



Road Traffic and Stationary Noise Impact Study

445 Anndale Road, Waterloo, Ontario

JJ-00738-NIS1





August 21, 2025,

Reference No. JJ-00738-NIS1

Kevin Opoku
Kindred Works
Development Manager, Development

Dear Mr. Opoku:

**Re: Road Traffic and Stationary Noise Impact Study
445 Anndale Road, Waterloo, Ontario**

1. Introduction

JJ Acoustic Engineering Ltd. (JJAЕ) was retained to complete a Road Traffic and Stationary Noise Impact Study (Study) for the residential/commercial development located at 445 Anndale Road in Waterloo, Ontario (Site). The Site will be developed into five blocks of 3-storey residential buildings. JJAЕ has provided a copy of the most up-to-date Site Plan in Attachment A.

The Study was prepared consistent with Ontario Ministry of the Environment, Conservation and Park (MOECP) NPC 300, "Environmental Noise Guideline, Stationary and Transportation Sources—Approval and Planning" dated August 2013 and The Regional Municipality of Waterloo Noise Policy Implementation Guideline dated October 22, 2019.

This Study has determined that the potential environmental noise impact from road traffic noise is significant. The proposed development will need the following: a requirement for central air-conditioning, noise warning clauses and special building components. Road traffic noise control requirements for the Site were determined based on road traffic volumes provided by the Region of Waterloo (Region) and forecasted to 10 years from the date of this study. JJAЕ has also verified the data with the City of Waterloo and has been supplied in Attachment B.

JJ Acoustic Engineering Ltd.
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The following attachments were included with this Study:

- Attachment A – Site Plan
- Attachment B – Traffic Data Summary Table & Sample Stamson Traffic Model Outputs
- Attachment C – Stationary Noise Impact Figures
- Attachment D – Stationary Noise Impact Source Table
- Attachment E – Owners Statement
- Attachment F – Consultant’s Declaration

2. Road Traffic Analysis

2.1 Road Traffic Noise Modeling Methodology

The road traffic noise impact was conducted using STAMSON, the MOECP’s computerized model of ORNAMENT. The Application of the model for the site was consistent with the ORNAMENT technical documents. The computer model input parameters include, among other data, the number of road segments, number of house rows, the positional relationship of the receptor to a noise source or barrier in terms of distance, elevation and angle of exposure to the source, the basic site topography, the ground surface type, traffic volumes, traffic composition and speed limit.

The predicted sound level is based on the 1-hour equivalent sound level, designated as Leq, and is adjusted by the STAMSON program to the 16-hour daytime and the 8-hour nighttime equivalent sound level. The applicable noise criteria for noise sensitive spaces are specified in terms of the 16-hour daytime period (7:00 a.m. to 11:00 p.m.) and 8-hour nighttime period (11:00 p.m. to 7:00 a.m.) enabling a direct comparison between the STAMSON model output and the noise limits.

Where there are multiple sources of noise, such as road and rail, JJAЕ evaluated noise control measures by combining both road and rail sources and applying measures as described in Section C7.3 of NPC 300.

2.2 Road Traffic Model Input Parameters

This section describes the STAMSON model input parameters used to predict road traffic noise impact for the Site.

The Site has three significant roadways in the vicinity of the development: Davenport Rd approximately 15 meters to the West of Block 5, Lexington Rd approximately 17 meters to the South of Block 5, and Conestoga Pkwy approximately 190 meters to the South of Block 5. Where there are intervening and off-site structures that provide line-of-sight obstruction to the roads, JJAЕ did not include line-of-sight obstruction in our analysis as to calculate worst-case noise impact.

JJAЕ reviewed other surrounding roadways in the vicinity of the Site and only the significant roadways were used in our modeling, other roadways were considered to be insignificant or beyond our red flag zone.

2.2.1 Road Traffic Parameters

The traffic data provided by the Region has been summarized below:

Davenport Road:

- Current AADT (2025): 12,000
- Forecast AADT (2035): 13,000
- Commercial Vehicle Rates: 1% medium trucks and 2% heavy trucks
- Posted Speed Limit: 50 km/h
- Day Night Splits: 90% day and 10% night

Lexington Road:

- Current AADT (2025): 15,000
- Forecast AADT (2035): 16,000
- Commercial Vehicle Rates: 1% medium trucks and 2% heavy trucks
- Posted Speed Limit: 50 km/h
- Day Night Splits: 90% day and 10% night

Conestoga Parkway:

- Current AADT (2021): 44,100
- Forecast AADT (2035): 62,312
- Commercial Vehicle Rates: 5% medium trucks and 8% heavy trucks
- Posted Speed Limit: 50 km/h
- Day Night Splits: 66.67% day and 33.33% night

The traffic data is the foundation of this analysis and the Study will be updated if the values change. Traffic data was supplied by the Region. The Region's AADT report for this Noise Studies report has been supplied in Attachment B.

For the Conestoga Parkway, JJAЕ has assumed truck percentages as 5% and 8% for medium and heavy trucks, respectively, and a 2.5% annual growth rate.

2.3 Road Traffic Noise Modeling Results

JJAЕ calculated the Plane of Window (POW) noise exposure for each floor at the Site for the separate daytime and nighttime periods.

The STAMSON road traffic model outputs are provided in Attachment B.

2.4 Road Traffic Modeling Discussion

Noise control requirements will be defined based on NPC 300.

Daytime Outdoor Living Area Assessment (NPC 300, Section C7.1.1)

NPC 300 section A5 (pages 13-14) defines an Outdoor Living Area (OLA). As part of this definition, a balcony or terrace is considered an OLA if it has a minimum depth of 4 meters. All balconies are less than 4 m in depth and therefore will not be considered as OLAs.

The OLA is located approximately 3 meters from the East façade of Block 3. JJAЕ has calculated the noise impact to the OLA to be 54 dBA. The location of the OLA has been indicated on Attachment A – Site Plan.

Plane of a Window – Ventilation Requirements (NPC 300, Section C7.1.2)

The predicted daytime and nighttime Plane of Window (POW) noise impact assumes a worst-case and direct line of sight noise exposure to both roads, unless the building itself blocks line-of-sight (full or partial).

JJAЕ has used the following criteria, which is a summary of NPC 300 requirements, to evaluate the Site noise impacts from road traffic noise:

Daytime Level (dBA)	Nighttime Level (dBA)	Ventilation Requirements and Warning Clauses	Special Building Components
55	50	Not Required	Not Required
55 – 65	50 – 60	Yes, with Type C Warning Clause	Not Required
66 or more	61 or more	Yes, with Type D Warning Clause	Yes

Table B.1 summarizes the predicted worst-case sound levels and the requirements for the units. The following warning clause is required:

Warning Clause B: "Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road traffic (rail traffic) (air traffic) may on occasions interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment."

Warning Clause D: "This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment, Conservation and Parks."

Indoor Living Areas – Building Components (NPC 300, Section C7.1.3)

At minimum, the building must be constructed to standard Ontario Building Code requirements. Improved building components are required and summarized in Table B.1. JJAЕ has assumed 35% window to floor area coverage and that windows are thick and operable. In addition, the exterior wall composition must be a minimum of STC 45.

3. Stationary Noise Impact Analysis

3.1 Stationary Noise Impact Sound Level Criteria

The general criteria for stationary noise sources are defined by NPC 300. The criteria defined in Table C-5 and C-6, "Exclusion Limit Values of One-Hour Equivalent Sound Level (Leq, dBA) Outdoor Points of Reception" and "Exclusion Limit Values of One-Hour Equivalent Sound Level (Leq, dBA) Plane of Window of Noise Sensitive Spaces" are used to evaluate the noise impact at the proposed development.

The criteria for a Class 1 area have been summarized below:

Receiver Category	Time Period	Stationary Noise Criteria
Outdoor Living Area (OLA)	Day = 7:00 to 23:00	Leq = 50 dBA
Plane of Window (POW)	Day = 7:00 to 23:00	Leq = 50 dBA
	Night = 23:00 to 7:00	Leq = 45 dBA

3.2 Modelling Methodology

The stationary noise impact was evaluated using the CADNA A acoustic modelling software that is based on the ISO 9613-2 standard. The data for all potential stationary noise sources was summarized in Attachment D.

JJAE used the following assumptions in our Cadna A model:

- **Ground Absorption:** Default ground absorption coefficient of 0.7 was used.
- **Temperature:** 10°C
- **Humidity:** 70%
- **Building Reflection Coefficient:** Absorption Coefficient Alpha of 0.37 (Reflection Loss of 2dB, Structured Façade) was used.
- **Time-Weighted Adjustment:** where sources operate non-continuously JJAE has provided operating times and as shown in Sections 4 and 5.
- **Tonality:** A 5 dbA tonal penalty was applied to all tonal sources, where applicable. JJAE has provided a (T) for sources identified as tonal in Sections 4 and 5.
- **Reflection Order:** A maximum reflection order of 1 was used to evaluate indirect noise impact.

4. Noise Impact Summary – From Site to Environment

The noise from the Site to the neighboring buildings could not be accounted for because the site has not undergone mechanical design yet. An addendum to this report should be completed once a mechanical design is done to account for noise from the Site to the neighboring building.

5. Noise Impact Summary – From Environment to Site

There are several buildings near the site. JJAЕ has identified several potential stationary noise sources including:

- Small HVAC (60 minutes daytime, 30 minutes nighttime)
- HVAC 2 Fan Units (60 minutes daytime, 30 minutes nighttime)
- HVAC 4 Fan Units (60 minutes daytime, 30 minutes nighttime)
- Representative Chiller (60 minutes daytime, 30 minutes nighttime)
- Representative Make-Up Air Unit (Steady-State)

A summary of the noise sources used in our modelling is provided in Attachment D.

JJAЕ modelled the noise impact from all significant noise sources to the Site. The results are summarized in the table below and illustrated on Figure 1.

Block 1	Worst Case Daytime Sound Level (dBA)	Daytime Noise Limit (dBA)	Worst Case Nighttime Sound Level (dBA)	Nighttime Noise Limit (dBA)	Limits met
North	33	50	30	45	Yes
East	30	50	<30	45	Yes
South	47	50	44	45	Yes
West	39	50	36	45	Yes

From the table above it can be seen that all façades for Block 1 are below the noise limits.

Block 2	Worst Case Daytime Sound Level (dBA)	Daytime Noise Limit (dBA)	Worst Case Nighttime Sound Level (dBA)	Nighttime Noise Limit (dBA)	Limits met
North	<30	50	<30	45	Yes
East	<30	50	<30	45	Yes
South	37	50	34	45	Yes
West	36	50	33	45	Yes

From the table above it can be seen that all façades for Block 2 are below the noise limits.

Block 3	Worst Case Daytime Sound Level (dBA)	Daytime Noise Limit (dBA)	Worst Case Nighttime Sound Level (dBA)	Nighttime Noise Limit (dBA)	Limits met
North	<30	50	<30	45	Yes
East	32	50	<30	45	Yes
South	39	50	37	45	Yes
West	37	50	34	45	Yes
OLA	33	50	N/A	N/A	Yes

From the table above it can be seen that all façades and OLA for Block 3 are below the noise limits.

Block 4	Worst Case Daytime Sound Level (dBA)	Daytime Noise Limit (dBA)	Worst Case Nighttime Sound Level (dBA)	Nighttime Noise Limit (dBA)	Limits met
North	<30	50	<30	45	Yes
East	38	50	36	45	Yes
South	39	50	36	45	Yes
West	38	50	35	45	Yes

From the table above it can be seen that all façades for Block 4 are below the noise limits.

Block 5	Worst Case Daytime Sound Level (dBA)	Daytime Noise Limit (dBA)	Worst Case Nighttime Sound Level (dBA)	Nighttime Noise Limit (dBA)	Limits met
North	35	50	32	45	Yes
East	40	50	38	45	Yes
South	42	50	40	45	Yes
West	39	50	37	45	Yes

From the table above it can be seen that all façades for Block 5 are below the noise limits.

6. Recommendations

The road traffic noise impacts were above the NPC 300 requirements. Noise mitigation measures include:

Block 1:

- Warning Clause Type D to be registered on Title and/or included in all agreements of purchase and sale and/or leases and/or disclosure statements and declarations for all the units.
- North Façade requires a minimum of STC 27 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 45.
- South Façade requires a minimum of STC 29 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 45.
- West Façade requires a minimum of STC 29 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 45.
- JJAEE and the client require air conditioning for all units.

Block 2:

- Warning Clause Type D to be registered on Title and/or included in all agreements of purchase and sale and/or leases and/or disclosure statements and declarations for all the units.
- North Façade requires a minimum of STC 27 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 46.
- South Façade requires a minimum of STC 30 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 46.
- West Façade requires a minimum of STC 29 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 46.
- JJAEE and the client require air conditioning for all units.

Block 3:

- Warning Clause Type D to be registered on Title and/or included in all agreements of purchase and sale and/or leases and/or disclosure statements and declarations for all the units.
- North Façade requires a minimum of STC 27 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 46.

- South Façade requires a minimum of STC 29 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 46.
- West Façade requires a minimum of STC 30 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 46.
- JJAЕ and the client require air conditioning for all units.

Block 4:

- Warning Clause Type D to be registered on Title and/or included in all agreements of purchase and sale and/or leases and/or disclosure statements and declarations for all the units.
- North Façade requires a minimum of STC 27 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 50.
- South Façade requires a minimum of STC 33 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 50.
- West Façade requires a minimum of STC 30 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 50.
- JJAЕ and the client require air conditioning for all units.

Block 5:

- Warning Clause Type D to be registered on Title and/or included in all agreements of purchase and sale and/or leases and/or disclosure statements and declarations for all the units.
- North Façade requires a minimum of STC 28 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 49.
- South Façade requires a minimum of STC 34 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 49.
- West Façade requires a minimum of STC 31 glazing installed with a maximum window to floor area ratio of 35% and thick operable windows. In addition, exterior wall compositions must be a minimum of STC 49.
- JJAЕ and the client require air conditioning for all units.

These have been summarized in Attachment B under Table B1. Where there are discrepancies between this section and the results in Table B1, the recommendations in this section supersede Table B1, as this section provides worst-case solutions for the noise impact.

The stationary noise impacts from neighboring buildings to the Site were evaluated and the sound level predictions were determined to be below noise limits.

The noise from the Site to the neighboring buildings could not be accounted for because the site has not undergone mechanical design yet. An addendum to this report should be completed once a mechanical design is done to account for noise from the Site to the neighboring building.

7. Conclusions

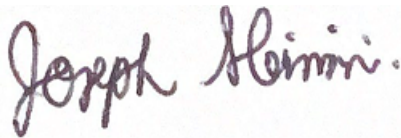
The results of this Study indicate that the potential environmental impact from road traffic noise sources are significant. Mitigation measures will be required including ventilation requirements, special building components and noise warning clauses for each unit. With the mitigation measures provided in Section 6, there will be minimal noise impact from the neighboring buildings to the Site. Therefore, this development is feasible with respect to RMWNPIG and NPC-300.

Should you have any questions on the above, please do not hesitate to contact us.

Written By:

Reviewed by:

Aug. 21, 2025

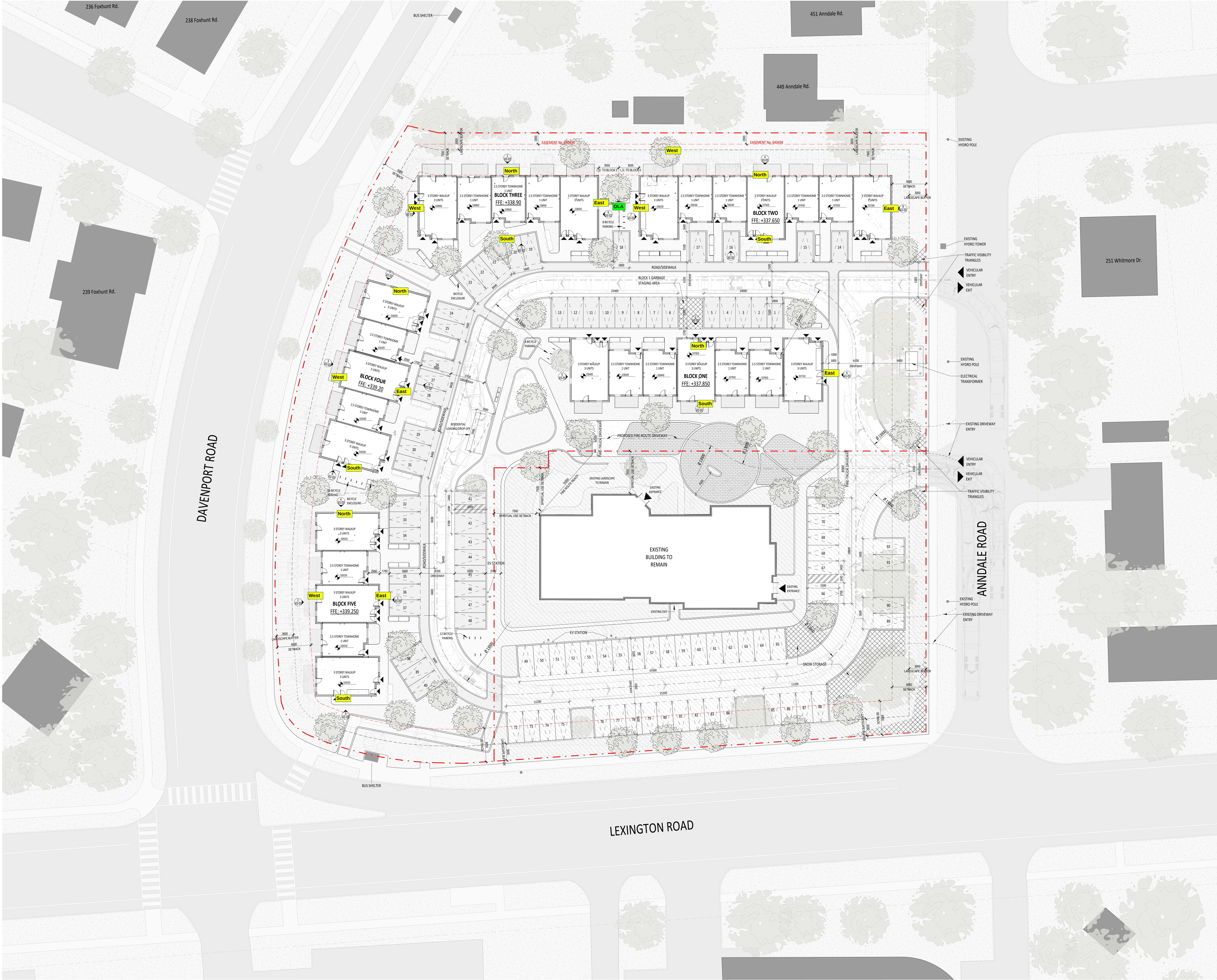


Joseph Sleiman
Acoustic Technician



Joey Jraige, P.Eng., B.A.Sc.
President (Owner)

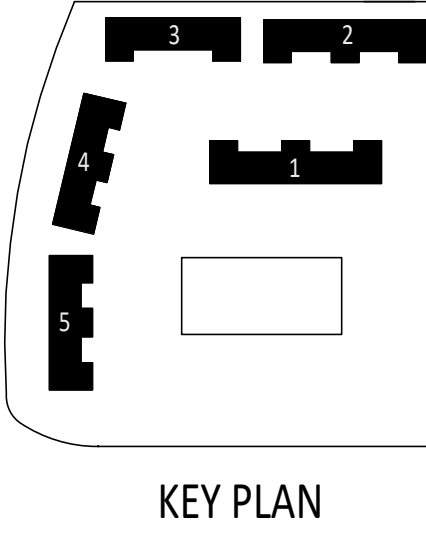
ATTACHMENT A



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GENERAL NOTES:

- Drawings are not to be scaled. Contractor will verify all existing conditions and dimensions required to perform the work and will report any discrepancies with the Architect's Documents to the Architect before commencing work.
- The Architect's Drawings are to be read in conjunction with all other Contract Documents including the Project Manual and the General Conditions and Specifications. In case of any discrepancy between the Contract Documents, the order of precedence shall be as follows:
 - Architect's Addendum
 - Architect's General Conditions and Specifications
 - Architect's Drawings
 - Contractor's Shop Drawings
- Architect's Addendum No. 1 to the General Conditions and Specifications is incorporated by reference into these drawings. Contractor shall be responsible for obtaining all necessary permits and approvals from the appropriate authorities. The Architect is not responsible for obtaining any permits or approvals from the appropriate authorities. The Contractor shall be responsible for obtaining all necessary permits and approvals from the appropriate authorities. The Architect is not responsible for obtaining any permits or approvals from the appropriate authorities.
- Drawings shall be read in conjunction with the Project Manual and the General Conditions and Specifications. The Contractor shall be responsible for obtaining all necessary permits and approvals from the appropriate authorities. The Architect is not responsible for obtaining any permits or approvals from the appropriate authorities.
- The Contractor shall be responsible for obtaining all necessary permits and approvals from the appropriate authorities. The Architect is not responsible for obtaining any permits or approvals from the appropriate authorities.
- These drawings are not to be used for construction unless specifically noted for each purpose.

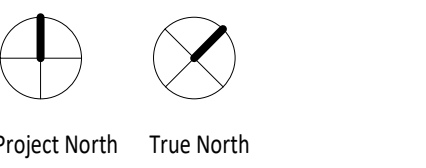


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Rev	Date	Issued

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SPA File:
File:
Legal Description:

Kindred Works
445 ANNDAL RD.
445 Anndale Rd., Waterloo, ON
N2K 2E3



Project No. 2102
Scale 1:200
Plot Date 2025.08.15

SITE PLAN

ATTACHMENT B

Block 1

Outdoor Sound Level

64

Indoor Sound Level

40

Noise Reduction

27

Day/Night

Night

Road/Rail

Road

Angle of Sound

40 to 90 Degrees

Angle Correction

2

Sum

29

Component

Window

Sum

29

Sound Energy Transmitted

100

%

Table 3

0

Component Area

35

m²

Room Floor Area

100

m²

% Floor Area

31

%

Room Absorption Category

Intermediate

Table 4

-4

Noise Spectrum Type

Mixed Road Traffic, Distance Aircraft

Component Category

Openable Thick Window

Table 5

4

REQUIRED STC FOR COMPONENT

29

Component

Exterior Wall

Sum

29

Sound Energy Transmitted

10

%

Table 3

10

Component Area

65

% Floor Area

Room Floor Area

100

63

Room Absorption Category

Intermediate

Table 4

-1

Noise Spectrum Type

Mixed Road Traffic, Distance Aircraft

Component Category

Exterior Wall

Table 5

7

REQUIRED STC FOR COMPONENT

45

Table B1.1

Road Traffic Noise Levels and Mitigation Measures Summary
445 Anndale Road, Waterloo, Ontario
Block 1

Point of Reception	Road Sound Level Daytime (dBA)	Road Sound Level Nighttime (dBA)	Ventilation Requirements NPC 300	Warning Clauses From NPC 300	Special Building Components
North Façade					
Plane of Window Level 1	63 (dBA)	62 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 27
Plane of Window Level 2	63 (dBA)	62 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 27
Plane of Window Level 3	63 (dBA)	62 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 27
East Façade					
Plane of Window Level 1	55 (dBA)	49 (dBA)	Requirement for Air Conditioning	Type C	Compliance with Ontario Building Code
Plane of Window Level 2	55 (dBA)	49 (dBA)	Requirement for Air Conditioning	Type C	Compliance with Ontario Building Code
Plane of Window Level 3	55 (dBA)	49 (dBA)	Requirement for Air Conditioning	Type C	Compliance with Ontario Building Code
South Façade					
Plane of Window Level 1	65 (dBA)	64 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 29
Plane of Window Level 2	65 (dBA)	64 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 29
Plane of Window Level 3	65 (dBA)	64 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 29
West Façade					
Plane of Window Level 1	65 (dBA)	64 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 29
Plane of Window Level 2	65 (dBA)	64 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 29
Plane of Window Level 3	65 (dBA)	64 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 29

Block 2

Outdoor Sound Level

65

Indoor Sound Level

40

Noise Reduction

28

Day/Night

Night

Road/Rail

Road

Angle of Sound

40 to 90 Degrees

Angle Correction

2

Sum

30

Component

Window

Sum

30

Sound Energy Transmitted

100

%

Table 3

0

Component Area

35

m²

Room Floor Area

100

m²

% Floor Area

31

%

Room Absorption Category

Intermediate

Table 4

-4

Noise Spectrum Type

Mixed Road Traffic, Distance Aircraft

Component Category

Openable Thick Window

Table 5

4

REQUIRED STC FOR COMPONENT

30

Component

Exterior Wall

Sum

30

Sound Energy Transmitted

10

%

Table 3

10

Component Area

65

% Floor Area

Room Floor Area

100

63

Room Absorption Category

Intermediate

Table 4

-1

Noise Spectrum Type

Mixed Road Traffic, Distance Aircraft

Component Category

Exterior Wall

Table 5

7

REQUIRED STC FOR COMPONENT

46

Table B1.2

Road Traffic Noise Levels and Mitigation Measures Summary
445 Anndale Road, Waterloo, Ontario
Block 2

Point of Reception	Road Sound Level Daytime (dBA)	Road Sound Level Nighttime (dBA)	Ventilation Requirements NPC 300	Warning Clauses From NPC 300	Special Building Components
North Façade					
Plane of Window Level 1	62 (dBA)	62 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 27
Plane of Window Level 2	62 (dBA)	62 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 27
Plane of Window Level 3	62 (dBA)	62 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 27
East Façade					
Plane of Window Level 1	54 (dBA)	47 (dBA)	Not Required	Not Required	Compliance with Ontario Building Code
Plane of Window Level 2	54 (dBA)	47 (dBA)	Not Required	Not Required	Compliance with Ontario Building Code
Plane of Window Level 3	54 (dBA)	47 (dBA)	Not Required	Not Required	Compliance with Ontario Building Code
South Façade					
Plane of Window Level 1	66 (dBA)	65 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 30
Plane of Window Level 2	66 (dBA)	65 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 30
Plane of Window Level 3	66 (dBA)	65 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 30
West Façade					
Plane of Window Level 1	65 (dBA)	64 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 29
Plane of Window Level 2	65 (dBA)	64 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 29
Plane of Window Level 3	65 (dBA)	64 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 29

Block 3

Outdoor Sound Level

65

Indoor Sound Level

40

Noise Reduction

28

Day/Night

Night

Road/Rail

Road

Angle of Sound

40 to 90 Degrees

Angle Correction

2

Sum

30

Component

Window

Sum

30

Sound Energy Transmitted

100%

Table 3

0

Component Area

35

m²

Room Floor Area

100

m²

% Floor Area

31

%

Room Absorption Category

Intermediate

Table 4

-4

Noise Spectrum Type

Mixed Road Traffic, Distance Aircraft

Component Category

Openable Thick Window

Table 5

4

REQUIRED STC FOR COMPONENT

30

Component

Exterior Wall

Sum

30

Sound Energy Transmitted

10%

Table 3

10

Component Area

65

% Floor Area

Room Floor Area

100

63

Room Absorption Category

Intermediate

Table 4

-1

Noise Spectrum Type

Mixed Road Traffic, Distance Aircraft

Component Category

Exterior Wall

Table 5

7

REQUIRED STC FOR COMPONENT

46

Table B1.3

Road Traffic Noise Levels and Mitigation Measures Summary
445 Anndale Road, Waterloo, Ontario
Block 3

Point of Reception	Road Sound Level Daytime (dBA)	Road Sound Level Nighttime (dBA)	Ventilation Requirements NPC 300	Warning Clauses From NPC 300	Special Building Components
North Façade					
Plane of Window Level 1	63 (dBA)	62 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 27
Plane of Window Level 2	63 (dBA)	62 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 27
Plane of Window Level 3	63 (dBA)	62 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 27
East Façade					
Plane of Window Level 1	54 (dBA)	47 (dBA)	Not Required	Not Required	Compliance with Ontario Building Code
Plane of Window Level 2	54 (dBA)	47 (dBA)	Not Required	Not Required	Compliance with Ontario Building Code
Plane of Window Level 3	54 (dBA)	47 (dBA)	Not Required	Not Required	Compliance with Ontario Building Code
South Façade					
Plane of Window Level 1	66 (dBA)	64 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 29
Plane of Window Level 2	66 (dBA)	64 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 29
Plane of Window Level 3	66 (dBA)	64 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 29
West Façade					
Plane of Window Level 1	67 (dBA)	65 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 30
Plane of Window Level 2	67 (dBA)	65 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 30
Plane of Window Level 3	67 (dBA)	65 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 30
Outdoor Living Area					
OLA 1	54 (dBA)	N/A	N/A	N/A	N/A

Block 4

Outdoor Sound Level

68

Indoor Sound Level

40

Noise Reduction

31

Day/Night

Night

Road/Rail

Road

Angle of Sound

40 to 90 Degrees

Angle Correction

2

Sum

33

Component

Window

Sum

33

Sound Energy Transmitted

100

%

Table 3

0

Component Area

35

m²

Room Floor Area

100

m²

% Floor Area

31

%

Room Absorption Category

Intermediate

Table 4

-4

Noise Spectrum Type

Mixed Road Traffic, Distance Aircraft

Component Category

Openable Thick Window

Table 5

4

REQUIRED STC FOR COMPONENT

33

Component

Exterior Wall

Sum

33

Sound Energy Transmitted

10

%

Table 3

10

Component Area

65

% Floor Area

Room Floor Area

100

63

Room Absorption Category

Intermediate

Table 4

-1

Noise Spectrum Type

Mixed Road Traffic, Distance Aircraft

Component Category

Exterior Wall

Table 5

7

REQUIRED STC FOR COMPONENT

49

Table B1.4

Road Traffic Noise Levels and Mitigation Measures Summary
445 Anndale Road, Waterloo, Ontario
Block 4

Point of Reception	Road Sound Level Daytime (dBA)	Road Sound Level Nighttime (dBA)	Ventilation Requirements NPC 300	Warning Clauses From NPC 300	Special Building Components
North Façade					
Plane of Window Level 1	64 (dBA)	62 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 27
Plane of Window Level 2	64 (dBA)	62 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 27
Plane of Window Level 3	64 (dBA)	62 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 27
East Façade					
Plane of Window Level 1	55 (dBA)	49 (dBA)	Requirement for Air Conditioning	Type C	Compliance with Ontario Building Code
Plane of Window Level 2	55 (dBA)	49 (dBA)	Requirement for Air Conditioning	Type C	Compliance with Ontario Building Code
Plane of Window Level 3	55 (dBA)	49 (dBA)	Requirement for Air Conditioning	Type C	Compliance with Ontario Building Code
South Façade					
Plane of Window Level 1	69 (dBA)	68 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 33
Plane of Window Level 2	69 (dBA)	68 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 33
Plane of Window Level 3	69 (dBA)	68 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 33
West Façade					
Plane of Window Level 1	68 (dBA)	65 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 30
Plane of Window Level 2	68 (dBA)	65 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 30
Plane of Window Level 3	67 (dBA)	65 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 30

Block 5

Outdoor Sound Level

69

Indoor Sound Level

40

Noise Reduction

32

Day/Night

Night

Road/Rail

Road

Angle of Sound

40 to 90 Degrees

Angle Correction

2

Sum

34

Component

Window

Sum

34

Sound Energy Transmitted

100

%

Table 3

0

Component Area

35

m²

Room Floor Area

100

m²

% Floor Area

31

%

Room Absorption Category

Intermediate

Table 4

-4

Noise Spectrum Type

Mixed Road Traffic, Distance Aircraft

Component Category

Openable Thick Window

Table 5

4

REQUIRED STC FOR COMPONENT

34

Component

Exterior Wall

Sum

34

Sound Energy Transmitted

10

%

Table 3

10

Component Area

65

% Floor Area

Room Floor Area

100

63

Room Absorption Category

Intermediate

Table 4

-1

Noise Spectrum Type

Mixed Road Traffic, Distance Aircraft

Component Category

Exterior Wall

Table 5

7

REQUIRED STC FOR COMPONENT

50

Table B1.5

Road Traffic Noise Levels and Mitigation Measures Summary
445 Anndale Road, Waterloo, Ontario
Block 5

Point of Reception	Road Sound Level Daytime (dBA)	Road Sound Level Nighttime (dBA)	Ventilation Requirements NPC 300	Warning Clauses From NPC 300	Special Building Components
North Façade					
Plane of Window Level 1	64 (dBA)	63 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 28
Plane of Window Level 2	64 (dBA)	63 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 28
Plane of Window Level 3	64 (dBA)	63 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 28
East Façade					
Plane of Window Level 1	58 (dBA)	52 (dBA)	Requirement for Air Conditioning	Type C	Compliance with Ontario Building Code
Plane of Window Level 2	58 (dBA)	52 (dBA)	Requirement for Air Conditioning	Type C	Compliance with Ontario Building Code
Plane of Window Level 3	58 (dBA)	52 (dBA)	Requirement for Air Conditioning	Type C	Compliance with Ontario Building Code
South Façade					
Plane of Window Level 1	70 (dBA)	69 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 34
Plane of Window Level 2	70 (dBA)	69 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 34
Plane of Window Level 3	70 (dBA)	69 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 34
West Façade					
Plane of Window Level 1	68 (dBA)	66 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 31
Plane of Window Level 2	68 (dBA)	66 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 31
Plane of Window Level 3	68 (dBA)	66 (dBA)	Requirement for Air Conditioning	Type D	Minimum Window STC Rating of 31

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:22:26
 MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: bleast.te Time Period: Day/Night 16/8 hours
 Description: Block 1 East Facade Floor 1

Road data, segment # 1: Lexington Rd (day/night)

```
-----
Car traffic volume   : 13968/1552   veh/TimePeriod   *
Medium truck volume :   144/16     veh/TimePeriod   *
Heavy truck volume  :   288/32     veh/TimePeriod   *
Posted speed limit  :    50 km/h
Road gradient       :     0 %
Road pavement      :     1 (Typical asphalt or concrete)
```

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

```
24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth         :   0.00
Number of Years of Growth           :   0.00
Medium Truck % of Total Volume      :   1.00
Heavy Truck % of Total Volume       :   2.00
Day (16 hrs) % of Total Volume      :  90.00
```

Data for Segment # 1: Lexington Rd (day/night)

```
-----
Angle1  Angle2      :   0.00 deg   90.00 deg
Wood depth          :     0       (No woods.)
No of house rows    :     0 / 0
Surface             :     2       (Reflective ground surface)
Receiver source distance : 75.00 / 75.00 m
Receiver height     :     2.00 / 2.00 m
Topography          :     1       (Flat/gentle slope; no barrier)
Reference angle     :     0.00
```

↑

Results segment # 1: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 55.39 + 0.00) = 55.39 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	65.39	0.00	-6.99	-3.01	0.00	0.00	0.00	55.39

Segment Leq : 55.39 dBA

Total Leq All Segments: 55.39 dBA

↑

Results segment # 1: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 48.86 + 0.00) = 48.86 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
--------	--------	-------	--------	-------	-------	-------	-------	-------	-------	--------

0	90	0.00	58.86	0.00	-6.99	-3.01	0.00	0.00	0.00	48.86
---	----	------	-------	------	-------	-------	------	------	------	-------

Segment Leq : 48.86 dBA

Total Leq All Segments: 48.86 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 55.39

(NIGHT): 48.86

↑

↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:25:41
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b1north.te Time Period: Day/Night 16/8 hours
Description: Block 1 North Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 85.00 / 85.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Conestoga Pk (day/night)

Car traffic volume : 36143/18069 veh/TimePeriod *
Medium truck volume : 2077/1038 veh/TimePeriod *
Heavy truck volume : 3323/1661 veh/TimePeriod *
Posted speed limit : 90 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 44100
Percentage of Annual Growth : 2.50

Number of Years of Growth : 14.00
 Medium Truck % of Total Volume : 5.00
 Heavy Truck % of Total Volume : 8.00
 Day (16 hrs) % of Total Volume : 66.67

Data for Segment # 2: Conestoga Pk (day/night)

 Angle1 Angle2 : -90.00 deg 0.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 390.00 / 390.00 m
 Receiver height : 2.00 / 2.00 m
 Topography : 1 (Flat/gentle slope; no barrier)
 Reference angle : 0.00

↑
 Results segment # 1: Davenport Rd (day)

Source height = 1.19 m

ROAD (0.00 + 53.94 + 0.00) = 53.94 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	64.49	0.00	-7.53	-3.01	0.00	0.00	0.00	53.94

Segment Leq : 53.94 dBA

↑
 Results segment # 2: Conestoga Pk (day)

Source height = 1.68 m

ROAD (0.00 + 61.95 + 0.00) = 61.95 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-14.15	-3.01	0.00	0.00	0.00	61.95

Segment Leq : 61.95 dBA

Total Leq All Segments: 62.59 dBA

↑
 Results segment # 1: Davenport Rd (night)

Source height = 1.19 m

ROAD (0.00 + 47.41 + 0.00) = 47.41 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	57.95	0.00	-7.53	-3.01	0.00	0.00	0.00	47.41

Segment Leq : 47.41 dBA

↑

Results segment # 2: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 61.95 + 0.00) = 61.95 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-14.15	-3.01	0.00	0.00	0.00	61.95

Segment Leq : 61.95 dBA

Total Leq All Segments: 62.10 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 62.59
(NIGHT): 62.10

↑

↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:26:31
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b1south.te Time Period: Day/Night 16/8 hours
Description: Block 1 South Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 85.00 / 85.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00

Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	1.00
Heavy Truck % of Total Volume	:	2.00
Day (16 hrs) % of Total Volume	:	90.00

Data for Segment # 2: Lexington Rd (day/night)

Angle1	Angle2	:	-90.00 deg	90.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	70.00 / 70.00	m	
Receiver height	:	2.00 / 2.00	m	
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Road data, segment # 3: Conestoga Pk (day/night)

Car traffic volume	:	36143/18069	veh/TimePeriod	*
Medium truck volume	:	2077/1038	veh/TimePeriod	*
Heavy truck volume	:	3323/1661	veh/TimePeriod	*
Posted speed limit	:	90	km/h	
Road gradient	:	0	%	
Road pavement	:	1	(Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT):	44100
Percentage of Annual Growth	: 2.50
Number of Years of Growth	: 14.00
Medium Truck % of Total Volume	: 5.00
Heavy Truck % of Total Volume	: 8.00
Day (16 hrs) % of Total Volume	: 66.67

Data for Segment # 3: Conestoga Pk (day/night)

Angle1	Angle2	:	0.00 deg	90.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	275.00 / 275.00	m	
Receiver height	:	2.00 / 2.00	m	
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Results segment # 1: Davenport Rd (day)

Source height = 1.19 m

ROAD (0.00 + 53.94 + 0.00) = 53.94 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	64.49	0.00	-7.53	-3.01	0.00	0.00	0.00	53.94

Segment Leq : 53.94 dBA

↑

Results segment # 2: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 58.70 + 0.00) = 58.70 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	65.39	0.00	-6.69	0.00	0.00	0.00	0.00	58.70

Segment Leq : 58.70 dBA

↑

Results segment # 3: Conestoga Pk (day)

Source height = 1.68 m

ROAD (0.00 + 63.47 + 0.00) = 63.47 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	79.11	0.00	-12.63	-3.01	0.00	0.00	0.00	63.47

Segment Leq : 63.47 dBA

Total Leq All Segments: 65.07 dBA

↑

Results segment # 1: Davenport Rd (night)

Source height = 1.19 m

ROAD (0.00 + 47.41 + 0.00) = 47.41 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	57.95	0.00	-7.53	-3.01	0.00	0.00	0.00	47.41

Segment Leq : 47.41 dBA

↑
Results segment # 2: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 52.17 + 0.00) = 52.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	58.86	0.00	-6.69	0.00	0.00	0.00	0.00	52.17

Segment Leq : 52.17 dBA

↑
Results segment # 3: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 63.46 + 0.00) = 63.46 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	79.11	0.00	-12.63	-3.01	0.00	0.00	0.00	63.46

Segment Leq : 63.46 dBA

Total Leq All Segments: 63.87 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 65.07
 (NIGHT): 63.87

↑
↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:27:29
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b1west.te Time Period: Day/Night 16/8 hours
Description: Block 1 West Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 55.00 / 55.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00

Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	1.00
Heavy Truck % of Total Volume	:	2.00
Day (16 hrs) % of Total Volume	:	90.00

Data for Segment # 2: Lexington Rd (day/night)

Angle1	Angle2	:	-90.00 deg	0.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	75.00 / 75.00	m	
Receiver height	:	2.00 / 2.00	m	
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Road data, segment # 3: Conestoga Pk (day/night)

Car traffic volume	:	36143/18069	veh/TimePeriod	*
Medium truck volume	:	2077/1038	veh/TimePeriod	*
Heavy truck volume	:	3323/1661	veh/TimePeriod	*
Posted speed limit	:	90	km/h	
Road gradient	:	0	%	
Road pavement	:	1	(Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT):	44100
Percentage of Annual Growth	: 2.50
Number of Years of Growth	: 14.00
Medium Truck % of Total Volume	: 5.00
Heavy Truck % of Total Volume	: 8.00
Day (16 hrs) % of Total Volume	: 66.67

Data for Segment # 3: Conestoga Pk (day/night)

Angle1	Angle2	:	-90.00 deg	0.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	260.00 / 260.00	m	
Receiver height	:	2.00 / 2.00	m	
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Results segment # 1: Davenport Rd (day)

Source height = 1.19 m

ROAD (0.00 + 58.84 + 0.00) = 58.84 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	64.49	0.00	-5.64	0.00	0.00	0.00	0.00	58.84

Segment Leq : 58.84 dBA

↑

Results segment # 2: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 55.39 + 0.00) = 55.39 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	65.39	0.00	-6.99	-3.01	0.00	0.00	0.00	55.39

Segment Leq : 55.39 dBA

↑

Results segment # 3: Conestoga Pk (day)

Source height = 1.68 m

ROAD (0.00 + 63.71 + 0.00) = 63.71 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-12.39	-3.01	0.00	0.00	0.00	63.71

Segment Leq : 63.71 dBA

Total Leq All Segments: 65.39 dBA

↑

Results segment # 1: Davenport Rd (night)

Source height = 1.19 m

ROAD (0.00 + 52.31 + 0.00) = 52.31 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	57.95	0.00	-5.64	0.00	0.00	0.00	0.00	52.31

Segment Leq : 52.31 dBA

↑
Results segment # 2: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 48.86 + 0.00) = 48.86 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	58.86	0.00	-6.99	-3.01	0.00	0.00	0.00	48.86

Segment Leq : 48.86 dBA

↑
Results segment # 3: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 63.71 + 0.00) = 63.71 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-12.39	-3.01	0.00	0.00	0.00	63.71

Segment Leq : 63.71 dBA

Total Leq All Segments: 64.14 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 65.39
 (NIGHT): 64.14

↑
↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:24:47
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b2east.te Time Period: Day/Night 16/8 hours
Description: Block 2 East Facade Floor 1

Road data, segment # 1: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Lexington Rd (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 110.00 / 110.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑
Results segment # 1: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 53.73 + 0.00) = 53.73 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	65.39	0.00	-8.65	-3.01	0.00	0.00	0.00	53.73

Segment Leq : 53.73 dBA

Total Leq All Segments: 53.73 dBA

↑

Results segment # 1: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 47.19 + 0.00) = 47.19 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
--------	--------	-------	--------	-------	-------	-------	-------	-------	-------	--------

0	90	0.00	58.86	0.00	-8.65	-3.01	0.00	0.00	0.00	47.19
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Segment Leq : 47.19 dBA

Total Leq All Segments: 47.19 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 53.73

(NIGHT): 47.19

↑

↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:25:50
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b2north.te Time Period: Day/Night 16/8 hours
Description: Block 2 North Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 80.00 / 80.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Conestoga Pk (day/night)

Car traffic volume : 36143/18069 veh/TimePeriod *
Medium truck volume : 2077/1038 veh/TimePeriod *
Heavy truck volume : 3323/1661 veh/TimePeriod *
Posted speed limit : 90 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 44100
Percentage of Annual Growth : 2.50

Number of Years of Growth : 14.00
 Medium Truck % of Total Volume : 5.00
 Heavy Truck % of Total Volume : 8.00
 Day (16 hrs) % of Total Volume : 66.67

Data for Segment # 2: Conestoga Pk (day/night)

 Angle1 Angle2 : -90.00 deg 0.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 420.00 / 420.00 m
 Receiver height : 2.00 / 2.00 m
 Topography : 1 (Flat/gentle slope; no barrier)
 Reference angle : 0.00

↑
 Results segment # 1: Davenport Rd (day)

Source height = 1.19 m

ROAD (0.00 + 54.21 + 0.00) = 54.21 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	64.49	0.00	-7.27	-3.01	0.00	0.00	0.00	54.21

Segment Leq : 54.21 dBA

↑
 Results segment # 2: Conestoga Pk (day)

Source height = 1.68 m

ROAD (0.00 + 61.63 + 0.00) = 61.63 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-14.47	-3.01	0.00	0.00	0.00	61.63

Segment Leq : 61.63 dBA

Total Leq All Segments: 62.35 dBA

↑
 Results segment # 1: Davenport Rd (night)

Source height = 1.19 m

ROAD (0.00 + 47.67 + 0.00) = 47.67 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	57.95	0.00	-7.27	-3.01	0.00	0.00	0.00	47.67

Segment Leq : 47.67 dBA

↑

Results segment # 2: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 61.63 + 0.00) = 61.63 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-14.47	-3.01	0.00	0.00	0.00	61.63

Segment Leq : 61.63 dBA

Total Leq All Segments: 61.80 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 62.35
(NIGHT): 61.80

↑

↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:26:44
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b2south.te Time Period: Day/Night 16/8 hours
Description: Block 2 South Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 80.00 / 80.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00

Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	1.00
Heavy Truck % of Total Volume	:	2.00
Day (16 hrs) % of Total Volume	:	90.00

Data for Segment # 2: Lexington Rd (day/night)

Angle1	Angle2	:	-90.00 deg	90.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	100.00 / 100.00 m		
Receiver height	:	2.00 / 2.00 m		
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Road data, segment # 3: Conestoga Pk (day/night)

Car traffic volume	:	36143/18069 veh/TimePeriod	*
Medium truck volume	:	2077/1038 veh/TimePeriod	*
Heavy truck volume	:	3323/1661 veh/TimePeriod	*
Posted speed limit	:	90 km/h	
Road gradient	:	0 %	
Road pavement	:	1 (Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT):	44100
Percentage of Annual Growth	: 2.50
Number of Years of Growth	: 14.00
Medium Truck % of Total Volume	: 5.00
Heavy Truck % of Total Volume	: 8.00
Day (16 hrs) % of Total Volume	: 66.67

Data for Segment # 3: Conestoga Pk (day/night)

Angle1	Angle2	:	0.00 deg	90.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	200.00 / 200.00 m		
Receiver height	:	2.00 / 2.00 m		
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Results segment # 1: Davenport Rd (day)

Source height = 1.19 m

ROAD (0.00 + 54.21 + 0.00) = 54.21 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	64.49	0.00	-7.27	-3.01	0.00	0.00	0.00	54.21

Segment Leq : 54.21 dBA

↑

Results segment # 2: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 57.15 + 0.00) = 57.15 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	65.39	0.00	-8.24	0.00	0.00	0.00	0.00	57.15

Segment Leq : 57.15 dBA

↑

Results segment # 3: Conestoga Pk (day)

Source height = 1.68 m

ROAD (0.00 + 64.85 + 0.00) = 64.85 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	79.11	0.00	-11.25	-3.01	0.00	0.00	0.00	64.85

Segment Leq : 64.85 dBA

Total Leq All Segments: 65.84 dBA

↑

Results segment # 1: Davenport Rd (night)

Source height = 1.19 m

ROAD (0.00 + 47.67 + 0.00) = 47.67 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	57.95	0.00	-7.27	-3.01	0.00	0.00	0.00	47.67

Segment Leq : 47.67 dBA

↑
Results segment # 2: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 50.62 + 0.00) = 50.62 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	58.86	0.00	-8.24	0.00	0.00	0.00	0.00	50.62

Segment Leq : 50.62 dBA

↑
Results segment # 3: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 64.85 + 0.00) = 64.85 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	79.11	0.00	-11.25	-3.01	0.00	0.00	0.00	64.85

Segment Leq : 64.85 dBA

Total Leq All Segments: 65.09 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 65.84
(NIGHT): 65.09

↑
↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:27:37
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b2west.te Time Period: Day/Night 16/8 hours
Description: Block 2 West Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 60.00 / 60.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00

Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	1.00
Heavy Truck % of Total Volume	:	2.00
Day (16 hrs) % of Total Volume	:	90.00

Data for Segment # 2: Lexington Rd (day/night)

Angle1	Angle2	:	-90.00 deg	0.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	110.00 / 110.00 m		
Receiver height	:	2.00 / 2.00 m		
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Road data, segment # 3: Conestoga Pk (day/night)

Car traffic volume	:	36143/18069 veh/TimePeriod	*
Medium truck volume	:	2077/1038 veh/TimePeriod	*
Heavy truck volume	:	3323/1661 veh/TimePeriod	*
Posted speed limit	:	90 km/h	
Road gradient	:	0 %	
Road pavement	:	1 (Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT):	44100
Percentage of Annual Growth	: 2.50
Number of Years of Growth	: 14.00
Medium Truck % of Total Volume	: 5.00
Heavy Truck % of Total Volume	: 8.00
Day (16 hrs) % of Total Volume	: 66.67

Data for Segment # 3: Conestoga Pk (day/night)

Angle1	Angle2	:	-90.00 deg	0.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	285.00 / 285.00 m		
Receiver height	:	2.00 / 2.00 m		
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Results segment # 1: Davenport Rd (day)

Source height = 1.19 m

ROAD (0.00 + 58.47 + 0.00) = 58.47 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	64.49	0.00	-6.02	0.00	0.00	0.00	0.00	58.47

Segment Leq : 58.47 dBA

↑

Results segment # 2: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 53.73 + 0.00) = 53.73 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	65.39	0.00	-8.65	-3.01	0.00	0.00	0.00	53.73

Segment Leq : 53.73 dBA

↑

Results segment # 3: Conestoga Pk (day)

Source height = 1.68 m

ROAD (0.00 + 63.31 + 0.00) = 63.31 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-12.79	-3.01	0.00	0.00	0.00	63.31

Segment Leq : 63.31 dBA

Total Leq All Segments: 64.89 dBA

↑

Results segment # 1: Davenport Rd (night)

Source height = 1.19 m

ROAD (0.00 + 51.93 + 0.00) = 51.93 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	57.95	0.00	-6.02	0.00	0.00	0.00	0.00	51.93

Segment Leq : 51.93 dBA

↑
Results segment # 2: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 47.19 + 0.00) = 47.19 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	58.86	0.00	-8.65	-3.01	0.00	0.00	0.00	47.19

Segment Leq : 47.19 dBA

↑
Results segment # 3: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 63.31 + 0.00) = 63.31 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-12.79	-3.01	0.00	0.00	0.00	63.31

Segment Leq : 63.31 dBA

Total Leq All Segments: 63.71 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 64.89
 (NIGHT): 63.71

↑
↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:24:56
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b3east.te Time Period: Day/Night 16/8 hours
Description: Block 3 East Facade Floor 1

Road data, segment # 1: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Lexington Rd (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 110.00 / 110.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑
Results segment # 1: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 53.73 + 0.00) = 53.73 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	65.39	0.00	-8.65	-3.01	0.00	0.00	0.00	53.73

Segment Leq : 53.73 dBA

Total Leq All Segments: 53.73 dBA

↑

Results segment # 1: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 47.19 + 0.00) = 47.19 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
--------	--------	-------	--------	-------	-------	-------	-------	-------	-------	--------

0	90	0.00	58.86	0.00	-8.65	-3.01	0.00	0.00	0.00	47.19
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Segment Leq : 47.19 dBA

Total Leq All Segments: 47.19 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 53.73

(NIGHT): 47.19

↑

↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:25:58
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b3north.te Time Period: Day/Night 16/8 hours
Description: Block 3 North Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 35.00 / 35.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Conestoga Pk (day/night)

Car traffic volume : 36143/18069 veh/TimePeriod *
Medium truck volume : 2077/1038 veh/TimePeriod *
Heavy truck volume : 3323/1661 veh/TimePeriod *
Posted speed limit : 90 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 44100
Percentage of Annual Growth : 2.50

Number of Years of Growth : 14.00
 Medium Truck % of Total Volume : 5.00
 Heavy Truck % of Total Volume : 8.00
 Day (16 hrs) % of Total Volume : 66.67

Data for Segment # 2: Conestoga Pk (day/night)

 Angle1 Angle2 : -90.00 deg 0.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 375.00 / 375.00 m
 Receiver height : 2.00 / 2.00 m
 Topography : 1 (Flat/gentle slope; no barrier)
 Reference angle : 0.00

↑
 Results segment # 1: Davenport Rd (day)

Source height = 1.19 m

ROAD (0.00 + 57.80 + 0.00) = 57.80 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	64.49	0.00	-3.68	-3.01	0.00	0.00	0.00	57.80

Segment Leq : 57.80 dBA

↑
 Results segment # 2: Conestoga Pk (day)

Source height = 1.68 m

ROAD (0.00 + 62.12 + 0.00) = 62.12 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-13.98	-3.01	0.00	0.00	0.00	62.12

Segment Leq : 62.12 dBA

Total Leq All Segments: 63.49 dBA

↑
 Results segment # 1: Davenport Rd (night)

Source height = 1.19 m

ROAD (0.00 + 51.26 + 0.00) = 51.26 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	57.95	0.00	-3.68	-3.01	0.00	0.00	0.00	51.26

Segment Leq : 51.26 dBA

↑

Results segment # 2: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 62.12 + 0.00) = 62.12 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-13.98	-3.01	0.00	0.00	0.00	62.12

Segment Leq : 62.12 dBA

Total Leq All Segments: 62.46 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 63.49
(NIGHT): 62.46

↑

↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:26:52
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b3south.te Time Period: Day/Night 16/8 hours
Description: Block 3 South Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 35.00 / 35.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00

Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	1.00
Heavy Truck % of Total Volume	:	2.00
Day (16 hrs) % of Total Volume	:	90.00

Data for Segment # 2: Lexington Rd (day/night)

Angle1	Angle2	:	-90.00 deg	90.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	100.00 / 100.00 m		
Receiver height	:	2.00 / 2.00 m		
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Road data, segment # 3: Conestoga Pk (day/night)

Car traffic volume	:	36143/18069 veh/TimePeriod	*
Medium truck volume	:	2077/1038 veh/TimePeriod	*
Heavy truck volume	:	3323/1661 veh/TimePeriod	*
Posted speed limit	:	90 km/h	
Road gradient	:	0 %	
Road pavement	:	1 (Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT):	44100
Percentage of Annual Growth	: 2.50
Number of Years of Growth	: 14.00
Medium Truck % of Total Volume	: 5.00
Heavy Truck % of Total Volume	: 8.00
Day (16 hrs) % of Total Volume	: 66.67

Data for Segment # 3: Conestoga Pk (day/night)

Angle1	Angle2	:	0.00 deg	90.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	245.00 / 245.00 m		
Receiver height	:	2.00 / 2.00 m		
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Results segment # 1: Davenport Rd (day)

Source height = 1.19 m

ROAD (0.00 + 57.80 + 0.00) = 57.80 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	64.49	0.00	-3.68	-3.01	0.00	0.00	0.00	57.80

Segment Leq : 57.80 dBA

↑

Results segment # 2: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 57.15 + 0.00) = 57.15 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	65.39	0.00	-8.24	0.00	0.00	0.00	0.00	57.15

Segment Leq : 57.15 dBA

↑

Results segment # 3: Conestoga Pk (day)

Source height = 1.68 m

ROAD (0.00 + 63.97 + 0.00) = 63.97 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	79.11	0.00	-12.13	-3.01	0.00	0.00	0.00	63.97

Segment Leq : 63.97 dBA

Total Leq All Segments: 65.58 dBA

↑

Results segment # 1: Davenport Rd (night)

Source height = 1.19 m

ROAD (0.00 + 51.26 + 0.00) = 51.26 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	57.95	0.00	-3.68	-3.01	0.00	0.00	0.00	51.26

Segment Leq : 51.26 dBA

↑
Results segment # 2: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 50.62 + 0.00) = 50.62 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	58.86	0.00	-8.24	0.00	0.00	0.00	0.00	50.62

Segment Leq : 50.62 dBA

↑
Results segment # 3: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 63.97 + 0.00) = 63.97 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	79.11	0.00	-12.13	-3.01	0.00	0.00	0.00	63.97

Segment Leq : 63.97 dBA

Total Leq All Segments: 64.38 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 65.58
(NIGHT): 64.38

↑

↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:27:46
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b3west.te Time Period: Day/Night 16/8 hours
Description: Block 3 West Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 20.00 / 20.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00

Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	1.00
Heavy Truck % of Total Volume	:	2.00
Day (16 hrs) % of Total Volume	:	90.00

Data for Segment # 2: Lexington Rd (day/night)

Angle1	Angle2	:	-90.00 deg	0.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	110.00 / 110.00 m		
Receiver height	:	2.00 / 2.00 m		
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Road data, segment # 3: Conestoga Pk (day/night)

Car traffic volume	:	36143/18069 veh/TimePeriod	*
Medium truck volume	:	2077/1038 veh/TimePeriod	*
Heavy truck volume	:	3323/1661 veh/TimePeriod	*
Posted speed limit	:	90 km/h	
Road gradient	:	0 %	
Road pavement	:	1 (Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT):	44100
Percentage of Annual Growth	: 2.50
Number of Years of Growth	: 14.00
Medium Truck % of Total Volume	: 5.00
Heavy Truck % of Total Volume	: 8.00
Day (16 hrs) % of Total Volume	: 66.67

Data for Segment # 3: Conestoga Pk (day/night)

Angle1	Angle2	:	-90.00 deg	0.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	255.00 / 255.00 m		
Receiver height	:	2.00 / 2.00 m		
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Results segment # 1: Davenport Rd (day)

Source height = 1.19 m

ROAD (0.00 + 63.24 + 0.00) = 63.24 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	64.49	0.00	-1.25	0.00	0.00	0.00	0.00	63.24

Segment Leq : 63.24 dBA

↑

Results segment # 2: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 53.73 + 0.00) = 53.73 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	65.39	0.00	-8.65	-3.01	0.00	0.00	0.00	53.73

Segment Leq : 53.73 dBA

↑

Results segment # 3: Conestoga Pk (day)

Source height = 1.68 m

ROAD (0.00 + 63.79 + 0.00) = 63.79 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-12.30	-3.01	0.00	0.00	0.00	63.79

Segment Leq : 63.79 dBA

Total Leq All Segments: 66.76 dBA

↑

Results segment # 1: Davenport Rd (night)

Source height = 1.19 m

ROAD (0.00 + 56.71 + 0.00) = 56.71 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	57.95	0.00	-1.25	0.00	0.00	0.00	0.00	56.71

Segment Leq : 56.71 dBA

↑
Results segment # 2: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 47.19 + 0.00) = 47.19 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	58.86	0.00	-8.65	-3.01	0.00	0.00	0.00	47.19

Segment Leq : 47.19 dBA

↑
Results segment # 3: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 63.79 + 0.00) = 63.79 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-12.30	-3.01	0.00	0.00	0.00	63.79

Segment Leq : 63.79 dBA

Total Leq All Segments: 64.65 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 66.76
 (NIGHT): 64.65

↑
↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:25:05
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b4east.te Time Period: Day/Night 16/8 hours
Description: Block 4 East Facade Floor 1

Road data, segment # 1: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Lexington Rd (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 80.00 / 80.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Results segment # 1: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 55.11 + 0.00) = 55.11 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	65.39	0.00	-7.27	-3.01	0.00	0.00	0.00	55.11

Segment Leq : 55.11 dBA

Total Leq All Segments: 55.11 dBA

↑

Results segment # 1: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 48.58 + 0.00) = 48.58 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
--------	--------	-------	--------	-------	-------	-------	-------	-------	-------	--------

0	90	0.00	58.86	0.00	-7.27	-3.01	0.00	0.00	0.00	48.58
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Segment Leq : 48.58 dBA

Total Leq All Segments: 48.58 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 55.11

(NIGHT): 48.58

↑

↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:26:06
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b4north.te Time Period: Day/Night 16/8 hours
Description: Block 4 North Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Conestoga Pk (day/night)

Car traffic volume : 36143/18069 veh/TimePeriod *
Medium truck volume : 2077/1038 veh/TimePeriod *
Heavy truck volume : 3323/1661 veh/TimePeriod *
Posted speed limit : 90 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 44100
Percentage of Annual Growth : 2.50

Number of Years of Growth : 14.00
 Medium Truck % of Total Volume : 5.00
 Heavy Truck % of Total Volume : 8.00
 Day (16 hrs) % of Total Volume : 66.67

Data for Segment # 2: Conestoga Pk (day/night)

 Angle1 Angle2 : -90.00 deg 0.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 410.00 / 410.00 m
 Receiver height : 2.00 / 2.00 m
 Topography : 1 (Flat/gentle slope; no barrier)
 Reference angle : 0.00

↑

Results segment # 1: Davenport Rd (day)

Source height = 1.19 m

ROAD (0.00 + 59.26 + 0.00) = 59.26 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	64.49	0.00	-2.22	-3.01	0.00	0.00	0.00	59.26

Segment Leq : 59.26 dBA

↑

Results segment # 2: Conestoga Pk (day)

Source height = 1.68 m

ROAD (0.00 + 61.73 + 0.00) = 61.73 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-14.37	-3.01	0.00	0.00	0.00	61.73

Segment Leq : 61.73 dBA

Total Leq All Segments: 63.68 dBA

↑

Results segment # 1: Davenport Rd (night)

Source height = 1.19 m

ROAD (0.00 + 52.73 + 0.00) = 52.73 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	57.95	0.00	-2.22	-3.01	0.00	0.00	0.00	52.73

Segment Leq : 52.73 dBA

↑

Results segment # 2: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 61.73 + 0.00) = 61.73 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-14.37	-3.01	0.00	0.00	0.00	61.73

Segment Leq : 61.73 dBA

Total Leq All Segments: 62.24 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 63.68
(NIGHT): 62.24

↑

↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:26:59
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b4south.te Time Period: Day/Night 16/8 hours
Description: Block 4 South Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00

Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	1.00
Heavy Truck % of Total Volume	:	2.00
Day (16 hrs) % of Total Volume	:	90.00

Data for Segment # 2: Lexington Rd (day/night)

Angle1	Angle2	:	-90.00 deg	90.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	65.00 / 65.00	m	
Receiver height	:	2.00 / 2.00	m	
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Road data, segment # 3: Conestoga Pk (day/night)

Car traffic volume	:	36143/18069	veh/TimePeriod	*
Medium truck volume	:	2077/1038	veh/TimePeriod	*
Heavy truck volume	:	3323/1661	veh/TimePeriod	*
Posted speed limit	:	90	km/h	
Road gradient	:	0	%	
Road pavement	:	1	(Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT):	44100
Percentage of Annual Growth	: 2.50
Number of Years of Growth	: 14.00
Medium Truck % of Total Volume	: 5.00
Heavy Truck % of Total Volume	: 8.00
Day (16 hrs) % of Total Volume	: 66.67

Data for Segment # 3: Conestoga Pk (day/night)

Angle1	Angle2	:	-90.00 deg	90.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	220.00 / 220.00	m	
Receiver height	:	2.00 / 2.00	m	
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Results segment # 1: Davenport Rd (day)

Source height = 1.19 m

ROAD (0.00 + 59.26 + 0.00) = 59.26 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	64.49	0.00	-2.22	-3.01	0.00	0.00	0.00	59.26

Segment Leq : 59.26 dBA

↑

Results segment # 2: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 59.02 + 0.00) = 59.02 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	65.39	0.00	-6.37	0.00	0.00	0.00	0.00	59.02

Segment Leq : 59.02 dBA

↑

Results segment # 3: Conestoga Pk (day)

Source height = 1.68 m

ROAD (0.00 + 67.45 + 0.00) = 67.45 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	79.11	0.00	-11.66	0.00	0.00	0.00	0.00	67.45

Segment Leq : 67.45 dBA

Total Leq All Segments: 68.57 dBA

↑

Results segment # 1: Davenport Rd (night)

Source height = 1.19 m

ROAD (0.00 + 52.73 + 0.00) = 52.73 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	57.95	0.00	-2.22	-3.01	0.00	0.00	0.00	52.73

Segment Leq : 52.73 dBA

↑
Results segment # 2: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 52.49 + 0.00) = 52.49 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	58.86	0.00	-6.37	0.00	0.00	0.00	0.00	52.49

Segment Leq : 52.49 dBA

↑
Results segment # 3: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 67.44 + 0.00) = 67.44 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	79.11	0.00	-11.66	0.00	0.00	0.00	0.00	67.44

Segment Leq : 67.44 dBA

Total Leq All Segments: 67.72 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 68.57
(NIGHT): 67.72

↑

↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:27:54
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b4west.te Time Period: Day/Night 16/8 hours
Description: Block 4 West Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 15.00 / 15.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00

Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	1.00
Heavy Truck % of Total Volume	:	2.00
Day (16 hrs) % of Total Volume	:	90.00

Data for Segment # 2: Lexington Rd (day/night)

Angle1	Angle2	:	-90.00 deg	0.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	85.00 / 85.00	m	
Receiver height	:	2.00 / 2.00	m	
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Road data, segment # 3: Conestoga Pk (day/night)

Car traffic volume	:	36143/18069	veh/TimePeriod	*
Medium truck volume	:	2077/1038	veh/TimePeriod	*
Heavy truck volume	:	3323/1661	veh/TimePeriod	*
Posted speed limit	:	90	km/h	
Road gradient	:	0	%	
Road pavement	:	1	(Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT):	44100
Percentage of Annual Growth	: 2.50
Number of Years of Growth	: 14.00
Medium Truck % of Total Volume	: 5.00
Heavy Truck % of Total Volume	: 8.00
Day (16 hrs) % of Total Volume	: 66.67

Data for Segment # 3: Conestoga Pk (day/night)

Angle1	Angle2	:	-90.00 deg	0.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	230.00 / 230.00	m	
Receiver height	:	2.00 / 2.00	m	
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Results segment # 1: Davenport Rd (day)

Segment Leq : 57.95 dBA

↑
Results segment # 2: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 48.31 + 0.00) = 48.31 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	58.86	0.00	-7.53	-3.01	0.00	0.00	0.00	48.31

Segment Leq : 48.31 dBA

↑
Results segment # 3: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 64.24 + 0.00) = 64.24 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-11.86	-3.01	0.00	0.00	0.00	64.24

Segment Leq : 64.24 dBA

Total Leq All Segments: 65.25 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 67.61
 (NIGHT): 65.25

↑
↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:25:13
 MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b5east.te Time Period: Day/Night 16/8 hours
 Description: Block 5 East Facade Floor 1

Road data, segment # 1: Lexington Rd (day/night)

```
-----
Car traffic volume   : 13968/1552   veh/TimePeriod   *
Medium truck volume :   144/16     veh/TimePeriod   *
Heavy truck volume  :   288/32     veh/TimePeriod   *
Posted speed limit  :    50 km/h
Road gradient       :     0 %
Road pavement      :     1 (Typical asphalt or concrete)
```

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

```
24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth          :  0.00
Number of Years of Growth            :  0.00
Medium Truck % of Total Volume       :  1.00
Heavy Truck % of Total Volume        :  2.00
Day (16 hrs) % of Total Volume       : 90.00
```

Data for Segment # 1: Lexington Rd (day/night)

```
-----
Angle1  Angle2      :   0.00 deg   90.00 deg
Wood depth          :     0       (No woods.)
No of house rows    :     0 / 0
Surface            :     2       (Reflective ground surface)
Receiver source distance : 40.00 / 40.00 m
Receiver height     :     2.00 / 2.00 m
Topography          :     1       (Flat/gentle slope; no barrier)
Reference angle     :     0.00
```

↑

Results segment # 1: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 58.12 + 0.00) = 58.12 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	65.39	0.00	-4.26	-3.01	0.00	0.00	0.00	58.12

Segment Leq : 58.12 dBA

Total Leq All Segments: 58.12 dBA

↑

Results segment # 1: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 51.59 + 0.00) = 51.59 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
--------	--------	-------	--------	-------	-------	-------	-------	-------	-------	--------

0	90	0.00	58.86	0.00	-4.26	-3.01	0.00	0.00	0.00	51.59
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Segment Leq : 51.59 dBA

Total Leq All Segments: 51.59 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 58.12

(NIGHT): 51.59

↑

↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:26:14
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b5north.te Time Period: Day/Night 16/8 hours
Description: Block 5 North Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Conestoga Pk (day/night)

Car traffic volume : 36143/18069 veh/TimePeriod *
Medium truck volume : 2077/1038 veh/TimePeriod *
Heavy truck volume : 3323/1661 veh/TimePeriod *
Posted speed limit : 90 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 44100
Percentage of Annual Growth : 2.50

Number of Years of Growth : 14.00
 Medium Truck % of Total Volume : 5.00
 Heavy Truck % of Total Volume : 8.00
 Day (16 hrs) % of Total Volume : 66.67

Data for Segment # 2: Conestoga Pk (day/night)

 Angle1 Angle2 : -90.00 deg 0.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 320.00 / 320.00 m
 Receiver height : 2.00 / 2.00 m
 Topography : 1 (Flat/gentle slope; no barrier)
 Reference angle : 0.00

↑

Results segment # 1: Davenport Rd (day)

Source height = 1.19 m

ROAD (0.00 + 59.26 + 0.00) = 59.26 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	64.49	0.00	-2.22	-3.01	0.00	0.00	0.00	59.26

Segment Leq : 59.26 dBA

↑

Results segment # 2: Conestoga Pk (day)

Source height = 1.68 m

ROAD (0.00 + 62.81 + 0.00) = 62.81 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-13.29	-3.01	0.00	0.00	0.00	62.81

Segment Leq : 62.81 dBA

Total Leq All Segments: 64.40 dBA

↑

Results segment # 1: Davenport Rd (night)

Source height = 1.19 m

ROAD (0.00 + 52.73 + 0.00) = 52.73 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	57.95	0.00	-2.22	-3.01	0.00	0.00	0.00	52.73

Segment Leq : 52.73 dBA

↑

Results segment # 2: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 62.81 + 0.00) = 62.81 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-13.29	-3.01	0.00	0.00	0.00	62.81

Segment Leq : 62.81 dBA

Total Leq All Segments: 63.22 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 64.40
(NIGHT): 63.22

↑

↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:27:12
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b5south.te Time Period: Day/Night 16/8 hours
Description: Block 5 South Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00

Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	1.00
Heavy Truck % of Total Volume	:	2.00
Day (16 hrs) % of Total Volume	:	90.00

Data for Segment # 2: Lexington Rd (day/night)

Angle1	Angle2	:	-90.00 deg	90.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	17.00 / 17.00	m	
Receiver height	:	2.00 / 2.00	m	
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Road data, segment # 3: Conestoga Pk (day/night)

Car traffic volume	:	36143/18069	veh/TimePeriod	*
Medium truck volume	:	2077/1038	veh/TimePeriod	*
Heavy truck volume	:	3323/1661	veh/TimePeriod	*
Posted speed limit	:	90	km/h	
Road gradient	:	0	%	
Road pavement	:	1	(Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT):	44100
Percentage of Annual Growth	: 2.50
Number of Years of Growth	: 14.00
Medium Truck % of Total Volume	: 5.00
Heavy Truck % of Total Volume	: 8.00
Day (16 hrs) % of Total Volume	: 66.67

Data for Segment # 3: Conestoga Pk (day/night)

Angle1	Angle2	:	-90.00 deg	90.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	190.00 / 190.00	m	
Receiver height	:	2.00 / 2.00	m	
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Results segment # 1: Davenport Rd (day)

Source height = 1.19 m

ROAD (0.00 + 59.26 + 0.00) = 59.26 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	64.49	0.00	-2.22	-3.01	0.00	0.00	0.00	59.26

Segment Leq : 59.26 dBA

↑

Results segment # 2: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 64.84 + 0.00) = 64.84 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	65.39	0.00	-0.54	0.00	0.00	0.00	0.00	64.84

Segment Leq : 64.84 dBA

↑

Results segment # 3: Conestoga Pk (day)

Source height = 1.68 m

ROAD (0.00 + 68.08 + 0.00) = 68.08 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	79.11	0.00	-11.03	0.00	0.00	0.00	0.00	68.08

Segment Leq : 68.08 dBA

Total Leq All Segments: 70.14 dBA

↑

Results segment # 1: Davenport Rd (night)

Source height = 1.19 m

ROAD (0.00 + 52.73 + 0.00) = 52.73 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	57.95	0.00	-2.22	-3.01	0.00	0.00	0.00	52.73

Segment Leq : 52.73 dBA

↑
Results segment # 2: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 58.31 + 0.00) = 58.31 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	58.86	0.00	-0.54	0.00	0.00	0.00	0.00	58.31

Segment Leq : 58.31 dBA

↑
Results segment # 3: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 68.08 + 0.00) = 68.08 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	79.11	0.00	-11.03	0.00	0.00	0.00	0.00	68.08

Segment Leq : 68.08 dBA

Total Leq All Segments: 68.63 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 70.14
 (NIGHT): 68.63

↑
↑

STAMSON 5.0 NORMAL REPORT Date: 22-08-2025 13:28:03
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b5west.te Time Period: Day/Night 16/8 hours
Description: Block 5 West Facade Floor 1

Road data, segment # 1: Davenport Rd (day/night)

Car traffic volume : 11349/1261 veh/TimePeriod *
Medium truck volume : 117/13 veh/TimePeriod *
Heavy truck volume : 234/26 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 13000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Davenport Rd (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 15.00 / 15.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00

Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	1.00
Heavy Truck % of Total Volume	:	2.00
Day (16 hrs) % of Total Volume	:	90.00

Data for Segment # 2: Lexington Rd (day/night)

Angle1	Angle2	:	-90.00 deg	0.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	40.00 / 40.00	m	
Receiver height	:	2.00 / 2.00	m	
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Road data, segment # 3: Conestoga Pk (day/night)

Car traffic volume	:	36143/18069	veh/TimePeriod	*
Medium truck volume	:	2077/1038	veh/TimePeriod	*
Heavy truck volume	:	3323/1661	veh/TimePeriod	*
Posted speed limit	:	90	km/h	
Road gradient	:	0	%	
Road pavement	:	1	(Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT):	44100
Percentage of Annual Growth	: 2.50
Number of Years of Growth	: 14.00
Medium Truck % of Total Volume	: 5.00
Heavy Truck % of Total Volume	: 8.00
Day (16 hrs) % of Total Volume	: 66.67

Data for Segment # 3: Conestoga Pk (day/night)

Angle1	Angle2	:	-90.00 deg	0.00 deg
Wood depth	:	0	(No woods.)	
No of house rows	:	0 / 0		
Surface	:	2	(Reflective ground surface)	
Receiver source distance	:	200.00 / 200.00	m	
Receiver height	:	2.00 / 2.00	m	
Topography	:	1	(Flat/gentle slope; no barrier)	
Reference angle	:	0.00		

↑

Results segment # 1: Davenport Rd (day)

Segment Leq : 57.95 dBA

↑
Results segment # 2: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 51.59 + 0.00) = 51.59 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	58.86	0.00	-4.26	-3.01	0.00	0.00	0.00	51.59

Segment Leq : 51.59 dBA

↑
Results segment # 3: Conestoga Pk (night)

Source height = 1.68 m

ROAD (0.00 + 64.85 + 0.00) = 64.85 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	79.11	0.00	-11.25	-3.01	0.00	0.00	0.00	64.85

Segment Leq : 64.85 dBA

Total Leq All Segments: 65.82 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 68.14
 (NIGHT): 65.82

↑
↑

STAMSON 5.0 NORMAL REPORT Date: 15-09-2025 12:21:42
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: OLA1.te Time Period: Day/Night 16/8 hours
Description: Outdoor Living Area

Road data, segment # 1: Lexington Rd (day/night)

Car traffic volume : 13968/1552 veh/TimePeriod *
Medium truck volume : 144/16 veh/TimePeriod *
Heavy truck volume : 288/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 16000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 1.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Lexington Rd (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 110.00 / 110.00 m
Receiver height : 2.00 / 2.00 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Results segment # 1: Lexington Rd (day)

Source height = 1.19 m

ROAD (0.00 + 53.73 + 0.00) = 53.73 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	65.39	0.00	-8.65	-3.01	0.00	0.00	0.00	53.73

Segment Leq : 53.73 dBA

Total Leq All Segments: 53.73 dBA

↑

Results segment # 1: Lexington Rd (night)

Source height = 1.19 m

ROAD (0.00 + 47.19 + 0.00) = 47.19 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
--------	--------	-------	--------	-------	-------	-------	-------	-------	-------	--------

0	90	0.00	58.86	0.00	-8.65	-3.01	0.00	0.00	0.00	47.19
---	----	------	-------	------	-------	-------	------	------	------	-------

Segment Leq : 47.19 dBA

Total Leq All Segments: 47.19 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 53.73

(NIGHT): 47.19

↑

↑

Region of Waterloo AADT Forecast for Noise Studies

1. Development/Location

445 Anndale Rd, Waterloo

2. Current AADT (2025)

Anndale Rd	Davenport Rd	Lexington Rd
1,000	12,000	15,000

3. Forecast AADT (2035)

Anndale Rd	Davenport Rd	Lexington Rd
1,000	13,000	16,000

4. Commercial Vehicle Rates

	Anndale Rd	Davenport Rd	Lexington Rd
% Medium Trucks	2%	1%	1%
% Heavy Trucks	2%	2%	2%

5. Posted Speed Limit

Anndale Rd	Davenport Rd	Lexington Rd
40 km/h	50 km/h	50 km/h

6. Day/Night Splits

Regional Standard 90/10 Day/Night Split

7. Expiry

Dec 31 2026

8. Notes

This forecast is intended for the purpose of carrying out a noise study for the development at 445 Anndale Rd, Waterloo only. The above AADTs represents the traffic volumes on Anndale Rd northeast of the property, Davenport Rd southwest of the property, and Lexington Rd southeast of the property. All road segments are under the jurisdiction of City of Waterloo. Therefore, City of Waterloo should be contacted to verify the forecast. This forecast remains valid up to the date indicated above. The Region of Waterloo should be contacted for an updated forecast if there are plans to use this forecast beyond the above validity period.

Year	Highway	Location Description	Dist (KM)	Pattern Type	AADT	SADT	SWADT	WADT	Truck AADT	Total Collisions	Total CR	Trucks Collisions	Truck CR
2012	85			UC	55,200	55,500	59,100	52,400	3,500	26	0.5	1	0.0
2013	85			UC	55,700	55,900	56,000	52,900	3,500	33	0.7	1	0.0
2014	85			UC	53,700	53,900	51,600	51,000	3,400	30	0.6	4	0.1
2015	85			C	51,700	56,900	55,300	46,500	6,000	29	0.6	2	0.0
2016	85			C	52,200	57,400	55,900	47,000	6,050	17	0.4	2	0.0
2017	85			C	59,200	64,800	64,600	53,700	6,850	21	0.4	5	0.1
2018	85			C	59,800	65,500	65,200	54,000	6,950	18	0.3	1	0.0
2019	85			C	60,300	65,900	65,500	54,600	3,600	28	0.5	3	0.1
2021	85			C	61,400	66,800	66,400	55,700	3,700	13	0.2	1	0.0
1988	85	KING ST IC WATERLOO RD 15	1.3	UC	22,300	23,400	25,200	21,000	2,450	13	1.2	0	0.0
1989	85			UC	22,500	23,600	25,400	21,400	2,250	4	0.4	1	0.1
1990	85			UC	23,900	25,600	27,700	22,700	2,400	10	0.9	3	0.3
1991	85			UC	24,600	26,100	28,300	23,900	2,450	6	0.5	0	0.0
1992	85			UC	25,800	27,300	29,700	24,800	2,600	9	0.7	1	0.1
1993	85			UC	26,300	27,700	29,900	24,600	2,650	7	0.6	1	0.1
1994	85			UC	28,100	29,800	32,100	26,100	2,800	4	0.3	0	0.0
1995	85			UC	29,300	30,900	33,500	27,300	2,950	1	0.1	0	0.0
1996	85			UC	30,400	32,200	35,600	28,900	3,050	4	0.3	0	0.0
1997	85			UC	31,600	33,200	37,000	29,700	3,150	4	0.3	0	0.0
1998	85			UC	32,700	34,700	38,300	31,100	3,250	2	0.1	0	0.0
1999	85			UC	34,500	36,600	40,400	32,800	3,450	1	0.1	0	0.0
2000	85			UC	35,000	37,100	41,300	32,900	3,500	2	0.1	0	0.0
2001	85			UC	35,500	38,000	41,800	33,400	3,550	1	0.1	0	0.0
2002	85			UC	36,000	38,400	42,400	33,700	3,600	1	0.1	0	0.0
2003	85			UC	36,700	38,800	43,000	34,700	3,650	8	0.5	2	0.1
2004	85			UC	37,000	39,600	43,500	34,800	3,700	3	0.2	0	0.0
2005	85			UC	37,300	39,500	43,600	35,000	3,750	5	0.3	0	0.0
2006	85			UC	38,300	40,500	44,800	36,000	3,450	3	0.2	2	0.1
2007	85			UC	39,100	41,500	45,300	36,700	3,500	7	0.4	1	0.1
2008	85			UC	39,800	42,000	39,500	37,200	3,200	6	0.3	0	0.0
2009	85			UC	40,500	42,900	47,400	38,100	3,250	3	0.2	0	0.0
2010	85			UC	39,600	41,900	46,100	37,200	2,750	7	0.4	1	0.1
2011	85			UC	39,600	39,700	41,100	37,600	2,750	13	0.7	1	0.1
2012	85			UC	36,400	36,600	39,000	34,600	2,600	4	0.2	0	0.0
2013	85			UC	36,800	36,900	37,000	34,900	2,650	12	0.7	2	0.1
2014	85			UC	38,100	38,200	36,600	36,200	2,750	4	0.2	0	0.0
2015	85			UC	39,400	39,500	37,900	37,400	2,850	12	0.6	0	0.0
2016	85			UC	39,800	39,900	38,300	37,800	2,850	4	0.2	0	0.0
2017	85			UC	41,600	41,300	41,700	39,900	3,000	6	0.3	2	0.1
2018	85			UC	42,000	41,700	42,300	40,300	3,000	8	0.4	2	0.1
2019	85			UC	42,500	41,900	42,500	40,900	3,050	6	0.3	1	0.0

Year	Highway	Location Description	Dist (KM)	Pattern Type	AADT	SADT	SWADT	WADT	Truck AADT	Total Collisions	Total CR	Trucks Collisions	Truck CR
2021	85			UC	43,400	43,500	44,100	41,800	3,050	5	0.2	0	0.0
1988	85	NORTHFIELD DR IC WATERLOO RD 50	1.9	C	13,900	15,400	15,400	12,500	1,250	12	1.3	0	0.0
1989	85			C	13,900	15,400	15,600	12,500	1,400	31	3.3	4	0.4
1990	85			C	14,000	15,500	15,500	12,600	1,400	11	1.2	1	0.1
1991	85			C	14,000	15,400	15,500	12,700	1,400	3	0.3	1	0.1
1992	85			C	13,100	14,100	14,500	12,100	1,300	5	0.6	0	0.0
1993	85			C	13,300	14,500	14,700	12,200	1,200	5	0.6	0	0.0
1994	85			C	15,300	16,800	17,100	13,800	1,400	7	0.7	0	0.0
1995	85			C	15,800	17,200	17,700	14,500	1,400	10	0.9	0	0.0
1996	85			C	16,300	18,500	18,500	14,700	1,450	5	0.5	0	0.0
1997	85			C	16,900	19,100	19,300	15,200	1,500	4	0.4	0	0.0
1998	85			C	17,400	19,700	19,700	15,700	1,550	4	0.3	1	0.1
1999	85			C	17,900	20,000	20,200	16,100	1,600	5	0.4	0	0.0
2000	85			C	17,400	19,700	19,700	15,700	1,550	6	0.5	0	0.0
2001	85			C	17,700	19,900	20,000	15,900	1,600	3	0.3	0	0.0
2002	85			C	17,900	20,000	20,200	16,100	1,600	6	0.5	1	0.1
2003	85			C	18,200	20,300	20,500	16,400	1,650	8	0.7	1	0.1
2004	85			UC	18,200	19,500	21,400	17,100	2,550	5	0.4	0	0.0
2005	85			UC	18,900	20,000	22,100	17,700	2,650	5	0.4	0	0.0
2006	85			UC	19,100	20,200	22,300	18,000	2,100	7	0.5	0	0.0
2007	85			UC	19,400	20,600	22,500	18,200	2,150	8	0.6	2	0.2
2008	85			UC	19,700	20,800	19,500	18,400	1,950	11	0.8	1	0.1
2009	85			UC	20,000	21,200	23,400	18,800	2,000	6	0.4	0	0.0
2010	85			UC	20,300	21,500	23,600	19,100	1,850	6	0.4	2	0.1
2011	85			UC	20,500	20,600	21,300	19,500	1,850	9	0.7	4	0.3
2012	85			UC	21,400	21,500	22,900	20,300	1,850	11	0.8	1	0.1
2013	85			UC	21,600	21,700	21,700	20,500	1,900	6	0.4	0	0.0
2014	85			UC	21,600	21,700	20,800	20,500	1,900	8	0.5	0	0.0
2015	85			UC	21,700	21,800	20,900	20,600	1,950	7	0.5	1	0.1
2016	85			UC	22,100	22,200	21,300	21,000	2,000	8	0.5	0	0.0
2017	85			UC	22,400	22,300	22,500	21,500	2,050	10	0.7	0	0.0
2018	85			UC	22,700	22,500	22,900	21,800	2,050	8	0.5	2	0.1
2019	85			UC	23,000	22,700	23,000	22,200	2,100	7	0.5	1	0.1
2021	85			UC	23,600	23,700	24,000	22,700	2,100	3	0.2	0	0.0
2021	85	0.35KM N OF WATERLOO RD15IC END OF HWY											
2021	89	HWY 11 START OF NA	5.4										
1988	89	HWY 400 IC	3.3	CR	5,850	7,500	7,000	4,850	530	12	1.7	1	0.1
1989	89			CR	6,750	8,650	8,050	5,650	610	19	2.3	1	0.1
1990	89			C	7,000	7,750	7,750	6,300	630	10	1.2	0	0.0
1991	89			C	7,600	8,350	8,450	6,900	680	12	1.3	0	0.0
1992	89			C	8,200	8,850	9,100	7,550	740	14	1.4	1	0.1

ATTACHMENT C



ATTACHMENT D

Table C1
Stationary Noise Impact Source Data
445 Anndale Road, Waterloo, Ontario

Noise Source Description	Cadna ID	Total SWL (dBA)	Data Source or Representative Data	Height Absolute (m)	Above Roof (m)		
						x	y
S01	Small_HVAC	70.9	Small_HVAC	11.5	1.5	17539483	4815656
S02	HVAC_2FAN	82.8	HVAC_2FAN	11.5	1.5	17539485	4815654
S03	HVAC_2FAN	82.8	HVAC_2FAN	11.5	1.5	17539473	4815656
S04	Representative_MUA	80.6	Representative_MUA	11.75	1.75	17539471	4815659
S05	Representative_MUA	80.6	Representative_MUA	11.75	1.75	17539464	4815622
S06	Representative_MUA	80.6	Representative_MUA	11.75	1.75	17539458	4815618
S07	HVAC_2FAN	82.8	HVAC_2FAN	11.5	1.5	17539461	4815620
S08	Representative_MUA	80.6	Representative_MUA	22.75	1.75	17539425	4815578
S09	Representative_Chiller	91.7	Representative_Chiller	23	2	17539407	4815601
S10	HVAC_4_Fan	86.1	HVAC_4_Fan	22.5	1.5	17539413	4815625
S11	HVAC_2FAN	82.8	HVAC_2FAN	6.5	1.5	17539377	4815593
S12	Small_HVAC	70.9	Small_HVAC	6.5	1.5	17539373	4815588
S13	Small_HVAC	70.9	Small_HVAC	6.5	1.5	17539368	4815584
S14	Small_HVAC	70.9	Small_HVAC	6.5	1.5	17539364	4815579
S15	Small_HVAC	70.9	Small_HVAC	6.5	1.5	17539359	4815576
S16	Small_HVAC	70.9	Small_HVAC	6.5	1.5	17539354	4815571
S17	HVAC_2FAN	82.8	HVAC_2FAN	4.5	1.5	17539515	4815707
S18	Representative_MUA	80.6	Representative_MUA	4.75	1.75	17539509	4815707
S19	Representative_MUA	80.6	Representative_MUA	4.75	1.75	17539524	4815709
S20	HVAC_2FAN	82.8	HVAC_2FAN	4.5	1.5	17539512	4815686
S21	HVAC_2FAN	82.8	HVAC_2FAN	7.5	1.5	17539422	4815759
S22	Small_HVAC	70.9	Small_HVAC	7.5	1.5	17539426	4815764
S23	Small_HVAC	70.9	Small_HVAC	7.5	1.5	17539432	4815772

ATTACHMENT E

Owner's Name: Anndale Communities LP
Owner's Address: 2600 - 25 King Street West
Toronto, ON M5L 2A1

Re: Road Traffic and Stationary Noise Impact Study, 445 Anndale Road, Waterloo, Ontario

OWNER'S STATEMENT

I am the owner of the property, or the owner's agent, and that I understand and agree with the noise assessment and potential attenuation measures detailed in the study entitled Road Traffic and Stationary Noise Impact Study, 445 Anndale Road, Waterloo, Ontario, dated August 21, 2025.

The application has been designed to avoid the use of berms or walls as noise attenuation features where feasible. Where berms or walls are recommended, the Noise Study provides economic, planning and engineering justification.

If the application is changed in a way that may affect the noise level calculations, I will have a revised noise study submitted to the Region of Waterloo.

Kevin Opoku

Name

Kevin Opoku

Signature

Friday September 19th, 2025

Date

ATTACHMENT F

CANADA

PROVINCE OF ONTARIO

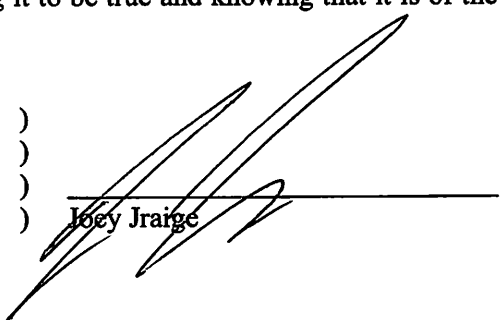
) In the Matter of the
) *Environmental Protection*
) *Act and the Planning Act*
)
)
) And in the Matter of
) 445 Anndale Road, Waterloo,
Ontario in the Regional
Municipality of Waterloo

I, Joey Jraige, of JJ Acoustic Engineering Ltd., of the Town of Wheatley, SOLEMNLY DECLARE THAT:

1. I am a Professional Engineer employed by JJ Acoustic Engineering Ltd. which holds a Certificate of Authorization and have personal knowledge of the matters set out below.
2. I was retained or employed as the principal consultant to undertake the assessment of noise impacts and recommendation of noise mitigation measures for the property described as 445 Anndale Road, Waterloo, Ontario.
3. I have the expertise required to perform these services. Any assessment activities or recommendations requiring the application of engineering principles have been undertaken or supervised by an engineer qualified to perform such services.
4. The information used in the letter report entitled " Road Traffic and Stationary Noise Impact Study" dated August 21, 2025, is the best available information as of the date of the study.
5. The noise level calculations, the interpretation of noise attenuation requirements and the recommended measures are in accordance with the Ministry of Environment and Climate Change Guidelines, Region of Waterloo policies, and any applicable policy or guidelines of the Area Municipality, and any other applicable policy or guideline.
6. The physical noise attenuation measures proposed in this study are feasible to implement and will provide the level of attenuation indicated in the study.
7. I acknowledge that this study may be subject to a peer review conducted at my cost.
8. I acknowledge that public authorities and future owners, occupants and others may rely on this statement.

AND I make this solemn Declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath.

DECLARED before me in the Town
of Tilbury, in the Municipality
of Chatham-Kent
this 22nd day of September 2025

)
)
)
) 
Joey Jraige



Alison Gail Bell, a Commissioner, etc.,
Province of Ontario, for Taylor & Delrue,
Barristers & Solicitors.
Expires April 18, 2027.