

To: Development Services Committee

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

Report Number: DS-21-190

Date of Report: September 29, 2021

Date of Meeting: October 4, 2021

Subject: Draft Proposed Noise Abatement Procedures for the Oshawa
Executive Airport

File: F-2510-0015

1.0 Purpose

On February 22, 2021, City Council considered [Report DS-21-23](#) dated February 3, 2021 regarding the process to establish a new noise abatement procedure at the Oshawa Executive Airport and passed the following motion:

- “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; and,
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.; 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 Part 2 of the above noted motion, the Airport Manager, in consultation with the Commissioner of Development Services, retained the services of HM Aero Aviation Consulting (“HM Aero”), a professional team of individuals with significant airport-related experience. HM Aero’s experience includes familiarity with the creation of noise abatement procedures under Transport Canada’s Advisory Circular 302-002 (“AC 302-002”).

The purpose of this Report is to obtain Council’s approval, in principle, of the Draft Proposed Noise Abatement Procedures for the Oshawa Executive Airport, prepared by

HM Aero pursuant to Part 1 of the 11 part process outlined in AC 302-002 for the purpose of obtaining public and stakeholder input, and to seek authorization from Council to advance the public/stakeholder consultation phase (i.e., Part 2 of the 11 part process).

Attachment 1 is a copy of Transport Canada Advisory Circular 302-002.

Attachment 2 to this Report is a copy of Table 4.1, Proposed Noise Abatement Procedures, taken from the draft Proposed Noise Abatement Procedures Public Consultation Materials document prepared by HM Aero, dated September 27, 2021.

Attachment 3 to this Report is the Executive Summary of the Proposed Noise Abatement Procedures Public Consultation Materials document prepared by HM Aero, dated September 27, 2021. A copy of the entire report can be viewed by clicking here: <https://www.oshawa.ca/business-and-investment/business-plan.asp>.

Attachment 4 shows the location of Runways 05, 12, 23 and 30.

2.0 Recommendation

That the Development Services Committee recommend to City Council:

1. That, pursuant to Report DS-21-190 dated September 29, 2021, Council approve, in principle, the Draft Proposed Noise Abatement Procedures for the Oshawa Executive Airport as outlined in said Report for the purpose of obtaining public and stakeholder input on the proposed solution, as developed in accordance with Part 1 of the Transport Canada Advisory Circular 302-002; and,
2. That, pursuant to Report DS-21-190 dated September 29, 2021, Development Services staff and the City's Airport Manager be authorized to hold a series of four (4) public workshops, two (2) for community members and two (2) for Airport users, which will be in virtual public engagement form owing to the COVID-19 pandemic for the purpose of presenting for public review and input the Draft Proposed Noise Abatement Procedures as outlined in said Report, using the approach described in Section 5.2.4 of said Report; and,
3. That, pursuant to Report DS-21-190 dated September 29, 2021, Development Services staff and the City's Airport Manager be authorized to undertake consultation in a virtual engagement form owing to the COVID-19 pandemic with all other affected stakeholder groups as identified in Section 5.2.4 of said Report for the purpose of presenting the Draft Proposed Noise Abatement Procedures as outlined in said Report for review and input, using the approach described in Section 5.2.4 of said Report.

3.0 Executive Summary

Not applicable.

4.0 Input From Other Sources

The following have been consulted in the preparation of this Report

- Commissioner, Corporate Services
- Airport Manager
- HM Aero Aviation Consulting

5.0 Analysis

5.1 Background

On February 22, 2021, pursuant to Report DS-21-23 dated February 3, 2021, Council directed that the Commissioner of Development Services, in consultation with the City's Airport Manager, be authorized to advance the process prescribed in AC 302-002 to request Transport Canada to establish new noise abatement procedures at the Oshawa Executive Airport.

Council also directed that the Airport Manager, in consultation with the Commissioner of Development Services, engage a qualified, independent consultant with familiarity of the requirements of AC 302-002 to assist in the advancement of the processes (11 parts in total) outlined in AC 302-002.

HM Aero, an independent consultant with familiarity of the requirements of AC 302-002, was subsequently retained in February, 2021 to assist City staff and the City's Airport Manager in the advancement of the processes as outlined in AC 302-002.

On June 21, 2021, City Council considered and adopted DS-21-137 regarding the 2021-2022 Oshawa Executive Airport Action Plan (the "Action Plan"). Action 6 of the Action Plan relates to continuing to investigate the process to establish new noise abatement procedures and restrictions.

5.2 Advisory Circular 302-002 – Implementation of New or Amended Noise Abatement Procedures

Although aircraft noise concerns at airports are generally 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. Parts 1 through 11 contained in AC-302-002) for implementing or modifying noise abatement procedures and restrictions which requires the exercise of Transport Canada's regulatory authority (see Attachment 1).

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 Total Aviation and Airport Solutions (T.A.A.S.), the Airport Operator, with a background in airport planning and a familiarity with the requirements of the Circular.

5.2.1 Step 1 of 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 was provided to HM Aero for consideration.

In addition to noise complaints submitted directly to the Airport office in the terminal building or through the Service Oshawa Lagan System, noise complaints are often received directly by the City's Chief Administrative Officer, the Commissioner of Development Services, the Director of Development Services, the Airport Manager, the Airport Operations Manager and members of Council.

As part of the process to clearly identify the noise issue, HM Aero reviewed the list of noise complaints and related data, monitored at the May 10, 2021 public meeting relating to the 2021 Airport Action Plan.

After completing both a qualitative and a quantitative analysis of the noise complaints and related data, HM Aero has identified the noise problem description as follows:

1. Complaints have increased substantially in recent years – A review of the previous 5 years of complaints identified a sharp increase in noise complaints recently. In 2018, 57 noise complaints were filed while 2019 and 2020 witnessed 132 and 273 complaints, respectively. The complaints recorded by the Service Oshawa Lagan System total 380 between July 2020 and April 2021.
2. Aircraft movements are continuing to increase – Total aircraft movements at the Oshawa Executive Airport have been increasing steadily from approximately 52,000 in 2014 to roughly 90,000 in 2019. The modest decline in movements observed in 2020 is attributed to the COVID-19 pandemic with aircraft movements anticipated to rebound and grow in 2021 and onward. While there is not a direct correlation, it is reasonable to conclude that an increase in aircraft movements in the coming years may result in an additional increase in noise complaints.
3. Complaints are not limited to specific days of the week – The data collected in the Service Oshawa Lagan System between July 2020 and April 2021 shows that noise complaints are filed for incidents consistently throughout the week, with Monday, Tuesday, and Wednesday having the highest complaint counts. This suggests that procedures and restrictions proposed through this process must address the entire week, and not be limited to weekends and holidays.
4. Complaints by runway are disproportionate to runway use – Runways closest to and aligned with dense residential areas experience a larger number of complaints than those aligned with unpopulated areas. For example, aircraft operations on Runway 12 were associated with 54% of complaints between July 2020 and April 2021, but this

runway was utilized for only 26% of aircraft movements. Conversely, Runway 30 supported 41% of total aircraft movements, but was associated with 17% of complaints in the same period.

5. Flight training operations account for most aircraft movements at the Airport – In 2019 and 2020, the two Oshawa-based flight training schools were responsible for between 72% and 75% of annual aircraft movements and between 73% and 79% of local (circuit) movements in the same period.
6. Residents have little reprieve from aircraft noise – Under the current procedures and restrictions, individuals may be exposed to continuous aircraft noise during daylight hours with few prescribed pauses in activity that can be anticipated and relied upon.

5.2.2 Step 2 of Part 1 of the Advisory Circular 302-002 Process

The second step under Part 1 of the process is to propose a solution including alternatives (such as alternative procedures or land uses in the community) and exceptions.

Noise abatement procedures established through the AC 302-002 process must be made pursuant to the authority of Canadian Aviation Regulation 602.105 (“CAR 602.105”), which directs as follow:

“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) Visual Flight Rules or visual approaches;
- (i) simulated approach procedures; and
- (j) the minimum altitude for the operation of aircraft in the vicinity of the aerodrome.”

Items (a) to (j) of CAR 602.105 outline the permissible forms of noise abatement procedures that may be developed. Proposals beyond the items described in CAR 602.105 cannot be considered.

In keeping with the requirements of AC 302-002 and in order to address the noise issue described in Section 5.2.1 of this Report, HM Aero has proposed 14 noise abatement

procedures. These are described in detail in Attachment 2. Each of these procedures falls under one of the following 3 categories:

1. Existing Voluntary Noise Abatement Procedures that are recommended to become mandatory pursuant to CAR 602.105 without any changes. Procedure Numbers 1, 5, 6, 7, 8, 9 and 14 contained in Attachment 2 are recommended to become mandatory;
2. Existing Voluntary Noise Abatement Procedures that are recommended to become mandatory pursuant to CAR 602.105 with amendments to better address the noise issues currently being experienced. Procedure Numbers 2, 3, 10, 12 and 13 contained in Attachment 2 include amendments to the wording of the procedure and are recommended to become mandatory; and,
3. New mandatory noise abatement procedures. Procedure Numbers 4 and 11 contained in Attachment 2 are recommended to become mandatory.

Table 4.1 as detailed in Attachment 2 documents each Proposed Noise Abatement Procedure, the CAR 602.105 authority through which the procedure is proposed to be mandatory, and a brief overview of the procedure's intent.

5.2.3 Step 3 of Part 1 of the Advisory Circular 302-002 Process

The third and final step under Part 1 of the process involves identifying the impacts associated with the proposed solution. In keeping with Advisory Circular 302-002, HM Aero has determined the impacts within the following 10 categories:

1. Implications of Not Proceeding
2. Noise Implications
3. Cost Implications
4. Aircraft Emissions Implications
5. Airport Capacity Implications
6. Implementation Implications
7. Aviation System Implications
8. Air Traffic Management Implications
9. Safety Implications
10. Fleet Implications

An extensive evaluation of the impacts associated with each of the above noted 10 categories has been undertaken by HM Aero and may be found under Section 5 of the Draft Proposed Noise Abatement Procedures Public Consultation Materials document dated September 27, 2021 (see Attachment 3).

5.2.4 Part 2 of the Advisory Circular 302-002 Process: Public and Stakeholder Consultation

Prior to advancing to Part 2 of the process, the proposed solution to address the noise issue would need to be approved by Council, in principle, for the purpose of obtaining public and stakeholder input. Accordingly, the recommendation contained in Section 2.0 of

this Report has been prepared to seek Council's approval in this regard, as well as to authorize staff to solicit public and stakeholder input.

Consultation with all affected parties regarding the proposed solution would be undertaken by staff, together with the City's Airport Manager and HM Aero, to satisfy the requirements of Part 2 of the AC 302-002 process. In this regard, the Draft Proposed Noise Abatement Procedures prepared by HM Aero would be presented for comments and input.

Public input opportunities would consist of the following:

- A series of four (4) virtual public workshops held by staff, the City's Airport Manager and HM Aero for community members, and Airport users, which will consist of two (2) for community members and two (2) for Airport users, offering each group availability to attend a daytime meeting or an evening meeting;
- A series of two (2) key stakeholder meetings in addition to the public meetings for community members, and Airport users, in accordance with AC 302-002, including:
 - The Airport Community Liaison Committee;
 - The Airport Business Plan Working Group;
 - NAV CANADA;
 - Air Transport Association of Canada;
 - Canadian Business Aviation 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.
- A feedback form available online on Connect Oshawa, as well as on paper through Service Oshawa.

City staff recommend the following communication tactics to promote the virtual public consultation for input on the Draft Proposed Noise Abatement Procedures:

- City website – Draft Proposed Noise Abatement Procedures and public consultation information featured on www.oshawa.ca [including News and Alerts newsfeed (and emailed to website subscribers), community calendar and website homepage image];
- Connect Oshawa – Draft Proposed Noise Abatement Procedures and public consultation information featured on www.connectoshawa.ca and emailed to registered users via the Connect Oshawa newsletter;
- Social media – social media messages using the City's corporate and Airport channels;
- Advertising – newspaper and social media advertisements;
- Media relations – Public Notice regarding the Draft Proposed Noise Abatement Procedures and public consultation information shared with local media;

- Mailed notices of the virtual public meetings 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, the two virtual Workshops held on September 29, 2020 and October 1, 2020, and the May 10, 2021 public meeting held regarding the Draft Proposed 2020-2021 Oshawa Executive Airport Action Plan;
 - The key stakeholders as noted for the key stakeholder meetings;
 - All individuals who have made an Airport noise submission in the last five (5) years that included a mailing address;
 - The Town of Whitby; and,
 - All tenants at the Oshawa Executive Airport.

5.3 Next Steps Following Consultation

HM Aero will be responsible for fully and clearly explaining the impacts of the proposed solution to all parties and documenting all consultations on behalf of the City and T.A.A.S., the Airport Operator.

In the event all consulted parties agree with the Proposed Noise Abatement Procedures, an updated version of the Draft Proposed Noise Abatement Procedures Public Consultation Materials document will be prepared by HM Aero that documents the consultation process. Where there is no consensus, the consultation process will be documented in the same manner, including dissenting view(s) and accompanying rationale(s) for the positions taken.

The public and stakeholder input and feedback will be used to refine the proposed solution where appropriate and an updated version of the Draft Proposed Noise Abatement Procedures Public Consultation Materials document will be prepared by the consultant. Staff will report back to the Development Services Committee and Council with the results of the public engagement, present an updated document which highlights any proposed changes and seek approval to advance the proposed solution to Transport Canada.

6.0 Financial Implications

The cost of retaining a qualified consultant to advance a new noise abatement procedure through the AC 302-002 process was \$58,635 exclusive of H.S.T. and was approved by Council pursuant to Report DS-21-23 dated February 3, 2021.

Funds for the consultant have been approved in the 2021 Budget.

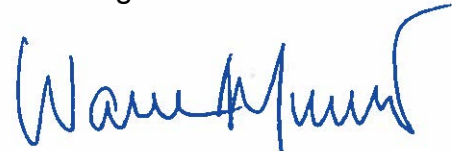
The cost of advertising and mailing notices can be paid for using the 2021 Airport Operating Budget.

7.0 Relationship to the Oshawa Strategic Plan

The Recommendation in this Report advances the Accountable Leadership and Economic Prosperity, Environmental Responsibility 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



Advisory Circular

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Issuing Office: Standards

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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 Capr  ol, Suite 4086
Dorval, Quebec
H4Y 1G7
Phone (514) 633-3252
Fax (514) 633-3052

5) Atlantic Region

Aerodromes and Air Navigation
P.O. Box 42
95 Foundry Street
Moncton N.B.
E1C 8K6
Phone (506) 851-3342
Fax (506) 851-3022

Table 4.1 – Proposed Noise Abatement Procedures

No.	Proposed Noise Abatement Procedure	Existing/New	Notes/Rationale
602.105(a) Preferential Runways			
1	Tower Closed Preferential Runways: When the Air Traffic Control Tower is closed, pilots shall use Runway 12 for arrivals and Runway 30 for departures consistent with safety of operations.	Existing Voluntary Procedure, Formalize Without Revisions	During hours when the NAV CANADA Tower is closed, routing arrivals from the northwest to Runway 12 and departures to northwest from Runway 30 will minimize overflights of built-up areas to the west, south, and east.
2	Tower Open Preferential Runways: Aircraft will use Runway 30 when the winds are from a heading of 210° (incrementally) to 030° at up to 10 kts (18.52 km/h) or from a heading of 031° (incrementally) to 209° at up to 5 kts (9.26 km/h).	Existing Voluntary Procedure, Formalize With Revisions	Currently, Runway 30 is the preferential runway when the winds are blowing from a heading of 210° to 030° at up to 5 knots. The Proposed Noise Abatement Procedure will increase the utilization of Runway 30 by increasing the maximum 90° crosswind to 10 knots, and by introducing a maximum tailwind component of up to 5 knots.
602.105(c) Hours When Aircraft Operations are Prohibited or Restricted			
3	Overnight Restricted Hours: Between the hours of 9:30 PM and 7:30 AM, only police, medical and industrial emergency flights are permitted to arrive at and depart from the Airport. Airport tenants with aircraft based at the Airport are permitted to arrive between the hours described above, but are not permitted to depart, independent from police, medical, and industrial emergency flights.	Existing Voluntary Procedure, Formalize With Revisions	Currently, the overnight operational restriction applies between 10:30 PM and 6:30 AM (8 overnight restricted hours). The Proposed Noise Abatement Procedure increases this window to 9:30 PM to 7:30 AM, for a total of 10 overnight restricted hours. This change will increase the number of ‘quiet’ overnight hours for residents. No changes are proposed to the existing exemptions for based aircraft, police, medical, and industrial emergency operations.
4	Overnight Engine Run-Ups: Engine run-ups associated with aircraft maintenance are prohibited from 9:30 PM to 7:30 AM.	New Procedure	The intent of this procedure is to limit prolonged noise from overnight engine run-ups, except where an aircraft is conducting a runup as part of its pre-departure checklist.

No.	Proposed Noise Abatement Procedure	Existing/New	Notes/Rationale
602.105(d) Arrival Procedures			
5	Arrival Turns: Aircraft arriving at the Airport will remain at least 1,000 ft. ASL (540 ft. AGL) before making the turn for their final approach for landing.	Existing Voluntary Procedure, Formalize Without Revisions	This existing voluntary procedure is intended to limit low-level turns over built-up areas.
6	Approach Angle: Approaches are to remain on or above an assumed 3° glide slope.	Existing Voluntary Procedure, Formalize Without Revisions	This existing voluntary procedure is intended to limit low-level final approaches over built-up areas.
7	Circling Procedures: If weather conditions permit, circling procedures are to be conducted at 1,460 ft. ASL (1,000 ft. AGL).	Existing Voluntary Procedure, Formalize Without Revisions	This existing voluntary procedure is intended to limit low-level circling approach procedures over built-up areas.
602.105(e) Departure Procedures			
8	Departure Turns: Aircraft departing the Airport will continue to fly on the runway heading until they reach 1,000 ft. ASL (540 ft. AGL) before making any turns.	Existing Voluntary Procedure, Formalize Without Revisions	This existing voluntary procedure is intended to limit low-level turns over built-up areas.
602.105(g) Prohibition or Restriction of Training Flights			
9	Prior Permission for Flight Training: Prior permission by the Airport Manager is required for all flight training, including private and commercial pilot recurrent training.	Existing Voluntary Procedure, Formalize Without Revisions	This existing voluntary procedure is intended to provide the opportunity for the Airport Manager to brief flight training aircraft on the various noise abatement procedures of the Airport, and to ensure that compliance can be achieved.

No.	Proposed Noise Abatement Procedure	Existing/New	Notes/Rationale
10	<p>Time of Day Flight Training Restrictions: Flight training is not permitted Friday-Monday before 8:00 AM and after 4:00 PM May 1 – September 30; and Friday-Monday before 8:00 AM and after 8:00 PM October 1 – April 30.</p>	Existing Voluntary Procedure, Formalize With Revisions	<p>Currently, flight training aircraft are not permitted to conduct touch-and-go procedures after 4:00 PM on any Saturday or Sunday. The original intent of this voluntary procedure was to decrease the frequency of aircraft overflights resulting from continuous touch-and-go's (i.e., high volume flight training). However, stop-and-go's and full-stop / taxi-back procedures continue to be permitted after 4:00 PM. The proposed procedure would prohibit all flight training from Friday to Monday year-round, with more restrictive hours in the summer months when residents typically are utilizing their outdoor amenity spaces.</p> <p>This restriction would apply to all flight training, including circuits, arrivals and departures to and from the practice area, and cross-country flights.</p>
11	<p>Alternating Seasonal Weekend Flight Training Restrictions: Flight training is not permitted on the 1st and 3rd Sunday of the month and 2nd and 4th Saturday of the month from May 1 – September 30.</p>	New Procedure	<p>In the summer months (May through September), alternating Saturdays and Sundays would also be subject to flight training prohibitions. This restriction would apply to all flight training, including circuits, arrivals and departures to and from the practice area, and cross-country flights.</p>
12	<p>Statutory Holiday Flight Training Restrictions: Flight training is not permitted on the following federal statutory holidays: New Year's Day; Good Friday; Victoria Day; Canada Day; Labour Day; National Day for Truth and Reconciliation; Thanksgiving Day; Remembrance Day; Christmas Day; and Boxing Day.</p>	Existing Voluntary Procedure, Formalize With Revisions	<p>Currently, circuit training is not permitted on the Sunday or Monday of holiday long weekends. The Proposed Noise Abatement Procedure would formally identify the federal statutory holidays on which flight training is prohibited. This restriction would apply to all flight training, including circuits, arrivals and departures to and from the practice area, and cross-country flights.</p>

No.	Proposed Noise Abatement Procedure	Existing/New	Notes/Rationale
13	Circuit Flight Training Restrictions: A maximum of 4 aircraft are permitted in the circuit for training purposes for any runway at any given time.	Existing Voluntary Procedure, Formalize With Revisions	Currently, a maximum of 12 aircraft are permitted in the circuit for training purposes on Runway 05-23. The Proposed Noise Abatement Procedure would apply to both Runway 05-23 and Runway 12-30 and create a cap of 4 aircraft in the circuit for training purposes. The intent of this change would be to limit the frequency of overflights resulting from high-volume flight training.
602.105(j) Minimum Aerodrome Operation Altitudes			
14	Toronto Zoo: Pilots are to maintain 2000 ASL or above over Toronto Zoo (N43 49 05 W79 11 15).	Existing Voluntary Procedure, Formalize Without Revisions	This existing voluntary procedure is intended to limit low-level overflights of the Toronto Zoo, which can also cause distress to animals.



Item: DS-21-190
Attachment 3

Proposed Noise Abatement Procedures Public Consultation Materials

Oshawa Executive Airport

Final Executive Summary | September 27, 2021

1 INTRODUCTION AND BACKGROUND

Oshawa Executive Airport (the “Airport”) is owned by the City of Oshawa (the “City”) and operated by Total Aviation & Airport Solutions (the “Airport Operator”).

The Airport is defined by a primarily urban residential land use context, with extensive residential areas to the west, south, east, and northeast. The proximity of numerous residential neighbourhoods to the Airport is now associated with compatibility conflicts with aircraft operations. The 2015-2019 Oshawa Executive Airport Business Plan established the goal that the Airport shall be “*A leader in environmental stewardship including noise mitigation, wildlife management and energy conservation.*” In recent years, the City has become increasingly aware of resident concerns regarding aircraft noise and has implemented Voluntary Noise Abatement Procedures for the Airport. However, the City does not have the authority to unilaterally implement mandatory noise abatement procedures, as such authority is held by Transport Canada. Accordingly, the City retained HM Aero Aviation Consulting to undertake the process specified by Transport Canada in Advisory Circular (AC) 302-002 – Implementation of New or Amended Noise Abatement Procedures.

Activity has declined from approximately 84,000 aircraft movements in 1998 to between 50,000 and 60,000 annual movements between 2010 and 2015. Activity increased from approximately 57,000 movements in 2015 to 90,000 movements in 2019, before decreasing to 80,000 movements in 2020. Between 2015 and 2019, activity increased by an average of 14% per year. The two Flight Training Units based at the Airport accounted for between 72% and 75% of all movements in 2019 and 2020.

2 PROBLEM DESCRIPTION

Qualitative records from past community outreach meetings and quantitative historical noise complaint data were analyzed by HM Aero to better understand the noise problem being experienced. From qualitative resident inputs, key themes include a perception that the problem is worsening; concerns regarding flight training and circuit activity; the frequency of aircraft overflights; the Airport’s hours of operation; a perceived lack of enforcement; and concerns that certain residential neighbourhoods are disproportionately impacted. Views shared by residents regarding noise were also intertwined with concerns surrounding air quality, vibration, safety, and climate change.

Quantitative analyses of historical noise complaints also yielded several key findings. Analysis suggests that there has been a significant increase in complaints, starting in 2019 and continuing through April 2021. Most objections to aircraft noise are recorded in the spring, summer, and fall. In 2018, 57 noise complaints were filed while 2019 and 2020 witnessed 132 and 273 complaints, respectively. The percent increase in complaints between 2017 and 2019 is observed to outpace the percent increase in aircraft movements at the Airport, suggesting that the type of operations and the frequency and duration of flights influence the volume of complaints filed, in addition to annual aircraft movements. Complaints are recorded most frequently on Mondays, Tuesdays, and Wednesdays, suggesting that abatement procedures must address both weekdays and weekends.

Aircraft noise complaints were geocoded to spatially analyze their distribution. Complainants are primarily located north of Rossland Road, east of Thickson Road, and west of Harmony Road, with the highest concentration of complaints found to the south and east of the Airport. When complaint dates are analyzed against runway usage, it is found that Runway 12 operations (arrivals from the northwest and departures to the southeast) are disproportionately linked to noise complaints: while Runway 12 was used for 26% of movements in 2020, it was associated with 54% of complaints in the reviewed period. Complaint locations are primarily situated beneath the departure and crosswind legs of the Runway 12 traffic circuit, when aircraft are operating at higher power settings over concentrated residential areas.

Conversely, Runway 30 operations (arrivals from the southeast and departures to the northwest) are associated with fewer noise complaints. The use of Runway 30 is associated with relatively few complaints under the departure and crosswind legs of the traffic circuit when aircraft are operating at high power settings, as these areas have limited residential land uses. Regardless of the runway in use, complaints are consistently submitted by addresses north of Rossland Road, and near Oshawa Creek.

3 PROPOSED NOISE ABATEMENT PROCEDURES

Noise abatement procedures established through the AC 302-002 process must be made pursuant to the authority of Canadian Aviation Regulation 602.105, which outlines 10 types of procedures that can be developed – proposals beyond the 10 in-scope items cannot be considered. Proposed Noise Abatement Procedures were developed by HM Aero considering the Problem Description, supported by a review of procedures in place at 28 comparable Canadian airports, supplementary research, and refinements made in consultation with City Staff and the Airport Operator.

Fourteen noise abatement procedures are proposed for consideration, including existing Voluntary Noise Abatement Procedures that are recommended to become mandatory without any changes (7); existing Voluntary Noise Abatement Procedures that are recommended to become mandatory with changes to better address the noise issues currently being experienced (5); and new mandatory noise abatement procedures (2). The 14 Proposed Noise Abatement Procedures are as follows:

1. **Tower Closed Preferential Runways:** When the Air Traffic Control Tower is closed, pilots shall use Runway 12 for arrivals and Runway 30 for departures consistent with safety of operations.
2. **Tower Open Preferential Runways:** Aircraft will use Runway 30 when the winds are from a heading of 210° (incrementally) to 030° at up to 10 kts (18.52 km/h) or from a heading of 031° (incrementally) to 209° at up to 5 kts (9.26 km/h).
3. **Overnight Restricted Hours:** Between the hours of 9:30 PM and 7:30 AM, only police, medical and industrial emergency flights are permitted to arrive at and depart from the Airport. Airport tenants with aircraft based at the Airport are permitted to arrive between the hours described above, but are not permitted to depart, independent from police, medical, and industrial emergency flights.
4. **Overnight Engine Run-Ups:** Engine run-ups associated with aircraft maintenance are prohibited from 9:30 PM to 7:30 AM.
5. **Arrival Turns:** Aircraft arriving at the Airport will remain at least 1,000 ft. ASL (540 ft. AGL) before making the turn for their final approach for landing.
6. **Approach Angle:** Approaches are to remain on or above an assumed 3° glide slope.
7. **Circling Procedures:** If weather conditions permit, circling procedures are to be conducted at 1,460 ft. ASL (1,000 ft. AGL).
8. **Departure Turns:** Aircraft departing the Airport will continue to fly on the runway heading until they reach 1,000 ft. ASL (540 ft. AGL) before making any turns.
9. **Prior Permission for Flight Training:** Prior permission by the Airport Manager is required for all flight training, including private and commercial pilot recurrent training.
10. **Time of Day Flight Training Restrictions:** Flight training is not permitted Friday-Monday before 8:00 AM and after 4:00 PM May 1 – September 30; and Friday-Monday before 8:00 AM and after 8:00 PM October 1 – April 30.

11. **Alternating Seasonal Weekend Flight Training Restrictions:** Flight training is not permitted on the 1st and 3rd Sunday of the month and 2nd and 4th Saturday of the month from May 1 – September 30.
12. **Statutory Holiday Flight Training Restrictions:** Flight training is not permitted on the following federal statutory holidays: New Year’s Day; Good Friday; Victoria Day; Canada Day; Labour Day; National Day for Truth and Reconciliation; Thanksgiving Day; Remembrance Day; Christmas Day; and Boxing Day.
13. **Circuit Flight Training Restrictions:** A maximum of 4 aircraft are permitted in the circuit for training purposes for any runway at any given time.
14. **Toronto Zoo:** Pilots are to maintain 2000 ASL or above over Toronto Zoo (N43 49 05 W79 11 15).

Alternative noise abatement procedures that were identified but were not advanced for further consideration due to implementation issues and / or their limited value include the establishment of northbound and southbound minimum noise routes; alternating Runway 12-30 circuit directions on a predetermined schedule; establishing an annual limit on the number of flight training movements; and restricting turbofan, turbojet, and turboprop training in the traffic circuit.

4 EVALUATION OF PROPOSED NOISE ABATEMENT PROCEDURES

Continuing with the status quo whereby only the existing Voluntary Noise Abatement Procedures remain in effect is highly unlikely to address the noise issue being experienced. Increasing discontent among residents in the vicinity of the Airport may reasonably be expected if new mandatory noise abatement procedures are not enacted at the facility. Expected implications of failing to proceed include an increasing frequency of noise complaints, decreased local support for the Airport, and additional pressure on municipal decision makers for change. However, it is noted that aircraft movements and businesses growing in an unrestricted operational environment would be positive from an aviation activity and revenue generation perspective.

Each of the Proposed Noise Abatement Procedures have been designed to address different elements of the noise problem, with the primary impacts of each procedure summarized as follows:

- Proposed Noise Abatement Procedure 1 will prioritize overnight arrivals from the northwest and departures to the northwest to route aircraft over less densely settled areas, where possible;
- Proposed Noise Abatement Procedure 2 will increase the proportion of the year when Runway 30 is in operation to lower the number of noise complaints associated with Runway 12 operations. Implementing the revised criteria would increase the preferred utilization of Runway 30 from 44% of operating hours to 70% of operating hours;
- Proposed Noise Abatement Procedure 3 would reduce the Airport’s annual non-restricted hours from 5,840 hours to 5,110 hours (a 13% decrease). In 2019 and 2020, 2,618 and 1,266 aircraft movements occurred during the expanded two-hour period of restrictions that would either be shifted to a non-restricted time or removed;
- Proposed Noise Abatement Procedure 4 will limit future instances of prolonged overnight engine noise associated with aircraft maintenance;
- Proposed Noise Abatement Procedures 5, 6, 7, and 8 will limit instances of low approaches over residential dwellings that are associated with increased noise exposure, as well as low-level arrival turns, departure turns, and circling procedures;

- Proposed Noise Abatement Procedures 9, 10, 11, and 12, in combination with the previously noted Procedure 3, would have impacted 12,032 flight training movements in 2019 and 8,528 flight training movements in 2020, or between 15% and 19% of all flight training movements. The time-of-day and day-of-week restrictions proposed would result in these movements either being cancelled, resulting in a net reduction in noise; or rescheduled to an unrestricted day or hour, resulting in a redistribution of noise;
- Proposed Noise Abatement Procedure 13 would lower the number of flight training aircraft permitted in the traffic circuit at any time to 4 from the common level of 8 aircraft. This would decrease the frequency of flight training overflights from approximately one overnight every 42 seconds (83 overflights per hour) to one overflight every 1 minute 24 seconds (41 overflights per hour); and
- Proposed Noise Abatement Procedure 14 would continue to limit low-level overflights of the Toronto Zoo.

The two Flight Training Units based at the Airport are the group expected to be most financially impacted by the proposed procedures. A flight training movement affected by a time of day or day of week restriction can be cancelled, representing a loss in revenue; or be shifted to an alternative day or time without the loss of revenue. In a worst-case scenario whereby no shifting of movements occurs, it is estimated that the two Flight Training Units based at the Airport would have experienced a \$779,000 reduction in revenue in 2019, and a \$595,000 reduction in 2020 if the new procedures were in place. The Proposed Noise Abatement Procedures would also result in a 20% reduction in the number of their potential revenue generating hours between October and April, and a 41% reduction between May and September. The potential hourly revenue that could be realized by the two Flight Training Units assuming full utilization of their respective fleets ranges between approximately \$3,000 per hour and \$4,800 per hour with flight instruction. The displacement of flight training to other unrestricted airports, such as Peterborough and Kawartha Lakes, would also increase costs to students through the additional flight time to and from these airports.

With respect to aircraft emissions, the City has completed air quality studies in 2015 and 2019, and a study is currently being undertaken at the time of this report's preparation. Air quality at the Airport was not noted to be in exceedance of applicable standards and guidelines. The Proposed Noise Abatement Procedures may result in less densely populated areas being exposed to increased overflights and emissions, while time-of-day and day-of-week restrictions may result in a modest decrease in aircraft activity, thereby resulting in reduced emissions.

From an Airport capacity standpoint, the extended overnight restricted period will result in the Airport's annual capacity decreasing by approximately 12% - however, sufficient residual annual capacity is expected to exist for historical, current, and anticipated future activity levels.

Regarding implementation implications, the future endorsement of the Proposed Noise Abatement Procedures by City Council will underscore the City's commitment to future implementation and enforcement. The City, through its contracted Airport Operator, will be responsible for monitoring and identifying instances of potential noncompliance. Alleged instances of noncompliance will be reported to Transport Canada for investigation and action pursuant to their aviation enforcement policy, which is noted by the agency to balance both fairness and firmness. Penalties for violating noise abatement procedures can be as high as \$5,000 for an individual and \$25,000 for a company.

The flight training and overnight operational restrictions recommended in the Proposed Noise Abatement Procedures may result in impacts to the aviation system if aircraft activity is displaced to other airports in the region. Depending on the aircraft operator, their needs, and their price elasticity, modest increases in traffic may be experienced at one or more of the following: Toronto Pearson International Airport, Billy Bishop Toronto City Airport, Toronto Buttonville Municipal Airport, Peterborough Municipal Airport, and Kawartha Lakes Municipal Airport. Peterborough and Kawartha Lakes are anticipated to be the most appropriate facilities to receive displaced flight training activity.

NAV CANADA is responsible for Canada's air navigation system and operates an Air Traffic Control Tower at the Airport 365 days per year from 6:30 AM to 10:30 PM. NAV CANADA's Air Traffic Controllers are expected to issue instructions and clearances in accordance with the Proposed Noise Abatement Procedures. However, NAV CANADA will not be responsible for enforcing compliance. Aside from revisions to NAV CANADA's internal procedures, the primary outcome is expected to be the potential adjustment of the Tower's hours of operations to 7:30 AM to 9:30 PM, to align more closely with the Airport's proposed daytime hours of operation.

From both a safety and aircraft fleet standpoint, the modified Runway 30 utilization criteria that proposes to increase operations in crosswind and tailwind conditions is expected to have minor and mitigatable implications. Landings and take-offs in crosswind conditions require the use of different pilot techniques and control inputs compared to instances where the prevailing winds are aligned with the runway centreline and necessitate additional attention to minimize the effects of lateral drift. Furthermore, flight training in crosswind conditions is a standard part of Transport Canada's curricula. Operations in light tailwinds will also require additional pilot attention due to reduced aircraft performance. While the crosswind and tailwind limits proposed will impact aircraft performance and pilot technique, the risk posed is anticipated to be acceptable.

5 NEXT STEPS

The next steps for the approval of the Proposed Noise Abatement Procedures are as follows:


1. Consultations with the community and stakeholders will be undertaken with respect to the Proposed Noise Abatement Procedures and their associated evaluation of effects.
2. HM Aero will prepare and submit to the City draft and final versions of its submission to Transport Canada, including the analysis contained herein with any updates as required from the stakeholder consultation process.
3. The City's submission will be reviewed internally by Transport Canada, including the Regional Aerodrome and Air Navigation Division and the Director, Civil Aviation Standards.
4. Transport Canada will render its decision on the Proposed Noise Abatement Procedures.
5. Assuming the Proposed Noise Abatement Procedures are approved at the federal level, publication changes will be made in the Canada Flight Supplement and Canada Air Pilot.



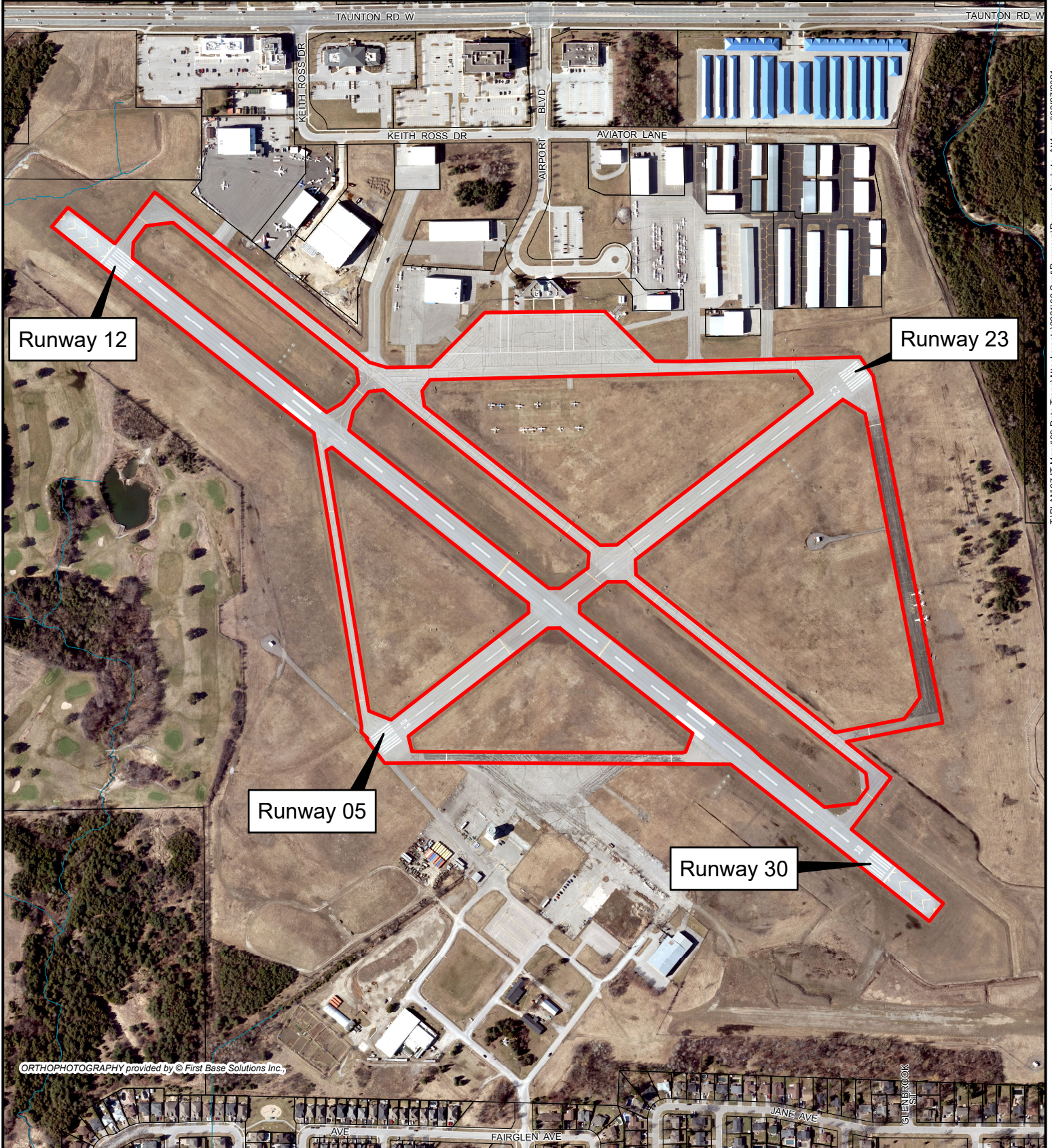
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Subject: Draft Proposed Noise Abatement Procedures for the Oshawa Executive Airport
File: F-2510-0015



 Subject Site

City of Oshawa
Development Services Department 



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