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Brown Lands

Noise Impact Feasibility Report

Prepared For: Strathburn Almonte Regional Inc.

NOISE IMPACT FEASIBILITY REPORT

BROWN LANDS

Municipality of Mississippi Mills, ON

Prepared For:

Strathburn Almonte Regional Inc.

Prepared By:

NOVATECH
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario
K2M 1P6

February 2023
Revised February 2024

Novatech File: 118178
Ref: R-2023-018

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February 13, 2024

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Reference: Brown Lands
Noise Impact Feasibility Report
Our File No.: 118178

Please find enclosed the report entitled 'Noise Impact Feasibility Report' prepared for the proposed Brown Lands residential development. This report is being submitted in support of an application for a Draft Plan of Subdivision.

This report predicts the environmental impact of noise from traffic and assesses the feasibility of mitigation measures to attenuate noise to acceptable levels.

Please contact the undersigned should you have any questions or comments pertaining to the enclosed report.

Yours truly,

NOVATECH

Trevor McKay, P. Eng.
Project Manager

cc: Evan Garfinkel, Regional Group

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TABLES

APPENDICES

FIGURES

1.0 INTRODUCTION

Novatech has been retained by Strathburn Almonte Regional Inc. (c/o Regional Group) to prepare a Noise Impact Feasibility Report for the proposed Brown Lands residential development (Subject Site). The site is located on County Road 29, at the Strathburn Street intersection, in Almonte, ON. This report is submitted in support for a Draft Plan of Subdivision.

The Subject Site is a parcel approximately 17ha in size and is situated at the northwestern quadrant of Almonte, within the urban boundary, and fronts the north side of Strathburn Street and east side of County Road 29. Refer to **Figure 1** - Key Plan for the site location.

The Subject Site is an irregularly shaped parcel that is bound by County Road 29 to the west, Strathburn Street to the southwest, residential properties to the southeast, undeveloped lands owned by the Municipality of Mississippi Mills to the east, and agricultural use (cultivation and pasture) lands to the north which are owned by the proponent, Strathburn Almonte Regional Inc.

The proposed development of the Subject Site consists of a residential subdivision consisting of 143 single units, 18 semi-detached units, and 74 townhomes.

2.0 NOISE CRITERIA, NOISE SOURCES AND NOISE ATTENATION METHODS

This report follows recommendations of the City of Ottawa's Environmental Nosie Control Guidelines (ENCG) and MOEE NPC-300 Environmental Noise Guideline.

This report also uses Stamson v5.03, a program used to predict noise from aircraft, roads, transitways, and railways, as expressed in Tables 2.2a: Sound Level Limit for Outdoor Living Areas – Road and Rail, Table 2.2b: Sound Level Limit for Indoor Living Areas Road and Rail, and Table 2.2c: Supplementary Sound Level Limits for Indoor Spaces – Road and Rail of the ENCG.

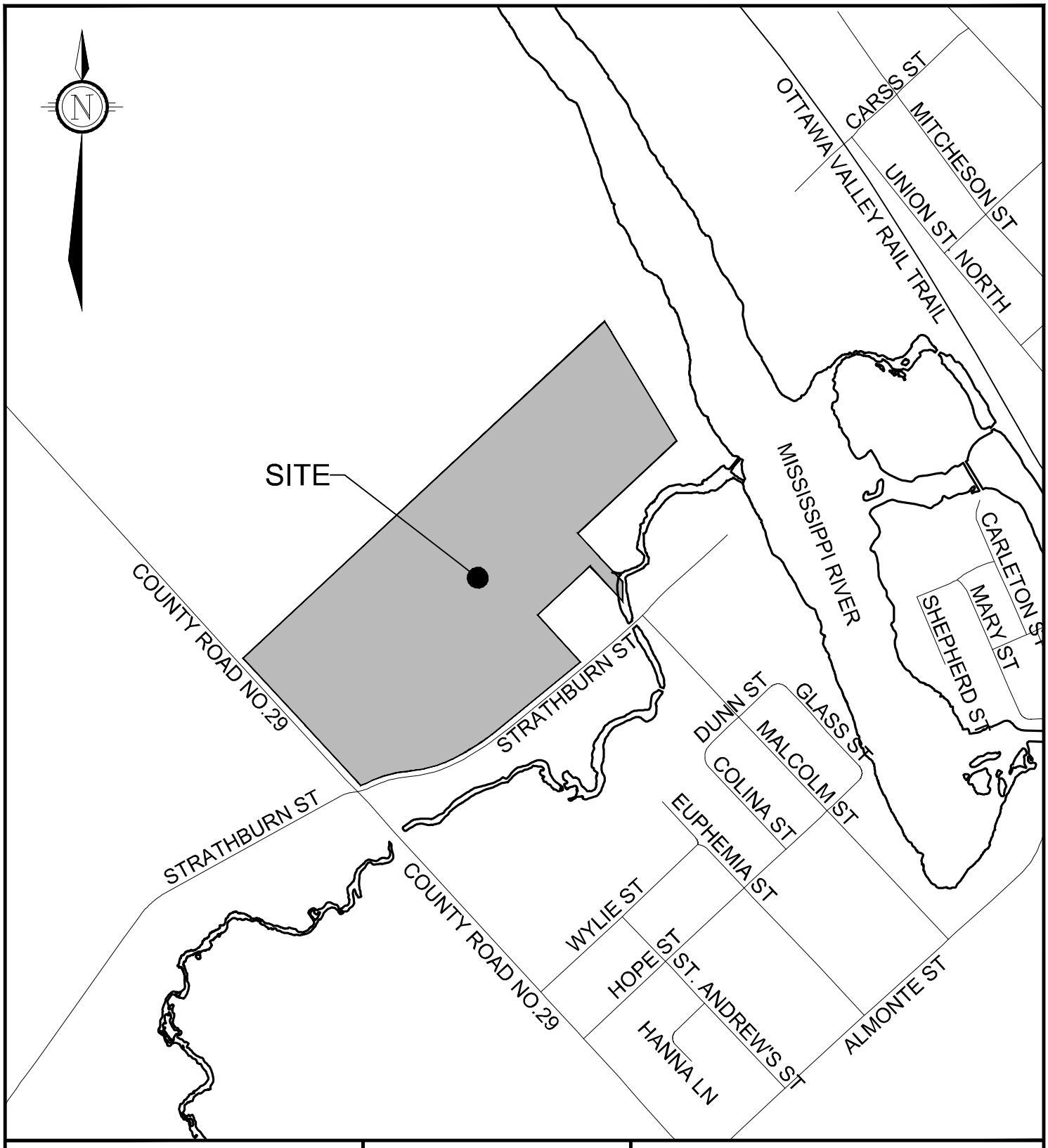
The proposed development is only affected by noise from road traffic. Tables 2.2a, 2.2b and 2.2c of the ENCG are included in **Appendix A**.

Stamson analyzes noise through receivers. Receivers, also referred to as nodes, are placed at anticipated high noise locations that considers the node and noise source elevation, existing residential development, traffic counts, and several other factors used to predict sound levels. Receivers are used to predict the sound levels for Outdoor Living Areas (OLA) and Plane of Window (POW).

Outdoor Living Area and Plane of Window receivers are defined as:

- **Outdoor Living Area (OLA)**: The outdoor amenity area provides quiet enjoyment of the outdoor environment during the daytime period (i.e., backyards, terraces, and patios). OLA noise levels are considered 3.0m from the building façade, 1.5m above grade.
- **Plane of Window (POW)**: The indoor living space where the sound levels will affect the living room area during daytime hours and bedrooms during nighttime hours. POW noise levels are located the 1st floor, 1.5m above the finished floor grade. Nighttime POW noise levels are located the 2nd floor, 4.5m above the finished floor grade.

Refer to **Figure 2 – Receiver Location Plan** for the location of all receivers/nodes.



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MUNICIPALITY of MISSISSIPPI MILLS
BROWN LANDS

KEY PLAN

SCALE N.T.S

DATE FEB 2024 | JOB 118178 | FIGURE FIGURE 1

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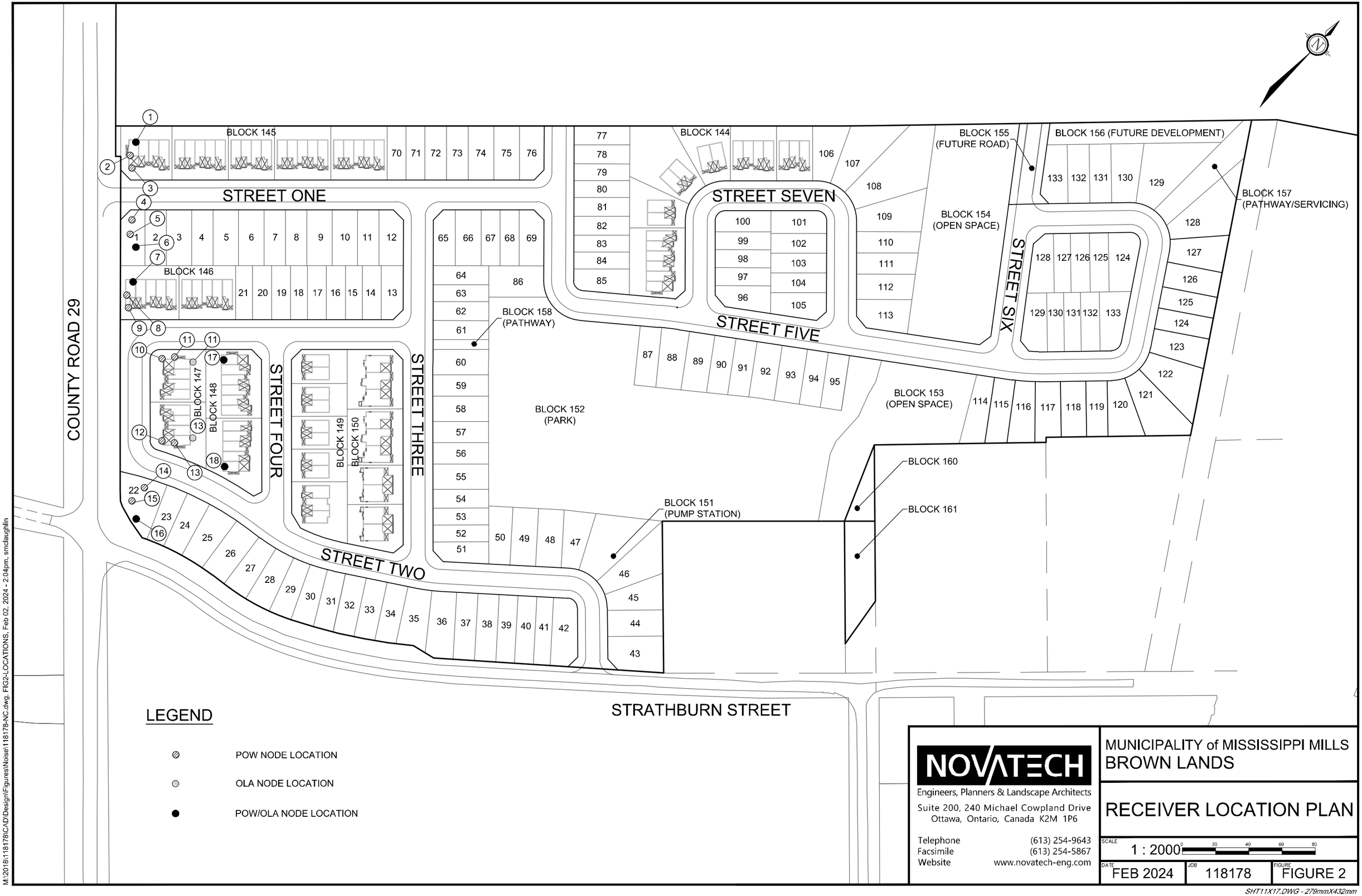

LEGEND

- POW NODE LOCATION
- OLA NODE LOCATION
- POW/OLA NODE LOCATION

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RECEIVER LOCATION PLAN

SCALE 1 : 2000 (0, 20, 40, 60, 80)
DATE FEB 2024 | JOB 118178 | FIGURE FIGURE 2

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2.1 Noise Criteria

The maximum permitted noise levels are listed below in **Table 1.**

Table 1: Noise Level Criteria

Time Period	Receiver Location	Noise Level Criteria (L_{eq})
Daytime (07:00 – 23:00)	Outdoor Living Area (OLA)	55 dBA
Daytime (07:00 – 23:00)	Plane of Window (POW) at Living/Dining Rooms	45 dBA
Nighttime (23:00 – 07:00)	Plane of Window (POW) at Bedrooms/Sleeping Quarters	40 dBA

Noise mitigation is required if the values in **Table 1** are exceeded. **Table 2** confirms the required mitigation methods.

Table 2: Excessive Noise Mitigation Methods

Assessment Location	L_{eq} (dBA)	Outdoor Control Measures	Indoor Control Measures		Warning Clause*
			Ventilation Requirements	Building Components	
Outdoor Living Area (OLA)	Less than 55	None required	N/A	N/A	None required
	Between 55 and 60	Control measures (barriers) may not be required but should be considered	N/A	N/A	Type 1 or Type 2
	More than 60	Barriers required	N/A	N/A	Type 1 or Type 2
Plane of Living Room Window (POW)	Less than 55	N/A	None Required	None Required	None Required
	Between 55 and 65	N/A	Forced air heating with provision for central air conditioning	None Required	Required Type 3
	More Than 65	N/A	Central Air Conditioning	Acoustical performance of the windows and walls should be specified	Required Type 4
Plane of Bedroom Window (POW)	Less than 50	N/A	None Required	None Required	None Required
	Between 50 and 60	N/A	Forced air heating with provision for central air conditioning	None Required	Required Type 3
	More than 60	N/A	Central Air Conditioning	Acoustical performance of the windows and walls should be specified	Required Type 4

*Warning Clauses are discussed in Section 2.3.4 below.

2.2 Noise Sources

The ENCG states a noise study shall be prepared when a new development is proposed within 100 metres of an arterial, major collector or collector roadway, or a rapid-transit corridor. County Road 29 is the only noise source within 100m of the proposed site. There are no highways, airports, railroads, or other major roads close enough to the proposed development to warrant consideration. **Table 3** summarizes the roadway parameters for County Road 29.

Table 3: Traffic and Roadway Parameters

Roadway Parameters	County Road 29
Type	2-Lane Rural Undivided
Annual Average Daily Traffic (AADT)	6,200 vehicles/day
Day/Night Split (%)	92/8
Medium Trucks (%)	7
Heavy Trucks (%)	5
Posted Speed	60 km/hr

The annual average daily traffic (AADT) is based on the conclusions of the Brown Lands Traffic Impact Study (Ref. No. R-2023-002), prepared by Novatech (February 2024). Based on this report, the total predicted traffic volume (AADT) in 2034 is 6,200.

2.3 Methods for Noise Attenuation

When OLA or POW sound levels are predicted to be approximately equal to or less than the maximum suggested levels in ENCG attenuation measures are not required. If the predicted noise levels are found to exceed the limits, noise mitigation and /or warning clauses are required. Warning clauses are discussed in section 2.5. The City of Ottawa's preferred noise mitigation methods are:

- Increasing the amount of soft ground between the noise sources and noise receptor,
- Inserting noise insensitive land between the noise source and the noise receptor,
- Orientating the building to provide shelter to noise sensitive areas,
- Installing acoustic (noise) barriers,
- Installing air conditioning and forced air ventilation, and
- Enhancing construction techniques and construction quality.

The proposed development layout has been designed to minimize the impact of the noise source of County Road 29 by providing a window street, so that more units front on County Road 29. This allows for the buildings to have more sheltered indoor and outdoor living areas from the main noise source and minimizes the amount of noise barrier required.

Noise barriers will be required to mitigate the excess noise to areas that can not be mitigated otherwise. The installation of air condition will be required if the noise barriers do not reduce the predicted noise levels to an acceptable level.

2.3.1 Noise Barrier Requirements

Acoustic (noise) barriers are typically the most effective noise mitigation measure listed in Section 2.3. However, acoustic barriers are also typically visually unappealing, expensive to install and maintain, and reduce outdoor living space. Acoustic barriers are typically only considered when all other noise mitigation techniques are not available or sufficient to reduce predicted noise levels to permitted levels. Only noise mitigation measure that are economically and administratively feasible will be considered.

Acoustic barriers, if required, must conform to Part 3 of the City of Ottawa's ENCG, and include the following characteristics:

- Minimum height of 2.2m; Maximum height of 2.5m, unless approved by the City,
- Situated 0.30m inside the private property line,
- A surface mass density not less than 20kg/m^2, and
- No holes or gaps.

2.3.2 Ventilation Requirements

A forced air heating system with provision for a central air conditioning system is required if the plane of window daytime noise levels are between 55 dBA and 65 dBA and/or the nighttime noise levels are between 50 dBA and 60 dBA.

The installation of a central air conditioning system is required when the daytime noise level exceeds 65 dBA and/or the nighttime noise level exceeds 60 dBA.

2.3.3 Building Component Assessment

As per the ENCG, when plane of window noise levels exceeds 65 dBA (daytime) or 60 dBA (nighttime) the exterior cladding system of the building envelope must be acoustically assessed to ensure indoor sound criteria are achieved.

2.3.4 Warning Clauses

When predicted noise levels exceed the specified criteria, the City of Ottawa and the MOE recommend warning clauses be registered as a notice on title and incorporated into the lease/rental/sale agreements to warn potential purchaser/buyers/tenants of the possible elevated noise levels. Warning clauses may be amended due to specific site plan conditions. Typical warning clauses, extracted from Part 4, Appendix A of the ENCG, are listed below and are included **Appendix A.**

Type 1

"Purchasers/tenants are advised that sound levels due to increasing road traffic may occasionally interfere with some outdoor activities as the sound levels may exceed the sound level limits of the City and Ministry of the Environment."

"To help address the need for sound attenuation this development has been designed so as to provide an outdoor amenity area and indoor environment that is within provincial guidelines. Measures for sound attenuation include:

- An acoustic barrier"

"To ensure that provincial sound level limits are not exceeded it is important to maintain sound attenuation features."

"The acoustic barrier shall be maintained and kept in good repair by the property owner. Any maintenance, repair or replacement is the responsibility of the owner and shall be with the same material or to the same standards, having the same colour, appearance, and function of the original."

Additionally, if a tolerance of 5 dBA is being considered in some areas, it is recommended an additional noise clause be registered on title and incorporated into the agreement of purchase and sales:

Type 2

"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/rail/Light Rail/transitway traffic may, on occasion, interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the City and the Ministry of the Environment by up to 5 dBA."

"To help address the need for sound attenuation this development has been designed so as to provide an outdoor amenity area and indoor environment that is within provincial guidelines. Measures for sound attenuation include:

- An acoustic barrier"

"To ensure that provincial sound level limits are not exceeded it is important to maintain sound attenuation features."

"The acoustic barrier shall be maintained and kept in good repair by the property owner. Any maintenance, repair or replacement is the responsibility of the owner and shall be with the same material or to the same standards, having the same colour, appearance and function of the original."

Type 3

"Purchasers/tenants are advised that sound levels due to increasing road traffic may occasionally interfere with some outdoor activities as the sound levels may exceed the sound level limits of the City and Ministry of the Environment."

"To help address the need for sound attenuation this development has been designed so as to provide an outdoor amenity area and indoor environment that is within provincial guidelines. Measures for sound attenuation may include:

- Multi-pane glass
- Double brick veneer"

"To ensure that provincial sound level limits are not exceeded it is important to maintain sound attenuation features."

"This dwelling unit has also been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the City and the Ministry of the Environment."

Type 4

"Purchasers/tenants are advised that sound levels due to increasing road traffic may occasionally interfere with some outdoor activities as the sound levels may exceed the sound level limits of the City and Ministry of the Environment."

"To help address the need for sound attenuation this development has been designed so as to provide an outdoor amenity area and indoor environment that is within provincial guidelines. Measures for sound attenuation may include:

- Multi-pane glass
- Double brick veneer
- High sound transmission class walls"

"To ensure that provincial sound level limits are not exceeded it is important to maintain sound attenuation features."

"This dwelling unit has also been supplied with a central air conditioning system and other measures 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 City and the Ministry of the Environment."

For units with multiple types of warning clauses, similar/identical wording can be combined as to not duplicate wording/information.

3.0 PREDICTED NOISE LEVELS

The predicted OLA noise levels are listed in **Table 4.**

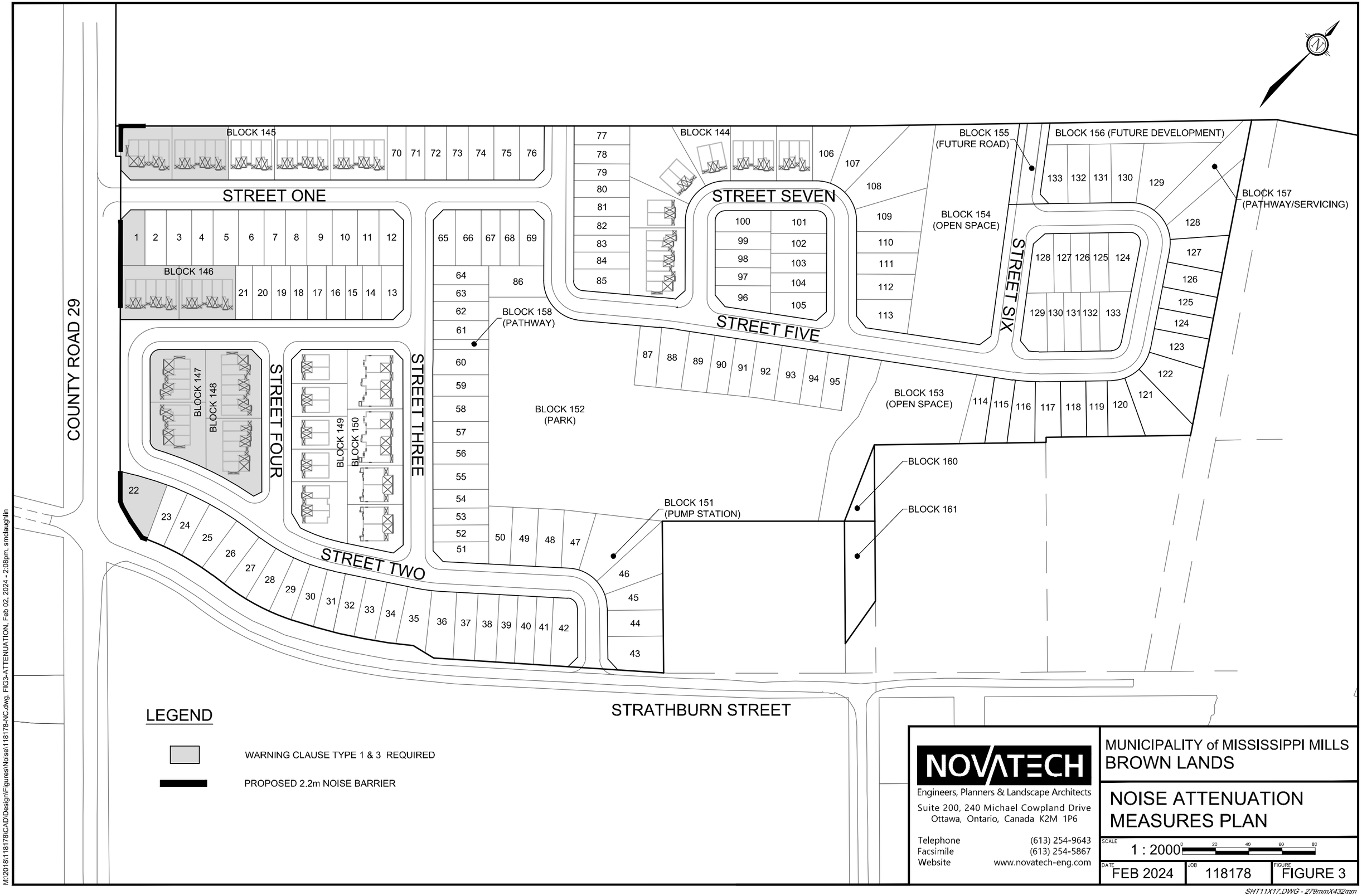
Table 4: Simulation Results – Outdoor Living Areas (OLA)

Receiver	Calculated Noise Level (dBA) 7:00-23:00		Mitigation Method
	Un-attenuated	Attenuated	
OLA 1	59.7	54.3	2.2m Noise Barrier
OLA 6	59.8	52.9	2.2m Noise Barrier
OLA 7	60.0	53.8	2.2m Noise Barrier
OLA 11	37.7	N/A	N/A
OLA 13	40.6	N/A	N/A
OLA 16	59.9	54.3	2.2m Noise Barrier
OLA 17	47.3	N/A	N/A
OLA 18	49.6	49.6	2.2m Noise Barrier

Table 4 confirms the proposed 2.2m noise barrier is sufficient to reduce the outdoor noise levels below 55dBA. **Table 6** below confirms which warning clauses are to be registered as a notice on title and incorporated into the lease/rental/sale agreements to warn potential purchaser/buyers/tenants of the possible elevated noise levels.

Refer to **Figure 3 – Noise Attenuation Measures Plan** for all proposed noise mitigation measures. Refer to **Appendix B** for all OLA noise calculations.

The predicted POW noise levels are listed in **Table 5.**



LEGEND

WARNING CLAUSE TYPE 1 & 3 REQUIRED

PROPOSED 2.2m NOISE BARRIER

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MUNICIPALITY of MISSISSIPPI MILLS
BROWN LANDS

NOISE ATTENUATION MEASURES PLAN

SCALE 1 : 2000 (0, 20, 40, 60, 80)

DATE FEB 2024 | JOB 118178 | FIGURE FIGURE 3

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Table 5: Simulation Results – Plane of Windows (POW)

Receiver	Calculated Noise Level (dBA)				Mitigation Method
	7:00 - 23:00 (Daytime)*		23:00 - 7:00 (Nighttime)**		
	Un-attenuated	Attenuated	Un-attenuated	Attenuated	
POW 1	58.0	53.0	50.7	50.7	2.2m Noise Barrier
POW 2	62.1	58.1	54.8	54.8	2.2m Noise Barrier
POW 3	58.6	57.5	51.4	51.4	2.2m Noise Barrier
POW 4	57.9	56.8	50.8	50.9	2.2m Noise Barrier
POW 5	62.5	56.5	55.2	55.2	2.2m Noise Barrier
POW 6	58.3	52.3	51.1	51.2	2.2m Noise Barrier
POW 7	58.6	52.0	51.4	51.5	2.2m Noise Barrier
POW 8	62.4	58.0	55.4	55.4	2.2m Noise Barrier
POW 9	58.9	58.9	51.7	51.7	2.2m Noise Barrier
POW 10	57.1	53.6	50.1	46.8	2.2m Noise Barrier
POW 11	48.6	N/A	43.4	N/A	N/A
POW 12	57.3	49.9	50.6	43.2	2.2m Noise Barrier
POW 13	52.7	51.1	45.8	45.8	2.2m Noise Barrier
POW 14	58.9	53.9	51.8	48.1	2.2m Noise Barrier
POW 15	60.7	56.3	53.5	53.5	2.2m Noise Barrier
POW 16	58.1	50.1	51.0	48.3	2.2m Noise Barrier
POW 17	43.4	N/A	38.9	N/A	N/A
POW 18	47.8	47.4	41.2	41.1	N/A

*Daytime noise levels are located on the first floor
** Nighttime noise levels are located on the second floor.

Table 5 confirms the proposed 2.2m noise barrier is sufficient to mitigate the plane of window noise levels below 65 dBA for the daytime and 60 dBA for the nighttime. The affected units will require forced air heating with a provision for central air conditioning. **Table 7** below confirms which warning clauses are to be registered as a notice on title and incorporated into the lease/rental/sale agreements to warn potential purchaser/buyers/tenants of the possible elevated noise levels.

Refer to **Figure 3 – Noise Attenuation Measures Plan** for all proposed noise mitigation measures. Refer to **Appendix B** for all POW noise calculations.

4.0 MITIGATION OF PREDICTED NOISE LEVELS

Table 6 below confirms the recommend noise mitigation methods, required to limit excessive outdoor noise, and warning clauses are to be registered as a notice on title and incorporated into the lease/rental/sale agreements to warn potential purchaser/buyers/tenants of the possible elevated noise levels.

Table 6: Proposed OLA Noise Mitigation Methods and Warning Clauses

Receiver/Units		Daytime 7:00-23:00 Attenuated Noise Level (dBA)	Mitigation Method
Block 145*	OLA 1	54.3	• Warning Clause Type 1 • Warning Clause Type 3 • 2.2m Noise Barrier
Lot 1	OLA 6	52.9	• Warning Clause Type 1 • Warning Clause Type 3 • 2.2m Noise Barrier
Block 146	OLA 7	53.8	• Warning Clause Type 1 • Warning Clause Type 3 • 2.2m Noise Barrier
Block 147	OLA 11	N/A	• N/A
Block 147	OLA 13	N/A	• N/A
Lot 23	OLA 16	54.3	• Warning Clause Type 1 • Warning Clause Type 3 • 2.2m Noise Barrier
Block 148	OLA 17	N/A	• See OLA 18
Block 148	OLA 18	49.6	• Warning Clause Type 1 • Warning Clause Type 3

* Only the highlighted units in Block 148 (Fig.3) require noise mitigation measures.

Table 7 below confirms the recommend noise mitigation methods, required to limit excessive noise, and warning clauses are to be registered as a notice on title and incorporated into the lease/rental/sale agreements to warn potential purchaser/buyers/tenants of the possible elevated noise levels. Refer to **Figure 3** – Noise Attenuation Measures Plan for all proposed noise mitigation measures. Refer to **Appendix B** for all noise calculations.

Table 7: Proposed POW Noise Mitigation Methods and Warning Clauses

Receiver/Units		Attenuated Noise Level (dBA)		Mitigation Method
		Daytime (7:00-23:00)	Nighttime (23:00-7:00)	
Block 145	POW 1	53.0	50.7	• Warning Clause Type 1 • Warning Clause Type 3 • 2.2m Noise Barrier
	POW 2	58.1	54.8	
	POW 3	57.5	51.4	
Lot 1	POW 4	56.8	50.9	• Warning Clause Type 1 • Warning Clause Type 3 • 2.2m Noise Barrier
	POW 5	56.5	55.2	
	POW 6	52.3	51.2	
Block 146	POW 7	52.0	51.5	• Warning Clause Type 1 • Warning Clause Type 3 • 2.2m Noise Barrier
	POW 8	58.0	55.4	
	POW 9	58.9	51.7	
Block 147	POW 10	53.6	46.8	• Warning Clause Type 1 • Warning Clause Type 3
	POW 11*	48.6	43.4	
	POW 12	49.9	43.2	
	POW 13	51.1	45.8	
Lot 23	POW 14	53.9	48.1	• Warning Clause Type 1 • Warning Clause Type 3 • 2.2m Noise Barrier
	POW 15	56.3	53.5	
	POW 16	50.1	48.3	
Block 148	POW 17*	43.4	38.9	• Warning Clause Type 1 • Warning Clause Type 3
	POW 18	47.4	41.1	

* Only the highlighted units in Block 148 (Fig.3) require noise mitigation measures.

5.0 CONCLUSIONS AND RECOMMENDATIONS

This report has been prepared in support of a draft plan of subdivision application for the proposed Brown Lands residential development. This report recommends the implementation of the following noise mitigation measures:

- The installation of 2.2m noise barriers, as indicated on **Figure 3** – Noise Attenuation Measures Plan.
- The inclusion of warning clauses be registered as a notice on title and incorporated into the lease/rental/sale agreements to warn potential purchaser/buyers/tenants of the possible elevated noise level for the units/Blocks listed in **Table 6** and **Table 7**.

Based on the foregoing recommendations, this report concludes that noise levels for sensitive use areas within the proposed Brown Lands residential development will be within established guidelines.

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Reviewed By:

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APPENDIX A

EXCERPTS FROM THE CITY OF OTTAWA

ENVIRONMENTAL NOISE CONTROL GUIDELINES AND THE MOE'S NPC-300

Table 2.2a: Sound Level Limit for Outdoor Living Areas - Road and Rail

(from NPC-300, 2013 Table C-1)

Time Period	Required L_{eq} (16) (dBA)
16-hour, 07:00 – 23:00	55

Table 2.2b: Sound Level Limit for Indoor Living Areas Road and Rail

(from NPC-300, 2013 Table C-2)

		Required L_{eq} (dBA)	
Type of Space	**Time Period**	**Road**	**Rail**
Living/dining, den areas of residences, hospitals, nursing homes, schools, daycare centres, etc.	07:00 – 23:00	45	40
Living/dining, den areas of residences, hospitals, nursing homes, etc. (except schools or daycare centres)	23:00 – 07:00	45	40
Sleeping quarters	07:00 – 23:00	45	40
	23:00 – 07:00	40	35

The Province also provides for supplementary indoor sound level limits for land uses not generally considered noise sensitive (see Table 2.2c below). These good practice design objectives should be addressed in any noise study prepared for the City. These supplementary sound level limits are based on the windows and doors to an indoor space being closed.

Table 2.2c: Supplementary Sound Level Limits for Indoor Spaces - Road and Rail (adapted from NPC-300 Table C-9)

		Required L_{eq} (dBA)	
Type of Space	**Time Period**	**Road**	**Rail**
General offices, reception areas, retail stores, etc.	16 hours between 07:00 – 23:00	50	45
Theatres, places of worship, libraries, individual or semi- private offices, conference rooms, reading rooms, etc.	16 hours between 07:00 – 23:00	45	40
Sleeping quarters of hotels/motels	8 hours between 23:00 – 07:00	45	40
Sleeping quarters of residences, hospitals, nursing/retirement homes, etc.	8 hours between 23:00 – 07:00	40	35

Table 3.0: Summary of Sound Level Criteria for Surface Transportation Projects

Future Sound Level, Leq $_{16hr}$ (07:00 - 23:00)	Change Above Ambient, dBA	Impact Rating	Mitigation
Greater than 55 dBA and less than or equal to 60 dBA	0-3	Not generally noticeable	None
	3-5	Generally noticeable	
	5-10	Significant	Investigate noise control measures and mitigate to achieve retrofit criteria (minimum attenuation is 6 dBA)
	10+	Very Significant	
Greater than 60 dBA	0-3	Not generally noticeable	Investigate noise control measures and mitigate to achieve retrofit criteria (minimum attenuation is 6 dBA)
	3-5	Generally noticeable	
	5-10	Significant	
	10+	Very Significant	

Additional Notes:

- The objective for outdoor sound levels is the higher of the Leq_{16hr} 55 dBA or the Leq_{16hr} ambient sound level that may prevail at the start of project construction (referred to as the "established ambient").
- If the future sound level is greater than Leq16hr 60 dBA and the excess or change in sound level above the established ambient is less than 5 dBA, the feasibility of noise control measures within the right-of-way will be investigated under the City's Local Improvements policy and guidelines.
- Noise control measures will be maintained within the City's ROW wherever possible.
- The City prefers retrofit sound barrier walls at the flanking ends to be on City owned lands, however if required, property owners at the termination points of the noise abatement wall will be asked to register an easement to the City for the construction and maintenance of a acoustic barrier along a side lot line. The side lot line acoustic barrier will provide protection for the rear yard area of the adjacent property. If the landowner refuses to transfer the easement, the City will not attempt to purchase or expropriate the easement but will delete this section of wall from the noise abatement construction project.
- Where the dominant noise source is due to transit activities within an LRT or a Transitway terminal, a rail yard facility to accommodate the LRT service yard, or a terminal building containing mechanical systems then the City will use the "Stationary Sources" criteria.

Appendix A: Warning Clauses

Under the Official Plan and this guideline warning clauses may be required to be incorporated into development through development agreements, registration on title and inclusion in Agreements of Purchase and Sale. This requirement may be included in any development, regardless of whether it is considered a noise sensitive land use.

A warning clause provides recognition for the City, Province landowner or tenants that noise may be a concern, that noise may be audible at times or even quite loud, and, depending on the type of development, provincial guidelines for noise may be exceeded. Warning clauses also recognize that environmental noise is a potential health hazard that does impact people and neighbourhoods. It is for this reason that, unless a non-noise sensitive land use is established, a warning clause should also include noise mitigation.

A warning clause is not considered a form of noise mitigation. It is not acceptable therefore to use warning clauses in place of physical noise control measures to identify an excess over the MOE or City noise limits. The reason for a warning clause on all development is twofold. Firstly, it is important to note that a land use that although the development may not be considered noise sensitive it may include employees or tenants that are personally sensitive to noise. A warning clause provides protection against complaints to the ministry of Environment should provincial guidelines be exceeded. Secondly, a warning clause on title could obviate the need for a new noise study in the future. In a redevelopment scenario the warning clause would provide recognition of the extent noise conditions.

Given the variation in potential intensity and impact of noise it will often be necessary to amend warning clauses to recognize the site specific conditions in each development. Final wording of any warning clause is to be approved by the City.

The following subsections provide example text to be adapted into warning clauses.

Surface Transportation Warning Clauses

Table A1 Surface Transportation Warning Clauses

Type	Example	Notes
Generic	*Purchasers/tenants are advised that sound levels due to increasing road/rail/Light Rail/transitway traffic may occasionally interfere with some outdoor activities as the sound levels may exceed the sound level limits of the City and the Ministry of the Environment.* *To help address the need for sound attenuation this development has been designed so as to provide an outdoor amenity area that is within provincial guidelines. Measures for sound attenuation include:* • *A setback of buildings from the noise source and* • *An acoustic barrier.* *To ensure that provincial sound level limits are not exceeded it is important to maintain sound attenuation features.* *The acoustic barrier shall be maintained and kept in good repair by the property owner. Any maintenance, repair or replacement is the responsibility of the owner and shall be with the same material or to the same standards, having the same colour, appearance and function of the original.* *Additionally this development includes trees and shrubs to screen the source of noise from occupants.*	The generic warning clause outlines that MOE sound levels may be exceeded but the indoor environment and outdoor amenity areas are within guidelines. Mitigation measures are described including urban design features. Mention is also made of landscaping to screen the development visually from the source of noise.
Extensive mitigation of indoor and	*"Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units,*	The warning clause makes reference to MOE sound levels

Table A1 Surface Transportation Warning Clauses

Type	Example	Notes
outdoor amenity area	*sound levels due to increasing road/rail/Light Rail/transitway traffic may, on occasion, interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the City and the Ministry of the Environment.* *To help address the need for sound attenuation this development includes:* • *multi-pane glass;* • *double brick veneer;* • *an earth berm; and* • *an acoustic barrier.* *To ensure that provincial sound level limits are not exceeded it is important to maintain these sound attenuation features.* *The acoustic barrier shall be maintained and kept in good repair by the property owner. Any maintenance, repair or replacement is the responsibility of the owner and shall be with the same material or to the same standards, having the same colour, appearance and function of the original.* *This dwelling unit has also been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the City and the Ministry of the Environment.*	being exceeded from time to time and that there are sound attenuation features and landscaping within the development that should be maintained. An option for air conditioning is noted as well as landscaping to screen the source of noise.

Table A1 Surface Transportation Warning Clauses

Type	Example	Notes
	Additionally this development includes trees and shrubs to screen the source of noise from occupants.	
No outdoor amenity area	*Purchasers/tenants are advised that sound levels due to increasing road/rail/Light Rail/transitway traffic will interfere with outdoor activities as the sound levels exceed the sound level limits of the City and the Ministry of the Environment.* *To help address the need for sound attenuation this development includes:* • *multi-pane glass;* • *double brick veneer;* • *high sound transmission class walls.* *To ensure that provincial sound level limits are not exceeded it is important to maintain these sound attenuation features.* *This dwelling unit has been supplied with a central air conditioning system and other measures 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 City and the Ministry of the Environment*	This warning clause notes that only an indoor environment is being provided for.

Stationary Source Warning Clauses

The Province notes that it is not acceptable to use warning clauses in place of physical noise control measures to identify an excess over the MOE sound level limits for stationary sources. The generic warning clause for stationary sources (called Type E in NPC-300) may identify a potential concern due to the proximity of the facility but it is not possible to justify exceeding the sound level limits.
The wording of the generic stationary noise warning clause may also be used as the basis for new development adjacent to areas licensed for mineral aggregate extraction.

Environmental Noise Guideline

Stationary and Transportation Sources – Approval and Planning

Publication NPC-300

Ontario

Table C-10
Supplementary Indoor Aircraft Noise Limits
(Applicable over 24-hour period)

Type of Space	Indoor NEF/NEP*
General offices, reception areas, retail stores, etc.	15
Individual or semi-private offices, conference rooms, etc.	10
Living/dining areas of residences, sleeping quarters of hotels/motels, theatres, libraries, schools, daycare centres, places of worship, etc.	5
Sleeping quarters of residences, hospitals, nursing/retirement homes, etc.	0

* The indoor NEF/NEP values listed in Table C-10 are not obtained from NEF/NEP contour maps. The values are representative of the indoor sound levels and are used as assessment criteria for the evaluation of acoustical insulation requirements.

C7 Noise Control Measures

The following sections provide MOE guidance for appropriate noise control measures. These sections constitute requirements that are applied to MOE approvals for stationary sources. This information is also provided as guidance which land use planning authorities may consider adopting.

The definition in Part A describes the various types and application of noise control measures. All the noise control measures described in the definition are appropriate to address the impact of noise of transportation sources (road, rail and aircraft) on planned sensitive land uses. Only some of the noise control measures described in the definition are appropriate to address the noise impact of stationary sources on planned sensitive land uses.

C7.1 Road Noise Control Measures

C7.1.1 Outdoor Living Areas

If the 16-Hour Equivalent Sound Level, L_{eq} (16) in the OLA is greater than 55 dBA and less than or equal to 60 dBA, noise control measures may be applied to reduce the sound level to 55 dBA. If measures are not provided, prospective purchasers or tenants should be informed of potential noise problems by a warning clause Type A.

If the 16-Hour Equivalent Sound Level, L_{eq} (16) in the OLA is greater than 60 dBA, noise control measures should be implemented to reduce the level to 55 dBA. Only in cases where the required noise control measures are not feasible for technical, economic or administrative reasons would an excess above the limit (55 dBA) be acceptable with a warning clause Type B. In the above situations, any excess above the limit will not be acceptable if it exceeds 5 dBA.

C7.1.2 Plane of a Window – Ventilation Requirements

C7.1.2.1 Daytime Period, 07:00 – 23:00 Hours

Noise control measures may not be required if the L_{eq} (16) daytime sound level in the plane of a bedroom or living/dining room window is less than or equal to 55 dBA. If the sound level in the plane of a bedroom or living/dining room window is greater than 55 dBA and less than or equal to 65 dBA, the dwelling should be designed with a provision for the installation of central air conditioning in the future, at the occupant's discretion. Warning clause Type C is also recommended.

If the daytime sound level in the plane of a bedroom or living/dining room window is greater than 65 dBA, installation of central air conditioning should be implemented with a warning clause Type D. In addition, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table C-2. The location and installation of the outdoor air conditioning device should comply with sound level limits of Publication NPC-216, Reference [32], and guidelines contained in Environmental Noise Guidelines for Installation of Residential Air Conditioning Devices, Reference [6], or should comply with other criteria specified by the municipality.

C7.1.2.2 Nighttime Period, 23:00 – 07:00 Hours

Noise control measures may not be required if the L_{eq} (8) nighttime sound level in the plane of a bedroom or living/dining room window is less than or equal to 50 dBA. If the sound level in the plane of a bedroom or living/dining room window is greater than 50 dBA and less than or equal to 60 dBA, the dwelling should be designed with a provision for the installation of central air conditioning in the future, at the occupant's discretion. Warning clause Type C is also recommended.

If the nighttime sound level in the plane of a bedroom or living/dining room window is greater than 60 dBA, installation of central air conditioning should be implemented, with a warning clause Type D. In addition, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table C-2. The location and installation of the outdoor air conditioning device should comply with sound level limits of Publication NPC-216, Reference [32], and guidelines contained in Environmental Noise Guidelines for Installation of Residential Air Conditioning Devices, Reference [6], or should comply with other criteria specified by the municipality.

C7.1.3 Indoor Living Areas – Building Components

If the nighttime sound level outside the bedroom or living/dining room windows exceeds 60 dBA or the daytime sound level outside the bedroom or living/dining area windows exceeds 65 dBA, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the

sound level limits in Table C-2. The acoustical performance of the building components (windows, doors and walls) should be specified.

C7.2 Rail Noise Control Measures

C7.2.1 Outdoor Living Areas

Whistle noise is not included in the determination of the outdoor daytime sound level due to railway trains. All the provisions of Section C7.1.1 apply also to noise control requirements for rail noise.

C7.2.2 Plane of a Window – Ventilation Requirements

Whistle noise is not included in the determination of the sound level in the plane of a window. All the provisions of Section C7.1.2 apply also to noise control requirements for rail noise.

C7.2.3 Indoor Living Areas – Building Components

The sound level, L_{eq}, during the daytime (16-hour) and nighttime (8-hour) periods is determined using the prediction method STEAM, Reference [34], immediately outside the dwelling envelope. Whistle noise is included in the determination of the sound level.

If the nighttime sound level outside the bedroom or living/dining room windows exceeds 55 dBA or the daytime sound level outside the bedroom or living/dining area windows exceeds 60 dBA, building components including windows, walls and doors, where applicable, need to be designed so that the indoor sound levels comply with the sound level limits in Table C-2. The acoustical performance of the building components (windows, doors and walls) needs to be specified.

In addition, the exterior walls of the first row of dwellings next to railway tracks are to be built to a minimum of brick veneer or masonry equivalent construction, from the foundation to the rafters when the rail traffic L_{eq} (24-hour), estimated at a location of a nighttime receptor, is greater than 60 dBA, and when the first row of dwellings is within 100 metres of the tracks.

C7.3 Combination of Road and Rail Noise

The noise impact in the OLA and in the plane of a window, and the requirements for outdoor measures, ventilation measures and warning clauses, should be determined by combining road and rail traffic sound levels.

The assessment of the indoor sound levels and the resultant requirement for the acoustical descriptors of the building components should be done separately for road

In Class 4 areas, where windows for noise sensitive spaces are assumed to be closed, the use of central air conditioning may be acceptable if it forms an essential part of the overall building designs.

C7.9 Verification of Noise Control Measures

It is recommended that the implementation of noise control measures be verified by qualified individuals with experience in environmental acoustics.

C8 Warning Clauses

The use of warning clauses or easements in respect of noise are recommended when circumstances warrant. Noise warning clauses may be used to warn of potential annoyance due to an existing source of noise and/or to warn of excesses above the sound level limits. Direction on the use of warning clauses should be included in agreements that are registered on title to the lands in question. The warning clauses would be included in agreements of Offers of Purchase and Sale, lease/rental agreements and condominium declarations. Alternatively, the use of easements in respect of noise may be appropriate in some circumstances. Additional guidance on the use of noise warning clauses is provided in Section C7.1.1, Section C7.1.2.1, Section C7.1.2.2, Section C7.3 and Section C7.4.

C8.1 Transportation Sources

The following warning clauses may be used individually or in combination:

TYPE A: (see Section C7.1.1)

> "Purchasers/tenants are advised that sound levels due to increasing road traffic (rail traffic) (air traffic) may occasionally 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."

TYPE B: (see Section C7.1.1 and Section C7.4)

> "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."

TYPE C: (see Section C7.1.2.1, Section C7.1.2.2 and Section C7.4)

> "This dwelling unit has been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of

central air conditioning by the occupant in low and medium density developments 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."

TYPE D: (see Section C7.1.2.1, Section C7.1.2.2 and Section C7.4)

"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."

C8.2 Stationary Sources

It is not acceptable to use warning clauses in place of physical noise control measures to identify an excess over the MOE sound level limits. Warning clause (Type E) for stationary sources may identify a potential concern due to the proximity of the facility but it is not acceptable to justify exceeding the sound level limits.

TYPE E: (see Section C7.6)

"Purchasers/tenants are advised that due to the proximity of the adjacent industry (facility) (utility), noise from the industry (facility) (utility) may at times be audible."

C8.3 Class 4 Area Notification

TYPE F: (see Section B9.2 and Section C4.4.2)

"Purchasers/tenants are advised that sound levels due to the adjacent industry (facility) (utility) are required to comply with sound level limits that are protective of indoor areas and are based on the assumption that windows and exterior doors are closed. This dwelling unit has been supplied with a ventilation/air conditioning system which will allow windows and exterior doors to remain closed."

APPENDIX B

SOUND LEVEL CALCULATIONS

STAMSON 5.0 SUMMARY REPORT Date: 23-01-2023 15:21:51
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola1una.te Time Period: Day/Night 16/8 hours
Description: OLA 1 Unattenuated

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -30.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.00 / 27.00 m
Receiver height : 1.50 / 1.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.30 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	59.69	59.69
Total			59.69 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	52.12	52.12
Total			52.12 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.69
(NIGHT): 52.12

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 11:30:12
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola6una.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 30.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 26.50 / 26.50 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -80.00 deg
Barrier height : 6.00 m
Elevation : 1.00 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 125.45 m
Receiver elevation : 126.45 m
Barrier elevation : 126.25 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)

1.CR29	1.50	59.82	59.82
	Total		59.82 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	52.25	52.25
	Total		52.25 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.82
(NIGHT): 52.25

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 11:39:19
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola7una.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -30.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 26.00 / 26.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 80.00 deg Angle2 : 90.00 deg
Barrier height : 6.00 m
Elevation : 0.93 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 125.32 m
Receiver elevation : 126.25 m
Barrier elevation : 126.45 m
Reference angle : 0.00

Result summary (day)
---

source height (m)	Road Leq (dBA)	Total Leq (dBA)

1.CR29	1.50	59.95	59.95
	Total		59.95 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	52.38	52.38
	Total		52.38 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.95
(NIGHT): 52.38

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 11:43:51
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola11una.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 30.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 2 / 2
House density : 90 %
Surface : 1 (Absorptive ground surface)
Receiver source distance : 61.00 / 61.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 40.00 deg Angle2 : 90.00 deg
Barrier height : 6.00 m
Elevation : 0.90 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 124.30 m
Receiver elevation : 125.20 m
Barrier elevation : 126.25 m
Reference angle : 0.00

Result summary (day)
---

source height	Road Leq	Total Leq

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	37.72	37.72
	Total		37.72 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	30.15	30.15
	Total		30.15 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 37.72
(NIGHT): 30.15

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 13:12:31
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola13u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -40.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 61.00 / 61.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -40.00 deg
Barrier height : 6.00 m
Elevation : 0.15 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.35 m
Receiver elevation : 123.50 m
Barrier elevation : 122.20 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h

```
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 2: CR29 (day/night)
--------------------------------------
Angle1   Angle2           : -40.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      3 / 3
House density             :     25 %
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  61.00 / 61.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            : -40.00 deg   Angle2 : 90.00 deg
Barrier height            :   6.00 m
Elevation                 :   0.15 m
Barrier receiver distance :   0.01 / 0.01   m
Source elevation          : 123.35 m
Receiver elevation        : 123.50 m
Barrier elevation         : 123.50 m
Reference angle           :   0.00

↟
Result summary (day)
--------------------

                   !  source  !   Road   !  Total
                   !  height  !   Leq    !   Leq
                   !   (m)    !  (dBA)   !  (dBA)
-------------------+----------+----------+----------
 1.CR29            !     1.50 !    36.30 !    36.30
 2.CR29            !     1.50 !    38.55 !    38.55
-------------------+----------+----------+----------
                     Total                   40.58 dBA

↟
Result summary (night)
----------------------

                   !  source  !   Road   !  Total
                   !  height  !   Leq    !   Leq
```

	! (m)	! (dBA)	! (dBA)
1.CR29	! 1.50	! 28.73	! 28.73
2.CR29	! 1.50	! 30.99	! 30.99
	Total		33.02 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 40.58
(NIGHT): 33.02

STAMSON 5.0 SUMMARY REPORT Date: 02-02-2023 09:19:36
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola16una.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 50.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 29.00 / 29.00 m
Receiver height : 1.50 / 1.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.45 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	59.91	59.91
Total			59.91 dBA

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	52.34	52.34
Total			52.34 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.91
(NIGHT): 52.34

STAMSON 5.0 SUMMARY REPORT Date: 02-02-2023 09:30:30
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola17una.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -70.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 77.00 / 77.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -70.00 deg
Barrier height : 6.00 m
Elevation : 1.20 m
Barrier receiver distance : 0.10 / 0.10 m
Source elevation : 124.30 m
Receiver elevation : 125.50 m
Barrier elevation : 124.30 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h

```
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 2: CR29 (day/night)
--------------------------------------
Angle1   Angle2           : -70.00 deg   30.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  77.00 / 77.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            : -70.00 deg   Angle2 : 5.00 deg
Barrier height            :   6.00 m
Elevation                 :   1.80 m
Barrier receiver distance :  18.00 / 18.00  m
Source elevation          : 124.30 m
Receiver elevation        : 122.50 m
Barrier elevation         : 125.50 m
Reference angle           :   0.00

♠
Road data, segment # 3: CR29 (day/night)
----------------------------------------
Car traffic volume  :  5020/436   veh/TimePeriod  *
Medium truck volume :   399/35    veh/TimePeriod  *
Heavy truck volume  :   285/25    veh/TimePeriod  *
Posted speed limit  :    60 km/h
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 3: CR29 (day/night)
```

```
-------------------------------------
Angle1   Angle2           :  30.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      2 / 2
House density             :     75 %
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  77.00 / 77.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  30.00 deg   Angle2 : 90.00 deg
Barrier height            :   6.00 m
Elevation                 :   1.55 m
Barrier receiver distance :   0.01 / 0.01   m
Source elevation          : 124.30 m
Receiver elevation        : 122.75 m
Barrier elevation         : 125.50 m
Reference angle           :   0.00
```

🡅

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	33.13	33.13
2.CR29	1.50	46.91	46.91
3.CR29	1.50	34.19	34.19
Total			47.31 dBA

🡅

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	25.56	25.56
2.CR29	1.50	39.34	39.34
3.CR29	1.50	26.63	26.63
Total			39.74 dBA

🡅

TOTAL Leq FROM ALL SOURCES (DAY): 47.31
(NIGHT): 39.74

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 13:24:24
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola18una.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 20.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 78.00 / 78.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -25.00 deg
Barrier height : 6.00 m
Elevation : 2.50 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.35 m
Receiver elevation : 120.85 m
Barrier elevation : 122.25 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h

```
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 2: CR29 (day/night)
--------------------------------------
Angle1   Angle2           :  20.00 deg   75.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  78.00 / 78.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  20.00 deg   Angle2 : 75.00 deg
Barrier height            :   6.00 m
Elevation                 :   2.50 m
Barrier receiver distance :  18.90 / 18.90  m
Source elevation          : 123.35 m
Receiver elevation        : 120.85 m
Barrier elevation         : 124.75 m
Reference angle           :   0.00

♠
Road data, segment # 3: CR29 (day/night)
----------------------------------------
Car traffic volume  :  5020/436   veh/TimePeriod  *
Medium truck volume :   399/35    veh/TimePeriod  *
Heavy truck volume  :   285/25    veh/TimePeriod  *
Posted speed limit  :    60 km/h
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 3: CR29 (day/night)
```

```
-------------------------------------
Angle1   Angle2           :  75.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      2 / 2
House density             :     85 %
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  78.00 / 78.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  75.00 deg   Angle2 : 90.00 deg
Barrier height            :   6.00 m
Elevation                 :   2.50 m
Barrier receiver distance :   0.01 / 0.01   m
Source elevation          : 123.35 m
Receiver elevation        : 120.85 m
Barrier elevation         : 125.50 m
Reference angle           :   0.00
```

↟

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	49.46	49.46
2.CR29	1.50	34.07	34.07
3.CR29	1.50	29.78	29.78
Total			49.63 dBA

↟

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	41.89	41.89
2.CR29	1.50	26.51	26.51
3.CR29	1.50	22.21	22.21
Total			42.06 dBA

↟

TOTAL Leq FROM ALL SOURCES (DAY): 49.63
(NIGHT): 42.06

STAMSON 5.0 SUMMARY REPORT Date: 26-01-2023 13:45:57
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow1una.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.50 / 27.50 m
Receiver height : 1.50 / 1.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.45 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	57.96	57.96
Total			57.96 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	50.39	50.39
Total			50.39 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 57.96
(NIGHT): 50.39

STAMSON 5.0 SUMMARY REPORT Date: 26-01-2023 13:52:03
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow1un45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.50 / 27.50 m
Receiver height : 4.50 / 4.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.05 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.30	58.30
Total			58.30 dBA

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	50.73	50.73
Total			50.73 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.30
(NIGHT): 50.73

STAMSON 5.0 SUMMARY REPORT Date: 26-01-2023 15:10:43
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow2u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 23.50 / 23.50 m
Receiver height : 1.50 / 1.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.05 m
Reference angle : 0.00

↟

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	62.05	62.05
Total			62.05 dBA

↟

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	54.48	54.48
	Total		54.48 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 62.05
(NIGHT): 54.48

STAMSON 5.0 SUMMARY REPORT Date: 26-01-2023 14:47:44
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow2u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 23.50 / 23.50 m
Receiver height : 4.50 / 4.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.05 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	62.38	62.38
Total			62.38 dBA

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	54.81	54.81
Total			54.81 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 62.38
(NIGHT): 54.81

STAMSON 5.0 SUMMARY REPORT Date: 26-01-2023 14:04:01
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow3u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 1.50 / 1.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.05 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.59	58.59
Total			58.59 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.03	51.03
	Total		51.03 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.59
(NIGHT): 51.03

STAMSON 5.0 SUMMARY REPORT Date: 26-01-2023 14:08:11
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow3u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 4.50 / 4.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.05 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.95	58.95
Total			58.95 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.38	51.38
	Total		51.38 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.95
(NIGHT): 51.38

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 13:40:50
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow4u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.50 / 27.50 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 80.00 deg Angle2 : 90.00 deg
Barrier height : 6.00 m
Elevation : 0.95 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 125.50 m
Receiver elevation : 126.45 m
Barrier elevation : 126.45 m
Reference angle : 0.00

Result summary (day)
---

source height (m)	Road Leq (dBA)	Total Leq (dBA)

1.CR29	1.50	57.91	57.91
	Total		57.91 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	50.34	50.34
	Total		50.34 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 57.91
(NIGHT): 50.34

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 14:08:50
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow4u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.50 / 27.50 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 80.00 deg Angle2 : 90.00 deg
Barrier height : 6.00 m
Elevation : 0.95 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 125.50 m
Receiver elevation : 126.45 m
Barrier elevation : 126.45 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)

1.CR29	1.50	58.31	58.31
	Total		58.31 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	50.75	50.75
	Total		50.75 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.31
(NIGHT): 50.75

STAMSON 5.0 SUMMARY REPORT Date: 24-01-2023 15:05:23
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow5u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 22.50 / 22.50 m
Receiver height : 1.50 / 1.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.95 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	62.45	62.45
Total			62.45 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	54.89	54.89
	Total		54.89 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 62.45
(NIGHT): 54.89

STAMSON 5.0 SUMMARY REPORT Date: 24-01-2023 15:09:01
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow5u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 22.50 / 22.50 m
Receiver height : 4.50 / 4.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.95 m
Reference angle : 0.00

↟

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	62.77	62.77
Total			62.77 dBA

↟

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	55.20	55.20
	Total		55.20 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 62.77
(NIGHT): 55.20

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 14:14:20
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow6u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 26.50 / 26.50 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -80.00 deg
Barrier height : 6.00 m
Elevation : 2.00 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 124.45 m
Receiver elevation : 126.45 m
Barrier elevation : 126.25 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)

1.CR29	1.50	58.30	58.30
	Total		58.30 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	50.73	50.73
	Total		50.73 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.30
(NIGHT): 50.73

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 14:24:47
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow6u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 26.50 / 26.50 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -80.00 deg
Barrier height : 6.00 m
Elevation : 2.00 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 124.45 m
Receiver elevation : 126.45 m
Barrier elevation : 126.25 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)

1.CR29	1.50	58.69	58.69
	Total		58.69 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.13	51.13
	Total		51.13 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.69
(NIGHT): 51.13

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 14:28:19
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow7u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 80.00 deg Angle2 : 90.00 deg
Barrier height : 6.00 m
Elevation : 1.05 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 125.20 m
Receiver elevation : 126.25 m
Barrier elevation : 126.45 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)

1.CR29	1.50	58.60	58.60
	Total		58.60 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.03	51.03
	Total		51.03 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.60
(NIGHT): 51.03

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 14:32:17
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow7u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 80.00 deg Angle2 : 90.00 deg
Barrier height : 6.00 m
Elevation : 1.05 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 125.20 m
Receiver elevation : 126.25 m
Barrier elevation : 126.45 m
Reference angle : 0.00

Result summary (day)
---

source height (m)	Road Leq (dBA)	Total Leq (dBA)

1.CR29	1.50	58.96	58.96
	Total		58.96 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.39	51.39
	Total		51.39 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.96
(NIGHT): 51.39

STAMSON 5.0 SUMMARY REPORT Date: 24-01-2023 15:45:02
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow8u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 22.00 / 25.00 m
Receiver height : 1.50 / 1.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 1.25 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	62.64	62.64
Total			62.64 dBA

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	54.18	54.18
	Total		54.18 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 62.64
(NIGHT): 54.18

STAMSON 5.0 SUMMARY REPORT Date: 24-01-2023 15:48:52
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow8u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 22.00 / 22.00 m
Receiver height : 4.50 / 4.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 1.25 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	62.95	62.95
Total			62.95 dBA

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	55.39	55.39
Total			55.39 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 62.95
(NIGHT): 55.39

STAMSON 5.0 SUMMARY REPORT Date: 24-01-2023 15:53:37
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow9u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 24.50 / 24.50 m
Receiver height : 1.50 / 1.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 1.40 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.89	58.89
Total			58.89 dBA

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.33	51.33
Total			51.33 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.89
(NIGHT): 51.33

STAMSON 5.0 SUMMARY REPORT Date: 24-01-2023 15:56:46
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow9u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 24.50 / 24.50 m
Receiver height : 4.50 / 4.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 1.40 m
Reference angle : 0.00

↟

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	59.24	59.24
Total			59.24 dBA

↟

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.68	51.68
Total			51.68 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.24
(NIGHT): 51.68

STAMSON 5.0 SUMMARY REPORT Date: 02-02-2023 09:48:25
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow10u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 50.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 44.00 / 44.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -80.00 deg
Barrier height : 6.00 m
Elevation : 1.45 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 124.30 m
Receiver elevation : 125.75 m
Barrier elevation : 123.25 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h

```
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 2: CR29 (day/night)
--------------------------------------
Angle1   Angle2           :  50.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      2 / 2
House density             :     40 %
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  44.00 / 44.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  50.00 deg   Angle2 : 90.00 deg
Barrier height            :   6.00 m
Elevation                 :   1.45 m
Barrier receiver distance :   0.01 / 0.01   m
Source elevation          : 124.30 m
Receiver elevation        : 125.75 m
Barrier elevation         : 126.25 m
Reference angle           :   0.00

↟
Result summary (day)
--------------------

                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
                    !   (m)    !  (dBA)   !  (dBA)
--------------------+----------+----------+----------
 1.CR29             !     1.50 !    57.05 !    57.05
 2.CR29             !     1.50 !    36.54 !    36.54
--------------------+----------+----------+----------
                      Total                   57.09 dBA

↟
Result summary (night)
----------------------

                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
```

	! (m)	! (dBA)	! (dBA)
1.CR29	! 1.50	! 49.49	! 49.49
2.CR29	! 1.50	! 28.97	! 28.97
	Total		49.53 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 57.09
(NIGHT): 49.53

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 14:57:29
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow10u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 50.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 44.00 / 44.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -80.00 deg
Barrier height : 6.00 m
Elevation : 1.45 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 124.30 m
Receiver elevation : 125.75 m
Barrier elevation : 123.25 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h

```
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 2: CR29 (day/night)
--------------------------------------
Angle1   Angle2           :  50.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      2 / 2
House density             :     40 %
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  44.00 / 44.00  m
Receiver height           :   4.50 / 4.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  50.00 deg   Angle2 : 90.00 deg
Barrier height            :   6.00 m
Elevation                 :   1.45 m
Barrier receiver distance :   0.01 / 0.01   m
Source elevation          : 124.30 m
Receiver elevation        : 125.75 m
Barrier elevation         : 126.25 m
Reference angle           :   0.00

↟
Result summary (day)
--------------------

                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
                    !   (m)    !  (dBA)   !  (dBA)
--------------------+----------+----------+----------
 1.CR29             !     1.50 !    57.64 !    57.64 *
 2.CR29             !     1.50 !    40.05 !    40.05
--------------------+----------+----------+----------
                      Total                   57.71 dBA

↟
Result summary (night)
----------------------

                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
```

	! (m)	! (dBA)	! (dBA)	
1.CR29	! 1.50	! 50.07	! 50.07	*
2.CR29	! 1.50	! 32.48	! 32.48	
	Total		50.14 dBA	

TOTAL Leq FROM ALL SOURCES (DAY): 57.71
(NIGHT): 50.14

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 15:01:59
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow11u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 2 / 2
House density : 40 %
Surface : 1 (Absorptive ground surface)
Receiver source distance : 50.50 / 50.50 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 45.00 deg Angle2 : 90.00 deg
Barrier height : 6.00 m
Elevation : 1.45 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 124.30 m
Receiver elevation : 125.75 m
Barrier elevation : 126.25 m
Reference angle : 0.00

Result summary (day)
---

source height	Road Leq	Total Leq

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	48.63	48.63
	Total		48.63 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	41.06	41.06
	Total		41.06 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 48.63
(NIGHT): 41.06

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 15:06:31
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow11u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 2 / 2
House density : 40 %
Surface : 1 (Absorptive ground surface)
Receiver source distance : 50.50 / 50.50 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 45.00 deg Angle2 : 90.00 deg
Barrier height : 6.00 m
Elevation : 1.45 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 124.30 m
Receiver elevation : 125.75 m
Barrier elevation : 123.25 m
Reference angle : 0.00

Result summary (day)
---

	source height	Road Leq	Total Leq

	! (m)	! (dBA)	! (dBA)
1.CR29	! 1.50	! 50.92	! 50.92 *
	Total		50.92 dBA

* Bright Zone !

Result summary (night)

	! source height (m)	! Road Leq (dBA)	! Total Leq (dBA)
1.CR29	! 1.50	! 43.36	! 43.36 *
	Total		43.36 dBA

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 50.92
(NIGHT): 43.36

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 15:49:29
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow12u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 75.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 43.00 / 43.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -60.00 deg
Barrier height : 6.00 m
Elevation : 0.35 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.35 m
Receiver elevation : 126.50 m
Barrier elevation : 123.00 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h

```
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 2: CR29 (day/night)
--------------------------------------
Angle1   Angle2           :  75.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      2 / 2
House density             :     80 %
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  43.00 / 43.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  75.00 deg   Angle2 : 90.00 deg
Barrier height            :   6.00 m
Elevation                 :   0.15 m
Barrier receiver distance :   0.01 / 0.01   m
Source elevation          : 123.35 m
Receiver elevation        : 123.50 m
Barrier elevation         : 126.25 m
Reference angle           :   0.00

🡅
Result summary (day)
--------------------

                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
                    !   (m)    !  (dBA)   !  (dBA)
--------------------+----------+----------+----------
 1.CR29             !     1.50 !    57.28 !    57.28
 2.CR29             !     1.50 !    32.49 !    32.49
--------------------+----------+----------+----------
                      Total                   57.29 dBA

🡅
Result summary (night)
----------------------

                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
```

	! (m)	! (dBA)	! (dBA)
1.CR29	! 1.50	! 49.72	! 49.72
2.CR29	! 1.50	! 24.93	! 24.93
	Total		49.73 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 57.29
(NIGHT): 49.73

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 15:59:46
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow12u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 75.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 43.00 / 43.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -60.00 deg
Barrier height : 6.00 m
Elevation : 0.35 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.35 m
Receiver elevation : 126.50 m
Barrier elevation : 123.00 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 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):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 2: CR29 (day/night)
--------------------------------------
Angle1   Angle2           :  75.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      2 / 2
House density             :     80 %
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  43.00 / 43.00  m
Receiver height           :   4.50 / 4.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  75.00 deg   Angle2 : 90.00 deg
Barrier height            :   6.00 m
Elevation                 :   0.15 m
Barrier receiver distance :   0.01 / 0.01   m
Source elevation          : 123.35 m
Receiver elevation        : 123.50 m
Barrier elevation         : 126.25 m
Reference angle           :   0.00

🡅
Result summary (day)
--------------------

                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
                    !   (m)    !  (dBA)   !  (dBA)
--------------------+----------+----------+----------
 1.CR29             !     1.50 !    58.17 !    58.17 *
 2.CR29             !     1.50 !    34.76 !    34.76
--------------------+----------+----------+----------
                      Total                   58.19 dBA

🡅
Result summary (night)
----------------------

                    !  source  !   Road   !  Total
                    !  height  !   Leq    !   Leq
```

	! (m)	! (dBA)	! (dBA)	
1.CR29	! 1.50	! 50.60	! 50.60	*
2.CR29	! 1.50	! 27.19	! 27.19	
Total			50.62 dBA	

TOTAL Leq FROM ALL SOURCES (DAY): 58.19
(NIGHT): 50.62

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 16:06:31
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow13u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 49.00 / 49.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -55.00 deg
Barrier height : 6.00 m
Elevation : 0.15 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.35 m
Receiver elevation : 123.50 m
Barrier elevation : 123.25 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)

1.CR29	1.50	52.70	52.70
	Total		52.70 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	45.13	45.13
	Total		45.13 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 52.70
(NIGHT): 45.13

STAMSON 5.0 SUMMARY REPORT Date: 01-02-2023 16:10:00
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow13u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 49.00 / 49.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -55.00 deg
Barrier height : 6.00 m
Elevation : 0.15 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.35 m
Receiver elevation : 123.50 m
Barrier elevation : 123.25 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)

1.CR29	1.50	53.36	53.36
	Total		53.36 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	45.80	45.80
	Total		45.80 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 53.36
(NIGHT): 45.80

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 13:06:02
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow14u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume	:	5020/436	veh/TimePeriod *
Medium truck volume	:	399/35	veh/TimePeriod *
Heavy truck volume	:	285/25	veh/TimePeriod *
Posted speed limit	:	60 km/h	
Road gradient	:	2 %	
Road pavement	:	1 (Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT)	:	6200
Percentage of Annual Growth	:	0.00
Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	7.00
Heavy Truck % of Total Volume	:	5.00
Day (16 hrs) % of Total Volume	:	92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2	:	-45.00 deg	90.00 deg
Wood depth	:	0	(No woods.)
No of house rows	:	0 / 0	
Surface	:	1	(Absorptive ground surface)
Receiver source distance	:	32.50 / 32.50	m
Receiver height	:	1.50 / 1.50	m
Topography	:	4	(Elevated; with barrier)
Barrier angle1	:	85.00 deg	Angle2 : 90.00 deg
Barrier height	:	6.00 m	
Elevation	:	0.40 m	
Barrier receiver distance	:	0.01 / 0.01	m
Source elevation	:	122.60 m	
Receiver elevation	:	123.00 m	
Barrier elevation	:	126.25 m	
Reference angle	:	0.00	

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.91	58.91
	Total		58.91 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.34	51.34
	Total		51.34 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.91
(NIGHT): 51.34

STAMSON 5.0 SUMMARY REPORT Date: 14-02-2023 08:46:43
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow14u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -45.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 32.50 / 32.50 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 85.00 deg Angle2 : 90.00 deg
Barrier height : 6.00 m
Elevation : 0.40 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 122.60 m
Receiver elevation : 123.00 m
Barrier elevation : 126.25 m
Reference angle : 0.00

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	59.32	59.32
	Total		59.32 Dba

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.76	51.76
	Total		51.76 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.32
(NIGHT): 51.76

STAMSON 5.0 SUMMARY REPORT Date: 26-01-2023 16:19:40
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow15u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -65.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.20 / 27.20 m
Receiver height : 1.50 / 1.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.40 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	60.73	60.73
Total			60.73 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	53.17	53.17
	Total		53.17 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.73
(NIGHT): 53.17

STAMSON 5.0 SUMMARY REPORT Date: 26-01-2023 16:23:15
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow15u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -65.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.20 / 27.20 m
Receiver height : 4.50 / 4.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.40 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	61.09	61.09
Total			61.09 dBA

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	53.52	53.52
Total			53.52 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 61.09
(NIGHT): 53.52

STAMSON 5.0 SUMMARY REPORT Date: 27-01-2023 09:08:37
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow16u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 20.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 32.00 / 32.00 m
Receiver height : 1.50 / 1.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.90 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.09	58.09
Total			58.09 dBA

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	50.53	50.53
Total			50.53 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.09
(NIGHT): 50.53

STAMSON 5.0 SUMMARY REPORT Date: 27-01-2023 09:12:07
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow16u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 20.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 32.00 / 32.00 m
Receiver height : 4.50 / 4.50 m
Topography : 3 (Elevated; no barrier)
Elevation : 0.90 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.51	58.51
Total			58.51 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	50.95	50.95
Total			50.95 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.51
(NIGHT): 50.95

STAMSON 5.0 SUMMARY REPORT Date: 02-02-2023 10:05:03
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow17u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -65.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 80.00 / 80.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -65.00 deg
Barrier height : 6.00 m
Elevation : 1.55 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 124.30 m
Receiver elevation : 122.75 m
Barrier elevation : 122.00 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h

```
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 2: CR29 (day/night)
--------------------------------------
Angle1   Angle2           : -65.00 deg   5.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  80.00 / 80.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            : -65.00 deg   Angle2 : 5.00 deg
Barrier height            :   6.00 m
Elevation                 :   1.55 m
Barrier receiver distance :  20.40 / 20.40  m
Source elevation          : 124.30 m
Receiver elevation        : 122.75 m
Barrier elevation         : 124.75 m
Reference angle           :   0.00

♠
Road data, segment # 3: CR29 (day/night)
---------------------------------------
Car traffic volume  :  5020/436   veh/TimePeriod  *
Medium truck volume :   399/35    veh/TimePeriod  *
Heavy truck volume  :   285/25    veh/TimePeriod  *
Posted speed limit  :    60 km/h
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 3: CR29 (day/night)
```

```
-------------------------------------
Angle1   Angle2           :   5.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      2 / 2
House density             :     60 %
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  80.00 / 80.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  30.00 deg   Angle2 : 90.00 deg
Barrier height            :   6.00 m
Elevation                 :   1.55 m
Barrier receiver distance :   0.01 / 0.01   m
Source elevation          : 124.30 m
Receiver elevation        : 122.75 m
Barrier elevation         : 125.50 m
Reference angle           :   0.00
```

↟

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	33.20	33.20
2.CR29	1.50	35.99	35.99
3.CR29	1.50	42.00	42.00
Total			43.41 dBA

↟

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	25.64	25.64
2.CR29	1.50	28.43	28.43
3.CR29	1.50	34.43	34.43
Total			35.84 dBA

↟

TOTAL Leq FROM ALL SOURCES (DAY): 43.41
(NIGHT): 35.84

STAMSON 5.0 SUMMARY REPORT Date: 02-02-2023 10:17:10
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow17u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -65.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 80.00 / 80.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -65.00 deg
Barrier height : 6.00 m
Elevation : 1.55 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 124.30 m
Receiver elevation : 122.75 m
Barrier elevation : 122.00 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h

```
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 2: CR29 (day/night)
--------------------------------------
Angle1   Angle2           : -65.00 deg   5.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  80.00 / 80.00  m
Receiver height           :   4.50 / 4.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            : -65.00 deg   Angle2 : 5.00 deg
Barrier height            :   6.00 m
Elevation                 :   1.55 m
Barrier receiver distance :  20.40 / 20.40  m
Source elevation          : 124.30 m
Receiver elevation        : 122.75 m
Barrier elevation         : 124.75 m
Reference angle           :   0.00

♠
Road data, segment # 3: CR29 (day/night)
----------------------------------------
Car traffic volume  :  5020/436   veh/TimePeriod  *
Medium truck volume :   399/35    veh/TimePeriod  *
Heavy truck volume  :   285/25    veh/TimePeriod  *
Posted speed limit  :    60 km/h
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 3: CR29 (day/night)
```

```
-------------------------------------
Angle1   Angle2           :   5.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      2 / 2
House density             :     60 %
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  80.00 / 80.00  m
Receiver height           :   4.50 / 4.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  30.00 deg   Angle2 : 90.00 deg
Barrier height            :   6.00 m
Elevation                 :   1.55 m
Barrier receiver distance :   0.01 / 0.01   m
Source elevation          : 124.30 m
Receiver elevation        : 122.75 m
Barrier elevation         : 125.50 m
Reference angle           :   0.00
```

↟

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	39.14	39.14
2.CR29	1.50	40.51	40.51
3.CR29	1.50	42.91	42.91
Total			45.91 dBA

↟

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	31.57	31.57
2.CR29	1.50	32.95	32.95
3.CR29	1.50	35.35	35.35
Total			38.35 dBA

↟

TOTAL Leq FROM ALL SOURCES (DAY): 45.91
(NIGHT): 38.35

STAMSON 5.0 SUMMARY REPORT Date: 02-02-2023 10:25:43
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow18u15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 20.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 80.00 / 80.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -10.00 deg
Barrier height : 6.00 m
Elevation : 2.20 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.00 m
Receiver elevation : 120.80 m
Barrier elevation : 122.20 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h

```
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 2: CR29 (day/night)
--------------------------------------
Angle1   Angle2           :  20.00 deg   70.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  80.00 / 80.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  20.00 deg   Angle2 : 70.00 deg
Barrier height            :   6.00 m
Elevation                 :   2.20 m
Barrier receiver distance :  21.00 / 21.00  m
Source elevation          : 123.00 m
Receiver elevation        : 120.80 m
Barrier elevation         : 124.75 m
Reference angle           :   0.00

♠
Road data, segment # 3: CR29 (day/night)
----------------------------------------
Car traffic volume  :  5020/436   veh/TimePeriod  *
Medium truck volume :   399/35    veh/TimePeriod  *
Heavy truck volume  :   285/25    veh/TimePeriod  *
Posted speed limit  :    60 km/h
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 3: CR29 (day/night)
```

```
-------------------------------------
Angle1   Angle2           :  70.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      2 / 2
House density             :     95 %
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  80.00 / 80.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  70.00 deg   Angle2 : 90.00 deg
Barrier height            :   6.00 m
Elevation                 :   2.20 m
Barrier receiver distance :   0.01 / 0.01   m
Source elevation          : 123.00 m
Receiver elevation        : 120.80 m
Barrier elevation         : 125.50 m
Reference angle           :   0.00
```

↟

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	47.61	47.61
2.CR29	1.50	33.28	33.28
3.CR29	1.50	30.21	30.21
Total			47.84 dBA

↟

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	40.04	40.04
2.CR29	1.50	25.72	25.72
3.CR29	1.50	22.64	22.64
Total			40.27 dBA

↟

TOTAL Leq FROM ALL SOURCES (DAY): 47.84
(NIGHT): 40.27

STAMSON 5.0 SUMMARY REPORT Date: 02-02-2023 10:29:37
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow18u45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 20.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 80.00 / 80.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -10.00 deg
Barrier height : 6.00 m
Elevation : 2.20 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.00 m
Receiver elevation : 120.80 m
Barrier elevation : 122.20 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h

```
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 2: CR29 (day/night)
--------------------------------------
Angle1   Angle2           :  20.00 deg   70.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  80.00 / 80.00  m
Receiver height           :   4.50 / 4.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  20.00 deg   Angle2 : 70.00 deg
Barrier height            :   6.00 m
Elevation                 :   2.20 m
Barrier receiver distance :  21.00 / 21.00  m
Source elevation          : 123.00 m
Receiver elevation        : 120.80 m
Barrier elevation         : 124.75 m
Reference angle           :   0.00

♠
Road data, segment # 3: CR29 (day/night)
----------------------------------------
Car traffic volume  :  5020/436   veh/TimePeriod  *
Medium truck volume :   399/35    veh/TimePeriod  *
Heavy truck volume  :   285/25    veh/TimePeriod  *
Posted speed limit  :    60 km/h
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 3: CR29 (day/night)
```

```
-------------------------------------
Angle1   Angle2           :  70.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      2 / 2
House density             :     95 %
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  80.00 / 80.00  m
Receiver height           :   4.50 / 4.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  70.00 deg   Angle2 : 90.00 deg
Barrier height            :   6.00 m
Elevation                 :   2.20 m
Barrier receiver distance :   0.01 / 0.01   m
Source elevation          : 123.00 m
Receiver elevation        : 120.80 m
Barrier elevation         : 125.50 m
Reference angle           :   0.00
```

↟

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	48.39	48.39
2.CR29	1.50	36.83	36.83
3.CR29	1.50	31.53	31.53
Total			48.77 dBA

↟

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	40.83	40.83
2.CR29	1.50	29.27	29.27
3.CR29	1.50	23.97	23.97
Total			41.21 dBA

↟

TOTAL Leq FROM ALL SOURCES (DAY): 48.77
(NIGHT): 41.21

STAMSON 5.0 SUMMARY REPORT Date: 08-02-2023 15:46:49
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola1att.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -30.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.00 / 27.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -30.00 deg Angle2 : 90.00 deg
Barrier height : 2.20 m
Elevation : 0.30 m
Barrier receiver distance : 9.00 / 9.00 m
Source elevation : 126.15 m
Receiver elevation : 126.45 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	54.32	54.32
Total			54.32 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	46.76	46.76
Total			46.76 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 54.32
(NIGHT): 46.76

STAMSON 5.0 SUMMARY REPORT Date: 08-02-2023 16:28:39
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola6att.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -80.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 26.50 / 26.50 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -80.00 deg
Barrier height : 6.00 m
Elevation : 0.30 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 125.15 m
Receiver elevation : 126.45 m
Barrier elevation : 126.25 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2 : -80.00 deg 30.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 26.50 / 26.50 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -80.00 deg Angle2 : 30.00 deg
Barrier height : 2.20 m
Elevation : 0.30 m
Barrier receiver distance : 9.00 / 9.00 m
Source elevation : 125.15 m
Receiver elevation : 126.45 m
Barrier elevation : 126.25 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	35.77	35.77
2.CR29	1.50	52.81	52.81
Total			52.90 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	28.21	28.21
2.CR29	1.50	45.25	45.25
Total			45.34 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 52.90
(NIGHT): 45.34

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 09:05:00
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola7att.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -30.00 deg 80.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 26.00 / 26.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -30.00 deg Angle2 : 80.00 deg
Barrier height : 2.20 m
Elevation : 0.93 m
Barrier receiver distance : 9.00 / 9.00 m
Source elevation : 125.32 m
Receiver elevation : 126.25 m
Barrier elevation : 126.00 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2	: 80.00 deg	90.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 1	(Absorptive ground surface)
Receiver source distance	: 26.00 / 26.00	m
Receiver height	: 1.50 / 1.50	m
Topography	: 4	(Elevated; with barrier)
Barrier angle1	: 80.00 deg	Angle2 : 90.00 deg
Barrier height	: 2.20 m	
Elevation	: 0.93 m	
Barrier receiver distance	: 9.00 / 9.00	m
Source elevation	: 125.32 m	
Receiver elevation	: 126.25 m	
Barrier elevation	: 126.00 m	
Reference angle	: 0.00	

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	53.65	53.65
2.CR29	1.50	39.82	39.82
Total			53.83 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	46.09	46.09
2.CR29	1.50	32.25	32.25
Total			46.27 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 53.83
(NIGHT): 46.27

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 09:12:41
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola16att.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 50.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 29.00 / 29.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 50.00 deg
Barrier height : 2.20 m
Elevation : 0.45 m
Barrier receiver distance : 5.00 / 5.00 m
Source elevation : 122.05 m
Receiver elevation : 122.50 m
Barrier elevation : 122.25 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	54.32	54.32
Total			54.32 dBA

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	46.75	46.75
Total			46.75 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 54.32
(NIGHT): 46.75

STAMSON 5.0 SUMMARY REPORT Date: 10-02-2023 12:54:27
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola18att.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -25.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 78.00 / 78.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -25.00 deg
Barrier height : 6.00 m
Elevation : 2.50 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.35 m
Receiver elevation : 120.85 m
Barrier elevation : 122.25 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume	5020/436	veh/TimePeriod *
Medium truck volume	399/35	veh/TimePeriod *
Heavy truck volume	285/25	veh/TimePeriod *
Posted speed limit	60	km/h
Road gradient	2	%
Road pavement	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2	-25.00 deg	20.00 deg
Wood depth	0	(No woods.)
No of house rows	0 / 0	
Surface	1	(Absorptive ground surface)
Receiver source distance	78.00 / 78.00	m
Receiver height	1.50 / 1.50	m
Topography	4	(Elevated; with barrier)
Barrier angle1	-25.00 deg	Angle2 : -5.00 deg
Barrier height	2.20	m
Elevation	2.50	m
Barrier receiver distance	58.00 / 58.00	m
Source elevation	123.35	m
Receiver elevation	120.85	m
Barrier elevation	122.00	m
Reference angle	0.00	

Road data, segment # 3: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 3: CR29 (day/night)

Angle1 Angle2 : 20.00 deg 75.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 78.00 / 78.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 20.00 deg Angle2 : 75.00 deg
Barrier height : 6.00 m
Elevation : 2.50 m
Barrier receiver distance : 18.90 / 18.90 m
Source elevation : 123.35 m
Receiver elevation : 120.85 m
Barrier elevation : 124.75 m
Reference angle : 0.00

Road data, segment # 4: CR289 (day/night)

Car traffic volume	:	5020/436	veh/TimePeriod *
Medium truck volume	:	399/35	veh/TimePeriod *
Heavy truck volume	:	285/25	veh/TimePeriod *
Posted speed limit	:	60	km/h
Road gradient	:	2	%
Road pavement	:	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	:	6200
Percentage of Annual Growth	:	0.00
Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	7.00
Heavy Truck % of Total Volume	:	5.00
Day (16 hrs) % of Total Volume	:	92.00

Data for Segment # 4: CR289 (day/night)

Angle1 Angle2	:	75.00 deg	90.00 deg
Wood depth	:	0	(No woods.)
No of house rows	:	2 / 2	
House density	:	85 %	
Surface	:	1	(Absorptive ground surface)
Receiver source distance	:	78.00 / 78.00	m
Receiver height	:	1.50 / 1.50	m
Topography	:	4	(Elevated; with barrier)
Barrier angle1	:	75.00 deg	Angle2 : 90.00 deg
Barrier height	:	6.00 m	
Elevation	:	2.50 m	
Barrier receiver distance	:	0.01 / 0.01	m
Source elevation	:	123.35 m	
Receiver elevation	:	120.85 m	
Barrier elevation	:	125.50 m	
Reference angle	:	0.00	

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	35.10	35.10
2.CR29	1.50	49.30	49.30 *
3.CR29	1.50	34.07	34.07
4.CR289	1.50	29.78	29.78
Total			49.63 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)	
1.CR29	1.50	27.54	27.54	
2.CR29	1.50	41.73	41.73	*
3.CR29	1.50	26.51	26.51	
4.CR289	1.50	22.21	22.21	
Total			42.06	dBA

TOTAL Leq FROM ALL SOURCES (DAY): 49.63
(NIGHT): 42.06

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 09:38:17
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow1a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.50 / 27.50 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 0.00 deg Angle2 : 90.00 deg
Barrier height : 2.20 m
Elevation : 0.05 m
Barrier receiver distance : 9.00 / 9.00 m
Source elevation : 126.50 m
Receiver elevation : 126.45 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	52.99	52.99
Total			52.99 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	45.42	45.42
Total			45.42 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 52.99
(NIGHT): 45.42

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 09:44:35
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow1a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.50 / 27.50 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 0.00 deg Angle2 : 90.00 deg
Barrier height : 2.20 m
Elevation : 0.05 m
Barrier receiver distance : 9.00 / 9.00 m
Source elevation : 126.50 m
Receiver elevation : 126.45 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.30	58.30 *
Total			58.30 dBA

* Bright Zone !

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	50.73	50.73 *
	Total		50.73 dBA

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 58.30
(NIGHT): 50.73

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 09:52:19
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow2a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 23.50 / 23.50 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -50.00 deg Angle2 : 90.00 deg
Barrier height : 2.20 m
Elevation : 0.05 m
Barrier receiver distance : 8.00 / 8.00 m
Source elevation : 126.50 m
Receiver elevation : 126.45 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.09	58.09
Total			58.09 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	50.52	50.52
Total			50.52 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.09
(NIGHT): 50.52

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 09:58:17
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow2a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 23.50 / 23.50 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -50.00 deg Angle2 : 90.00 deg
Barrier height : 2.20 m
Elevation : 0.05 m
Barrier receiver distance : 8.00 / 8.00 m
Source elevation : 126.50 m
Receiver elevation : 126.45 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	62.38	62.38 *
Total			62.38 dBA

* Bright Zone !

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	54.81	54.81 *
	Total		54.81 dBA

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 62.38
(NIGHT): 54.81

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 10:04:26
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow3a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -20.00 deg Angle2 : 0.00 deg
Barrier height : 2.20 m
Elevation : 0.05 m
Barrier receiver distance : 9.00 / 9.00 m
Source elevation : 126.50 m
Receiver elevation : 126.45 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	57.51	57.51
Total			57.51 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	49.95	49.95
Total			49.95 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 57.51
(NIGHT): 49.95

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 10:15:01
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow3a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -20.00 deg Angle2 : 0.00 deg
Barrier height : 2.20 m
Elevation : 0.05 m
Barrier receiver distance : 9.00 / 9.00 m
Source elevation : 126.50 m
Receiver elevation : 126.45 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.95	58.95 *
Total			58.95 dBA

* Bright Zone !

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.38	51.38 *
Total			51.38 dBA

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 58.95
(NIGHT): 51.38

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 10:25:13
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow4a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.50 / 27.50 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 0.00 deg Angle2 : 20.00 deg
Barrier height : 2.20 m
Elevation : 0.95 m
Barrier receiver distance : 9.00 / 9.00 m
Source elevation : 125.50 m
Receiver elevation : 126.45 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	56.84	56.84
Total			56.84 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	49.27	49.27
Total			49.27 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 56.84
(NIGHT): 49.27

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 10:29:21
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow4a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.50 / 27.50 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 0.00 deg Angle2 : 20.00 deg
Barrier height : 2.20 m
Elevation : 0.95 m
Barrier receiver distance : 9.00 / 9.00 m
Source elevation : 125.50 m
Receiver elevation : 126.45 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.42	58.42 *
Total			58.42 dBA

* Bright Zone !

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	50.85	50.85 *
Total			50.85 dBA

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 58.42
(NIGHT): 50.85

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 10:35:29
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow5a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 22.50 / 22.50 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -85.00 deg Angle2 : 75.00 deg
Barrier height : 2.20 m
Elevation : 0.95 m
Barrier receiver distance : 8.00 / 8.00 m
Source elevation : 125.50 m
Receiver elevation : 126.45 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	56.53	56.53
Total			56.53 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	48.97	48.97
Total			48.97 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 56.53
(NIGHT): 48.97

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 10:39:15
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow5a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 22.50 / 22.50 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -85.00 deg Angle2 : 75.00 deg
Barrier height : 2.20 m
Elevation : 0.95 m
Barrier receiver distance : 8.00 / 8.00 m
Source elevation : 125.50 m
Receiver elevation : 126.45 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	62.77	62.77 *
Total			62.77 dBA

* Bright Zone !

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	55.20	55.20 *
Total			55.20 dBA

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 62.77
(NIGHT): 55.20

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 10:45:55
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow6a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 26.50 / 26.50 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -80.00 deg Angle2 : 0.00 deg
Barrier height : 2.20 m
Elevation : 2.00 m
Barrier receiver distance : 9.00 / 9.00 m
Source elevation : 124.45 m
Receiver elevation : 126.45 m
Barrier elevation : 126.00 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	52.29	52.29
Total			52.29 dBA

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	44.72	44.72
Total			44.72 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 52.29
(NIGHT): 44.72

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 10:51:26
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow6a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 26.50 / 26.50 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -80.00 deg Angle2 : 0.00 deg
Barrier height : 2.20 m
Elevation : 2.00 m
Barrier receiver distance : 9.00 / 9.00 m
Source elevation : 124.45 m
Receiver elevation : 126.45 m
Barrier elevation : 126.00 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.80	58.80 *
Total			58.80 dBA

* Bright Zone !

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.23	51.23 *
Total			51.23 dBA

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 58.80
(NIGHT): 51.23

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 10:58:49
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow7a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 0.00 deg Angle2 : 85.00 deg
Barrier height : 2.20 m
Elevation : 1.05 m
Barrier receiver distance : 9.00 / 9.00 m
Source elevation : 125.20 m
Receiver elevation : 126.25 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.95	51.95
Total			51.95 dBA

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	44.39	44.39
Total			44.39 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 51.95
(NIGHT): 44.39

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 11:02:49
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow7a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 0.00 deg Angle2 : 85.00 deg
Barrier height : 2.20 m
Elevation : 1.05 m
Barrier receiver distance : 9.00 / 9.00 m
Source elevation : 125.20 m
Receiver elevation : 126.25 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	59.07	59.07 *
Total			59.07 dBA

* Bright Zone !

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.50	51.50 *
Total			51.50 dBA

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 59.07
(NIGHT): 51.50

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 11:10:58
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow8a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 22.00 / 22.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -45.00 deg Angle2 : 85.00 deg
Barrier height : 2.20 m
Elevation : 1.25 m
Barrier receiver distance : 8.00 / 8.00 m
Source elevation : 125.00 m
Receiver elevation : 126.25 m
Barrier elevation : 126.00 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.00	58.00
Total			58.00 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	50.44	50.44
Total			50.44 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.00
(NIGHT): 50.44

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 11:15:41
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow8a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 22.00 / 22.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -45.00 deg Angle2 : 85.00 deg
Barrier height : 2.20 m
Elevation : 1.25 m
Barrier receiver distance : 8.00 / 8.00 m
Source elevation : 125.00 m
Receiver elevation : 126.25 m
Barrier elevation : 126.00 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	62.95	62.95 *
Total			62.95 dBA

* Bright Zone !

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	55.39	55.39 *
Total			55.39 dBA

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 62.95
(NIGHT): 55.39

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 11:22:15
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow9a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 24.50 / 24.50 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -85.00 deg
Barrier height : 2.20 m
Elevation : 1.40 m
Barrier receiver distance : 6.00 / 6.00 m
Source elevation : 124.85 m
Receiver elevation : 126.25 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	58.87	58.87
Total			58.87 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.30	51.30
Total			51.30 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.87
(NIGHT): 51.30

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 11:25:21
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow9a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 24.50 / 24.50 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -85.00 deg
Barrier height : 2.20 m
Elevation : 1.40 m
Barrier receiver distance : 6.00 / 6.00 m
Source elevation : 124.85 m
Receiver elevation : 126.25 m
Barrier elevation : 126.20 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	59.24	59.24 *
Total			59.24 dBA

* Bright Zone !

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	51.68	51.68 *
Total			51.68 dBA

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 59.24
(NIGHT): 51.68

STAMSON 5.0 SUMMARY REPORT Date: 10-02-2023 10:01:29
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow10a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume	: 5020/436	veh/TimePeriod	*
Medium truck volume	: 399/35	veh/TimePeriod	*
Heavy truck volume	: 285/25	veh/TimePeriod	*
Posted speed limit	: 60	km/h	
Road gradient	: 2	%	
Road pavement	: 1	(Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT)	:	6200
Percentage of Annual Growth	:	0.00
Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	7.00
Heavy Truck % of Total Volume	:	5.00
Day (16 hrs) % of Total Volume	:	92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2	: -90.00 deg	-80.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 1	(Absorptive ground surface)
Receiver source distance	: 44.00 / 44.00	m
Receiver height	: 1.50 / 1.50	m
Topography	: 4	(Elevated; with barrier)
Barrier angle1	: -90.00 deg	Angle2 : -80.00 deg
Barrier height	: 6.00	m
Elevation	: 1.45	m
Barrier receiver distance	: 0.01 / 0.01	m
Source elevation	: 124.30	m
Receiver elevation	: 125.75	m
Barrier elevation	: 123.25	m
Reference angle	: 0.00	

Road data, segment # 2: CR29 (day/night)

Car traffic volume	5020/436	veh/TimePeriod *
Medium truck volume	399/35	veh/TimePeriod *
Heavy truck volume	285/25	veh/TimePeriod *
Posted speed limit	60	km/h
Road gradient	2	%
Road pavement	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2	-80.00 deg	50.00 deg
Wood depth	0	(No woods.)
No of house rows	2 / 2	
House density	40 %	
Surface	1	(Absorptive ground surface)
Receiver source distance	44.00 / 44.00	m
Receiver height	1.50 / 1.50	m
Topography	4	(Elevated; with barrier)
Barrier angle1	-80.00 deg	Angle2 : -65.00 deg
Barrier height	2.20	m
Elevation	1.45	m
Barrier receiver distance	20.00 / 20.00	m
Source elevation	124.30	m
Receiver elevation	125.75	m
Barrier elevation	123.00	m
Reference angle	0.00	

Road data, segment # 3: CR29 (day/night)

Car traffic volume	5020/436	veh/TimePeriod *
Medium truck volume	399/35	veh/TimePeriod *
Heavy truck volume	285/25	veh/TimePeriod *
Posted speed limit	60	km/h
Road gradient	2	%
Road pavement	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 3: CR29 (day/night)

Angle1 Angle2	50.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	2 / 2	
House density	40 %	
Surface	1	(Absorptive ground surface)
Receiver source distance	44.00 / 44.00	m
Receiver height	1.50 / 1.50	m
Topography	4	(Elevated; with barrier)
Barrier angle1	50.00 deg	Angle2 : 90.00 deg
Barrier height	6.00	m
Elevation	1.45	m
Barrier receiver distance	0.01 / 0.01	m
Source elevation	124.30	m
Receiver elevation	125.75	m
Barrier elevation	126.25	m
Reference angle	0.00	

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)	
1.CR29	1.50	35.78	35.78	
2.CR29	1.50	53.47	53.47	*
3.CR29	1.50	36.54	36.54	
Total			53.63	dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)	
1.CR29	1.50	28.21	28.21	
2.CR29	1.50	45.90	45.90	*
3.CR29	1.50	28.97	28.97	
Total			46.06	dBA

TOTAL Leq FROM ALL SOURCES (DAY): 53.63
(NIGHT): 46.06

STAMSON 5.0 SUMMARY REPORT Date: 10-02-2023 10:06:34
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow10a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -80.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 44.00 / 44.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -80.00 deg
Barrier height : 6.00 m
Elevation : 1.45 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 124.30 m
Receiver elevation : 125.75 m
Barrier elevation : 123.25 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume	5020/436	veh/TimePeriod *
Medium truck volume	399/35	veh/TimePeriod *
Heavy truck volume	285/25	veh/TimePeriod *
Posted speed limit	60	km/h
Road gradient	2	%
Road pavement	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2	-80.00 deg	50.00 deg
Wood depth	0	(No woods.)
No of house rows	2 / 2	
House density	40 %	
Surface	1	(Absorptive ground surface)
Receiver source distance	44.00 / 44.00	m
Receiver height	4.50 / 4.50	m
Topography	4	(Elevated; with barrier)
Barrier angle1	-80.00 deg	Angle2 : -65.00 deg
Barrier height	2.20	m
Elevation	1.45	m
Barrier receiver distance	20.00 / 20.00	m
Source elevation	124.30	m
Receiver elevation	125.75	m
Barrier elevation	123.00	m
Reference angle	0.00	

Road data, segment # 3: CR29 (day/night)

Car traffic volume	5020/436	veh/TimePeriod *
Medium truck volume	399/35	veh/TimePeriod *
Heavy truck volume	285/25	veh/TimePeriod *
Posted speed limit	60	km/h
Road gradient	2	%
Road pavement	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 3: CR29 (day/night)

Angle1 Angle2	50.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	2 / 2	
House density	40 %	
Surface	1	(Absorptive ground surface)
Receiver source distance	44.00 / 44.00	m
Receiver height	4.50 / 4.50	m
Topography	4	(Elevated; with barrier)
Barrier angle1	50.00 deg	Angle2 : 90.00 deg
Barrier height	6.00	m
Elevation	1.45	m
Barrier receiver distance	0.01 / 0.01	m
Source elevation	124.30	m
Receiver elevation	125.75	m
Barrier elevation	126.25	m
Reference angle	0.00	

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)	
1.CR29	1.50	41.21	41.21	*
2.CR29	1.50	53.98	53.98	*
3.CR29	1.50	40.05	40.05	
Total			54.37	dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)	
1.CR29	1.50	33.65	33.65	*
2.CR29	1.50	46.42	46.42	*
3.CR29	1.50	32.48	32.48	
Total			46.81	dBA

TOTAL Leq FROM ALL SOURCES (DAY): 54.37
(NIGHT): 46.81

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 11:55:17
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow12a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -60.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 43.00 / 43.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -60.00 deg
Barrier height : 6.00 m
Elevation : 0.15 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.35 m
Receiver elevation : 123.50 m
Barrier elevation : 123.00 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2 : -60.00 deg 75.00 deg
Wood depth : 0 (No woods.)
No of house rows : 2 / 2
House density : 80 %
Surface : 1 (Absorptive ground surface)
Receiver source distance : 43.00 / 43.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -60.00 deg Angle2 : -40.00 deg
Barrier height : 2.20 m
Elevation : 0.15 m
Barrier receiver distance : 25.00 / 25.00 m
Source elevation : 123.35 m
Receiver elevation : 123.50 m
Barrier elevation : 122.75 m
Reference angle : 0.00

Road data, segment # 3: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 3: CR29 (day/night)

Angle1 Angle2 : 75.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 2 / 2
House density : 80 %
Surface : 1 (Absorptive ground surface)
Receiver source distance : 43.00 / 43.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : 75.00 deg Angle2 : 90.00 deg
Barrier height : 6.00 m
Elevation : 0.15 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.35 m
Receiver elevation : 123.50 m
Barrier elevation : 126.25 m
Reference angle : 0.00

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	36.20	36.20
2.CR29	1.50	49.59	49.59
3.CR29	1.50	32.49	32.49
Total			49.86 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	28.63	28.63
2.CR29	1.50	42.02	42.02
3.CR29	1.50	24.93	24.93
Total			42.29 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 49.86
(NIGHT): 42.29

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 12:36:59
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow12a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -60.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 43.00 / 43.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -60.00 deg
Barrier height : 6.00 m
Elevation : 0.15 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.35 m
Receiver elevation : 123.50 m
Barrier elevation : 123.00 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

```
Data for Segment # 2: CR29 (day/night)
--------------------------------------
Angle1   Angle2           : -60.00 deg   75.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      2 / 2
House density             :     80 %
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  43.00 / 43.00  m
Receiver height           :   4.50 / 4.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            : -60.00 deg   Angle2 : -40.00 deg
Barrier height            :   2.20 m
Elevation                 :   0.15 m
Barrier receiver distance :  25.00 / 25.00  m
Source elevation          : 123.35 m
Receiver elevation        : 123.50 m
Barrier elevation         : 122.75 m
Reference angle           :   0.00

Road data, segment # 3: CR29 (day/night)
----------------------------------------
Car traffic volume  :  5020/436   veh/TimePeriod  *
Medium truck volume :   399/35    veh/TimePeriod  *
Heavy truck volume  :   285/25    veh/TimePeriod  *
Posted speed limit  :    60 km/h
Road gradient       :     2 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   6200
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 3: CR29 (day/night)
--------------------------------------
Angle1   Angle2           :  75.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      2 / 2
House density             :     80 %
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  43.00 / 43.00  m
Receiver height           :   4.50 / 4.50   m
Topography                :      4       (Elevated; with barrier)
Barrier angle1            :  75.00 deg   Angle2 : 90.00 deg
Barrier height            :   6.00 m
Elevation                 :   0.15 m
Barrier receiver distance :   0.01 / 0.01   m
Source elevation          : 123.35 m
Receiver elevation        : 123.50 m
Barrier elevation         : 126.25 m
Reference angle           :   0.00
```

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)	
1.CR29	1.50	41.34	41.34	
2.CR29	1.50	50.10	50.10	*
3.CR29	1.50	35.34	35.34	
Total			50.77 dBA	

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)	
1.CR29	1.50	33.77	33.77	
2.CR29	1.50	42.53	42.53	*
3.CR29	1.50	27.78	27.78	
Total			43.20 dBA	

TOTAL Leq FROM ALL SOURCES (DAY): 50.77
(NIGHT): 43.20

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 12:48:11
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow13a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -55.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 49.00 / 49.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -55.00 deg
Barrier height : 6.00 m
Elevation : 0.15 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.35 m
Receiver elevation : 123.50 m
Barrier elevation : 123.25 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2 : -55.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 49.00 / 49.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -55.00 deg Angle2 : -25.00 deg
Barrier height : 2.20 m
Elevation : 0.15 m
Barrier receiver distance : 30.00 / 30.00 m
Source elevation : 123.35 m
Receiver elevation : 123.50 m
Barrier elevation : 123.00 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	35.70	35.70
2.CR29	1.50	50.95	50.95
Total			51.08 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	28.14	28.14
2.CR29	1.50	43.39	43.39
Total			43.52 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 51.08
(NIGHT): 43.52

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 12:57:57
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow13a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -55.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 49.00 / 49.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -55.00 deg
Barrier height : 6.00 m
Elevation : 0.15 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.35 m
Receiver elevation : 123.50 m
Barrier elevation : 123.25 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2 : -55.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 49.00 / 49.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -55.00 deg Angle2 : -25.00 deg
Barrier height : 2.20 m
Elevation : 0.15 m
Barrier receiver distance : 30.00 / 30.00 m
Source elevation : 123.35 m
Receiver elevation : 123.50 m
Barrier elevation : 123.00 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	40.40	40.40
2.CR29	1.50	53.14	53.14 *
	Total		53.37 dBA

* Bright Zone !

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	32.83	32.83
2.CR29	1.50	45.57	45.57 *
	Total		45.80 dBA

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 53.37
(NIGHT): 45.80

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 13:45:17
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow14a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -45.00 deg 85.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 32.50 / 32.50 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -45.00 deg Angle2 : 35.00 deg
Barrier height : 2.20 m
Elevation : 0.40 m
Barrier receiver distance : 13.00 / 13.00 m
Source elevation : 122.60 m
Receiver elevation : 123.00 m
Barrier elevation : 125.00 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2	: 85.00 deg	90.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 2 / 2	
House density	: 95 %	
Surface	: 1	(Absorptive ground surface)
Receiver source distance	: 32.50 / 32.50	m
Receiver height	: 1.50 / 1.50	m
Topography	: 4	(Elevated; with barrier)
Barrier angle1	: 85.00 deg	Angle2 : 90.00 deg
Barrier height	: 2.20 m	
Elevation	: 0.40 m	
Barrier receiver distance	: 13.00 / 13.00	m
Source elevation	: 122.60 m	
Receiver elevation	: 123.00 m	
Barrier elevation	: 125.00 m	
Reference angle	: 0.00	

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	53.90	53.90
2.CR29	1.50	25.06	25.06
Total			53.91 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	46.33	46.33
2.CR29	1.50	17.50	17.50
Total			46.34 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 53.91
(NIGHT): 46.34

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 13:50:23
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow14a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -45.00 deg 85.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 32.50 / 32.50 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -45.00 deg Angle2 : 35.00 deg
Barrier height : 2.20 m
Elevation : 0.40 m
Barrier receiver distance : 13.00 / 13.00 m
Source elevation : 122.60 m
Receiver elevation : 123.00 m
Barrier elevation : 125.00 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2	: 85.00 deg	90.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 2 / 2	
House density	: 95 %	
Surface	: 1	(Absorptive ground surface)
Receiver source distance	: 32.50 / 32.50	m
Receiver height	: 4.50 / 4.50	m
Topography	: 4	(Elevated; with barrier)
Barrier angle1	: 85.00 deg	Angle2 : 90.00 deg
Barrier height	: 2.20 m	
Elevation	: 0.40 m	
Barrier receiver distance	: 13.00 / 13.00	m
Source elevation	: 122.60 m	
Receiver elevation	: 123.00 m	
Barrier elevation	: 125.00 m	
Reference angle	: 0.00	

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	55.65	55.65
2.CR29	1.50	26.56	26.56
Total			55.66 dBA

Result summary (night)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	48.09	48.09
2.CR29	1.50	19.00	19.00
Total			48.10 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.66
(NIGHT): 48.10

STAMSON 5.0 SUMMARY REPORT Date: 10-02-2023 13:17:22
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow15a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -65.00 deg 55.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.20 / 27.20 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -65.00 deg Angle2 : 55.00 deg
Barrier height : 2.20 m
Elevation : 0.40 m
Barrier receiver distance : 8.00 / 8.00 m
Source elevation : 122.60 m
Receiver elevation : 123.00 m
Barrier elevation : 122.75 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume	5020/436	veh/TimePeriod *
Medium truck volume	399/35	veh/TimePeriod *
Heavy truck volume	285/25	veh/TimePeriod *
Posted speed limit	60	km/h
Road gradient	2	%
Road pavement	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2	55.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	0 / 0	
Surface	1	(Absorptive ground surface)
Receiver source distance	27.20 / 27.20	m
Receiver height	1.50 / 1.50	m
Topography	4	(Elevated; with barrier)
Barrier angle1	55.00 deg	Angle2 : 90.00 deg
Barrier height	0.00	m
Elevation	0.40	m
Barrier receiver distance	0.01 / 0.01	m
Source elevation	122.60	m
Receiver elevation	123.00	m
Barrier elevation	0.00	m
Reference angle	0.00	

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)	
1.CR29	1.50	54.47	54.47	
2.CR29	1.50	51.73	51.73	*
Total			56.32 dBA	

* Bright Zone !

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)	
1.CR29	1.50	46.91	46.91	
2.CR29	1.50	44.16	44.16	*
Total			48.76 dBA	

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 56.32
(NIGHT): 48.76

STAMSON 5.0 SUMMARY REPORT Date: 10-02-2023 13:36:06
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow15a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume	: 5020/436	veh/TimePeriod	*
Medium truck volume	: 399/35	veh/TimePeriod	*
Heavy truck volume	: 285/25	veh/TimePeriod	*
Posted speed limit	: 60 km/h		
Road gradient	: 2 %		
Road pavement	: 1 (Typical asphalt or concrete)		

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

24 hr Traffic Volume (AADT or SADT)	: 6200
Percentage of Annual Growth	: 0.00
Number of Years of Growth	: 0.00
Medium Truck % of Total Volume	: 7.00
Heavy Truck % of Total Volume	: 5.00
Day (16 hrs) % of Total Volume	: 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2	: -65.00 deg	55.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 1	(Absorptive ground surface)
Receiver source distance	: 27.20 / 27.20	m
Receiver height	: 4.50 / 4.50	m
Topography	: 4	(Elevated; with barrier)
Barrier angle1	: -65.00 deg	Angle2 : 55.00 deg
Barrier height	: 2.20 m	
Elevation	: 0.40 m	
Barrier receiver distance	: 8.00 / 8.00	m
Source elevation	: 122.60 m	
Receiver elevation	: 123.00 m	
Barrier elevation	: 122.75 m	
Reference angle	: 0.00	

Road data, segment # 2: CR29 (day/night)

Car traffic volume	5020/436	veh/TimePeriod *
Medium truck volume	399/35	veh/TimePeriod *
Heavy truck volume	285/25	veh/TimePeriod *
Posted speed limit	60	km/h
Road gradient	2	%
Road pavement	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2	55.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	0 / 0	
Surface	1	(Absorptive ground surface)
Receiver source distance	27.20 / 27.20	m
Receiver height	4.50 / 4.50	m
Topography	4	(Elevated; with barrier)
Barrier angle1	55.00 deg	Angle2 : 90.00 deg
Barrier height	0.00	m
Elevation	0.40	m
Barrier receiver distance	0.01 / 0.01	m
Source elevation	122.60	m
Receiver elevation	123.00	m
Barrier elevation	0.00	m
Reference angle	0.00	

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	60.46	60.46 *
2.CR29	1.50	52.41	52.41 *
Total			61.09 dBA

* Bright Zone !

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	52.89	52.89 *
2.CR29	1.50	44.85	44.85 *
Total			53.52 dBA

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 61.09
(NIGHT): 53.52

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 14:07:50
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow16a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -20.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 32.00 / 32.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -20.00 deg
Barrier height : 2.20 m
Elevation : 0.90 m
Barrier receiver distance : 5.00 / 5.00 m
Source elevation : 122.10 m
Receiver elevation : 123.00 m
Barrier elevation : 122.75 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	50.10	50.10
Total			50.10 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	42.54	42.54
Total			42.54 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 50.10
(NIGHT): 42.54

STAMSON 5.0 SUMMARY REPORT Date: 09-02-2023 14:46:52
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow16a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -20.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 32.00 / 32.00 m
Receiver height : 4.50 / 4.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -20.00 deg
Barrier height : 2.20 m
Elevation : 0.90 m
Barrier receiver distance : 5.00 / 5.00 m
Source elevation : 122.10 m
Receiver elevation : 123.00 m
Barrier elevation : 122.75 m
Reference angle : 0.00

Result summary (day)
---

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	55.89	55.89 *
Total			55.89 dBA

* Bright Zone !

Result summary (night)
----

	source height (m)	Road Leq (dBA)	Total Leq (dBA)	
1.CR29	1.50	48.32	48.32	*
Total			48.32 dBA	

* Bright Zone !

TOTAL Leq FROM ALL SOURCES (DAY): 55.89
(NIGHT): 48.32

STAMSON 5.0 SUMMARY REPORT Date: 10-02-2023 09:19:12
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow18a15.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume : 5020/436 veh/TimePeriod *
Medium truck volume : 399/35 veh/TimePeriod *
Heavy truck volume : 285/25 veh/TimePeriod *
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 6200
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2 : -90.00 deg -10.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 80.00 / 80.00 m
Receiver height : 1.50 / 1.50 m
Topography : 4 (Elevated; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -10.00 deg
Barrier height : 6.00 m
Elevation : 2.20 m
Barrier receiver distance : 0.01 / 0.01 m
Source elevation : 123.00 m
Receiver elevation : 120.80 m
Barrier elevation : 122.20 m
Reference angle : 0.00

Road data, segment # 2: CR29 (day/night)

Car traffic volume	5020/436	veh/TimePeriod *
Medium truck volume	399/35	veh/TimePeriod *
Heavy truck volume	285/25	veh/TimePeriod *
Posted speed limit	60	km/h
Road gradient	2	%
Road pavement	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2	-10.00 deg	20.00 deg
Wood depth	0	(No woods.)
No of house rows	0 / 0	
Surface	1	(Absorptive ground surface)
Receiver source distance	80.00 / 80.00	m
Receiver height	1.50 / 1.50	m
Topography	4	(Elevated; with barrier)
Barrier angle1	-10.00 deg	Angle2 : -5.00 deg
Barrier height	2.20	m
Elevation	2.20	m
Barrier receiver distance	60.00 / 60.00	m
Source elevation	123.00	m
Receiver elevation	120.80	m
Barrier elevation	121.95	m
Reference angle	0.00	

Road data, segment # 3: CR29 (day/night)

Car traffic volume	5020/436	veh/TimePeriod *
Medium truck volume	399/35	veh/TimePeriod *
Heavy truck volume	285/25	veh/TimePeriod *
Posted speed limit	60	km/h
Road gradient	2	%
Road pavement	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 3: CR29 (day/night)

Angle1 Angle2	20.00 deg	70.00 deg
Wood depth	0	(No woods.)
No of house rows	0 / 0	
Surface	1	(Absorptive ground surface)
Receiver source distance	80.00 / 80.00	m
Receiver height	1.50 / 1.50	m
Topography	4	(Elevated; with barrier)
Barrier angle1	20.00 deg	Angle2 : 70.00 deg
Barrier height	6.00	m
Elevation	2.20	m
Barrier receiver distance	21.00 / 21.00	m
Source elevation	123.00	m
Receiver elevation	120.80	m
Barrier elevation	124.75	m
Reference angle	0.00	

Road data, segment # 4: CR29 (day/night)

Car traffic volume	5020/436	veh/TimePeriod *
Medium truck volume	399/35	veh/TimePeriod *
Heavy truck volume	285/25	veh/TimePeriod *
Posted speed limit	60	km/h
Road gradient	2	%
Road pavement	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 4: CR29 (day/night)

Angle1 Angle2	70.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	2 / 2	
House density	95 %	
Surface	1	(Absorptive ground surface)
Receiver source distance	80.00 / 80.00	m
Receiver height	1.50 / 1.50	m
Topography	4	(Elevated; with barrier)
Barrier angle1	70.00 deg	Angle2 : 90.00 deg
Barrier height	6.00	m
Elevation	2.20	m
Barrier receiver distance	0.01 / 0.01	m
Source elevation	123.00	m
Receiver elevation	120.80	m
Barrier elevation	125.50	m
Reference angle	0.00	

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	35.58	35.58
2.CR29	1.50	46.86	46.86
3.CR29	1.50	33.28	33.28
4.CR29	1.50	30.21	30.21
Total			47.43 dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)
1.CR29	1.50	28.01	28.01
2.CR29	1.50	39.29	39.29
3.CR29	1.50	25.72	25.72
4.CR29	1.50	22.64	22.64
Total			39.86 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 47.43
(NIGHT): 39.86

STAMSON 5.0 SUMMARY REPORT Date: 10-02-2023 09:29:35
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow18a45.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: CR29 (day/night)

Car traffic volume	: 5020/436	veh/TimePeriod	*
Medium truck volume	: 399/35	veh/TimePeriod	*
Heavy truck volume	: 285/25	veh/TimePeriod	*
Posted speed limit	: 60	km/h	
Road gradient	: 2	%	
Road pavement	: 1	(Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT)	:	6200
Percentage of Annual Growth	:	0.00
Number of Years of Growth	:	0.00
Medium Truck % of Total Volume	:	7.00
Heavy Truck % of Total Volume	:	5.00
Day (16 hrs) % of Total Volume	:	92.00

Data for Segment # 1: CR29 (day/night)

Angle1 Angle2	: -90.00 deg	-10.00 deg	
Wood depth	: 0	(No woods.)	
No of house rows	: 0 / 0		
Surface	: 1	(Absorptive ground surface)	
Receiver source distance	: 80.00 / 80.00	m	
Receiver height	: 4.50 / 4.50	m	
Topography	: 4	(Elevated; with barrier)	
Barrier angle1	: -90.00 deg	Angle2 : -10.00 deg	
Barrier height	: 6.00	m	
Elevation	: 2.20	m	
Barrier receiver distance	: 0.01 / 0.01	m	
Source elevation	: 123.00	m	
Receiver elevation	: 120.80	m	
Barrier elevation	: 122.20	m	
Reference angle	: 0.00		

Road data, segment # 2: CR29 (day/night)

Car traffic volume	5020/436	veh/TimePeriod *
Medium truck volume	399/35	veh/TimePeriod *
Heavy truck volume	285/25	veh/TimePeriod *
Posted speed limit	60	km/h
Road gradient	2	%
Road pavement	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 2: CR29 (day/night)

Angle1 Angle2	-10.00 deg	20.00 deg
Wood depth	0	(No woods.)
No of house rows	0 / 0	
Surface	1	(Absorptive ground surface)
Receiver source distance	80.00 / 80.00	m
Receiver height	4.50 / 4.50	m
Topography	4	(Elevated; with barrier)
Barrier angle1	-10.00 deg	Angle2 : -5.00 deg
Barrier height	2.20	m
Elevation	2.20	m
Barrier receiver distance	60.00 / 60.00	m
Source elevation	123.00	m
Receiver elevation	120.80	m
Barrier elevation	121.95	m
Reference angle	0.00	

Road data, segment # 3: CR29 (day/night)

Car traffic volume	5020/436	veh/TimePeriod *
Medium truck volume	399/35	veh/TimePeriod *
Heavy truck volume	285/25	veh/TimePeriod *
Posted speed limit	60	km/h
Road gradient	2	%
Road pavement	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 3: CR29 (day/night)

Angle1 Angle2	20.00 deg	70.00 deg
Wood depth	0	(No woods.)
No of house rows	0 / 0	
Surface	1	(Absorptive ground surface)
Receiver source distance	80.00 / 80.00	m
Receiver height	4.50 / 4.50	m
Topography	4	(Elevated; with barrier)
Barrier angle1	20.00 deg	Angle2 : 70.00 deg
Barrier height	6.00	m
Elevation	2.20	m
Barrier receiver distance	21.00 / 21.00	m
Source elevation	123.00	m
Receiver elevation	120.80	m
Barrier elevation	124.75	m
Reference angle	0.00	

Road data, segment # 4: CR29 (day/night)

Car traffic volume	5020/436	veh/TimePeriod *
Medium truck volume	399/35	veh/TimePeriod *
Heavy truck volume	285/25	veh/TimePeriod *
Posted speed limit	60	km/h
Road gradient	2	%
Road pavement	1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	6200
Percentage of Annual Growth	0.00
Number of Years of Growth	0.00
Medium Truck % of Total Volume	7.00
Heavy Truck % of Total Volume	5.00
Day (16 hrs) % of Total Volume	92.00

Data for Segment # 4: CR29 (day/night)

Angle1 Angle2	70.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	2 / 2	
House density	95 %	
Surface	1	(Absorptive ground surface)
Receiver source distance	80.00 / 80.00	m
Receiver height	4.50 / 4.50	m
Topography	4	(Elevated; with barrier)
Barrier angle1	70.00 deg	Angle2 : 90.00 deg
Barrier height	6.00	m
Elevation	2.20	m
Barrier receiver distance	0.01 / 0.01	m
Source elevation	123.00	m
Receiver elevation	120.80	m
Barrier elevation	125.50	m
Reference angle	0.00	

Result summary (day)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)	
1.CR29	1.50	37.88	37.88	
2.CR29	1.50	47.99	47.99	*
3.CR29	1.50	36.83	36.83	
4.CR29	1.50	31.53	31.53	
Total			48.77	dBA

Result summary (night)

	source height (m)	Road Leq (dBA)	Total Leq (dBA)	
1.CR29	1.50	30.32	30.32	
2.CR29	1.50	40.42	40.42	*
3.CR29	1.50	29.27	29.27	
4.CR29	1.50	23.97	23.97	
Total			41.20	dBA

TOTAL Leq FROM ALL SOURCES (DAY): 48.77
(NIGHT): 41.20