Oshawa

Public Report

To:	Development Services Committee
From:	Warren Munro, HBA, RPP, Commissioner, Development Services Department
Report Number:	DS-21-44
Date of Report:	March 3, 2021
Date of Meeting:	March 8, 2021
Subject:	Draft Proposed 2021-2022 Oshawa Executive Airport Action Plan
File:	F-2510

1.0 Purpose

The purpose of this Report is to provide Council with a Draft Proposed 2021-2022 Oshawa Executive Airport Action Plan ("Draft Proposed Action Plan") in lieu of an Airport Business Plan for the balance of this term of Council.

Attachment 1 is a map showing the runways, taxiways and noise berms at the Oshawa Executive Airport (the "Airport").

Attachment 2 is a copy of Report DS-19-128 dated June 19, 2019 outlining the proposals received from consultants to undertake an updated Air Quality Assessment Study and Noise Study for the Airport.

Attachment 3 is a copy of Report DS-19-129 dated June 19, 2019 outlining a Public Consultation Plan for the Updated Oshawa Executive Airport Business Plan.

Attachment 4 is a copy of the Minutes of the Airport Community Liaison Committee Town Hall meeting held on September 24, 2019.

Attachment 5 is a copy of correspondence dated September 24, 2019 from NAV CANADA outlining its role and jurisdiction at the Airport.

Attachment 6 is a copy of Report CNCL-20-66 dated May 20, 2020 presenting the independent Internal Audit of the Oshawa Executive Airport by Klynveld Peat Marwick Goerdeler ("K.P.M.G.").

Attachment 7 is a copy of the presentation made by City staff and the Airport Manager at the virtual Airport Workshops held on September 29, 2020 and October 1, 2020.

Attachment 8 is a copy of a study entitled "Oshawa Executive Airport Air Quality Monitoring", dated October 28, 2020, prepared by R.W.D.I. Consulting Engineers and Scientists ("R.W.D.I.") outlining the results of the initial phase of air quality monitoring undertaken by R.W.D.I. on the Airport property. Due to its size, the appendices have been removed from the study and do not form part of the attachment. However, the entire study is available for viewing at City Hall. To make a viewing appointment, please contact Service Oshawa.

Attachment 9 is a copy of a study entitled "Oshawa Executive Airport Noise Monitoring", dated October 28, 2020, prepared by R.W.D.I., outlining the results of the initial phase of noise monitoring undertaken by R.W.D.I. on the Airport property. Due to its size, the appendices have been removed from the study and do not form part of the attachment. However, the entire study is available for viewing at City Hall. To make a viewing appointment, please contact Service Oshawa.

Attachment 10 is a copy of the revised proposal by R.W.D.I. dated October 28, 2020 to address air quality and noise matters at the Airport, to be based on further air quality and noise monitoring including monitoring at locations in the residential area surrounding the Airport.

Attachment 11 is a copy of a letter dated November 2, 2020 from the Mayor to the Honourable Marc Garneau, the then Federal Minister of Transport, requesting the Minister's support to address residents' concerns regarding noise, air quality and safety at the Airport.

Attachment 12 is a copy of Report DS-21-23 dated February 3, 2021 outlining the process identified by Transport Canada Aviation Advisory Circular 302-002 to establish noise abatement procedures and restrictions at the Airport.

2.0 Recommendation

That the Development Services Committee recommend to City Council that pursuant to Report DS-21-44 dated March 3, 2021, Development Services staff be directed to obtain public input on the Draft Proposed 2021-2022 Oshawa Executive Airport Action Plan outlined in said Report, using the approach described in Section 5.14 of said Report, which will include holding a public meeting of the Development Services Committee.

3.0 Executive Summary

Not applicable.

4.0 Input From Other Sources

- Commissioner, Community Services
- Commissioner, Corporate Services
- City Solicitor
- Airport Manager

5.0 Analysis

5.1 Oshawa Executive Airport Business Plan Update

On May 21, 2019, City Council considered and adopted the following motion regarding an updated Business Plan for the Airport:

> "Whereas the current timeframe for the Oshawa Executive Airport Business Plan 2015 – 2019 is about to end and a new Business Plan needs to be prepared to guide and inform future Council decisions; and,
>
> Whereas the City recognizes the importance of the airport from an economic development perspective; and,
>
> Whereas it is also important to review opportunities to reduce the environmental impact of the airport operations and to improve safety and compatibility matters between the airport and the residential community as part of the update to the Business Plan in order to provide an appropriate balance between the quality of life of the residents and airport operations; and,
>
> Whereas the existing 2015–2019 Business Plan was based on a number of assumptions such as increased growth as a result of the closure of the Buttonville Airport, which now appears it will not be closed anytime soon; and,
>
> Whereas the new Business Plan must be based on certain updated considerations and appropriately address community concerns;
>
> Be it therefore resolved:
>
> 1. That the updated Business Plan be based in part on the following items:
>
> i. That City Council reaffirm the June 28, 2012 and December 11, 2017 decisions of Council that it does NOT support any runway extension at the Oshawa Executive Airport.
>
> ii. That the timeframe commitment to keep the airport open up to the current operational agreement timeframe date NOT be extended.
>
> iii. That the updated Business Plan exercise NOT explore any opportunity to create new serviced land such as along the east and west sides of the airport for new aviation related uses.
>
> 2. That the updated Business Plan consider the following to improve health, safety and compatibility matters with the community and the environment:
>
> i. That the phasing out or elimination of the use of leaded fuel be investigated and explored.
>
> ii. That the use of new technology related to items such as exhaust systems to ensure quieter planes are used at the airport be explored.

iii. That the Noise and Traffic Management Plan be reviewed to ensure that the airport hours of operation/the voluntary curfew and related enforcement of the curfew continue to be supported and further advanced.

iv. That staff continue to advance opportunities to improve communications with the public on airport matters.

3. That the consultant's proposals for the updated Air Quality Assessment Study and Noise Study be presented to Council for review.

4. That the staff prepare a public consultation plan for Council's approval to obtain public input during the process to update the Business Plan.

5. That NAV Canada be requested to provide a letter outlining its role and jurisdiction to control the volume of aircraft using the airport and the direction and use of any runway that any aircraft may land or take off from.

6. That the Airport Manager host a bus tour of the Airport for the community."

5.2 Status of May 21, 2019 Council Directive

Items 2 to 5 of Council's directive noted above in Section 5.1 of this Report involve various items requiring action. The following is a summary of the status of these items.

Item 2(i): Exploring the potential to phase out or eliminate the use of leaded fuel remains to be undertaken. In response, staff have identified this matter as an action item under the Draft Proposed Action Plan, as discussed under Action 7 in Section 5.13 of this Report.

Item 2(ii) Exploring the potential to use new technology related to items such as exhaust systems to ensure quieter planes are used at the Airport has been initiated by the City's Airport Manager and remains a works in progress. In response, staff have identified this matter as an action item under the Draft Proposed Action Plan, as discussed under Action 7 in Section 5.13 of this Report.

Item 2(iii) Review of the Noise and Traffic Management Plan to ensure that the Airport hours of operation/the voluntary curfew and related enforcement of the curfew continue to be supported and further advanced has been initiated by staff and the City's Airport Manager, with direction most recently provided by Council on February 22, 2021 pursuant to Report DS-21-23 dated February 3, 2021 (see Section 5.10 of this Report). As discussed under Action 6 in Section 5.13 of this Report, continuing to advance the process to establish new noise abatement procedures and restrictions at the Airport (as outlined in Report DS-21-23) has been identified as an action item under the Draft Proposed Action Plan.

Item 2(iv) The continued advancement of opportunities to improve communications with the public on Airport matters remains an ongoing practice. In response, staff have identified this matter as an action item (of an ongoing nature) under the

Draft Proposed Action Plan, as discussed under Action 14 in Section 5.13 of this Report.

Item 3: The consultant's proposals for the updated Air Quality Assessment Study and Noise Study were received by Council for information on June 24, 2019 pursuant to Report DS-19-128 dated June 19, 2019. Further details regarding these two studies are contained under Sections 5.3 and 5.13 (Action 5) of this Report.

Item 4: A public consultation plan to obtain input during the process to update the Business Plan for the Airport was prepared by staff and approved by City Council on June 24, 2019 pursuant to Report DS-19-129. Further details regarding the subsequent advancement of the public consultation plan are contained under Section 5.4 of this Report.

Item 5: By letter dated September 24, 2019, NAV CANADA outlined its role and jurisdiction to control the volume of aircraft using the Airport and use of any runway that aircraft may land or take off from (see Attachment 5).

Item 6: The City's Airport Manager hosted a bus tour of the Airport on two separate dates - September 24 and 28, 2019 - to ensure that everyone who wanted to participate could be accommodated.

5.3 Oshawa Executive Airport Air Quality and Noise Study

On June 24, 2019, in response to Item 3 of the resolution referred to in Section 5.1 of this Report, Council considered Report DS-19-128 (see Attachment 2), a report of the Commissioner of Development Services which advised Council that the Commissioner of Development Services recommended R.W.D.I. as the preferred consultant based on its proposal including experience and passed the following resolution:

> "That Report DS-19-128 dated June 19, 2019 concerning proposals for an Air Quality Assessment and Noise Study at the Oshawa Executive Airport be received for information."

R.W.D.I. was subsequently retained by the Airport Manager and proceeded to prepare the requisite studies.

R.W.D.I.'s air quality monitoring took place at four locations near the end of the runways between July 4 and September 22 of 2019. The four locations for the monitoring were chosen to be just off the ends of the runways. This was in consideration of the fact that based on R.W.D.I.'s experience and the numerical dispersion modelling done previously, these locations would be expected to have the greatest concentrations of aircraft related pollutants. The monitoring showed very low levels of all pollutants. All measured pollutants were below the Province of Ontario's Ambient Air Quality Criteria. The low-level results did not show any significant differences between the different stations which would suggest that the greatest impact on air quality was the general background levels.

Similar to the air quality monitoring program, R.W.D.I.'s noise monitoring took place at four locations near the end of the runways between July 4 and October 11 of 2019. The monitoring was undertaken as an investigation into current conditions.

The detailed daily analysis showed that where there was a consistent runway in use, the difference between the active and non-active runway location was roughly 10 decibels (dBA), or an order of magnitude in terms of sound pressure levels over the daytime period. The differences between the takeoff end of the runway and the landing end of the runway was typically between 2 and 4 dBA which is roughly equivalent to double the sound pressure level. The station at the threshold of Runway 12 (see Attachment 1) had the highest minimum value which was due to the proximity of Thornton Road North and Taunton Road West.

Data based on the preliminary work on these monitoring exercises was presented to the public at the Airport Community Liaison Committee Town Hall ("the Town Hall") meeting held on September 24, 2019. The Minutes of the Town Hall meeting form Attachment 4 to this Report.

The final results of the initial phase of monitoring, based on monitoring stations installed by R.W.D.I. on the Airport property near the ends of runways, are contained in the following two studies:

- Oshawa Executive Airport Air Quality Monitoring, dated October 28, 2020, prepared by R.W.D.I. (see Attachment 8); and,

- Oshawa Executive Airport Noise Monitoring, dated October 28, 2020, prepared by R.W.D.I. (see Attachment 9).

Common themes raised at the Town Hall Meeting were noise and air quality. Some initial comments suggested that the data collection methodology needed to be updated with increased and preferred data source points, reflecting a desire for monitoring to be completed in the surrounding residential community as opposed to the monitoring locations on the Airport property.

As further discussed under Sections 5.5 and 5.6 of this Report, Development Services staff were subsequently directed by Council on October 15, 2019 to expand the scope of work to include a second phase, involving noise and air quality monitoring in the residential areas surrounding the Airport.

5.4 Public Consultation Plan for the Updated Oshawa Executive Airport Business Plan

On June 24, 2019, in response to Item 4 of the resolution referred to in Section 5.1 of this Report, Council considered Item DS-19-129 (see Attachment 3), a report of the

Commissioner of Development Services which presented the public consultation plan for the updated Oshawa Executive Airport Business Plan and passed the following resolution:

> "That pursuant to Report DS-19-129 dated June 19, 2019, staff proceed with the public consultation plan for the updated Oshawa Executive Airport Business Plan as outlined in Section 5.0 of DS-19-129."

The public consultation plan identified in Report DS-19-129 indicated that public input would be sought in two phases:

- Phase 1: Information Gathering; and,
- Phase 2: Feedback on the draft Airport Business Plan.

The majority of the Phase 1 consultation has been completed. The remaining consultation under Phase 1 would have required staff to engage the following stakeholders who have not been engaged to date primarily owing to the COVID-19 pandemic:

- Canadian Owners and Pilots Association
- Canadian Business Aviation Association
- Post-secondary institutions in Oshawa
- Greater Oshawa Chamber of Commerce
- Region of Durham
- Town of Whitby

However, for the reasons set out in Section 5.12 of this Report, staff is advancing the Draft Proposed Action Plan instead, owing to the timing of the current term of Council. The above-noted stakeholders will be engaged as part of advancing the Draft Proposed Action Plan, as noted in Section 5.14 of this Report.

Under Phase 2 of the public consultation plan for the updated Airport Business Plan, the next step in the process would be for staff to prepare a draft updated Airport Business Plan for consideration by the Development Services Committee and Council and to obtain authorization from Committee and Council to schedule a public meeting to obtain public input on the draft Airport Business Plan.

5.5 Input on the Airport Business Plan at Airport Community Liaison Committee Town Hall Meeting September 24, 2019

On October 15, 2019, City Council considered and adopted the following motion as Item DS-19-183, in response to comments submitted at the Town Hall meeting held on September 24, 2019:

> "Whereas on September 24, 2019 the Airport Community Liaison Committee hosted a Town Hall meeting to obtain public input on what should be included or addressed in the 2020-2024 Airport Business Plan; and,
>
> Whereas, approximately 175 people attended the Town Hall meeting which included Oshawa residents, aviation industry representatives and other stakeholders; and,

Whereas, a number of Oshawa residents passionately and clearly expressed significant concerns with airport noise, safety and air quality and, in particular, concerns with the amount of flight training aircraft traffic and the circuit patterns and operating hours of flight training aircraft traffic; and

Whereas, it is extremely important that there be a better balance and respect to the Oshawa residents quality of life while continuing to recognize the economic benefits of the Oshawa Executive Airport;

Therefore, be it resolved:

1. That Development Services staff be directed to review the issues raised at the September 24, 2019 Airport Community Liaison Committee Town Hall meeting and specifically review issues concerning flight training with a view of reducing the amount of flight training aircraft traffic, altering the circuit patterns, addressing hours of operation, addressing noise mitigation opportunities and obtain input from NAV Canada and Transport Canada as appropriate in order to provide better balance and respect of Oshawa residents quality of life; and,

2. That Development Services staff be directed to expand the scope of work related to noise and air quality monitoring to include noise and air quality monitoring in the residential areas surrounding the Oshawa Executive Airport, that the work be advanced consistent with Purchasing By-law 45-2016, and that such funds required for this expanded scope of work come from an appropriate account determined by the Commissioner of Finance/Treasurer; and,

3. The staff be directed to host a series of small workshops (e.g. maximum of 20 participants) with residents, airport businesses and stakeholders to discuss matters related to a number of questions raised at the Town Hall meeting before any draft Airport Business Plan is presented to Development Services Committee with the number of workshops and their form and content to be the satisfaction of the Commissioner of Development Services; and,

4. That staff be directed to prepare an information report outlining the current status of the agreement between Oshawa and the Federal Government and any concerns that staff feel should be addressed prior to initiating discussions with Transport Canada and the Federal Government regarding the terms of the 1997 Operating Agreement for the Oshawa Executive Airport including but not limited to termination dates; and,

5. That a copy of this resolution be sent to the Prime Minister, the Federal Minister of Transport and all Durham Region M.P.s, Transport Canada and Nav Canada after the October 21, 2019 Federal Election."

5.6 Status of October 15, 2019 Council Directive

Items 1 to 5 of the directive noted above in Section 5.5 of this Report involve various items requiring action. The following is a summary of the status of these items.

Item 1: As part of process of reviewing the issues raised at the September 24, 2019 Town Hall meeting, the City hosted virtual Airport Workshops (the "Workshops") with residents, Airport businesses and stakeholders on September 29, 2020 and October 1, 2020 to further discuss matters related to a number of questions raised at the Town Hall meeting (see Attachment 7). During the two virtual Workshops a number of participants expressed significant concerns with airplane noise, safety, and air quality, and in particular, concerns with the amount of flight training traffic, the circuit patterns, and the operating hours of the flight training schools.

On October 26, 2020, City Council passed Resolution DS-20-124 in response to comments submitted at the Town Hall meeting and at the two virtual Workshops. Section 5.10 of this Report provides details on the current status of staff's review of issues related to flight training raised at the Town Hall meeting and virtual Workshops, including reducing the amount of flight training aircraft traffic, altering the circuit patterns, and addressing hours of operation and noise mitigation opportunities.

With respect to obtaining input from NAV CANADA and Transport Canada, City staff and the Airport Manager held a virtual meeting with senior Transport Canada representatives (standing in for NAV CANADA) on September 21, 2020. The purpose of the meeting was to obtain Transport Canada's input regarding issues relating to flight training, including reducing the amount of flight training aircraft traffic, altering the circuit patterns and addressing hours of operation and noise mitigation opportunities, in order to provide better balance and respect of Oshawa residents' quality of life. On the issue of seeking to establish a new noise abatement procedure, Transport Canada senior staff advised of the process under Advisory Circular Number 302-002, "Implementation of New or Amended Noise Abatement Procedures – Appendix A".

In view of the information received from Transport Canada and Council's direction to staff pursuant to Resolution DS-20-124, staff prepared Report DS-21-23 dated February 3, 2021 to request Transport Canada to establish a new noise abatement procedure at the Airport. Sections 5.10 and 5.11 of this Report provide additional details in this regard.

Item 2: As previously noted in Section 5.3 of this Report, on October 15, 2019 Development Services staff were directed by Council to expand the scope of work with respect to air quality and noise monitoring to include a second phase, involving noise and air quality monitoring in the residential areas surrounding the Airport.

The second phase of monitoring was initially planned for 2020. However, the monitoring program was postponed due to the onset of the COVID-19 pandemic. At the virtual Workshops held on September 29, 2020 and October 1, 2020 to further discuss matters initially raised at the September 24, 2019 Town Hall meeting, it was noted that collecting data during the pandemic when flight training activity should be lower was not preferred.

In October of 2020, staff obtained an updated proposal from R.W.D.I. to undertake Phase 2 of the noise and air quality study findings with increased and preferred data collections sources (see Attachment 10). The program is now scheduled for Summer of 2021, and is a key action item under the Draft Proposed Action Plan, as noted under Action 5 in Section 5.13 of this Report. Based on the experience with flight training aircraft activity throughout the entirety of 2020, it is evident that apart from the initial lockdown phase of the pandemic, flight training activity during the pandemic was not appreciably lower. The cost to undertake Phase 2 is estimated to be $89,700 excluding H.S.T. By email dated February 22, 2021, R.W.D.I. has outlined that the cost estimate contained in their revised proposal dated October 28, 2020 is still applicable.

Item 3: Staff intended to advance the review and update to the Airport Business Plan in the First Quarter of 2020 and had arranged for the hosting of the resident, business and stakeholder Workshops in April of 2020. These in-person stakeholder Workshops were subsequently cancelled owing to the COVID-19 pandemic and rescheduled to be held virtually in the daytime on September 29, 2020 and in the evening on October 1, 2020.

A combined total of 80 participants attended the two virtual Workshops. Like at the A.C.L.C. Town Hall meeting, concerns were raised regarding aircraft noise, the amount of flight training aircraft traffic and circuit patterns, and operating hours of flight training aircraft traffic, among other matters such as the economic impact of the Airport. These are all matters that are proposed to be addressed through various action items under the Draft Proposed Action Plan.

Item 4: Preparation of a report on matters that staff feel should be addressed with respect to the current framework and terms of the 1997 Operating Agreement for the Airport is anticipated to be undertaken in the Second Quarter of 2021. Accordingly, this has been identified as an action item under the Draft Proposed Action Plan, as discussed under Action 13 in Section 5.13 of this Report.

Item 5: As directed by Council, a copy of Resolution DS-19-183 was sent to the Prime Minister, the Federal Minister of Transport and all Durham Region M.P.s, Transport Canada and NAV CANADA after the October 21, 2019 Federal Election.

5.7 Canadian Flight Academy Ltd.

The lease between the City and Canadian Flight Academy Ltd. (“C.F.A.”) which took effect on January 1, 1999 expired on December 31, 2019.

In December 2019, the City offered C.F.A. a new lease for just one (1) year with updated terms and more restrictive conditions (including amended hours of operation) pursuant to the direction provided by the Development Services Committee at its December 9, 2019 meeting.

C.F.A. subsequently rejected the new lease proposed by the City. Council then directed that written notice be sent to C.F.A. to vacate the premises immediately.

On January 27, 2020, City Council considered two pieces of correspondence from Allan Rouben, Barrister and Solicitor for C.F.A. submitting:

- A Notice of Demand of Arbitration concerning the lease agreement between the City of Oshawa and C.F.A.; and,

- Comments concerning the lease agreement between the City of Oshawa and C.F.A.

On January 27, 2020, in response to the two pieces of correspondence noted above, City Council passed the following resolutions:

> "That Correspondence DS-20-13 from Allan Rouben, Barrister and Solicitor submitting a Notice of Demand of Arbitration concerning the lease agreement between the City of Oshawa and Canadian Flight Academy Ltd. for land at the Oshawa Executive Airport be received for information."
>
> and,
>
> "That Correspondence DS-20-15 from Allan Rouben, Barrister and Solicitor submitting comments concerning the lease agreement between the City of Oshawa and Canadian Flight Academy Ltd. for land at the Oshawa Executive Airport be received for information."

On May 14, 2020, C.F.A.'s lawyer filed a Notice of Application (the "Application") against the City with the Ontario Superior Court of Justice – Oshawa. Among other matters, the Application sought to have the Court restrain the City from evicting C.F.A.

On May 27, 2020, the judge for the Superior Court of Justice ruled that the status quo be maintained and that the City cannot evict C.F.A. from the premises prior to this matter being dealt with by the Court.

On August 25, 2020, C.F.A.'s lawyers submitted an Amended Notice of Application asserting that it continues to have a valid lease arrangement with the City.

The City has retained external counsel to assist in the City's ongoing legal proceedings.

5.8 Independent Internal Audit of the Oshawa Executive Airport by K.P.M.G.

On May 25, 2020, City Council considered Report CNCL-20-66, a report of the Commissioner of Development Services regarding the independent Internal Audit of the Airport by K.P.M.G. (see Attachment 6).

The Internal Audit prepared by K.P.M.G. for the Airport contained 5 key recommendations. These recommendations relate to the following aspects of the Airport:

1. Clarifications to the Total Aviation and Airport Solutions ("T.A.A.S.") Management Agreement;
2. City oversight regarding the noise complaints process;
3. Review of monthly revenue supporting documentation;
4. Procurement process over the use of independent contractors and use of city staff; and,
5. Formalized roles and responsibilities for capital projects.

The K.P.M.G. recommendations and the City's management response form the basis for implementing on-going improvements for the Oshawa Executive Airport.

On May 25, 2020, after consideration of CNCL-20-66, City Council passed the following motion:

> "That Report CNCL-20-66 dated May 20, 2020 and Attachment 1, being the K.P.M.G. Internal Audit for the Oshawa Executive Airport dated May, 2020 be received for information and that the recommendations and management responses in K.P.M.G. Internal Audit be endorsed as the general basis for improvements at the Oshawa Executive Airport."

5.9 Status of Internal Audit Recommendations

The status of each of the five recommendations made by K.P.M.G. as noted above in Section 5.8 of this Report is summarized below. It should be noted that work is ongoing to address Recommendations 1, 3, 4 and 5 in 2021.

Recommendation 1: As part of K.P.M.G.'s review of the T.A.A.S. Agreement and discussions with the Airport Manager and the City, several instances were noted where the current interactions and processes between the Service Operator and the City require further clarification in the T.A.A.S Agreement. Accordingly, City staff will work with the Service Operator to update the T.A.A.S. Agreement. This work has been identified as an action item under the Draft Proposed Action Plan, as noted under Action 12 in Section 5.13 of this Report. The work is anticipated to be advanced in 2021.

Recommendation 2: As noted above, one of the key recommendations of the Audit was that the City needs more clarity in the agreement with the Service Operator as to the tracking, follow-up and documentation for addressing resident noise complaints. In addition to requiring more clarity, the City needs more oversight into the tracking, follow-up and documentation for addressing resident noise complaints.

Subsequent to this recommendation being made, a new system to appropriately address resident noise complaints was developed and is now in effect. The new system was implemented by making the following changes:

- Reconfiguration of Service Oshawa's Customer Relationship Management ("C.R.M.") system to accept Airport noise complaints;

- Establishment of a C.R.M. Online Portal to allow residents to submit their own complaints through Service Oshawa Online;

- Updating the Airport's webpage to direct residents to Service Oshawa Online to submit their noise complaints (replacing a form that was previously being emailed to Airport staff);

- Updating the Airport phone line to send calls related to noise complaints to the Service Oshawa line; and,

- Providing Airport staff with a login for Service Oshawa's C.R.M. system to manage the cases received and close once complete.

With these changes now in place, Service Oshawa is now taking Airport noise complaints and creating a request that Airport staff manage and close once complete. Creating the cases using the Service Oshawa C.R.M. system provides more oversight and allows for tracking and reporting.

Residents can submit noise complaint using the following channels:

- Phone – by calling Service Oshawa directly or, if they call the Airport phone number, following the prompt for noise complaints, which will send the call automatically to Service Oshawa;

- Service Oshawa Online – an Airport noise complaint request form was created for residents to submit on their own;

- Airport webpage – the webpage directs residents to Service Oshawa Online;

- Email Service Oshawa directly;

- Email Airport staff, who will contact Service Oshawa to log a complaint; and,

- Live online chat.

No further work with respect to Recommendation 2 of the Audit is required.

Recommendation 3: K.P.M.G.'s review of the financial and operational performance of the Airport's key activities included an assessment of the monthly reporting processes. It was noted that while the Service Operator reports revenues generated at the Airport to the City on a monthly basis, there is no requirement to submit supporting documentation to substantiate the monthly revenues reported. Further, no formal monthly comparative analysis is performed to identify anomalies/ inconsistencies in the amounts collected.

Article 10.1 of the T.A.A.S. Agreement gives the City the option to perform an audit of the records, supporting documentation and accounting records at the Airport. To ensure the completeness and accuracy of the amounts being reported, the City will exercise its option to perform an audit over the Service Operator' records, supporting documentation and account records.

This work has been identified as an action item under the Draft Proposed Action Plan, as noted under Action 12 in Section 5.13 of this Report. The work is anticipated to be advanced in 2021.

Recommendation 4: K.P.M.G.'s review of the process to identify, select, retain and monitor independent contractors by the Service Operator noted limited oversight by the City. A formalized document that outlines the process used by the Service Operator to select independent contractors does not exist and unlike the City, the Service Operator is not required to follow the City purchasing by-law mandate.

Under Article 5.1(f) of the T.A.A.S. Agreement, K.P.M.G. noted that the Service Operator has the authority to select and utilize independent contractors. K.P.M.G. also noted that the Service Operator also has the option to utilize the services of the City to operate the Airport, but there is no requirement for the Operator to utilize City resources. The Service Operator has complete oversight of the work performed by the independent contractors.

In view of the foregoing, the City and the Service Operator are working to formalize a mechanism to review and have oversight of the policies and procedures used by the Service Operator to select independent contractors. In addition, criteria for the use of City staff (or City contractors) to perform required maintenance or repair work at the Airport (prior to engaging independent contractors) is in the process of being implemented. The work is anticipated to be advanced in 2021.

Recommendation 5: K.P.M.G.'s review identified a lack of clearly defined roles and responsibilities related to the initiation, planning, execution, performance/monitoring, and project close for capital projects. Responsibilities for capital projects at the Airport are not clearly delineated between the Service Operator and the City. While the Service Operator is responsible under the terms of the T.A.A.S. Agreement for the maintenance of the Airport and recommending to the City prudent ways of operating, maintaining and repairing the Airport, the T.A.A.S. Agreement does not explicitly state responsibilities (Service Operator or the City) in relation to capital additions to the Airport.

In view of the foregoing, the T.A.A.S. Agreement is being updated to reflect the current roles and responsibilities performed by Facility Management Services and the Service Operator. Further, the City and Service Operator now hold recurring monthly touchpoints to discuss upcoming capital projects, status and respective roles on the projects, and a procedure is being formalized whereby at the beginning of each capital project, roles and responsibilities are outlined by the City in a project charter. The work is anticipated to be advanced in 2021.

5.10 Process to Establish Noise Abatement Procedures and Restrictions under the Transport Canada Aviation Advisory Circular 302-002

On October 26, 2020, City Council considered and adopted the following motion as Item DS-20-124, in response to comments submitted at the Town Hall meeting held on September 24, 2019 and at the virtual Workshops subsequently held with residents, Airport businesses and stakeholders on September 29, 2020 and October 1, 2020:

> "Whereas on October 15, 2019, City Council directed staff to, amongst other matters, review the issues raised at the September 24, 2019 Airport Community Liaison Committee Town Hall meeting and specifically review issues concerning flight training with a view of reducing the amount of flight training aircraft traffic, altering the circuit patterns, addressing hours of operation, addressing noise mitigation opportunities and obtain input from NAV Canada and Transport Canada as appropriate in order to provide better balance and respect of Oshawa residents quality of life; and,
>
> Whereas on September 29, 2020 and October 1, 2020, the City hosted virtual workshops on the development of the 2020-2024 Airport Business Plan (the "Business Plan") in response to Council's October 15, 2019 direction; and,
>
> Whereas the virtual workshops were held to obtain stakeholder input on what should be included or addressed in the Business Plan; and,
>
> Whereas approximately 80 people attended the virtual workshops which included Oshawa residents, aviation industry representatives and other stakeholders; and,
>
> Whereas a number of Oshawa residents passionately and clearly expressed significant concerns with airplane noise, safety, and air quality, and in particular, concerns with the amount of flight training traffic; the circuit patterns; and the operating hours of the flight training schools; and,
>
> Whereas it is critical that there be better balance between the quality of life of Oshawa residents and the economic benefits of the Oshawa Executive Airport; and,
>
> Whereas Transport Canada Aviation has issued an Advisory Circular entitled Implementation of New or Amended Noise Abatement Procedures which sets out the implementation process for noise abatement procedures and restrictions at airports; and,
>
> Whereas the Advisory Circular was prepared by a multi-disciplinary working group including Transport Canada Aviation, NAV Canada, the Air Transport Association of Canada, the Canadian Business Aircraft Association, the Federation of Canadian Municipalities, the Canadian Airlines Council and individual airport operators; and,
>
> Whereas the Oshawa Executive Airport only operates a voluntary Good Community Neighbour policy, which established certain rules and regulations; and,

Whereas, it is appropriate for Council to obtain information on the Transport Canada Aviation Advisory Circular process;

Therefore, be it resolved:

1. That staff be directed to report back to the Development Services Committee on the process identified by Transport Canada Aviation Advisory Circular 302-002 to establish noise abatement procedures and restrictions at the Oshawa Executive Airport and make a recommendation on what is required for the City to advance that process; and,

2. That the Mayor, in consultation with the Ward 2 Councillors, be authorized to send a letter to the Honourable Marc Garneau, the Federal Minister of Transport asking for his support to address residents concerns regarding noise, air quality and safety at the Oshawa Executive Airport; and,

3. That the Mayor, in consultation with the Ward 2 Councillors, be authorized to send letters to all Oshawa M.P.s and M.P.P.s asking for their support to address residents concerns regarding noise, air quality and safety at the Oshawa Executive Airport."

5.11 Status of October 26, 2020 Council Directive

Items 1 to 3 of the directive (DS-20-124) noted above in Section 5.10 of this Report involve various items requiring action. The following is a summary of the status of these items.

Item 1: As directed by Council, staff prepared Report DS-21-23 dated February 3, 2021 outlining the process identified by Transport Canada Aviation Advisory Circular 302-002 to establish noise abatement procedures and restrictions at the Airport (see Attachment 12). At its meeting of February 22, 2021, Council approved the following recommendation contained in Report DS-21-23:

"1. That, pursuant to Report DS-21-23 dated February 3, 2021, the Commissioner, Development Services Department, in consultation with the City's Airport Manager, be authorized to advance the process prescribed in Advisory Circular 302-002 to request Transport Canada to establish a new noise abatement procedure at the Oshawa Executive Airport; and,

2. That, the Airport Manager, in consultation with the Commissioner, Development Services Department, be authorized to engage a qualified, independent consultant with familiarity of the requirements of Advisory Circular 302-002 to assist in the advancement of Part 1 of the recommendation, at an upset limit of $60,000 exclusive of H.S.T.; and,

3. That copies of this Report and associated resolution be forwarded to all Oshawa and Whitby MPs and MPPs as well as to the Town of Whitby."

In accordance with Council's direction pursuant to Report DS-21-23, advancement of the process to establish new noise abatement procedures and restrictions at the Airport has been identified as an action item under the Draft Proposed Action Plan (see Action 6 in Section 5.13 of this Report).

Item 2: As directed by Council, a letter dated November 2, 2020 from the Mayor to the Honourable Marc Garneau, the then Federal Minister of Transport, was issued requesting the Minister's support to address residents' concerns regarding noise, air quality and safety at the Airport (see Attachment 11).

5.12 Rationale for Proposed 2021-2022 Airport Action Plan

The Airport Business Plan is a comprehensive document intended to guide actions and the decision making process at the Airport. The purpose of the 2015-2019 Airport Business Plan, which was developed with extensive public consultation, was:

- to continue to strengthen the role of the Airport to provide high quality aviation facilities that encourage economic growth and meet local and corporate aviation needs while respecting the surrounding neighbourhoods;
- to ensure that safety is recognized as a paramount consideration in all aspects of the Airport operations;
- to ensure that the Airport operates within the context of being a "Good Community Neighbour";
- to determine both the operational and capital cost requirements of the Airport within the term of the Business Plan. The term of the Business Plan covers a 5 year period for operational and marketing strategies. Capital considerations extend to 2033; and,
- to develop a strategy to manage the anticipated growth due to the pending closure of the Buttonville Airport.

At present, it is not possible to develop an accurate forecast of aircraft activity given that there are currently two unresolved/outstanding matters which may have a significant impact on the Airport's forecast aircraft activity:

- Ongoing litigation with C.F.A.; and,
- The work needed to advance the process under Advisory Circular 302-002 pursuant to Report DS-21-23 dated February 3, 2021 to request Transport Canada to establish a new noise abatement procedure at the Airport.

In view of the information contained in the foregoing, it is not reasonable to conclude on an Airport Business Plan in 2021 when the current Council will have only one remaining year in its term. It would be more reasonable to develop an action plan with a list of action items for the City to advance, subject to a review of the action item list at a public meeting of the Development Services Committee.

5.13 2021-2022 Draft Proposed Airport Action Plan

While it is not possible to advance an appropriate draft Airport Business Plan at this time, it is still possible to advance a number of related items. The following subsections provide a synopsis of the Draft Proposed 2021-2022 Airport Action Plan. The various action items comprising the Draft Proposed Action Plan is not intended to be exhaustive as additional action items may be added by Council, where appropriate.

It should also be noted that a number of items identified below would result in the need for staff to report back to the appropriate Standing Committee and Council, as appropriate.

Action 1: Continue to Advance an Appropriate Balance Between the Airport and the Residential Communities

A common theme at the Town Hall and the virtual Workshops was the need to bring better balance of the operational aspects of the Airport with the quality of life of the residents in the surrounding community. The 2021-2022 Airport Action Plan will attempt to advance a better balance through the advancement of the Actions listed under Section 5.13 of this Report.

Action 2: Continue to Defend the City's Interests in Legal Proceedings Involving Canadian Flight Academy Ltd.

The City is currently in litigation with C.F.A., one of two existing flight schools operating out of the Airport. Section 5.7 of this Report provides contextual details regarding this litigation. Development Services staff and the City Solicitor, in consultation with the City's Airport Manager, will continue to defend the City's interests in this regard, as directed by Council.

Action 3: Market the Airport as an Executive Airport

As noted previously in Section 5.12 of this Report, part of the purpose of the 2015-2019 Airport Business Plan was to continue to strengthen the role of the Airport as an executive Airport and an economic asset to provide high quality aviation facilities that encourage economic growth and meet corporate aviation needs. It is appropriate to support and advance the role of the Airport as an executive Airport and an economic asset that is available to be used by the Oshawa and Durham business community. In this regard, marketing the executive function of the Airport and its operational ability to serve as an economic gateway for goods and services is a key action item that maintains and reinforces the City's ongoing efforts in this regard.

Economic Development Services staff would continue to work with the local business community, including the Greater Oshawa Chamber of Commerce and post-secondary institutions, to look at opportunities for corporate aviation growth at the Airport.

Action 4: Advance Opportunities to Restrict Flight Training Schools

On October 15, 2019, City Council directed staff to, amongst other matters, specifically review issues concerning flight training with a view of reducing the amount of flight training aircraft traffic. Four methods available to Council would be as follows:

Action 4A: Re-affirm for Transport Canada that the City of Oshawa is Formally Opposed to the Establishment of New Flight Training Schools at the Airport.

In order to obtain an operating certificate as a base of operation, new flight training schools require permission from the Airport Manager. Accordingly, the Airport Manager will not consent to the issuance of any new certificates in this regard.

Action 4B: Investigate on Amendment to Zoning By-law 60-94 to Limit the Number of Flight Training Schools at the Airport.

Investigating an amendment to Zoning By-law 60-94, as amended, to reduce the number of flight training schools permitted at the Airport from two to one supports the initiative of the Airport Manager noted under Action 4A directly above to not consent to the issuance of any new operating certificates. This investigation would be advanced if the City is successful in legal proceedings involving C.F.A.

Action 5: Complete Phase 2 of Air Quality and Noise Study

Phase 1 of the Air Quality and Noise Study for the Airport (see Attachments 3 and 4) took place in 2019 and Phase 2 was delayed due to the restrictions caused by the COVID-19 pandemic. However, it is now possible to advance Phase 2 of the Air Quality and Noise Study with data anticipated to be collected from within the residential community surrounding the Airport in July and August of 2021.

Action 6: Continue to Investigate Process to Establish New Noise Abatement Procedures and Restrictions

At its meeting of February 22, 2021, pursuant to Report DS-21-23 dated February 3, 2021 (see Attachment 8), City Council authorized the Commissioner of Development Services, in consultation with the City's Airport Manager, to advance the process prescribed in Advisory Circular 302-002 to request Transport Canada to establish a new noise abatement procedure at the Airport. Accordingly, staff will undertake the process outlined in the Advisory Circular, including the engagement of a qualified consultant with familiarity of the requirements of the Advisory Circular process to assist staff in this regard.

As noted in Report DS-21-23, public and stakeholder consultation form an integral part of the Advisory Circular process.

Action 7: Explore New Technologies and the Use of Unleaded Fuels

On May 21, 2019, Council directed that the use of new technologies for aircraft noise reduction and the phase-out of the use of unleaded fuel be explored as part of the process to update the Airport Business Plan. As such, it is appropriate to determine the availability

of noise reduction technologies and unleaded fuel options for aircraft. The above-noted investigation has already been initiated by the Airport Manager and there is no cost associated with this work.

Action 8: Continue to Advocate With Transport Canada for Increased Enforcement of Safety

At a special meeting of Council held on December 11, 2017, the Airport Manager was directed to send a letter to Transport Canada advising them that a number of neighbors have expressed concern with the height that aircraft are flying over their homes while landing and taking off at the Airport.

In correspondence dated February 21, 2018, Transport Canada responded to the Airport Manager on the matter of aircraft height restrictions operating at an Airport, noting that Transport Canada Civil Aviation Safety Inspectors will be visiting the Airport to observe circuit operations. A Transport Canada Inspector subsequently visited the Airport on September 6, 2018. The Inspector made observations from within the control tower and no irregularities were observed during the visit. City staff and the Airport Manager will continue to advocate with Transport Canada for increased enforcement of safety.

Action 9: Continue to Advocate With Federal and Local Elected Officials

As discussed in Section 5.1.7 of this Report, letters to the Federal Minister of Transport and Oshawa M.P.s and M.P.P.s were issued by the City pursuant to resolution DS-20-124 adopted by Council on October 26, 2020, requesting their support to address residents' concerns regarding noise, air quality and safety at the Airport. Given that there is now a new Federal Minister of Transport, it is appropriate that the City's request be re-sent by the Mayor, together with new details advising of Council's decision on February 22, 2021 to undertake the process identified by Transport Canada Aviation Advisory Circular 302-002 to establish noise abatement procedures and restrictions at the Airport.

Action 10: Initiate Review of Fees

The 2015-2019 Airport Business Plan included a review of Airport fees. It is appropriate to undertake a new review of fees at the Airport relative to the fees levied at other airports. This work can be undertaken by the Airport Manager and there is no cost associated with completing the work.

Action 11: Update the 25 Year Capital Forecast through Annual Budget

The 2015-2019 Airport Business Plan included a 25 year capital forecast. It is appropriate to complete an update to the Airport capital plan.

Action 12: Continue to Advance Recommendations of the Independent K.P.M.G. Airport Audit

Pursuant to Council's consideration of Report CNCL-20-66 dated May 20, 2020 regarding an independent Internal Audit of the Oshawa Executive Airport by K.P.M.G.,

five key recommendations were highlighted in the report and endorsed by Council as the general basis for improvements at the Airport (see Section 5.8 of this Report).

The remaining outstanding recommendations will be addressed concurrently with the action items under the 2021-2022 Airport Action Plan, as noted in Section 5.9 of this Report.

Action 13: 1997 Operating Agreement

As discussed under Section 5.5 of this Report, on October 15, 2019 City Council adopted a motion (Item DS-19-183) directing staff to, among other matters, prepare an information report outlining the current status of the 1997 Operating Agreement for the Airport between the City and the Federal Government. As part of this forthcoming report, which is anticipated to be undertaken in the Second Quarter of 2021, matters that staff feel should be addressed with respect to the current framework and terms of the 1997 Operating Agreement will be highlighted.

Action 14: Continue to Advance Public Communications on Airport Matters

Staff will continue to advance opportunities to improve communications with the public on matters relating to the Airport as an ongoing practice. This includes updating the Airport webpages and providing notification, as appropriate, of forthcoming reports on Airport matters.

5.14 Next Steps

The next step in the process would be for staff to present the Draft Proposed Action Plan at a virtual public meeting of the Development Services Committee, to obtain public input. Accordingly, the recommendation contained in Section 2.0 of this Report has been prepared to authorize staff to solicit public input in this regard.

Public input opportunities would include:

- Virtual public meeting held by Development Service Committee; and,
- A feedback form available online on Connect Oshawa, as well as on paper through Service Oshawa.

The Draft Proposed Action Plan will be referred back to staff after the Development Services Committee public meeting for further review and consideration of the public input and preparation of a future recommendation report. Consultation with the Airport Community Liaison Committee and the Airport Business Plan Working Group for input will also be undertaken. The final recommendation report will then be presented to Development Services Committee and Council for approval.

City staff recommend the following communication tactics to promote the public consultation for input on the Draft Proposed Action Plan:

- City website – 2021-2022 Oshawa Executive Airport Action Plan Consultation information featured on www.oshawa.ca and emailed to website newsfeed subscribers through the City's news and alerts;

- Connect Oshawa - 2021-2022 Oshawa Executive Airport Action Plan Consultation information featured on www.connectoshawa.ca and emailed to registered users;

- Social media –social media messages using the City's corporate and Airport channels;

- Advertising – newspaper and social media advertisements;

- Media relations - 2021-2022 Oshawa Executive Airport Action Plan Consultation shared with local media;

- Mailed notices of the public meeting to:
  - Property owners located in proximity to the Airport (area generally bounded by Conlin Road to the north, Ritson Road North to the east, Rossland Road to the south and the Oshawa-Whitby boundary to the west);

  - All individuals who have provided their contact details at the most recent Airport Community Liaison Committee Town Hall meeting held on September 24, 2019, the South Field Master Plan Public Open House, and the two virtual Workshops held on September 29, 2020 and October 1, 2020;

  - The stakeholders who have not yet been engaged to date as originally intended under Phase 1 of the public consultation plan for the updated Airport Business Plan, as noted in Section 5.4 of this Report;

  - All individuals who have made an Airport noise submission in the last five (5) years that included a mailing address; and,

  - All tenants at the Oshawa Executive Airport.

6.0 Financial Implications

The cost of retaining a qualified consultant to advance a new noise abatement procedure through Transport Canada's Aviation Advisory Circular 302-002 is estimated to be $60,000 exclusive of H.S.T.

The cost of Phase 1 of the R.W.D.I. noise monitoring and air quality monitoring studies was $69,800 plus HST. In addition to the cost of these studies the Airport needed to provide power at each of the four monitoring locations at a cost of approximately $10,000.

The cost to advance Phase 2 of the R.W.D.I. noise monitoring and air quality monitoring studies is estimated to be $89,700 exclusive of H.S.T.

The cost to undertake the independent Internal Audit of the Oshawa Executive Airport by K.P.M.G. was $55,000 exclusive of H.S.T.

It is also important to note that there are ongoing costs associated with the C.F.A. litigation, including costs associated with retaining external legal counsel.

Additionally, there will be costs for advertising the public meeting, including newspaper ads and mailing of notices.

All outstanding costs have been included in the appropriate 2021 Departmental budgets.

7.0 Relationship to the Oshawa Strategic Plan

The Recommendation in this Report advances the Accountable Leadership and Economic Prosperity and Financial Stewardship and Environmental Responsibility goals of the Oshawa Strategic Plan.

Tom Goodeve, M.Sc.Pl., MCIP, RPP, Director,
Planning Services

Warren Munro, HBA, RPP, Commissioner,
Development Services Department

Item: DS-21-44
Attachment 1

Subject: Draft Proposed 2021-2022 Oshawa Executive Airport Action Plan
Address: Oshawa Executive Airport
File: F-2510

City of Oshawa
Development Services Department

K:\Attachments\2021\03 Mar\AirportNoise\pdfs\AirportNoise_Att1.pdf

Oshawa

Public Report

To:	Development Services Committee
From:	Warren Munro, HBA, RPP, Commissioner, Development Services Department
Report Number:	DS-19-128
Date of Report:	June 19, 2019
Date of Meeting:	June 24, 2019
Subject:	Oshawa Executive Airport Air Quality and Noise Study
File:	F-2510

1.0 Purpose

The purpose of this report is to respond to the following direction related to the updated Business Plan for the Oshawa Executive Airport:

> "That the consultant's proposals for the updated Air Quality Assessment Study and Noise Study be presented to Council for review."

Two consultants proposals for the updated Air Quality Assessment and Noise Study have been submitted: one by RWDI and the other by GTA Environmental. The Commissioner of Development Services intends to select RWDI as the preferred consultant based on its proposal including experience.

Attachment 1 shows the location of the proposed air quality monitoring units and noise monitoring units.

Attachment 2 is a copy of a proposal to undertake an Environmental Air Quality and Noise Survey at the Oshawa Executive Airport dated June 6, 2019 submitted by RWDI.

Attachment 3 is a copy of a proposal to undertake an Air Quality and Noise Monitoring Study at the Oshawa Executive Airport dated June 3, 2019 submitted by GTA Environmental.

2.0 Recommendation

That the Development Services Committee recommend to City Council:

That Report DS-19-128 dated June 19, 2019 concerning proposals for an Air Quality Assessment and Noise Study at the Oshawa Executive Airport be received for information.

3.0 Executive Summary

Not applicable.

4.0 Input From Other Sources

The following have been consulted in the preparation of this Report:

- Airport Manager
- Manager, Purchasing Services

5.0 Analysis

The current Oshawa Executive Airport Business Plan covers the period from 2015 to 2019.

The Business Plan includes an air quality assessment based on the maximum projected annual aircraft movements of 102,345. This number of aircraft movements is based on the assumption that the Buttonville Airport would close. The Buttonville airport has not closed and it is unclear how long it will remain in operation. The 2018 annual aircraft movements at the Oshawa Executive Airport were 78,363.

The Business Plan also includes a Noise Exposure Forecast, which identifies a range of noise impacts around the airport. Both the air quality assessment and the Noise Exposure Forecast were an academic exercise based on industry-accepted forecast modeling tools and did not include air quality or noise monitoring based upon actual aircraft movements.

In December 2017, Council directed that as part of the update to the 2015-2019 Oshawa Executive Airport Business Plan an updated air quality assessment study be undertaken and that the airport's noise and traffic management plan be reviewed.

On May 21, 2019, Council directed that the consultants' proposals for the updated Air Quality Assessment Study and Noise Study be presented to Council for review.

The air quality and noise monitoring would take place immediately beyond the threshold for Runway 30, Runway 12, Runway 05 and Runway 23 (see Attachment 1). The air quality and noise monitoring would take place for a 60 day period commencing on or about July 1, 2019. July and August are two of the busiest aircraft traffic months at the airport.

Two proposals to undertake the air quality assessment and noise study have been received: one from RWDI (see Attachment 2) and the other by GTA Environmental (see Attachment 3). The Commissioner of Development Services intends to select the firm of RWDI to undertake the Study based on its proposal including its extensive experience.

The air quality assessment would measure Total Suspended Particulate (TSP) along with lead and nitrogen dioxide. Each of these would then be compared to the Ministry of Environment Conservation and Parks Ambient Air Quality Criteria. The air quality assessment results would also be modeled to reflect the maximum aircraft movements forecast as part of the update to the Airport Business Plan.

The noise monitoring will gather aircraft traffic related noise data for the duration of the study period. The data will then be compared to aircraft movement data to identify trends in noise relating to volume, duration, movement type and aircraft type. The trends in noise will then be used to assist in the potential development of new noise and traffic management strategies targeted to help reduce the impact of aircraft noise. The data will also be used to assist in the update to the Noise Exposure Forecast.

6.0 Financial Implications

The cost of the RWDI study is $69,800 plus HST. In addition to the cost of the study the airport needs to provide power at each of the four locations at a cost of approximately $10,000. The 2019 airport budget includes $100,000 for work related to the update to the Airport Business Plan.

7.0 Relationship to the Oshawa Strategic Plan

This Report advances the Accountable Leadership and Environmental Responsibility goals of the Oshawa Strategic Plan.

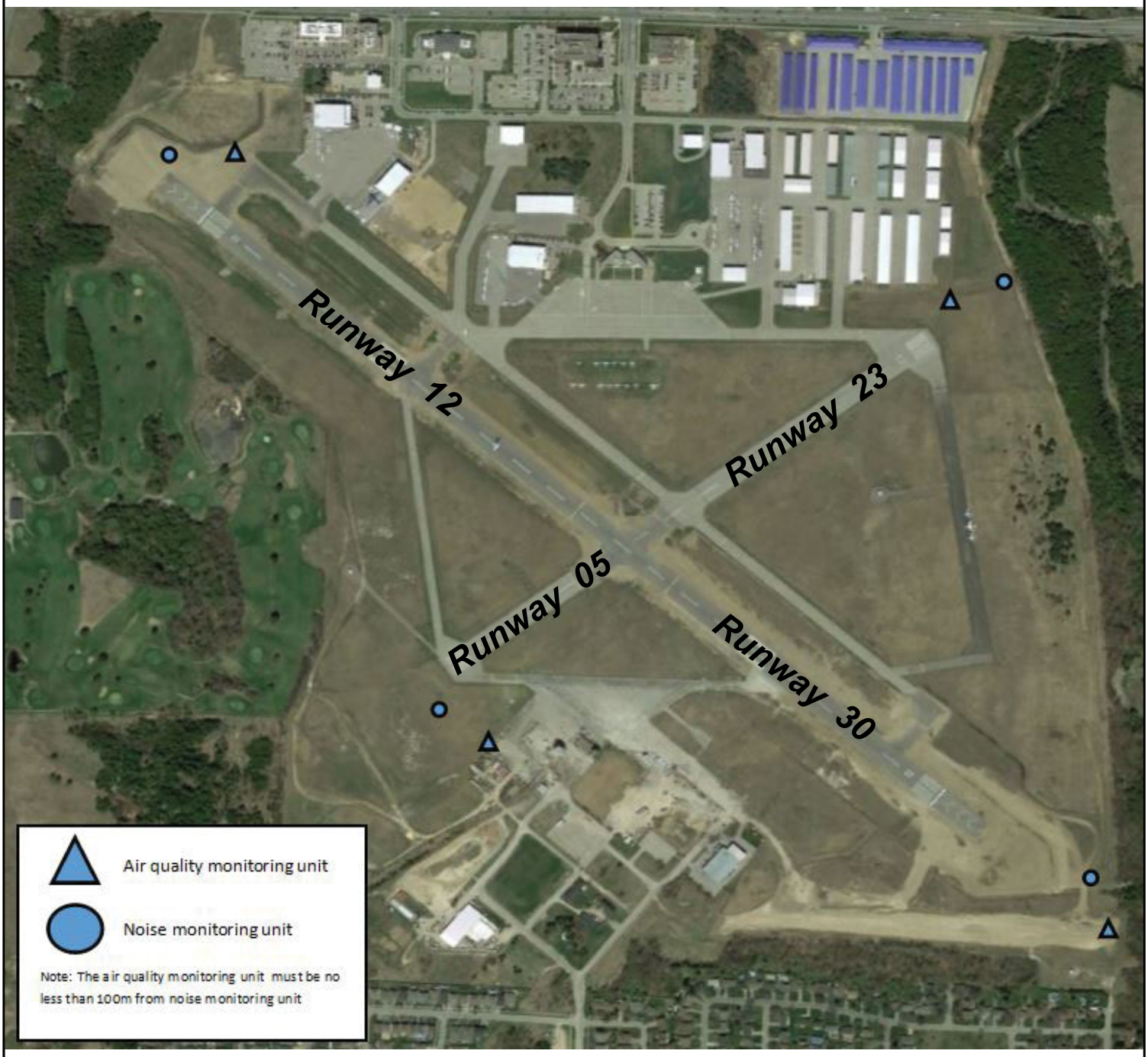
Warren Munro, HBA, RPP, Commissioner,
Development Services Department

DS-19-128
Attachment 1

Title: Noise & Air Quality Unit Locations
Subject: Oshawa Executive Airport Air Quality and Noise Study
File: F-2510

N

City of Oshawa
Development Services Department



K:\Attachments\2019\06 Jun\AirQuality_Noise\pdfs\AirQuality_Noise_Att1.pdf

PROPOSAL

Oshawa Airport
Air Quality and Noise Monitoring

OSHAWA, ONTARIO

AIR QUALITY & NOISE MEASUREMENT PROPOSAL

RWDI #190606JD

June 6, 2019

SUBMITTED TO

Stephen Wilcox, A.A.E.
Airport Manager
swilcox.oshawa.ca

Total Aviation and Airport Solutions
1200 Airport Blvd. Suite 200
Oshawa, Ontario
L1J 8P5

T: 905.576.8146 x 3858

SUBMITTED BY

John DeYoe, d.E.T., B.A.
Senior Consultant / Principal
john.deyoe@rwdi.com

RWDI
600 Southgate Drive,
Guelph, Canada, N1G 4P6
T:519.823.1311
F: 519.823.1316

PROPOSAL

Dear Stephen,

In response to your recent enquiries regarding ambient air quality and noise monitoring at the Oshawa Executive Airport site, we are pleased to submit this proposal. RWDI has performed thousands of air quality and noise projects.

Thank you for the opportunity to present this proposal. Should you have any questions or require additional information on any aspect of this proposed work, feel free to give me a call at 1-519-823-1311 x 2258. We look forward to working with you on this project.

Yours very truly,

John DeYoe, B.A.
Project Director / Principal

JD

PROPOSAL

SCOPE OF WORK

Total Aviation and Airport Solutions (TAAS) has contacted RWDI to complete an ambient air quality monitoring and noise program at the Oshawa Airport. TAAS is planning to conduct air quality and noise monitoring at four locations. Three locations will be in the area surrounding the airport or near the ends of runways. One monitoring location will be located on the airport property near the terminal. The monitoring results will be compared to specific requirements relating to air quality as outlined in the Ministry of Environment Conservation and Parks (MECP) Ambient Air Quality Criteria (AAQC). The proposed monitoring would take place from early July to early September for a 2-month period. The monitoring stations will consist of High-Volume Air Samplers (Hi-Vol) for Total Suspended Particulate (TSP) which will also capture the airborne lead portion. The sampling stations will also have passive samplers for nitrogen dioxide. The TSP/lead samples will be taken for a 24-hour duration, once every other day. The passive nitrogen dioxide samples are one month in duration.

Air Quality Parameters

The parameters examined in the Environmental Assessment (EA) are listed below:

Pollutant	Averaging Period	AAQC (□g/m³)
Total Suspended Particulate (TSP)	24-hour	120
	Annual	60
Lead	24-hour	0.5
	30-day	0.2
Nitrogen dioxide (NO_2)	1-hour	400
	24-hour	200

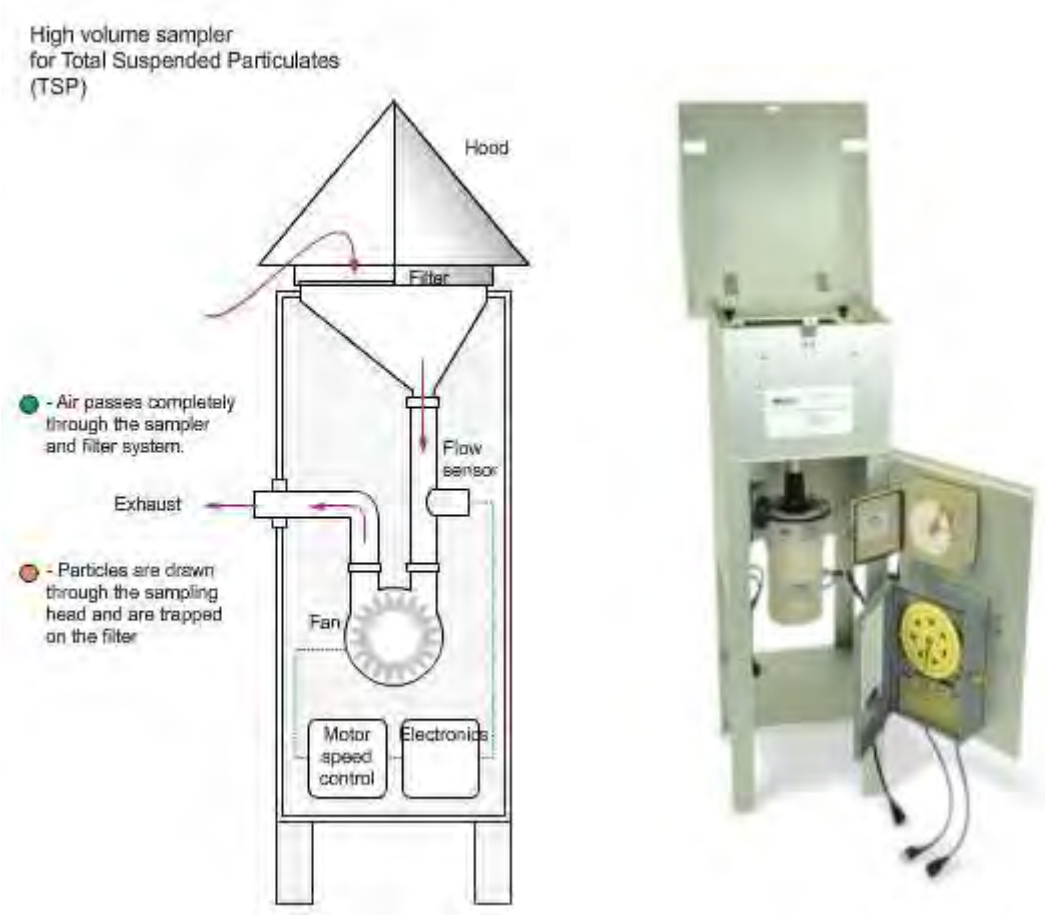
Noise Parameters

Class 2 Limit	Time of Day	Exclusion Limit (dBA)
One-Hour LEQ	700- 1900	50
	1900-700	45

Assuming Classification as a Class 2 area. Simplified limit. Equivalent Sound Level (LEQ).

Particulate Matter/Lead

We are proposing to use standard Hi- Volume Air Samplers (Hi-Vols) for particulate and lead. We are also proposing to monitor Total Suspended Particulate (TSP) using one of these instruments. The samples will be collected on pre-weighed quartz filters. The filters will be conditioned and weighed after sampling to determine mass gain (TSP concentration) and an aliquot of the filter will be extracted and analyzed using atomic absorption techniques to determine lead concentrations. All sampling and analytical techniques will comply with the Ministry of Environment's Operations Manual for Air Quality Sampling and USEPA Method IO-2.



Schematic **Photograph**

Hi- Volume Air Sampler

.

Gaseous Pollutants

In addition to the particulate monitoring, we will complete monitoring for Nitrogen dioxide (NO2) at the monitoring locations. The monitoring is proposed to be completed with passive air samplers. The samplers will be installed and will take a single one-month long integrated sample. This method is used in several locations in North America and Europe. It requires no shelters or power and provides a good indication of potential impacts. The ambient air diffuses across a special membrane to react with the sample media. The samples will be sent to Maxxam Laboratories in Edmonton, Alberta to be analyzed. Once the mass of pollutant in the media is determined, the average concentration of pollutant in the air, over a one-month period, is calculated from the known diffusion rate.

Passive Air Samples

Meteorological Measurements

Wind speed and direction data will be compiled from the data collected at the airport for interpretation of the air quality sampling results.

Noise Measurements

Sound level measurements will be recorded with either Bruel & Kjaer or Larson Davis instrument fitted with a Class 1 microphone. The instrument will record one-hour LEQ values for the duration of the project.

> *Definition: Equivalent Sound Level (LEQ): An energy-average sound level taken over a specified period of time. It represents the average sound pressure encountered for the period. The time period is often added as a suffix to the label (i.e., $L_{eq}(24)$ for the 24-hour equivalent sound level). L_{eq} is usually A-weighted. An L_{eq} value expressed in dBA is a good, single value descriptor of the annoyance of noise.*

RWDI will supply more sophisticated sound level meters that will also record sound if there any periods are above the guideline values. This will allow us to determine if elevated levels are related to airport or non-airport activities. If the measurements reveal levels that are above guideline values the audio recordings for those periods will be reviewed.

The records of aircraft movements during the monitoring period will also be gathered. The movements will be compared to levels assumed for the Environmental Assessment to compare measured data with the predictive modelling that RWDI completed previously. The levels will also be compared to NPC-300 guideline values.

Measurement Locations

One air quality and one noise station will be installed near the terminal building by the north apron. The other locations will be on the flight paths near the end of the runways along flight paths. In terms of air quality and noise, the greatest impacts from aircraft is near the end of the runways. If levels impacts are within guideline value at those locations, they will be lower at other points. The locations currently proposed, other than the north apron, are near the threshold of runway 05, near the threshold of runway 12 and near the threshold of runway 30. The noise and air quality stations should be separated by roughly 100 metres so that the noise from the air sampling does not interfere with the noise measurements.

Schedule

RWDI can begin monitoring within two weeks of authorization. RWDI will have equipment on standby so that the sampling can start on the first week of July.

A report will be issued at the conclusion of the monitoring though updated results will be sent on an on-going basis via email. The report will contain summaries of measured data, comparison to Ambient Air Quality Criteria and noise guidelines, graphics showing instrument location and details regarding conditions during the measurement will also be included. The report will contain all measured data in tabular for and will contain analysis of pollutant concentrations with meteorological conditions. The report will also contain a comparison to predicted levels from the EA report.

BUDGET

RWDI's fixed fee cost for completing the scope of work as defined $69,800, which includes professional fees and expenses but is exclusive of applicable taxes.

Expenses		
Hi-Vols (8) @ $300/month		$4,800
Passives		$700
Travel		$3,200
Laboratory (10% blanks)		$14,200
Hardware		$1,200
Sound Level Meters		$5,600
	Total Expenses	$29,700
Fees		
Startup - site selection		$3,800
Bench test/ Install		$8,700
Sampling		$10,100
Data Management/Analysis/Updates		$7,700
Reporting		$9,800
	Total Fees	$40,100
TOTAL COST		**$69,800**

WORKING WITH RWDI

THE PEOPLE

RWDI is an environmental and engineering consultancy located in Guelph, Ontario. RWDI enjoys a trusted 45-year reputation for our deep knowledge and sophisticated technology solutions for wind engineering and environmental projects. From offices in Canada, United States of America, England, India and Asia, our consultants meet the world's most complex air quality and noise challenges with experience, knowledge and superior service.

Additional details on company experience and Resumes are provided in the, attachments.

RWDI has completed thousands of air quality assessments. John DeYoe will act as project manager and senior specialist on the project. Other RWDI staff will help as required.

PROPOSAL

LETTER OF AGREEMENT

We hereby authorize Rowan Williams Davies & Irwin Inc. (RWDI) to provide the services outlined in this proposal, reference #190606JD, dated June 6, 2019 This Letter of Agreement together with the terms noted in the proposal constitutes the entire agreement. Please initial the options you would like to authorize. No other agreement shall take precedence unless agreed to by both parties in writing.

Name (Please Print)	Company
Title	Date

Signature (I am authorized to bind this corporation)

RWDI and the Client agree that this Proposal may be communicated and/or accepted by email or facsimile transmission and that the said communication and/or acceptance shall be legal and binding upon RWDI and the Client. RWDI and the Client further agree that reproductions of signatures by telecommunications will be treated as original signatures.

RWDI aims to accommodate. If you require this document in a different format in order to aid accessibility, please contact the sender of this document, email solutions@rwdi.com or call +1.519.823.1311

PROPOSAL

SUPPLIER PROFILE

CORPORATE BACKGROUND

The RWDI Group of Companies is an international consulting engineering company, specializing in environmental and wind engineering. Founded in 1972, we have a trusted reputation for delivering understandable and useful results to a wide variety of clients, including government agencies, architects/ engineers, and industry. The RWDI Group of Companies employs over 300 professional engineers, scientists, and technologists that are focused on excellence, accountability and responsiveness in all that we do.

RWDI AIR Inc. (RWDI) is part of the RWDI Group of Companies, which enjoys a trusted 46-year reputation for our deep knowledge and sophisticated technology solutions for complex environmental and engineering problems. RWDI is 100 % owned by the RWDI Group of Companies and both companies are private corporations that are headquartered in Guelph, Ontario.

RWDI is one of Canada's largest air quality modelling and measurement consulting firms, with offices and staff in Guelph, Dartmouth, Windsor, Ottawa, Calgary, Victoria, Vancouver, and Thunder Bay. RWDI's proven track record and years of permitting work have built an excellent reputation with clients and regulatory agencies across Canada and around the world. Numerical modelling and ambient monitoring have been core competencies at RWDI for over 25 years.

Our resources include a full suite of state-of-the-science air quality modelling software, specialized ambient and stack testing measurement equipment, our extensive reference library, and of course, our versatile expert staff that are specialized in air quality modelling and monitoring. Company Brochures are included in **Appendix A.**

With our extensive knowledge of meteorology, industrial processes, atmospheric chemistry, and regulatory guidelines, we provide another level of service that few competitors can match. We understand that our clients not only require accurate measurements, but also that the data is interpreted and communicated back to the client in an appropriate manner. Public presentation of results is another client service RWDI provides and ambient monitoring is one of the most credible demonstrations of compliance for open houses, public liaison committees, etc.

RWDI's extensive experience allows us to provide the results our clients' need, from simple permitting and approvals through extensive sampling programs and monitoring networks, public presentations and expert witness testimony. We pride ourselves on our ability to provide you with easy to understand data and advice - … complicated issues made simple .

BC Hydro Site C Reservoir

2009 to Present

RWDI installed and is maintaining a network of four ambient air quality stations and six meteorological stations for BC Hydro's Site C Clean Energy Project. The network has been upgraded and modified to align with changing regulatory requirements. The Site C monitoring network was initially installed to collect baseline data to be used in the environmental effects assessment for the proposed project. RWDI was retained to continue operation/maintenance of the monitoring network, and currently provides this service through our partnership with the Halfway River First Nation.

Currently, the main purpose of this network is to monitor the effects of project construction on air quality as it relates to protecting the health of surrounding communities, including First Nations. As such, the analyzers are maintained and audited to BC Ministry of the Environment standards, and data is shared for use on the BC MOE's near real time air quality data portal, which is accessible to the public. Climate/meteorological data is also being collected for baseline purposes, to compare with data to be collected once the dam is in place, to determine the effects of the reservoir on local microclimate, which is an important consideration for agriculture in the area.

The network currently consists of ten monitoring stations in the Fort St. John and surrounding area. Station data is collected on a continuous basis for the following parameters:

- particulate matter including PM_{10} and $PM_{2.5}$;
- gases including NO_x, SO_2 and CO; and
- climate/meteorological parameters including wind speed, wind direction, air temperature, precipitation, relative humidity, barometric pressure, all solar radiation components, turbulent flux, visibility, soil temperature, soil moisture and soil heat flux.

RWDI utilizes local staff in Fort St. John, and the RWDI Vancouver and Calgary offices and our in-house remote diagnostics/repair system ("Hornet") to efficiently and effectively troubleshoot and administer repairs, to allow for maximum analyzer up time.

The data is collected remotely, reviewed and validated. Both live and validated datasets are available for client viewing on RWDI's Envision data portal. Current data completeness is typically above 90% which is well above the required 75% minimum. The live data is also used with RWDI's Envision alerting system, which is programmed to send a text or email alert to BC Hydro and the construction contractors if particulate or gas levels are approaching allowable ambient objectives. Annual reports are created that summarize all of the readings taken each year and provide a discussion with respect to compliance and annual trends.

Example of Site C meteorological station

Example of Site C gas monitors

2003 TO PRESENT

RWDI was initially retained by Bowater Canadian Forest Products (now Resolute Forest Products Inc.) to manage budget requirements, final siting details and data management options for two ambient air quality monitoring stations to be operated by Bowater in Thunder Bay. Bowater and RWDI entered into a 10-year agreement whereby RWDI would be responsible for the procurement and commissioning of the two new ambient stations, and the routine maintenance and calibration of the instruments within the stations. Furthermore, RWDI is responsible for data acquisition, quality control and quality assurance as they relate to the data handling and any required reporting (e.g., quarterly, annual, etc.).

The following parameters are currently being sampled continuously as part of the monitoring network (not all parameters sampled at both locations):

- total reduced sulphur;
- respirable particulate matter $PM_{2.5}$;
- wind speed/direction;
- ambient temperature;
- incoming solar radiation;
- relative humidity; and
- barometric pressure.

Non-continuous samples for total suspended particulate matter (TSP) are also obtained at both locations.

The equipment is housed in pre-fabricated stations. All monitoring equipment was bench tested in our Guelph office prior to shipment to Thunder Bay for installation. RWDI also participated in the negotiation and acquisition of land required for the ambient stations and made arrangements for site preparations including building pad installation, line power and telephone hook-ups, and site security. Each station was pre-assembled in Guelph to ensure that all equipment was operating correctly. After the installation of the stations on the sites, RWDI staff commissioned the air quality and meteorological equipment and conducted the preliminary calibrations required for the monitoring equipment. RWDI staff conduct weekly station inspections and monthly calibrations at the two sites.

Through the course of completing several large scale ambient monitoring programs, RWDI has developed a system of QA/QC procedures that ensure a high rate of data recovery and ensure the accuracy of the results. Many of these procedures have their basis in the reference sampling and monitoring methodologies stipulated in reference methods from monitoring and reporting programs. The Thunder Bay monitoring program follows the requirements outlined in the MOE's Operations Manual for Air Quality Monitoring in Ontario, dated March 2008. The stations are audited by the MOECC on a quarterly basis. The station uptime is currently running at better than 90%.

One minute, five minute and hourly average readings from both stations are downloaded daily from a host computer located in Thunder Bay. Daily zero/span values from the previous night are reviewed to ensure that the analysers are operating within tolerances. Data is processed monthly. Reports are generated on a quarterly and annual basis and include percentile summaries, data trends, wind and pollution roses (frequency plots), and comparison to applicable ambient air quality objectives and ON risk standards.

HOLCIM (CANADA) INC. – MISSISSAUGA, ON

2014 TO PRESENT

RWDI was retained by Holcim (Canada) Inc. to select ambient monitoring locations, complete siting requirements, complete the commissioning, day-to-day operations, all calibrations, manage ON MOE audits and data management for two ambient air quality monitoring stations. Holcim voluntarily completed the program in order to assist with the collection of current state ambient monitoring data at their cement facility. RWDI also provides advice and participates in meetings with the ON MOE regarding the stations, and reporting and address any technical aspects related to the project.

RWDI was responsible for the procurement and commissioning of the two new ambient stations, routine maintenance, and calibration of the instruments. Furthermore, RWDI is responsible for data acquisition, quality control and quality assurance as they relate to the data handling and also any required reporting (e.g., quarterly, annual, etc.).

The following parameters are currently being sampled continuously and periodically (not all parameters sampled at both locations):

- carbon monoxide;
- oxides of nitrogen ($NO/NO_x/NO_2$);
- sulphur dioxide;
- respirable particulate matter;
- wind speed/direction;
- ambient temperature;
- relative humidity;
- inhalable particulate matter (PM_{10})
- volatile organic compounds;
- ammonia;
- hydrogen chloride;

- dioxins and furans); and
- polycyclic aromatic hydrocarbons.

The equipment is housed in pre-fabricated stations. All monitoring equipment was pre-assembled and bench tested in our Guelph office prior to shipment to Mississauga for installation to ensure that all equipment was operating correctly. After the installation of the stations on the sites, RWDI staff commissioned the air quality and meteorological equipment and conducted the preliminary calibrations required for the monitoring equipment. RWDI staff conduct weekly station inspections and monthly calibrations at the two sites.

Through the course of completing several large scale ambient monitoring programs, RWDI has developed a system of QA/QC procedures that ensure a high rate of data recovery and ensure the accuracy of the results. Many of these procedures have their basis in the reference sampling and monitoring methodologies stipulated in reference methods from monitoring and reporting programs. The monitoring program follows the requirements outlined in the MOE's Operations Manual for Air Quality Monitoring in Ontario. The stations are audited by the MOE on a quarterly basis. The station uptime is currently running at better than 90%.

One minute average and hourly average readings from both stations are downloaded daily from our offices in Guelph. Daily zero/span values from the previous night are reviewed to ensure that the analyzers are operating within tolerances. Data is processed once per month and reports are generated on a quarterly and annual basis and include percentile summaries, data trends, wind and pollution roses (frequency plots), and comparison to applicable ambient air quality objectives and ON risk standards.

APPENDIX A

ON SITE MEASUREMENT: AMBIENT AIR QUALITY MONITORING

Executing expertly designed and highly accurate monitoring programs for effective compliance and detailed modeling

We help you understand how complex air quality regulations apply to your operations. With your unique needs in view, we choose a monitoring strategy that is suitable, accurate and efficient. As a trusted partner, we bring the same meticulous care to programs at any scale, whether a one-off measurement program or long-term, multi-site monitoring for large industry. In addition to compliance reporting, our monitoring programs support work in emissions modeling, toxicology and environmental impact assessments.

Our Service

Field Sampling, Stations and Networks

We design, build, install, operate and maintain all types of ambient air quality monitoring programs. We provide both the instrumentation and the staff needed to get the job done.

Over the past 30 years, we've conducted hundreds of sampling programs throughout North America and across all categories: stationary and mobile exhausts, dust, odor, and accidental spills and releases. As an independent, reputable source, we have also consulted on monitoring programs worldwide.

We find solutions where others don't, because we understand all aspects of emissions: regulatory frameworks, methodologies, meteorological influences and operational needs. Examples of our solutions include real-time monitoring with automated warning or response systems; long-term, continuous monitoring at large or challenging sites; and customized methods for unique conditions or pollutants.

We take pride in our reputation for delivering impeccable data. Key to that success is our commitment to superior quality control practices. We care deeply about getting it right. Most of the equipment deployed by our field teams is our own, so we know it has been correctly maintained. This equipment pool includes several automated data retrieval systems we've built to maximize the accuracy of data acquisition.

ON SITE MEASUREMENT: AMBIENT AIR QUALITY MONITORING

Meteorology

Drawing on our firm's unique meteorological expertise and data resources, we can complement air quality monitoring with meteorological insights. A monitoring program can be designed to include continuous measurement of such conditions as wind speed, wind direction, relative humidity, ambient temperature and solar radiation. Our in-house meteorologists use such measurements to interpret air quality measurements more fully, for example to understand the unique surrounding influences on individual sources.

RWDI is a valuable partner to clients seeking to...

Explore Innovations

- Address unique monitoring situations (logistics, pollutants of concern) through expert strategies that win regulators' approval
- Capture the right data at the right time through smart implementation strategies:
  - Real time, web accessible reporting
  - Automated sampling linked to meteorological conditions
  - On demand sampling activated by neighbors or employees

Create Opportunities

- Size pollution control equipment correctly for actual conditions
- Test the impact of new operating regimes (e.g., new fuels, products)
- Reduce labor costs with real time reporting
- Show that increased production continues to meet limits (depending on jurisdiction)

Meet Challenges

- Lower reported emissions (or open more operating options) by using methods that avoid accumulation of systematic errors
- Document compliance after operational changes

Fulfill Expectations

- Meet reporting obligations with highly defensible monitoring plans
- Execute models and long term plans based on data that has been collected in the most thorough and accurate way by conscientious, experienced professionals

How we work

We'll review your site conditions with you in detail and design a monitoring program that will provide results at the appropriate level of accuracy. We bench test all equipment before sending it to your site, provide testing checklists and a quality control plan in advance, and collect data with appropriate quality assurance and quality control. Our reports are clear and easy to understand: They've been refined through years of feedback and continuous improvement. As needed, we include expert recommendations and interpretations, drawing on expertise from throughout our company, to help you make the best use of monitoring data for your planning and operations.

The methodology mandated in regulations sometimes allows a range of implementations, some better than others. If the implementation is not appropriate to your specific conditions, the data may not be adequate to fully demonstrate compliance. An example is a method that uses laboratory detection limits when no pollutant is detected; measuring in this way may return artificially high emissions values. Because we fully understand the science behind both the regulations and the instrumentation, we make the right choices within the scope allowed by law.

Innovative solutions

Because of our in-depth understanding of testing methodologies and our broad technical resources, we excel at designing advanced solutions for large or challenging projects.

Real-time monitoring.
For particulate monitoring at a large construction site, we saved the client significant labor and operation costs by installing a real-time monitoring network. Cellular modems post data to the Web, where it can be read by both staff and regulators. When a monitor reaches a specified value, it triggers a camera and an automated email to the site supervisors. The photo and monitored values are sent in the email and posted on a website. The client can immediately determine what caused an alert (e.g., a passing truck vs. wind-blown dust) and adjust operations appropriately. This network also reduces the need to staff each monitoring station continuously.

Integrated meteorological data.
For hospitals that must test diesel generators monthly, we have installed wind-direction sensors along with warning signals. If wind conditions on the test day will disperse the diesel exhaust in a way that could generate complaints, the device alerts the user. The staff can choose to delay testing and thereby minimize complaints about nuisance odors.

ON SITE MEASUREMENT: AMBIENT AIR QUALITY MONITORING

Approved alternative methods.
A client was faced with spending $350,000 to rebuild a damaged sampling site. We were able to use our understanding of the methodology to propose an alternate location. We satisfied the regulators that the new location would provide acceptable data—and the move cost the client next to nothing while also creating a safer, more accessible work environment.

Applications of monitoring programs

- Measure a wide range of contaminants
- Assess compliance
- Validate or calibrate predictive models
- Compare actual to modeled conditions
- Provide results and estimates that are more tangible and less conservative than those indicated by modeling
- Provide estimates where modeling is not an option
- Establish existing or background levels of contaminants
- Establish emission rates for use as inputs to dispersion modeling
- Provide toxicologists with data for predicting environmental exposure
- Provide technical support for environmental impact assessments

Typical Contaminants

- Criteria Air Contaminants (CACs)
- Sulphur Compounds (SO2, H2S, TRS)
- Volatile Organic Compounds (VOCs)
- Particulate Matter (Dust, TSP, PM10, PM2.5)
- Numerous others

Services

Measurement

- Design, build, operate and maintain monitoring stations/trailers/networks
- Design and build meteorological stations with remote reporting
- Design and execute monitoring protocols (real time, continuous, long term, short term, meteorology)

Expertise

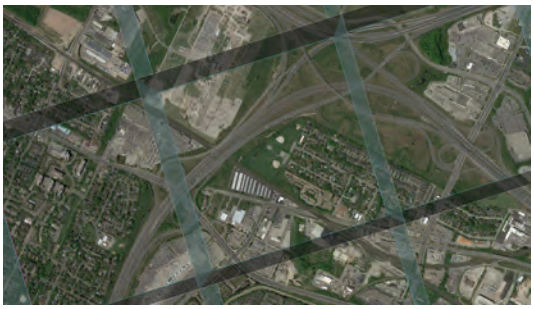
- Consult on and interpret regulations
- Negotiate with regulatory agencies
- Supervise monitoring programs
- Develop baseline conditions, potential impact scenarios, and emergency response zones
- Compare measurement to criteria
- Assess cumulative effects
- Recommend mitigation alternatives
- Quantify consequences from accidental releases
- Provide expert testimony

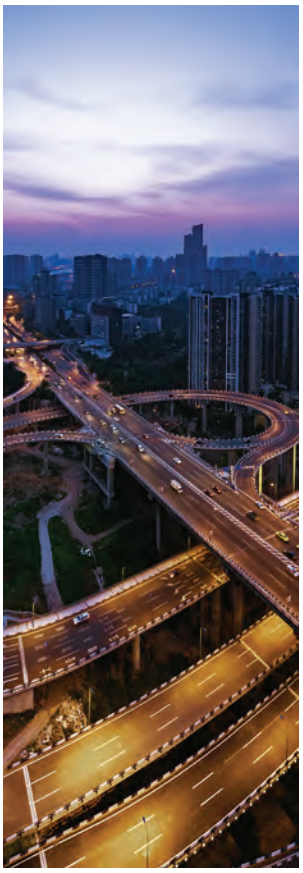
Sectors

- Aggregates
- Airports
- Chemical and petrochemical
- Forestry, pulp and paper
- Government
- Manufacturing
- Mining and metals
- Oil and gas
- Pharmaceutical and biotechnology
- Power generation
- Transportation and infrastructure
- Vehicle manufacturing
- Waste management

REGIONAL AIR QUALITY

Evaluating scenarios for emissions regulation and urban planning to identify effective paths to improved air quality





Governing bodies large and small have been regulating air emissions from industry, motor vehicles and other sources for several decades. And municipal planners are increasingly thinking of air quality when planning for urban growth.

Governing bodies large and small have been regulating air emissions from industry, motor vehicles and other sources for several decades. And municipal planners are increasingly thinking of air quality when planning for urban growth.

However, regulations and plans must change with the times, to reflect the best new science about air pollution and related technologies. That science is complex. The concentration of air pollutants depends on so many factors: weather patterns, chemical interactions among different pollutants, the type and location of the key emission sources, and so on. In the face of this complexity, government agencies must decide what, where and how much to regulate. Similarly, municipal planners must decide how best to accommodate future growth of their urban areas without compromising the quality of the air. To arrive at sound plans and policies, to win over stakeholders, and to achieve the goal of improving air quality, decision makers must work from sound science that accounts for all the important factors.

Our service

We help government agencies evaluate scenarios for reducing emissions and impacts of air pollutants. By applying proposed regulations and urban growth strategies in a computer simulation, we can gauge their effect on regional air quality and pollution patterns. With these results, governments can develop cost–benefit analyses and make science-based decisions on air quality and urban growth and development. We also use such models to help other stakeholders make well-informed responses to government policy decisions.

REGIONAL AIR QUALITY

This work centers on a regional-scale air quality simulation that we can customize to any place in the world. This model takes into account the complex effects of regional weather patterns, topography and chemical interactions among air pollutants. It also reflects the complex spatial distribution of the various emission sources. We use the model as a tool for looking at how much a given strategy for managing emissions within a region will actually improve the air quality there.

Our work is closely informed by current academic research, but our focus is always on our clients' questions and practical needs. We're sensitive to time lines and experienced with meeting our clients' time constraints. And we're exceptionally skilled at and passionate about making complex scientific information accessible for the nonscientists who need to act on our findings.

RWDI is a valuable partner to clients seeking to...

Explore Innovations

- Find creative solutions to achieve economically thriving and healthy communities
- Understand the interplay among clean air, urban growth, emerging technologies and social change
- Understand the interplay among climate change, greenhouse gas reduction strategies and air quality.
- Delineate regional airsheds and develop holistic strategies for managing the emissions sources within them.

Create Opportunities

- Improve stakeholder confidence and buy in by demonstrating the scientific basis for regulatory changes
- Develop proactive urban growth strategies that are sensitive to clean air and its impact on the health of the population

Meet Challenges

- Choose the right sources to regulate, given the characteristics of the region
- Anticipate the effects of changes in urban development patterns and commercial activityAnticipate how future climate changes may affect regional air quality

How we work

The key tool for regional air quality assessments is computer simulation. Regional air quality simulations have three main components:

- Emissions modeling
- Meteorological modelling
- Air pollutant transport and atmospheric chemistry.

Emissions modeling consists of two steps. First we estimate what the hour-by-hour emissions are from all of the various emission sources within a region. Then we determine where these emission sources are located throughout the region. We use land use data from geographic information systems (GIS), estimates of unit emission rates for different types of sources, and statistics on the activity level of the various emission sources. These sources might include industrial production, traffic on roadways and highways, aircraft activity at airports and so on. Software systems are used to integrate all of this information. Finally, we produce gridded, hourly emissions information over the region of interest and the time period of interest (one or more years). We generally use an emissions modeling system known as SMOKE, which was developed by the United States Environmental Protection Agency.

Meteorological modeling consists of developing a high-resolution, 3-D picture in space and time of the weather conditions into which the air pollutants are being emitted. Often, one or more years of hourly weather patterns are predicted over the entire region of interest. We generally use a software system known as WRF (the Weather Research and Forecasting Model), which was developed by the United States government through a collaboration among various branches of the government.

Atmospheric transport and chemistry modeling predicts how air pollutants will be transported downwind of the emission sources, as a result of the weather patterns predicted by the meteorological model. It also predicts the chemical transformations that the air pollutants undergo while in the atmosphere. It provides a 3-D picture in space and time of air pollutant levels over the region of interest, for each of the air pollutants of interest.

ENVIRONMENTAL NOISE

Managing noise sources and balancing competing needs to create acceptable acoustic environments

When sound is at odds with its context, it can be harmful. In a word, sound becomes noise.

Managing noise means understanding three things: the sound source, the receptor—which is a space used by humans, animals or machines—and the path between them.

Sound sources can become a problem in the environment for several reasons. Excess sound can spark complaints from neighbors or employees, which can escalate into legal battles. Changes in land use can prompt a regulatory reassessment, especially if the new arrangements change the relationship of source and receiver. Sound (or sometimes vibration) can cause sensitive machines to work poorly or need extra maintenance. Wildlife populations can be disrupted as noise or vibration affects behavior.

Our service

We help you understand and manage sound and vibration sources within your regulatory and community context. We're experts at modeling, measuring and interpreting sound in the environment, and we're deeply familiar with the complex regulations that govern it. We have the in-depth expertise, judgment and insight to find the most elegant and efficient solution—or to find a solution where it looks like there wasn't one.

We've worked with noise and vibration sources large and small, from many sectors, in many community contexts. We understand how needs differ depending on the receptor space (e.g., workplace, residence, daycare, school, place of worship or culturally important space) or wildlife population (e.g., caribou, birds or whales). And we have an exceptionally strong understanding of how to navigate the regulatory landscape.

Our work starts with defining the character and key properties of your sound source. In particular, we specialize in separating the contributions of multiple sources whose effects may be cumulative. This step determines whether compliance is an issue and, if so, where effort should be focused. If your sound sources need control, our next step is to look at the equipment itself. The best way to control noise is to limit the generation of sound. Often, we also need to control sound at some intermediary point, so we examine the path traveled by the sound or vibration. This is where we draw on our world-leading

expertise in weather and climate: Atmospheric conditions are key to the transmission of sound. We look for ways to modify the transmission path; here we also draw on our understanding of your industry and our resources in building engineering.

At this point, we may use the computer models and measurement strategies established during initial investigations to fine-tune a solution. These models are sophisticated, but the phenomena are complex and sometimes can't be modeled fully. That's why our professional judgment is key to interpreting your modeling results correctly.

Real-time measurement can also be critical to successful noise mitigation and community relations, so we've developed our own real-time monitoring system that we can customize to your needs.

Typical scenarios

Environmental standards

- Sound-level limits for an industrial development
- Environmental impact of a large infrastructure project, such as wind farms
- Protection of wildlife or traditional use lands

Land use changes

- Development of residences in an industrial area, or vice versa, impinging on a regulatory buffer zone
- Development of major transportation routes
- Development of new activities, e.g., tractor-trailer deliveries to a new supermarket in a residential area

Neighborliness

- Concern for sound mitigation as part of good design and community responsiveness

Disputes

- Complaints by neighbors, e.g., about a pumping station or concert venue

Typical noise sources

- Alert devices (horns/back-up alarms)
- Amusement parks
- Concert venues
- Cruise ship horns
- Dog kennels
- Industrial operations
  - *Manufacturing*
  - *Resource extraction*
  - *Upstream and midstream oil & gas*
- Power generation (conventional & renewable)
- Pollution control devices
- Ventilation fans
- Transportation
  - *Aircraft*
  - *Highways*
  - *Trains*
  - *Shipping (ports)*
- Motocross tracks
- Occupational noise
- Power tools
- Shooting ranges

RWDI is a valuable partner to clients seeking to...

Explore Innovations

- Use novel solutions to minimize noise impact, creating high value, well regarded projects

Create Opportunities

- Increase community buy in by demonstrating and communicating effectiveness of noise mitigation

Meet Challenges

- Balance noise sources against community needs to
  - Achieve a successful regulatory approval
  - Address community concerns for planned projects
  - Address complaints
- Protect wildlife and traditional use lands while proceeding with responsible development
- Evaluate noise concerns in the context of litigation

Fulfill Expectations

- Comply with regulatory environmental standards (sound level limits)
- Meet commitments to the community
- Provide mandated environmental assessments or permit applications

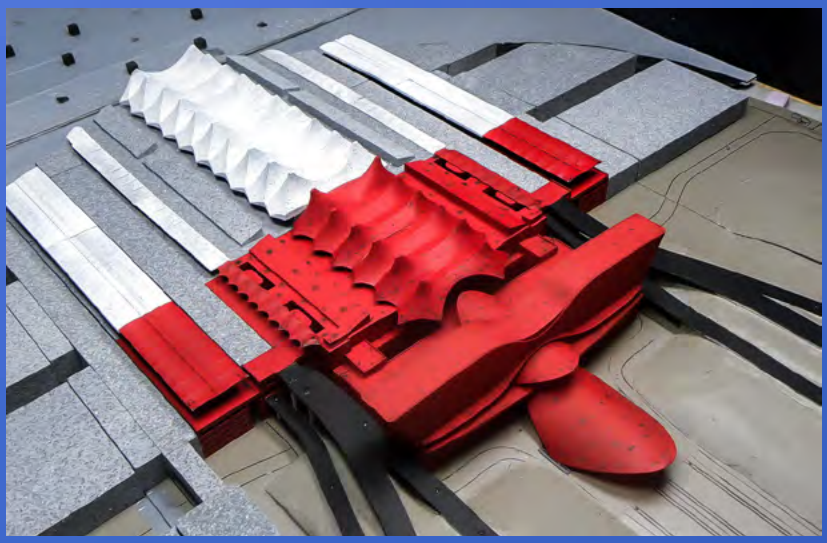
AIRPORTS

Advanced engineering
for outstanding facilities

RWDI is a valuable partner to clients seeking to...

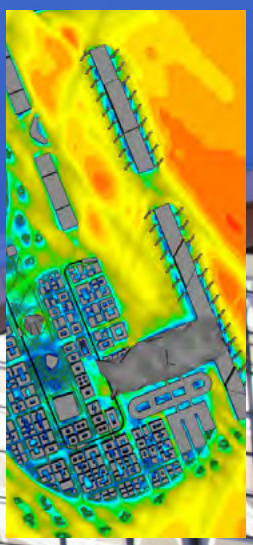
Explore Innovations

- Achieve world class sustainability by leveraging the local climate
- Realize ambitious architectural forms
- Earn trust from communities and regulators by showing a deep understanding of relevant environmental concerns, and using advanced tools to measure and mitigate impacts



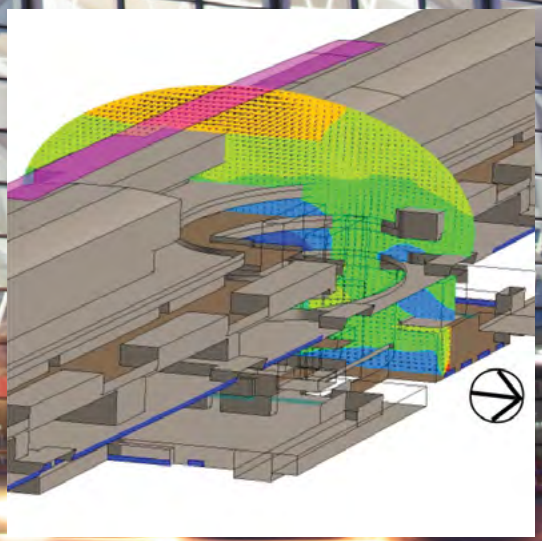
Meet Challenges

- Achieve an efficient and economical design underpinned by rigorous engineering analysis
- Gain deep insight into local microclimate to pinpoint and address potential issues, from glare to turbulence
- Manage wind and snow loading on long-span roofs
- Minimize operational delays with detailed, hyper-local weather forecasting



Create Opportunities

- Make data driven design decisions to optimize building performance
- Adopt leading edge sustainability practices to save operating costs and meet corporate responsibility objectives



Fulfill Expectations

- Create a safe and comfortable occupant experience for passengers and staff
- Meet regulatory requirements and offer detailed assessments of the expected impacts of your facility
- Inform the entire project team with easy-to-understand presentations of the environmental and technical considerations driving your design

BETTER AIRPORTS HAVE ARRIVED

Our specialized expertise and advanced technical capabilities let us deliver valuable guidance to airport designers and operators – in areas ranging from wind loading to air quality, noise and glare. We've helped airports around the world ensure safe operations and set new standards of sustainability and performance.

PLANNING

Airports are working hard to meet growing demand for air travel while operating sustainably and being good neighbors. RWDI's unique combination of science, technology and engineering capabilities helps operators anticipate challenges and optimize facilities – whether they're building a new airport, or adding capacity at an existing one.

We've worked with planners, designers and fellow engineers around the world to study potential noise and air quality impacts and recommend mitigation plans; estimate greenhouse gas emissions; refine planned runway alignments; configure facilities to optimize throughput while minimizing local impact; adapt terminal buildings and airside operations for the local microclimate; and generate detailed profiles of turbulence patterns on specific approach and departure routes.

SERVICES AT A GLANCE

- Environmental Impact Assessments
- Feasibility Studies
- Land Use Planning
- Regulatory Compliance Support
- Masterplanning
- Air Quality
- Noise and Vibration
- Turbulence Analysis

DESIGN

Airports fulfill unique and complex operational functions. And with their sheer scale and symbolic importance to the cities and countries they represent, they also invite bold architectural visions. We deliver advanced technical insights that help airports perform beautifully in their core functions, live up to their designers' aesthetic ambitions, and fulfill their operators' regulatory responsibilities and sustainability goals.

Wind analysis for facades and structural systems

Our engineers and climate specialists deliver sophisticated wind studies for airports – informing choices in areas ranging from structural design to cladding to building enclosure assemblies.

Design support for unique architectural elements

We deliver analysis to ensure that airports' special architectural features are optimized for their wind climate, preventing unwanted effects like whistling and vibration.

Damping systems for control towers

We design, fabricate and install damping systems to limit wind-induced motion in air traffic control towers. We also support aerodynamic form optimization and other design choices to stabilize these slender structures.

Guidance on long-span roofs

Drawing on extensive experience with large buildings – from major airports to stadia and arenas – our team offers guidance on wind loading, snow loading, falling ice and snow, and other challenges associated with expansive roofs.

Commissioning

We're independent energy experts who serve as a vital third-party link between designers and contractors. We act as owners' advocates, ensuring that the facility's energy systems perform as designed and fulfill stated sustainability and performance objectives.

High-performance building enclosures

RWDI's field-leading building enclosure consultants collaborate with our climate and meteorology specialists to help airports optimize their windows, facade systems and other enclosure elements, taking into account daylight, solar heat gains, glare impacts, energy performance and other factors.

Energy and water modeling

Industry leaders in green building and innovation, we take the guesswork out of designing energy and water systems by showing you how energy and water performance targets affect your facility's bottom line.

Air quality inside and out

We perform detailed modeling and offer guidance on ways to achieve excellent air quality – using both passive and mechanical means – throughout airport facilities. Our team is experienced in troubleshooting issues particular to airports such as the ventilation of large spaces, and vehicle exhaust in passenger pick-up/drop-off zones. We also model airside emissions from aircraft and ground vehicles, offering design guidance to help operators understand and mitigate air impacts.

SERVICES AT A GLANCE

- Wind Effects on Facade Systems
- Wind Effects on Structural Systems
- Tuned Mass Dampers
- Commissioning
- Building Enclosure Consulting
- Daylighting
- Sustainability
- Energy and Water Modeling
- Renewable Energy
- Glare
- Pedestrian Comfort and Safety
- Falling Ice and Snow
- Air Quality
- Ventilation

OPERATIONS

Our team helps airports deliver safety, comfort and efficiency for passengers – while enhancing their own sustainability and bottom line. Whether the goal is to optimize conditions inside a terminal building, mitigate noise and vibration for neighbors, or inform airside decisions with the best available climate analysis and weather information, we have the right mix of capabilities. Operators around the world trust our team's deep expertise as well as our unique technical tools, renowned culture of collaboration and our relentless drive to innovate.

Air quality and greenhouse gases

Our scientists and engineers are experts in quantifying emissions and assessing air quality through measurement and modeling techniques. We conduct rigorous analysis to inform effective mitigation strategies, and we support regulatory compliance by delivering third-party GHG verifications. Our team's deep understanding of airport operations lets us offer valuable support to airport operators, helping them manage emissions and think broadly about how to manage complex environmental concerns.

Visibility analysis and enhancement

We support safety using advanced glare analysis, which can pinpoint the exact location and intensity of glare impacts – including from the airport's own facilities and/or solar arrays. We can also assess and offer mitigation guidance on fogging risks.

Customized meteorological forecasting

With an abundance of high-quality data and a team of in-house meteorologists, we help airports ensure safety while minimizing delays. Our user-friendly reporting and personal guidance helps operators make informed decisions as they plan snow clearance, manage deicing operations, and protect passenger and worker safety in all weather.

Noise and vibration

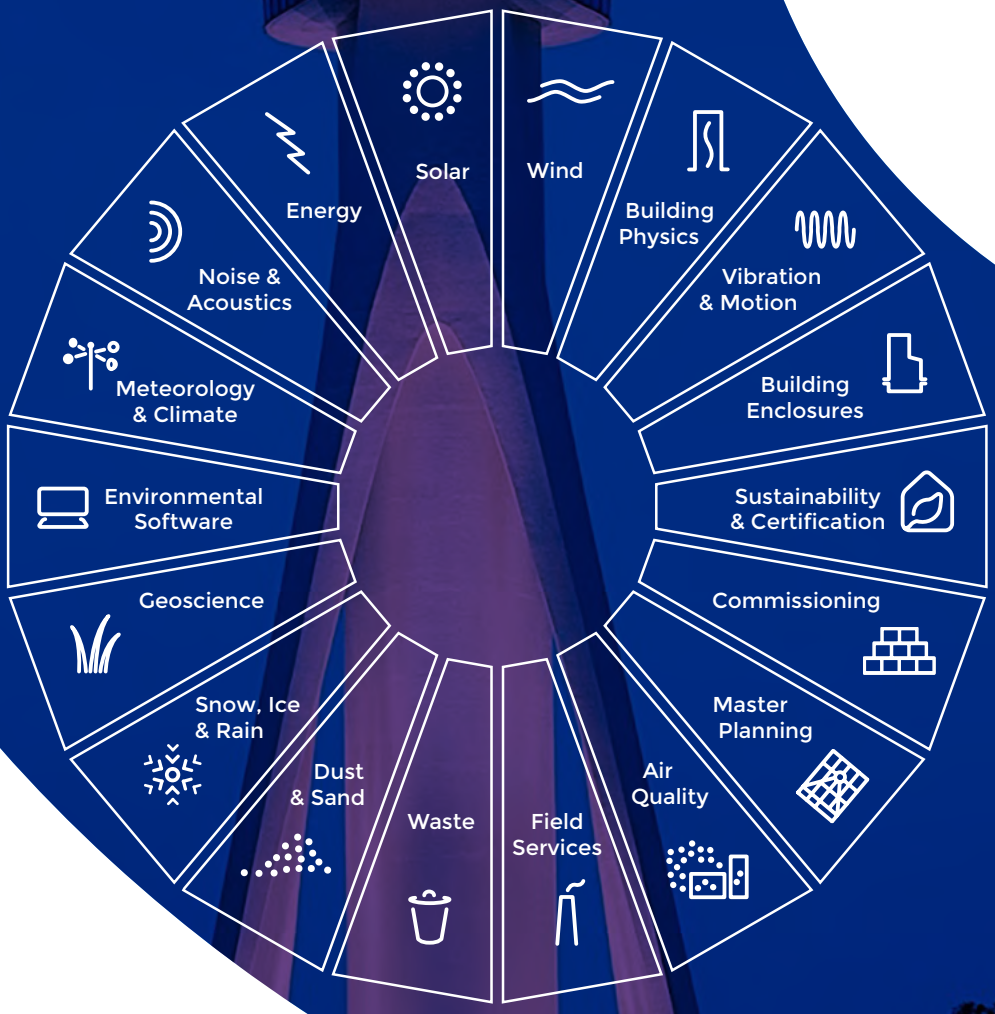
Our noise and vibration team brings deep technical insights, advanced tools, and extensive project experience with airports. We're skilled not only in the technical and regulatory demands of noise assessments but in the communication and engagement practices that help airports earn community support.

SERVICES AT A GLANCE

- Falling Ice and Snow
- Air Quality and Greenhouse Gases
- Visibility Analysis and Enhancement
- Meteorological Forecasting
- Noise and Vibration
- Sustainability

Services

RWDI's core practice areas bring together a diverse array of capabilities around a common purpose: meeting the immediate aims and broader business goals of our clients.



CANADA'S BEST MANAGED COMPANIES Platinum member

RWDI Global Headquarters:
600 Southgate Drive, Guelph,
Ontario, Canada N1G 4P6
Tel: +1.519.823.1311

rwdi.com

Redefining possible.

GTA ENVIRONMENTAL

PROPOSAL

Oshawa Executive Airport
Environmental Air Quality & Noise Surveys

GTA Environmental Proposal #19-06-03A June 3, 2019.

PREPARED FOR: Mr. Steve Wilcox
Airport Manager
Total Aviation & Airport Solutions
Oshawa Executive Airport
1200 Airport Blvd.
Oshawa, Ontario
L1J 8P5

Main Phone #: (905) 576-8146 ext. 3858
Cell Phone #: (905) 243-7606
Email: SWilcox@Oshawa.ca

PREPARED BY: Mr. Mark Smith P.Eng. CIH
Senior Consultant
GTA Environmental

June 3, 2019.

Dear Mr. Wilcox:

At your request, we have prepared a scope of work to provide an outdoor environmental air quality and noise survey at the Oshawa Executive Airport over a 2-month period in July/August.

We understand that you would like to sample for total suspended particulate (TSP), lead, nitrogen oxides (i.e. nitrogen dioxide and nitrogen monoxide) and noise at four outdoor locations at the airport. Samples would be collected on a 24-hour basis, which would provide 60 days of daily monitoring during the summer.

If you have any questions or require additional information, please contact Mark Smith at **1-877-260-0987.** Thank you for your consideration.

Yours sincerely,

GTA ENVIRONMENTAL

Mark Smith

Mark Smith, P.Eng. CIH
Senior Consultant

SCOPE OF WORK

The survey will be completed in accordance with industry guidelines and standards. The Senior Consultant, who is an **Ontario P. Eng,** and **Certified Industrial Hygienist (CIH)** will manage the project. GTA Environmental proposes the following scope of work:

Service A: Outdoor Environmental Air Quality & Noise Survey

- Conduct an outdoor environmental air quality survey at the Oshawa Executive Airport over a 2-month period in the summer (ie. July/August). During this time, 60 consecutive, 24-hour samples will be collected for the following parameters: Total suspended particulate (TSP), lead, nitrogen oxides (nitrogen dioxide (NO2) and nitrogen monoxide (NO), and noise.
- Four (4) outdoor sampling locations will be selected.
- A canopy will be required to position monitoring equipment under during rainy days.

TSP Sampling

- Collect four (4) TSP air samples each 24-hour period using a calibrated air sampling pump (2.5 LPM) and pre-weighed filters in cassettes.
- Battery powered pumps will be used, which will be connected to a high-capacity auxiliary battery to allow for extended pump run-times, in the absence of power outlets.
- Each week, 7-days' worth of samples, plus one (1) quality control field blank, will be sent to the laboratory for gravimetric analysis.
- Interim data will be presented in a table format each week for review.

Lead Sampling

- The same four (4) air samples collected each day for TSP above, can also be analysed for Lead on the same filter using GC/MS analysis.
- Each week, the 7-days' worth of TSP samples, plus the quality control field blank, will also be analysed for Lead using GC/MS.
- Interim data will be presented in a table format each week for review.

Nitrogen Oxides (NO2 & NO) Sampling

- Collect four (4) nitrogen dioxide samples each 24-hour period using a calibrated, direct reading electronic instrument capable of data logging.
- Battery powered monitors will be used, which will be connected to a high-capacity auxiliary battery to allow for extended instrument run-times, in the absence of power outlets.
- Each week, prepare 7-days' worth of data printouts.
- Interim data will be presented in a table format each week for review.

Noise Monitoring

- Collect four (4) noise samples each 24-hour period using a calibrated, direct reading electronic instrument capable of data logging.
- Instruments will be set to A-weighted, slow response, 3-dB doubling, and no threshold for minimum sound level.
- Battery powered monitors will be used, which will be connected to a high-capacity auxiliary battery to allow for extended instrument run-times, in the absence of power outlets.
- Each week prepare 7-days' worth of data printouts.
- Interim data will be presented in a table format each week for review.

Laboratory Detection Limits & Ministry of Environment Standards

Parameter	Limit of Detection (LOD)	MOE Standard (1-hour)	MOE Standard (24-hour)	MOE Standard (30-day)
TSP as PM44	2.8 ug/m3		120 ug/m3	
Lead	0.14 ug/m3		0.5 ug/m3	0.2 ug/m3
Nitrogen Oxides (NO2 & NO)	0 - 189 ug/m3	400 ug/m3	200 ug/m3	
Noise	20 dBA	40-50 dBA		

SCHEDULE

GTA Environmental is prepared to begin work on this project after receiving written authorization to proceed. It is anticipated that the field work will take two (2) consecutive months to complete.

Interim data will be available each week for review as the project progresses. This would include tabulated data for quick review.

A full report of our findings will be available approximately 2-weeks after the last day of sampling. An electronic pdf file will be provided. The report may also be reviewed and edited as necessary to produce the final report.

FEE STRUCTURE

We propose completing the above noted scope of work according to the following fee structure:

Service A: A lump sum fee of **$73,800.00, plus 13% HST** for 60 days of individual sampling data.

As this is a large project, a deposit is required to initiate and fund this project. After 4 weeks, a second instalment will be required. The final payment will be invoiced net 30 days after the draft report is issued.

Initial deposit requirement is $20,000.00, plus 13% HST.
Second instalment is $16,900.00, plus 13% HST.

PAYMENT TERMS & CONDITIONS

The project will be invoiced shortly after the survey, with the net payable in 30 days. 18% annual interest applies to late payments.

PROJECT AUTHORIZATION

You may authorize **GTA Environmental** to proceed with the scope of work by signing one copy of this proposal and returning it to **GTA Environmental** by fax at **1-(519) 260-1303** or by email at **mark@gtaenvironmental.com**. The client company may also issue a purchase order with their own terms and conditions.

The scope of work and associated costs related to the **Environmental Services** outlined herein has been reviewed. **GTA Environmental** is hereby directed to proceed accordingly.

Date	**Print Name and Title**
Company Name	**Signature**
P.O. Number	

Oshawa

Public Report

To:	Development Services Committee
From:	Warren Munro, HBA, RPP, Commissioner, Development Services Department
Report Number:	DS-19-129
Date of Report:	June 19, 2019
Date of Meeting:	June 24, 2019
Subject:	Public Consultation Plan for the Updated Oshawa Executive Airport Business Plan
File:	F-2510

1.0 Purpose

The purpose of this Report is to respond to the following May 21, 2019 Council direction related to the updated Business Plan for the Oshawa Executive Airport.

Attachment 1 shows the bulk mail distribution area that has been used in the past and will be used to promote the 2019 Town Hall meeting of the Airport Community Liaison Committee (A.C.L.C.).

2.0 Recommendation

That the Development Services Committee recommend to City Council:

That, pursuant to Report DS-19-129 dated June 19, 2019, staff proceed with the public consultation plan for the updated Oshawa Executive Airport Business Plan as outlined in Section 5.0 of DS-19-129.

3.0 Executive Summary

Not applicable.

4.0 Input From Other Sources

The following have been consulted in the preparation of this report:

- Airport Manager
- Director, Economic Development
- Corporate Communications
- Airport Business Plan Working Group
- A.C.L.C.

5.0 Analysis

5.1 Background

The current Oshawa Executive Airport Business Plan covers the period from 2015 to 2019.

On May 21, 2019, Council directed that staff prepare a public consultation plan for Council's approval to obtain public input during the process to update the Business Plan. On May 22, 2019, the ABPWT met to discuss the public consultation plan.

In December, 2017, Council directed that the ACLC host an annual Town Hall meeting to provide a forum to share information and obtain comments from the public on airport matters.

It is anticipated that the Airport Community Liaison Committee will be hosting a Town Hall meeting in September of 2019.

5.2 Public Input

Public input would be sought in two phases:

1. Phase 1: Information Gathering
2. Phase 2: Feedback on the draft Oshawa Executive Airport Business Plan

Consistent with City practice, all members of Council will be invited to the Town Hall meeting.

It is recommended that Lura Consulting be retained to chair the Town Hall meeting and to record the minutes of the meeting. Lura Consulting is an independent consultant with an expertise is holding public meetings. Lura Consulting effectively chaired the 2018 ACLC Town Hall meeting.

5.2.1 Phase 1: Information Gathering

It is recommended that the update to the Business Plan coincide with the September 2019 Town Hall agenda to obtain public input. This Town Hall meeting would be open to all interested parties including the public, the airport users, airport businesses and other interested parties. It is hoped that the preliminary results of the air quality assessment and noise study results will also be presented at the Town Hall meeting by the City's consultant RWDI.

Public input opportunities would include:

- Public Town Hall meeting held September 2019
- A feedback form available online on Connect Oshawa, as well as on paper at Service Oshawa, the airport and at the Public Town Hall meeting
- Stakeholder consultation between the Commissioner of Development Services, the Airport Manager and the Director of Economic Development Services and the below list of stakeholders

5.2.1.1 Phase 1: Stakeholder Interviews

In addition to the Town Hall meeting and feedback form, it is also recommended that hold a series of key informative meetings with the following:

- Transport Canada
- NavCanada
- The Region of Durham
- Town of Whitby
- The Greater Oshawa Chambers of Commerce
- Post-secondary institutions in Oshawa
- Various aviation groups
- ACLC
- ABPWG
- Representatives of CORE (Citizens Opposed to Runway Extensions)

5.2.2 Phase 2: Feedback on the draft Oshawa Executive Airport Business Plan

The next step in the process would be for staff to prepare a draft updated Business Plan for review by the Development Services Committee and Council and to obtain authorization for staff to schedule a public meeting to be held by the Development Services Committee to obtain public input on the draft Business Plan. The Air Quality and Noise Study will also be presented to Development Services Committee.

Public input opportunities would include:

- Public meeting held by Development Service Committee
- A feedback form available online on Connect Oshawa, as well as on paper at Service Oshawa, the airport and at the Public Meeting

The draft Business Plan will be referred back to staff after the Development Services Committee public meeting for further review and consideration of the public input to a future recommendation report. The final recommendation report will then be presented to Development Services Committee and Council for approval. Promotion of the Development Services Committee meeting will follow the same process mentioned above excluding the newspaper advertisements.

5.2.3 Promotion

City staff recommend the following communication tactics to promote both phases of the consultation:

- City website – Oshawa Executive Airport Business Plan Consultation information featured on www.oshawa.ca

- Connect Oshawa - Oshawa Executive Airport Business Plan Consultation information featured on www.connectoshawa.ca

- Social media –social media messaging City's corporate and Airport channels

- Advertising – newspaper and social media advertisements, as well as radio ads and a Curbex sign (for phase 1 only)

- Media relations - Oshawa Executive Airport Business Plan Consultation shared with local media and emailed to website newsfeed subscribers through the City's news and alerts

- Mailed notices to:

  - Property owners located in proximity to the airport (area generally described as Conlin Road in the north, Ritson Road North in the east, Rossland Road to the south and the Oshawa-Whitby border to the west);
  - All individuals who have provided their contact details at the two previous Airport Community Liaison Committee (ACLC) Town Hall meetings and the South Field Master Plan Public Open House;
  - All individuals who have made an airport noise submission in the last five (5) years that included a mailing address; and,
  - All tenants at the Oshawa Executive Airport.

6.0 Financial Implications

The cost to advance the public consultation including advertising, securing a venue and the service of Lura Consulting and RWDI is estimated at $16,000. The 2019 airport budget includes $100,000 for work related to the update of the Airport Business Plan including a review of Noise and Traffic Management Plan and the preparation of the Air Quality Assessment and Noise Study.

7.0 Relationship to the Oshawa Strategic Plan

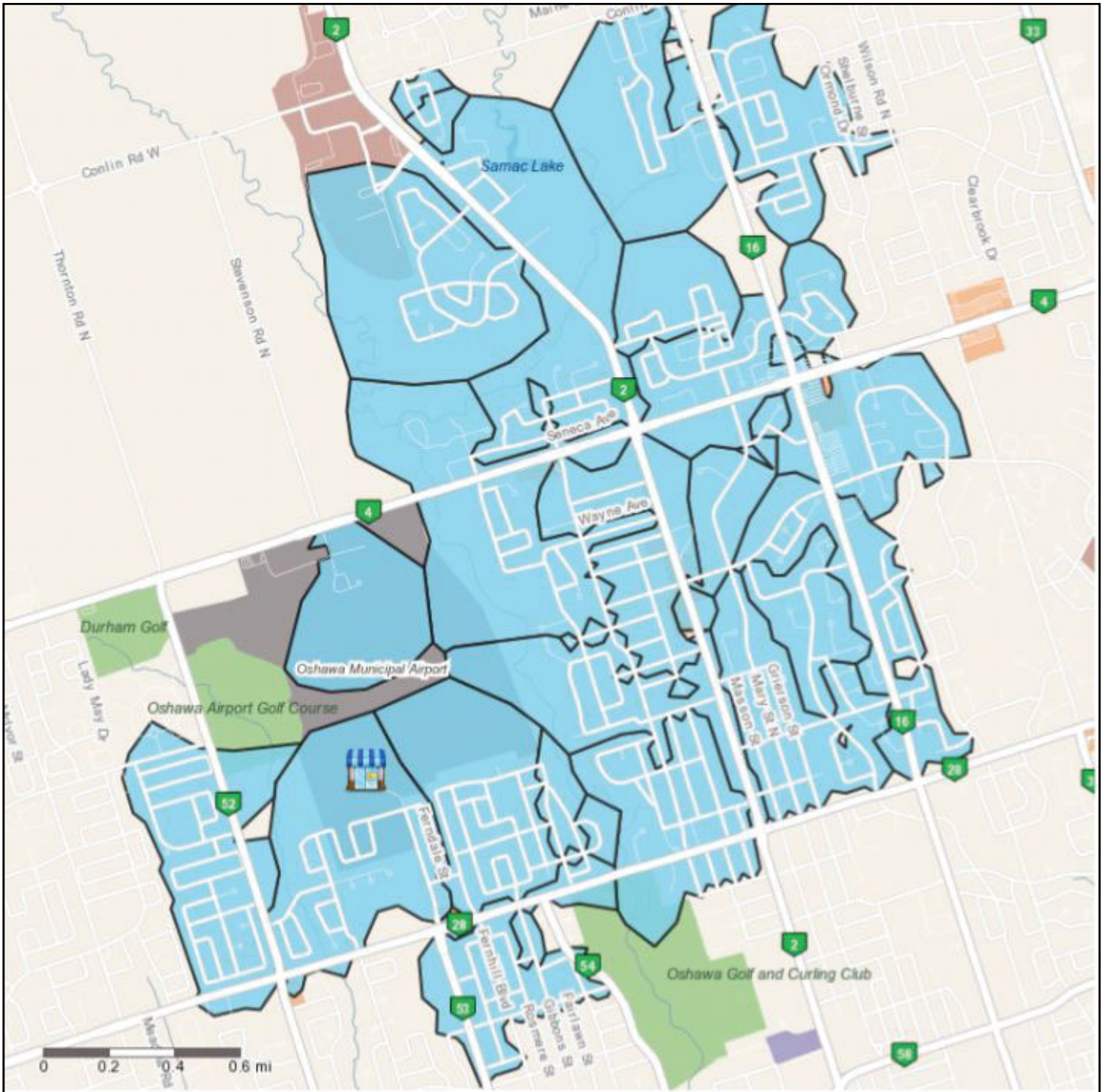
The recommendation of this Report advances the Accountable Leadership goal of the Oshawa Strategic Plan.

Warren Munro, HBA, RPP, Commissioner,
Development Services Department

DS-19-129
Attachment 1

Title: Canada Post Border Drop - Oshawa Executive Airport
Subject: Public Consultation Plan for the Updated Oshawa Executive Airport Business Plan
File: F-2510

City of Oshawa
Development Services Department



K:\Attachments\2019\06 Jun\AirQuality_Noise\pdfs\AirQuality_Noise_Att2.pdf

Individual Postal Groups to Receive Postal Drop

Oshawa Executive Airport Community Town Hall

Meeting Summary

Prepared by Lura Consulting for:
Oshawa Executive Airport
September 2019

This report was prepared by Lura Consulting, the neutral, third-party facilitator for the Oshawa Executive Airport. This Document is provided as a summary of the Community Town Hall meeting that took place on September 24, 2019. This summary is not intended as a verbatim account of events. Rather, it provides the key points that emerged from the question and answer session following the Town Hall presentation. If you have any questions or comments regarding this report, please contact:

James Roffey
Airport Operations Manager
Oshawa Executive Airport
905.576.8146
jroffey@oshawa.ca

Jim Faught
Facilitator
Lura Consulting
416.908.2304
Jfaught@lura.ca

Contents

1. Project Background

The Oshawa Executive Airport has commenced its business planning process. The 2020 – 2024 Airport Business Plan will provide a long-range vision for the airport's infrastructure and operations. The Airport Business Plan is not a regulatory document. However, it is a best management practice plan, which all levels of government/agencies use as a long-term planning tool. Prior to embarking on this process, the Airport Community Liaison Community, in conjunction with airport staff, hosted a community town hall to gather feedback from the community. The purpose of the meeting was to present an overview regarding Oshawa Council's decisions regarding the airport since the last Business Plan, review the preliminary results of noise and air quality studies being undertaken by RWDI, and to receive comments, concerns and general input from the public. All feedback collected from this meeting will be considered in the development of the 2020 – 2024 Airport Business Plan.

2. Community Town Hall Overview

The Community Town Hall took place on Tuesday, September 24, 2019, at the Oshawa Executive Airport from 5:00 pm to 9:00 pm. The meeting was publicized through leaflets distributed to over 11,000 residences in Oshawa within a twenty-kilometre radius of the airport.

The purpose of the meeting was to:

- Provide an update on decisions related to the airport since the previous 2014 – 2019 Airport Business Plan;
- Provide the preliminary results of noise and air quality studies; and
- Collect public feedback regarding the development of the Business Plan.

The meeting was split into two portions; an open house and a presentation which was accompanied follow-up question and answer session. Approximately 178 people attended the meeting.

3. Presentation

Following the open house session, a presentation on the 2020 - 2024 Airport Business Plan process and objectives was given by Warren Munro, Commissioner, Development Services, City of Oshawa. John Davis, Chair of the Airport Community Liaison Committee, commenced the meeting by welcoming participants and thanking them for their time. He then turned the floor over to the moderator, Jim Faught, LURA Consulting. Mr. Faught explained the purpose of the evening's meeting and reviewed the agenda. Mr. Faught then invited Warren Munro to the stage.

Mr. Munro began his presentation by thanking participants for attending the meeting and provided a brief introduction to his title and role as the Commissioner of Development Services at the City of Oshawa. Mr. Munro's presentation provided context information regarding airport operations, a review of the timeline of events since the last townhall (including City Council motions and resolutions), and an

overview of the phases of consultation plan and feedback opportunities. He then turned the floor over to John DeYoe, Principal and Air Quality Specialist, RWDI.

Mr. DeYoe's presentation included a brief summary of the noise and air quality studies being conducted by his firm on behalf of the City of Oshawa. While the results are still preliminary, he provided the audience with the findings that have emerged from his team's early analysis. Mr. DeYoe explained that the results of the studies will be included in the Business Plan.

4. Key Themes

Following the brief presentation, Mr. Faught invited participants to ask questions of clarification regarding the presentation, provide feedback to assist in the development of the Airport Business Plan, and express comments and concerns. The discussion lasted approximately ninety minutes and garnered significant input from community members. A summary of the key themes of the discussion is provided below. A detailed log of the questions and comments received can be found in **Appendix A**.

Noise

Participant feedback indicates that noise from aircraft taking off and landing at the airport are a concern. Several participants also noted that low-flying flight school circuits are a disturbance to daily life in the surrounding neighbourhoods. Some participants indicated that the frequency of circuits seems to have increased over the summer, which has exacerbated noise issues. Feedback suggests that the Business Plan should incorporate measures to mitigate the effects of aircraft noise on the community. Solutions included varying take-off directions, replanting trees on the berm and in other locations where they have been removed, limiting training hours for the flight schools to business hours, and reducing or prohibiting flight school training on the weekend. Participants also expressed interest in placing noise monitors in the community to measure the effects of noise in the community.

Air Quality

Comments and questions related to air quality demonstrate community concerns related to lead particulate. Residents are interested in further studies to be conducted in the surrounding neighbourhoods to determine air quality in the broader radius of the airport. Some participants also suggested conducting soil studies to determine cumulative lead levels.

Economic Output

Some participants discussed the value that the airport plays to the community in terms of economic impacts. The airport provides jobs as well as job training for future pilots and mechanics. Some participants also noted that the airport provides millions of dollars in economic output back to the community. Conversely, some participants said that the land would be better suited to a hospital or other commercial uses.

Development

A few comments related to development in proximity to the airport. There is some concern that some residential and institutional developments are being approved too close to the airport, which could result in further conflict with the community.

5. Next Steps

Jim Faught thanked participants for their time and for providing their questions and comments during the question and answer session. Mr. Faught reminded participants to stay tuned to the project website for updates. The Oshawa Executive Airport Business Plan engagement process will begin in 2019.

Appendix A: Question and Answers

This appendix represents a summary of the question and answer session that followed the presentation. The summary is not verbatim but is intended to capture the intention of the question or comment. Questions posed by the participants are noted with a '**Q**,' comments made by participants are represented by a '**C**,' and answers provided by Mr. Munro or Mr. DeYoe are represented by an '**A**.'

Q. I was an environmental scientist, with the Ontario Ministry of the Environment for thirty-six years, I now live on Glenmanor Drive. I have a couple of concerns and questions regarding the studies that have been conducted so far. I am surprised to see that you are using an air quality standard of 0.5 in a twenty-four-hour period when ministry has changed its guidelines for residential areas to a thirty-day or monthly guideline of 0.2, which is considerably lower than what you are using. Why are you using a 0.5 guideline in a sampling regime of only twenty-four hours?

A. The ministry specifies how the samples should be taken. They are twenty-four-hours in duration. Typically, they are done every sixth day. However, for this study, we are doing them every other day.

C. That is incorrect. At the point of impingement, you have a residential area. You should be using a monthly sample. That's why you should be using a monthly sample. That's why there are two criteria numbers.

A. Lead is measured by the Ministry of the Environment over a twenty-four-hour period every sixth day.

Q. Yes, it is, but only if there is no direct industrial source or no direct residential area. You use a twenty-four-hour sampling period for on-site for industrial areas, but if you are sampling as an environmental concern for public health, you use a thirty-day sampling period. This is because people are exposed to it for longer than thirty days.

A. Typically, the interval you are talking about is established through numerical modeling, not through monitoring.

Q. Do you have modeling then for a thirty-day period?

A. No.

Q. Have you done any lead analysis? As I am sure you are aware, tetraethyl lead is used in gasoline engines, which is similar to what was used in cars and was phased out in the early 1990s. We find that we are now in a situation where lead is still being used in airplanes. Have you done any studies to show the lead levels in soil in the neighbourhood? Lead is cumulative and is likely to stay in the soil in Brookside Park where young children play.

A. No. We have done an air quality study.

Q. Have you been asked to do soil analysis?

A. I have not.

Q. Let me speak about the noise sampling. All your noise analysis was done at the end of the runway on the opposite side of the berm, which was installed since the last Business Plan. Did you set up any of the noise sampling devices within the community?
A. We did not.

Q. Is there a reason why you did not set up any noise sampling within the community?
A. We wanted to collect the data for future analysis. We wanted an uncorrupted sample from the airport.

Q. My understanding is that when you have an airport so close to a community there are noise exposure contours drawn and that is used to develop Noise Exposure Projections (NEPs) based on the complaint measure. A safety metric of thirty is usually used. What we are seeing in the proposed 2020 – 2024 Business Plan is an increase in flight traffic caused by flight training movements increasing from 70,000 to 103,000. That is an increase of about thirty percent. Do you see an increase in the thirty metric contour line from Jane Avenue to Brookside Park or an increase in the number of days and frequency of these exceedances?
A. The Noise Exposure Forecast (NEF) contours that are generated for the airport would probably be regenerated again if the traffic goes up.

Q. Is that part of the contract that you have worked on at this present time?
R. What I have presented today is what we have done.

C. So, your work does not project that the number of complaints or possible concerns for residents that are suffering from noise will be addressed. You have not looked at the possibility of the increased frequency or the expansion of the contour lines beyond Jane Avenue and the south corridor.
A. At this point, what I have presented is the data we have collected. Presumably, there will be more analysis done using this data, which will be critical to do that analysis.

Q. Mr. Commissioner, can you assure the audience that new contour lines drawn taking into consideration the experience of residents due to more aircraft movements in the community?
A. As mentioned earlier, we will hear the questions and if we do not have the answer, I will commit to getting you the answer. I do not have that answer right now. Staff implements the direction of council. Council's direction to me was to prepare a noise study and an air quality study. I did not have direction from council through the resolution that Councillor Marimpietri produced to do any soil sampling. Staff do not have the authority to undertake any work unless it is dictated by City Council through resolution.

Q. All the sampling for noise and air quality were done on-site and not in the community. We want to know what we are being exposed to in both noise and air pollution. I have particular concerns that within one hundred metres of the airport on the south side; the City is promoting the use of the

property for gymnastics, which young people attend. Growing and developing minds are the most vulnerable to the toxic effects of lead. There are neurotoxins and there are effects to IQ. We should be very concerned that we are not promoting public lands and exposing people to air pollution.

A. We will be releasing the results of the studies we have conducted. If there are concerns with the manner by which the study was undertaken or the results of the study, that is what we are here to hear. This evening is for the Business Plan and is not really about the study at this point in time because we do not have the final study results back yet. These results are preliminary. I understand your concerns and I will help to point you in the right direction, but I do not have the answers to these types of questions this evening.

Q. I have not seen any of the results of the new RWDI study, but I ask if you have considered hiring an independent third-party reviewer of the study or the proposals for the tender to get the right answers to the questions that need to be asked.

A. As mentioned, we will record that comment in the minutes and come back at a later date and provide responses to them.

A. The idea of monitoring particulate in lead at the end of the runway was to demonstrate the worst possible impact.

C. I disagree with you. Unless you show us deposition zones and mapped out air plumes, I will not be able to agree with you.

Q. I live in the Glens. My comment is that wind has not been taken into account and that you are trying to normalize that out for control. However, we are impacted by wind in our community. The study should include that control but should have a comparative for the wind to measure noise in the community under windy conditions to see how loud the planes are in our neighbourhood. The study should be as real as what we experienced, not strictly scientific. If you're not in the community, and the sensors are not in the community, then you're not getting a true value of our concerns.

A. Noted. You want to see the true value of community concerns demonstrated in the studies.

Q. I'm a resident from the Glens on Fairglen. The noise level determined by the study is not accurate. Planes are not taking off at the end of the runway. Most planes do not follow that route. I have had planes crossing over my house. That is about 800 feet away from the end of the runway. How can you determine the noise level in the community?

A. As a previous member of the community has noted, there is a desire to see noise monitoring in the nearby neighbourhoods. That comment has been recorded.

Q. I live at the end of Stephenson. I Would like to know the cumulative impact of lead on the development of children.

A. Comment recorded. Thank you.

C. I live in the Glens. The parameters of the studies seem to be limited. They do not cover the full spectrum of community concerns. I would like to go for a walk in the morning and not have to worry about having an asthma attack if the wind is blowing in the wrong direction. I Would like to be able to sit outside my house on the weekends without a jet taking off and drowning out a conversation. I would like to be able to work in my garden and not have an asthma attack because the wind blows air fumes into my backyard.

A. Noted. Thank you.

Q. I live on Rossmount Avenue at Glenforest. It is a climate change week and people are talking at the United Nations about the climate crisis. There doesn't seem to be anything happening at the airport to mitigate that. We know there is noise in the neighbourhood. The goal here is not to decrease it, we want the noise mitigated, but there hasn't been a study or analysis of the methodology used to mitigate the noise. There was a berm that has never been planted. There are no trees. Trees were actually removed which obviously limits their ability to absorb noise and pollution. What mitigation parameters are possible here? There was supposed to be information to the community to deal with the berms and the trees. I do not see that. I hear now that there is another proposed flight school to come to the community. There was once a council limit on flight schools. Only two were allowed, but we know there were three. Two of them amalgamated, which means we have the impact of three flight schools anyways and now there is a proposal to bring in a fourth school. I would like to see that information shared with the community tonight so we can understand what we can do to stop it.

A. The questions we've been receiving are important. I want to refocus people on the Business Plan. The reason for this meeting is to hear what you want to see in the Business Plan. I've heard people mention the flight training schools. Tell us what you want to see in the Business Plan to help advance what you want to achieve.

Q. I live on Niagara Drive south of the university. If you want my opinion on the Business Plan, it would be to scrap the flight schools. I have a challenge to the City. You have 10,000 households giving millions in tax dollars. Yet, the flight schools are buzzing over my house every day. I can't go out on weekends. It is non-stop. Set up noise monitors on my roof. Aside from noise, what if training students make a mistake. There is an element of danger. Where will compensation come from in the event of an accident? One of these students is going to fall out of the sky. It's on your watch. Who is culpable?

A. Noted. Thank you.

C. Regarding the Business Plan, there needs to be a better measurement system for flight training, such as only allowing a certain number of planes in the air at a time is an example. Limiting operations to two flight school didn't work. The business plan needs to take control of flights so that there is a balance between the neighbourhood and airport users.

C. I reside in the Glens. I'm concerned that there is an omission in the Business Plan. I think we are creating an extended problem in the long term. There is an absence of proper land use around the

airport. There is a high-density project going on at Thompson and Gerrard. There is also a phase two planned. There is nothing more idiotic than building a residential complex underneath a flight path. You are compounding the problem by allowing for high-density household developments in proximity to the airport. In terms of environmental impact, we need to focus on more than just the airport area, don't limit the scope. There is a huge population that resides near Highway 401. We are nearing the maximum of pollutants. The airport could be a catalyst for economic development. We should focus on the worst offenders.

Q. I live on Bessborough Drive. I hear the flight schools circling. I can even read the tail numbers from my house. There are about four people in the planes that are disrupting the lives of thousands of people on the ground. Why can't they take off and land in Oshawa but do their circuits elsewhere?

C. I live on the north side of Jane Avenue. I Knew the airport was here when we moved in. I knew that there were woodlands behind our property, which compensated for the airport in our minds. We knew what the airport was and we knew that it is where it is. It was not a surprise. If the airport goes, it will become more houses. If we remove the airport, it is what goes there that concerns me. My noise monitor on my own lawn found that lawnmowers are the most disruptive. Not all aircraft are the same in terms of noise. I think we need to recognize that and that some aircraft perhaps shouldn't be allowed.

C. I live on Humewood Avenue. My neighbour is a long-term resident and has never seen as many planes as he sees now due to the flight schools. They start as early as 7:25 am on a Sunday. I don't want to see the airport go away, but they need to show respect for us. This airport is not just about the profiteers from the flight schools.

Q. I live on Westdale Street across from Brookside Park. I was at a previous town hall. You showed a graph of airplane movements. You showed us the movements from the 1970s, and then now. It was said that we wouldn't want to get back to levels from the 1970s. That threshold is where you begin to get many noise complaints from the community. When the runway expansion was discussed a few years ago an engineering firm was retained and an open house was held on Simcoe Street so the engineering firm could communicate to the community what the plan was for the runway expansion. I am an engineer. I walked into the meeting room and met someone from the City of Oshawa who communicated to me that I should go see how safe the airport is because the engineering firm here was representing safety and had done a good job in showing how this runway would bring economic benefit to the community. I walked up to an engineer and introduced myself and asked, "In your capacity, do you think an airport should be like this?" His response was to say that he was asked to look at what it would take to expand the runway. That was it. There should not be an airport so close to a residential community he said, but he wasn't asked to do that. All they were asked was to consider if the runway was extended how it would be done. My point is that consultants are retained, we do air quality and noise studies because the City asks and the results are given to the City, but the message is faulty. It is a misrepresentation. The flight school. Why is it not in Peterborough or some remote community where the noise can be better managed? When you investigate you find that the Peterborough area had to purchase land around the airport because farmers had complained that the cows were experiencing stress due to the noise. The

Oshawa City councillors are now welcoming an increased level of flight schools? I would like to know the names of the councillors that put a value of Peterborough cows above me.

C. I'm a Whitby resident and live approximately four kilometres west of the crow flies. When runway two-four is in use we have a plane over our house every few minutes. We can't talk or hear the television when the planes flyover. You've talked about the Business Plan Tonight. In terms of business, the lowest common denominator has to be the flight schools. I'm sure you have to pay your bills, but flight schools are not the answer. If you want to hear the true noise, put monitors on my house.

Q. I live on Law Street in line with the runway. A plane crashed into a house about thirty years ago. So accidents are not outside of the realm of possibility. My question is, who does airport property belong to?
A. The airport belongs to the City of Oshawa.

C. Then the airport belongs to us. Get it out of here.

C. I am the owner of one of the businesses at the airport. For me, this is a frustrating meeting. I sympathize with everyone about the noise. I Have a flight school and by the same token, everyone at the airport is stuck. When we started the business in the 1980s there was vacant land on Stephenson Road to the east. Now they have built houses. What am I supposed to do? My airplanes haven't changed, they haven't gotten noisier, but now there are houses. Why did the City allow them to build on that land? I can prove that we are not flying more planes. 150 people rely on a paycheck from our company. Our business is not trying to be mean or unduly punish the neighbourhood. We have been in operation since 1986 and haven't changed. I have people working at my company that have been there for seventeen years. I'm sure no one here wants to see people lose jobs. Other people have moved closer to the airport. It has been here since 1947. We did not move the airport closer to the houses.

Q. I live on Simcoe Street. I haven't seen info on the flight schools. How about aircraft migrating from Buttonville? Is there any information on the number of planes that might come here and what the plan is to accommodate them?

Q. My family owns property at the intersection of Thornton and Taunton where the barn is. There are doctors, a playground, and schools in the area. When you are referring to noise contour lines, I understand there are certain sensitive uses not allowed within proximity to the airport. There are identified sensitive uses, yet a mosque and faith-based school were approved whereas I have been denied. Why are we being denied, based on contour lines? We are on the same line, yet one gets approved and one does not.

Q. I live near Switzer and Donwood. The survey questions are invalid. The survey questions force people to guess. It lacks validity. Will you revise and reissue it? Otherwise, it is useless.
A. This will be taken under advisement.

C. I am with the Canadian Owners and Pilots Association. I am one of the people that embodies the airport. I was inspired to learn to fly at this airport. I got my first job at this airport. I am now a captain at an airline. I am the embodiment of what this airport means to this community. That is what this airport also means to people who are in the aviation industry. It has put Oshawa on the map. I agree that there needs to be balance. Look at both sides of the matter and not just the effects on your personal life.

D. I live in the Glens. Certain aircraft seem to be the worst offenders. Will you use the Webtrak system? That is how other airports register sound. This information will allow people to go back and identify flights.

A. Noted. You would like to see Webtrak used at the airport.

C. I was a member of the Airport Business Plan working group and helped to develop the current plan. It was a lot of hard work. We came to understandings and an understanding that what we had was an airport that would try to be pointed towards the corporate travel world and would have less reliance on flight schools. To support that aim we were counting on Buttonville Airport closing. Now, who knows when that will be. It may never close. Oshawa may close first. We were relying on corporate traffic, but it didn't come. They're not sure what they'll get here. You have to look at the new Business Plan and find some way to make the airport work so that we're not adverse to the airport, we're adverse to constant noise. The Business Plan must look at a better way to support a positive economic output that is not to the detriment to the community like the flight schools are.

Q. I live on Glenwood underneath the eastern runway. Has a study been taken to understand moving the airport and the viability of that solution? The land would be worth a lot of money if sold to developers. Would that type of study be included in the Business Plan? When a restaurant gets noise complaints, they get fined. Why doesn't the airport? It has had a negative impact on our community. Are the leases for flight schools going to be included in the business plan for the public to see what the operators are entitled to? We need transparency for the taxpayer. The solution is compromise. The solution is not just thirteen hours a day of planes taking off in one direction like they are now. Maybe a change in or variation of take-off directions would provide a reprieve. This week, from Tuesday-Saturday they only took off east. Couldn't this be varied? Include these considerations in the Business Plan.

Q. I live on Law Street and have just returned to Oshawa after fifty years living elsewhere. I had not realized the airport was such a concern. I suffer from constant aircraft circling above my house. I am happy to see the number of people here. Airports are not compatible with residential and commercial uses. The airport has become busier and noisy planes that land late and take off early are disturbing the community. What efforts are being made for the long-term movement of the airport out of the City? There is an agreement to extend the life of the airport to 2033, which I think is short-sighted. The land could be used for growth, a hospital, etc. Jobs at the airport are important, but they could be relocated north, avoiding the disruption we all suffer. Disrupting airport workers would be less of a disruption than what we all suffer from.

Q. A common theme is that the airport is not a good corporate citizen. There is no balance. We have lived in the Glens for a long time, but this is the first summer we needed to complain. We did not get satisfaction from the answers we received. The Business Plan has failed, and we want to know why. What is going to change to make the next one better?

Q. I live in the Glens. I agree with most of what has been said. Our City has changed. It has grown up around the airport and the airport has changed its use. It is time to move the airport. That should be in the Business Plan. There is plenty of land to the north. Move it closer to the 407. A second hospital is needed and would provide many more jobs than an airport. It is more beneficial to have it moved. Jets are flying in and out at 1:00 am. It seems like Learjets. In the plan, there is a section for industrial emergencies. What is an industrial emergency? Who is on those planes? I worked at GM and I know that an industrial emergency was typically just poor planning. The Business Plan needs to be tighter on restrictions until we can admit that there is no longer room for an airport in Oshawa.

C. I am a member of the Canadian Owners and Pilots Association. We deal with many of these issues. Airplanes and residents don't always co-exist well. This airport is a world-class facility. It is part of the airport infrastructure in this country and on the continent. It is also a vital portion of the transportation infrastructure for the training of pilots and mechanics. We need to find out how we can co-exist. We can't just shut it down. There is a lot at stake on the aviation side. It is part of our culture and infrastructure. The economic benefits are massive.

C. There needs to be balance and compromise for everyone. Our concerns should be seriously considered. I'm not suggesting we close the airport, but reduce the frequency of low-level flights. It seems like the flight schools are the issue today.

C. Before purchasing a house we inquired about the airport and accepted the fact there would be noise. Surely people who purchased in this area inquired about the airport. An airport represents progress for our community. We cannot shut the airport down.

Q. I am in a new subdivision behind the airport on Fairglen. When moved here we saw a lot of new houses and knew there was an airport. We asked our neighbours if the airport bothered them, and they said no. Now there is constant noise because of the flight schools. There used to be a bunch of trees near the museum. You came along and took down some mature trees. They helped with the noise. What will you do in the Business Plan to control people violating what rules have been put in place? The time of day, especially early morning, is also an issue. Is there something that happens to violators of the rules?

Q. I live on Jane Avenue. Are you doing engine run-ups on the ground? Can you also consider including vibrational analysis in your testing? Vibrations are dangerous for humans. If aircraft are doing run-ups, they should be done on run-up pads.

C. I am from Whitby and am concerned about noise. I think the Business Plan should set out that the flight schools can only operate during business hours. We should be able to enjoy our homes as we pay lots of tax dollars.

Q. I live on Bessborough Drive and we knew this meeting was coming but haven't received much information. Can you give us a printout of the flights for June, July and August? We are asking questions based on guesses as there is no concrete data that you've shown us. We need the aircraft numbers so that we can make educated comments

Q. I live on Gardenia Court. The flight school is our biggest concern. What can be done? I suggest you limit action, do not renew leases, and work with owners to move them out. We want to see the de-escalation of flight school operations.

Q. I live on the Whitby-Oshawa border. The Jets are for transplant teams. They're not for executives. Is that right?
A. This will be clarified.

C. Some of the noise being noted is from Dash 8 airplanes are flying at 4000 feet going into Billy Bishop Toronto City Airport. It's a noise that has nothing to do with business here.

C. I live on the ravine in the Glens. There is no question in my mind that airport traffic has increased. This year was the first time we issued a complaint. This year seems significantly different. The planes are supposed to fly over the ravine, but they're flying over our house. There is a sense of danger. I would like to see two things in the Business Plan. In the full context of health consequences, please include the mental health consequences of the airport in the Business Plan. My second point is climate change. I would like to know what the latest technology is to reduce noise and other pollutants. This airport could be on the cutting edge of environmental policies.

C. I live on Glenwood Crescent. Airport traffic is getting worse. This summer was insane. We couldn't go into our backyard. I don't think you understand how loud it is. This number of people in this room does not represent the amount of people that are being disturbed.

C. I am an instructor working here. Are the building codes for homes equivalent from Oshawa to the Niagara region? There seems to be a difference in building quality that makes sound more noticeable in the homes here.

C. I was directed to the last Business Plan. I want accountability and metrics for accountability in the new Business Plan. The berm was a great idea (north of Jane Avenue). On taxiing, the berm would reduce the noise level about six to nine decibels. It worked, I don't hear taxiing. On taking off it would reduce the sound by two decibels. It was noticeable but insignificant. Previously, there were trees, but now they are gone. There needs to be oversight of actions to reduce noise. Has erosion been considered? The impact of a two-decibel reduction never happened. The plans are there but aren't being done completely.

C. I am a neighbour of the airport on Jane Avenue. Since you built the berm, we have experienced flooding issues. Please look at the impact of berm on flooding problems for Jane Avenue residents.

Q. The circuits fly over my house all day long. They do this until 10:30 pm every night even in the winter. They've recently completed a noise study for the Peterborough Airport. Couldn't you increase the circuit altitude to mitigate noise? Can we get an answer on that from Transport Canada? We need to reduce flights and mitigate noise. Moving the airport isn't going to happen tomorrow, but we need a definitive mitigation plan. The situation now is intolerable.

A. I was involved with noise abatement procedures implemented at the Peterborough Airport. It is a long process to go through. Published procedures do exist. It is an option here, but it is a lengthy process.

C. I would like to see a plan that is cost-prohibitive for planes to locate, park and fuel at this airport. We're supposed to be looking at climate change and mitigation to transfer to a fossil-fuel-free economy. We need to make polluters pay, limit hours of operation, and perhaps residents shouldn't be paying. The tax dollars could go to mitigation such as regreening the airport. Also, include better public relations and the replacement of all trees and environmental damage against the Oshawa Creek south of the airport lands.

Q. I am not familiar with the Airport business. What is the budget for the municipal airport?

A. The airport has an operating deficit of $400,000, but the deficit is offset by a profit of $1.5M.

Q. The biggest customers are flight schools?

A. That is a complex answer. We'll provide a response. It is in the existing plan and it will be in the upcoming Business Plan.

Q. To bring more revenue, does that mean there has to be more flights?

A. This question will be noted in the minutes.

David Purkis
Oshawa Control Tower
Direct Line / Ligne directe 647-457-4911
Email / purkisd@navcanada.ca

September 24th, 2019

Mr. Steven Wilcox
Total Aviation Solutions
1200 Airport Boulevard
Oshawa Ontario, L1J 8P5

Subject: Council Resolution Regarding Oshawa Executive Airport Updated Business Plan (May 21, 2019)

Mr. Wilcox:

Thank you for your interest in NAV CANADA's operations at the Oshawa Executive Airport. We are pleased to provide a response to the City's motion and to clarify our role and responsibilities.

NAV CANADA is the private, not for profit organization responsible for the safe and efficient movement of aircraft in Canadian airspace. We achieve this through the provision of services, including Air Traffic Control, Flight Information Services, Aviation Weather Services, Aeronautical Information and Navigational Aids. The first priority of our more than 5,000 employees - working out of approximately 100 facilities across the county - is always safety. One of those facilities is the newly built air traffic control tower at Oshawa Executive Airport, where a team of 15 controllers keep a watchful eye on aircraft using the airport.

Controllers at the airport direct aircraft, maintaining safe separation between operators while ensuring an expeditious flow of traffic. They deliver this service by providing landing and take off clearances and directing them within the control zone, which stretches to a radius approximately five nautical miles surrounding the airport. In doing so, air traffic controllers direct traffic using Transport Canada-approved procedures while respecting the Airport Authority's established Noise Abatement Procedures. NAV CANADA does not have a direct role in an aircraft operator's decision to utilize the airport, nor does the company have the authority to restrict air traffic.

NAV CANADA uses Transport Canada runway selection criteria to determine which runway will be in use at any given time. Some of the key considerations in runway selection include wind (aircraft land and take off against the wind), the airport's preferential runway system, runway length and surface conditions, weather, capacity, traffic mix, ground sort and available taxiway infrastructure. NAV CANADA is sensitive to the noise concerns of its neighbours and, as a result, participates in the airport's Community Liaison Committee as a technical advisor and remains committed to the application of abatement procedures in place at the airport.

We hope this helps clarify NAV CANADA's role at the Oshawa Executive Airport. Should you have any further questions, please do not hesitate to reach out to me directly.

Sincerely,

David Purkis

Site Manager | Gestionnaire d'emplacements

Oshawa Executive Airport

Oshawa

Public Report

To:	Council in Committee of the Whole
From:	Warren Munro, HBA, RPP Commissioner, Development Services Department
Report Number:	CNCL-20-66
Date of Report:	May 20, 2020
Date of Meeting:	May 25, 2020
Subject:	Internal Audit of the Oshawa Executive Airport by KPMG
File:	D-4600-0015

1.0 Purpose

The purpose of this Report is to present the KPMG internal audit report for the Oshawa Executive Airport.

Attachment 1 consists of the KPMG internal audit dated May, 2020 for the Oshawa Executive Airport.

2.0 Recommendation

It is recommended to City Council:

That Report CNCL-20-66 dated May 20, 2020 and Attachment 1, being the KPMG Internal Audit for the Oshawa Executive Airport dated May, 2020 be received for information and that the recommendations and management responses in KPMG Internal Audit be endorsed as the general basis for improvements at the Oshawa Executive Airport.

3.0 Executive Summary

Not Applicable.

4.0 Input From Other Sources

The audit of the Oshawa Executive Airport by KPMG was conducted with the involvement of the appropriate City employees and the Airport Manager of Total Aviation and Airport Solutions (T.A.A.S.). KPMG also reviewed information from other municipalities related to municipal airport operations.

5.0 Analysis

The 2019 Council-approved audit plan included an audit of the Oshawa Executive Airport.

The Internal Audit of the Oshawa Executive Airport report (see Attachment 1) includes 5 recommendations. The recommendations relate to the following aspects of the Oshawa Executive Airport:

1. Clarifications to the TAAS Management Agreement;
2. City oversight regarding the noise complaints process;
3. Review of monthly revenue supporting documentation;
4. Procurement process over the use of independent contractors and use of city staff; and,
5. Formalized roles and responsibilities for capital projects.

The KPMG recommendations and the City's management response will be the basis for implementing on-going improvements for the Oshawa Executive Airport.

6.0 Financial Implications

There are no financial implications with this Report. Any future financial implications will be addressed during annual budget submissions or in separate reports.

7.0 Relationship to the Oshawa Strategic Plan

The audit of the Oshawa Executive Airport addresses the Accountable Leadership goal of the Oshawa Strategic Plan.

Warren Munro, HBA, RPP Commissioner,
Development Services Department

City of Oshawa

Internal Audit – Oshawa Executive Airport

Overall report rating
Significant assurance with minor improvement opportunities

KPMG LLP

May, 2020

Contents

Appendices

Distribution

- Jerry Shestowsky - Manager, Administrative and Access Services
- Tom Goodeve (Director, Planning Services)
- Kevin Alexander (Director, Facility Management Services)
- Mike Saulnier (Director, Operations Services)
- Tracy Adams (Commissioner, Corporate Services)
- Lorraine Fuller (Co-ordinator, Financial Reporting and Planning)
- Stephen Wilcox (Total Aviation and Airport Solutions)

Sponsor

- Warren Munro – Commissioner, Development Services

Section One

Executive Summary

Conclusion

We have provided a grading of "significant assurance with minor improvement opportunities" for the internal audit review of the Oshawa Executive Airport (referred to as "the Airport"). As part of our review we assessed key operational and financial functions in the operation of the Airport, with emphasis on the roles and responsibilities of the City and Total Aviation and Airport Solutions ("Service Operator" or "TAAS"). In addition, we reviewed the noise complaints management process, and process for retaining contractors.

During our review, it was noted the Service Operator maintains the Airport in a professional manner, the Airport Manager has long standing experience and expertise in the aviation industry and is well-versed in Transport Canada requirements. As part of our review we assessed the structure within the City for the overall oversight of the Service Operator management of the Airport. It was noted that processes and responsibilities between the City and the Service Operator have evolved since the initial Total Aviation and Airport Solutions Agreement ("TAAS Agreement") was signed in 2006, which has allowed for the continued operation of the Airport. However, the TAAS Agreement requires amendments to reflect current processes, specifically the roles and responsibilities and interactions between the City and the Service Operator relating to Airport leases and tenant contracts, noise complaints process, the initiation, planning, execution, performance/monitoring, and project close for capital projects, the use of independent contractors, and the required reporting submitted to the City. See Appendix A for further details.

Our review and discussions with the City and Service Operator noted a strong working relationship between the two parties which had been fostered over a decade working together. We noted that the Service Operator is responsible for handling all noise complaints at the Airport, and responses to resident complainants were performed in an efficient manner. However, we did identify instances where increased oversight by the City over Service Operator activities is recommended, including how complaints are being tracked and reported, and the timeliness and appropriateness of responses provided by the Service Operator (See Appendix B for more details). We noted similar observations as part of our review of the Service Operator procurement process for independent contractors, where the City does not have oversight as to the procurement selection methods used to select contractors.

Our review of City reimbursed expenses to the Service Operator noted appropriate controls in place to authorize them. Our review also noted an efficient annual airport budgeting process between the City and Service Operator and efficient monthly submission and preparation of the revenue and expense invoice. We did however note that an audit over the Service Operator financial records and documentation has not yet been performed since the inception of the agreement. As leading practice, we

recommend that a review by an external party over the Service Operator's accounting records be performed to gain comfort over the completeness and accuracy of the information being reported to the City.

Background

This review forms part of the Internal Audit Plan for 2019 for the City of Oshawa ("City" or "Corporation"). Oshawa Executive Airport ("The Airport") is owned by the City, and managed by Total Aviation & Airport Solutions ("TAAS" or the "Service Operator"). The Airport is a key component of the Region's transportation infrastructure.

The Oshawa Executive Airport is an executive level regional airport in operation since 1997. It requires specialized management services to ensure efficiency, effectiveness, compliance with technical and statutory requirements, high standard of safety and reduced municipal liability. As a result, the Airport has been operated and managed by a third party airport Service Operator. In 2006, Total Aviation and Airport Solutions (TAAS) replaced the previous private airport management service operator (SERCO) in operating and managing the Airport. The agreement between the City of Oshawa and TAAS (effectively referred to as the "TAAS Agreement") states that the Airport Lands and the Airport will continue to be owned by the City of Oshawa, and the Service Operator is responsible for the operation, management and repairs to the Airport, subject to, and in accordance with, the terms and conditions of the TAAS Agreement.

Objective

Objective	Description of work undertaken
Objective one Review of Airport operations	We reviewed a number of key operational and financial aspects of the Oshawa Executive Airport including: • The structure within the City for the overall management of the Airport; • The process for reviewing the financial and operational performance of the Airport's key activities, including the process for creating budget forecasts and measuring these against the actuals; • The complaints management process, specifically relating to key complaints around flight activity and noise; • Roles and responsibilities for dealing with the various tenants that exist (e.g. radio station, developer, Skyway Café) • Responsibility for repairs, maintenance and capital work; • City staff allocated to the Airport; • The process for retaining contractors and how the City manages and monitors work performed by contractors / vendors; and • Any relevant reporting provided to or by the City (including

Objective	Description of work undertaken
	through relevant Committee of Council) on the financial and operational performance of the Airport. As part of our review we undertook a scan of comparative airports and provided any leading practices where relevant. We reviewed key processes and controls and undertook testing as necessary.

Recommendations raised

We have raised the following recommendations (high priority represents the most urgent and high risk category):

	High	Medium	Low	Total
Raised	0	2	3	**5**
Accepted	0	2	3	**5**

Acknowledgement

We thank the staff involved for their help in completing this review.

Contact Information

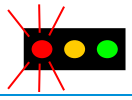
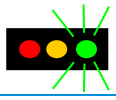
The contacts at KPMG in connection with this report are:

Nick Rolfe, Partner Tel: (416) 777-3543 nicholasrolfe@kpmg.ca	Luca DeFazio, Manager Tel: (416) 228-7245 ldefazio@kpmg.ca	Aneesa Manji, Consultant Tel: (416) 476-2918 aneesamanji@kpmg.ca

Section Two

Recommendations

This section summarizes the recommendations that we have identified from our work. We have given each of our observations a risk rating as follows:

Priority rating for recommendations raised		
High – (Priority One): Issues arising referring to important matters that are fundamental and material to the system of internal control. The matters observed might cause a system objective not to be met or leave a risk unmitigated and need to be addressed as a matter of urgency. 	Medium – (Priority Two): Issues arising referring mainly to issues that have an important effect on the controls but do not require immediate action. A system objective may still be met in full or in part or a risk adequately mitigated, the weakness represents a deficiency in the system. 	Low – (Priority Three): Issues arising that would, if corrected, improve internal control in general but are not vital to the overall system of internal control. These recommendations are of leading practice as opposed to weaknesses that prevent systems objectives being met. 

#	Risk	Recommendation	Management response, owner and deadline
1	● (Med)	**Clarifications to the TAAS Agreement** As part of our review of the TAAS Agreement and discussions with the Airport Manager and the City, we noted instances where the current interactions and processes between the Service Operator and the City require further clarification in the TAAS Agreement. We prepared a summary of processes and activities based on the walkthroughs conducted throughout the engagement to compare the TAAS Agreement to the current process state (Refer to Appendix A). <u>We Recommend</u> The City of Oshawa leverage the summary of processes in Appendix A to update the TAAS agreement to be reflective of current processes. Additionally, the summary may be used to identify areas where the City may wish to add additional oversight to current processes currently being	1. The City and TAAS Agree - The City's draft Real Estate Manual now contains finalized procedures regarding leases, including leases at the Oshawa Executive Airport. The role of the Service Operator in such instances is identified, together with the required interaction between Planning Services staff and the Airport. 2. The City and TAAS Agree – the City will work with the Service

#	Risk	Recommendation	Management response, owner and deadline
		performed by the Service Operator. In particular, the TAAS Agreement requires clarification in the following areas: 1. Leases and Tenant Contracts – clarification in the TAAS Agreement to reflect the increased role of Planning Services in the initiation and tracking of upcoming lease renewals. The Service Operator continues to manage tenants on a day to day basis including collecting monthly revenue, while the contract agreement preparation and negotiations process is driven by Planning Services at the City, with assistance from by Service Operator, Airport Manager for technical expertise. 2. Noise Complaints Process – clarification in the TAAS Agreement as to the tracking, follow-up and documentation for addressing resident noise complaints. Also, documenting the recommended updated process for City oversight as to the tracking, follow-up and documentation for addressing resident noise complaints (Refer to Recommendation #2 for further details). 3. Independent Contractor – clarification in the TAAS Agreement that the City have oversight of the process utilized by the Service Operator in the selection of independent contractors, along with a clause allowing the City to review the Service Operator process for selecting independent contractors (Refer to Recommendation #4 for further details). 4. Capital Project Roles and Responsibilities – clarification in the TAAS Agreement as to the roles and responsibilities performed by Facility Management Services and the Service Operator related to the initiation, planning, execution, performance/monitoring, and project close for capital projects (Refer to Recommendation #5 for further details). 5. Service Operator Expense vs. City Expense – janitorial expenses as per the TAAS Agreement,	Operator to update the TAAS Agreement to clarify the tracking, follow-up and documentation for addressing resident noise complaints as performed by the Service Operator. Owner: Commissioner, Development Services (Warren Munro) Completion date: June 2021 3. The City and TAAS Agree – the City will work with the Service Operator to update the TAAS Agreement to include additional oversight by the City as to the processes utilized by the Service Operator to select independent contractors. Owner: Director, Facility Management Services (Kevin Alexander) Completion date: June 2021 4. The City and TAAS Agree – the City will work with the Service Operator to update the TAAS Agreement to reflect the current roles and responsibilities performed by Facility Management Services and the Service Operator.

#	Risk	Recommendation	Management response, owner and deadline
		are identified to be incurred by the Service Operator. This has subsequently changed, where janitorial expenses are now incurred by the Service Operator and reimbursed to the Service Operator by the City. The TAAS Agreement is to be updated to reflect the change (Refer to Appendix C for testing performed). 6. Required Reporting to the City – the frequency of reports submitted by the Service Operator to the City have changed since the initial TAAS Agreement was finalized and require updating to Schedule B to reflect current frequencies. Additionally, the City should consider a requirement for the Airport Performance Report (first prepared on May 29, 2019 by the Service Operator confirming fulfillment of TAAS Agreement requirements) to be prepared for the City on a recurring regular basis, i.e. annually. (Refer to Appendix E for the summary of updates).	Owner: Director, Facility Management Services – (Kevin Alexander) Completion date: June 2021 5. The City and TAAS Agree – the City will work with the Service Operator to update the TAAS Agreement to reflect that janitorial services will be incurred by the Service Operator and reimbursed back by the City. Owner: Director, Facility Management Services (Kevin Alexander) Completion date: June 2021 6. The City and TAAS Agree – the City will work with the Service Operator to update the TAAS Agreement for the frequency of reporting submitted by the Service Operator to the City based on current agreed frequencies. Owner: Commissioner, Development Services (Warren Munro) Completion date: June 2021
2	● (Med)	City Oversight Regarding the Noise Complaints Process As part of our review of the noise complaints process, we noted there is limited oversight by the	1. The City and TAAS Agree – the City will research mechanisms and options to monitor the Service Operator

#	Risk	Recommendation	Management response, owner and deadline
		City over the noise complaints process as managed by the Service Operator. Currently, all noise complaints are directed to the Service Operator and there is no formalized requirement for the Service Operator to report on the actions it has taken to follow-up on complaints. We noted the following observations when conducting walkthroughs of the noise complaints process as managed by the Service Operator: I. There is no defined target turnaround time to respond to resident complaints II. The noise complaints tracker currently does not reflect when and who responded to the complaint received. There is a risk that a complaint can be missed and not responded to in a timely manner or at all. Additionally, supporting documentation of responses are only retained physically in a binder and therefore can easily be missed. III. The City lacks oversight over the monitoring of complaints and the responses provided to resident complaints. There is no formal requirement by the Service Operator to report on actions taken, where the extent of communication with the City is via the Airport Community Liaison Committee and the Business Plan team on a periodic basis. Refer to Appendix B for the results of the testing performed on noise complaints recorded in 2019 and process improvement opportunities identified. <u>We recommend</u> The City increase the level of oversight over the noise complaints process to ensure adequate follow-up and recording of resident complaints, as performed by the Service Operator. The following are specific recommendations: 1. Service Oshawa to review and be cc'ed on all responses to complaints by the Service Operator and to monitor the complaints process as	complaint response process. Owner: Commissioner, Corporate Services (Tracy Adams) Completion date: June 2021 2. Agreed – same as 1 above. Owner: Commissioner, Corporate Services (Tracy Adams) Completion date: June 2021 3. The City and TAAS Agree – the City will discuss and agree with the Service Operator what options are available to track this information related to complaints filed. Owner: Commissioner, Development Services (Warren Munro) Completion date: June 2021 4. The City and TAAS Agree – the City will ask the Service Operator to update its standard operating procedures to respond within 48 hours of receiving a complaint. Owner: Commissioner, Development Services (Warren Munro)

#	Risk	Recommendation	Management response, owner and deadline
		performed by the Service Operator. 2. Require all noise complaints be issued and responded through a central portal on the City website, in order to maintain completeness of all responses in a central repository that is easily accessible by the City. Process improvement opportunities relating to the documentation and tracking of complaints include: 3. Enhancing the complaints tracker (as maintained by the Service Operator) to include a field to enter the exact date that a complaint was received, the date the complaint was responded to by a member of the Service Operator team, the date the complaint was resolved, and the name of the individual on the Service Operator team who responded to the complaint. 4. Updating of the standard operating procedures for the Service Operator including a standard response time to respond to complaints. Response times should be consistent with response times for other types of complaints the City receives. 5. Adoption of a policy to document voice conversations related to complaints and e-mail communication summary responses be sent to the City to ensure adequate oversight of the complaints management process.	Completion date: June 2020 5. The City and TAAS Agree – the City will research and discuss with the Service Operator what mechanisms can be used to provide the City oversight of complaint responses. Owner: Commissioner, Development Services (Warren Munro) Completion date: June 2021
3	● (Low)	**Review of Monthly Revenue Supporting Documentation** Our review of the financial and operational performance of the Airport's key activities included the assessment of the monthly reporting processes. We noted on a monthly basis that the Service Operator reports to the City revenues generated at the Airport. As part of the review, we noted there is no requirement to submit supporting documentation to substantiate the monthly revenues reported. Additionally, no formal monthly comparative analysis is performed to identify anomalies/ inconsistencies in	1. The City and TAAS Agree – the City will consider an appropriate time to exercise its option to perform an audit over the Service Operator' records, supporting documentation and account records. Owner: Coordinator, Financial Reporting and Planning (Lorraine Fuller)

#	Risk	Recommendation	Management response, owner and deadline
		the amounts collected. We recommend 1. The City consider exercising its option per 10.1 of the TAAS Agreement to perform an audit of the records, supporting documentation and accounting records at the Airport to gain comfort over the completeness and accuracy of the amounts being reported.	Completion date: Audit scheduled for June 2021
4	● (Low)	Procurement Process over the use of Independent Contractors and use of City Staff Our review of the process to identify, select, retain and monitor independent contractors by the Service Operator noted limited oversight by the City. Additionally, a formalized document that outlines the process used by the Service Operator to select independent contractors does not exist. Through discussions with the City, it was noted the purchasing by-law is the mandated guideline the City uses in order to identify appropriate independent contractors to employ. The Service Operator is not required to follow the City purchasing by-law mandate. As per the TAAS Agreement section 5.1 (f), the Service Operator has the discretion to select and utilize independent contractors (Refer to Appendix A for extract of 5.1 (f)). Also, the Service Operator has the option to utilize the services of the City to operate the Airport, however, there is no requirement for the Operator to utilize City resources. For independent contractors, at a minimum, two quotes are requested and assessed by the Service Operator before determining the contractor. This information is currently not provided to the City for review and the Service Operator has complete oversight of the work performed by the independent contractors. We recommend 1. The process to identify, screen, select and monitor independent contractors be documented as part of the Service Operator policies. We recommend that the City have oversight of the	1. The City and TAAS Agree – the City and the Service Operator will discuss a mechanism to review and have oversight of the policies and procedures used by the Service Operator to select independent contractors. Owner: Manager of Purchasing Completion date: June 2021 2. The City and TAAS Agree – the City will discuss and agree with the Service Operator criteria for the use of City staff (or City contractors) to perform required maintenance or repair work at the Airport (prior to engaging independent contractors). Owner: Director, Facility Management Services – (Kevin Alexander) Completion date: June 2021

#	Risk	Recommendation	Management response, owner and deadline
		policy and procedures utilized by the Service Operator to select independent contractors, including the right to review documentation retained by the Service Operator in the selection of independent contractors. 2. In addition, criteria for the use of City staff to perform required maintenance or repair work at the Airport (prior to engaging independent contractors) should be included as part of a revised TAAS Agreement.	
5	● (Low)	**Formalized Roles and Responsibilities for Capital Projects** Our review identified a lack of clearly defined roles and responsibilities related to the initiation, planning, execution, performance/monitoring, and project close for capital projects. Responsibilities for capital projects at the Airport are not clearly delineated between the Service Operator and the City. This was corroborated through discussions with the City and the Service Operator. As per the TAAS Agreement section 5.1 (a and k), the Service Operator is responsible for the maintenance of the Airport and recommending to the City in writing, from time to time, prudent ways of operating, maintaining and repairing the Airport (Refer to Appendix A for extract of 5.1 (a and k)). The TAAS Agreement does not explicitly state responsibilities (Service Operator or the City) in relation to capital additions to the Airport. <u>We recommend</u> 1. The roles and responsibilities be clarified related to the initiation, planning, execution, performance/monitoring, and project close for capital projects. This should include the responsibilities of the Service Operator along with respective groups at the City (including Facility Management Services). 2. We recommend that Facility Management	1. The City and TAAS Agree – the City will work with the Service Operator to update the TAAS Agreement to reflect the current roles and responsibilities performed by Facility Management Services and the Service Operator. Owner: Director, Facility Management Services – (Kevin Alexander) Completion date: Complete and on-going 2. The City and TAAS Agree – the City and Service Operator will continue holding recurring monthly touchpoints. Owner: Director, Facility Management Services – (Kevin Alexander) Completion date: Complete and on-going 3. The City and TAAS Agree – the City will

#	Risk	Recommendation	Management response, owner and deadline
		Services and the Service Operator continue holding recurring monthly touchpoints to discuss upcoming capital projects, status and respective roles on the projects. 3. We recommend that at the beginning of each capital project, roles and responsibilities be defined and outlined as part of the project charter.	outline roles and responsibilities with the Service Operator in a project charter, at the beginning of each capital project. Owner: Director, Facility Management Services – (Kevin Alexander) Completion date: Complete and on-going

Appendices

Appendix A: Clarifications to the TAAS Agreement

We conducted interviews between October 9, 2019 and November 15, 2019 with the Service Operator and respective members of the City that have interaction with the Airport to better understand operations and logistics at the Airport. Our review was primarily to assess the current processes as performed by the City and the Service Operator, and compare to the TAAS Agreement to identify areas within the agreement which require clarification and/or updating.

The City of Oshawa may wish to leverage the following table to update/ clarify roles and responsibilities and activities for the management of the Airport as performed by the Service Operator and the City.

Area of Focus	Excerpt from the TAAS Agreement	Responsible as per TAAS Agreement?	TAAS reflects current process?	Current parties involved in the process?	Current activity	City Management Actions
Roles and responsibilities for dealing with the various tenants that exist (e.g. radio station, developer, Skyway Café)	As per section 5.1 General Management, of the TAAS Agreement, "The Operator agrees to perform all appropriate and necessary management services to operate, manage, maintain and repair the Airport on a 24 hour/ 7 days per week basis". In addition, "(m) supervision and control of the activities of users of the Airport, tenants, concessionaires and holders of privileges and their employees, including the dispossession of users and tenants for non-payment of rent or other reasonable cause, or the termination of the rights of concessionaires or licensees for similar proper cause".	Service Operator	No	City of Oshawa: - Planning Services - Tom Goodeve (Director, Planning Services) - Development Services Committee Service Operator:	Director, Planning Services, is responsible for tracking upcoming renewals, negotiations, new licenses and leases, acquisitions and disposals. Development Services Committee is responsible for approving new licenses and leases. The Airport Manager is responsible for managing the tenants at the Airport. Additionally	Revise the TAAS agreement to reflect Planning Services role and responsibility in the tenant lease/ licensing process.

				- Stephen Wilcox (Airport Manager) - Dorothy Thompson (Admin & Finance Manager)	responsible for the license of the T hangars. The Service Operator Administration and Finance Manager is responsible for collecting the income and remitting it to the City on a monthly basis.	
The complaints management process, specifically relating to complaints around flight activity and noise	As per section 5.1 General Management, of the TAAS Agreement, "The Operator agrees to perform all appropriate and necessary management services to operate, manage, maintain and repair the Airport on a 24 hour/ 7 days per week basis". In addition, "(n) operating and managing the Airport in a manner that is sensitive to the surrounding neighborhood, including noise levels".	Service Operator	No	Service Operator: - Stephen Wilcox (Airport Manager) - James Roffey (Operations Manager) - Carlene Mitchell (Manager - Safety and Compliance) City of Oshawa and Service	The Service Operator is responsible for tracking and addressing all complaints through Service Oshawa, Airport Feedback Form and phone calls/ e-mails received directly or through city members. The ACLC will provide input and feedback on all areas of community awareness and outreach relating to the Airport.	Revise the TAAS agreement to reflect who is responsible for tracking and addressing the Airport Noise complaints. Additional oversight should be established by the City (refer to Appendix B).

				Operator: Airport Community Liaison Committee (ACLC)		
The process for retaining independent contractors, including how the City manages and monitors work performed by contractors / vendors; and City staff allocated to the Airport	As per section 5.1 General Management, of the TAAS Agreement, "The Operator agrees to perform all appropriate and necessary management services to operate, manage, maintain and repair the Airport on a 24 hour/ 7 days per week basis". In addition "(f) selection and employment of an Airport Manager, as an employee of the Operator, and such other personnel, as employees or independent contractors of the Operator, as are necessary for the proper operation and management of the Airport".	Service Operator	No – to be revised based on Recommendation #4	Service Operator	Service Operator is responsible for hiring, managing and monitoring independent contractors used at the Airport.	Revise the TAAS agreement to include requirement for the identification, screening, selection and monitoring of independent contractors be documented by the Service Operator and for the City to have oversight of the policy and procedures utilized by the Service Operator to select independent contractors In addition, criteria for the use of City staff to perform required maintenance or repair work at the Airport (prior to engaging

						independent contractors) should be included as part of a revised TAAS Agreement. (Refer to Recommendation #4).
Responsibility for capital assets at the Airport	As per section 5.1 General Management, of the TAAS Agreement, "The Operator agrees to perform all appropriate and necessary management services to operate, manage, maintain and repair the Airport on a 24 hour/ 7 days per week basis". In addition, "(a) manage, operate and contract on behalf and at the expense of the City for the maintenance and repair of the Airport in accordance with the Business Plan and Budget, and the terms of this Agreement, including purchasing, fire prevention, security, repairs, janitorial services, promotions, advertising, energy conservation". "(k) recommending to the City in writing, from time to time, prudent ways of operating, maintaining and repairing the Airport".	TAAS does not explicitly state responsibilities (Service Operator or the City) in relation to capital additions to the Airport.	No	City of Oshawa: - Kevin Alexander (Director, Facility Management Services) Service Operator: - Stephen Wilcox (Airport Manager)	The City of Oshawa is responsible for approving the annual capital budget which includes capital projects at the Airport. Director, Facility Management Services is responsible for capital planning and long term maintenance for vertical building assets at the Airport. The Airport Manager will reach out to the Director of Facility Management Services directly for major capital projects required at the Airport. He will also include Airport capital projects	Revise the TAAS agreement to reflect the split between responsibilities for the City and the Service Operator for capital projects.

	TAAS does not explicitly state responsibilities (Service Operator or the City) in relation to capital additions to the Airport.				that fall under his responsibilities in his annual capital budget to the City of Oshawa. The Service Operator will include Airport capital projects that fall outside of the Director of Facilities Management responsibilities in their annual capital budget to the City of Oshawa, mandated by the 25 year capital plan included in the 2015 business plan.	

The process for reviewing the financial and operational performance of the Airport's key activities, including the process for creating budget forecasts and measuring these against the actuals	10.3 Quarterly Statements In addition to the monthly financial statements required by Section 10.2 hereof, the Operator shall provide quarterly reports in respect of each quarter in each year, on balance sheet items designated from time to time by the City, including aging of accounts, receivables, inventory, and accounts payable, prepared in accordance with GAAP, where applicable. The quarterly reports for the quarters ending March 31, June 30, September 30, and December 31 in each year shall be delivered on or before April 30, July 31, October 31, and January 31, respectively, in each year.	Service Operator	No	City of Oshawa: - Lorraine Fuller (Coordinator - Financial Reporting and Planning) - Jessamyn Adams (Tax Accounting Analyst)	No quarterly financial statements are prepared and sent to the City by the Service Operator. The Service Operator submits invoices to the City twice per month including expenses incurred by the Service Operator. The City's Finance team is responsible for preparing a monthly budget vs. actual analysis for CLT and quarterly budget vs. actuals analysis for Council from information in the PeopleSoft accounting system. The Coordinator for Financial Reporting and Planning is responsible for coordinating with the Airport Manager on any issues with the G/L coding of expenses in PeopleSoft.	Revise the TAAS agreement to reflect that the City Finance team prepares a Quarterly budget to actuals report using information which is provided by the Service Operator twice per month.

	10.4 Annual Financial Statements By February 28th of each Operating Year, the Operator agrees to cause to be prepared, on behalf of the City, reasonably detailed financial statements for the operation, management, programming, maintenance and repair of the Airport, in accordance with GAAP.	Service Operator	No	City Finance Team	No annual financial statements are prepared and sent to the City by the Service Operator. The City's Finance team is responsible for preparing City financial statements from the City PeopleSoft records.	Revise the TAAS Agreement to remove submission of Annual Financial Statement by the Service Operator as the City prepares the annual financial statement.
Any relevant reporting provided to or by the City (including through relevant Committee of Council) on the financial and operational performance of the Airport.	Schedule B – List of Deliverables (See Appendix D for listing of deliverables)	Service Operator	No	City of Oshawa: - Finance Team - Corporate Leadership Team - City Council Service Operator	Service Operator is responsible for preparing the draft five year business plan, initial budget, emergency plan, airport operations manual, certificate of insurance, monthly statements, monthly clearance certification, SMS, and performance report with compliance with contract. City of Oshawa departments are responsible for the annual budget, quarterly and annual financial statements.	Revise Schedule B of the TAAS Agreement to reflect current processes. See Appendix D for further details.

Appendix B: Noise Complaints Testing

We obtained the Standard Operating Procedures (SOP's) as prepared by the Service Operator over the noise complaint process and conducted sample testing over the complaints tracker to identify alignment with the process documentation.

The following list details the methods available to residents to place a noise compliant:

- Airport Feedback Form – available on the City of Oshawa's website;
- Direct Call to the Airport; and
- Direct e-mail to members of the City or Oshawa Executive Airport.

Based on the population of complaints for 2019 year to date, we performed testing over 15 samples from the complaints tracker and noted the following observations (see Recommendation # 2 for recommendations and process improvement opportunities):
2 of 15 samples did not include the date the complaint was responded to as the response did not require an e-mail response and the discussion was manually written on the noise complaint sheet.
1 of 15 samples tested did not have the complaint or response supporting documentation included in the tracking binder (where complaints supporting documentation is stored). We were unable to conclude that a response was provided.
5 of 15 samples tested did not include the specific topics discussed between the Service Operator representative and the complainant in the response e-mail communication that is sent after a call or through direct e-mail communication. We noted through inquiry, e-mail communications are sent as a method of keeping an audit trail of communication responses.
2 of 15 samples tested did not cc at least the Service Operator Airport Manager and/or Manager of Safety and Compliance as per requirement of the Service Operator Standard Operating Procedures.
No turnaround response time is indicated in the Service Operator Standard Operating Procedures. Average turnaround response time from samples tested was two (2) days. We noted an instance where a response was provided after 8 days and as per inquiry, it was identified as an outlier due to a busy time period at the Airport.
The Complaints Tracker does not require tracking of the exact date a complaint is made, the date the complaint was resolved by the Service Operator, nor the name of the individual who responded to the complaint.

Appendix C: Review of City Reimbursed Expenses

We obtained and inspected the TAAS Agreement with the City of Oshawa to identify expenses that are to be incurred by the Service Operator ("Operator Expenses") and not reimbursed by the City; per section 1.1 (w) of the Agreement for a description of services to be covered by the Service Operator and section 3.3 "[t]he Operator agrees that it shall be financially responsible for all Operator's Operating Expense and that such expenses are included in the Base Management fee." Using the descriptions from the TAAS Agreement, we identified expenses from the detailed General Ledger operating expense for January – August 2019 that appeared to fit the description of Operator's Operating Expenses (expenses that should be covered by the Service Operator and not reimbursed by the City). We obtained invoice supporting documentation for a sample of expenses and discussed the nature of the expenses with the Service Operator and City to determine if the expenses were appropriately reimbursed. No instances of inappropriate reimbursement were noted as part of testing. The following is a summary of the expense accounts investigated:

G/L Account	Account Name	TAAS Agreement – Operator's Operating Expenses	Review of expense support
41000	Communications	As per the TAAS Agreement, it was noted in section 1.1 (w) that the Operator shall be responsible for "(viii) cost of all telephone services required for Operator's own use at the Airport."	Inspected invoice samples billed to the communications cost code included telephone lines for the city's fuel system, emergency fire panel for fire monitoring, and the SMS memory stick which is separate from the telephone services required for the Operator's own use. Therefore the expenses in this expense category are appropriately reimbursed to the Service Operator.
52000	Janitorial Services	As per the TAAS Agreement, it was noted in section 1.1 (w) that the Operator shall be responsible for "(vii) cost of janitorial supplies and services to the non-leased areas of the terminal building".	Janitorial services are performed by the Service Operator but supplies are reimbursed by the City. This revised process was adopted in 2007 when the Service Operator took over the daily cleaning of the space at no charge to the City on the basis that the City paid for all the cleaning supplies. The TAAS agreement requires an amendment to reflect the difference in expenses for janitorial services. Therefore the expenses in this expense category are appropriately reimbursed to the Service Operator.

55000	Mtnce Bldgs / Grds-General	As per the TAAS contract, it was noted in section 1.1. (w) "City's Operating Expenses" means for any particular period, all bona fide expenses paid or payable by the Operator during the relevant period in connection with the use, operation, management, maintenance and repair of the Airport, in accordance with GAAP, consistently applied", which includes: utilities, materials and equipment required to manage, operate, maintain and repair the Airport, materials and equipment required for snow and ice removal, grass cutting, initial emergency response, office administration including computers, software and office supplies, janitorial services, telephone services used by the Operator for its own use at the Airport.	Inspected invoice samples and noted that these expenses did not relate to operating expenses related to the Operators use of the Airport – section 1.1 (w) but to specific expenses related to the functioning of the Airport. These expenses were corroborated with the Manager, Administrative and Access Services at the City. Therefore the expenses in this expense category are appropriately reimbursed to the Service Operator.

706

Costs incurred by the Service Operator that are not reimbursed by the City

Per discussion with the Service Operator and corroboration with the City, the below expenses are incurred on a regular basis by the Service Operator and not reimbursed by the City:

1. Snow plowing – Service Operator incurred these expenses and are not billed back to the City.

2. Lawn maintenance – Service Operator incurred these expenses and are not billed back to the City.

3. Garden – Service Operator incurred these expenses and are not billed back to the City.

4. Asphalt Repairs – Service Operator incurred these expenses and are not billed back to the City.

5. Tree Cutting – Service Operator utilizes the same contractor as the City, although the Service Operator contracts directly with the third party contractor. Service Operator incurred these expenses and are not billed back to the City.

Appendix D: Revised 'Schedule B' Reporting to the City of Oshawa

We obtained the TAAS Agreement Schedule B that outlines the reporting requirements for the Service Operator to the City. Below is a summary of compliance with the reporting requirements. It was noted that in some instances the timelines and/or presentation of the reporting documents were not consistent with TAAS Agreement requirements. However, no instances of failing to provide reporting were noted.

Name of Document	Requirement as per the TAAS Agreement	Date Required to be Submitted as per the Agreement	Date Submitted to the City of Oshawa	Evidence of Approval	Timing and/or submission of documents to the City consistent?
Annual Business Plan and Budget	The Operator agrees to prepare and deliver to the City a preliminary Business Plan and Budget for the following calendar year.	September 15th of each calendar year	Last 5 year business plan was for 2015 - 2019. Annual budget is prepared as part of the budget cycle as per Finance timeline.	Approval of the 5 year business plan by City Council on June 25, 2015. Approval of the annual budget plan by City Council. 2019 annual budget plan was approved on February 8, 2019 by Council.	Yes

Emergency Plan	For the operation, use and management of the Airport in the event of an emergency. The Emergency Plan shall be updated annually thereafter as part of the Business Plan and Budget.	Updated annually as part of the Business Plan and Budget	Latest completed version - Revision no 1.19 on December 10th, 2018	Distribution list (includes holders of the ERM policy) and Amendment Records (track version control of the document). We inspected the issue report from SMS and noted Carlene Mitchell signed off through physical signature on the action taken on December 10th, 2018 to distribute the plan to those on the distribution list.	No - Emergency Plan is not submitted as part of the Annual Business Plan and Budget. A separate process for the submission through the SMS system is performed. Action – Revise the TAAS Agreement to be consistent with current process.

Maintenance Performance Plan	The Operator will update the Maintenance Performance Plan in every Operating Year thereafter throughout the Term, at the time of submission of the annual Business Plan and Budget, as set out in Section 9.1 hereof.	Updated annually as part of the Business Plan and Budget	Using the Safety Management System in replacement of the Maintenance Performance Plan. City Capital Plan is included in the 5 year business plan. Last 5 year business plan was for 2015 - 2019. Annually, included in the capital budget forecast.	Approval of the 5 year business plan by City Council on June, 25, 2015. Approval of the annual capital budget by City Council on Feb 8, 2019.	No – Safety Management System has replaced the term Maintenance Performance Plan. Capital projects are included in the annual capital budget and pulls from the 5 year business plan. Action – update the TAAS Agreement for the change in terminology from Maintenance Performance Plan to Safety Management System.
Marketing Plan	The Operator shall be responsible for marketing the Airport and planning events at the Airport, in accordance with the Marketing Plan. The Marketing Plan shall be updated annually thereafter, at the time of submission of the Business Plan and Budget.	Updated annually as part of the Business Plan and Budget	Included in the 5 year business plan as marketing strategy. Last 5 year business plan was for 2015 - 2019.	Approval of the 5 year business plan by City Council on June 25, 2015. Approval of the annual operating budget by City Council on Feb 8, 2019.	No – not a separate plan but a line item in the annual budget. Marketing strategy reviewed in the 5 year business plan. Action - Revise the TAAS agreement to reflect the current process.

Operations Manual	For the operation, use and management of the Airport. The Operations Manual shall be updated annually thereafter as part of the Business Plan and Budget.	Updated annually as part of the Business Plan and Budget	Latest completed version - Amendment 8 on Jan 4th, 2019	Sign-off by Ministry of Transportation on March 8, 2019. We inspected the issue report from SMS and noted Carlene Mitchell signed off through physical signature on the action taken on Jan 4th, 2019 to distribute the plan to those on the distribution list.	Yes
Certificate of Insurance	A valid Certificate(s) of Insurance evidencing the required insurance coverages outlined in this Section 14.1 shall be forwarded to the City each year and must be satisfactory in all respects to the City.	Yearly	Term: Jan 12, 2019 to Jan 12, 2020	The Magnes Group Inc.	Yes

Monthly Financial Statements	Reasonably detailed financial statements of the operation, management, maintenance and repair of the Airport.	15th calendar day of each month during the Term	At the end of each month, revenue and expense details are provided to the City.	N/A	No – monthly financial statements are not provided by the Service Operator to the City, but a summary of revenues and expenses are provided. The City is responsible for preparing financial statements. Action - Revise the TAAS agreement to reflect the current process.

Quarterly Statements	Provide quarterly reports in respect of each quarter in each year, on balance sheet items designated from time to time by the City	Each quarter - The quarterly reports for the quarters ending March 31, June 30, September 30, and December 31 in each year shall be delivered on or before April 30, July 31, October 31, and January 31, respectively, in each year	N/A - part of annual City of Oshawa Financial Statement	N/A	No – Airport financial statements are part of the overall City of Oshawa financial statements. Action - Revise the TAAS agreement to reflect that the City Finance team prepares a Quarterly budget to actuals report using information which is provided by the Service Operator twice per month.

Annual Financial Statements	Reasonably detailed financial statements for the operation, management, programming, maintenance and repair of the Airport, in accordance with GAAP.	February 28th of each Operating Year	Part of the annual City of Oshawa Financial Statement - prepared by City Finance Team. Latest version is December 31, 2018.	Prepared by City Finance Team - Audit Statements Signed off by Deloitte	No – Airport FS are part of the overall City of Oshawa FS. Action - Revise the TAAS Agreement to remove submission of Annual Financial Statements as the Airport is included as a line item in the City's Annual Financial Statements and not prepared by the Service Operator.
Monthly Certificate of Clearance	The Operator is required to submit with each monthly invoice a current Certificate of Clearance from the Workplace Safety and Insurance Board ("WSIB") demonstrating their compliance and good standing with WSIB. The Operator is required to forward a duplicate copy of the Certificate of Clearance to Purchasing Services on a monthly basis.	Monthly	September 14, 2019 - November 19, 2019	WSIB	Yes

Appendix E: Comparative Municipal Airport Review

In the following Appendix, we have outlined the results of our benchmarking survey. In total, we solicited feedback from four municipalities that have a similar airport operating business model as the Oshawa Executive Airport. The following municipal airports were contacted: Chatham, Winnipeg, Sarnia, and Peterborough. We requested feedback via a questionnaire, and received a response from one of the airports. Please note that we have not audited the accuracy of the data, and have therefore placed reliance on the information provided to us to formulate our findings. In addition, for confidentiality reasons, we have anonymized our survey results. A summary of our findings are below.

Airport Oversight

Question 1 - Is the Airport run by the City or a third party (operator):

Third Party Operator

Question 2 – Who is responsible for reviewing/ managing the Airport operations from the municipality side?

Airport Administrator, City of [redacted]

Question 3 – What is the management structure at the Airport?

CAO - Accountable Executive, Commissioner of Infrastructure and Planning Services is responsible for the Airport

Airport Administrator - on site at the Airport and reports to the Commissioner

Contracted Airport Management and Operations - Contractor CEO reports to the Airport Administrator.

City Oversight

Question 4 – Does the contract define what activities require City oversight?

No

Question 5 – What are the key areas/ activities requiring City oversight?

There was an RFP issued for the contract. All aspects of the contract are monitored monthly. A checklist was created showing all regulatory requirements and operational requirements to ensure the contract obligations are being met.

Question 6a - Does a clause exist in the contract related to the provision for the City to perform audits over Operator business functions (i.e. how the Operator manages the airport, reviewing expense and revenue support, etc.?

Yes

Question 6b - If this provision exists, what is the frequency that these audits are performed? Is it performed by City internal audit or externally?

The RFP states that the contractor shall execute the whole of their work to the satisfaction of the City. Also the RFP states that the City is responsible to monitor and evaluate the performance of the Contractor. The City approves amendments to airport manuals and policies that relate to airport certification.

Budgets

Question 7 – Who is responsible for the development of the annual Airport operating budget?

The City of [redacted]

Question 8 – Who is responsible for the development of the annual Airport capital budget?

The City of [redacted]

Question 9a - Does the City of [redacted] utilize Key Performance Indicators (KPI's) to assess the financial and/or operating performance of its airport?

Yes

Question 9b - If Yes, What are some of those KPI's used?

Performance is based on meeting the terms of the RFP and the Contractors submission.

Complaints Management

Question 10 - What are the methods available for individuals to place a complaint in relation to the airport (i.e. noise, animals, etc.)?

Telephone, e-mail and online submission form

Question 11 - Who is responsible for handling complaints for noise and communicating with the complainant?

Third Party Operator

Question 12a - Does the City require annual reporting or oversight over the responses provided related to complaints?

Yes

Question 12b - If yes, what annual reporting is required?

Monthly reports regarding noise monitoring activities include number of complaints and other data. Any significant complaints are passed along immediately.

Tenant Leases

Question 13 – Is tenant space present at the airport?

Yes

Question 14 - Who is responsible for managing and performing negotiations in relation to tenant leases at the airport?

The City of [redacted]

Question 15 - Who is required to sign-off on the agreements for tenant leases at the airport?

City of [redacted] and Tenant

Question 16 - Who is responsible for managing day to day activities with tenants?

Third Party Operator

Question 17 - Who is responsible for the collection of payments from tenants?

No response

Expenses

Question 18 - Who is responsible for the hiring of independent contractors used in maintaining the airport or capital additions at the airport?

The City of [redacted]

Question 19a - If the Operator hires contractors to perform work, does the Operator seek approval by the City prior to hiring the contractor?

Yes

Question 19b - How does this approval process work?

Quotes are provided to the Airport Administrator for approval.

Question 20 - Does the contract specify the oversight required by the City for the use of independent contractors by the airport?

Yes

Question 21 - Are City reimbursed expenses required to be approved by the City of [redacted] before the Operator incurs the expense?

Yes

Reporting

Question 22a - Are specific reports identified in the contract which the Operator must provide to the City?

Yes

Question 22b - What key reports are required?

Monthly meetings are used to review Contractor requirements, updates from both the City and Contractor. Bi-Annual reports and Annual reports are provided on specific elements of the contract.

Question 23 – What is the frequency of preparation of these reports?

See Question 22 response.

Appendix F: Staff Involvement and Documents Reviewed

We undertook interviews in October and November 2019 with key stakeholders to inform this work, including:

Name	Title
Paul Ralph	City Manager
Warren Munro	Commissioner, Development Services
Jerry Shestowsky	Manager of Administration and Access Services
Mike Saulnier	Director, Operations Services
Kevin Alexander	Director, Facility Management Services
Lorraine Fuller	Coordinator, Financial Reporting and Planning
Susyn Korbak	Coordinator, Financial Reporting and Planning
Zachary Drake	Accounts Receivable Administrator
Tom Goodeve	Director, Planning Services
Stephen Wilcox	Airport Manager, Total Aviation & Airport Solutions Limited
Jay Martin	Manager, Financial Services & Financial Systems Development

We received the following documentation over the course of fieldwork:

Document Name	
TAAS Agreement with the City of Oshawa + Amendments	TAAS Performance Report to Warren
Map of the City of Oshawa	Durham Radio Lease Agreement + Approval Mins + Delegation of Authority Bylaw
Aviation Services and Facilities Agreement	Jan to Aug 2019 G/L
Business Development Org Chart	Safety Management Manual
Airport Leases Tracker	Accounting Procedures
Airport Responsibility Flowchart - Kevin	Noise Complaint SOP's + ACLC Meeting Minutes

Document Name	
Corporate Real Estate Procedures Manual	Internal Comparative Analysis Based on Budget
2019 Oshawa Airport Budget Submissions	Operating Expenses Invoice Support
2019/2020 Budget Guidelines	Responsibilities of the Accountable Executive Memo
Monthly Income Reports + General Fees Schedule + Quarterly Reporting + Reserves Continuity Schedule	Taxiway Circuit & Line Painting Project Documents + Documents for Roof Replacement Project
5 Year Business Plan 2015 - 2019	Purchasing Bylaw

Oshawa Executive Airport Virtual Workshop

Agenda

A) Welcome and Introduction of Presenters
B) Introductory Remarks
C) Presentation
D) Next Steps
E) Comments/Questions and Answers

Introductory Remarks – How the Workshop Will Work

- Please be respectful and courteous at all times. This workshop is being recorded and staff are taking notes. All questions that are asked, and staff's response to them, will be posted on the City's website.
- This workshop is "virtual" to ensure social distancing. Please be patient as we work with this new meeting format.
- Staff has muted all microphones. Please DO NOT unmute yourself to speak unless you have first been recognized by staff and prompted to speak.
- In order to speak, please advise staff via the Webex "Chat" Function. Staff will recognize you by name in due course and you may unmute your microphone.
- If you are phoning in and not using the Webex Chat Function, but have access to email, please email staff at planning@oshawa.ca with your name if you wish to speak. Staff will be monitoring emails. In due course, staff will recognize you by name and you may unmute your microphone.

Oshawa Executive Airport

Introductory Remarks – How the Workshop Will Work

- If you are phoning in and do not have access to a computer, but still wish to speak, staff will be calling out the last names of phone users in alphabetical order at an appropriate time. As we call out each last name, we will unmute the connection in order that you may speak. If staff hear nothing, we will move on to the next name.
- There are 40 participants and it is important that everyone who wishes to be heard has an opportunity to speak. Accordingly, please be concise with your comments and questions, and remain on topic.
- If you have a question but someone else has already asked it, please do not repeat the question.
- If the workshop ends and you still have questions, please email them to staff at planning@oshawa.ca and we will get back to you.

Oshawa Executive Airport

Process to Update the Business Plan

- The Airport Business Plan needs to be refreshed. Work to prepare a new update of the Business Plan for the 2020-2024 timeframe commenced in 2019.
- On May 21, 2019 Council passed a resolution containing a number of directives concerning the update to the Business Plan, including the following:

1. That the updated Business Plan be based in part on the following items:
   I. That Council reaffirms that it does not support any runway extension at the Airport.
   II. That the commitment to keep the Airport open to, at a minimum 2033, not be reconsidered.
   III. That the Airport Business Plan exercise not explore any opportunities to create new serviced land.

Oshawa Executive Airport

Process to Update the Business Plan

2. That the updated Business Plan consider the following to improve health, safety and compatibility matters with the community and the environment:
   I. Explore phasing out or eliminating the use of leaded fuel;
   II. Explore new technology to advance quieter planes;
   III. Review the noise and traffic management plan to ensure that the hours of operation/voluntary curfew continues to be supported; and
   IV. Improve communication with the public on Airport matters.
3. That staff prepare a public consultation plan for Council's approval to obtain public input during the process to update the Business Plan.

Oshawa Executive Airport

Process to Update the Business Plan

- On June 24, 2019, Council adopted Item DS-19-129 forwarding a recommended Public Consultation Plan for the Updated Oshawa Executive Airport Business Plan.
- The Public Consultation Plan was broken into two Phases:

Phase I: Gather information by way of the following:

I. An Airport Community Liaison Committee (A.C.L.C.) Town Hall meeting (held on September 24, 2019)
II. A series of stakeholder interviews; and
III. An online survey, which was made available until October 18, 2019.

Process to Update the Business Plan

Phase II: Gather feedback on the Draft Business Plan through the following process:

I. The Draft Business Plan will be presented to the Development Services Committee (D.S.C.) and Council and staff will seek direction from Council to hold a public meeting.

II. The air quality study and noise study will also be submitted concurrently.

III. The D.S.C. would then hold a public meeting a seek input into the Draft Business Plan.

IV. The Draft Business Plan would then be referred back to staff to consider the public input.

V. A Final Business Plan would then be presented to the D.S.C. and Council

Oshawa Executive Airport

Process to Update the Business Plan

- The purpose of the A.C.L.C. Town Hall meeting was to provide an opportunity for all stakeholders to identify what issues they would like to see addressed in:
  - the 2020 – 2024 Airport Business Plan; and
  - the Airport Noise and Traffic Management Plan.
- Approximately 175 people attended the A.C.L.C. Town Hall meeting.
- At the A.C.L.C. Town Hall meeting, concerns were raised regarding Airport noise, safety and air quality, the amount of flight training aircraft traffic and circuit patterns, and operating hours of flight training aircraft traffic.

Oshawa Executive Airport

Process to Update the Business Plan

- On October 15, 2019 Council passed Resolution DS-19-183 which directed staff to undertake the following, among other matters:

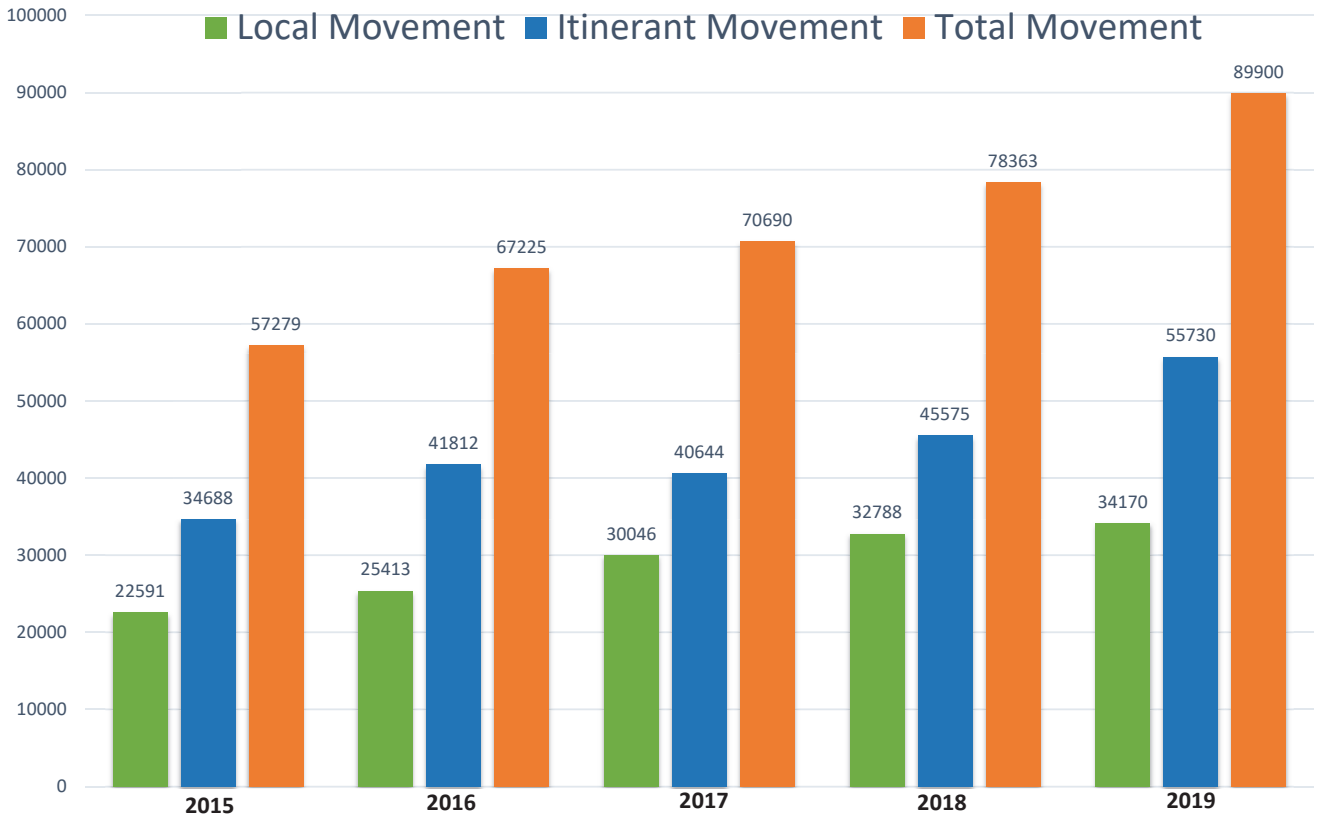
  I. Review the issues raised at the A.C.L.C. Town Hall meeting and obtain input from NAV CANADA and Transport Canada, as appropriate, in order to provide better balance and respect of Oshawa residents' quality of life;

  II. Expand the scope of work related to noise and air quality monitoring, to include monitoring in the residential areas surrounding the Airport; and

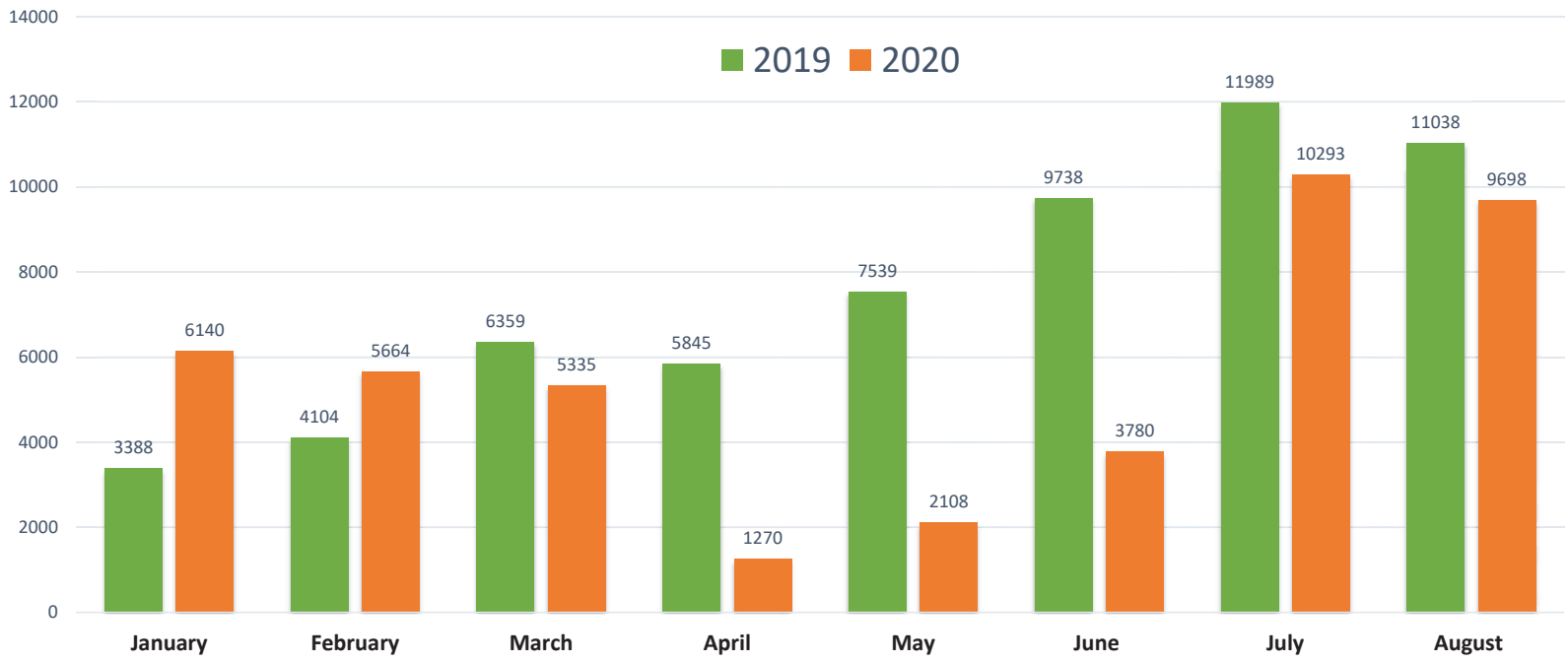
  III. Host a series of small workshops with residents, airport businesses and stakeholders to discuss matters raised at the Town Hall meeting, before presenting any draft Business Plan to the D.S.C.

Oshawa Executive Airport

2015 – 2019 Airport Movements

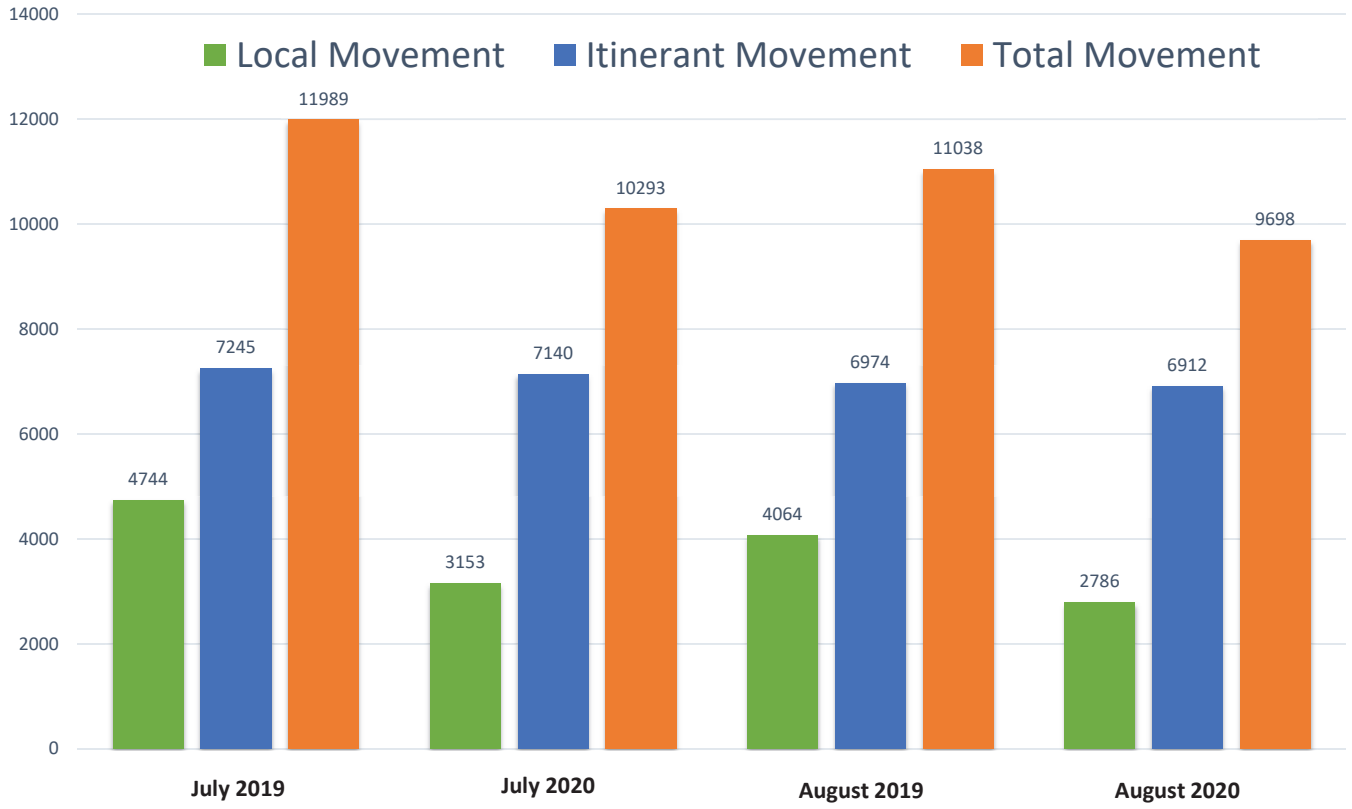


2019 -2020 Monthly Total Movements



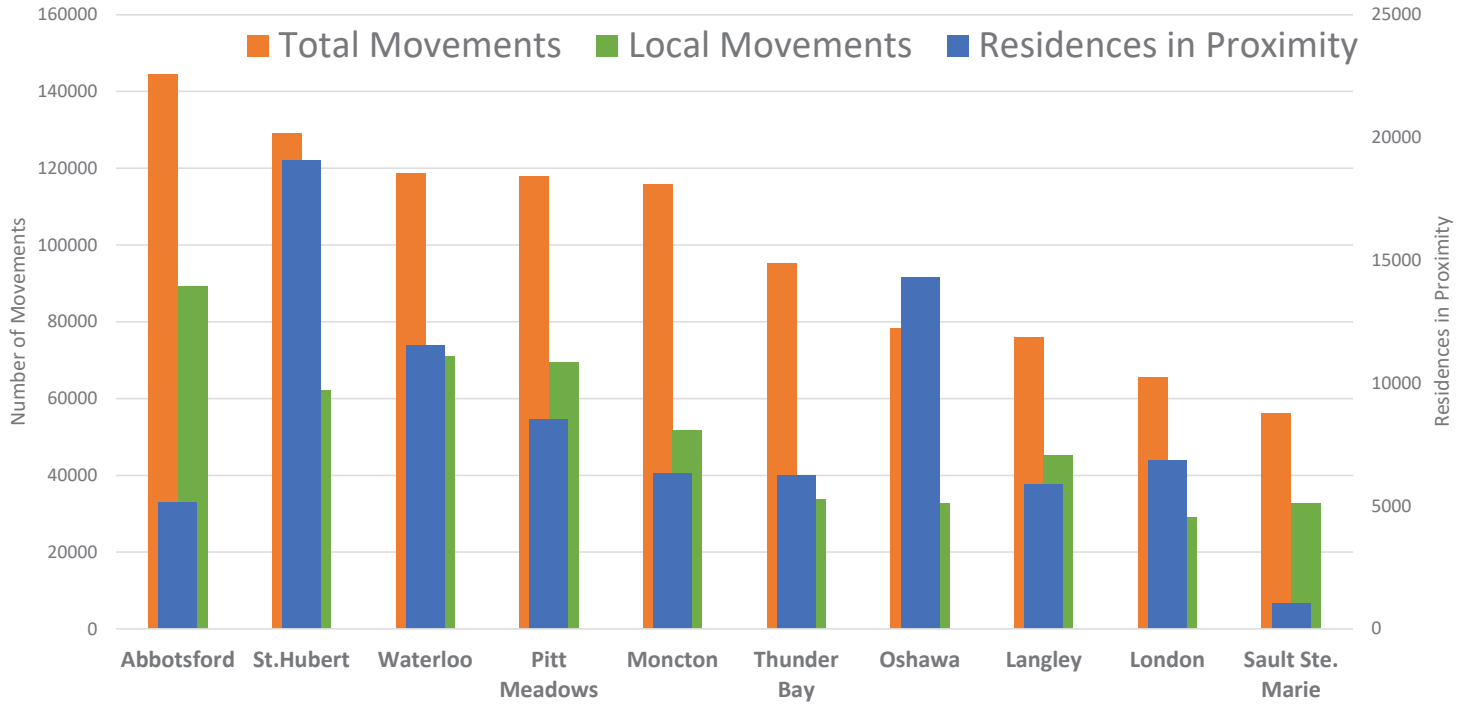
Oshawa Executive Airport

Jul/Aug 2019-2020 Monthly Movement Comparison



Oshawa Executive Airport

2018 Airport Movements – Residences in Proximity Comparison



Lease With Canadian Flight Academy ("C.F.A.")

- The lease between the City and C.F.A. which took effect on January 1, 1999 expired on December 31, 2019.
- In December 2019, the City offered C.F.A. a new one (1) year lease with updated terms and more restrictive conditions (including amended hours of operation) pursuant to the direction provided by the D.S.C. at its December 9, 2019 meeting.
- C.F.A. subsequently rejected the new lease proposed by the City.
- Council then directed that written notice be sent to C.F.A. to vacate the premises immediately.
- On May 14, 2020, C.F.A.'s lawyer filed a Notice of Application ("Application") against the City with the Oshawa Superior Court of Justice. Among other matters, the Application sought to have the Court restrain the City from evicting C.F.A.
- On May 27, 2020, the judge for the Oshawa Superior Court of Justice ruled that the status quo be maintained and that the City cannot evict C.F.A. from the premises prior to this matter being dealt with by the Court.
- On August 25, 2020, C.F.A.'s lawyers submitted an Amended Notice of Application asserting that it continues to have a valid lease arrangement with the City.

Oshawa Executive Airport

Regulatory Framework

- The Airport is owned by the City of Oshawa.
- The Airport is operated and managed By Total Aviation & Airport Solutions.
- NAV CANADA owns and operates the control tower and manages all aircraft arrivals, departures and ground movements between 6:30 AM and 10:30 PM daily.
- Between 10:30 PM and 6:30 AM all aircraft report their activity on a mandatory frequency.
- Transport Canada is the regulator and only the federal government can regulate aircraft activity.
  - Municipal by-laws cannot be used to regulate aircraft activity.
  - Airport Management cannot regulate aircraft activity.
- The City is required to operate the Airport until 2047 under the 1997 Operating and Options Agreement with the federal government.
- The City may close the Airport after 2033 if the Pickering Airport is built.
- The Airport annual operating budget of $400,000 is offset by over $1.6m in property tax generated by the Airport lands and former Airport lands.

Oshawa Executive Airport

Noise and Traffic Management

- Airports may establish noise abatement procedures in accordance with Canadian Aviation Regulation 602.105.
  - Follow the process outlined in Transport Canada Advisory Circular 302-002.
  - Extensive consultation.
  - Detailed analysis including impacts on environment, Airport capacity, costs, safety, ……
  - Transport Canada requires **consensus** from all parties to advance a request to the Minister for consideration.

- As an alternate to AC 302-002, we have a voluntary noise and traffic management plan in place which was last updated in 2016.
  - Includes - No touch-n-go circuit flights on Saturday and Sundays after 4:00 PM.
  - Includes - No circuits of any kind on the Sundays and Mondays of long weekends.
  - Does not take into consideration the growth from 60,000 to 90,000 annual movements.
  - Does not take into consideration the need for neighbours to work from home due to COVID-19.
  - Does not take into consideration the changing demographic of the City's residents.

- Its time to update the Airport's noise and traffic management plan.

- We are committed to finding a better balance between the Airport and the community.

Oshawa Executive Airport

What Does a Better Balance Look Like?

- What type of changes should we be considering?
  - Less aircraft activity?
  - No flights on Sundays?
  - Focus on business aircraft activity?
  - Pushing the Feds to advance the Pickering Airport?

- What process do we use to implement these changes?
  - Negotiate changes to the current voluntary plan?
  - Start the formal process AC 302-002?

Oshawa Executive Airport

Next Steps

- Input from the workshop sessions will be considered in the drafting of the 2020-2024 Airport Business Plan.
- Expanded noise and air quality monitoring, including monitoring in the residential areas surrounding the Airport, is planned to be undertaken in 2021.
- The Draft 2020-2024 Airport Business Plan will be presented to D.S.C. and Council with multiple opportunities for public input.

Oshawa Executive Airport

Comments or Questions?

If you have not had an opportunity to comment or ask a question during this workshop session, please submit your comment and/or question to City staff at planning@oshawa.ca. If your submission contains a question, staff will respond with an answer.

Please note that all submissions received by staff will become part of the public record.

Thank you for your participation and your patience!

REPORT

OSHAWA EXECUTIVE AIRPORT
AIR QUALITY MONITORING

OSHAWA, ONTARIO

AMBIENT MONITORING
RWDI # 1903663
October 28, 2020

SUBMITTED TO

Stephen Wilcox A.A.E.
Airport Manager
swilcox@oshawa.ca

Oshawa Executive Airport
1200 Airport Blvd Suite 200
Oshawa, Ontario
L1J 8P5
T: 905.576.8146 x 3858

SUBMITTED BY

John DeYoe
Principal/Air Quality Specialist
john.deyoe@rwdi.com

RWDI
600 Southgate Dr.
Guelph, ON, Canada, N1G 4P6
T: 519.823.1311 x2258
F: 519.823.1316

Glossary

TSP	Total Suspended Particulate -Multiple source pollutant from combustion and general background dust.
Pb	Lead, Multiple source pollutant from combustion of leaded gasoline, industrial sources and general background dust.
AAQC	Ambient Air Quality Criteria. Guideline levels set for various pollutants by the Ontario Ministry of Environment Conservation and Parks. The guidelines may be for different averaging periods, e.g. 24-hr, annual.
MECP	Ontario Ministry of Environment Conservation and Parks (formerly the Ministry of the Environment)
SO_2	Sulphur dioxide. Multiple source pollutant from natural and combustion sources.
NO_2	Nitrogen dioxide. Multiple source pollutant from combustion sources and photochemical reactions.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

1. BACKGROUND

RWDI was retained by Oshawa Executive Airport to complete an Air Quality monitoring program at the Airport. The monitoring was undertaken as an investigation into current conditions. The monitoring took place at four locations near the end of the runways between July 4 and September 22 of 2019.

The four locations for the monitoring was chosen to be just off the ends of the runways. Based on our experience and on the numerical dispersion modelling done previously, these locations will have the greatest concentrations of aircraft related pollutants. The specific locations chosen were selected in consultation with the Oshawa Executive Airport and the City of Oshawa staff.

The monitoring locations are shown in Figure 1.

The air pollutants of concern were total suspended particulate (TSP) and airborne lead (Pb). In this case there was also a concern with combustion by products. Therefore, concentrations of Nitrogen dioxide (NO_2) and Sulfur dioxide (SO_2) were also examined.

Meteorological measurements were collected from the Environment Canada station located on-site.

1.1 Airport Location Notes

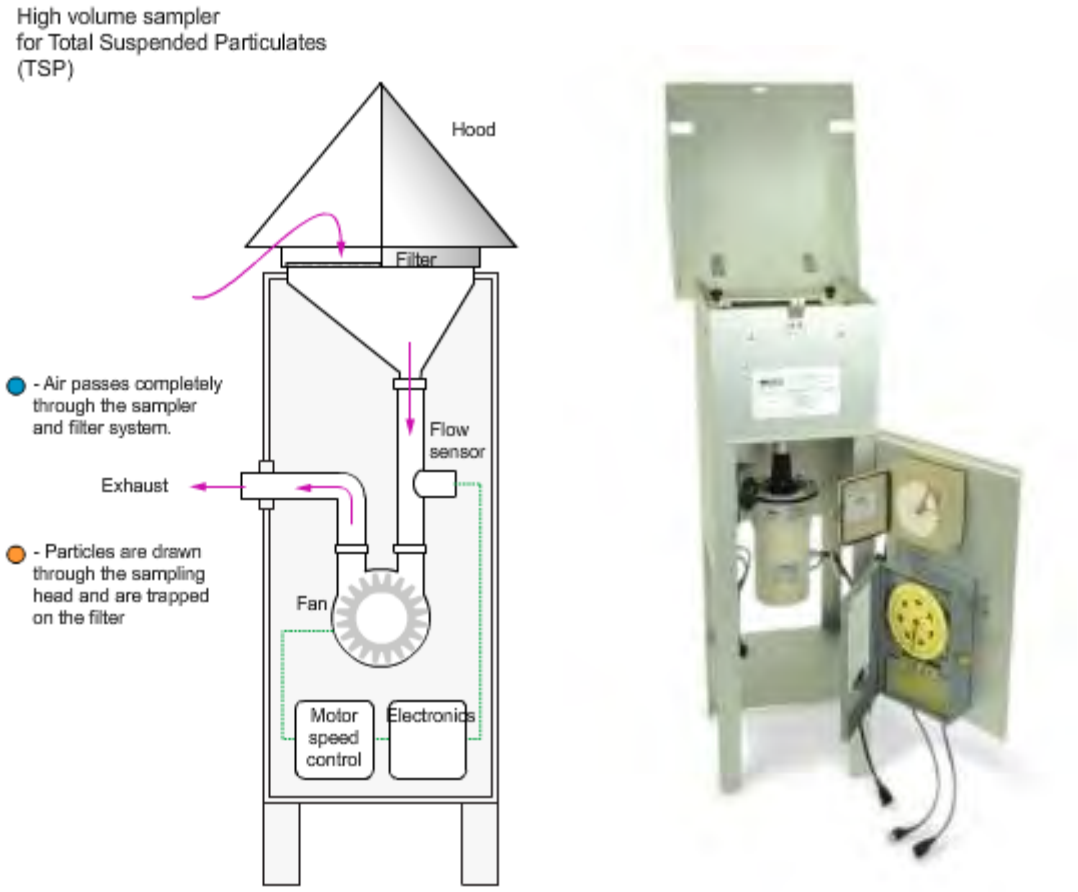
Throughout this report, the locations are referenced by the runway numbers. All the monitoring locations were at the threshold ends of the specific runways. This is the end of the runways that the airplanes land on. The airplanes take off over the other end of the runway. For instance, when runway 12 is in use the airplanes are landing at the threshold of runway 12 but taking off over the samplers at the threshold of runway 30. The runways are named for the direction the airplanes are heading. For example, when the airplanes are using runway 30, they are travelling on an azimuth angle of 300 (NW); using runway 12 they are travelling on an azimuth angle of 120 (SE).

2 METHODOLOGY

PARTICULATE MATTER/LEAD

RWDI used standard Hi- Volume Air Samplers (Hi-Vols) for total suspended particulate and lead. The samples were collected on pre-weighed quartz filters. The filters were conditioned and weighed before and after sampling to determine mass gain (TSP concentration) and an aliquot of the filters were extracted and analyzed using atomic absorption techniques to determine lead concentrations. All sampling and analytical techniques complied with the Ministry of Environment's Operations Manual for Air Quality Sampling and USEPA Method IO-2.

There was a desire for a large amount of data and therefore 24-hour samples were collected every other day.



Schematic **Photograph**

Figure 1: Hi- Volume Air Sampler

The samples were collected by RWDI Staff and analyzed by Bureau Veritas Laboratories, located in Mississauga, Ontario. A number of unexposed samples were selected as blanks to determine if there were any contaminating interferences with the samples. No blank corrections were made to any of the analytical values as a result of the blank values.

Field sampling parameters and analytical results were tabulated in a spreadsheet to calculate volumes and concentrations.

GASEOUS POLLUTANTS

NITROGEN DIOXIDE AND SULPHUR DIOXIDE

In addition to the particulate and lead monitoring, there was a desire to complete monitoring for Nitrogen Dioxide (NO_2), Sulfur Dioxide (SO_2) at the location. The monitoring was completed with passive air samplers. The samplers were installed at the same locations as the particulate samples and took two sets of single, one-month long integrated samples. This method is used in several jurisdictions within North America by regulatory agencies. It

requires no shelters or power and provides a good indication of potential impacts. The ambient air diffuses across a special membrane to react with the sample media. The samples were sent to Maxxam Laboratories in Edmonton, Alberta to be analyzed. Once the mass of pollutant in the media is determined, the average concentration of pollutant in the air, over a one-month period, is calculated from the known diffusion rate.

Figure 2: Passive Air Samples

Meteorological Measurements

Wind speed and direction data has been compiled from the Environment Canada station located at the Oshawa Executive Airport and was used for interpretation of the air quality sampling results.

A copy of the wind rose which graphically depicts the distribution of the winds during the study period is included in Figure 1.

Ontario Ambient Air Quality Criteria

Ontario ambient air quality criteria are detailed in Ontario Regulation 419 and are presented in the Table below.

Pollutant	24-Hour AAQC's
TSP	120
Lead*	0.5
NO_2	200
SO_2	275

**There is also a 30-day guideline (0.2 µg/m³) for lead which is based on an arithmetic average of lead taken at 6-day intervals which was not considered applicable for this program.*

3 RESULTS

3.1 Total Suspended Particulate and Lead Monitoring Results

The detailed results of the monitoring are shown in Appendix A are summarized in Table 3.1.1 below. The table shows the average of all Daily (24-hr) samples as well as the maximum Daily (24-hr) samples for each location. The locations of the samplers are shown in the Figure 1. Figure 1 also shows the distribution of winds during the sample program. The laboratory analytical results are shown in Appendix B.

Table 3.1.1 Summary Table of TSP and Pb Results, July 6 to October 11, 2019

	R5 Concentration (µg/m³)	R 12 Concentration (µg/m³)	R 23 Concentration (µg/m³)	R 30 Concentration (µg/m³)	Combined (µg/m³)	AAQC (µg/m³)
Average Daily TSP	15.0	16.5	15.0	19.0	16.3	120
Maximum Daily TSP	29.7	34.5	31.8	41.2	41.2	120
Average Daily Lead	0.007	0.013	0.016	0.009	0.011	0.5
Maximum Daily Lead	0.046	0.058	0.061	0.029	0.061	0.5
Number of Samples	31	29	32	30	122	

*There were no exceedances of the Ontario Ambient Air Quality Criteria (AAQC). Though the 30-day lead standard of 0.2 µg/m³ is not necessarily applicable, it was mentioned in the public meeting. Clearly the lead values are all below that criterion also.

3.2 Passive Gaseous Measurements

All the analytical results for the passive gaseous measurements are included in Appendix B. The results are summarized in Table 3.2.1.

Table 3.2.1 Nitrogen Dioxide and Sulfur Dioxide Results

	Runway 5		Runway 12		Runway 23		Runway 30		AAQC	AAQC
	4Jul-8Aug	8Aug-Sep17	12Jul-8Aug	8Aug-Sep17	4Jul-8Aug	24-hr	12Jul-8Aug	8Aug-Sep17	24-hour	Annual
NO_2 (µg/m³)	2.4	2.2	2.8	2.8	2.8	1.8	3.0	2.2	200	34*
SO_2 (µg/m³)	1.7	1.4	1.9	2.5	1.9	2.2	1.9	2.5	100**	10

Notes: AAQC denotes Ontario Ambient Air Quality Criteria
*There is no MECP Annual criterion for NO_2. The value shown here is the Environment Canada CAAQS.
** There is no longer MECP 24-hour criterion for SO_2. The value shown is the 1-hour AAQC.

None of the measured concentrations were in excess of guideline values.

METEOROLOGICAL RESULTS

Wind speed and direction data has been compiled from the Environment Canada station located at the Oshawa Executive Airport. A copy of the wind rose which graphically depicts the distribution of the winds during the study period is included in Figure 1. Tables of wind speed and direction are included in Appendix C

3.3 Comparison with Predicted Results

An air quality impact assessment was undertaken during 2015[1]. The examined scenario utilized an annual average aircraft movement of 102,000 movements. The table below presents the measured results in conjunction with the modelled scenario for the parameters that overlapped between both studies. The annual movements in 2019 were approximately 90,000 which is close to the modelled scenario of 102,000.

Table 3.3.1 Comparison of Modelled and Measured Values

Pollutant	Averaging Period	Modelled Results (µg/m³)	Measured (µg/m³)
NO_2	24- Hour	41	3.0 (1-month)
Pb	24-Hour	0.4	0.061

3.4 Comparison with Typical Concentrations

In order to put the measured results in context, data from other monitoring surveys was examined. The MECP does not maintain the monitoring network that it once did, so monitoring results from other sources have also been incorporated.

3.4.1 Nitrogen Dioxide Comparison with MECP Durham College Results

The MECP maintains and air quality monitoring station at the Durham College campus located at 2000 Simcoe Street North in Oshawa that continuously measures Nitrogen Dioxide. The latest year of data available is from 2017[2].

Annual Average NO_2 Concentration (Oshawa MECP 2017) 12.5 µg/m³

Average NO_2 Concentration (Oshawa Executive Airport 2019) 2.5 µg/m³

The average of all measurement taken over the Summer of 2019 was less than the annual average recorded at Durham College.

[1] " Oshawa Municipal Airport, Oshawa, Ontario, Final Report, Air Quality Assessment. RWDI #1400980, April 10, 2015"

[2] Air Quality Monitoring in Ontario 2017 Report, Ontario Ministry of Environment Conservation and Parks

3.4.2 Sulfur Dioxide Comparison with MECP Results

The MECP does not maintain an air quality monitoring station for Sulfur Dioxide in the Durham Region. The annual average SO_2 concentration from all Ontario sites is included below. The latest year of data available is from 2017[2].

Annual Average SO_2 Concentration (All Ontario Sites 2017)	**3.1 µg/m³**
Average SO_2 Concentration (Oshawa Executive Airport 2019)	**2.0 µg/m³**

The average of all measurement taken over the Summer of 2019 was less than the Ontario average.

3.4.3 Suspended Particulate Comparison with Environment Canada Results

The MECP has not maintained air quality monitoring stations for total suspended particulate since the early 2000's. Environment Canada still maintains a network for suspended particulate monitoring. The most recent year that data is available for is 2016. The two most applicable sites are the stations located in West Toronto and The Experimental Farm in Simcoe. The samples were collected using High-Volume Air Samplers in the same manner as was completed in the Oshawa Executive Airport study

	Average	Maximum
TSP Concentration (Simcoe Experimental Farm 2016)	**37 µg/m³**	**136 µg/m³**
TSP Concentration (West Toronto 2016)	**32 µg/m³**	**59 µg/m³**
TSP Concentration (Oshawa Executive Airport 2019)	**16 µg/m³**	**41 µg/m³**

The average and maximum of all measurement taken over the Summer of 2019 were less than the averages and maximums recorded at both of the Environment Canada Stations.

3.4.4 Airborne Lead Comparison

The MECP has not maintained air quality monitoring stations for airborne lead since the early 2000's. The most recent year that data is available for is 2001. There really is no relevant data for comparison though we will say that the airport data was lower than that measured in 2001 by the MECP.

Average Lead Concentration (Oshawa Executive Airport 2019)	**0.011 µg/m³**

4 DISCUSSION

The monitoring program was completed entirely within the busy Summer season. The monitoring showed very low levels of all pollutants. All measured pollutants were below the Ontario Ambient Air Quality Criteria.

The low-level results did not show any significant differences between the different stations which would suggest that the greatest impact on air quality was the general background levels.

The data collected at the Oshawa Executive Airport was generally lower than the most comparable data available.

The comparison of the modelled and measured results showed that the modelling assumptions were conservative and higher than the measured values. This comparison however is based on limited data.

The comments received in the public meeting regarding the noise and air quality monitoring centred around the locations of the sampling stations. The comments reflected a desire for the monitoring to be completed in the community as opposed to the monitoring locations on the airport property. With this in mind, a monitoring program for 2020 was proposed which would have taken place in the residential area around the airport. However, the monitoring program has been postponed due to the Covid-19 crisis. The program is now scheduled for Summer of 2021.

TABLES

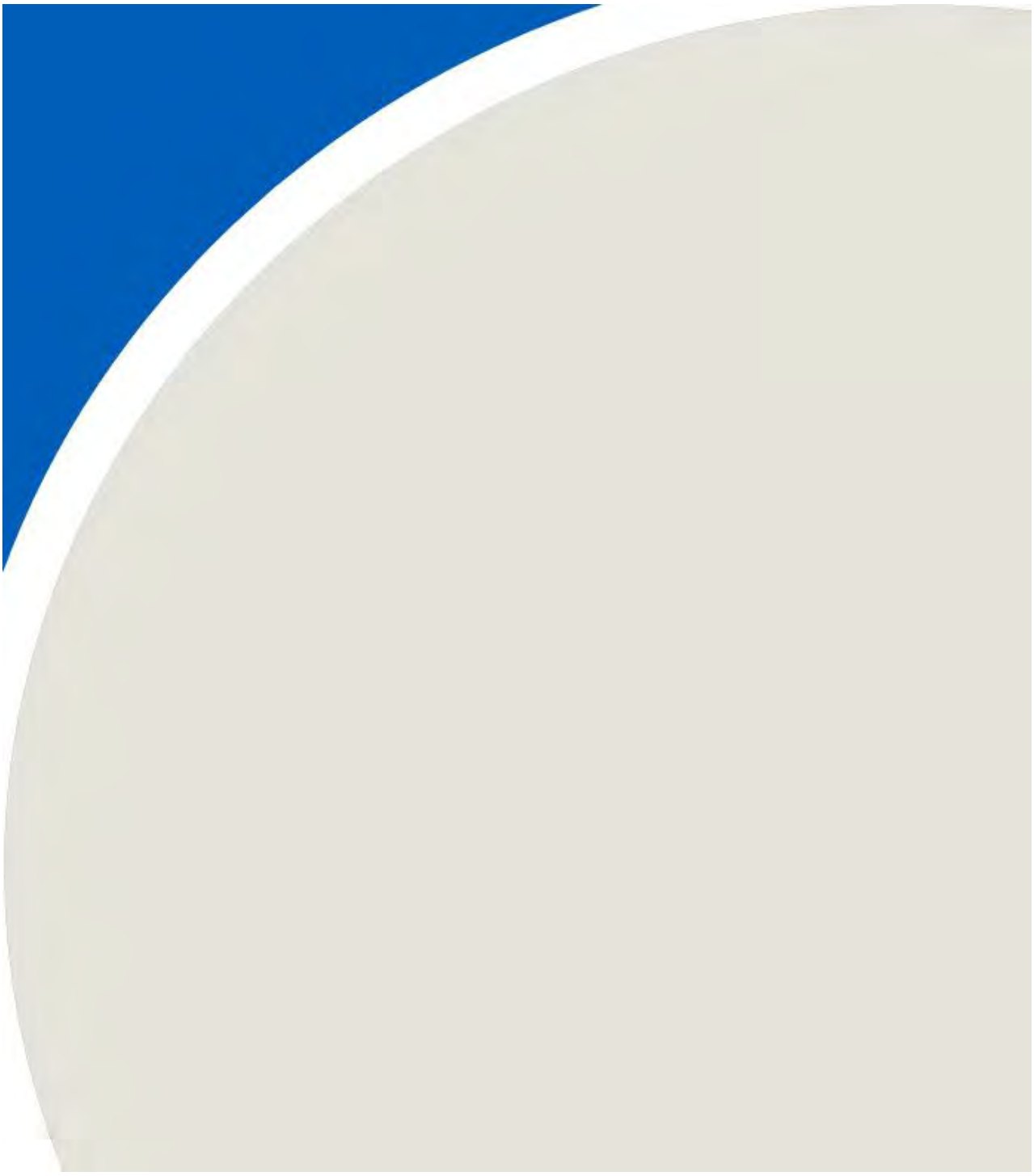
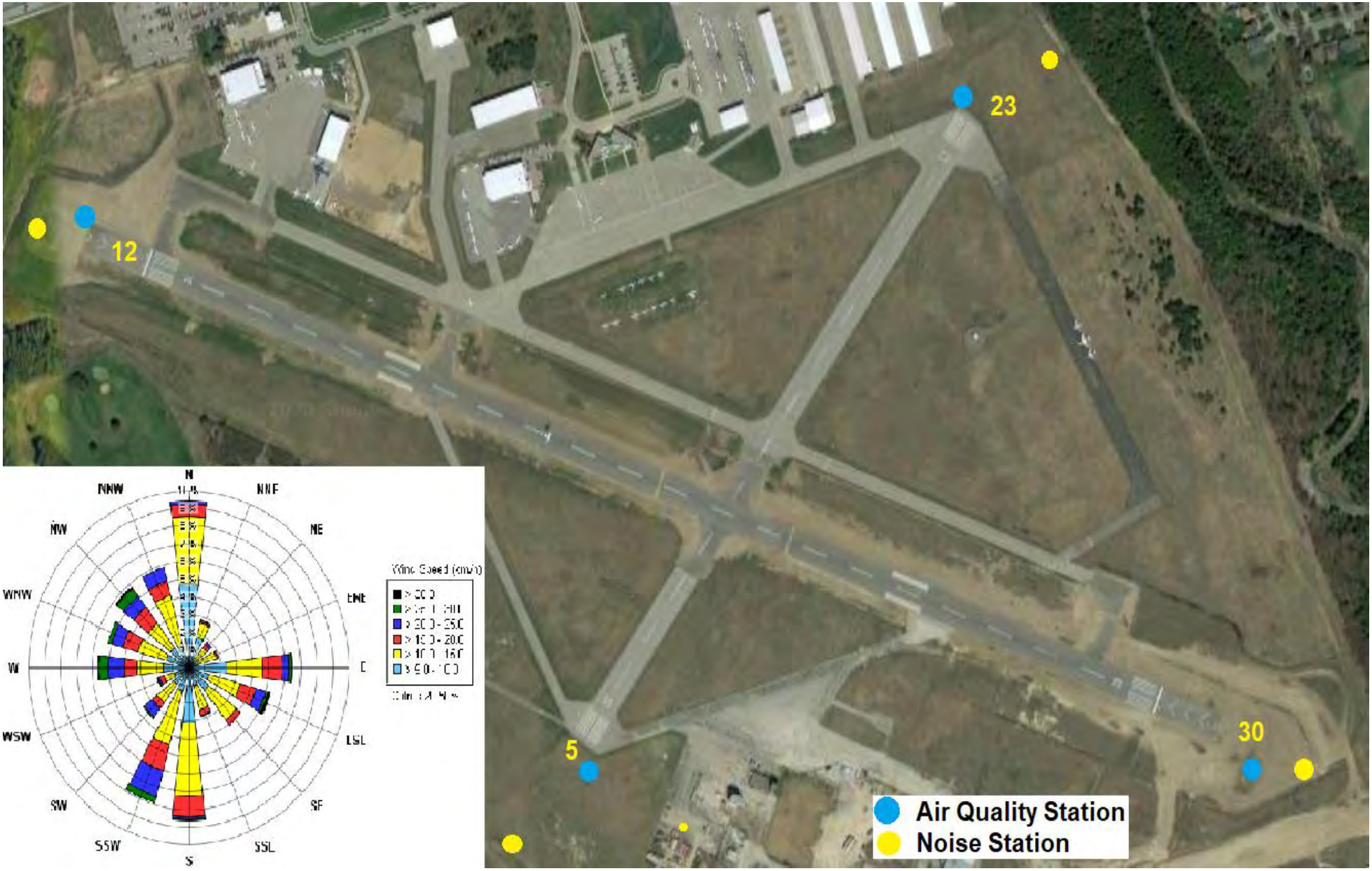


Table of Results - Oshawa Airport Passive Samples

	RW 5	RW12	RW23	RW 30
Date Installed	4-Jul	12-Jul	4-Jul	12-Jul
Date Removed	8-Aug	8-Aug	8-Aug	8-Aug
NO2 Concentration (ppb)	1.2	1.4	1.4	1.5
NO2 Concentration (µg/m³)	2.4	2.8	2.8	3.0
SO2 Concentration (ppb)	0.6	0.7	0.7	0.7
SO2 Concentration (µg/m³)	1.7	1.9	1.9	1.9
Date Installed	8-Aug	8-Aug	8-Aug	8-Aug
Date Removed	17-Sep	17-Sep	17-Sep	17-Sep
NO2 Concentration (ppb)	1.1	1.4	0.9	1.1
NO2 Concentration (µg/m³)	2.2	2.8	1.8	2.2
SO2 Concentration (ppb)	0.5	0.9	0.8	0.9
SO2 Concentration (µg/m³)	1.4	2.5	2.2	2.5

FIGURES



Location of Noise and Air Quality Stations and Wind Rose for the Monitoring Period

Figure No. 1

Oshawa Executive Airport Air Quality and Noise Monitoring

Project #1903663

Date: July 22, 2020

REPORT

OSHAWA EXECUTIVE AIRPORT NOISE MONITORING

OSHAWA, ONTARIO

NOISE STUDY
RWDI # 1903663
October 28, 2020

SUBMITTED TO

Stephen Wilcox A.A.E.
Airport Manager
swilcox@oshawa.ca

Oshawa Executive Airport
1200 Airport Blvd Suite 200
Oshawa, Ontario
L1J 8P5
T: 905.576.8146 x 3858

SUBMITTED BY

John DeYoe, d.E.T.
Project Director / Principal
john.deyoe@rwdi.com

RWDI AIR Inc.
Consulting Engineers & Scientists
600 Southgate Drive
Guelph Ontario Canada N1G 4P6
T: 519.823.1311
F: 519.823.1316

GLOSSARY

Ambient Sound	Existing sound conditions due to current airport operations, including sound from other existing industrial facilities, transportation sources, animals, and sounds of nature.
dB (decibel)	A unit of measure of sound pressure that compresses a large range of numbers into a more meaningful scale. Hearing tests indicate that the lowest audible pressure is approximately 2 x 10-5 Pa (0 dB), while the sensation of pain is approximately 2 x 102 Pa (140 dB). Generally, an increase of 3 dB is perceived as twice as loud.
dBA	The decibel (dB) sound pressure level filtered through the A filtering network to approximate human hearing response at low frequencies.
INM	Integrated Noise Model – A model by the FAA for sound from airports and airborne aircraft engaged in takeoff and landing operations.
ISO	International Standards Organization.
L_{AEQ}	The L_{AEQ} is the average A-weighted sound level over a specified period of time. It is a single-number representation of the cumulative acoustical energy measured over a time interval. If a sound level is constant over the measurement period, the L_{EQ} will equal the constant sound level where f is the fraction of time the constant level L is present.
L_{AEQD}	The L_{AEQ} for daytime hours (07:00-22:00).
L_{AEQN}	The L_{AEQ} for nighttime hours (22:00-07:00).
L_{DEN}	The average sound for a 24-hour period that accounts for increased sensitivity to sound during evening and nighttime hours by applying a penalty of 5 dB for sound in evening hours, and a 10 dB penalty for sound occurring during nighttime hours. The penalty causes an increase in the calculated sound level occurring during the period. Daytime hours are 07:00 to 19:00, evening hours are 19:00 to 22:00, and nighttime hours are defined from 22:00 to 07:00.
Sound	A dynamic (fluctuating) pressure.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

1 INTRODUCTION

RWDI was retained by Oshawa Executive Airport to complete a noise monitoring program at the Airport. The monitoring was undertaken as an investigation into current conditions. The monitoring took place at four locations near the end of the runways between July and October of 2019.

1.1 Measurement Methodology

Sound pressure level measurements at the locations were performed using Bruel & Kjaer Model 2250 precision Integrating Sound Level Meter (SLM). The Model 2250 uses a preamplifier and a PCB, Class 1 condenser microphone. The SLM was field calibrated using a precision acoustic calibrator prior to measurements and at several points throughout the monitoring. A windscreen was used during all measurements.

Figure 1 shows the ambient survey locations. The monitoring locations were checked at numerous times during the monitoring periods. The data from the instruments was also downloaded during these periods.

1.2 Airport Location Notes

Throughout this report, the locations are referenced by the runway numbers. All the monitoring locations were at the threshold ends of the specific runways. This is the end of the runways that the airplanes land on. The airplanes take off over the other end of the runway. For instance, when runway 12 is in use the airplanes are landing at the threshold of runway 12 but taking off over the samplers at the threshold of runway 30. The runways are named for the direction the airplanes are heading. For example, when the airplanes are using runway 30, they are travelling on an azimuth angle of 300 (NW); using runway 12 they are travelling on an azimuth angle of 120 (SE).

1.3 Environmental Conditions

The sound monitoring was conducted from July 4th, 2019 to October 11th, 2019. Meteorological data for the sound measurement period was taken from the Environment Canada public information for the station located at the Oshawa Executive Airport. Measurement data was excluded when windspeeds exceeded 20 km/hr and/or when the relative humidity exceeded 95%.

When wind speeds are elevated the noise from the wind begins to dominate the noise measurements. This is partly alleviated by the wind screen foam that covers the microphone but only to a point. High humidity event can cause microscopic condensation on the microphone which creates a hissing background.

1.4 Monitoring Results

The differences in number of valid records at the monitoring location can be attributed to unexpected equipment downtime because power related issues. The instruments were sensitive to spikes and bumps and would shut down when these occurred. Two of the locations were powered by generators and there were many more of these occurrences at these locations. Table 1 shows the A-weighted averaged sound level (L_{AEQ}) of valid data within the different specified time periods. Appendix A shows detailed results for each of the four locations.

Table 1: Measurement Results

Runway	R5	R12	R23	R30
Minimum (dBA)	38	44	35	33
Maximum (dBA)	83	81	86	79
L_{EQ} (dBA)	64	67	62	65
DAYTIME L_{EQ} (dBA)	66	69	64	67
NIGHTTIME L_{EQ} (dBA)	57	61	58	60
Valid Hours	1,220	748	1,962	2,014

There are no specific guideline noise values in Ontario for aircraft related noise impacts. This has been federally mandated due to the importance of aviation in Canada.

1.5 Monitoring Results Cross Comparison

As a comparison of impacts at different locations, three days were examined for the 12 hours between 7 am and 7 pm. This was to determine the level of difference between locations where the airplanes depending on aircraft activity.

On September 7, 2019 the active Runway was Runway 30 throughout the day. Figure 1.4.1 below shows the sound levels through the day.

Figure 1.4.1

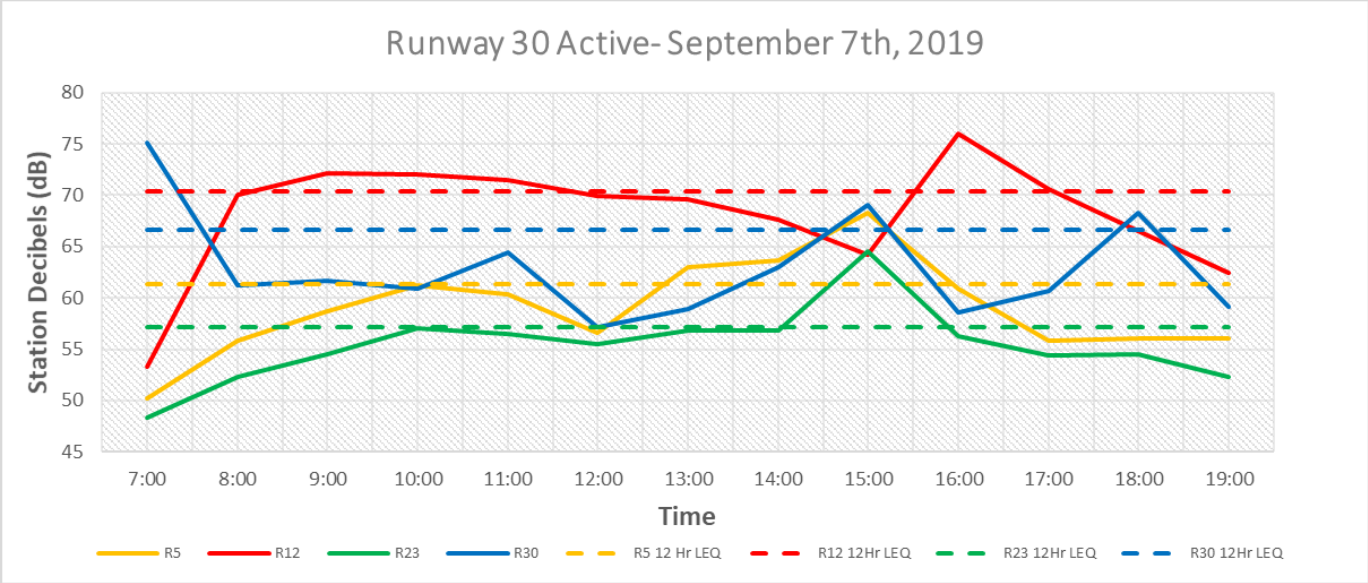


Table 1.4.1: Twelve-Hour LEQ's 7 a.m. to 7 p.m. September 7, 2019

Location	LEQ_{12hr} (dBA)
Runway 5	61.3
Runway 12	70.4
Runway 23	57.2
Runway 30	66.6

On September 9, 2019 the active Runway was Runway 5 for about half the period and Runway 12 for about half the period. Figure 1.4.2 below shows the sound levels for the day

Figure 1.4.2

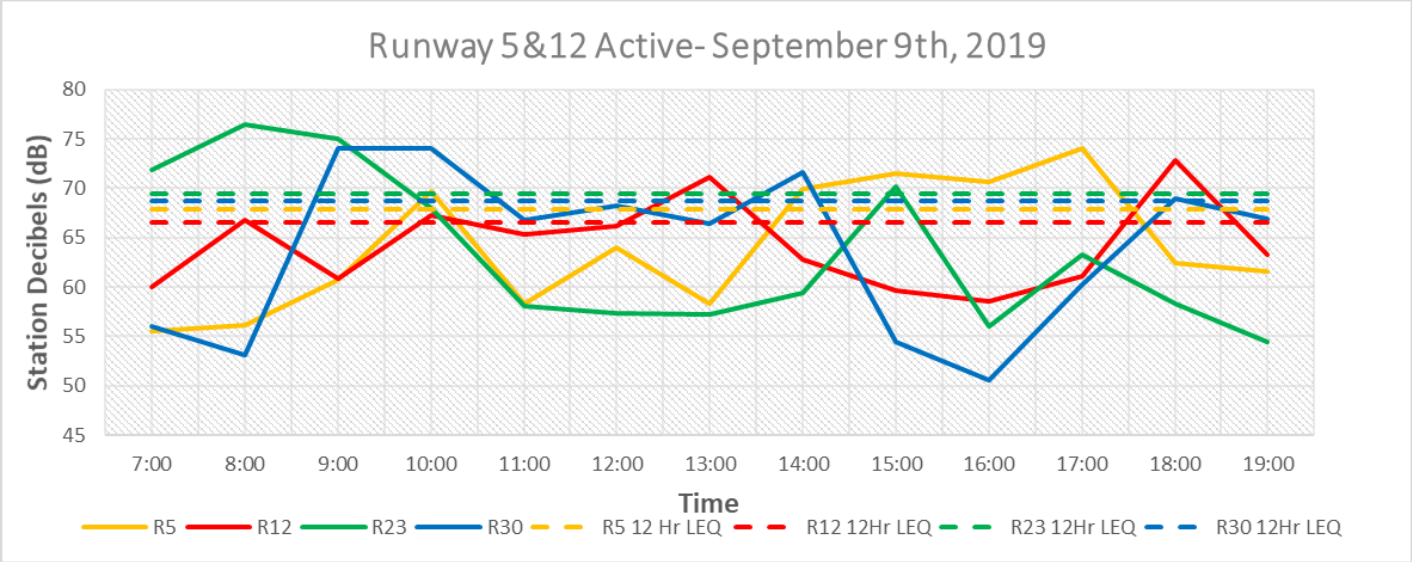


Table 1.4.2: Twelve-Hour LEQ's 7 a.m. to 7 p.m. September 9, 2019

Location	LEQ_{12hr} (dBA)
Runway 5	67.8
Runway 12	66.6
Runway 23	69.5
Runway 30	68.7

On September 18, 2019 the active Runway was Runway 12 for the entire period. Figure 1.4.3 below shows the sound levels for the day

Figure 1.4.3

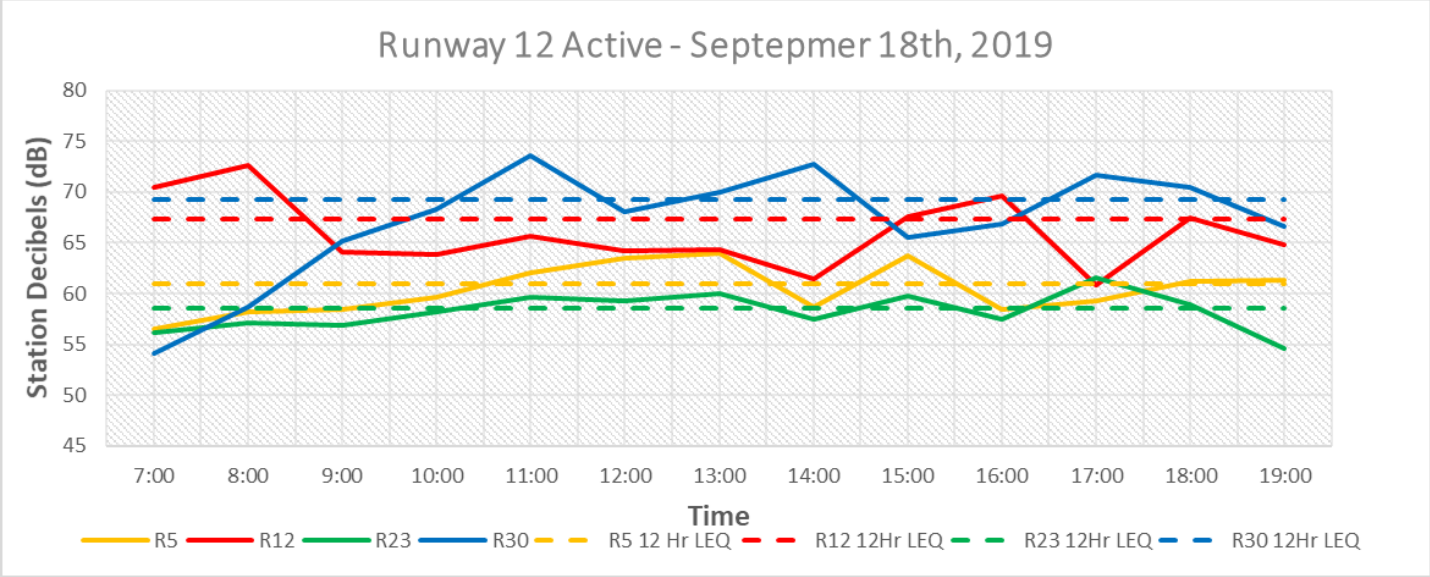


Table 1.4.3: Twelve-Hour LEQ's 7 a.m. to 7 p.m. September 18, 2019

Location	LEQ_{12hr} (dBA)
Runway 5	61.0
Runway 12	67.3
Runway 23	58.6
Runway 30	69.2

2 DISCUSSION

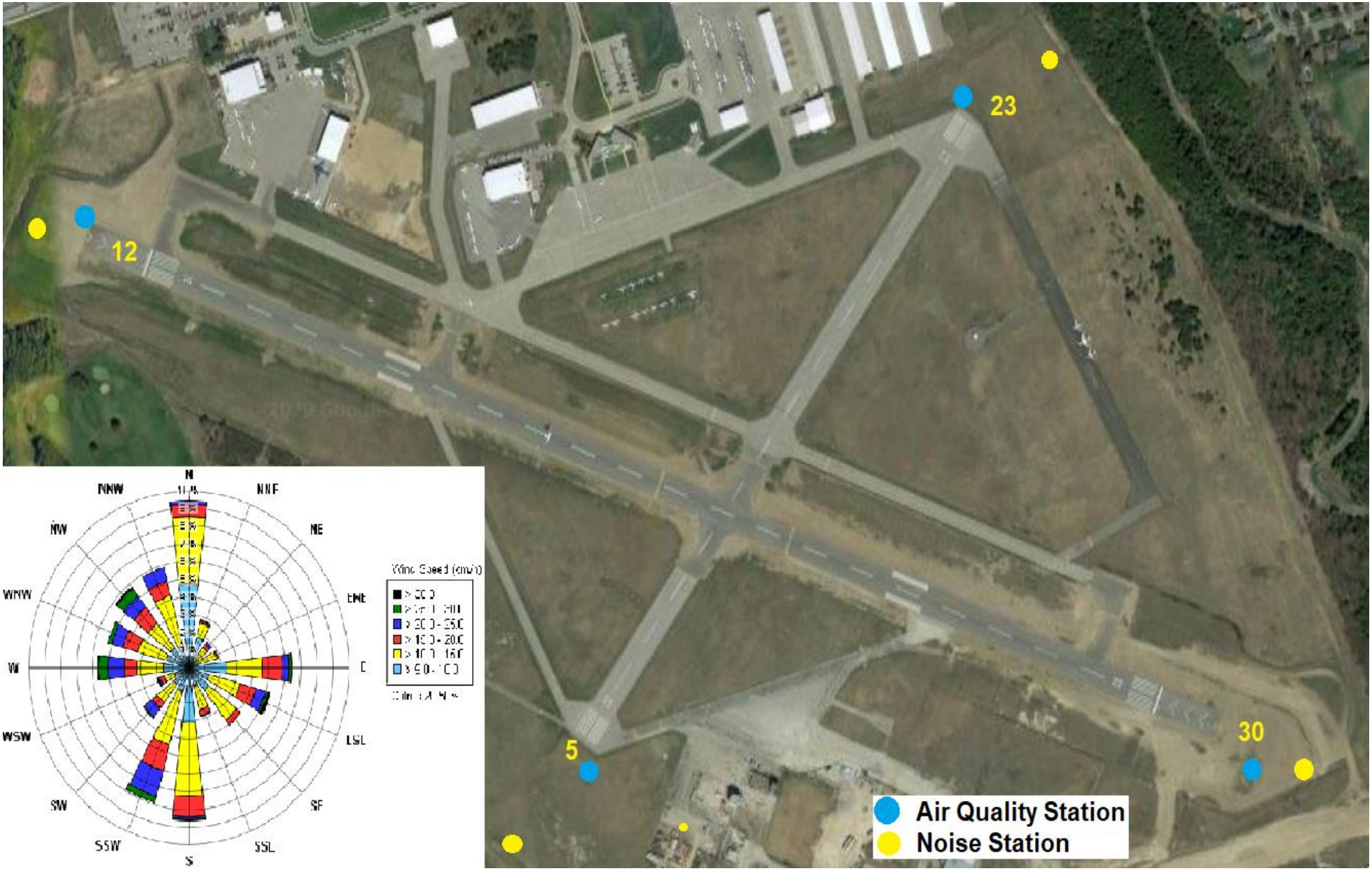
The detailed daily analysis showed that where there was a consistent runway in use the difference between the active and non-active runway location was roughly 10 dBA or an order of magnitude in terms of sound pressure levels over the daytime period. The differences between the takeoff end of the runway and the landing end of the runway was typically between 2 and 4 dBA which is roughly equivalent to double the sound pressure level. The station at the threshold of Runway 12 had the highest minimum value which was due to the proximity of Thornton and Taunton Roads.

There are more detailed data available within the measured data if further analysis is requested. The measurements took place through the busiest time of year and the results are fairly consistent between the monitoring locations. There were sizable gaps in some of the monitoring data but there was a very large pool of data assembled at all stations due to the length of the monitoring program.

Future monitoring should be completed with more robust power backups and remote data collection ability.

The comments received in the public meeting regarding the noise and air quality monitoring centred around the locations of the sampling stations. The comments reflected a desire for the monitoring to be completed in the community as opposed to the monitoring locations on the airport property. With this in mind, a monitoring program for 2020 was proposed which would have taken place in the residential area around the airport. However, the monitoring program has been postponed due to the Covid-19 crisis. The program is now scheduled for the Summer of 2021.

FIGURES



Location of Noise and Air Quality Stations and Wind Rose for the Monitoring Period

Figure No. 1

Oshawa Executive Airport Air Quality and Noise Monitoring

Project #1903663

Date: July 22, 2020

REVISED PROPOSAL

Oshawa Airport
Air Quality and Noise Monitoring

OSHAWA, ONTARIO

AIR QUALITY & NOISE MEASUREMENT PROPOSAL

RWDI #1903663JD
October 28, 2020

SUBMITTED TO

Stephen Wilcox, A.A.E.
Airport Manager
swilcox.oshawa.ca

Total Aviation and Airport Solutions
1200 Airport Blvd. Suite 200
Oshawa, Ontario
L1J 8P5

T: 905.576.8146 x 3858

SUBMITTED BY

John DeYoe, d.E.T., B.A.
Senior Consultant / Principal
john.deyoe@rwdi.com

RWDI
600 Southgate Drive,
Guelph, Canada, N1G 4P6
T:519.823.1311
F: 519.823.1316

REVISED PROPOSAL

Dear Stephen,

In response to your recent enquiries regarding ambient air quality and noise monitoring in the community around the Oshawa Executive Airport site, we are pleased to submit this proposal. RWDI has performed thousands of air quality and noise projects. The request to complete the community monitoring was in response to comments received from a public meeting forum.

Thank you for the opportunity to present this proposal. Should you have any questions or require additional information on any aspect of this proposed work, feel free to give me a call at 1-519-823-1311 x 2258. We look forward to working with you on this project.

Yours very truly,

John DeYoe, B.A.
Project Director / Principal

JD

REVISED PROPOSAL

SCOPE OF WORK

Total Aviation and Airport Solutions (TAAS) has contacted RWDI to complete an ambient air quality monitoring and noise program near the Oshawa Airport. TAAS is planning to conduct air quality and noise monitoring at four locations. Four locations will be in the residential area surrounding the airport or near the ends of runways. The monitoring results will be compared to specific requirements relating to air quality as outlined in the Ministry of Environment Conservation and Parks (MECP) Ambient Air Quality Criteria (AAQC). The proposed monitoring would take place for a 2-month period. The monitoring stations will consist of High-Volume Air Samplers (Hi-Vol) for Total Suspended Particulate (TSP) which will also capture the airborne lead portion. The sampling stations will also have passive samplers for nitrogen dioxide. The TSP/lead samples will be taken for a 24-hour duration, once every other day. Though a different sampling schedule can be worked out if requested. The passive nitrogen dioxide samples are one month in duration.

Air Quality Parameters

The parameters examined in the Environmental Assessment (EA) are listed below:

Pollutant	Averaging Period	AAQC (□g/m³)
Total Suspended Particulate (TSP)	24-hour	120
	Annual	60
Lead	24-hour	0.5
	30-day	0.2
Nitrogen dioxide (NO_2)	1-hour	400
	24-hour	200

Noise Parameters

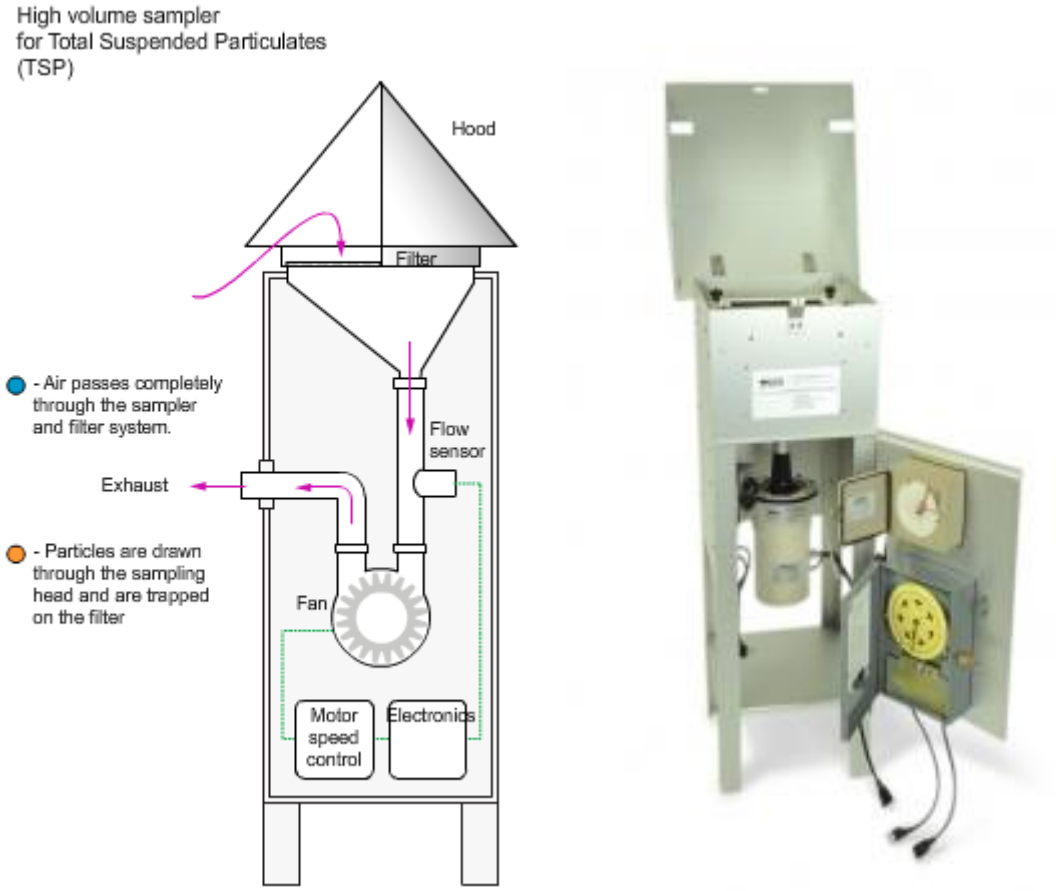
The noise emanating from airports does not fall under the NPC-300 noise guideline limits and it would be anticipated that the noise levels would be above the exclusion limits listed. Airports are exempted from the process, as are roadways and railways.

Class 2 Limit	Time of Day	Exclusion Limit (dBA)
One-Hour LEQ	700- 1900	50
	1900-700	45

Assuming Classification as a Class 2 area. Simplified limit. Equivalent Sound Level (LEQ).

Particulate Matter/Lead

We are proposing to use standard Hi- Volume Air Samplers (Hi-Vols) for particulate and lead. We are also proposing to monitor Total Suspended Particulate (TSP) using one of these instruments. The samples will be collected on pre-weighed quartz filters. The filters will be conditioned and weighed after sampling to determine mass gain (TSP concentration) and an aliquot of the filter will be extracted and analyzed using atomic absorption techniques to determine lead concentrations. All sampling and analytical techniques will comply with the Ministry of Environment's Operations Manual for Air Quality Sampling and USEPA Method IO-2. The duration of sampling is assumed to be 2-months with a sampling frequency of every other day. This can of course be altered if requested and pricing will be altered accordingly.



Schematic **Photograph**

Hi- Volume Air Sampler

.

Gaseous Pollutants

In addition to the particulate monitoring, we will complete monitoring for Nitrogen dioxide (NO2) at the monitoring locations. The monitoring is proposed to be completed with passive air samplers. The samplers will be installed and will take a single one-month long integrated sample. This method is used in several locations in North America and Europe. It requires no shelters or power and provides a good indication of potential impacts. The ambient air diffuses across a special membrane to react with the sample media. The samples will be sent to Maxxam Laboratories in Edmonton, Alberta to be analyzed. Once the mass of pollutant in the media is determined, the average concentration of pollutant in the air, over a one-month period, is calculated from the known diffusion rate.

Passive Air Samples

Meteorological Measurements

Wind speed and direction data will be compiled from the data collected at the airport for interpretation of the air quality sampling results.

Noise Measurements

Sound level measurements will be recorded with either Bruel & Kjaer or Larson Davis instrument fitted with a Class 1 microphone. The instrument will record one-hour LEQ values for the duration of the project.

> *Definition: Equivalent Sound Level (LEQ): An energy-average sound level taken over a specified period of time. It represents the average sound pressure encountered for the period. The time period is often added as a suffix to the label (i.e., $L_{eq}(24)$ for the 24-hour equivalent sound level). L_{eq} is usually A-weighted. An L_{eq} value expressed in dBA is a good, single value descriptor of the annoyance of noise.*

RWDI will supply more sophisticated sound level meters that will also record sound if there any periods are above the guideline values. This will allow us to determine if elevated levels are related to airport or non-airport activities. If the measurements reveal levels that are above guideline values the audio recordings for those periods will be reviewed.

The records of aircraft movements during the monitoring period will also be gathered. The movements will be compared to levels assumed for the Environmental Assessment to compare measured data with the predictive modelling that RWDI completed previously. The levels will also be compared to NPC-300 guideline values.

Measurement Locations

One air quality and one noise station will be installed near four locations that will be on the flight paths near the end of the runways along flight paths. The noise and air quality stations should be separated by roughly 100 metres so that the noise from the air sampling does not interfere with the noise measurements. The noise locations do not necessarily require electrical power however the air quality stations will require electrical power. It would be best of the air quality stations were sited on rooftops though it is not strictly required. The noise stations would be better sited at ground level.

Timing of Sampling

There have been some discussions as to what the timing of the sampling campaign. Currently it is planned to start monitoring for the summer flying season. This means that the site selection process needs to star as soon as possible

Schedule

RWDI can begin monitoring within three weeks of securing the monitoring location and authorization.

A report will be issued at the conclusion of the monitoring though updated results will be sent on an on-going basis via email. The report will contain summaries of measured data, comparison to Ambient Air Quality Criteria and noise guidelines, graphics showing instrument location and details regarding conditions during the measurement will also be included. The report will contain all measured data in tabular for and will contain analysis of pollutant concentrations with meteorological conditions. The report will also contain a comparison to predicted levels from the EA report.

Siting Considerations

Please note that it is assumed that the airport staff and/or the municipality will be the key decision makers in the site selection process with input from RWDI. Currently the municipality is undertaking a mapping of complaints to determine locations of complaint clusters to better accommodate public concerns. RWDI will be required to examine candidate locations and negotiate with land owners, there will be additional charges that are not included in our currently proposed scope of work which will be billed on a time rate basis. Additionally, if there are costs associated with obtaining electrical power or security requirements (fencing), these will be billed additionally.

BUDGET

RWDI's fixed fee cost for completing the scope of work as defined $75,000, which includes professional fees and expenses but is exclusive of applicable taxes. This does not include the site selection process which will be billed on a time rate basis. If the frequency or duration of the sampling is altered the pricing can be adjusted.

Expenses		
Hi-Vols (8) @ $300/month		$5,300
Passives		$800
Travel		$3,200
Laboratory (10% blanks)		$16,300
Hardware		$1,200
Sound Level Meters		$8,800
	Total Expenses	$35,600
Fees		
Startup		$1,800
Bench test/ Install		$8,700
Sampling		$14,100
Data Management/Analysis/Updates		$7,700
Reporting		$9,800
	Total Fees	$44,100
TOTAL COST		**$79,700**

Site Selection and Preparation (Time rate basis) **$10,000 (est.)**

Please note that the pricing assumes 4 stations each for air quality and noise. The program may be altered to reduce the number of stations and the costing will be reduced accordingly if this is the case.

WORKING WITH RWDI

THE PEOPLE

RWDI is an environmental and engineering consultancy located in Guelph, Ontario. RWDI enjoys a trusted 45-year reputation for our deep knowledge and sophisticated technology solutions for wind engineering and environmental projects. From offices in Canada, United States of America, England, India and Asia, our consultants meet the world's most complex air quality and noise challenges with experience, knowledge and superior service.

Additional details on company experience and Resumes are provided in the, attachments.

RWDI has completed thousands of air quality assessments. John DeYoe will act as project manager and senior specialist on the project. Other RWDI staff will help as required.

REVISED PROPOSAL

LETTER OF AGREEMENT

We hereby authorize Rowan Williams Davies & Irwin Inc. (RWDI) to provide the services outlined in this proposal, reference #1903663JD, dated January 29, 2020 This Letter of Agreement together with the terms noted in the proposal constitutes the entire agreement. Please initial the options you would like to authorize. No other agreement shall take precedence unless agreed to by both parties in writing.

Name (Please Print)	Company
Title	Date
Signature (I am authorized to bind this corporation)	

RWDI and the Client agree that this Proposal may be communicated and/or accepted by email or facsimile transmission and that the said communication and/or acceptance shall be legal and binding upon RWDI and the Client. RWDI and the Client further agree that reproductions of signatures by telecommunications will be treated as original signatures.

REVISED PROPOSAL

RWDI aims to accommodate. If you require this document in a different format in order to aid accessibility, please contact the sender of this document, email solutions@rwdi.com or call +1.519.823.1311

REVISED PROPOSAL

SUPPLIER PROFILE

CORPORATE BACKGROUND

The RWDI Group of Companies is an international consulting engineering company, specializing in environmental and wind engineering. Founded in 1972, we have a trusted reputation for delivering understandable and useful results to a wide variety of clients, including government agencies, architects/ engineers, and industry. The RWDI Group of Companies employs over 300 professional engineers, scientists, and technologists that are focused on excellence, accountability and responsiveness in all that we do.

RWDI AIR Inc. (RWDI) is part of the RWDI Group of Companies, which enjoys a trusted 46-year reputation for our deep knowledge and sophisticated technology solutions for complex environmental and engineering problems. RWDI is 100 % owned by the RWDI Group of Companies and both companies are private corporations that are headquartered in Guelph, Ontario.

RWDI is one of Canada's largest air quality modelling and measurement consulting firms, with offices and staff in Guelph, Dartmouth, Windsor, Ottawa, Calgary, Victoria, Vancouver, and Thunder Bay. RWDI's proven track record and years of permitting work have built an excellent reputation with clients and regulatory agencies across Canada and around the world. Numerical modelling and ambient monitoring have been core competencies at RWDI for over 25 years.

Our resources include a full suite of state-of-the-science air quality modelling software, specialized ambient and stack testing measurement equipment, our extensive reference library, and of course, our versatile expert staff that are specialized in air quality modelling and monitoring. Company Brochures are included in **Appendix A.**

With our extensive knowledge of meteorology, industrial processes, atmospheric chemistry, and regulatory guidelines, we provide another level of service that few competitors can match. We understand that our clients not only require accurate measurements, but also that the data is interpreted and communicated back to the client in an appropriate manner. Public presentation of results is another client service RWDI provides and ambient monitoring is one of the most credible demonstrations of compliance for open houses, public liaison committees, etc.

RWDI's extensive experience allows us to provide the results our clients' need, from simple permitting and approvals through extensive sampling programs and monitoring networks, public presentations and expert witness testimony. We pride ourselves on our ability to provide you with easy to understand data and advice - "... complicated issues made simple".

BC Hydro Site C Reservoir

2009 to Present

RWDI installed and is maintaining a network of four ambient air quality stations and six meteorological stations for BC Hydro's Site C Clean Energy Project. The network has been upgraded and modified to align with changing regulatory requirements. The Site C monitoring network was initially installed to collect baseline data to be used in the environmental effects assessment for the proposed project. RWDI was retained to continue operation/maintenance of the monitoring network, and currently provides this service through our partnership with the Halfway River First Nation.

Currently, the main purpose of this network is to monitor the effects of project construction on air quality as it relates to protecting the health of surrounding communities, including First Nations. As such, the analyzers are maintained and audited to BC Ministry of the Environment standards, and data is shared for use on the BC MOE's near real time air quality data portal, which is accessible to the public. Climate/meteorological data is also being collected for baseline purposes, to compare with data to be collected once the dam is in place, to determine the effects of the reservoir on local microclimate, which is an important consideration for agriculture in the area.

The network currently consists of ten monitoring stations in the Fort St. John and surrounding area. Station data is collected on a continuous basis for the following parameters:

- particulate matter including PM_{10} and $PM_{2.5}$;
- gases including NO_x, SO_2 and CO; and
- climate/meteorological parameters including wind speed, wind direction, air temperature, precipitation, relative humidity, barometric pressure, all solar radiation components, turbulent flux, visibility, soil temperature, soil moisture and soil heat flux.

RWDI utilizes local staff in Fort St. John, and the RWDI Vancouver and Calgary offices and our in-house remote diagnostics/repair system ("Hornet") to efficiently and effectively troubleshoot and administer repairs, to allow for maximum analyzer up time.

The data is collected remotely, reviewed and validated. Both live and validated datasets are available for client viewing on RWDI's Envision data portal. Current data completeness is typically above 90% which is well above the required 75% minimum. The live data is also used with RWDI's Envision alerting system, which is programmed to send a text or email alert to BC Hydro and the construction contractors if particulate or gas levels are approaching allowable ambient objectives. Annual reports are created that summarize all of the readings taken each year and provide a discussion with respect to compliance and annual trends.

Example of Site C meteorological station

Example of Site C gas monitors

2003 TO PRESENT

RWDI was initially retained by Bowater Canadian Forest Products (now Resolute Forest Products Inc.) to manage budget requirements, final siting details and data management options for two ambient air quality monitoring stations to be operated by Bowater in Thunder Bay. Bowater and RWDI entered into a 10-year agreement whereby RWDI would be responsible for the procurement and commissioning of the two new ambient stations, and the routine maintenance and calibration of the instruments within the stations. Furthermore, RWDI is responsible for data acquisition, quality control and quality assurance as they relate to the data handling and any required reporting (e.g., quarterly, annual, etc.).

The following parameters are currently being sampled continuously as part of the monitoring network (not all parameters sampled at both locations):

- total reduced sulphur;
- respirable particulate matter $PM_{2.5}$;
- wind speed/direction;
- ambient temperature;
- incoming solar radiation;
- relative humidity; and
- barometric pressure.

Non-continuous samples for total suspended particulate matter (TSP) are also obtained at both locations.

The equipment is housed in pre-fabricated stations. All monitoring equipment was bench tested in our Guelph office prior to shipment to Thunder Bay for installation. RWDI also participated in the negotiation and acquisition of land required for the ambient stations and made arrangements for site preparations including building pad installation, line power and telephone hook-ups, and site security. Each station was pre-assembled in Guelph to ensure that all equipment was operating correctly. After the installation of the stations on the sites, RWDI staff commissioned the air quality and meteorological equipment and conducted the preliminary calibrations required for the monitoring equipment. RWDI staff conduct weekly station inspections and monthly calibrations at the two sites.

Through the course of completing several large scale ambient monitoring programs, RWDI has developed a system of QA/QC procedures that ensure a high rate of data recovery and ensure the accuracy of the results. Many of these procedures have their basis in the reference sampling and monitoring methodologies stipulated in reference methods from monitoring and reporting programs. The Thunder Bay monitoring program follows the requirements outlined in the MOE's Operations Manual for Air Quality Monitoring in Ontario, dated March 2008. The stations are audited by the MOECC on a quarterly basis. The station uptime is currently running at better than 90%.

One minute, five minute and hourly average readings from both stations are downloaded daily from a host computer located in Thunder Bay. Daily zero/span values from the previous night are reviewed to ensure that the analysers are operating within tolerances. Data is processed monthly. Reports are generated on a quarterly and annual basis and include percentile summaries, data trends, wind and pollution roses (frequency plots), and comparison to applicable ambient air quality objectives and ON risk standards.

HOLCIM (CANADA) INC. – MISSISSAUGA, ON

2014 TO PRESENT

RWDI was retained by Holcim (Canada) Inc. to select ambient monitoring locations, complete siting requirements, complete the commissioning, day-to-day operations, all calibrations, manage ON MOE audits and data management for two ambient air quality monitoring stations. Holcim voluntarily completed the program in order to assist with the collection of current state ambient monitoring data at their cement facility. RWDI also provides advice and participates in meetings with the ON MOE regarding the stations, and reporting and address any technical aspects related to the project.

RWDI was responsible for the procurement and commissioning of the two new ambient stations, routine maintenance, and calibration of the instruments. Furthermore, RWDI is responsible for data acquisition, quality control and quality assurance as they relate to the data handling and also any required reporting (e.g., quarterly, annual, etc.).

The following parameters are currently being sampled continuously and periodically (not all parameters sampled at both locations):

- carbon monoxide;
- oxides of nitrogen ($NO/NO_x/NO_2$);
- sulphur dioxide;
- respirable particulate matter;
- wind speed/direction;
- ambient temperature;
- relative humidity;
- inhalable particulate matter (PM_{10})
- volatile organic compounds;
- ammonia;
- hydrogen chloride;

- dioxins and furans); and
- polycyclic aromatic hydrocarbons.

The equipment is housed in pre-fabricated stations. All monitoring equipment was pre-assembled and bench tested in our Guelph office prior to shipment to Mississauga for installation to ensure that all equipment was operating correctly. After the installation of the stations on the sites, RWDI staff commissioned the air quality and meteorological equipment and conducted the preliminary calibrations required for the monitoring equipment. RWDI staff conduct weekly station inspections and monthly calibrations at the two sites.

Through the course of completing several large scale ambient monitoring programs, RWDI has developed a system of QA/QC procedures that ensure a high rate of data recovery and ensure the accuracy of the results. Many of these procedures have their basis in the reference sampling and monitoring methodologies stipulated in reference methods from monitoring and reporting programs. The monitoring program follows the requirements outlined in the MOE's Operations Manual for Air Quality Monitoring in Ontario. The stations are audited by the MOE on a quarterly basis. The station uptime is currently running at better than 90%.

One minute average and hourly average readings from both stations are downloaded daily from our offices in Guelph. Daily zero/span values from the previous night are reviewed to ensure that the analyzers are operating within tolerances. Data is processed once per month and reports are generated on a quarterly and annual basis and include percentile summaries, data trends, wind and pollution roses (frequency plots), and comparison to applicable ambient air quality objectives and ON risk standards.

OSHAWA
ONTARIO, CANADA

OFFICE OF THE MAYOR
CITY OF OSHAWA
50 CENTRE STREET SOUTH
OSHAWA, ONTARIO
L1H 3Z7
TELEPHONE (905) 436-5611
FAX (905) 436-5642
E-MAIL: mayor@oshawa.ca

MAYOR DAN CARTER

November 2, 2020

The Honourable Marc Garneau
Federal Minister of Transport
House of Commons
Ottawa, ON K1A 0A6

Re: Establishment of Noise Abatement Procedures and Restrictions for Oshawa Executive Airport under the Transport Canada Aviation Advisory Circular 302-002

The Oshawa Executive Airport (the "Airport") is owned and operated by the City of Oshawa and is managed in accordance with the City's Airport Business Plan. The most recent update to this Plan, for the 2015-2019 timeframe, included a commitment to ensure that the Airport operates within the context of being a "Good Community Neighbour". The 2015-2019 Plan further identified that the City is sensitive to the noise impacts associated with flight training.

In the past five years, noise complaints relating to aircraft traffic activity at and around the Oshawa Executive Airport have grown from a 10-year average (for the 2006-2015 period) of approximately 50 complaints a year to in excess of 250 complaints to date in 2020.

On September 24, 2019, pursuant to the direction of City Council to undertake a thorough consultation process with Airport stakeholders and the public as part of developing an updated Business Plan for the 2020-2024 timeframe, the City's Airport Community Liaison Committee (the "A.C.L.C.") held a Town Hall meeting attended by approximately 175 participants. Most recently, on September 29, 2020 and October 1, 2020, Development Services staff and the Airport Manager hosted two virtual Airport workshops for which a combined total of 80 participants registered to participate.

At both the A.C.L.C. Town Hall meeting and the workshops, concerns were raised regarding aircraft noise, the amount of flight training aircraft traffic and

circuit patterns, and operating hours of flight training aircraft traffic, among other matters.

The current 2015-2019 Plan involves a voluntary noise and traffic management plan. The primary focus of the noise and traffic management plan has been to limit the growth in flight training activity. The voluntary plan was last updated in 2016 and does not take into consideration the following:

- The growth in annual aircraft movements from a 10-year average of 61,469 (for the 2006-2015 period) to 89,900 annual aircraft movements in 2019.

- The acquisition and movement of the Toronto Airways flight training school from Buttonville Airport to the Oshawa Executive Airport by Canadian Flight Academy in 2016.

- The perceived changing demographics of the residential area surrounding the Airport based on commentary from area residents at the A.C.L.C. Town Hall meeting and Airport workshops.

- The effects of changing climatic conditions which has resulted in an increased use of runways in a manner that has exacerbated the effects of aircraft traffic on adjacent residential areas, particularly to the south and southeast of the Airport, which require aircraft to depart over the residential areas.

- The impact of the COVID-19 pandemic and the potential that a significant number of office workers will continue to work from home once the pandemic is over.

- The intensification of residential areas throughout the City and in designated corridors and centres, including in proximity to the Airport, in accordance with the Provincial Policy Statement (2020), the Provincial Growth Plan for the Greater Golden Horseshoe, the Durham Regional Official Plan and the Oshawa Official Plan.

In keeping with the Airport's commitment to be a good community neighbour, it is appropriate that the noise and traffic management plan be updated.

Transport Canada is the regulator and only the Federal government can regulate aircraft activity. Consequently, municipal by-laws cannot be used to regulate aircraft activity, and neither City staff nor the Airport Manager have the authority to regulate aircraft activity.

There are two methods available to the City for the establishment of a new noise abatement procedure at the Airport: a voluntary process and a formal process. Both processes are required to be undertaken in the context of the Canadian Aviation Regulation 602.105 (the "Regulation"), in compliance with Transport Canada's Advisory Circular 302-002 (the "Circular").

To date, the voluntary process has been used to establish the current noise and traffic management plan at the Airport.

However, as mentioned above, matters have evolved since the voluntary noise and traffic management plan was last updated in 2016. The voluntary process is no longer an effective means of limiting the effects of flight training activity on the residential areas surrounding the Airport.

To compound matters, the two Oshawa-based flight schools have declined to provide any further reductions in aircraft activity or hours of operation.

In order to advance a new noise abatement procedure using the formal process within the context of the Regulation, the Airport must comply with Transport Canada's requirements as contained in the Circular.

It should be noted that the Transport Canada Ontario Regional Aerodrome and Air Navigation Division ("T.C.O.R.") has previously advised through discussions with the Airport Manager that they will not concur with a solution unless the majority of impacted parties concur with the solution.

More recently, the Commissioner of Development Services, the Director of Planning Services and the Airport Manager met with senior T.C.O.R. staff on September 21, 2020. The purpose of the meeting was to obtain T.C.O.R.'s input regarding issues relating to flight training, including reducing the amount of flight training aircraft traffic, altering the circuit patterns and addressing hours of operation and noise mitigation opportunities, in order to provide better balance and respect of Oshawa residents' quality of life. On the issue of seeking to establish a new noise abatement procedure, T.C.O.R. senior staff were asked if they would support a solution where consensus was not reached. T.C.O.R. senior staff declined to answer the question and indicated that they would report back with an answer. They also declined to provide a timeline for the response.

On October 26, 2020, City Council adopted Resolution DS-20-124 to advance the process to establish a new Noise Abatement Procedure and Restrictions under the Transport Canada Circular as a means to provide a better balance between the quality of life of Oshawa residents and the economic benefits of the Oshawa Executive Airport. Resolution DS-20-124 reads as follows:

1. That staff be directed to report back to the Development Services Committee on the process identified by Transport Canada Aviation Advisory Circular 302-002 to establish noise abatement procedures and restrictions at the Oshawa Executive Airport and make a recommendation on what is required for the City to advance that process; and,

2. That the Mayor, in consultation with the Ward 2 Councillors, be authorized to send a letter to the Honourable Marc Garneau, the Federal Minister of Transport asking for his support to address residents concerns regarding noise, air quality and safety at the Oshawa Executive Airport; and,

3. That the Mayor, in consultation with the Ward 2 Councillors, be authorized to send letters to all Oshawa M.P.s and M.P.P.s asking for their support to address residents concerns regarding noise, air quality and safety at the Oshawa Executive Airport.

Pursuant to Part 2 of the above noted Resolution, I respectfully request on behalf of the City of Oshawa the assistance of your office in the City's efforts to address Oshawa residents' valid concerns regarding noise, air quality and safety at the Oshawa Executive Airport. In this regard, your support of a new Noise Abatement Procedure that offers a meaningful solution to these concerns is requested, particularly in the event that consensus is not reached amongst the affected parties and key divisions remain.

If you have any questions or require further information or clarification, please contact me at the address shown or by telephone at 905-436-5611 or by email at dcarter@oshawa.ca.

Yours truly,

Dan Carter
Mayor, City Of Oshawa

Oshawa

Public Report

To:	Development Services Committee
From:	Warren Munro, HBA, RPP, Commissioner, Development Services Department
Report Number:	DS-21-23
Date of Report:	February 3, 2021
Date of Meeting:	February 8, 2021
Subject:	Process to Establish a New Noise Abatement Procedure at the Oshawa Executive Airport
File:	F-2510

1.0 Purpose

The purpose of this Report is to respond to Part 1 of the following direction approved by Council on October 26, 2020 (DS-20-124):

> "Whereas on October 15, 2019, City Council directed staff to, amongst other matters, review the issues raised at the September 24, 2019 Airport Community Liaison Committee Town Hall meeting and specifically review issues concerning flight training with a view of reducing the amount of flight training aircraft traffic, altering the circuit patterns, addressing hours of operation, addressing noise mitigation opportunities and obtain input from NAV Canada and Transport Canada as appropriate in order to provide better balance and respect of Oshawa residents quality of life; and,
>
> Whereas on September 29, 2020 and October 1, 2020, the City hosted virtual workshops on the development of the 2020-2024 Airport Business Plan (the "Business Plan") in response to Council's October 15, 2019 direction; and,
>
> Whereas the virtual workshops were held to obtain stakeholder input on what should be included or addressed in the Business Plan; and,
>
> Whereas approximately 80 people attended the virtual workshops which included Oshawa residents, aviation industry representatives and other stakeholders; and,
>
> Whereas a number of Oshawa residents passionately and clearly expressed significant concerns with airplane noise, safety, and air quality, and in particular, concerns with the amount of flight training traffic; the circuit patterns; and the operating hours of the flight training schools; and,

Whereas it is critical that there be better balance between the quality of life of Oshawa residents and the economic benefits of the Oshawa Executive Airport; and,

Whereas Transport Canada Aviation has issued an Advisory Circular entitled Implementation of New or Amended Noise Abatement Procedures which sets out the implementation process for noise abatement procedures and restrictions at airports; and,

Whereas the Advisory Circular was prepared by a multi-disciplinary working group including Transport Canada Aviation, NAV Canada, the Air Transport Association of Canada, the Canadian Business Aircraft Association, the Federation of Canadian Municipalities, the Canadian Airlines Council and individual airport operators; and,

Whereas the Oshawa Executive Airport only operates a voluntary Good Community Neighbour policy, which established certain rules and regulations; and,

Whereas, it is appropriate for Council to obtain information on the Transport Canada Aviation Advisory Circular process;

Therefore, be it resolved:

1. That staff be directed to report back to the Development Services Committee on the process identified by Transport Canada Aviation Advisory Circular 302-002 to establish noise abatement procedures and restrictions at the Oshawa Executive Airport and make a recommendation on what is required for the City to advance that process; and,

2. That the Mayor, in consultation with the Ward 2 Councillors, be authorized to send a letter to the Honourable Marc Garneau, the Federal Minister of Transport asking for his support to address residents concerns regarding noise, air quality and safety at the Oshawa Executive Airport; and,

3. That the Mayor, in consultation with the Ward 2 Councillors, be authorized to send letters to all Oshawa M.P.s and M.P.P.s asking for their support to address residents concerns regarding noise, air quality and safety at the Oshawa Executive Airport."

Canadian Aviation Regulation 602.105 (the "Regulation") serves to establish noise operating criteria that operators of aircraft at or in the vicinity of an aerodrome must comply with. Advisory Circular 302-002 (the "Circular"), as referenced under Part 1 of the above noted Council directive, outlines the process involved in requesting Transport Canada to establish a new noise abatement procedure in accordance with the Regulation.

Attachment 1 is a map showing the runways, taxiways and noise berms at the Airport.

Attachment 2 is a copy of the Regulation dealing with noise operating criteria under the Canadian Aviation Regulations respecting aviation and activities relating to aeronautics.

Attachment 3 is a copy of the Circular dealing with the implementation of new noise abatement procedures.

2.0 Recommendation

That the Development Services Committee recommend to City Council:

1. That, pursuant to Report DS-21-23 dated February 3, 2021, the Commissioner of Development Services, in consultation with the City's Airport Manager, be authorized to advance the process prescribed in Advisory Circular 302-002 to request Transport Canada to establish a new noise abatement procedure at the Oshawa Executive Airport.

2. That, the Airport Manager, in consultation with the Commissioner of Development Services, be authorized to engage a qualified, independent consultant with familiarity of the requirements of Advisory Circular 302-002 to assist in the advancement of Part 1 of the recommendation, at an upset limit of $60,000 exclusive of H.S.T.

3. That copies of this Report and associated resolution be forwarded to all Oshawa and Whitby MPs and MPPs as well as to the Town of Whitby.

3.0 Executive Summary

Not applicable.

4.0 Input From Other Sources

- Commissioner, Finance Services
- Commissioner, Corporate Services
- Airport Manager
- Multiple Aviation Planners

5.0 Analysis

5.1 Background

The 2015-2019 Oshawa Executive Airport Business Plan (the "2015-2019 Plan") included a commitment to ensure that the Airport operate within the context of being a "Good Community Neighbour".

The 2015-2019 Plan further identified that the City is sensitive to the noise impacts associated with flight training.

5.1.1 Airport Business Plan Update

On June 24, 2019, Council considered Report DS-19-129 dated June 19, 2019 and authorized staff to proceed with the public consultation plan for the updated Oshawa Executive Airport Business Plan as outlined in said Report.

Accordingly, on September 24, 2019, pursuant to the public consultation plan approved by City Council through Report DS-19-129, the Airport Community Liaison Committee (the "A.C.L.C.") held a Town Hall meeting attended by approximately 175 participants.

On October 15, 2019, Council passed Resolution DS-19-183 which directed staff to undertake, among other matters, a series of small workshops with residents, Airport businesses and stakeholders to discuss matters raised at the September 24, 2019 A.C.L.C. town hall meeting. The small workshops therefore provided an additional opportunity to elicit input with respect to matters to be addressed in the update to the Oshawa Executive Airport Business Plan.

On September 29, 2020 and October 1, 2020, Development Services staff and the Airport Manager hosted two virtual Airport workshops for a combined total of 80 participants. The delay in holding the workshops is related to the COVID-19 pandemic.

At both the A.C.L.C. Town Hall meeting and the workshops, concerns were raised regarding aircraft noise, the amount of flight training aircraft traffic and circuit patterns, and operating hours of flight training aircraft traffic, among other matters.

5.1.2 Flight and Noise Complaint Activity

All aircraft activity at the Airport is tracked. Each take-off or landing represents one aircraft movement.

A flight circuit occurs when an aircraft departs the runway, circles the Airport and lands without leaving the Airport traffic pattern. One flight circuit therefore represents two aircraft movements (i.e. the departure and the landing).

An itinerant movement is an aircraft departure where the aircraft departs the Airport area or an aircraft arrival from outside the Airport area. Itinerant movements include flight training aircraft movements that are not otherwise classified as circuit movements.

Table 1 below provides a breakdown of flight activity at the Airport for the most recent five-year period, identifying both circuit movements and itinerant movements undertaken by both flight school and non-flight school aircraft.

Table 1: Flight Activity at the Airport

Year	2016	2017	2018	2019	2020
Circuit Movements	25,413	30,046	32,788	34,170	28,343
Itinerant Movements	41,812	40,644	45,575	55,730	51,671
Total Movements	67,225	70,690	78,363	89,900	80,014

Note: 2020 movements are based on a combination of data from Statistics Canada and NAV CANADA.

In the past 5 years, noise complaints relating to aircraft activity at and around the Airport have grown from a 10-year average (for the 2006-2015 period) of approximately

50 complaints a year to a total of 273 complaints filed in 2020. Table 2 below provides a breakdown of the number of complaints filed for the most recent five-year period:

Table 2: Noise Complaints Filed at the Airport

Year	2016	2017	2018	2019	2020
Noise Complaints Filed	29	49	57	132	273

5.2 Noise and Traffic Management

In 2000, an Airport noise management review was undertaken by the City. As a result of this review, the following noise and traffic measures were put in place:

- Flights between 10:30 p.m. and 6:30 a.m. are restricted to police, medical and industrial emergency flights as well as any returning Oshawa-based aircraft.

- While the left-hand circuit is the regular circuit, a right-hand circuit pattern will be used for Runway 30 (see Attachment 1) in order to minimize the effects of aircraft traffic on the existing residential area located immediately south of the Airport. Similarly, a right-hand circuit pattern will be used for Runway 23 (see Attachment 1) in order to minimize the effects of aircraft traffic on the existing residential area located immediately south and southeast of the Airport.

- Aircraft will climb to a minimum of 1,000 feet Above Sea Level (A.S.L.) [540 feet Above Ground Level (A.G.L.)] on the runway heading before making their first turn when leaving the Airport area or when turning into the circuit pattern.

In 2008, the first Business Plan for the Airport was approved by Council for the 2008-2012 timeframe. A component of this Business Plan involved the establishment of a voluntary noise and traffic management plan for pilots which was implemented in 2009, and included the noise and traffic measures originally established in 2000. Under the voluntary noise and traffic management plan, the onus is on the pilots to comply with the measures put in place. Generally, where a situation/action of potential non-compliance on the part of the pilot is observed by Airport staff or NAV CANADA, personnel at the Airport control tower will alert the pilot in question to the potential non-compliance but leave the decision as to whether or not to comply to the pilot.

From 2009 to the most recent update in 2016, the voluntary noise and traffic management plan has evolved to include the following additional measures:

- The installation of a noise berm located at the northeast corner of the Airport, designed to mitigate ground noise associated with Apron 2 and the hangarminium complex.

- The installation of a noise berm located at the southwest end of the Airport, designed to mitigate ground noise associated with the use of Runway 05/23.

- The installation of a noise berm located north of the homes fronting onto the north side of Jane Avenue, designed to mitigate ground noise associated with the use of Runway 12/30.

- The installation of Taxiway Charlie South to allow for improved traffic management of Runway 05/23.

- The use of Runway 30 as the preferential runway when the winds are less than 5 knots (one knot is equivalent to 1.85 kilometres per hour).

- The reclassification of the threshold 30 stopway so that corporate aircraft comply with the requirement to use Runway 30 as a preferential runway.

- The prohibition of touch-and-go flight training circuits after 4 p.m. on Saturday and Sunday year-round.

- The prohibition of flight training circuits of any kind on the Sunday and Monday of all long weekends.

The primary focus of the noise and traffic management plan has been to limit the growth in flight training circuit aircraft activity. A flight training circuit occurs when an aircraft departs the runway, circles the Airport and lands without leaving the Airport traffic pattern.

The noise traffic management plan was last updated in 2016 and does not take into consideration a number of matters such as the following:

- The growth in annual aircraft movements from a 10-year average of 61,469 (for the 2006-2015 period) to 89,900 annual aircraft movements in 2019;

- The increase in flight training activity;

- The effects of changing climatic conditions (e.g. shifts in wind direction) which has resulted in an increased use of runways in a manner that has exacerbated the effects of aircraft traffic on adjacent residential areas, particularly to the south and southeast of the Airport, which require aircraft to depart over the residential areas; and,

- The impact of the COVID-19 pandemic and the potential that a significant number of office workers will continue to work from home once the pandemic is over.

In keeping with the Airport's commitment to be a good community neighbour, it is appropriate that the noise and traffic management plan be reviewed and updated, as appropriate, to reflect changes approved through the Advisory Circular process.

5.3 Regulatory Framework

The Airport is owned by the City of Oshawa.

The Airport is operated and managed by Total Aviation and Airport Solutions (T.A.A.S.) under contract with the City.

NAV CANADA owns and operates the control tower and manages all aircraft arrivals, departures and ground movements between 6:30 a.m. and 10:30 p.m. daily.

Between 10:30 p.m. and 6:30 a.m. all aircraft report their activity on a mandatory frequency.

Transport Canada is the regulator and only the federal government can regulate aircraft activity. Consequently, municipal by-laws (e.g. Noise By-law 112-82, as amended) cannot be used to regulate aircraft activity, and neither City staff nor T.A.A.S. have the authority to regulate aircraft activity.

There are two methods available to the City for the establishment of a new noise abatement procedure at the Airport: a voluntary process and a formal process. The voluntary process has been used to establish the current noise and traffic management plan at the Airport.

In order to advance a new noise abatement procedure using the formal process within the context of the Regulation, the Airport must comply with Transport Canada's requirements as contained in the Circular (see Attachment 3).

5.3.1 Advisory Circular 302-002 – Noise Abatement Procedures and Restrictions Implementation Process

Aircraft noise concerns at airports are local in nature. Measures to address these concerns inevitably have impacts that reach beyond the local area. In order to deal fairly with the concerns of all affected parties and yet achieve effective and enforceable measures that address noise issues, Transport Canada has established a process (i.e. the Circular) for implementing or modifying noise abatement procedures and restrictions which requires the exercise of Transport Canada's regulatory authority.

The process is one that originates at the airport level and proceeds from the site to the Transport Canada regional office and eventually makes its way to the national regulatory process centre in Ottawa. The various stages of the process (11 in total) are designed to ensure that equity and fairness are observed and that consultation with the affected parties is completed.

The process is extensive and is usually undertaken by an independent consultant, retained by the Airport Operator, with a background in airport planning and a familiarity with the requirements of the Circular.

5.3.1.1 Part 1 of the Advisory Circular 302-002 Process

The initial step under Part 1 of the process is to clearly identify the noise issue, and thereby provide a description of the problem. In this regard, it should be noted that City staff and the Airport Manager have compiled an extensive list of noise complaints and related data that can be provided to the consultant for consideration.

The second step under Part 1 of the process is for the consultant to propose a solution including alternatives (such as alternative procedures or land uses in the community) and exceptions.

The third step under Part 1 of the process involves identifying the impacts associated with the proposed solution including, but not limited to, the costs, noise impacts, aircraft emissions, airport capacity, safety and air traffic management.

Prior to advancing to Part 2 of the process, the proposed solution would need to be approved by Council, in principle, for the purpose of obtaining public and stakeholder input.

5.3.1.2 Part 2 of the Advisory Circular 302-002 Process

Under Part 2, the consultant is required to conduct consultation on the proposal with all affected parties including, but not limited to, the following:

- Airport Management/Operator;
- Noise Management Committee (where applicable);
- Community Representatives;
- NAV CANADA;
- Air Transport Association of Canada;
- Canadian Business Aircraft Association;
- Canadian Owners and Pilots Association;
- All scheduled Operators who operate at the Airport (none of the Oshawa Executive Airport);
- Transport Canada; and,
- All Fixed Base Operators on the Airport.

5.3.1.3 Parts 3 and 4 of the Advisory Circular 302-002 Process

Under Parts 3 and 4, the consultant is required to fully and clearly explain the impacts to all parties, documenting the consultation and the information produced by this process such that it is clear what has been transmitted, to whom and any relevant reactions received.

Where there is consensus on the proposed solution from all parties, the consensus is to be documented as prescribed.

Where there is no consensus on the proposed solution, the consultant shall include any dissenting views and the dissents shall contain all reasons for the position taken.

In the event that there are changes to the proposed solution as a result of public and stakeholder input, staff would report back to the Development Services Committee and Council on the proposed changes for Council's approval.

Upon the completion of Parts 1, 2, 3 and 4, a report containing all of the above noted information is to be submitted to the Transport Canada Ontario Regional Aerodrome and Air Navigation Division ("T.C.O.R.").

5.3.1.4 Part 5 of the Advisory Circular 302-002 Process

Under Part 5, the T.C.O.R. is responsible for reviewing the report to ensure that the report has followed the prescribed process and is complete and accurate.

The T.C.O.R. will determine if they concur or disagree with the solution. Once the T.C.O.R. has determined their position on the solution, the report and T.C.O.R.'s position is forwarded to the Director, Civil Aviation Standards (the "A.A.R.T.").

More recently, pursuant to Resolution DS-19-183 adopted by Council on October 15, 2019, the Commissioner of Development Services, the Director of Planning Services and the Airport Manager met with senior T.C.O.R. staff on September 21, 2020. The purpose of the meeting was to obtain T.C.O.R.'s input regarding issues relating to flight training, including reducing the amount of flight training aircraft traffic, altering the circuit patterns and addressing hours of operation and noise mitigation opportunities, in order to provide better balance and respect of Oshawa residents' quality of life. On the issue of seeking to establish a new noise abatement procedure, T.C.O.R. senior staff advised of the Advisory Circular process.

5.3.1.5 Parts 6 and 7 of the Advisory Circular 302-002 Process

Under Parts 6 and 7, the A.A.R.T. is responsible for reviewing the submission and obtaining headquarters Office of Technical interest signoff to ensure that the proposal meets the national policy and verifies the national airport system effects, if applicable.

If there is consensus from all parties, then the solution is published and becomes law in accordance with the Regulation.

5.3.1.6 Parts 8 to 11 of the Advisory Circular 302-002 Process

In the event consensus cannot be reached, the A.R.R.T. is required to prepare a briefing note and call a meeting of the Aircraft Noise and Emission Committee (the "A.N.E.C.") for consideration of the report.

Once the report is reviewed by the A.N.E.C., the A.A.R.T. is required to prepare notes and forward an issue paper to the Secretariat of the Civil Aviation Regulatory Committee (the "C.A.R.C.") for inclusion on a C.A.R.C. meeting agenda.

The C.A.R.C. is an internal Transport Canada committee and includes senior Transport Canada staff and senior executive staff from the Minister of Transportation's office. C.A.R.C. will review the notes and the issue paper submitted by A.A.R.T. and render a final decision.

6.0 Financial Implications

The cost of retaining a qualified consultant to advance a new noise abatement procedure through the Circular is estimated to be $60,000 exclusive of H.S.T.

Funds for the consultant have been approved in the 2021 Budget.

7.0 Relationship to the Oshawa Strategic Plan

The Recommendation in this Report advances the Accountable Leadership and Economic Prosperity and Financial Stewardship goals of the Oshawa Strategic Plan.

Tom Goodeve, M.Sc.Pl., MCIP, RPP, Director,
Planning Services

Warren Munro, HBA, RPP, Commissioner,
Development Services Department

Subject: Process to Establish a New Noise Abatement Procedure at the Oshawa Executive Airport
Address: Oshawa Executive Airport
File: F-2510

City of Oshawa
Development Services Department

K:\Attachments\2020\10 Oct\Airport\Noise\pdfs\AirportNoise_Att1.pdf

Noise Operating Criteria

CAR 602.105 No person shall operate an aircraft at or in the vicinity of an aerodrome except in accordance with the applicable noise abatement procedures and noise control requirements specified by the Minister in the *Canada Air Pilot* or *Canada Flight Supplement*, including the procedures and requirements relating to

a) preferential runways;

b) minimum noise routes;

c) hours when aircraft operations are prohibited or restricted;

d) arrival procedures;

e)) departure procedures;

f) duration of flights;

g) the prohibition or restriction of training flights;

h) VFR or visual approaches;

i) simulated approach procedures; and

j) the minimum altitude for the operation of aircraft in the vicinity of the aerodrome.

Transport Canada Transports Canada

Advisory Circular

Subject: **Implementation of New or Amended Noise Abatement Procedures**

Issuing Office:	Standards		
Activity Area:	Oversight	AC No.:	302-002
File No.:	A 5140-14	Issue No.:	01
RDIMS No.:	4340985v6	Effective Date:	2008-10-15

TABLE OF CONTENTS

1.0 INTRODUCTION

This Advisory Circular (AC) is provided for information and guidance purposes. It may describe an example of an acceptable means, but not the only means of demonstrating compliance with regulations and standards. This AC on its own does not change, create, amend or permit deviations from regulatory requirements nor does it establish minimum standards.

1.1 Purpose

(1) The purpose of this Advisory Circular (AC) is to introduce the new *Noise Abatement Procedures and Restrictions Implementation Process*, the completion of which is now required to implement new or amended noise abatement procedures and noise control measures made pursuant to CAR 602.105, at airports and aerodromes.

1.2 Applicability

(1) This document is applicable to all Transport Canada Civil Aviation (TCCA) employees, to Canadian airport and aerodrome operators, air operators, ATS personnel, and is also available to the aviation industry for information purposes.

1.3 Description of Changes

(1) This document, formerly Aerodrome Safety Circular (ASC) 2002-018, Issue 1, has been reissued as Advisory Circular (AC) 302-001. With the exception of minor editorial changes and updated references, the content is unaltered.

2.0 REFERENCES AND REQUIREMENTS

2.1 Reference Documents

(1) It is intended that the following reference materials be used in conjunction with this document:

(a) Part VI subpart 02 of the Canadian Aviation Regulations (CARs) – *Operating and Flight Rules*;

(b) CAR 602.105 - *Noise Operating Criteria*;

(c) TP 14371 – *Transport Canada – Aeronautical Information Manual* (TC-AIM);

2.2 Cancelled Documents

(1) As of the effective date of this document, the following documents are cancelled:

(a) Aerodrome Safety Circular (ASC) 2002-018, Issue 1, dated 2002-11-26— *Implementation of New or Amended Noise Abatement Procedures.*

2.3 Definitions and Abbreviations

The following definitions and abbreviations are used in this document:

(a) **CARC** means the Civil Aviation Regulatory Committee;

(b) **ANEC** means the Aircraft Noise and Emissions Committee;

3.0 BACKGROUND

(1) In response to concerns expressed over the application of the *Noise Abatement Checklist* contained in Section RAC 4.1.2 of the TC-AIM (TP 14371), a multi-disciplinary working group composed of representation from Federal government departments, NAV CANADA, the Air Transport Association of Canada (ATAC), the Canadian Business Aircraft Association (CBAA), the Federation of Canadian Municipalities, the Canadian Airports Council (CAC) and individual airport operators was formed to review the entire noise abatement procedure implementation process.

(2) This Working Group, operating under the aegis of the Aircraft Noise and Emissions Committee (ANEC), developed and agreed to a revised process that will ensure full consultation with all stakeholders, that all necessary information is collected and that decisions are made in an informed, fair, participative and transparent manner prior to the implementation of new or changes to the noise abatement procedures at an airport or aerodrome.

4.0 INFORMATION

4.1 Precedence

(1) The moratorium, instituted on September 15, 2000, on the implementation new or changes to an airport or aerodrome's noise abatement procedures is now rescinded.

4.2 Process

(1) This AC covers new or amended noise abatement procedures made pursuant to the *Canadian Aviation Regulation* 602.105 authority. The process described in the attached document shall be applied in all cases to enable publication of new or amended noise abatement procedures.

(2) Proposals for new or amended noise abatement procedures shall be submitted to the Regional Aerodrome and Air Navigation office of Transport Canada and must be completed as outlined in the attached process description.

(3) This information will be contained in the TC-AIM publication.

4.3 Summary

(1) Implementation of new or amendments to noise abatement procedures made pursuant to *Canadian Aviation Regulation* 602.105 must be the subject of consultation with all affected parties.

(2) Appendix A defines the process, the consultation subjects, and participants in the implementation of noise abatement procedures.

5.0 CONTACT OFFICE

For more information please contact the appropriate TC Regional Office – *Aerodromes and Air Navigation*, (Appendix B).

Suggestions for amendment to this document are invited and should be submitted via the Transport Canada Civil Aviation Issues Reporting System (CAIRS) at the following Internet address:

www.tc.gc.ca/CAIRS

or by e-mail at: CAIRS_NCR@tc.gc.ca

New and amended Advisory Circulars (ACs) and/or Staff Instructions (SIs) can be viewed on the Transport Canada website at http://www.tc.gc.ca/CivilAviation/IMSdoc/menu.htm.

D.B. Sherritt
Director, Standards (AART)
Civil Aviation

APPENDIX A – NOISE ABATEMENT PROCEDURES & RESTRICTIONS IMPLEMENTATION PROCESS

Aircraft noise concerns at airports are local in nature. Certain airports have an obligation to manage local noise issues associated with activity at airports. Measures to address these concerns inevitably have impacts that reach beyond the local area. In order to deal fairly with the concerns of all affected parties and yet achieve effective and enforceable measures that address noise issues, Transport Canada has made revisions to the process for implementing or modifying noise abatement procedures and restrictions which will require the exercise of Transport Canada's regulatory authority. The information to be considered as part of the process has been defined by an industry/government working group reporting to Transport Canada's Aircraft Noise and Emissions Committee.

The process is one that originates at the airport level and proceeds from the site to the Transport Canada regional office and eventually makes its way to the national regulatory process centred in Ottawa. The various stages are designed to ensure that equity and fairness are observed and that consultation with the affected parties is completed. Integral to the implementation/modification of noise abatement procedures and restrictions is the assurance that the process has been followed.

The individual steps in the process are:

1. The noise issue is clearly identified by the proponent. Supporting documentation shall consider (where applicable) but not limited to the following, where applicable:
    a. Description of the problem;
    b. Proposed solution (including exceptions);
    c. Alternatives (such as alternative procedures or land uses in the community);
    d. Costs (such as revenue impact, direct and indirect costs to the community, airport operator and airport users);
    e. Noise impacts of the proposed solution;
    f. Effects on aircraft emissions;
    g. Effect on current and future airport capacity;
    h. Implications of not proceeding with the proposal;
    i. Implementation issues (e.g.; aircraft technology; availability of replacement aircraft; ground facilities);
    j. Impact on the Aviation System;
    k. Safety implications;
    l. Air traffic management;
    m. Fleet impact.
2. The proponent conducts consultation on the proposal with all affected parties to include the following:
    a. Airport management/operator;
    b. Noise management committee (where applicable);
    c. Community representatives;
    d. NAV CANADA;

e. Air transport Association of Canada (ATAC)(secretarially or by delegate);

f. Canadian Business Aircraft Association (CBAA)(secretarially or by delegate);

g. Canadian Owners and Pilots Association (COPA)(secretarially or by delegate);

h. All scheduled Operators who operate at the airport;

i. Transport Canada;

j. All Fixed Base operators on the airport.

3. The proponent:

   a. Fully and clearly explains the impacts to all parties, documenting this consultation and the information produced by this process such that it is clear what has been transmitted to whom and any reactions received.

   b. Where all parties agree with the proposal, the airport operator shall submit a description of the proposal and the consultation process. Included in the package will be a signoff indicating agreement of the participants

   c. The consultation process will include descriptions of what information was considered and an explicit indication of agreement to not consider particular items.

4. Where there is no consensus, the proponent shall document the consultation in the same manner as b) above, include any dissenting views, and will forward this information to the airport operator for onward transmission to Transport Canada. Dissents should contain all reasons for the position taken.

5. Regional Aerodrome and Air Navigation Division reviews the documentation and the proposal to ensure that the consultation process has been followed and that the report is complete and accurate, and then refers it to the Director, Civil Aviation Standards (AART) with its recommendation. This report shall include the Regional concurrence or disagreement with the proposal, along with supporting rationale.

6. The Director, Civil Aviation Standards (AART) reviews the submission and obtains headquarters Office of Technical Interest signoff to ensure that the proposal meets the national policy and verifies the national airport system effects, if applicable.

7. Where there is consensus, the proposal will be sent for publication.

8. If there is no agreement, the Director, Civil Aviation Standards (AART) prepares briefing explanatory notes for forwarding to the Aircraft Noise and Emissions Committee (ANEC) members.

9. The Director, Civil Aviation Standards (AART) will call a meeting of the ANEC to schedule a proposal review.

10. Where dissents have been forwarded, the Director, Civil Aviation Standards (AART) prepares notes and forwards an issue paper to the Secretariat of the Civil Aviation Regulatory Committee (CARC) for inclusion on a CARC meeting agenda.

11. If no dissents or CARC has rendered a decision, the Director, Civil Aviation Standards (AART) arranges with the region to publish procedure or restriction.

SUMMARY OF HEADQUARTERS PROCESS

Submission Receipt

No Dissent → Publish

→ c.c. CARC

Dissent → CARC Approves → Publish

↓ NO

Return to Airport Operator

APPENDIX B – TRANSPORT CANADA REGIONAL OFFICES

1) Pacific Region
Aerodromes and Air Navigation
620-800 Burrard St.
Vancouver, B.C.
V6Z 2J8
Phone (604) 666-2103
Fax (604) 666-1175

2) Prairie & Northern Region
Aerodromes and Air Navigation
PO Box 8550
344 Edmonton
Winnipeg, Manitoba
R3C OP6
Phone (204) 983-4335
Fax (204) 983-0281

1100 Canada Place
9700 Jasper Avenue
Edmonton, Alberta
T5J 4E6
Phone (780) 495-3850
Fax (780) 495-5190

3) Ontario Region
Aerodromes and Air Navigation
4900 Yonge St.
Suite 300
North York, Ontario
M2N 6A5
Phone (416) 952-0335
Fax (416) 952-0050

4) Quebec Region
Aerodromes and Air Navigation
700 Leigh Capréol, Suite 4086
Dorval, Quebec
H4Y 1G7
Phone (514) 633-3252
Fax (514) 633-3052

5) Atlantic Region
Aerodromes and Air Navigation
P.0. Box 42
95 Foundry Street
Moncton N.B.
E1C 8K6
Phone (506) 851-3342
Fax (506) 851-3022