject site, being adjacent to both Main Street West and in close proximity to Highway 403, is situated in the worst neighbourhood in Hamilton in terms of air pollution-related mortality, and that such issues as inadequate setbacks, the lack of landscaping buffers and the "canyon effect" of the Applicant's proposed built form must be evaluated from the public health perspective.

The second addendum are extracts from the "**City of Hamilton Transportation Master Plan Review and Update**". In the entire City of Hamilton, the Review and Update identifies "five areas that present challenges to providing an efficient transportation system" one of which is Highway 403/Main Street West/Wilson Street Corridors.

Figures 3.1 and 3.2 on pages 59 and 60 are attached, and it is clear that these areas are subject to traffic volume congestion at peak hours, and that the traffic congestion is on Highway 403 due to

the bottleneck that occurs at the King Street West interchange, and also by virtue of congestion on Main Street West in both the eastbound and westbound traffic flow during that a.m. and p.m. rush hours.

It also must be noted is that a preferred solution set out in Section 3.5 on page 63 is the "widening of Highway 403 and the City of Hamilton's own recognition that from an Environmental Evaluation perspective it will result in an "increase in air emissions". This increase in emissions from diesel fuel exhaust from heavy trucks will have a corresponding detrimental effect on the neighbourhood. In addition, the Metrolinx recommendation that the signalized stoplight at the 403/Main Street West exit interchange be increased anywhere from between 55 seconds to over 80 seconds, will only increase the idling time for diesel fuel burning trucks waiting to exit from Hwy 403 and thereby directly increase the levels of nitrogen dioxide in the neighbourhood.

In light of these environmental concerns for the health and safety of the future residents in the proposed development and also for the existing residents in the neighbourhood, I respectfully submit that the Application file be circulated to the Hamilton Conservation Authority, the Hamilton Board of Health, the Air Quality & Climate Change Division, Recreation Division, Healthy & Safe Communities Department, Healthy Environments Division - Public Works Department, Forestry and Horticulture Division – Public Works Department, Source Water Protection Planning – Public Works Department, and the Traffic Department, in order that a full and complete evaluation be carried out to determine if the proposed redevelopment is consistent with the PPS (2020) and if it is in compliance the existing criteria already established by each of the above municipal departments and divisions.

I thank you for your consideration.

Yours truly,

5 worst Hamilton neighbourhoods for air pollution

Samantha Craggs · CBC News · Posted: Jul 12, 2012 8:00 AM ET | Last Updated: July 12, 2012

Hamilton residents have a 11.5 per cent higher chance of dying from air pollution-related causes than the average mortality rate.

In other words, if there were 100 deaths from natural causes, there would be 11 more in Hamilton from causes related to air quality.

Local researcher Denis Corr used a mobile air monitoring system to calculate levels of carbon monoxide, oxides of nitrogen, sulphur dioxide, PM10 (inhalable particulates such as dust) and PM2.5 (respirable, or fine, particulates viewable only with a microscope).

Here are the neighbourhoods at greatest risk of air pollution-related mortality:

1. QEW/403

On the busy highways that run through Hamilton, the risk of dying from air pollution is 12 per cent higher than the average mortality rate. Vehicle pollution causes cardiovascular and respiratory emergencies, making Hamilton's major highways the deadliest areas of the city when it comes to air quality. Corr says when you're driving on a highway, especially on smog days, you should set your car's ventilation system to recirculate.

2. Jones Road and Arvin Avenue area

This area in Winona is particularly high in PM10, as well as the deadlier PM2.5, which are smaller and more likely to infiltrate our lungs and harm our respiratory systems. In this area, the risk of dying from air pollution is nearly eight per cent higher than the average mortality rate.

3. Wentworth North around the Eva Rothwell Centre

High in PM10, PM2.5 and nitrogen dioxide, the area of Wentworth North at the Eva Rothwell Centre carries a mortality rate that is nearly eight per cent higher than the average mortality rate.

4. Eastport Drive, east side

There are several factors at play when it comes to Eastport Drive.

Air quality is the worst where the wind blows from the east. It carries pollution from traffic on the QEW, bringing increased levels of nitrogen oxides. The impact is offset, Corr says, in areas where there are sound walls, which also act as pollution walls. On the west side of Eastport Drive, industry brings higher levels of PM10.

Eastport Drive with an easterly wind brings a mortality risk seven per cent higher than average. On the west side, the risk is about three per cent higher.

5. McAnulty Boulevard

This residential area near Hamilton's industrial sector carries a mortality rate six per cent higher than average. The highest risk is from PM10.

Hamilton

CITY OF HAMILTON
TRANSPORTATION MASTER PLAN
REVIEW AND UPDATE

Chapter 3
Strategic Transportation System Evaluation of Alternatives

This chapter describes the identification and evaluation of strategic transportation system alternatives.

3.1 TRAVEL DEMAND FORECASTING (EMME MODEL)

Travel demand forecasting was undertaken for the TMP review and update to evaluate the existing conditions and forecast future (2031) transportation system performance including identification of deficiencies and assessment of network needs and opportunities.

The City's travel demand model is a link-based macro-level (regional-scaled) transportation simulation model using the EMME software package. The model is an AM peak model only.

The model was developed as a traditional four-stage approach, which includes:

1. Generating trips that use a transportation system
2. Distributing those trips to and from origin-destination traffic zones across the network
3. Dividing the trips by mode of travel (e.g. driver, passenger, transit)
4. Assigning the trips to a broad transportation system

Travel demand models are calibrated against observed traffic data crossing a series of imaginary "screenlines" in order to ensure the model adequately captures and simulates existing travel. This ensures that the model can be used to forecast future conditions based on growth projections across the Greater Golden Horseshoe (GGH). Thus, macro-level models are generally applied to inform policy direction and decision-making. They are not intended to be used to make specific infrastructure investments solely based on its outputs. They are also not used to assess localized traffic operation issues such as intersection performance, traffic queues, and turning movements. Further details about the modeling are provided in the EMME Technical Report.

The updated model reflects the 2011 Transportation Tomorrow Survey (TTS) data, and includes an updated road and transit network, revised GRIDS land use data, a disaggregated trip generation process, new base trip tables for trip distribution through the Fratar process and a validated transit mode split procedure.

Validation is the process of comparing modelled traffic volumes with observed traffic volumes to assess how well the demand forecasting model fits. Validation was completed for year 2011 for the screenline locations through linear goodness of fit model validation and through the non-linear single acceptance threshold GEH Statistic, which is a commonly used transportation forecasting technique to compare two sets of traffic volumes.

There was also a further validation procedure undertaken as part of collaboration with the B-Line LRT project and the modelling undertaken as part of that assignment. This provided both projects the opportunity to validate each other's work. The information from the TMP modeling exercise was then utilized and updated in collaboration with the B-Line LRT project.

Based on these calibration and validation processes, the model was verified to be within acceptable thresholds. As identified in Chapters 7 (Recommendations) and 8 (Monitoring), when new information becomes available through TTS and Statistics Canada, and as changes to population and employment projections, the road network, or other changes occur, the proactive management and monitoring of the model should be undertaken.

3.2 EVALUATION OF EXISTING CONDITIONS

Once the calibration and validation of the model was completed, the model was run to evaluate existing conditions. Evaluation of existing conditions is necessary in order to

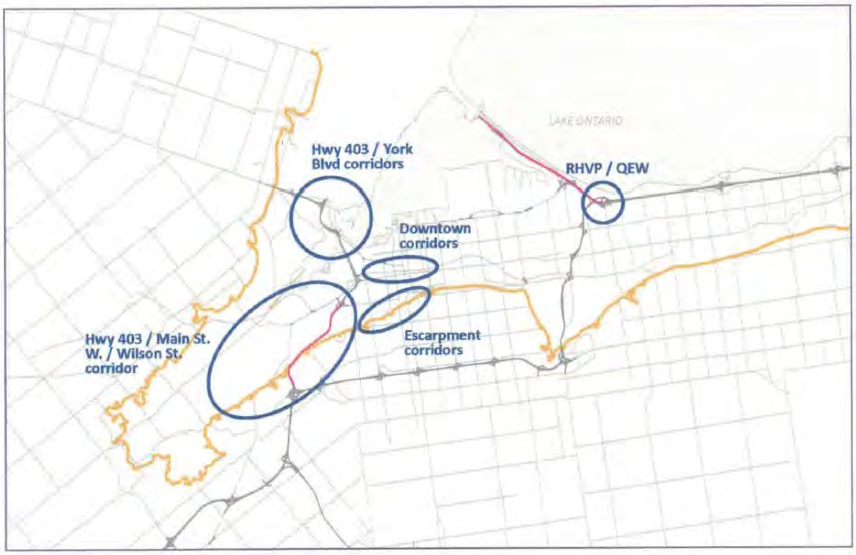


FIGURE 3.1
2011 Existing Conditions AM Peak Hour Model Results

provide a baseline to compare future performance against.

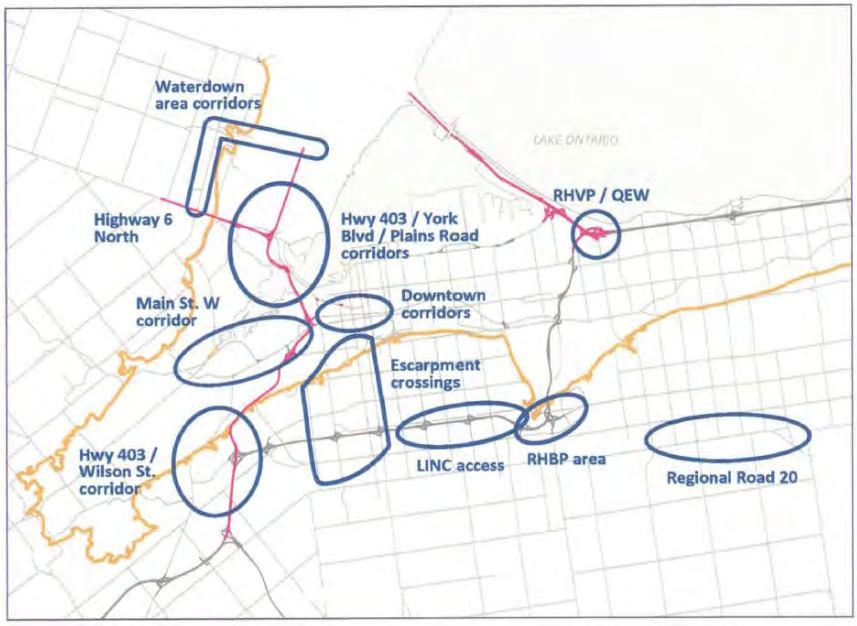
Figure 3.1 shows the existing conditions 2011 AM Peak Hour model results, which identifies five areas that present challenges to providing an efficient transportation system:

- Red Hill Valley Parkway (RHVP) / QEW
- Highway 403/York Boulevard corridors
- Highway 403/Main Street West/ Wilson Street Corridors
- Downtown corridors
- Escarpment crossings

3.2.1 Assessment of Future "Do Nothing" Conditions

In order to identify potential alternative scenarios for consideration, an understanding of the impacts associated with the projected travel patterns in 2031 if no planned or further system infrastructure improvements are made must be understood. Accordingly, two "Do Nothing" scenario were run. As Figure 3.2 demonstrates, under these scenarios, the areas of concern identified under the existing conditions remained or expanded to affect other areas of the system. Further, additional areas of concern developed in locations primarily driven by expanded residential growth areas without additional supporting road networks or transit service. The development of alternative scenarios to address these areas of concern is discussed in the next section.

FIGURE 3.2
2031 "Do Nothing" AM Peak Hour Model Results



3.3 IDENTIFICATION OF STRATEGIC TRANSPORTATION SYSTEM ALTERNATIVES

In order to minimize the identified potential system challenges associated with the "Do Nothing" scenario, several strategic transportation system alternatives were identified and analyzed as part of the TMP review and update. These are described within this section.

A "2031 Base Case" scenario established the framework from which future alternatives would be modelled and future recommendations built. The "2031 Base Case" included two models which consisted of a "2031 Base Case" scenario without any planned improvements or programs previous identified and a "2031 Base Case" scenario including current planned and approved upgrades. These improvements are derived from sub-area plans, Council approved initiatives, as well as the capital budget and the City's Development Charges (DC) By-law (2014). No additional improvements above and beyond what has already been approved are included in this scenario. Each base case was analyzed to recognize the demand which would occur on Hamilton's network by 2031, providing direction on planned improvements based on areas of concern.

A 12% transit mode share assumption was carried forward, consistent with the 2007 TMP, which is associated with development of the rapid transit network (BLAST) and GO Transit rail expansion to the West Harbour and Confederation Stations (all day service). No enhancement to GO bus service was assumed. Truck mode share is based on MTO roadside commercial trucking survey data, while other travel modes are assumed to remain the same.

This information was used alongside the outputs of the EMME model to identify alternative solutions that could be evaluated against a number of criteria for future study and consideration. The Base Case validates the need for the previously approved improvements (as identified in Maps 3A and 3B and Appendix A). Notwithstanding these improvements, the analysis of the outputs from the EMME model illustrated in Figure 3.3 indicates there will still be capacity deficiencies and pinch points along strategic road links. Alternative solutions to address these deficiencies were therefore identified.

The consideration of different alternatives is an essential part of the EA process. Five alternatives were examined to determine how well they would meet the City's transportation system to 2031. These include:

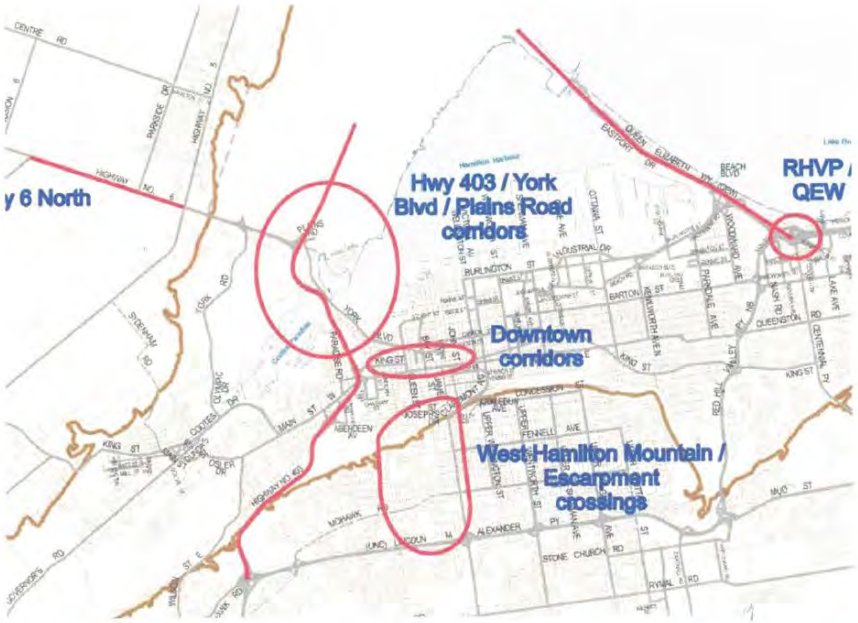
Alternative A: Widen Highway 403 /QEW

- Widening of Highway 403/QEW from King Street to the Highway 6 South Interchange to remove a bottleneck in the existing system.

Alternative B: Localized Improvements (identified through the TMP review and update Process)

- Double transit ridership between upper and lower Hamilton especially on Beckett and James Mountain Road
- Decrease auto trips originating and destined within the Downtown by 5% by changing mode to increased walking and cycling

FIGURE 3.3
2031 AM Peak Hour Model Results with Planned Road and Transit Improvements



- Build new roadway from RHVP to airport
- Make interim improvements (optimization) to RR 20 east of Centennial Parkway

Alternative B also relies heavily on the implementation of BLAST, the 10 Year Transit Strategy, and the Cycling Master Plan to achieve transit ridership increases and mode shifts.

Alternative C: Includes Alternative B and widening of LINC and RHVP to six lanes

- Address two bottlenecks identified in the future planning horizon by providing additional capacity on the LINC and RHVP
- Localized improvements identified in Alternative B above

Alternative D: Includes Alternatives A, B and C

- Address two bottlenecks identified in the future planning horizon by providing additional capacity on the LINC and RHVP
- Requires MTO investment to widen Highway 403/QEW to effectively use the increased capacity on the LINC and RHVP
- Localized improvements identified in Alternative B above

3.4 EVALUATION OF STRATEGIC TRANSPORTATION SYSTEM ALTERNATIVES

The following sections summarize the evaluation of strategic transportation system alternatives identified in the previous section. This includes a technical analysis using the City's travel demand model, as well as overall assessment following the EA process.

The Municipal Class EA document provides guidance on how to evaluate alternative solutions. General criteria include considerations regarding Transportation, Land-Use Planning Objectives, Natural Environment / Natural Heritage Features, Social Environment, Cultural Environment Heritage, First Nations/Aboriginal Peoples and Economic Environments. We have refined these criteria for the purpose of the TMP review and update. This refinement incorporated the lens of the EA process and the three desired outcomes of the transportation system: Sustainable and Balanced Transportation System, Healthy and Safe Communities, and Economic Prosperity and Growth.

Each of the strategic transportation system alternatives were evaluated based on five categories:

- Transportation (Sustainable and Balanced System)
- Environment (Sustainable and Balanced System)
- Social (Healthy and Safe Communities)
- Economic (Economic Prosperity and Growth)
- Implementation (Sustainable and Balanced System)

Table 3.1 provides a summary of the evaluation of strategic transportation system alternatives based on the criteria above.

3.5 PREFERRED SOLUTION

As Table 3.1 indicates, the preferred overall strategy is Alternative D. Since no single approach is likely to solve all transportation problems, this will provide a long-term solution that the City should continue to work towards, which includes:

- Widen Highway 403 / QEW
- Localized improvements
- Expansion of the LINC and RHVP to six lanes

The immediate priority is localized improvements, with potential need for the others to be in the later years of the planning horizon of the TMP.

WHAT WE HEARD:

The public preferred the implementation of all improvements as the preferred solution, with a focus on localized improvements.

However, this long-term solution is not without challenges. For example, improvements to the transportation system such as the expansion of the LINC and RHVP would not be a prudent measure given the pinch points associated with the Provincial freeway network (QEW and Highway 403). Any capacity gained through the LINC and RHVP expansion until these pinch points are resolved would be negated. Further investigation into the sustainability of future expansion should be undertaken. This is described in more detail in Chapter 7 (Recommendations).

Other long-term and interim solutions to the transportation system that are within the City's control regarding localized improvements should be explored. As such, additional sensitivity testing was undertaken regarding localized network improvements and is discussed in the next section.

TABLE 3.1 Environmental Assessment Evaluation of Strategic Transportation System Alternatives

Evaluation Criteria	Alternative A Widen Highway 403/QEW	Alternative B Localized Improvements (identified through the TMP Process)
Transportation (Sustainable & Balanced)	• Provides more efficient connections with regional networks • Does not provide diverse transit options	• Incorporates multi-modal network enhancements
Environment (Sustainable & Balanced)	• Increase in air emissions • Requires expansion into surrounding lands	• Localized impacts due to road widening conflicts • Increase in air emissions
Social (Healthy & Safe Communities)	• Potential to reduce collisions and infiltration of traffic into community	• Current committed projects will not significantly improve the transportation choices
Economic (Economic Prosperity & Growth)	• Widening will have major impacts on the Hamilton Economy during construction • Requires funding from Senior Government	• Committed projects are planned within budget • Committed works do not account for future investment
Implementation (Sustainable and Balanced)	• Major impacts to Hamilton network during construction • May require new revenue tools	• Minimal impacts • Projects have been identified in the 2007 TMP • May require new revenue tools
Overall assessment	◑	◑

○ ◔ ◑ ◕ ●

Least Preferred ⟶ Most Preferred

TABLE ES.3 Summary of Actions

Policy Theme	No	Actions	Timing	Lead (Partners)
Connect-ivity	44	Maximize the coordination and connectivity of bicycle, pedestrian and transit networks (including public bike share) to improve first and last mile connections to transit.	Ongoing	PED/PW
Climate Change	45	Promote the importance of reducing GHG emissions from transportation, managing fleet operating costs and achieving the City's Corporate Average Fuel Economy (CAFÉ) targets energy conservation in transportation and ensure Hamilton plays a role in achieving Federal, Provincial and its own commitments to reduce GHG emission reductions.	Ongoing	PW
Emerging Technology	46	Identify opportunities for and run pilot projects to assess the applicability and/or feasibility of implementing new technological opportunities, such as mobility as a service.	Ongoing	PW/PED
	47	Work across departments to use "Big Data" to inform transportation planning decisions, provide better services for the travelling public and reduce net costs.	Short	Corporate Services
	48	Support the transformation of the transportation system to create a "smart city" (intelligent community).	Medium	Corporate Services
Intergov-ernmental Relations	49	Proactively work with the Ministry of Transportation (MTO), Metrolinx, other provincial/federal agencies and neighbouring municipalities to advance regional transportation initiatives within and beyond the City.	Ongoing	Multiple leads

TABLE ES.3 Summary of Actions

Policy Theme	No	Actions	Timing	Lead (Partners)
Health and the Built Environ-ment	50	Include health outcomes (chronic disease, respiratory function, injuries, mental health, and heath care costs), where possible, in the evaluation of transportation designs, projects and policies, in collaboration with Public Health staff and professionals.	Ongoing	HSC
Road Safety	51	Integrate the goals and principles of Vision Zero into the CLB streets design manual and Engineering Guidelines.	Short	PED
	52	Establish a Vision Zero Task Force that includes multiple partners, leaders, public and private businesses, school boards and public health as a sub-committee to the Hamilton Strategic Road Safety Committee.	Short	PW
	53	Implement a comprehensive collision data collection system integrating multiple modes of transportation and overlaying built environment data.	Ongoing	PW
	54	Apply speed reduction techniques through the implementation of CLB streets as well as through other opportunities such as the introduction of protected cycling facilities.	Ongoing	PW (PED)
Accessib-ility	55	Support the delivery of age-friendly and accessible transit training and training for other modes run by non-governmental organizations.	Short	PED (HSC, PW, NGOs)
	56	Develop education around sidewalk etiquette and the role of mobility devices.	Short	PED (HSC)

March 30, 2022

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Dear Sirs/Mesdames:

RE: Objection to the Applicant's Cultural Heritage Proposal of a Stand-Alone Façade and six garden planter boxes for the corner of Dow Avenue and Main Street West UHOPA-20-012 and ZAC20-016

We, the undersigned residents of the Ainslie Wood East Neighbourhood, wholeheartedly support the unanimous motion of the Cultural Heritage Committee, which was passed on February 25,

2022, and the unanimous motion passed by the Planning Committee on March 22, 2022, which recommended to Council that 1107 Main Street West, Hamilton be added to the Municipal Heritage Register and to the staff work plan for heritage designation of the property under the Ontario Heritage Act.

It is our sincere hope that the extant building of the Grace Lutheran Church will be utilized for adaptive use or in the alternative that many heritage attributes of the Gothic and Neo-Gothic architecture be utilized in any new redevelopment of the property. We are fully aware of the fact that the property is on an LRT Corridor, and that as such, is subject to the pressures of higher intensification where it can be accommodated. In fact, we support a truly affordable housing redevelopment with subsidized rents for this site, and we believe that the Applicant has missed a splendid opportunity to partner with CMHC, as this federal agency already has a long and meaningful involvement with these lands and with Grace Lutheran Church.

Upon reviewing the Applicant's Cultural Heritage Impact Assessment (CHIA) Report we have regretfully concluded that the Municipality must now independently make the proper determination of the cultural heritage and historical context of the Church site and the degree to which adaptive use, conservation or preservation can be accomplished. This is because we believe that the CHIA Report recently filed by the Applicant did not sufficiently research the history of the property and consequently the Report failed to present the necessary information to determine the full historical context of the property.

We are also of the belief that the Report overly relied upon perceived notions and incorrect assumptions and in the process, it has minimized any adaptive reuse or preservation of the Church and its Gothic and Neo-Gothic architectural and heritage attributes. This unfortunately resulted in either minimal conservation of the building in its entirety or in part, and in respect to the CHIA Report submitted on December 3, 2021, it directly led to the Applicant's recommendation that the City of Hamilton donate an offsite location to allow the Applicant to erect garden beds using salvaged material from the Church.

We are most shocked and dismayed to learn that the Applicant's Planning Consultant, at the meeting of the Planning Committee on March 22, 2022, advised the Committee Members that the Heritage and Planning Staff are "generally supportive" and "supportive" of the Applicant's most recent recommendation – a stand-alone façade of the front door and wall of the Church building with six community garden planter boxes on both sides of the wall - which is to be erected at the corner of Dow Avenue and Main Street West. We strongly believe that this recommendation should be dismissed as being unacceptable for deserving the support by Heritage and Planning Staff. On the contrary we all strongly urge Heritage and Planning Staff to immediately reject the Applicant's recommendation for the following reasons.

The specific inclusion of the six "community garden planters" is presumably to recognize the symbolic role of Grace Lutheran Church as a participant during the years 2010 to 2020 in the Hamilton Victory Gardens food bank program. It is not clear at all as to why the Applicant decided that this specific 10-year period of participation should be perpetually and symbolically commemorated over all of the other aspects of the activities of Grace Lutheran Church,

particularly when Hamilton Victory Gardens has 17 other locations for growing vegetables for food banks throughout the City of Hamilton. It is also puzzling as to why the Applicant ignored the other gardens and walkways and sitting areas on the Church property which were open to the public, such as the meditative "Mary Gardens", the "Peace Gardens", the biodiversity of the "Bee Pollinator" garden, and the many other landscaped flower gardens, shrubs and trees located throughout the semi-public grounds. The Applicant also ignored the Church's strong leadership role and commitment to environmentalism and climate change by being one of the pioneers in disconnecting downspouts into the storm sewer system and only irrigating its entire grounds using a series of rainwater collection barrels.

The Applicant therefore should honour and commemorate the Grace Lutheran Church by expanding the size of the proposed extraordinarily small rear courtyard and utilizing the existing stone benches and salvaged material from the Church to erect a much more appropriate semi-public landscaped courtyard incorporating the same floral themes and gardens that are part of the Church's landscaped property. Accordingly, we find the Applicant's attempt to have six "community garden planters" symbolize the cultural heritage of the site, to be demeaning and insulting, as the proposed development represents quite the opposite in terms of environmentalism and the ideals which the Church truly represents.

This is even more acutely felt because the "community garden planters" will rest on a site plan footprint in which several large and beautiful municipal trees will be needlessly cut down or lost because the Applicant refuses to adhere to the setback requirements set out in the zoning by-law, and because the Applicant will be excavating an even larger portion of the lot below grade for a massive underground parking garage. All these actions make a mockery of the Church's commitment to biodiversity and the environment, its dedication in trying to mitigate the effects of climate change, and its responsibility to maintain watershed recharge by the extensive use of permeable surfaces and rainwater collection barrels.

The proposed stand-alone façade of the front door and wall of the Church is similarly an insufficient and inappropriate replacement for the actual heritage attributes of Grace Lutheran Church. To destroy the Gothic and Neo-Gothic architecture of the Church without any meaningful adaptive reuse or conservation or preservation on the actual interior portion of the proposed redevelopment will be a significant loss of a heritage property for the neighbourhood and all of Hamilton.

The Applicant's intention to erect a stand-alone façade replication, (which we believe to be totally without any precedent in terms of cultural heritage preservation and which lacks any appreciative value in the realm of public art), and to present this proposal as being in compliance with the actual heritage conservation requirements envisioned under the UHOP and the Ontario Heritage Act, is a terrible precedent for the City of Hamilton. This is because any resident of Hamilton who lives not only along the LRT route, but along any bus route or higher-order traffic corridor, and within the vicinity of a heritage property, will soon be facing similar applications in which Developers will create a "Potemkin village" of their own stand-alone facades in lieu of any meaningful cultural heritage preservation and conservation.

Accordingly, it is our sincere hope that Heritage and Planning Staff of the City of Hamilton will reconsider their support of the Applicant's recommendation and will now advise the Applicant that it must resubmit a new Cultural Heritage proposal which meets the policies and guidelines of the City of Hamilton and the Ontario Heritage Act.

We thank you for your consideration.

Yours very truly,

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