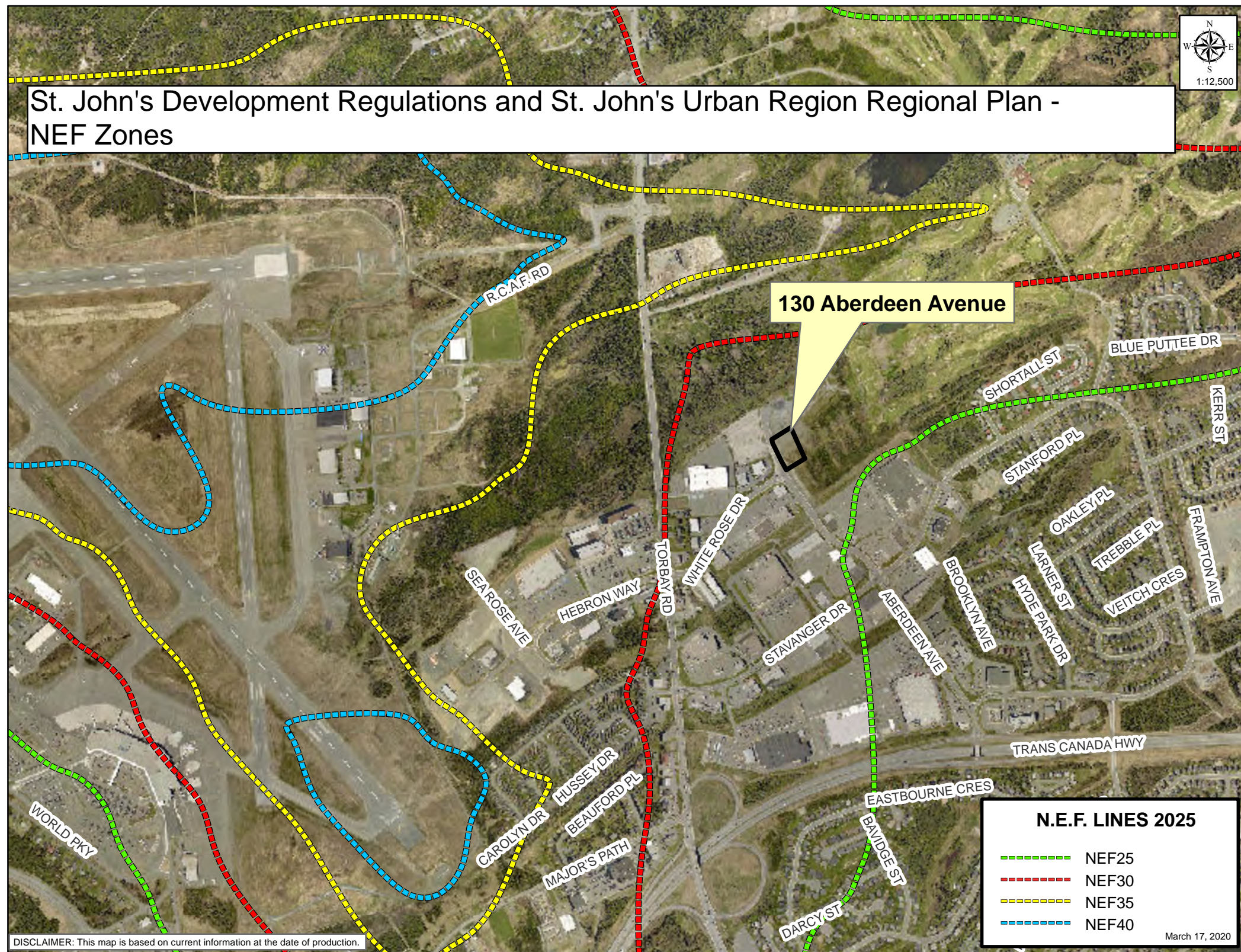


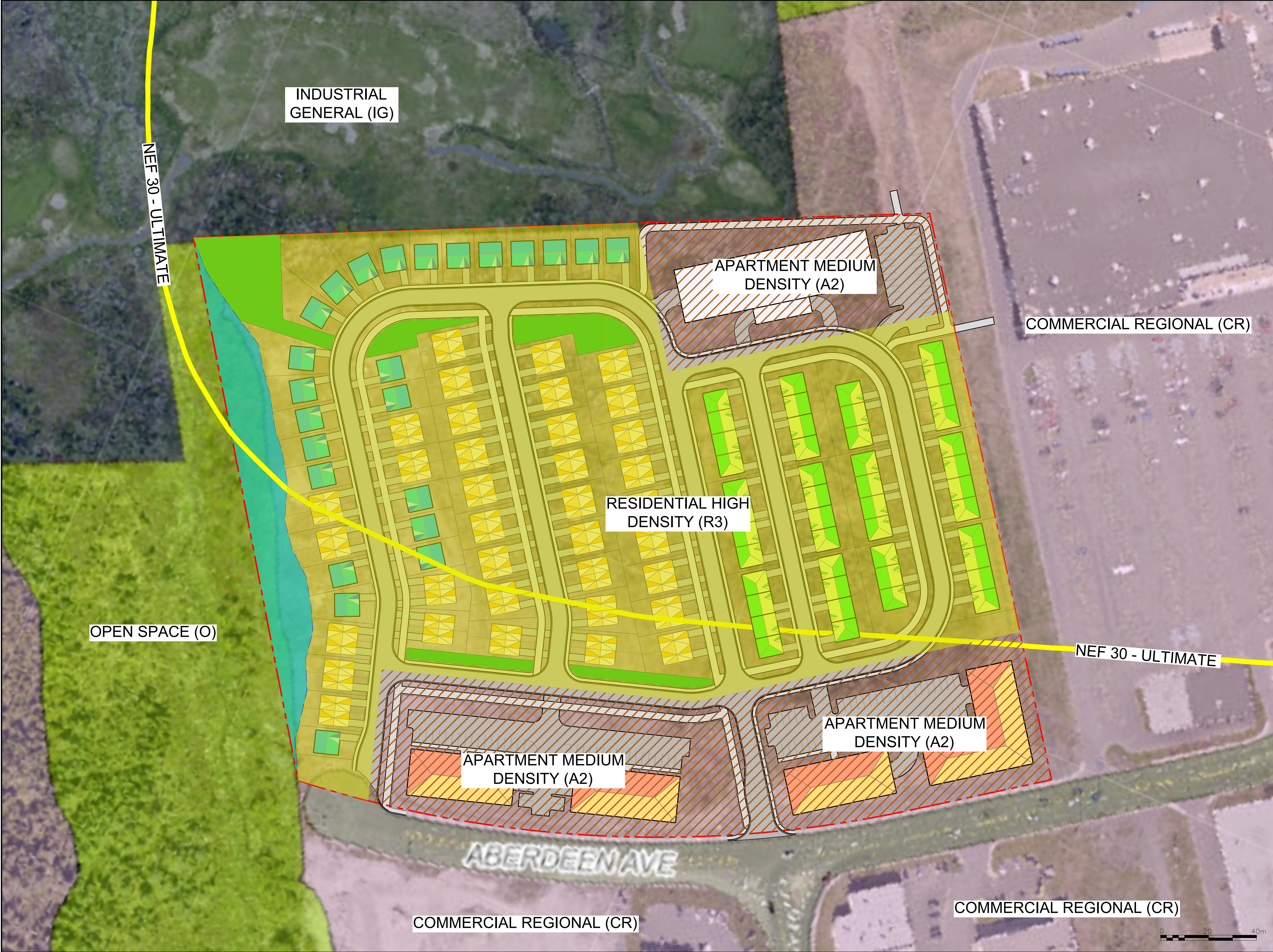
# St. John's Development Regulations and St. John's Urban Region Regional Plan - NEF Zones











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& Consulting Inc.

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PERMIT HOLDER  
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in Newfoundland and Labrador.  
Permit No. as issued by PEG N0566  
which is valid for the year 2021

OWNER/CLIENT NAME:

A HARVEY &  
COMPANY LTD.

PROJECT TITLE:

ABERDEEN AVENUE  
DEVELOPMENT

DRAWING TITLE:

PROPOSED ZONING PLAN

DRAWN BY:	DESIGNED BY:	APPROVED BY:
J.P.	J.P.	J.P.
MAE No:	DATE:	SCALE:
N/A	DEC 2019	AS SHOWN
PROJECT No:	DRAWING No:	REV:
2019-019	C1	B



2012 NEF LINES - ST. JOHN'S AIRPORT

The NEF Lines the City currently use. The 1996 lines were digitized and sent to the City in 2012.

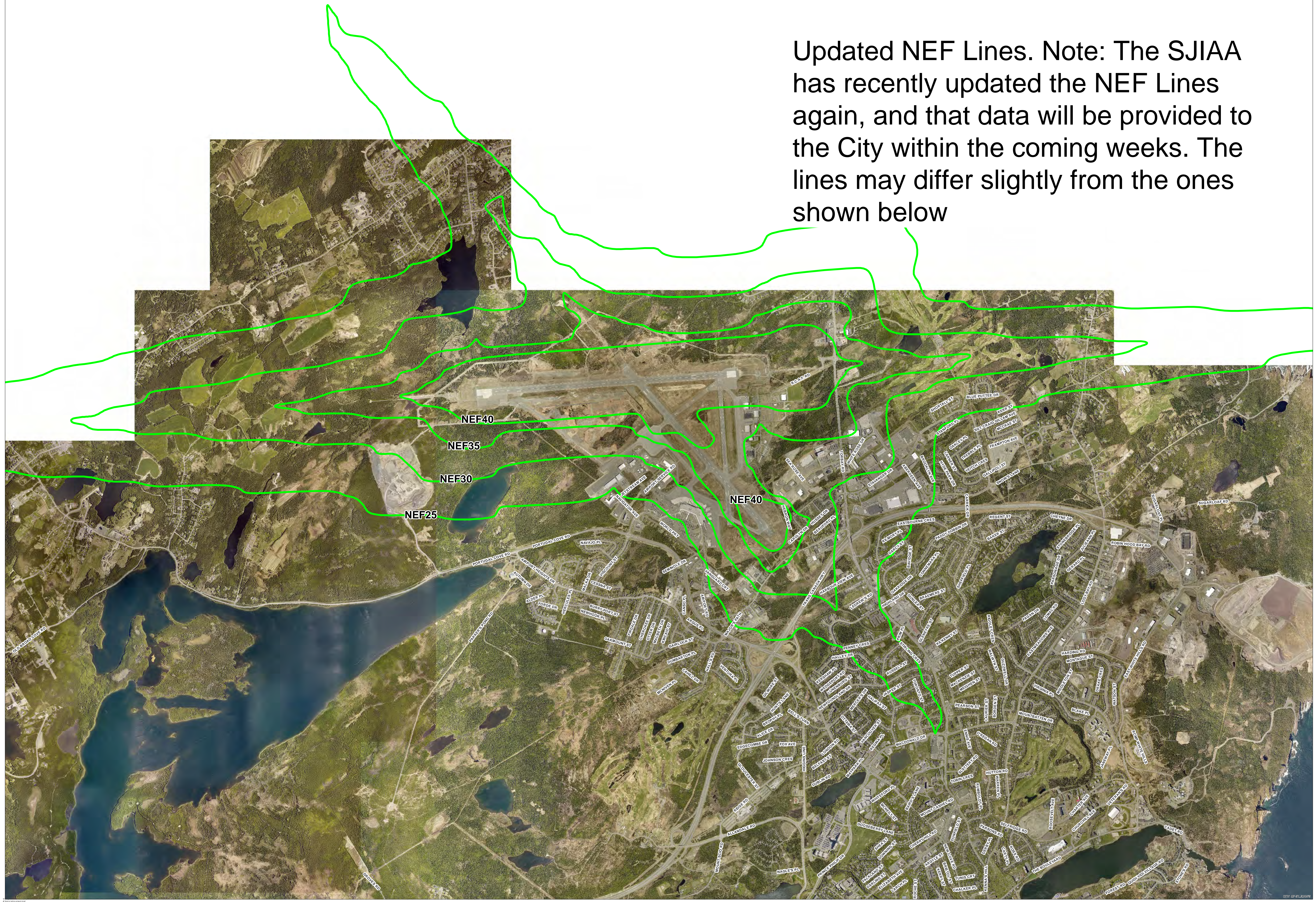
An aerial photograph of the St. John's Airport area, showing the airport runways and surrounding residential and commercial developments. Overlaid on the map are several yellow lines representing the 2012 NEF (Noise Exposure Forecast) boundaries. These lines are labeled with values: NEF25, NEF30, NEF35, and NEF40. The lines generally follow the contours of the airport's noise footprint, with higher values (NEF40) closer to the runways and lower values (NEF25) further away. The map also shows various streets and landmarks, including the airport terminal and surrounding neighborhoods.

The NEF Lines the City currently use. The 1996 lines were digitized and sent to the City in 2012.



2025 NEF LINES - ST. JOHN'S AIRPORT SCENARIO 2

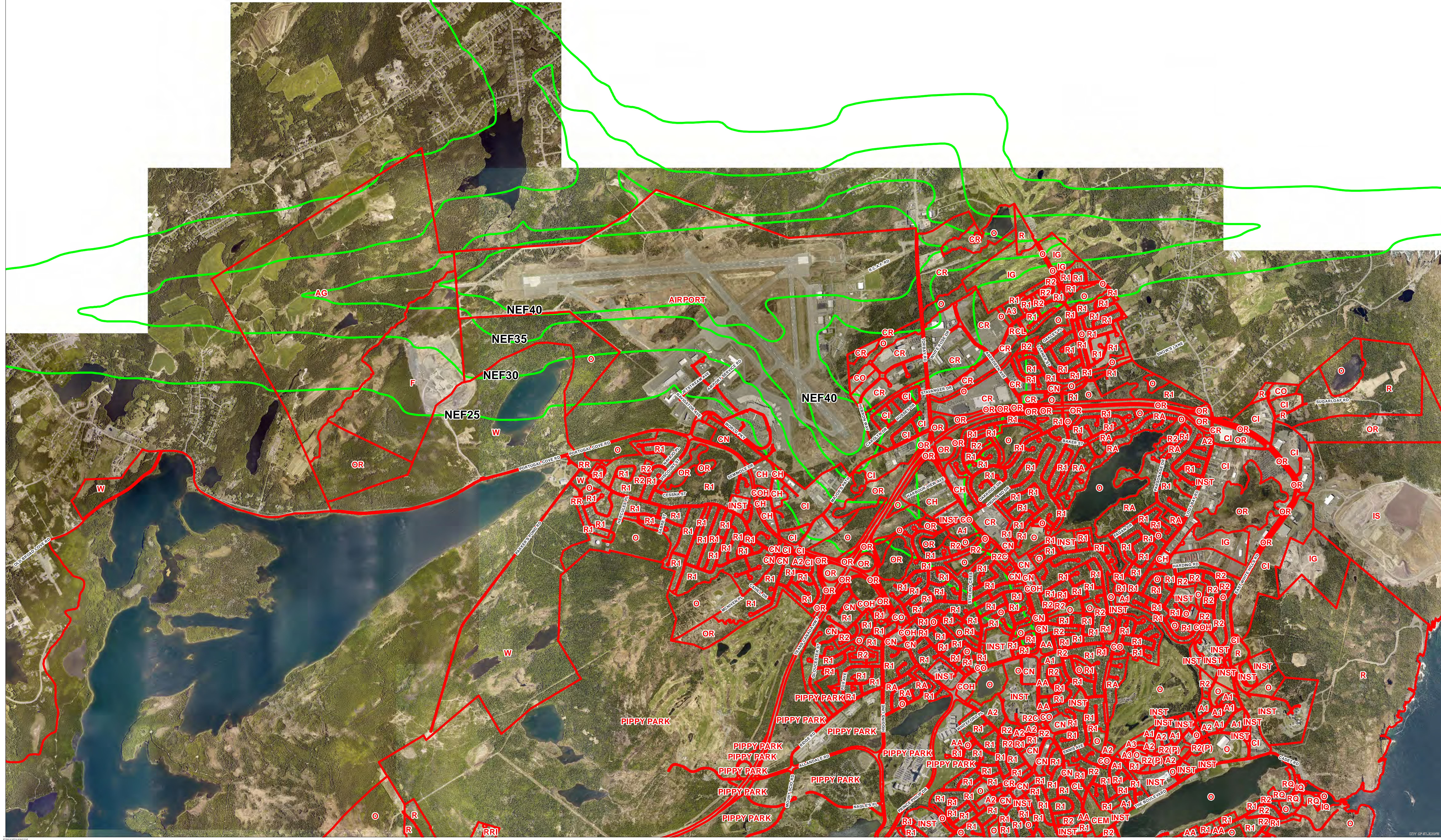
Updated NEF Lines. Note: The SJIAA has recently updated the NEF Lines again, and that data will be provided to the City within the coming weeks. The lines may differ slightly from the ones shown below





Most of the areas within the 30+ NEF Lines are zoned for non-residential uses.

Most of the areas within the 30+ NEF Lines are zoned for non-residential uses.





# **ST JOHN'S URBAN REGION**

## **REGIONAL PLAN**

**1976**

**with**

**Forestry Policy Amendment, 1978**

**Watershed Protected Areas Policy Amendment, 1980**

**and**

**Subsequent Amendments**

**OCTOBER 1995**

**Unofficial Consolidation as of May 1, 2007**

**Prepared by**

**Engineering and Land Use Planning Division**

**Department of Municipal Affairs**



*Residential uses shall not be permitted in any industrial area except for a dwelling for an essential workman or caretaker and his family, or for transient accommodations.*

*(Amendment #2, 1994)*

*The amenity of surrounding non-industrial areas shall be protected by keeping noises, fumes and any hazardous aspects of industrial operations as far as possible from the property lines dividing the industrial and non-industrial areas.*

*[Crossed out: Green Bay Industrial Site:]*

*a) the purpose of the site is to accommodate an offshore service base to provide docking and related loading, storage, repair, maintenance and administrative facilities in support of offshore oil and gas exploration, development and production effort.*

*b) development of the site will be dependent upon the approval of a Development Scheme prepared under the provisions of the Urban and Rural Planning Act.*

*(as amended 1987)*

**(b) Torbay Airport**

*Notwithstanding the land use designations on the Regional Plan Map and any other policies of this Regional Plan, the following special provisions shall apply within the vicinity of Torbay Airport:*

- i) No development shall infringe the height limitations in the vicinity of Torbay Airport unless otherwise approved by the Ministry of Transport.*
- ii) No development shall be permitted in the vicinity of Turbo Airport that would, in the opinion of the Ministry of Transport, pose a danger to the operations of aircraft by interfering with navigational aids or telecommunications equipment.*
- iii) Within the noise zones indicated on Annex I (Noise Exposure Forecast Values) decisions upon permitting development shall in the first instance have regard to the policies set out elsewhere in this Plan according to the*



*designation of the area in which they are to be located and, in addition, the policies set out in Annex II of the Plan shall be used as guidelines.*

*Within the area designated 'Airport' on the Regional Plan Map development shall be limited to uses associated with the operation of the airport and to which the Ministry of Transport have no objection.*

#### (c) Regional Industrial Uses

##### Policy:

*The policies set out above for Major Industrial Uses(a) will apply in the Regional Industrial areas, except that the types of uses which may be permitted include light industrial and certain additional commercial uses. Commercial uses that require large lots and floor areas and direct vehicular access for loading of purchased goods may be permitted in addition to those outlined in (a) above.*

*The Regional Industrial use designation shall not preclude the setting aside of conservation and other open space areas for the protection of waterbodies, for passive or active recreation, for reservation of heights of land or land which should not be developed because of steep slopes, hazardous conditions, servicing, or other development constraints.*

*(Amendment #3, 1994)*

## **H. TRANSPORTATION**

The transportation network forms the backbone of the Regional Plan; it is the component that ties all the parts together. The transportation policies of the Regional Plan have been developed in conjunction with the land use policies and the transportation plan is incorporated on the Regional Plan Map, providing for the following classes of roads:



**ST. JOHN'S AIRPORT ENVIRONS POLICY**

**1983**

**as amended**



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## **1. INTRODUCTION**

The area which is the subject of the St. John's Airport Environs Policy is generally bounded as follows:

- i) to the south by the 1981 boundary of the City of St. John's and by the boundary of the C.A. Pippy Park;
- ii) to the west by the far western boundary of St. John's Airport;
- iii) to the north by an east/west line running through the northern tip of South Pond; and
- iv) to the east by a north/south line to the east of Quidi Vidi Lake.

The above area is shown on the attached St. John's Airport Environs Policy Map, but is emphasized that there are other areas in the Urban Region, which lie outside of the above area and which are impacted by proposals for that area, and policies made relevant to that area which by their nature apply outside of the area.

The policies which follow are based on the findings contained in the report "St. John's Airport Environs Development Plan, Volume I Development Plan, and Volume II Background Report". Relevant statistical data, analysis and reasoning from which these policies were derived can be found in the above noted work.

## **2. AIMS FOR ST. JOHN'S AIRPORT ENVIRONS**

The principal aims for the St. John's Airport Environs Policy are to allow for development of land uses which will:

- i) not hinder in any way the optimum use of the Airport;
- ii) provide for the highest and best use of the land around the Airport, for both trend growth and for economic development derived from growth of the offshore oil and gas industry; and
- iii) complement the surrounding regional context of both urban and rural uses.

## **3. GOALS AND OBJECTIVES**

The following five broad goals for the St. John's Airport Environs are recognized:

- i) the optimization of Airport use;
- ii) the optimization of the potential for offshore oil and gas related developments around the Airport;
- iii) the optimization of the quality of the residential environment;
- the optimization of investment in municipal services; and
- iv) comprehensive regional planning.



From these goals are derived specific objectives which are set out below with, where appropriate, a brief explanatory note.

### **3.1 Goal: Optimization of Airport Use**

Optimization of airport use is seen as a development goal on three counts:

- i) To assist in the development of regular traffic growth.
- ii) To protect the significance of the airport as a critical transportation link for the economy of the whole province and, in particular, the St. John's Urban Region.
- iii) To enhance the role of the airport and thus the Urban Region in its service function for the offshore oil and gas industry.

Although the main tools to optimize the use of the airport relate more specifically to the future development, operation and management of the airport itself, the rational planning for and the use of lands surrounding the airport have significant impact. Thus, planning for the Airport Environs will encourage development of the right kind and at the right locations, and prevent development which would potentially reduce optimum use of the airport.

#### **Objectives:**

- a) Maximization of Land Availability for Airport-Derived Commercial Use.
- b) Maximization of Land Availability for Airport-Derived Industrial Use.

### **3.2 Goal: Optimization of the Potential for Offshore Industry Development Around the Airport**

Since the offshore industry is so dependent on airport use, adequate well located land around the airport should be reserved to assist potential industrial growth associated with development of this industry.

#### **Objectives:**

- a) Maximization of land Availability for Offshore/Airport-Related Industrial and Commercial Uses.
- b) Implementation of a Comprehensive Regional Road Network and Improvement of Airport-Port/Downtown Access.

### **3.3 Goal: Optimization of the Quality of the Residential Environment.**

Any disruption to already developed and still undeveloped areas due to airport activity should be minimized.

#### **Objectives:**



- a) Avoidance of All Noise Disturbance in Future Residential Areas.
- b) Minimization of Noise Disturbance in Existing Residential Areas.
- c) Allocation of Land Uses so as to Minimize Conflicts between Airport-related Industrial and Commercial Uses and Existing or Future Residential Uses.

### **3.4 Goal: Optimization of Investment in Municipal Services**

#### **Objectives:**

- a) Disposition of Land Uses so as to Fully Utilize Existing and Planned Municipal Infrastructure.
- b) Phasing of Land Development so as to Maximize Existing Infrastructure and planned phasing of New Servicing.
- c) Minimization of Right-of-way Impacts and Costs, by Implementation of a Multiple-use Service Corridor.

### **3.5 Goal: Comprehensive Regional Planning**

The Airport Environs is an integral part of the St. John's Urban Region and it must function within this context and respect, where appropriate, other regional policies.

#### **Objectives:**



- a) The Retention and Encouragement of Designated Agricultural Areas within the Airport Environs.
- b) The Retention of Designated Watershed Areas in or abutting the Airport Environs.

## **4. ST. JOHN'S AIRPORT ENVIRONS POLICY**

The St. John's Airport Environs Policy Map shows the land uses proposed for the lands surrounding the airport. These are: residential; commercial, ~~airport-related commercial; airport-related industrial/commercial; airport-related industrial;~~ industrial, agriculture, watershed and rural. Each of these uses is discussed below in general terms, followed by policies relating to their implementation. Following the policies relating to specific land uses are policies relating to noise impact, bird hazard constraints, and infrastructure.

*(Amendment #2, 1991)*

### **4.1 Residential Uses**

New areas of residential uses within the Airport Environs are designated only outside of the consolidated forecast 25  Noise Exposure Forecast (NEF) line. Other areas designated residential, lying both within and outside of the 25  NEF line, are all either developed, in the process of development or are approved subdivisions.



*(Amendment #1, 1991)*

*(Amendment #1, 1994)*

**Policies:**

- ▶ That new residential uses be restricted to only those areas lying outside of the ~~25~~ 35 NEF consolidated noise footprint.

*(Amendment #1, 1991)*

*(Amendment #1, 1994)*

- ▶ That infill development of new residential uses shall be permitted in existing or approved residential areas, but that the full acoustic insulation shall be incorporated into building design specifications.

- ▶ Any new residential development between the 30 NEF contour and the 35 NEF contour shall include sufficient sound insulation as established from time to time by appropriate authorities.

*(Amendment #1, 1994)*



## **4.2 Commercial Uses**

In many instances this designation encompasses existing uses. In addition to commercial uses in general, specific-purpose commercial uses, i.e., airport-related, are identified and dealt with as a separate policy heading.

It is the intent of this Policy to consolidate commercial uses at nodes along arterial roads, and not to encourage the further proliferation of strip commercial development.

### **Policy:**

- ▶ That commercial uses only be permitted in the areas appropriately designated. The definition of such uses shall be the responsibility of the appropriate local authority but shall generally include retail and office activities, as well as commercial clubs, restaurants and service stations provided particular attention is given to site design and access.

## **4.3 Airport-Related Commercial Uses**

*(Deleted in Amendment #2, 1991)*

## **4.4 Industrial/Commercial Uses**

Within this designation light industrial or commercial uses will be permitted. Highway-related uses will not be permitted on that land so designated and lying to the south of the proposed Outer Ring Road because of the controlled access nature of this road. However, such uses will be permitted elsewhere in this designation provided strict consideration is given to site design and access.



**Policy:**

- ▶ That only industrial/commercial uses be permitted in this designation and that these uses shall accord with the Major Industrial Policy of the St. John's Urban Region Regional Plan, with the additional stipulation that heavy industrial uses shall not be permitted.

**4.5 Airport-Related Industrial/Commercial Uses**

*(Deleted in Amendment #2, 1991)*

**4.6 Industrial Uses**

A large area surrounding the airport is designated for industrial use. A large proportion of this, particularly to the east and northeast of the airport, is ideally suited for offshore-related industrial use.

This White Hills area is also designated for industrial use and possesses great locational advantages of good future regional road access to this airport and port.

**Policy:**

- ▶ That industrial uses only shall be permitted in the areas so designated and that these uses shall be subject to the "Major Industrial Policy" of the St. John's Urban Region Regional Plan.

**4.7 Airport-Related Industrial Uses**

*(Deleted in Amendment #2, 1991)*

**4.8 Aviation-Related Industrial Uses**

This designation is given to land lying on Airport property immediately east of runway 02/20 and between it and Turbo Road. The designation has been applied to this area since it is of such importance to support the helicopter and general aviation activity, with many of the former and its support uses likely being offshore-related.

**Policies:**



- ▶ That helicopter and specific aviation-related industrial uses only shall be permitted in the areas so designated.
- ▶ That a full definition of compliance with a helicopter and aviation-related use classification shall be developed by the appropriate jurisdictions for use in the development of this land and this definition shall be included in any implementing regulation for this plan and any municipal, local area plan, or airport plan prepared in accordance with it.

#### **4.9 Agricultural Use**

The St. John's Agricultural Development Area encompasses lands to the north and northeast of the airport. The lands are a regional and provincial resource which cannot be replaced if used for other purposes. Analysis of land demands for urban uses has indicated that there is no shortage of potentially developable land for such uses and that there is on these grounds no cause to consider amendment to existing agricultural policy.



**Policy:**

- ▶ That agricultural uses only be permitted in the areas so designated and that the policies relating to these uses be those of the St. John's Urban Region Regional Plan.

*(Section 4.9 is affected by amendments to the policies of Section F(a) of the Regional Plan).*

**4.10 Rural Use**

The rural designation has been applied to areas beyond current and proposed servicing limits or where topographic and drainage considerations might well hinder development. Land demand analysis indicates that there is no need to consider the urban use of these lands.

**Policy:**

- ▶ That rural uses only be permitted in the areas so designated and that policies relating to these uses be those of the St. John's Urban Region Regional Plan.

**4.11 Watershed Use**

The Windsor Lake and South Pond Watersheds fall partly within the Airport Environs. Their existing and future use as domestic water sources is undisputed and they will be accordingly protected.

**Policy:**

- ▶ That the Windsor Lake and South Pond Watersheds remain subject to the Watershed Protected Areas Policy of the St. John's Urban Region Regional Plan.



#### 4.12 Noise

Aircraft and helicopter movements are generally noisy and the disposition of the above noted land uses has been determined on the basis of anticipated movements and noise levels in order to minimize impacts. However, there are existingly developed areas and areas committed for development which are and will be affected by aircraft noise. It is essential that incompatible development not be permitted in potentially high noise areas and that, where possible, steps be taken to minimize impacts on existingly developed areas. Airport and aircraft operations are beyond the control of this plan, but certain steps can be taken beyond the boundaries of the airport to minimize adverse impacts. Annex I shows the Noise Exposure Forecast values for St. John's Airport for ~~1985~~ 1996, which replace the former NEF values of the St. John's Urban Region Regional Plan with effect from the approval of these policies. The following policies apply equally to areas beyond what this plan defines as the St. John's Airport Environs.

*(Amendment #1, 1992)*

##### **Policies:**

- ▶ That no noise sensitive uses, particularly residential ones, be permitted in existing and future high noise impact areas.
- ▶ That new infill housing in noise impact areas have mandatory acoustic insulation.
- ▶ That structures and landscaping on land in high noise areas be designed to also act as noise barriers or absorbers.
- ▶ That the change of use from noise-sensitive uses to noise-tolerant ones be encouraged in high noise impact areas.
- ▶ That noise levels, noise level forecasts and airport developments be monitored and, that the land use policies of this plan be reviewed on the basis of variations or forecast variations.
- ▶ The volume and frequency of helicopter movements be monitored with a view to considering with the appropriate federal, provincial, municipal, and industry authorities, the establishment of helicopter corridors to provide for safe operation with minimum impact on noise sensitive uses.

#### 4.13 Bird Hazard Constraints



Birds and aircraft are potentially dangerous to one another. In the vicinity of any airport, therefore, steps have to be made to minimize the risk of collision between them.

Certain land uses and activities by their nature attract birds and these land uses near airports should be discouraged if not prevented. The zones of potential danger to aircraft around the St. John's Airport are shown in Annex III as three concentric circles: A) 2 mile-radius; B) 3-mile radius; C) 5-mile radius.

Zone A is the area of greatest potential hazard. Most of the Airport Environs area lies within this zone, where the preferred uses, considering potential bird hazards would be industrial and commercial uses, excluding any drive-in restaurants or other food-related commercial uses. Residential uses in any zone do not normally exacerbate the bird hazard constraint. For a detailed list of land uses and related bird hazards, see Annex III.



**Policy:**

- ▶ Within the Bird Hazard Zones shown in Annex III decisions upon permitting development shall in the first instance have regard to the policies set out elsewhere in this plan according to the designation of the area in which they are to be located and in addition the policies set out in Annex III.

**4.14 Servicing**

Proposals to provide trunk water and sewer mains to the airport environs are in hand and are essential to the realization of the areas potential. Adequate land will be serviced to meet this potential and development will only be permitted on these lands in order to minimize servicing costs, fully use those to be provided and limit unnecessary outward sprawl.

**Policies:**

- ▶ That the water supply system to the St. John's Northeast Expansion Zone be implemented.
- ▶ That the Penetanguishene extension of the Pleasantville Trunk Sewer be implemented.
- ▶ That storm sewerage in the airport environs be given adequate consideration in the design and implementation of new developments.
- ▶ That no activity at or emission be undertaken from the Robin Hood Bay waste disposal site which could be a hindrance to air navigation.
- ▶ That the route of the proposed Outer Ring Road through the airport environs area be utilized as a multiple-use service corridor for linear services such as roads, water and sewer mains, hydro lines and pipelines. The full cooperation of concerned agencies will be solicited for this section of the Outer Ring Road, and elsewhere on its route where appropriate.

**4.15 Road Network**

The planned regional road network will be capable of accommodating the potential development of the areas surrounding St. John's Airport and in part by providing excellent regional access will promote the area's development. Consideration will be given to other improvements to aid traffic flow and promote development as the rate of development dictates.



**Policies:**

- ▶ That the regional road network as depicted in the St. John's Urban Region Regional Plan be implemented.
- ▶ That the Outer Ring Road be given the highest priority so that its construction will enable the realization of development potential in both the Airport Environs and the Region as a whole.
- ▶ That the Penetanguishene Bypass and Airport Access Road be constructed in conjunction with the Outer Ring Road and the development of St. John's Airport facilities.
- ▶ That an Airport-Port/Downtown St. John's link from the eastern limit of the Outer Ring Road be developed.
- ▶ That a link to the Outer Ring Road from the planned industrial area to the east of Turbo Road be investigated for possible realization as the industrial area develops.
- ▶ That further research be carried out into the potential truck traffic generated by Airport Environs industrial areas, with particular emphasis on port destined or derived traffic, with a view to establishing truck routes and/or defined times for truck movements through city streets.



**ANNEX I**  
**NOISE EXPOSURE FORECASTS**



## NOISE EXPOSURE FORECASTS

The Noise Exposure Forecast (NEF) system used by Transport Canada to evaluate the real extent of noise impacts is dependent upon a number of factors:

- i) number of traffic movements;
- ii) type of aircraft in use;
- iii) proportional mix of aircraft;
- iv) runways utilized;
- v) glide and approach paths;
- vi) height of traffic on approach and departure paths;
- vii) noise and characteristics of aircraft types, during both landing and take-off procedures;
- viii) duration of noise;
- ix) frequency components of the noise (pure tones); and
- x) subjective analysis of the degree of annoyance of the noise. This evaluation is a result of a combination of physical and behavioural studies and is considered the most up-to-date method of evaluating noise problems with an airport.

NEF contours to reflect the anticipated aircraft movements in 1985 have been projected by Transport Canada.\* These contours are shown on Annex I and are based on the Optimistic Oil Scenario for 1985.

No NEF contours have been supplied for traffic movements beyond 1985, although projections for traffic volumes have been calculated. This absence of NEF contours for beyond the near future is clearly a major constraint for land use planning in the Airport Environs area.

*(1985 NEF contours have been replaced with 1996 contours).*

\* It should be noted that NEF contours are computer-plotted at a scale of 1:50,000. This means that any enlargement of the scale, eg., to 1:12,500 runs the risk of an inherent distortion. The NEF lines thus have to be evaluated in this light. Nonetheless, they are the best estimated of the anticipated locations of noise-affected areas.

The NEF contours were plotted based on an assumption of a mix of summer day traffic. Offshore helicopter traffic was incorporated into the noise forecast, however, the helicopters were assumed to be operating under IFR conditions and therefore would be flying at a much higher level than they would be under VFR conditions. This fact also may have distorted the NEF contours.



**15 March 2021**

Ken O'Brien, MCIP  
Chief Municipal Planner  
Department of Planning, Engineering and Regulatory Services  
City of St. John's Municipal Council

**Re: Application to Rezone Land at Civic # 130 Aberdeen Avenue  
to Accommodate a Mixed-Form Housing Development  
York Development Inc/York Construction  
CSJ File #: MPA1900006**

Good Day, Mr. O'Brien:

On behalf of Peter Batson and York Development Inc. (York) and as part of the project team, I want to convey our appreciation to the City of St. John's for the opportunity provided us on 24 February 2021 to attend a meeting with the Committee of the Whole (COTW) and make a short presentation on this project to develop a new residential neighbourhood in the City's northeast.

Purpose of the Presentation

As you are aware, City representatives advised York that it should meet with the COTW to better familiarize Council representatives about what the rezoning application is intended to accomplish. York agreed and prepared a presentation for the COTW meeting to discuss the proposed development project and to inform the COTW of the relevance of the St. John's Airport Noise Exposure Forecast (NEF) contours as they relate to municipal and provincial planning policies involving the responsible use by Council of its discretionary authority to allow residential development to occur within the 30 – 35 dB NEF contour band; and to garner some measure of support from Council members for exercising this discretion when considering the York application to rezone and redesignate 130 Aberdeen Avenue to support York's subsequent application to develop a new mixed-form residential neighbourhood. We also felt it important to remind current Council members that, in accordance with the *Urban and Rural Planning Act, 2000* (URPA), the ultimate authority to allow the requested rezoning and approve the proposed development rests with the City of St. John's.

We also believed it important to impart to City representatives some of the knowledge about NEF mapping that our project team obtained through consulting with professional staff of the St. John's Airport Authority, and the results of the professional sound impact assessment that York had commissioned. The former is important as it reveals how NEF contours are identified and...



...how they have changed over time. The latter is important as it indicates, using Canadian Government guidance, the mitigative measures which will be undertaken during dwelling construction to increase the liveability of dwellings on the small part of the Aberdeen Avenue site within the 30 – 35 dB NEF contour band.

### The Regulatory Regime

The St. John's Municipal Plan (**Part I, Section 1.4 - Relation to Other Levels of Government**) "...must conform to the St. John's Urban Region Regional Plan which was adopted by the Province in 1976. The Regional Plan applies to all land in the St. John's Urban Region, which is essentially the Northeast Avalon Peninsula....the St. John's Development Regulations implement the policies of the St. John's Municipal Plan and are subordinate to it."

The St. John's Municipal Plan, as noted in the following policy excerpt, gives clear direction to the City in the matter of residential development in the vicinity of the St. John's Airport.

#### **CSJ Municipal Plan - (Part III, Section 4.3.4 – St. John's Airport Land Use District Policies)**

"The City shall work with the Airport Authority to ensure that residential land uses and other uses that may be detrimentally affected by noise are limited in accordance with the Noise Exposure Forecast (NEFF) Contours shown on the General Land Use (**Map III-I**)"

The above St. John's Municipal Plan policy is implemented by the following regulation which is part of the St. John's Development Regulations.

#### **CSJ Development Regulations (Section 11 – Overlay Districts)**

##### **11.1 Airport Vicinity Requirements**

"In addition to or supplementing any other provisions of these Regulations, any Developments in the vicinity of the St. John's Airport are subject to the St. John's Urban Region Regional Plan concerning Noise Exposure Forecast Zones and Bird Hazard Zones." (emphasis added)

The St. John's Urban Regional Plan ("the Regional Plan") has a very specific policy pertaining to the St. John's Airport - the **St. John's Airport Environs Policy 1983**. The principal aims of the St. John's Airport Environs Policy "are to allow for development of land uses which will:

- i) not hinder in any way the optimum use of the Airport;
- ii) provide for the highest and best use of the land around the Airport, for both trend growth and for economic development derived from growth of the offshore oil and gas industry; and



- iii) complement the surrounding regional context of both urban and rural uses”

This Airport Environs Policy document contains a series of sub-policies which provide clear guidance to the Airport Authority, municipalities and property owners/developers having lands within the Airport Environs. In regard to residential development, it states the following:

#### **“4.1 Residential Uses**

New areas of residential uses within the Airport Environs are designated only outside of the consolidated forecast 35 Noise Exposure Forecast (NEF) Line. Other areas designated residential, lying both within and outside the 35 NEF line, are all either developed, in the process of development, or are approved subdivisions.

#### **Policies:**

- That new residential uses be restricted to only those areas lying outside of the consolidated 35 NEF consolidated noise footprint.
- That infill development of new residential uses shall be permitted in existing or approved residential areas, but that the full acoustic insulation shall be incorporated into building design specifications. (emphasis added)
- Any new residential development between the 30 NEF contour and the 35 NEF contour shall include sufficient sound insulation as established from time to time by appropriate authorities.” (emphasis added)

*The St. John’s International Airport Master Plan Update 2015 – 2035*, St. John’s International Airport Authority (Final Report Prepared for the St. John’s International Airport Authority, January 2017; WSP Canada Ltd.) utilizes the best practices in recommending an array of policies and standards for the successful operation of airports in the country. Amongst these are *TP1247 9th Edition – Aviation Land Use in the Vicinity of Airports*.

The *Aviation Land Use in the Vicinity of Airports* document begins with the statement “From a regulatory perspective, the authority for the designation of and control of the use of lands located outside of aerodrome property rests with provincial/municipal levels of government.” Part IV of this document deals specifically with the subject of Aircraft Noise and includes the blanket statement that “Transport Canada does not support or advocate incompatible land use (*especially residential housing*) (emphasis added) in areas affected by aircraft noise...” Section 4.8 of this guideline document provides recommended practices for various land use types, including residential development, as follows:



**“A**

Annoyance caused by aircraft noise may begin as low as NEF 25. It is recommended that developers be made aware of this fact and that they undertake to so inform all prospective tenants or purchasers of residential units. In addition, it is suggested that development should not proceed until the responsible authority is satisfied that acoustic insulation features, if required, have been considered in the building design.”

**“B**

(b) This Note applies to NEF 30 to 35 only. New residential construction or development should not be undertaken. If the responsible authority chooses to proceed contrary to Transport Canada's recommendation, residential construction or development between NEF 30 and 35 should not be permitted to proceed until the responsible authority is satisfied that: (1) appropriate acoustic insulation features have been considered in the building and (2) a noise impact assessment study has been completed and shows that this construction or development is not incompatible with aircraft noise. Notwithstanding point 2, the developer should still be required to inform all prospective tenants or purchasers of residential units that speech interference and annoyance caused by aircraft noise are, on average, established and growing at NEF 30 and are very significant by NEF 35.” (emphasis added)

### The Airport Noise Impact Assessment

In accordance with the direction provided by Regional Plan’s St. John’s Airport Environs Policy 1983 and *The St. John’s International Airport Master Plan Update 2015 – 2035*, York engaged Valcoustics Canada Ltd. (“Valcoustics”) to complete an assessment of the potential noise impact from air traffic using the St. John’s International Airport upon the proposed mixed-form residential neighbourhood development. The noise impact assessment was completed on November 11, 2020 and is attached for your information.

Valcoustics undertook the noise assessment drawing guidance from published guideline documents from the Canada Mortgage and Housing Corporation (CMHC), Transport Canada and the National Research Council (NRC) [“New Housing and Airport Noise”- CMHC, 1981; “Aviation, Land Use in the Vicinity of Aerodromes” (TP1247E), Transport Canada, 2019; “Building Practice Note, Controlling Sound Transmission Into Buildings (BPN 56), National Research Council].



The Valcoustics noise impact assessment report notes that the majority of the proposed residential development lies between the NEF 25 and NEF 30 contours with the western portion of the site between NEF 30 and NEF 35; and that “residential development is still permitted between the NEF 30 and NEF 35 contours provided that appropriate sound insulation is provided for the dwellings to protect the indoor spaces.” (emphasis added).

The NRC’s BPN 56 assessment determines the Sound Transmission Class (STC) requirements for individual building elements (i.e., exterior windows, walls and roof). The sound impact assessment for part of the subject property above the 30 dB contour yielded the following results:

- “Exterior walls should have a STV of at least 54. This can be achieved using typical brick veneer construction. If lighter weight sidings, such as vinyl, are desired, additional gypsum board, cement board sheathing and/or resilient channels can be used to achieve the requirement. This can be determined as part of the detailed design of the dwellings;
- Roof construction with a STC of at least 50 is needed. This can be achieved using a typical wood roof truss with ventilated attic and asphalt shingle construction; and
- Exterior windows should have a STC of at least 34. This can be achieved using a double glazed window with 2 panes of 6 mm thick glass separated by a 13 mm air space. Alternatively , a double glazed window with a pane of 6 mm thick laminated glass, 6 mm air space and 3 mm thick glass can be used.

The sound isolation requirements can be reduced at lower NEF contours. The requirements for living/dining rooms, recreation spaces and kitchens will be lower due to higher indoor sound level criteria....Final acoustical insulation requirements should be determined once final building plans are available. As per TC guidance, future occupants should be made aware of the potential noise situation through an appropriate warning clause(s).”

As the City can now conclude, and as previous Councils concluded, successful residential development in the vicinity of the St. John’s Airport can occur without adverse impact on the operations of the airport or the residents.

### The Path Forward

Transport Canada and the Airport Authority are automatically opposed to residential development on land above the 30 dB contour and recommend to municipalities that it not be allowed. Transport Canada and the Airport Authority defer to the legislated authority of the City of St. John’s to regulate development on lands outside the boundaries of the airport and concede that residential development of land above the 30 dB contour in the vicinity of the airport may occur provided a noise impact assessment study has been undertaken, and appropriate acoustic insulation features have been considered in the design of proposed residential buildings.



This balanced approach is reflected in the St. John's Airport Environs Policy which is part of the St. John's Urban Region Regional Plan. This approach has been followed by previous Councils who have a much broader perspective and set of responsibilities than the Airport Authority, particularly in providing opportunities within the City for more affordable housing, housing that will have a positive fiscal impact upon the City and makes good sense from a planning perspective.

After extensive consultation with City representatives to address municipal technical and policy issues, York (with the assistance of its engineering consultant – Progressive Engineering & Consulting Inc.) has a well-developed plan for the development of a new residential neighbourhood on the property at 130 Aberdeen Avenue. The November 2020 Valcoustics noise impact assessment study demonstrates that, using Canadian Government guidelines, residential development between the 30 – 35 dB contour band is feasible at this location with appropriate acoustic insulation.

As we are aware, the next step in the rezoning process is to have a staff report, with a recommendation/direction, brought forward to the COTW for consideration and a recommendation to Council. The recommendation to Council could be that the application be rejected, or that it be referred to the public consultation process (i.e., advertisement and/or public meeting); followed by Council referral of the proposed Municipal Plan and Development Regulations amendments to the Department of Environment, Climate Change and Municipalities (DECCM) for an URPA Section 15 review and release; adoption of the amendments at a Regular Meeting of Council; Council appointment of an independent Commissioner and the scheduling of a public hearing; consideration by Council of the Commissioner's Report and a final decision at a Regular Meeting of Council on the proposed rezoning and approval of the proposed/adopted Municipal Plan and Development Regulations amendments.

Assuming that the rezoning application is successful and following the conclusion of the lengthy rezoning process with the publishing of a Notice of Registration in the *Newfoundland and Labrador Gazette*, York will then apply to the City for approval to commence development of the mixed-form residential neighbourhood.

York and its project team continue to rely upon City representatives for clarity in communications in understanding and addressing municipal engineering and planning policy concerns. If there is anything else which we can provide at this stage to assist Council in the decision making process (i.e., a Statement of Planning Rationale document) or to aid in the preparation of a comprehensive planning report to the COTW, please advise us and it will be provided in due course.



If there are any questions or if additional information is required from York's project team, please do not hesitate to contact me.

Yours truly,

  
**Paul Boundridge, MCIP**  
Planning and Development Consultant

Copy: Jason Sinyard – Deputy City Manager; Planning, Engineering and Regulatory Services  
Ann Marie Cashin, MCIP – Planner III, City of St. John's  
Peter Batson – York Development  
Gerard Doran – Plan First Development

Attachments:

"Aircraft Noise Feasibility Assessment, Proposed Residential Development, 130 Aberdeen Avenue, St. John's, Newfoundland, VCL File 120-0422": November 11, 2020; Valcoustics Canada Ltd.



November 11, 2020

York Construction  
9 Westview Avenue  
P.O. Box 21447  
St. John's, Newfoundland  
A1A 5G6

Attention: Peter Batson  
[peter@yorkbuilt.ca](mailto:peter@yorkbuilt.ca)

**VIA E-MAIL**

**Re: Aircraft Noise Feasibility Assessment  
Proposed Residential Development  
130 Aberdeen Avenue  
St. John's, Newfoundland  
VCL File: 120-0422**

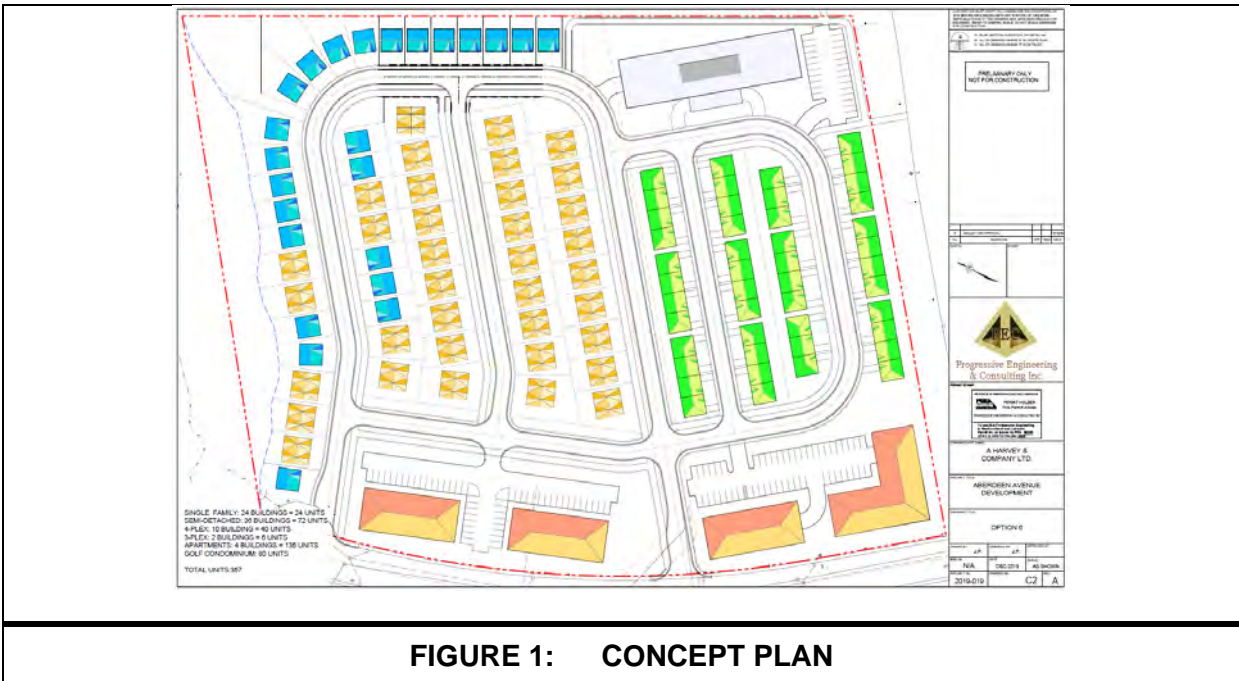
Dear Mr. Batson:

## **1.0 INTRODUCTION**

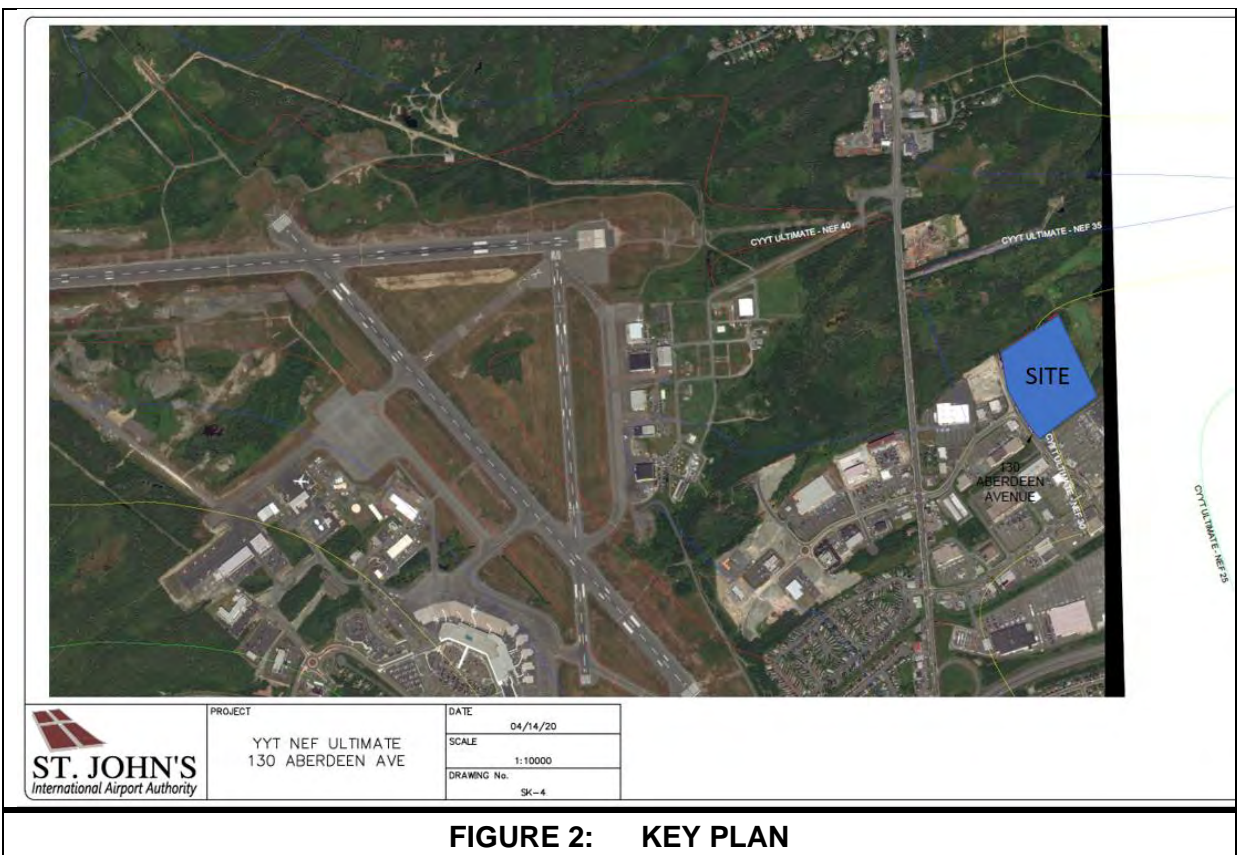
An assessment of the potential noise impact from air traffic using the St. John's International Airport (SJIA) on the proposed residential development has been completed. Our findings and recommendations are provided herein.

The proposed residential development consists of 24 detached dwellings, 36 semi-detached dwellings, 10 four-plex buildings, 2 three-plex buildings, 4 apartment buildings and 1 condominium building. A copy of the concept plan is Figure 1.





The site of the proposed development is to the east of SJIA. A Key Plan is Figure 2.





A number of methods have been devised to evaluate the noise exposure in the vicinity of airports. They are all similar in nature and combine many factors into a single number evaluation. The system currently used by Transport Canada (TC) and SJIA is Noise Exposure Forecast (NEF).

The NEF contours for St. John's International Airport are also shown on Figure 2. The majority of the proposed residential development lies between the NEF 25 and NEF 30 contours with western portion of the site between NEF 30 and NEF 35.

It should be noted that the Key Plan shows existing residential development to the north of the development site that is between the NEF 35 and NEF 40 contours as well as between the NEF 30 and NEF 35 contours.

## 2.0 NOISE GUIDELINES

The noise assessment has been completed using the guidance provided in published guideline documents.

### 2.1 CANADA MORTGAGE AND HOUSING CORPORATION

The Canada Mortgage and Housing Corporation (CMHC) has a guideline document “*New Housing and Airport Noise*”, first published in 1978 and revised in 1981. Section 4.2.5 states “*where noise exposure factors are between 25 and 35 NEF inclusive, the Corporation recommends or requires adequate sound insulation in new dwellings*”.

The dwellings must be designed so the indoor sound levels do not exceed those in Table 1.

**TABLE 1: CMHC Indoor Noise Exposure Criteria**

Use of Space	Maximum Indoor NEF
Bedrooms	0
Living, Dining, Recreation	5
Kitchen, Bathroom	10

Note that the above indoor criteria are consistent with those currently used in Ontario as outlined in Publication NPC-300 (issued in 2013).

### 2.2 TRANSPORT CANADA

TC has a document “*Aviation, Land Use in the Vicinity of Aerodromes*” (TP1247E). The Explanatory Notes for Table 2 state:

*“...residential construction or development between NEF 30 and 35 should not be permitted to proceed until the responsible authority is satisfied that:*

- 1. Appropriate acoustic insulation features have been considered in the building, and*
- 2. A noise impact assessment study has been completed and shows that this construction is not incompatible with aircraft noise.*

*Notwithstanding point 2, the developer should still be required to inform all prospective tenants or purchasers of residential units that speech interference and annoyance caused*



*by aircraft noise are, on average, established and growing at NEF 30 and are very significant by NEF 35."*

The above noted TC publication does not provide indoor sound level criteria.

### **3.0 NOISE ASSESSMENT**

The majority of the proposed development site lies between the NEF 25 and NEF 30 contours and is acceptable for residential development. The westernmost portion of the site lies between the NEF 30 and NEF 35 contours. Residential development is still permitted provided that appropriate sound isolation is provided for the dwellings to protect the indoor spaces.

#### **3.1 ACOUSTIC INSULATION**

A preliminary assessment has been completed to determine the acoustic insulation required for the exterior facades of the dwellings needed to meet the CMHC indoor sound exposure objectives. The assessment was completed using "*Building Practice Note, Controlling Sound Transmission into Buildings (BPN 56)*" published by the National Research Council of Canada (NRC). The BPN 56 assessment determines the Sound Transmission Class (STC) requirements for the individual building elements (i.e. exterior walls, windows and roof).

The preliminary assessment looked at the worst case scenario:

- Dwelling unit located at NEF 33 contour;
- Bedroom (has the most stringent indoor objective of NEF 0) located at an exterior corner (has maximum amount of exterior surface area); and
- Wall and window areas assumed to be 80% and 20% of the bedroom floor area on each of the two exterior corner facades.

#### **3.2 ASSESSMENT RESULTS**

The results of the assessment indicate:

- Exterior wall should have a STC of at least 54. This can be achieved using typical brick veneer exterior wall construction. If lighter weight sidings, such as vinyl, are desired, additional gypsum board, cement board sheathing and/or resilient channels can be used to achieve the requirement. This can be determined as part of the detailed design of the dwellings;
- Roof construction with a STC of at least 50 is needed. This can be achieved using a typical wood roof truss with ventilated attic and asphalt shingle construction; and
- Exterior windows should have a STC of at least 34. This can be achieved using a double glazed window with 2 panes of 6 mm thick glass separated by a 13 mm air space. Alternatively, a double glazed window with a pane of 6 mm thick laminated glass, 6 mm air space and 3 mm thick glass could be used.

The sound isolation requirements can be reduced at lower NEF contours. The requirements for living/dining rooms, recreation spaces and kitchens will be lower due to higher indoor sound level criteria.



In addition to the sound isolation requirements for the exterior facades, the dwellings should also be air conditioned to permit exterior windows to remain closed for noise control purposes.

Final acoustic insulation requirements should be determined once final building plans are available. As per TC guidance, future occupants should be made aware of the potential noise situation through an appropriate warning clause(s).

## **4.0 CONCLUSIONS**

The proposed residential development lies between the NEF 25 and NEF 35 contours from the SJIA. Residential development is permitted within this range provided appropriate acoustic insulation is provided for the dwelling units.

The results of the preliminary assessment indicate that it is feasible to provide a suitable indoor acoustical environment for the future occupants. The dwellings should be air conditioned to permit exterior windows to remain closed for noise control purposes. Future occupants should also be made aware of the potential noise situation through an appropriate warning clause(s).

A detailed assessment of the acoustic insulation requirements should be done once detailed building plans and a site layout is available.

If there are any questions or if additional information is needed, please do not hesitate to call.

Yours truly,

**VALCOUSTICS CANADA LTD.**

Per: \_\_\_\_\_  
**John Emeljanow, P.Eng.**

JE\  
J:\2020\1200422\000\Letters\2020-11-11 Preliminary Report V0.1.docx



His Worship the Mayor and members of Council,

Further to the COTW meeting of February 25/21 and having contributed to the presentation of the subdivision development plan, the value of visual aid clearly demonstrates the benefits of this affordable housing project. The proximity to public transportation, access to commercial services, including shopping are within short commuting distance of the development. Residential development, especially affordable housing is much desired and needed in the north and north-east parts of the City. In the recent decades, housing in this area has been designed and built for middle class or high-income earners. With scarce land inventory remaining in this location, there lies a great opportunity to offer affordable living to both homeowners and rental accommodation. Included with the presentation was the sound literary context of the Noise Exposure Forecast (NEF).

Abiding by planning policy and the technical requirements, development plans are well advanced in pursuit of a favorable consideration of this much needed affordable housing project.



For reference, a similar development that mirrors the housing stock of Hawkesbury Estates has existed in Ward 3 for almost 50 years. The multi-zoned and multiple dwelling development at Hamlyn Road, Barachois Street and Pasadena Crescent (shown above) boasts modern urban convenience with its affordable housing options of rental and private home ownership choices. That west end development is more than twice as large in the land area as Hawkesbury.

Sincerely,

Gerard Doran