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TRANSMITTAL RECORD

Date: August 1, 2018

To: Bicorp Design Group Ltd.

Enclosing Herewith: Report

Via: E-mail

Title: Noise Impact Study
Halo Car Wash
3604 Innes Road
Ottawa, Ontario

Comments:

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Per: Daniela Filiberto

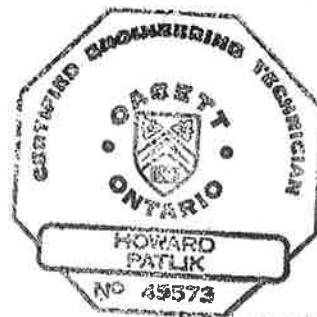
**NOISE IMPACT STUDY
HALO CAR WASH
3604 INNES ROAD
OTTAWA, ONTARIO**

FOR

BICORP DESIGN GROUP LTD.

BY


HOWARD R. PATLIK, C.E.T.



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JULY 31, 2018

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1. INTRODUCTION

At the request of Bicorp Design Group Ltd., J.E. COULTER ASSOCIATES LIMITED has reviewed the Site Plan for the proposed development of a car wash facility at 3604 Innes Road in Ottawa, Ontario (see Appendix A, Figure 1). The development includes a new tunnel car wash and a central vacuum system with 21 vacuum stands (see Appendix A, Figure 2). The purpose of this review is to identify any potential noise impacts from the operation of the proposed car wash facility on the existing residential neighbourhood. This report will establish whether or not any noise control measures are necessary to satisfy the noise guidelines of the City of Ottawa (By-law 2017-255) and the Ministry of the Environment and Climate Change (MOECC) *NPC-300* guideline.

2. DESCRIPTION OF SITE AND SURROUNDING NEIGHBOURHOOD

This report will focus on the proposed car wash building and vacuum cleaner system for their potential noise impact on the neighbourhood (see Appendix A, Figure 2). There is a residential development (two-storey dwellings) directly to the north of the proposed site. The closest dwellings are approximately 60m from the entrance to the car wash. These are the only identified points of reception that may be impacted from this proposed operation.

The proposal for the site includes the following:

- i. A tunnel car wash with the entrance on the north side of the building (Innes Road) and exit on the south side. Vehicles will queue in an L-shaped line along the east side of the site. The analysis assumed a maximum of 32 idling cars in the car wash queue as a worst-case scenario.
- ii. A central vacuum system (mechanical room with silenced exhaust) to accommodate 21 vacuum bays and nozzles along the western part of the site. The sound of the nozzle at the vehicles was also considered.

3. NOISE CRITERIA

The permissible sound levels generated by a car wash facility and the retail store are governed by MOECC's *NPC-300* Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning (see Appendix C). MOECC's noise guideline basically states that the average sound level generated by a stationary source should not exceed the average noise of the roadway traffic during the same hourly time period, as noted in Table 1, below.

We note that the City of Ottawa has a Noise By-law 2017-255 referencing the operation of a commercial car wash. It is stated as follows:

No person shall use or operate or cause to be used or operated any exhaust fan, exhaust system, intake fan, generators, dryer in a commercial car wash or similar device which includes combustion exhaust of a high efficiency furnace, the noise from which has a level greater than 50 dB(A) when measured at the point of reception.

This is equivalent to MOECC *NPC-300* daytime exclusion limit of 50 dB L_{eq} or the ambient traffic noise, whichever is higher.

The points of reception considered for potential noise impact are as follows (see also Appendix A, Figure 3):

Receiver R1: 3592 Innes Road – Front façade of dwelling west of car wash facility.

Receiver R2: 3592 Innes Road – Rear yard of bungalow located directly west of the proposed car wash facility.

Receiver R3: 3581 Innes Road – Two-storey dwelling, northwest of car wash entrance.

These points of reception are the closest and most sensitive receivers to the proposed car wash facility.

Table 1 summarizes the ambient traffic noise at the various points of reception at different times of the day when the car wash is in operation (0800-2000 hours) (see Appendix C, Traffic Data). Based on traffic data provided by the City of Ottawa (see Appendix D), the quietest ambient sound levels were calculated at the points of reception when the car wash and vacuums are in operation (0800-2000 hours).

Table 1: Noise Criteria at Receivers			
Receptor Location	Time Period	Quietest Sound Level (dB L_{eq} 1 hr.)	MOECC Exclusion Limit
R1 (Rear yard)	0800-2000	50	50
R2 (Front Façade)	0800-2000	61	50
R3 (Front Façade)	0800-2000	61	50

4. POTENTIAL NOISE SOURCES AND IMPACT AREAS

The activities within this site that have the potential for noise concern are those involved with the operation of the car wash, in particular, the sound generated by the dryers travelling down the tunnel and exiting from the car wash entrance and exit, the vacuum cleaners, and the idling vehicles in the car wash queuing line.

For this study, the following assumptions were made for the equipment:

Table 2: Sound Levels of Car Wash Equipment	
Equipment	Sound Pressure Level
MacNeil Blower – 100 HP	91 dBA @3m
Central Vacuum (Mechanical Room, 30 HP motor with exhaust silencer)	74 dBA @3m (free-field), including +5 dB for tonality
Vacuum Nozzle	73 dBA @1m

Note: Final equipment selection to be confirmed.

The car wash's mechanical equipment (vacuum motor) is located in the mechanical room, along the west side of the site. The doors to the mechanical room are to be fully weather-stripped.

5. PROJECTED SOUND LEVELS

The site plan indicates the activities at the car wash entrance will be fully or partially exposed to the residential units. The calculations include the directivity of the sound from the car wash building. The sound calculations were conducted using Cadna/A 3D modelling software (Version 2018) based on the ISO-9613-2 standard for stationary sound sources. The sound level data have been projected to the closest sensitive points of reception (R1 to R3) in order to determine if any noise impact can be expected (see Appendix A, Figure 3).

The analysis was based on the following assumptions:

Daytime (0800-2000 Hours)

1. Continuous operation of the car wash; entrance and exit doors are open during the wash and dry cycles.
2. The 21 vacuums are each used equivalent to 45 minutes per hour.
3. 32 idling vehicles in the car wash queue.

Evening and Nighttime (1900-2300 Hours)

1. No operation between 2000 hours and 0800 hours the next day.

The following tables summarize the anticipated unmitigated (no barriers) sound levels (1 hour L_{eq}) for the above noted operation and compares them to a time when the ambient traffic sound levels are at a minimum, as required by MOECC. Appendix B provides detailed sound level calculations for the entire operation and its potential noise impact on the residences. The operation between 0800 and 2000 hours assumes all equipment is operating at or near full capacity (see Appendix A, Figure 3).

**Table 3: Points-Of-Reception Noise Impact (Unmitigated)
Daytime (0800-2000 Hours)**

Source ID	R1	R2	R3
	Sound Level (L_{eq})	Sound Level (L_{eq})	Sound Level (L_{eq})
Idling Vehicles at Car Wash (32)	38	41	37
Car Wash Entrance	46	50	50
Car Wash Exit	27	35	24
Vacuum Nozzles (21)	42	57	41
Central Vacuum Motor, 75% duty cycle	18	40	10
Total Sound Level (dB L_{eq})	48	58	52
Noise Criteria (dBA)	61	50	61
Noise Impact (dB)	-13	8	- 9

The projected unmitigated sound levels of the entire operation (car wash blowers, idling vehicles, and vacuum cleaners) will result in a noise impact, if unmitigated, for R2 (rear yard) during the daytime (0800-2000 hours). The unmitigated sound levels at R2 are expected to be 8 dB above the quietest traffic sound levels during the daytime. The central vacuum system was not found to be a noise concern at any time of the day for any residence. Noise control measures are recommended to meet MOECC's *NPC-300* noise guideline.

6. NOISE CONTROL MEASURES

Noise control measures are required to meet MOECC's *NPC-300* noise criteria when the car wash is operating during the daytime (0800 to 2000 hours).

To meet MOECC's *NPC-300* noise criteria during the daytime, the following measures are recommended:

1. The car wash can be operated from 0800 to 2300 hours as per the Town's Noise By-law 113-79. The proponent has indicated the car wash will operate until 2000 hours.
2. An acoustic barrier should be constructed at the west side of the property. The height of the acoustic fence is to be 2m with a total length of 32m, minimum (see Appendix A, Figure 4). The acoustic fence will commence at the northwest corner of the site and terminate at the mechanical room (vacuum system).

3. The mechanical room (block construction) for the central vacuum motor is to be designed so that the exhaust louvres face east, away from the residential dwelling to the west. The vacuum motor is to be connected to an acoustically lined duct inside the mechanical building.

With the barrier in place at the car wash, the following sound levels are expected (see Appendix A, Figure 4):

Table 4: Points-of-Reception Noise Impact (Noise Control Measures) Daytime (0800-2000 Hours)			
Source ID	R1	R2	R3
	Sound Level (L_{eq})	Sound Level (L_{eq})	Sound Level (L_{eq})
Idling Vehicles at Car Wash (27)	38	36	37
Car Wash Entrance	46	36	52
Car Wash Exit	27	32	24
Vacuum Nozzles (21)	41	50	40
Central Vacuum Motor, 75% duty cycle	18	35	10
Total Sound Level (dB L_{eq})	50	48	52
Noise Criteria (dBA)	57	50	58
Noise Impact (dB)	- 7	- 2	- 6

With the recommended noise control measures (2m high acoustic barrier, 32m long west of the car wash building as shown in Appendix A, Figure 4) in place for the car wash, the proposed development will meet MOECC's *NPC-300* noise criteria during the hours of operation (0800 to 2000 hours). The sound levels are expected to meet the quietest ambient sound levels.

The acoustical fence must be solid and can be constructed from wood, concrete or vinyl-covered steel. Any gaps at the base of the acoustic fence must be minimized and localized so as not to significantly affect the acoustical performance of the fence. Where the acoustic fence is located on top of the berm, the gap at the bottom of the fence must be closed off. As required by the Ministry, the fence must have a minimum surface density of 20 kg/m² (4 lbs./ft.²). Table 5, below, summarizes examples of wood and their minimum thickness required to meet MOECC's surface density requirements.

Table 5: Acoustic Barrier Density Requirements	
Wood Type	Actual Overall Thickness of Wood Panels to meet MOECC's 4 lbs./sq.ft. (20 kg/sq.m) Surface Density
Jack Pine	1.52" (38.6mm)
Ponderosa Pine	1.70" (43mm)
Yellow Pine	1.50" (38mm)
Red Pine	1.0" (25.4mm)
Western Cedar	1.75" (44mm)
Spruce, White	1.26" (32mm)
Redwood	1.22" (31mm)

7. CONCLUSIONS

The analysis indicates the sound levels generated by the proposed car wash facility will generate a modest noise impact, if unmitigated. Noise control measures have been recommended, including an acoustic barrier north at the west side of the proposed development for operation between 0800 and 2000 hours.

The central vacuum system, which was found not to impact the residences, can be operated at any time of the day.

8. RECOMMENDATIONS

To meet MOECC's *NPC-300* noise criteria during the daytime, the following measures are recommended:

1. The car wash is to be operated from 0800 to 2000 hours.
2. An acoustic barrier should be constructed at the west side of the property. The height of the barrier is to be a minimum of 2m with a total length of 32m, minimum (see Appendix A, Figure 4). The acoustic fence will commence at the northwest corner of the site and terminate at the mechanical room (vacuum system).
3. The acoustical fence must be solid and can be constructed from wood, concrete or vinyl-covered steel. Any gaps at the base of the acoustic fence must be minimized and localized so as not to significantly affect the acoustical performance of the fence. Where the acoustic fence is located on top of the berm, the gap at the bottom of the fence must be closed off. As required by the Ministry, the fence must have a minimum surface density of 20 kg/m² (4 lbs./ft.²). Details of the fence material requirements are shown in Table 5.
4. The mechanical room (block construction) for the central vacuum is to be designed so that the exhaust louvres face east, away from the residential lot to the west. The vacuum motor is to be connected to an acoustically lined duct inside the mechanical building. The doors to the mechanical room are to be fully weather-stripped.

/pt/hp

APPENDIX A: FIGURES

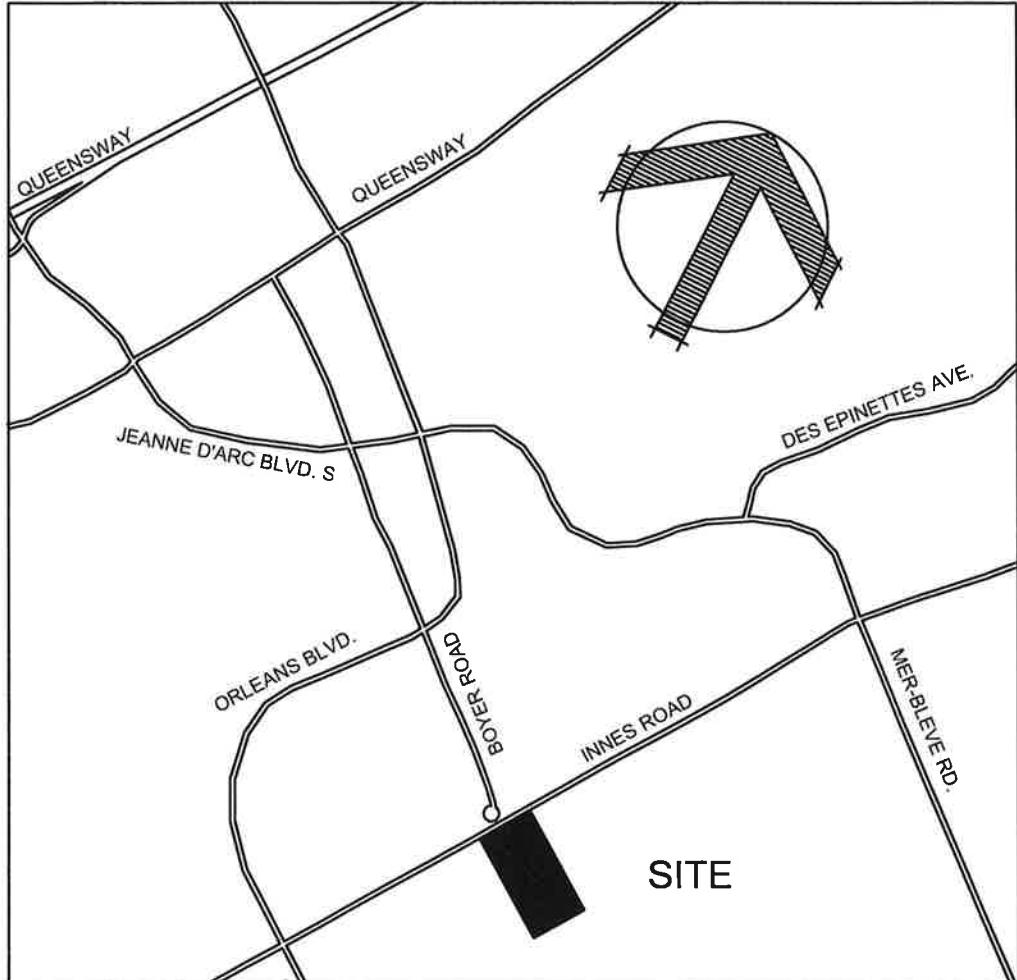


FIGURE 1

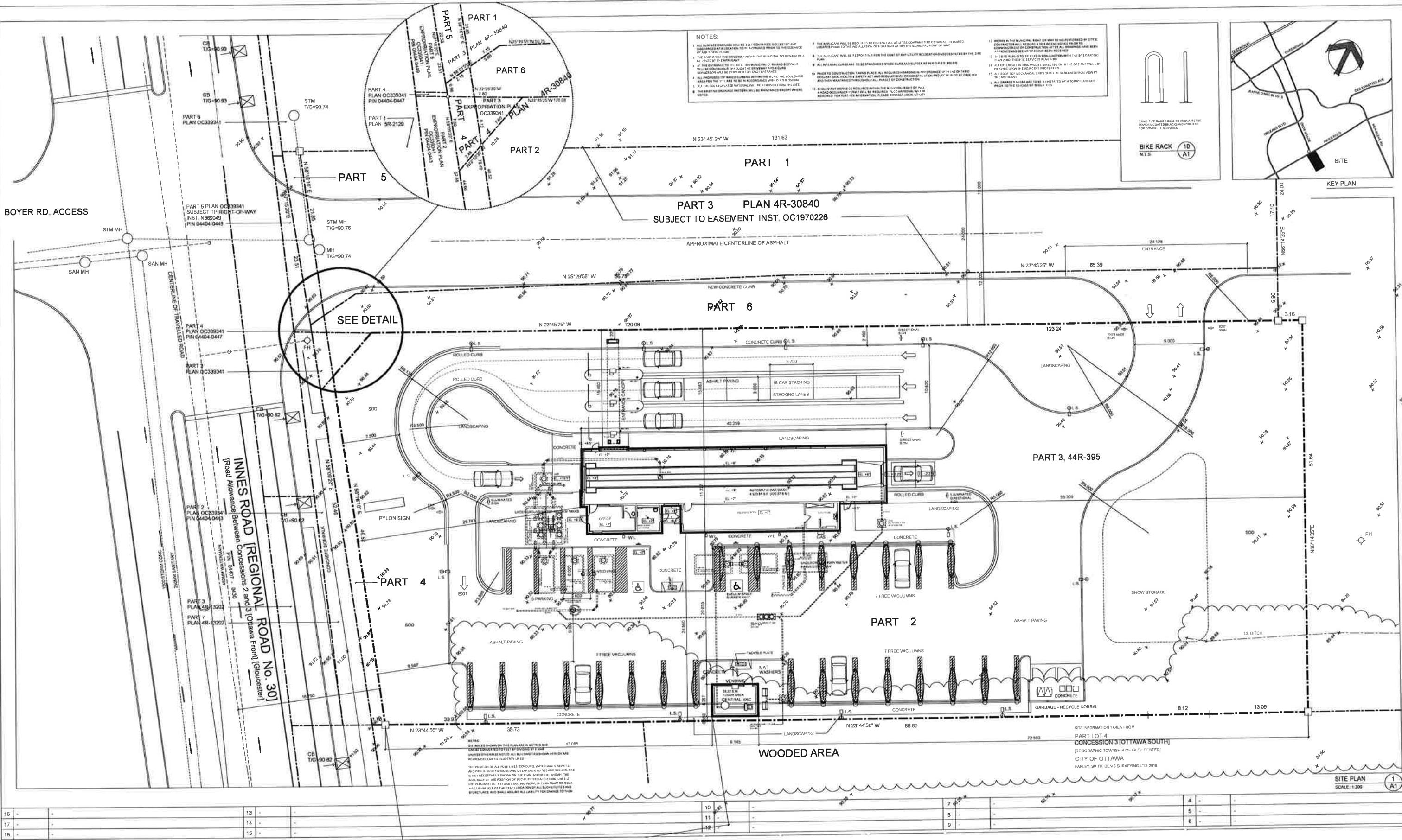


FIGURE 2

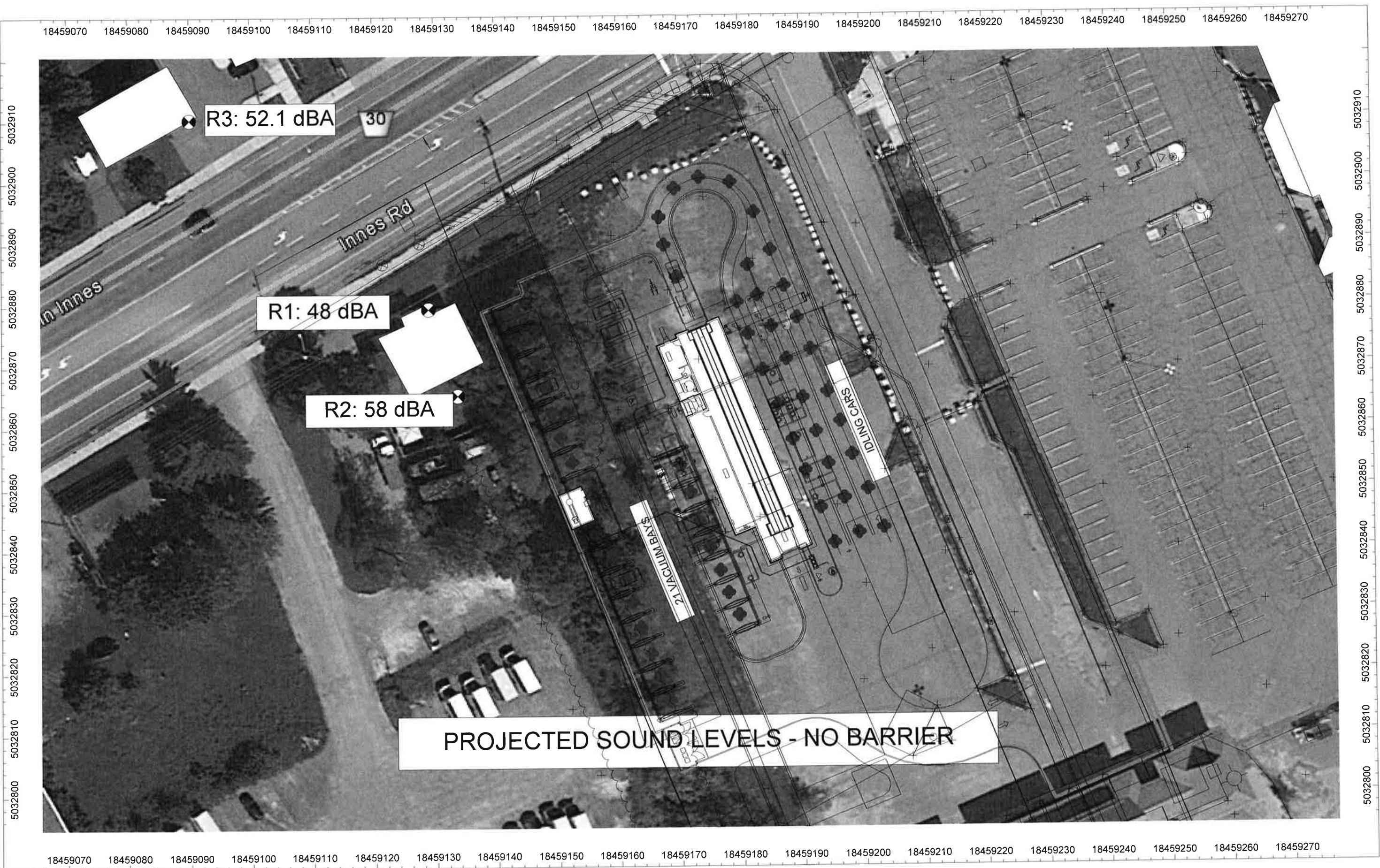


FIGURE 3

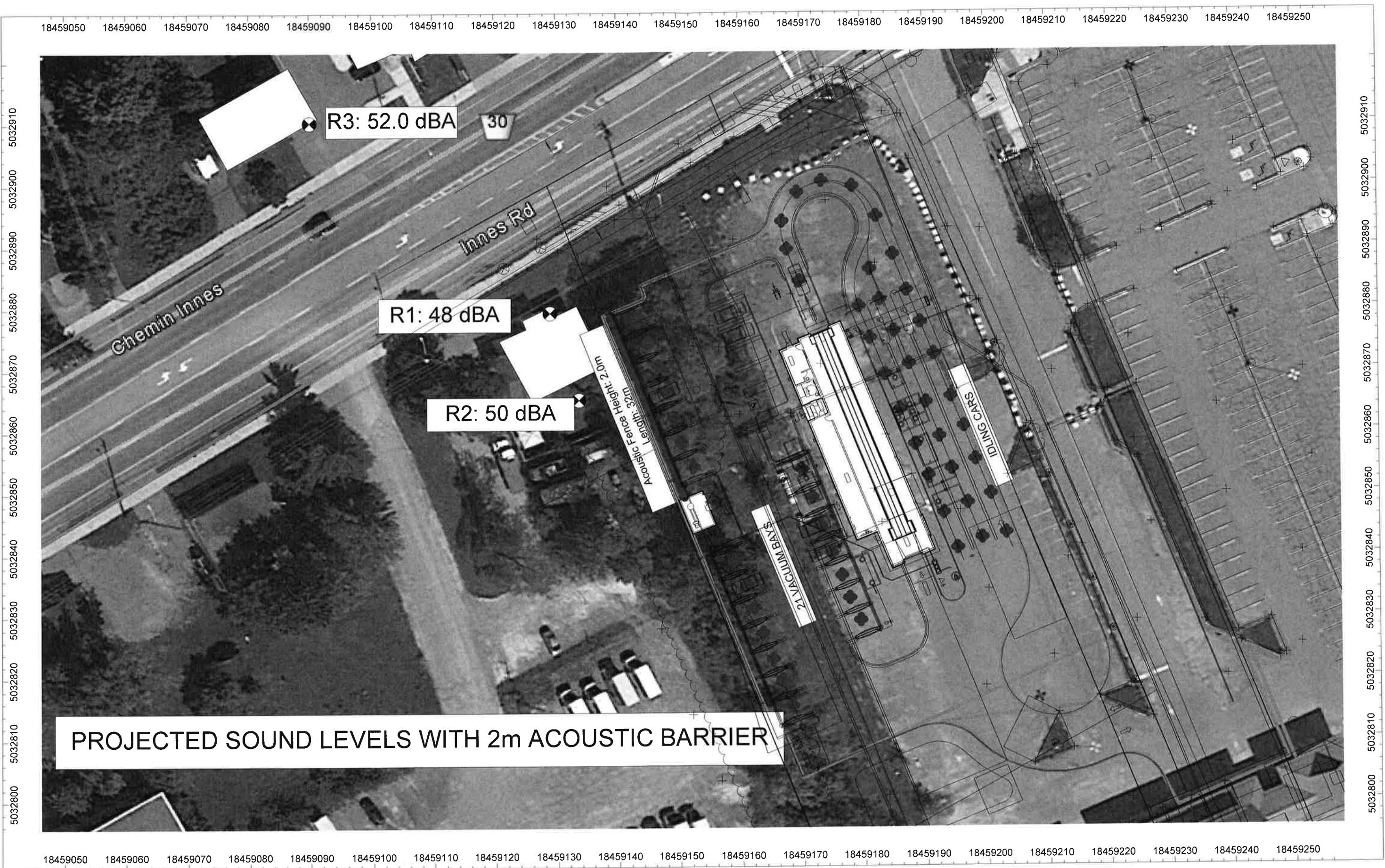


FIGURE 4

APPENDIX B: SOUND LEVEL CALCULATIONS

QUIETEST HOURLY TRAFFIC

Hour of Day		POR3	Fri
		0	15,255
midnight	1:00	53.5	133
1:00	2:00	51.0	75
2:00	3:00	49.7	55
3:00	4:00	48.9	46
4:00	5:00	49.7	55
5:00	6:00	53.9	145
6:00	7:00	58.5	420
7:00	8:00	61.2	770
8:00	9:00	62.3	999
9:00	10:00	61.6	857
10:00	11:00	61.5	839
11:00	noon	61.9	921
noon	1:00	62.3	989
1:00	2:00	62.1	955
2:00	3:00	62.3	1,007
3:00	4:00	62.8	1,130
4:00	5:00	63.1	1,193
5:00	6:00	63.0	1,167
6:00	7:00	62.1	956
7:00	8:00	61.2	781
8:00	9:00	60.3	624
9:00	10:00	59.5	520
10:00	11:00	58.0	368
11:00	midnight	56.4	255

	Cars	986
Day Min	MT	6
Eve	HT	6
Night Min	@15k	62.30
		dBA@R3

QUIETEST HOURLY TRAFFIC

Hour of Day		POR1	POR3	Innes
midnight	1:00	53.0	53.5	15,255
1:00	2:00	50.5	51.0	133
2:00	3:00	49.2	49.7	75
3:00	4:00	48.4	48.9	55
4:00	5:00	49.2	49.7	46
5:00	6:00	53.4	53.9	55
6:00	7:00	58.0	58.5	145
7:00	8:00	60.7	61.2	420
8:00	9:00	61.8	62.3	770
9:00	10:00	61.1	61.6	999
10:00	11:00	61.0	61.5	857
11:00	noon	61.4	61.9	839
noon	1:00	61.7	62.3	921
1:00	2:00	61.6	62.1	989
2:00	3:00	61.8	62.3	955
3:00	4:00	62.3	62.8	1,007
4:00	5:00	62.5	63.1	1,130
5:00	6:00	62.5	63.0	1,193
6:00	7:00	61.6	62.1	1,167
7:00	8:00	60.7	61.2	956
8:00	9:00	59.7	60.3	781
9:00	10:00	58.9	59.5	624
10:00	11:00	57.4	58.0	520
11:00	midnight	55.8	56.4	368
				255

Cars 986

Day Min	61	61	MT	6
Eve	57	58	HT	6
Night Min	48	49	@15k	62.30 dBA@R3

SUMMARY

Bicorp - 3604 Innes - AM/PM Peak - Fri July 13 2018

TOTAL NORTH LEG		
	<u>Vehicles</u>	<u>Breakdown</u>
Cars	125	86.2%
Med. Trucks	0	0.0%
Heavy Trucks	20	13.8%
24hr AADT	145	100.0%

TOTAL WEST LEG		
	<u>Vehicles</u>	<u>Breakdown</u>
Cars	14,765	96.8%
Med. Trucks	0	0.0%
Heavy Trucks	490	3.2%
24hr AADT	15,255	100.0%

Note: 24hr AADT is calculated on averaging AM & PM values and multiplying results by conversion factor 10.00

J. E. Coulter Associates Limited
1210 Sheppard Avenue East, Ste 211
Toronto, Ontario M2K 1E3

30-Jul-18
10:40 AM

CADNAA OUTPUT – DAYTIME SOUND LEVELS – NO BARRIERS

Receiver

Name: R1
 ID: R1
 X: 18459128.99 m
 Y: 5032879.36 m
 Z: 2.00 m

vert. Area Source, ISO 9613, Name: "Car Wash Entrance (MacNeil 100HP)", ID: "CW_ENT"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
1	18459172.30	5032875.83	1.35	0 D	500	98.2	1.4	0.0	3.0-11.2	43.8	0.1	-2.0	0.0	0.0	10.2	0.0	0.0	39.3		
2	18459173.66	5032876.37	1.35	0 D	500	98.2	1.9	0.0	3.0-11.2	44.0	0.1	-2.3	0.0	0.0	9.9	0.0	0.0	40.1		
4	18459172.30	5032875.83	2.35	0 D	500	98.2	1.4	0.0	3.0-11.2	43.8	0.1	-2.2	0.0	0.0	10.2	0.0	0.0	39.5		
6	18459173.66	5032876.37	2.35	0 D	500	98.2	1.9	0.0	3.0-11.2	44.0	0.1	-2.3	0.0	0.0	9.9	0.0	0.0	40.1		
8	18459172.30	5032875.83	0.43	0 D	500	98.2	0.7	0.0	3.0-11.2	43.8	0.1	-2.0	0.0	0.0	10.2	0.0	0.0	38.7		
11	18459173.66	5032876.37	0.43	0 D	500	98.2	1.2	0.0	3.0-11.2	44.0	0.1	-2.6	0.0	0.0	9.9	0.0	0.0	39.7		

vert. Area Source, ISO 9613, Name: "Car Wash Exit (MacNeil 100HP)", ID: "CW_EXIT"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
14	18459187.85	5032839.38	2.35	0 D	500	98.1	4.7	0.0	3.0-11.9	48.0	0.1	-1.8	0.0	0.0	23.6	0.0	0.0	23.9		
17	18459187.85	5032839.38	1.35	0 D	500	98.1	4.7	0.0	3.0-11.9	48.0	0.1	-2.3	0.0	0.0	23.6	0.0	0.0	24.3		
19	18459187.85	5032839.38	0.43	0 D	500	98.1	3.9	0.0	3.0-11.9	48.0	0.1	-1.7	0.0	0.0	23.6	0.0	0.0	23.0		

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
22	18459143.17	5032878.40	1.00	0 DEN	500	80.8	0.0	0.0	0.0	34.1	0.0	-0.5	0.0	0.0	10.8	0.0	0.0	36.4		

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
35	18459144.62	5032874.74	1.00	0 DEN	500	80.8	0.0	0.0	0.0	35.3	0.0	0.7	0.0	0.0	13.8	0.0	0.0	30.9		

vert. Area Source, ISO 9613, Name: "Vac Exhaust", ID: "VACEXH"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
25	18459154.93	5032847.80	1.50	0 D	500	90.3	-3.8	0.0	3.0-13.6	43.2	0.1	1.8	0.0	0.0	20.3	0.0	0.0	10.5		
27	18459154.93	5032847.80	1.50	1 D	500	90.3	-3.8	0.0	3.0-8.2	47.3	0.1	-2.6	0.0	0.0	21.4	0.0	1.0	14.2		
30	18459154.93	5032847.80	0.50	0 D	500	90.3	-3.8	0.0	3.0-13.6	43.2	0.1	-1.1	0.0	0.0	21.2	0.0	0.0	12.6		
32	18459154.93	5032847.80	0.50	1 D	500	90.3	-3.8	0.0	3.0-8.2	47.3	0.1	-2.0	0.0	0.0	21.4	0.0	1.0	13.4		
38	18459154.93	5032847.80	-0.43	0 D	500	90.3	-4.5	0.0	3.0-13.5	43.2	0.1	8.2	0.0	0.0	16.0	0.0	0.0	7.8		
40	18459154.93	5032847.80	-0.43	1 D	500	90.3	-4.5	0.0	3.0-8.2	47.3	0.1	8.9	0.0	0.0	12.7	0.0	1.0	10.7		

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
43	18459145.77	5032870.43	1.00	0 DEN	500	80.8	0.0	0.0	0.0	36.6	0.0	0.4	0.0	0.0	15.7	0.0	0.0	28.0		

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
46	18459147.35	5032866.55	1.00	0 DEN	500	80.8	0.0	0.0	0.0	38.0	0.0	0.9	0.0	0.0	16.4	0.0	0.0	25.3		

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
49	18459149.34	5032862.45	1.00	0 DEN	500	80.8	0.0	0.0	0.0	39.5	0.1	1.6	0.0	0.0	16.7	0.0	0.0	23.0		

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
54	18459151.13	5032858.25	1.00	0	DEN	500	80.8	0.0	0.0	0.0	40.7	0.1	1.4	0.0	0.0	17.1	0.0	0.0	21.5	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
58	18459152.28	5032854.36	1.00	0	DEN	500	80.8	0.0	0.0	0.0	41.7	0.1	1.8	0.0	0.0	17.1	0.0	0.0	20.1	
60	18459152.28	5032854.36	1.00	1	DEN	500	80.8	0.0	0.0	0.0	43.5	0.1	2.2	0.0	0.0	21.5	0.0	1.0	12.5	
62	18459152.28	5032854.36	1.00	1	DEN	500	80.8	0.0	0.0	0.0	46.7	0.1	-2.5	0.0	0.0	21.0	0.0	1.0	14.4	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
65	18459158.90	5032839.18	1.00	0	DEN	500	80.8	0.0	0.0	0.0	45.0	0.1	1.1	0.0	0.0	20.4	0.0	0.0	14.1	
67	18459158.90	5032839.18	1.00	1	DEN	500	80.8	0.0	0.0	0.0	48.0	0.1	-2.1	0.0	0.0	21.9	0.0	1.0	11.8	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
71	18459160.48	5032835.51	1.00	0	DEN	500	80.8	0.0	0.0	0.0	45.6	0.1	1.3	0.0	0.0	20.3	0.0	0.0	13.5	
73	18459160.48	5032835.51	1.00	1	DEN	500	80.8	0.0	0.0	0.0	48.3	0.1	-2.5	0.0	0.0	22.0	0.0	1.0	11.8	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
76	18459162.05	5032831.62	1.00	0	DEN	500	80.8	0.0	0.0	0.0	46.3	0.1	1.4	0.0	0.0	20.2	0.0	0.0	12.8	
78	18459162.05	5032831.62	1.00	1	DEN	500	80.8	0.0	0.0	0.0	48.7	0.1	-2.1	0.0	0.0	22.2	0.0	1.0	10.8	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
80	18459167.63	5032889.62	1.00	0	DEN	500	77.0	0.0	0.0	-3.2	43.0	0.1	-0.6	0.0	0.0	0.0	0.0	0.0	31.3	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
82	18459163.42	5032827.32	1.00	0	DEN	500	80.8	0.0	0.0	0.0	46.9	0.1	1.2	0.0	0.0	20.4	0.0	0.0	12.2	
84	18459163.42	5032827.32	1.00	1	DEN	500	80.8	0.0	0.0	0.0	49.1	0.2	-2.4	0.0	0.0	22.3	0.0	1.0	10.6	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
91	18459166.88	5032894.12	1.00	0	DEN	500	77.0	0.0	0.0	-1.3	43.2	0.1	5.6	0.0	0.0	0.0	0.0	0.0	26.8	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
95	18459169.63	5032884.45	1.00	0	DEN	500	77.0	0.0	0.0	-3.6	43.3	0.1	-2.3	0.0	0.0	6.1	0.0	0.0	26.2	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																		
Nr.	X</																	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
108	18459166.57	5032819.65	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	48.0	0.1	0.8	0.0	0.0	20.2	0.0	0.0	11.6
110	18459166.57	5032819.65	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	49.8	0.2	-2.0	0.0	0.0	22.5	0.0	1.0	9.3

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
112	18459168.14	5032815.45	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	48.5	0.1	0.2	0.0	0.0	20.5	0.0	0.0	11.4
116	18459168.14	5032815.45	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	50.1	0.2	-1.8	0.0	0.0	22.7	0.0	1.0	8.6

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
118	18459173.38	5032900.62	1.00	0	DEN	500	77.0	0.0	0.0	0.0	2.0	44.8	0.1	3.8	0.0	0.0	0.0	0.0	30.3	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
122	18459179.47	5032880.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.7	45.1	0.1	-2.4	0.0	0.0	8.2	0.0	0.0	25.2

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
125	18459181.22	5032875.12	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.3	45.4	0.1	-2.6	0.0	0.0	17.7	0.0	0.0	16.2

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
127	18459181.22	5032886.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-1.3	45.4	0.1	-2.3	0.0	0.0	6.0	0.0	0.0	26.6

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
129	184591	78.47	5032899.79		1.00	0	DEN	500	77.0	0.0	0.0	0.0	-3.4	45.6	0.1	2.8	0.0	0.0	0.0	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	RefL	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
130	1845918	2.80	5032881.37	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.8	45.6	0.1	-2.3	0.0	0.0	7.8	0.0	0.0

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
131	18459182.30	5032894.87	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-1.9	45.9	0.1	-1.8	0.0	0.0	0.0	0.0	30.9	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)						
134	18459183.64	5032869.20	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.2	45.9	0.1	-2.6	0.0	0.0	21.7	0.0	0.0	12.0

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																			
Nr.	X (m)	Y (m)	Z (m)	Refl. DEN	Freq. (Hz)	Lw dB(A)	l/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
137	18459185.05	5032876.28	1.00	0	DEN	500	77.0	0.0	0.0	-0.4	46.0	0.1	-2.7	0.0	0.0	14.1	0.0	0.0	19.0

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)						
139	18459184.97	5032888.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-1.4	46.1	0.1	-1.7	0.0	0.0	5.4	0.0	0.0	25.8

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
188	18459198.14	5032855.36	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.8	48.3	0.1	-2.4	0.0	0.0	22.3	0.0	0.0	9.5

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
191	18459196.89	5032848.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.2	48.5	0.1	-2.1	0.0	0.0	23.1	0.0	0.0	8.7

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
193	18459195.22	5032840.94	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.7	48.7	0.1	-2.4	0.0	0.0	23.3	0.0	0.0	8.9

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
195	18459200.64	5032849.74	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.1	48.8	0.1	-2.4	0.0	0.0	22.6	0.0	0.0	9.0

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
197	18459199.22	5032842.61	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.5	49.0	0.2	-2.4	0.0	0.0	23.1	0.0	0.0	8.7

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
199	18459203.14	5032843.40	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.3	49.3	0.2	-2.4	0.0	0.0	22.7	0.0	0.0	8.5

Receiver

Name: R2 - Rear yard
 ID: R2
 X: 18459133.69 m
 Y: 5032865.26 m
 Z: 1.50 m

vert. Area Source, ISO 9613, Name: "Car Wash Entrance (MacNeil 100HP)", ID: "CW_ENT"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
5	18459173.02	5032876.11	1.35	0	D	500	98.2	4.7	0.0	3.0	12.0	43.2	0.1	-1.3	0.0	0.0	4.9	0.0	0.0	46.9
10	18459173.02	5032876.11	2.35	0	D	500	98.2	4.7	0.0	3.0	12.0	43.2	0.1	-1.8	0.0	0.0	4.9	0.0	0.0	47.5
15	18459173.02	5032876.11	0.43	0	D	500	98.2	4.0	0.0	3.0	12.0	43.2	0.1	-2.2	0.0	0.0	5.0	0.0	0.0	47.1

vert. Area Source, ISO 9613, Name: "Car Wash Exit (MacNeil 100HP)", ID: "CW_EXIT"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
20	18459187.85	5032839.38	1.35	0	D	500	98.1	4.7	0.0	3.0	11.0	46.6	0.1	-1.6	0.0	0.0	17.6	0.0	0.0	32.1
23	18459187.85	5032839.38	1.35	1	D	500	98.1	4.7	0.0	3.0	11.4	47.3	0.1	-1.5	0.0	0.0	25.0	0.0	1.0	22.5
28	18459187.85	5032839.38	2.35	0	D	500	98.1	4.7	0.0	3.0	11.0	46.6	0.1	-1.3	0.0	0.0	17.4	0.0	0.0	32.0
31	18459187.85	5032839.38	2.35	1	D	500	98.1	4.7	0.0	3.0	11.4	47.3	0.1	-1.1	0.0	0.0	23.9	0.0	1.0	23.1
34	18459187.85	5032839.38	0.43	0	D	500	98.1	3.9	0.0	3.0	11.0	46.6	0.1	-1.8	0.0	0.0	17.6	0.0	0.0	31.6
36	18459187.85	5032839.38	0.43	1	D	500	98.1	3.9	0.0	3.0	11.4	47.3	0.1	-1.8	0.0	0.0	25.0	0.0	1.0	22.1

vert. Area Source, ISO 9613, Name: "Vac Exhaust", ID: "VACEXH"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
39	18459154.93	5032847.80	1.50	0	D	500	90.3	-3.8	0.0	3.0	12.4	39.8	0.1	1.5	0.0	0.0	10.2	0.0	0.0	25.5
41	18459154.93	5032847.80	1.50	1	D	500	90.3	-3.8	0.0	3.0	12.9	41.4	0.1	2.2	0.0	0.0	15.8	0.0	1.0	16.1
42	18459154.93	5032847.80	1.50	2	D	500	90.3	-3.8	0.0	3.0	-7.4	46.8	0.1	-1.9	0.0	0.0	0.0	0.0	2.0	35.1
44	18459154.93	5032847.80	1.50	1	D	500	90.3	-3.8	0.0	3.0	-6.9	46.3	0.1	-1.9	0.0	0.0	0.0	0.0	1.0	37.0
47	18459154.93	5032847.80	0.50	0	D	500	90.3	-3.8	0.0	3.0	12.4	39.8	0.1	1.3	0.0	0.0	10.7	0.0	0.0	25.2
50	18459154.93	5032847.80	0.50	1	D	500	90.3	-3.8	0.0	3.0	12.9	41.4	0.1	1.6	0.0	0.0	18.6	0.0	1.0	14.0
52	18459154.93	5032847.80	0.50	2	D	500	90.3	-3.8	0.0	3.0	-7.4	46.8	0.1	-2.0	0.0	0.0	0.0	0.0	2.0	35.2
56	18459154.93	5032847.80	0.50	1	D	500	90.3	-3.8	0.0	3.0	-6.9	46.3	0.1	-2.0	0.0	0.0	0.0	0.0	1.0	37.2
61	18459154.93	5032847.80	-0.43	0	D	500	90.3	-4.5	0.0	3.0	12.4	39.8	0.1	6.7	0.0	0.0	9.8	0.0	0.0	20.1
64	18459154.93	5032847.80	-0.43	1	D	500	90.3	-4.5	0.0	3.0	12.9	41.4	0.1	7.9	0.0	0.0	13.6	0.0	1.0	11.9
66	18459154.93	5032847.80	-0.43	2	D	500	90.3	-4.5	0.0	3.0	-7.4	46.8	0.1	8.7	0.0	0.0	0.0	0.0	2.0	23.7
68	18459154.93	5032847.80	-0.43	1	D	500	90.3	-4.5	0.0	3.0	-6.9	46.3	0.1	8.4	0.0	0.0	0.0	0.0	1.0	26.0

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
70	18459145.77	5032870.43	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	33.4	0.0	1.1	0.0	0.0	0.0	0.0	0.0	46.2
72	18459145.77	5032870.43	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	34.4	0.0	0.9	0.0	0.0	0.0	0.0	1.0	44.5

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
75	18459147.35	5032866.55	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	33.8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	46.4
81	18459147.35	5032866.55	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	35.6	0.0	1.5	0.0	0.0	0.0	0.0	1.0	42.7

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
85	18459144.62	5032874.74	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	34.2	0.0	1.1	0.0	0.0	0.0	0.0	0.0	45.4

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
87	18459149.34	5032862.45	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	35.0	0.0	1.2	0.0	0.0	0.0	0.0	44.5	
89	18459149.34	5032862.45	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	37.1	0.0	1.3	0.0	0.0	0.0	1.0	41.3	
93	18459149.34	5032862.45	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	45.6	0.1	-1.8	0.0	0.0	0.0	1.0	35.8	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
97	18459143.17	5032878.40	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	35.2	0.0	0.7	0.0	0.0	4.9	0.0	0.0	39.9

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
100	18459151.13	5032858.25	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	36.5	0.0	1.0	0.0	0.0	0.0	0.0	43.3	
102	18459151.13	5032858.25	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	38.5	0.0	2.0	0.0	0.0	0.0	1.0	39.2	
104	18459151.13	5032858.25	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	41.2	0.1	3.2	0.0	0.0	0.0	1.0	35.3	
106	18459151.13	5032858.25	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	45.7	0.1	-2.1	0.0	0.0	0.0	1.0	36.0	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
111	18459152.28	5032854.36	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	37.7	0.0	2.3	0.0	0.0	0.0	0.0	40.7	
114	18459152.28	5032854.36	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	39.6	0.1	3.3	0.0	0.0	0.0	1.0	36.8	
119	18459152.28	5032854.36	1.00	2	DEN	500	80.8	0.0	0.0	0.0	0.0	41.7	0.1	3.0	0.0	0.0	0.0	2.0	34.0	
121	18459152.28	5032854.36	1.00	2	DEN	500	80.8	0.0	0.0	0.0	0.0	46.3	0.1	-2.0	0.0	0.0	0.0	2.0	34.3	
123	18459152.28	5032854.36	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	40.1	0.1	2.2	0.0	0.0	0.0	1.0	37.4	
132	18459152.28	5032854.36	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	45.9	0.1	-1.8	0.0	0.0	0.0	1.0	35.5	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
133	18459158.90	5032839.18	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	42.2	0.1	3.6	0.0	0.0	6.8	0.0	0.0	28.1
135	18459158.90	5032839.18	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	43.5	0.1	2.7	0.0	0.0	10.7	0.0	1.0	22.7
136	18459158.90	5032839.18	1.00	2	DEN	500	80.8	0.0	0.0	0.0	0.0	47.4	0.1	-1.4	0.0	0.0	0.0	2.0	32.6	
138	18459158.90	5032839.18	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	46.9	0.1	-1.2	0.0	0.0	0.0	1.0	34.0	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
140	18459160.48	5032835.51	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	43.0	0.1	3.3	0.0	0.0	3.9	0.0	0.0	30.4
141	18459160.48	5032835.51	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	44.3	0.1	3.2	0.0	0.0	8.2	0.0	1.0	24.0
143	18459160.48	5032835.51	1.00	2	DEN	500	80.8	0.0	0.0	0.0	0.0	47.7	0.1	-1.4	0.0	0.0	0.0	2.0	32.3	
144	18459160.48	5032835.51	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	47.2	0.1	-1.8	0.0	0.0	0.0	1.0	34.2	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
146	18459162.05	5032831.62	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	43.9	0.1	2.8	0.0	0.0	2.2	0.0	0.0	31.9
147	18459162.05	5032831.62	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	45.0	0.1	2.7	0.0	0.0	6.4	0.0	1.0	25.6
149	18459162.05	5032831.62	1.00	2	DEN	500	80.8	0.0	0.0	0.0	0.0	48.1	0.1	-1.7	0.0	0.0	0.0	2.0	32.3	
150	18459162.05	5032831.62	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	47.5	0.1	-1.5	0.0	0.0	0.0	1.0	33.5	
152	18459163.42	5032827.32	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	44.7	0.1	3.5	0.0	0.0	0.0	0.0	0.0	32.5
154	18459163.42	5032827.32	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	45.7	0.1	2.6	0.0	0.0	0.0	1.0	31.4	
156	18459163.42	5032827.32	1.00	2	DEN	500	80.8	0.0	0.0	0.0	0.0	48.5	0.1	-1.0	0.0	0.0	0.0	2.0	31.2	
157	18459163.42	5032827.32	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	47.9	0.1	-1.4	0.0	0.0	0.0</td			

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
159	18459165.10	5032823.01	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	45.4	0.1	1.9	0.0	0.0	0.0	0.0	0.0	33.3
162	18459165.10	5032823.01	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	46.4	0.1	2.2	0.0	0.0	0.0	0.0	1.0	31.0
164	18459165.10	5032823.01	1.00	2	DEN	500	80.8	0.0	0.0	0.0	0.0	48.9	0.2	-1.3	0.0	0.0	0.0	0.0	2.0	31.1
167	18459165.10	5032823.01	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	48.3	0.1	-1.3	0.0	0.0	0.0	0.0	1.0	32.6

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
170	18459166.57	5032819.65	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	46.0	0.1	2.7	0.0	0.0	0.0	0.0	0.0	31.9
173	18459166.57	5032819.65	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	46.9	0.1	3.9	0.0	0.0	0.0	0.0	1.0	28.9
183	18459166.57	5032819.65	1.00	2	DEN	500	80.8	0.0	0.0	0.0	0.0	49.1	0.2	-1.7	0.0	0.0	0.0	0.0	2.0	31.2
185	18459166.57	5032819.65	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	48.6	0.1	-1.5	0.0	0.0	0.0	0.0	1.0	32.5

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
187	18459168.14	5032815.45	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	46.6	0.1	2.4	0.0	0.0	0.0	0.0	0.0	31.6
189	18459168.14	5032815.45	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	47.5	0.1	3.5	0.0	0.0	0.0	0.0	1.0	28.7
190	18459168.14	5032815.45	1.00	2	DEN	500	80.8	0.0	0.0	0.0	0.0	49.5	0.2	-1.5	0.0	0.0	0.0	0.0	2.0	30.6
192	18459168.14	5032815.45	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	49.0	0.2	-1.8	0.0	0.0	0.0	0.0	1.0	32.4

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
194	18459169.63	5032884.45	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-3.4	43.2	0.1	-2.2	0.0	0.0	0.0	0.0	0.0	32.5

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
196	18459167.63	5032889.62	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-2.6	43.4	0.1	-2.1	0.0	0.0	0.0	0.0	0.0	33.1

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
198	18459166.88	5032894.12	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.2	43.9	0.1	-1.9	0.0	0.0	0.0	0.0	0.0	35.1

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
200	18459179.47	5032880.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-2.1	44.7	0.1	-2.1	0.0	0.0	0.0	0.0	0.0	32.2

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
201	18459181.22	5032875.12	1.00	0	DEN	500	77.0	0.0	0.0	-1.6	44.7	0.1	-2.2	0.0	0.0	15.8	0.0	0.0	17.0	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	dB(A)									

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Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
206	18459181.22	5032886.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-2.5	45.3	0.1	-2.0	0.0	0.0	0.0	0.0	31.0	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
207	18459186.05	5032863.53	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.5	45.4	0.1	-2.1	0.0	0.0	20.1	0.0	0.0	12.9
208	18459186.05	5032863.53	1.00	1	DEN	500	77.0	0.0	0.0	0.0	-0.1	45.9	0.1	-2.0	0.0	0.0	22.3	0.0	1.0	9.6
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
209	18459185.05	5032876.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-1.6	45.4	0.1	-2.1	0.0	0.0	13.3	0.0	0.0	18.7
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
210	18459173.38	5032900.62	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.8	45.5	0.1	-2.2	0.0	0.0	0.0	0.0	0.0	34.3
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
211	18459187.47	5032870.95	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-1.1	45.7	0.1	-2.1	0.0	0.0	17.2	0.0	0.0	15.0
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
212	18459188.39	5032857.86	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.1	45.8	0.1	-2.1	0.0	0.0	20.4	0.0	0.0	12.6
213	18459188.39	5032857.86	1.00	1	DEN	500	77.0	0.0	0.0	0.0	0.3	46.4	0.1	-1.3	0.0	0.0	22.2	0.0	1.0	9.0
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
214	18459187.14	5032882.87	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-2.1	46.0	0.1	-2.0	0.0	0.0	0.0	0.0	0.0	30.8
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
215	18459184.97	5032888.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-2.6	46.0	0.1	-1.6	0.0	0.0	0.0	0.0	0.0	29.9
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
216	18459190.14	5032864.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.6	46.0	0.1	-2.0	0.0	0.0	18.3	0.0	0.0	14.0
217	18459190.14	5032864.70	1.00	1	DEN	500	77.0	0.0	0.0	0.0	-0.2	46.5	0.1	-1.9	0.0	0.0	20.0	0.0	1.0	11.2
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
218	18459178.47	5032899.79	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-3.2	46.0	0.1	-2.2	0.0	0.0	0.0	0.0	0.0	29.8
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
219	18459182.30	5032894.87	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-3.0	46.1	0.1	-2.2	0.0	0.0	0.0	0.0	0.0	30.0
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
220	18459189.30	5032877.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-1.6	46.1	0.1	-2.1	0.0	0.0	11.3	0.0	0.0	20.0

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
221	18459190.47	5032852.78	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.3	46.3	0.1	-1.5	0.0	0.0	20.4	0.0	0.0	12.0
222	18459190.47	5032852.78	1.00	1	DEN	500	77.0	0.0	0.0	0.0	0.6	46.9	0.1	-1.5	0.0	0.0	22.0	0.0	1.0	9.2

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
223	18459191.47	5032872.53	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-1.2	46.3	0.1	-2.0	0.0	0.0	15.6	0.0	0.0	15.8

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
224	18459192.30	5032859.11	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.2	46.4	0.1	-2.0	0.0	0.0	18.6	0.0	0.0	13.7
225	18459192.30	5032859.11	1.00	1	DEN	500	77.0	0.0	0.0	0.0	0.2	46.9	0.1	-1.7	0.0	0.0	19.8	0.0	1.0	11.1

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
226	18459194.22	5032865.61	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.7	46.6	0.1	-2.0	0.0	0.0	17.0	0.0	0.0	14.5
227	18459194.22	5032865.61	1.00	1	DEN	500	77.0	0.0	0.0	0.0	-0.3	47.0	0.1	-1.7	0.0	0.0	18.6	0.0	1.0	12.0

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
228	18459194.30	5032853.86	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.2	46.8	0.1	-1.8	0.0	0.0	18.6	0.0	0.0	13.5
229	18459194.30	5032853.86	1.00	1	DEN	500	77.0	0.0	0.0	0.0	0.5	47.3	0.1	-1.4	0.0	0.0	19.7	0.0	1.0	10.7

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
230	18459192.97	5032846.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.7	46.9	0.1	-1.5	0.0	0.0	20.1	0.0	0.0	12.2
231	18459192.97	5032846.70	1.00	1	DEN	500	77.0	0.0	0.0	1.0	47.5	0.1	-1.0	0.0	0.0	21.8	0.0	1.0	8.6	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
232	18459196.30	5032860.78	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.4	47.0	0.1	-2.0	0.0	0.0	17.3	0.0	0.0	14.3
233	18459196.30	5032860.78	1.00	1	DEN	500	77.0	0.0	0.0	0.0	0.0	47.4	0.1	-1.9	0.0	0.0	18.4	0.0	1.0	12.0

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
234	18459198.14	5032855.36	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.5	47.3	0.1	-1.8	0.0	0.0	17.4	0.0	0.0	14.0
235	18459198.14	5032855.36	1.00	1	DEN	500	77.0	0.0	0.0	0.3	47.8	0.1	-1.6	0.0	0.0	18.3	0.0	1.0	11.7	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		</															

3604 INNES - SOUND LEVELS - NO BARRIERS

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
242	18459199.22	5032842.61	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.8	47.8	0.1	-1.7	0.0	0.0	16.8	0.0	0.0	14.8
243	18459199.22	5032842.61	1.00	1	DEN	500	77.0	0.0	0.0	0.0	1.1	48.4	0.1	-1.5	0.0	0.0	19.1	0.0	1.0	10.9

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
244	18459203.14	5032843.40	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.7	48.2	0.1	-1.6	0.0	0.0	16.0	0.0	0.0	14.9
245	18459203.14	5032843.40	1.00	1	DEN	500	77.0	0.0	0.0	0.0	1.0	48.7	0.1	-1.8	0.0	0.0	17.8	0.0	1.0	12.0

Receiver

Name: R3 - 3581 Innes Rd

ID:

X: 18459091.45 m

Y: 5032910.56 m

Z: 4.50 m

vert. Area Source, ISO 9613, Name: "Car Wash Entrance (MacNeil 100HP)", ID: "CW_ENT"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
3	18459173.02	5032876.11	1.35	0	D	500	98.2	4.7	0.0	3.0	-8.9	49.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	46.8
7	18459173.02	5032876.11	2.35	0	D	500	98.2	4.7	0.0	3.0	-8.9	49.9	0.2	-0.5	0.0	0.0	0.0	0.0	0.0	47.4
13	18459173.02	5032876.11	0.43	0	D	500	98.2	4.0	0.0	3.0	-8.9	50.0	0.2	-2.0	0.0	0.0	0.0	0.0	0.0	48.1

vert. Area Source, ISO 9613, Name: "Car Wash Exit (MacNeil 100HP)", ID: "CW_EXIT"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
9	18459187.85	5032839.38	2.35	0	D	500	98.1	4.7	0.0	3.0	-12.1	52.6	0.2	-2.0	0.0	0.0	22.0	0.0	0.0	20.8
12	18459187.85	5032839.38	1.35	0	D	500	98.1	4.7	0.0	3.0	-12.1	52.6	0.2	-2.2	0.0	0.0	22.4	0.0	0.0	20.6
16	18459187.85	5032839.38	0.43	0	D	500	98.1	3.9	0.0	3.0	-12.1	52.6	0.2	-1.9	0.0	0.0	22.4	0.0	0.0	19.7

vert. Area Source, ISO 9613, Name: "Vac Exhaust", ID: "VACEXH"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
18	18459154.93	5032847.80	0.50	0	D	500	90.3	-3.8	0.0	3.0	-12.9	50.0	0.2	1.3	0.0	0.0	18.2	0.0	0.0	6.8
21	18459154.93	5032847.80	1.50	0	D	500	90.3	-3.8	0.0	3.0	-13.0	50.0	0.2	2.5	0.0	0.0	16.4	0.0	0.0	7.4
24	18459154.93	5032847.80	-0.43	0	D	500	90.3	-4.5	0.0	3.0	-12.9	50.0	0.2	11.5	0.0	0.0	12.4	0.0	0.0	1.8

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
26	18459143.17	5032878.40	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	46.7	0.1	4.9	0.0	0.0	0.0	0.0	0.0	29.0

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
29	18459144.62	5032874.74	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	47.2	0.1	3.6	0.0	0.0	0.0	0.0	0.0	29.8

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
33	18459145.77	5032870.43	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	47.6	0.1	3.7	0.0	0.0	4.1	0.0	0.0	25.2

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
37	18459147.35	5032866.55	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	48.1	0.1	3.7	0.0	0.0	7.2	0.0	0.0	21.7

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
45	18459149.34	5032862.45	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	48.5	0.1	3.8	0.0	0.0	8.7	0.0	0.0	19.6

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
48	18459151.13	5032858.25	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	49.0	0.2	3.0	0.0	0.0	9.7	0.0	0.0	18.9

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
92	18459178.47	5032899.79	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-3.7	49.9	0.2	4.8	0.0	0.0	0.0	0.0	18.4	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
94	18459182.30	5032894.87	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.1	50.3	0.2	2.4	0.0	0.0	0.0	0.0	24.2	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
96	18459181.22	5032886.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.5	50.4	0.2	1.2	0.0	0.0	0.0	0.0	25.8	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
99	18459179.47	5032880.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.8	50.4	0.2	-1.2	0.0	0.0	0.0	0.0	28.4	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
105	18459182.80	5032881.37	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.7	50.6	0.2	-1.1	0.0	0.0	0.0	0.0	28.0	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
107	18459184.97	5032888.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.4	50.7	0.2	-2.0	0.0	0.0	0.0	0.0	25.5	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
109	18459181.22	5032875.12	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.0	50.7	0.2	-2.0	0.0	0.0	6.5	0.0	22.7	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
113	18459187.14	5032882.87	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.6	51.0	0.2	-1.4	0.0	0.0	0.0	0.0	27.8	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
115	18459185.05	5032876.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.9	51.0	0.2	-2.0	0.0	0.0	0.0	0.0	28.7	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
117	18459183.64	5032869.20	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.2	51.1	0.2	-2.1	0.0	0.0	14.8	0.0	0.0	14.2
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
120	18459189.30	5032877.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.8	51.3	0.2	-2.0	0.0	0.0	0.0	0.0	28.3	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
124	18459187.47	5032870.95	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.1	51.3	0.2	-2.1	0.0	0.0	8.7	0.0	0.0	20.0
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
126	18459186.05	5032863.53	1.00	0	DEN	500	77.0	0.0	0.0	1.4	51.5	0.2	-1.9	0.0	0.0	16.9	0.0	0.0	11.7	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
128	18459191.47	5032872.53	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.9	51.6	0.2	-2.1	0.0	0.0	0.0	0.0	0.0	28.2
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
160	18459190.14	5032864.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.3	51.7	0.2	-2.2	0.0	0.0	13.6	0.0	0.0	14.8
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
163	18459188.39	5032857.86	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.5	51.9	0.2	-2.1	0.0	0.0	17.7	0.0	0.0	10.8
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
166	18459194.22	5032865.61	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.2	52.0	0.2	-2.2	0.0	0.0	10.5	0.0	0.0	17.6
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
169	18459192.30	5032859.11	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.4	52.1	0.2	-2.0	0.0	0.0	15.1	0.0	0.0	13.0
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
172	18459190.47	5032852.78	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.7	52.2	0.2	-2.3	0.0	0.0	18.1	0.0	0.0	10.4
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
174	18459196.30	5032860.78	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.3	52.3	0.2	-1.9	0.0	0.0	12.6	0.0	0.0	15.0
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
175	18459194.30	5032853.86	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.6	52.4	0.2	-2.1	0.0	0.0	15.7	0.0	0.0	12.4
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
176	18459192.97	5032846.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.8	52.6	0.2	-1.7	0.0	0.0	18.2	0.0	0.0	9.5
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
177	18459198.14	5032855.36	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.5	52.6	0.2	-2.0	0.0	0.0	13.7	0.0	0.0	13.9
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
178	18459196.89	5032848.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.7	52.8	0.2	-1.6	0.0	0.0	15.7	0.0	0.0	11.6
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
179	18459195.22	5032840.94	1.00	0	DEN	500	77.0	0.0	0.0	0.0	2.0	52.9	0.2	-2.4	0.0	0.0	18.4	0.0	0.0	9.8
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
180	18459200.64	5032849.74	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.6	52.9	0.2	-2.2	0.0	0.0	14.0	0.0	0.0	13.6

3604 INNES - SOUND LEVELS - NO BARRIERS

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
181	18459199.22	5032842.61	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.8	53.1	0.2	-2.3	0.0	0.0	15.7	0.0	0.0	12.1

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
182	18459203.14	5032843.40	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.7	53.3	0.3	-2.4	0.0	0.0	14.1	0.0	0.0	13.5

CADNAA OUTPUT – DAYTIME SOUND LEVELS – WITH BARRIERS

Receiver

Name: R1
 ID: R1
 X: 18459128.99 m
 Y: 5032879.36 m
 Z: 2.00 m

vert. Area Source, ISO 9613, Name: "Car Wash Entrance (MacNeil 100HP)", ID: "CW_ENT"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
175	18459172.30	5032875.83	1.35	0	D	500	98.2	1.4	0.0	3.0	-11.2	43.8	0.1	-2.0	0.0	0.0	10.2	0.0	0.0	39.3
176	18459173.66	5032876.37	1.35	0	D	500	98.2	1.9	0.0	3.0	-11.2	44.0	0.1	-2.3	0.0	0.0	9.9	0.0	0.0	40.1
177	18459172.30	5032875.83	2.35	0	D	500	98.2	1.4	0.0	3.0	-11.2	43.8	0.1	-2.2	0.0	0.0	10.2	0.0	0.0	39.5
178	18459173.66	5032876.37	2.35	0	D	500	98.2	1.9	0.0	3.0	-11.2	44.0	0.1	-2.3	0.0	0.0	9.9	0.0	0.0	40.1
179	18459172.30	5032875.83	0.43	0	D	500	98.2	0.7	0.0	3.0	-11.2	43.8	0.1	-2.0	0.0	0.0	10.2	0.0	0.0	38.7
180	18459173.66	5032876.37	0.43	0	D	500	98.2	1.2	0.0	3.0	-11.2	44.0	0.1	-2.6	0.0	0.0	9.9	0.0	0.0	39.7

vert. Area Source, ISO 9613, Name: "Car Wash Exit (MacNeil 100HP)", ID: "CW_EXIT"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
181	18459187.85	5032839.38	2.35	0	D	500	98.1	4.7	0.0	3.0	-11.9	48.0	0.1	-1.8	0.0	0.0	23.6	0.0	0.0	23.9
182	18459187.85	5032839.38	1.35	0	D	500	98.1	4.7	0.0	3.0	-11.9	48.0	0.1	-2.3	0.0	0.0	23.7	0.0	0.0	24.2
183	18459187.85	5032839.38	0.43	0	D	500	98.1	3.9	0.0	3.0	-11.9	48.0	0.1	-1.7	0.0	0.0	23.7	0.0	0.0	22.9

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
184	18459143.17	5032878.40	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	34.1	0.0	-0.5	0.0	0.0	10.8	0.0	0.0	36.3

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
189	18459144.62	5032874.74	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	35.3	0.0	0.7	0.0	0.0	15.8	0.0	0.0	28.9

vert. Area Source, ISO 9613, Name: "Vac Exhaust", ID: "VACEXH"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
185	18459154.93	5032847.80	1.50	0	D	500	90.3	-3.8	0.0	3.0	-13.6	43.2	0.1	1.8	0.0	0.0	20.8	0.0	0.0	10.0
186	18459154.93	5032847.80	1.50	1	D	500	90.3	-3.8	0.0	3.0	-8.2	47.3	0.1	-2.6	0.0	0.0	21.4	0.0	1.0	14.2
187	18459154.93	5032847.80	0.50	0	D	500	90.3	-3.8	0.0	3.0	-13.6	43.2	0.1	-1.1	0.0	0.0	21.8	0.0	0.0	12.0
188	18459154.93	5032847.80	0.50	1	D	500	90.3	-3.8	0.0	3.0	-8.2	47.3	0.1	-2.0	0.0	0.0	21.4	0.0	1.0	13.4
190	18459154.93	5032847.80	-0.43	0	D	500	90.3	-4.5	0.0	3.0	-13.5	43.2	0.1	8.2	0.0	0.0	16.1	0.0	0.0	7.6
191	18459154.93	5032847.80	-0.43	1	D	500	90.3	-4.5	0.0	3.0	-8.2	47.3	0.1	8.9	0.0	0.0	12.7	0.0	1.0	10.7

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
192	18459145.77	5032870.43	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	36.6	0.0	0.4	0.0	0.0	18.1	0.0	0.0	25.6

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
193	18459147.35	5032866.55	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	38.0	0.0	0.9	0.0	0.0	18.8	0.0	0.0	22.9

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
194	18459149.34	5032862.45	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	39.5	0.1	1.6	0.0	0.0	19.0	0.0	0.0	20.7

3604 INNES - SOUND LEVELS - WITH 2.0m HIGH BARRIER

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
195	18459151.13	5032858.25	1.00	0	DEN	500	80.8	0.0	0.0	0.0	40.7	0.1	1.4	0.0	0.0	19.4	0.0	0.0	19.2	
Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
196	18459152.28	5032854.36	1.00	0	DEN	500	80.8	0.0	0.0	0.0	41.7	0.1	1.8	0.0	0.0	19.3	0.0	0.0	17.9	
197	18459152.28	5032854.36	1.00	1	DEN	500	80.8	0.0	0.0	0.0	43.5	0.1	2.2	0.0	0.0	21.5	0.0	1.0	12.5	
198	18459152.28	5032854.36	1.00	1	DEN	500	80.8	0.0	0.0	0.0	46.7	0.1	-2.5	0.0	0.0	21.0	0.0	1.0	14.4	
Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
199	18459158.90	5032839.18	1.00	0	DEN	500	80.8	0.0	0.0	0.0	45.0	0.1	1.1	0.0	0.0	20.8	0.0	0.0	13.7	
200	18459158.90	5032839.18	1.00	1	DEN	500	80.8	0.0	0.0	0.0	48.0	0.1	-2.1	0.0	0.0	21.9	0.0	1.0	11.8	
Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
201	18459160.48	5032835.51	1.00	0	DEN	500	80.8	0.0	0.0	0.0	45.6	0.1	1.3	0.0	0.0	20.6	0.0	0.0	13.1	
202	18459160.48	5032835.51	1.00	1	DEN	500	80.8	0.0	0.0	0.0	48.3	0.1	-2.5	0.0	0.0	22.0	0.0	1.0	11.8	
Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
203	18459162.05	5032831.62	1.00	0	DEN	500	80.8	0.0	0.0	0.0	46.3	0.1	1.4	0.0	0.0	20.5	0.0	0.0	12.4	
204	18459162.05	5032831.62	1.00	1	DEN	500	80.8	0.0	0.0	0.0	48.7	0.1	-2.1	0.0	0.0	22.2	0.0	1.0	10.8	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
205	18459167.63	5032889.62	1.00	0	DEN	500	77.0	0.0	0.0	-3.2	43.0	0.1	-0.6	0.0	0.0	0.0	0.0	0.0	31.3	
Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
206	18459163.42	5032827.32	1.00	0	DEN	500	80.8	0.0	0.0	0.0	46.9	0.1	1.2	0.0	0.0	20.7	0.0	0.0	11.9	
207	18459163.42	5032827.32	1.00	1	DEN	500	80.8	0.0	0.0	0.0	49.1	0.2	-2.4	0.0	0.0	22.3	0.0	1.0	10.6	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
208	18459166.88	5032894.12	1.00	0	DEN	500	77.0	0.0	0.0	-1.3	43.2	0.1	5.6	0.0	0.0	0.0	0.0	0.0	26.8	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
209	18459169.63	5032884.45	1.00	0	DEN	500	77.0	0.0	0.0	-3.6	43.3	0.1	-2.3	0.0	0.0	6.1	0.0	0.0	26.2	
Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
210	18459165.10	5032823.01	1.00	0	DEN	500	80.8	0.0	0.0	0.0	47.5	0.1	0.8	0.0	0.0	20.9	0.0	0.0	11.4	
211	18459165.10	5032823.01	1.00	1	DEN	500	80.8	0.0	0.0	0.0	49.5	0.2	-2.2	0.0	0.0	22.4	0.0	1.0	9.9	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
212	18459169.38	5032898.79	1.00	0	DEN	500	77.0	0.0	0.0	2.0	44.0	0.1	4.7	0.0	0.0	0.0	0.0	0.0	30.2	

CAR WASH + VACS ON

3604 INNES - SOUND LEVELS - WITH 2.0m HIGH BARRIER

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
227	18459187.14	5032882.87	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.9	46.3	0.1	-2.5	0.0	0.0	7.4	0.0	0.0	24.7
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
228	18459187.47	5032870.95	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.0	46.4	0.1	-2.7	0.0	0.0	19.8	0.0	0.0	13.3
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
229	18459186.05	5032863.53	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.5	46.5	0.1	-2.4	0.0	0.0	22.7	0.0	0.0	10.6
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
230	18459189.30	5032877.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.5	46.6	0.1	-2.4	0.0	0.0	9.1	0.0	0.0	23.0
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
231	18459191.47	5032872.53	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.2	47.0	0.1	-2.6	0.0	0.0	17.5	0.0	0.0	14.9
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
232	18459190.14	5032864.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.4	47.0	0.1	-2.7	0.0	0.0	21.9	0.0	0.0	11.1
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
233	18459188.39	5032857.86	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.9	47.0	0.1	-2.5	0.0	0.0	23.1	0.0	0.0	10.1
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
234	18459192.30	5032859.11	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.7	47.5	0.1	-2.4	0.0	0.0	22.6	0.0	0.0	9.9
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
235	18459194.22	5032865.61	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.3	47.5	0.1	-2.6	0.0	0.0	20.9	0.0	0.0	11.4
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
236	18459190.47	5032852.78	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.1	47.5	0.1	-2.5	0.0	0.0	23.3	0.0	0.0	9.7
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
237	18459196.30	5032860.78	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.5	47.9	0.1	-2.3	0.0	0.0	21.8	0.0	0.0	10.1
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
238	18459194.30	5032853.86	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.0	47.9	0.1	-2.4	0.0	0.0	23.0	0.0	0.0	9.4
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
239	18459192.97	5032846.70	1.00	0	DEN	500	77.0	0.0	0.0	1.4	48.1	0.1	-2.2	0.0	0.0	23.4	0.0	0.0	9.0	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
240	18459198.14	5032855.36	1.00	0	DEN	500	77.0	0.0	0.0	0.8	48.3	0.1	-2.4	0.0	0.0	22.3	0.0	0.0	9.5	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
241	18459196.89	5032848.28	1.00	0	DEN	500	77.0	0.0	0.0	1.2	48.5	0.1	-2.1	0.0	0.0	23.1	0.0	0.0	8.7	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
242	18459195.22	5032840.94	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.7	48.7	0.1	-2.4	0.0	0.0	23.4	0.0	0.0	8.8

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
243	18459200.64	5032849.74	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.1	48.8	0.1	-2.4	0.0	0.0	22.6	0.0	0.0	9.0

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
244	18459199.22	5032842.61	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.5	49.0	0.2	-2.4	0.0	0.0	23.1	0.0	0.0	8.6

Receiver

Name: R2 - Rear yard
 ID: R2
 X: 18459133.69 m
 Y: 5032865.26 m
 Z: 1.50 m

vert. Area Source, ISO 9613, Name: "Car Wash Entrance (MacNeil 100HP)", ID: "CW_ENT"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
2	18459173.02	5032876.11	1.35	0	D	500	98.2	4.7	0.0	3.0	12.0	43.2	0.1	-1.3	0.0	0.0	20.1	0.0	0.0	31.8
5	18459173.02	5032876.11	2.35	0	D	500	98.2	4.7	0.0	3.0	12.0	43.2	0.1	-1.8	0.0	0.0	18.6	0.0	0.0	33.7
8	18459173.02	5032876.11	0.43	0	D	500	98.2	4.0	0.0	3.0	12.0	43.2	0.1	-2.2	0.0	0.0	21.0	0.0	0.0	31.1

vert. Area Source, ISO 9613, Name: "Car Wash Exit (MacNeil 100HP)", ID: "CW_EXIT"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
12	18459187.85	5032839.38	1.35	0	D	500	98.1	4.7	0.0	3.0	11.0	46.6	0.1	-1.6	0.0	0.0	22.7	0.0	0.0	27.0
13	18459187.85	5032839.38	1.35	1	D	500	98.1	4.7	0.0	3.0	11.4	47.3	0.1	-1.5	0.0	0.0	25.0	0.0	1.0	22.5
15	18459187.85	5032839.38	2.35	0	D	500	98.1	4.7	0.0	3.0	11.0	46.6	0.1	-1.3	0.0	0.0	22.0	0.0	0.0	27.4
17	18459187.85	5032839.38	2.35	1	D	500	98.1	4.7	0.0	3.0	11.4	47.3	0.1	-1.1	0.0	0.0	23.9	0.0	1.0	23.1
19	18459187.85	5032839.38	0.43	0	D	500	98.1	3.9	0.0	3.0	11.0	46.6	0.1	-1.8	0.0	0.0	22.7	0.0	0.0	26.5
21	18459187.85	5032839.38	0.43	1	D	500	98.1	3.9	0.0	3.0	11.4	47.3	0.1	-1.8	0.0	0.0	25.0	0.0	1.0	22.1

vert. Area Source, ISO 9613, Name: "Vac Exhaust", ID: "VACEXH"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
23	18459154.93	5032847.80	1.50	0	D	500	90.3	-3.8	0.0	3.0	12.4	39.8	0.1	1.5	0.0	0.0	16.2	0.0	0.0	19.6
25	18459154.93	5032847.80	1.50	1	D	500	90.3	-3.8	0.0	3.0	12.9	41.4	0.1	2.2	0.0	0.0	15.8	0.0	1.0	16.1
27	18459154.93	5032847.80	1.50	2	D	500	90.3	-3.8	0.0	3.0	-7.4	46.8	0.1	-1.9	0.0	0.0	5.1	0.0	2.0	30.0
29	18459154.93	5032847.80	1.50	1	D	500	90.3	-3.8	0.0	3.0	-6.9	46.3	0.1	-1.9	0.0	0.0	5.2	0.0	1.0	31.9
33	18459154.93	5032847.80	0.50	0	D	500	90.3	-3.8	0.0	3.0	12.4	39.8	0.1	1.3	0.0	0.0	18.1	0.0	0.0	17.7
35	18459154.93	5032847.80	0.50	1	D	500	90.3	-3.8	0.0	3.0	12.9	41.4	0.1	1.6	0.0	0.0	18.6	0.0	1.0	14.0
37	18459154.93	5032847.80	0.50	2	D	500	90.3	-3.8	0.0	3.0	-7.4	46.8	0.1	-2.0	0.0	0.0	5.4	0.0	2.0	29.7
39	18459154.93	5032847.80	0.50	1	D	500	90.3	-3.8	0.0	3.0	-6.9	46.3	0.1	-2.0	0.0	0.0	5.5	0.0	1.0	31.6
41	18459154.93	5032847.80	-0.43	0	D	500	90.3	-4.5	0.0	3.0	12.4	39.8	0.1	6.7	0.0	0.0	14.6	0.0	0.0	15.2
43	18459154.93	5032847.80	-0.43	1	D	500	90.3	-4.5	0.0	3.0	12.9	41.4	0.1	7.9	0.0	0.0	13.6	0.0	1.0	11.9
45	18459154.93	5032847.80	-0.43	2	D	500	90.3	-4.5	0.0	3.0	-7.4	46.8	0.1	8.7	0.0	0.0	0.0	0.0	2.0	23.7
47	18459154.93	5032847.80	-0.43	1	D	500	90.3	-4.5	0.0	3.0	-6.9	46.3	0.1	8.4	0.0	0.0	0.0	0.0	1.0	26.0

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
49	18459145.77	5032870.43	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	33.4	0.0	1.1	0.0	0.0	7.0	0.0	0.0	39.2
51	18459145.77	5032870.43	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	34.4	0.0	0.9	0.0	0.0	7.0	0.0	1.0	37.4

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
53	18459147.35	5032866.55	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	33.8	0.0	0.5	0.0	0.0	7.5	0.0	0.0	39.0
55	18459147.35	5032866.55	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	35.6	0.0	1.5	0.0	0.0	6.1	0.0	1.0	36.6

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
57	18459144.62	5032874.74	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	34.2	0.0	1.1	0.0	0.0	6.6	0.0	0.0	38.8

3604 INNES - SOUND LEVELS - WITH 2.0m HIGH BARRIER

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
112	18459165.10	5032823.01	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	45.4	0.1	1.9	0.0	0.0	0.0	0.0	0.0	33.3
113	18459165.10	5032823.01	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	46.4	0.1	2.2	0.0	0.0	0.0	0.0	1.0	31.0
115	18459165.10	5032823.01	1.00	2	DEN	500	80.8	0.0	0.0	0.0	0.0	48.9	0.2	-1.3	0.0	0.0	5.1	0.0	2.0	26.0
116	18459165.10	5032823.01	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	48.3	0.1	-1.3	0.0	0.0	5.1	0.0	1.0	27.5
Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
118	18459166.57	5032819.65	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	46.0	0.1	2.7	0.0	0.0	0.0	0.0	0.0	31.9
119	18459166.57	5032819.65	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	46.9	0.1	3.9	0.0	0.0	0.0	0.0	1.0	28.9
120	18459166.57	5032819.65	1.00	2	DEN	500	80.8	0.0	0.0	0.0	0.0	49.1	0.2	-1.7	0.0	0.0	5.0	0.0	2.0	26.1
121	18459166.57	5032819.65	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	48.6	0.1	-1.5	0.0	0.0	5.1	0.0	1.0	27.4
Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
122	18459168.14	5032815.45	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	46.6	0.1	2.4	0.0	0.0	0.0	0.0	0.0	31.6
123	18459168.14	5032815.45	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	47.5	0.1	3.5	0.0	0.0	0.0	0.0	1.0	28.7
124	18459168.14	5032815.45	1.00	2	DEN	500	80.8	0.0	0.0	0.0	0.0	49.5	0.2	-1.5	0.0	0.0	5.0	0.0	2.0	25.6
125	18459168.14	5032815.45	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	49.0	0.2	-1.8	0.0	0.0	5.1	0.0	1.0	27.3
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
126	18459169.63	5032884.45	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-3.4	43.2	0.1	-2.2	0.0	0.0	5.6	0.0	0.0	27.0
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
127	18459167.63	5032889.62	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-2.6	43.4	0.1	-2.1	0.0	0.0	5.6	0.0	0.0	27.5
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
128	18459166.88	5032894.12	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.2	43.9	0.1	-1.9	0.0	0.0	5.5	0.0	0.0	29.6
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
129	18459179.47	5032880.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-2.1	44.7	0.1	-2.1	0.0	0.0	5.5	0.0	0.0	26.8
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
130	18459181.22	5032875.12	1.00	0	DEN	500	77.0	0.0	0.0	-1.6	44.7	0.1	-2.2	0.0	0.0	22.3	0.0	0.0	10.5	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
131	18459169.38	5032898.79	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.6	44.8	0.1	-1.5	0.0	0.0	5.4	0.0	0.0	28.8
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
132	18459183.64	5032869.20	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-1.0	45.0	0.1	-2.1	0.0	0.0	22.2	0.0	0.0	10.8
133	18459183.64	5032869.20	1.00	1	DEN	500	77.0	0.0	0.0	-0.5	45.4	0.1	-2.1	0.0	0.0	22.5	0.0	1.0	9.5	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
134	18459182.80	5032881.37	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-2.1	45.3	0.1	-1.9	0.0	0.0	5.4	0.0	0.0	26.0

CAR WASH + VACS ON

3604 INNES - SOUND LEVELS - WITH 2.0m HIGH BARRIER

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
135	18459181.22	5032886.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-2.5	45.3	0.1	-2.0	0.0	0.0	5.4	0.0	0.0	25.6
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
136	18459186.05	5032863.53	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.5	45.4	0.1	-2.1	0.0	0.0	22.0	0.0	0.0	11.0
137	18459186.05	5032863.53	1.00	1	DEN	500	77.0	0.0	0.0	0.0	-0.1	45.9	0.1	-2.0	0.0	0.0	22.3	0.0	1.0	9.6
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
138	18459185.05	5032876.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-1.6	45.4	0.1	-2.1	0.0	0.0	20.3	0.0	0.0	11.7
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
139	18459173.38	5032900.62	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.8	45.5	0.1	-2.2	0.0	0.0	5.4	0.0	0.0	29.0
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
140	18459187.47	5032870.95	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-1.1	45.7	0.1	-2.1	0.0	0.0	20.0	0.0	0.0	12.1
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
141	18459188.39	5032857.86	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.1	45.8	0.1	-2.1	0.0	0.0	21.8	0.0	0.0	11.2
142	18459188.39	5032857.86	1.00	1	DEN	500	77.0	0.0	0.0	0.0	0.3	46.4	0.1	-1.3	0.0	0.0	22.2	0.0	1.0	9.0
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
143	18459187.14	5032882.87	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-2.1	46.0	0.1	-2.0	0.0	0.0	5.4	0.0	0.0	25.4
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
144	18459184.97	5032888.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-2.6	46.0	0.1	-1.6	0.0	0.0	5.4	0.0	0.0	24.5
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
145	18459190.14	5032864.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.6	46.0	0.1	-2.0	0.0	0.0	19.8	0.0	0.0	12.4
146	18459190.14	5032864.70	1.00	1	DEN	500	77.0	0.0	0.0	0.0	-0.2	46.5	0.1	-1.9	0.0	0.0	20.0	0.0	1.0	11.2
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
147	18459178.47	5032899.79	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-3.2	46.0	0.1	-2.2	0.0	0.0	5.4	0.0	0.0	24.5
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
148	18459182.30	5032894.87	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-3.0	46.1	0.1	-2.2	0.0	0.0	5.4	0.0	0.0	24.6
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
149	18459189.30	5032877.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-1.6	46.1	0.1	-2.1	0.0	0.0	18.8	0.0	0.0	12.4

3604 INNES - SOUND LEVELS - WITH 2.0m HIGH BARRIER

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL dB(A)	Lr
150	18459190.47	5032852.78	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.3	46.3	0.1	-1.5	0.0	0.0	21.6	0.0	0.0	10.8
151	18459190.47	5032852.78	1.00	1	DEN	500	77.0	0.0	0.0	0.0	0.6	46.9	0.1	-1.5	0.0	0.0	22.0	0.0	1.0	9.2

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL dB(A)	Lr
152	18459191.47	5032872.53	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-1.2	46.3	0.1	-2.0	0.0	0.0	18.7	0.0	0.0	12.7

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL dB(A)	Lr
153	18459192.30	5032859.11	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.2	46.4	0.1	-2.0	0.0	0.0	19.7	0.0	0.0	12.6
154	18459192.30	5032859.11	1.00	1	DEN	500	77.0	0.0	0.0	0.2	46.9	0.1	-1.7	0.0	0.0	19.8	0.0	1.0	11.1	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL dB(A)	Lr
155	18459194.22	5032865.61	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.7	46.6	0.1	-2.0	0.0	0.0	18.5	0.0	0.0	13.0
156	18459194.22	5032865.61	1.00	1	DEN	500	77.0	0.0	0.0	0.2	46.9	0.1	-1.7	0.0	0.0	19.8	0.0	1.0	12.0	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL dB(A)	Lr
157	18459194.30	5032853.86	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.2	46.8	0.1	-1.8	0.0	0.0	19.6	0.0	0.0	12.5
158	18459194.30	5032853.86	1.00	1	DEN	500	77.0	0.0	0.0	0.0	0.5	47.3	0.1	-1.4	0.0	0.0	19.7	0.0	1.0	10.7

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL dB(A)	Lr
159	18459192.97	5032846.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.7	46.9	0.1	-1.5	0.0	0.0	21.3	0.0	0.0	11.0
160	18459192.97	5032846.70	1.00	1	DEN	500	77.0	0.0	0.0	0.0	1.0	47.5	0.1	-1.0	0.0	0.0	21.8	0.0	1.0	8.6

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL dB(A)	Lr
161	18459196.30	5032860.78	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-0.4	47.0	0.1	-2.0	0.0	0.0	18.4	0.0	0.0	13.2
162	18459196.30	5032860.78	1.00	1	DEN	500	77.0	0.0	0.0	0.0	0.0	47.4	0.1	-1.9	0.0	0.0	18.4	0.0	1.0	12.0

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL dB(A)	Lr
163	18459198.14	5032855.36	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.5	47.3	0.1	-1.8	0.0	0.0	18.3	0.0	0.0	13.1
164	18459198.14	5032855.36	1.00	1	DEN	500	77.0	0.0	0.0	0.3	47.8	0.1	-1.6	0.0	0.0	18.3	0.0	1.0	11.7	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL dB(A)	Lr
165	18459196.89	5032848.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.5	47.3	0.1	-1.6	0.0	0.0	19.2	0.0	0.0	12.5
166	18459196.89	5032848.28	1.00	1	DEN	500	77.0	0.0	0.0	0.8	47.9	0.1	-1.6	0.0	0.0	19.4	0.0	1.0	11.0	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL dB(A)	Lr
167	18459195.22	5032840.94	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.0	47.4	0.1	-1.8	0.0	0.0	20.8	0.0	0.0	11.5
168	18459195.22	5032840.94	1.00																	

3604 INNES - SOUND LEVELS - WITH 2.0m HIGH BARRIER

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
171	18459199.22	5032842.61	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.8	47.8	0.1	-1.7	0.0	0.0	18.9	0.0	0.0	12.7
172	18459199.22	5032842.61	1.00	1	DEN	500	77.0	0.0	0.0	0.0	1.1	48.4	0.1	-1.5	0.0	0.0	19.1	0.0	1.0	10.9

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
173	18459203.14	5032843.40	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.7	48.2	0.1	-1.6	0.0	0.0	17.6	0.0	0.0	13.3
174	18459203.14	5032843.40	1.00	1	DEN	500	77.0	0.0	0.0	0.0	1.0	48.7	0.1	-1.8	0.0	0.0	17.8	0.0	1.0	12.0

Receiver

Name: R3 - 3581 Innes Rd
ID:
X: 18459091.45 m
Y: 5032910.56 m
Z: 4.50 m

vert. Area Source, ISO 9613, Name: "Car Wash Entrance (MacNeil 100HP)", ID: "CW_ENT"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
1	18459173.02	5032876.11	1.35	0	D	500	98.2	4.7	0.0	3.0	-8.9	49.9	0.2	0.1	0.0	0.0	0.0	0.0	46.8	
3	18459173.02	5032876.11	2.35	0	D	500	98.2	4.7	0.0	3.0	-8.9	49.9	0.2	-0.5	0.0	0.0	0.0	0.0	47.4	
7	18459173.02	5032876.11	0.43	0	D	500	98.2	4.0	0.0	3.0	-8.9	50.0	0.2	-2.0	0.0	0.0	0.0	0.0	48.1	

vert. Area Source, ISO 9613, Name: "Car Wash Exit (MacNeil 100HP)", ID: "CW_EXIT"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
4	18459187.85	5032839.38	2.35	0	D	500	98.1	4.7	0.0	3.0	-12.1	52.6	0.2	-2.0	0.0	0.0	22.0	0.0	0.0	20.8
6	18459187.85	5032839.38	1.35	0	D	500	98.1	4.7	0.0	3.0	-12.1	52.6	0.2	-2.2	0.0	0.0	22.4	0.0	0.0	20.6
9	18459187.85	5032839.38	0.43	0	D	500	98.1	3.9	0.0	3.0	-12.1	52.6	0.2	-1.9	0.0	0.0	22.8	0.0	0.0	19.3

vert. Area Source, ISO 9613, Name: "Vac Exhaust", ID: "VACEXH"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
10	18459154.93	5032847.80	0.50	0	D	500	90.3	-3.8	0.0	3.0	-12.9	50.0	0.2	1.3	0.0	0.0	18.9	0.0	0.0	6.1
11	18459154.93	5032847.80	1.50	0	D	500	90.3	-3.8	0.0	3.0	-13.0	50.0	0.2	2.5	0.0	0.0	16.4	0.0	0.0	7.4
14	18459154.93	5032847.80	-0.43	0	D	500	90.3	-4.5	0.0	3.0	-12.9	50.0	0.2	11.5	0.0	0.0	12.5	0.0	0.0	1.6

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
16	18459143.17	5032878.40	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	46.7	0.1	4.9	0.0	0.0	0.0	0.0	29.0	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
18	18459144.62	5032874.74	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	47.2	0.1	3.6	0.0	0.0	0.0	0.0	29.8	

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
20	18459145.77	5032870.43	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	47.6	0.1	3.7	0.0	0.0	6.5	0.0	0.0	22.8

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
22	18459147.35	5032866.55	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	48.1	0.1	3.7	0.0	0.0	9.2	0.0	0.0	19.7

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
24	18459149.34	5032862.45	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	48.5	0.1	3.8	0.0	0.0	10.2	0.0	0.0	18.1

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
26	18459151.13	5032858.25	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	49.0	0.2	3.0	0.0	0.0	10.8	0.0	0.0	17.8

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Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
28	18459152.28	5032854.36	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	49.4	0.2	3.8	0.0	0.0	10.1	0.0	0.0	17.3
30	18459152.28	5032854.36	1.00	1	DEN	500	80.8	0.0	0.0	0.0	0.0	50.1	0.2	3.5	0.0	0.0	9.3	0.0	1.0	16.6

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dBA(A)							
31	18459158.90	5032839.18	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	50.8	0.2	4.1	0.0	0.0	9.7	0.0	0.0	15.9

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
32	18459160.48	5032835.51	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	51.2	0.2	3.3	0.0	0.0	7.8	0.0	0.0	18.2

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime (dB)	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
3418459162.05	5032831.62		1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	51.5	0.2	2.6	0.0	0.0	6.3	0.0	0.0	20.2

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
36	18459163.42	5032827.32	1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	51.8	0.2	2.7	0.0	0.0	5.4	0.0	0.0	20.6

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
3818459165.10	5032823.01		1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	52.2	0.2	1.9	0.0	0.0	5.0	0.0	0.0	21.4

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Af0! (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
4018459166.57	5032819.65		1.00	0	DEN	500	80.8	0.0	0.0	0.0	0.0	52.4	0.2	2.9	0.0	0.0	3.9	0.0	0.0	21.3

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																			
Nr.	X (m)	Y (m)	Z (m)	Refl. DEN	Freq. (Hz)	Lw dB(A)	l/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
4218459166.88	5032894.12		1.00	0 DEN	500	77.0	0.0	0.0	0.0	-3.1	48.8	0.1	6.3	0.0	0.0	0.0	0.0	18.6	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	RefL.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	KIdl (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
441845916938	503289879	100	0	DEN	500	77.0	0.0	0.0	0.0	3.3	48.9	0.2	5.8	0.0	0.0	0.0	0.0	35.4		

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
4618459167 63	5032889 62	1.00	0	DEN	500	77.0	0.0	0.0	0.0	3.5	49.0	0.2	5.3	0.0	0.0	0.0	0.0	10.2		

Point Source, ISO 9613, Name: "Vac Nozzle", ID: "VAC"																			
Nr.	X (m)	Y (m)	Z (m)	Refl. DEN	Freq. (Hz)	Lw dB(A)	l/a dB	Optime dB	K0 dB	Di dB	Adiv dB	Aatm dB	Agr dB	Afol dB	Ahou dB	Abar dB	Cmet dB	RL dB(A)	Lr dB(A)
48	18459168.14	5032815.45	1.00	0	DEN	500	80.8	0.0	0.0	0.0	52.7	0.2	3.0	0.0	0.0	3.0	0.0	21.8	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
50	18459169.63	5032884.45	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-3.9	49.3	0.2	2.0	0.0	0.0	0.0	0.0	21.7	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
52	18459173.38	5032900.62	1.00	0	DEN	500	77.0	0.0	0.0	0.0	3.4	49.3	0.2	5.3	0.0	0.0	0.0	0.0	25.6	

CAR WASH + VACS ON

3604 INNES - SOUND LEVELS - WITH 2.0m HIGH BARRIER

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahou	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)										
54	18459178.47	5032899.79	1.00	0	DEN	500	77.0	0.0	0.0	0.0	-3.7	49.9	0.2	4.8	0.0	0.0	0.0	0.0	18.4	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahou	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)										
56	18459182.30	5032894.87	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.1	50.3	0.2	2.4	0.0	0.0	0.0	0.0	24.2	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahou	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)										
58	18459181.22	5032886.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.5	50.4	0.2	1.2	0.0	0.0	0.0	0.0	25.8	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahou	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB(A))									
61	18459179.47	5032880.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.8	50.4	0.2	-1.2	0.0	0.0	0.0	0.0	28.4	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahou	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)										
63	18459182.80	5032881.37	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.7	50.6	0.2	-1.1	0.0	0.0	0.0	0.0	28.0	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahou	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB(A))									
65	18459184.97	5032888.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.4	50.7	0.2	1.0	0.0	0.0	0.0	0.0	25.5	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahou	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB(A))									
67	18459181.22	5032875.12	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.0	50.7	0.2	-2.0	0.0	0.0	6.5	0.0	0.0	22.7

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
69	18459187.14	5032882.87	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.6	51.0	0.2	-1.4	0.0	0.0	0.0	0.0	27.8	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB(A))							
71	18459185.05	5032876.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.9	51.0	0.2	-2.0	0.0	0.0	0.0	0.0	28.7	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	l/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
73	18459183.64	5032869.20	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.2	51.1	0.2	-2.1	0.0	0.0	14.8	0.0	0.0	14.2

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahours (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
75	18459189.30	5032877.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.8	51.3	0.2	-2.0	0.0	0.0	0.0	0.0	28.3	

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahou	Abar	Cmet	RL	Lr dB(A)
78	18459187.47	5032870.95	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.1	51.3	0.2	-2.1	0.0	0.0	8.7	0.0	0.0	20.0

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahou	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	dB(A)									
81	18459186.05	5032863.53	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.4	51.5	0.2	-1.9	0.0	0.0	16.9	0.0	0.0	11.7

3604 INNES - SOUND LEVELS - WITH 2.0m HIGH BARRIER

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)		dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
83	18459191.47	5032872.53	1.00	0	DEN	500	77.0	0.0	0.0	0.0	0.9	51.6	0.2	-2.1	0.0	0.0	0.0	0.0	28.2	
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)		dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
85	18459190.14	5032864.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.3	51.7	0.2	-2.2	0.0	0.0	13.6	0.0	0.0	14.8
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)		dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
88	18459188.39	5032857.86	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.5	51.9	0.2	-2.1	0.0	0.0	17.7	0.0	0.0	10.8
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)		dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
90	18459194.22	5032865.61	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.2	52.0	0.2	-2.2	0.0	0.0	10.5	0.0	0.0	17.6
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)		dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
92	18459192.30	5032859.11	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.4	52.1	0.2	-2.0	0.0	0.0	15.1	0.0	0.0	13.0
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)		dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
95	18459190.47	5032852.78	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.7	52.2	0.2	-2.3	0.0	0.0	18.1	0.0	0.0	10.4
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)		dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
97	18459196.30	5032860.78	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.3	52.3	0.2	-1.9	0.0	0.0	12.6	0.0	0.0	15.0
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)		dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
99	18459194.30	5032853.86	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.6	52.4	0.2	-2.1	0.0	0.0	15.7	0.0	0.0	12.4
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)		dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
101	18459192.97	5032846.70	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.8	52.6	0.2	-1.7	0.0	0.0	18.2	0.0	0.0	9.5
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)		dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
104	18459198.14	5032855.36	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.5	52.6	0.2	-2.0	0.0	0.0	13.7	0.0	0.0	13.9
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)		dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
106	18459196.89	5032848.28	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.7	52.8	0.2	-1.6	0.0	0.0	15.7	0.0	0.0	11.6
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)		dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
109	18459195.22	5032840.94	1.00	0	DEN	500	77.0	0.0	0.0	0.0	2.0	52.9	0.2	-2.4	0.0	0.0	18.4	0.0	0.0	9.8
Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)		(Hz)		dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
111	18459200.64	5032849.74	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.6	52.9	0.2	-2.2	0.0	0.0	14.0	0.0	0.0	13.6

3604 INNES - SOUND LEVELS - WITH 2.0m HIGH BARRIER

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	dB(A)							
114	18459199.22	5032842.61	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.8	53.1	0.2	-2.3	0.0	0.0	15.7	0.0	0.0	12.1

Point Source, ISO 9613, Name: "Car Idling", ID: "CAR"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	dB(A)						
117	18459203.14	5032843.40	1.00	0	DEN	500	77.0	0.0	0.0	0.0	1.7	53.3	0.3	-2.4	0.0	0.0	14.1	0.0	0.0	13.5

APPENDIX C: TRAFFIC DATA

5384457 - Innes and Boyer - July 14th - TMC

Sat Jul 14, 2018

Full Length (10AM-3PM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 546605, Location: 45.44883, -75.522024

Provided by: City of Ottawa
100 Constellation Dr, Nepean, ON, K2G 5J9, CA

Leg Direction	North Southbound					East Westbound					South Northbound					West Eastbound									
	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
Time																									
2018-07-14 10:00AM	3	0	2	0	5	1	1	190	1	0	192	0	1	0	0	0	1	1	2	185	0	1	188	0	386
10:15AM	1	0	3	0	4	1	0	235	0	1	236	1	1	0	3	0	4	1	2	207	1	0	210	0	454
10:30AM	3	0	0	0	3	1	0	219	0	0	219	0	0	0	1	0	1	1	1	240	1	0	242	0	465
10:45AM	0	0	1	0	1	1	1	256	3	0	260	1	2	0	2	0	4	0	2	191	2	0	195	2	460
Hourly Total	7	0	6	0	13	1	2	900	4	1	907	2	4	0	6	0	10	3	7	823	4	1	835	2	1765
11:00AM	3	0	0	0	3	2	0	243	3	1	247	3	0	0	2	0	2	1	1	225	2	0	228	0	480
11:15AM	1	0	3	0	4	3	0	229	3	0	232	0	2	0	0	0	2	0	2	254	3	1	260	0	498
11:30AM	0	0	0	0	0	1	0	245	1	0	246	0	0	0	2	0	2	2	1	247	0	1	249	0	497
11:45AM	2	0	2	0	4	1	0	220	2	0	222	0	5	0	2	0	7	2	4	262	4	0	270	2	503
Hourly Total	6	0	5	0	11	8	0	937	9	1	947	3	7	0	6	0	13	5	8	988	9	2	1007	2	1978
12:00PM	3	0	1	0	4	0	1	254	0	0	255	0	3	0	3	0	6	5	0	259	0	0	259	0	524
12:15PM	1	0	0	0	1	0	2	250	5	1	258	0	0	0	0	0	0	0	2	233	1	1	237	3	496
12:30PM	1	0	1	0	2	5	1	282	1	0	284	2	0	0	3	1	4	2	3	211	0	3	217	0	507
12:45PM	2	0	0	0	2	2	2	246	2	0	250	0	4	0	3	0	7	0	3	244	3	0	250	0	509
Hourly Total	7	0	2	0	9	2	6	1032	8	1	1047	2	7	0	9	1	17	2	8	947	4	4	963	1	2036
1:00PM	1	0	1	0	2	0	0	280	0	0	280	0	1	0	2	0	3	1	0	274	1	0	275	0	560
1:15PM	2	0	1	0	3	1	1	263	1	1	266	0	1	0	2	0	3	1	0	254	3	2	259	1	531
1:30PM	2	0	0	0	2	4	0	272	0	0	272	2	0	0	0	0	0	0	0	237	2	0	239	0	513
1:45PM	2	0	0	0	2	0	2	262	0	0	264	0	0	0	1	0	1	0	1	263	2	1	267	1	534
Hourly Total	7	0	2	0	9	5	3	1077	1	1	1082	2	2	0	5	0	7	2	1	1028	8	3	1040	2	2138
2:00PM	2	1	0	0	3	1	2	263	1	1	267	0	2	0	1	0	3	1	0	237	4	1	242	0	515
2:15PM	4	0	1	0	5	1	2	271	1	0	274	0	1	0	3	0	4	6	3	254	1	2	260	3	543
2:30PM	1	0	1	0	2	1	1	240	1	0	242	0	0	0	1	0	1	1	0	240	1	0	241	0	486
2:45PM	3	0	3	0	6	3	3	241	0	0	244	1	0	0	0	0	0	4	0	262	5	1	268	0	518
Hourly Total	10	1	5	0	16	6	8	1015	3	1	1027	1	3	0	5	0	8	12	3	993	11	4	1011	3	2062
Total	37	1	20	0	58	10	19	4961	25	5	5010	10	23	0	31	1	55	29	27	4779	36	14	4856	12	9979
% Approach	63.8%	1.7%	34.5%	0%	-	-	0.4%	99.0%	0.5%	0.1%	-	-	41.8%	0%	56.4%	1.8%	-	-	0.6%	98.4%	0.7%	0.3%	-	-	-
% Total	0.4%	0%	0.2%	0%	0.6%	-	0.2%	49.7%	0.3%	0.1%	50.2%	-	0.2%	0%	0.3%	0%	0.6%	-	0.3%	47.9%	0.4%	0.1%	48.7%	-	-
Lights and Motorcycles	29	1	15	0	45	-	15	4903	22	5	4945	-	23	0	31	1	55	-	27	4702	33	14	4776	-	9821
% Lights and Motorcycles	78.4%	100%	75.0%	0%	77.6%	-	78.9%	98.8%	88.0%	100%	98.7%	-	100%	0%	100%	100%	100%	-	100%	98.4%	91.7%	100%	98.4%	-	98.4%
Heavy	8	0	5	0	13	-	3	49	0	0	52	-	0	0	0	0	0	-	0	58	3	0	61	-	126
% Heavy	21.6%	0%	25.0%	0%	22.4%	-	15.8%	1.0%	0%	0%	1.0%	-	0%	0%	0%	0%	0%	-	0%	1.2%	8.3%	0%	1.3%	-	1.3%
Bicycles on Road	0	0	0	0	0	-	1	9	3	0	13	-	0	0	0	0	0	-	0	19	0	0	19	-	32
% Bicycles on Road	0%	0%	0%	0%	0%	-	5.3%	0.2%	12.0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.4%	-	0.3%
Pedestrians	-	-	-	-	-	-	28	-	-	-	-	-	9	-	-	-	-	-	22	-	-	-	-	-	9
% Pedestrians	-	-	-	-	-	-	93.3%	-	-	-	-	-	90.0%	-	-	-	-	-	75.9%	-	-	-	-	-	75.0%
Bicycles on Crosswalk	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	7	-	-	-	-	-	3
% Bicycles on Crosswalk	-	-	-	-	-	-	6.7%	-	-	-	-	-	10.0%	-	-	-	-	-	24.1%	-	-	-	-	-	25.0%

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

5384457 - Innes and Boyer - July 14th - TMC

Sat Jul 14, 2018

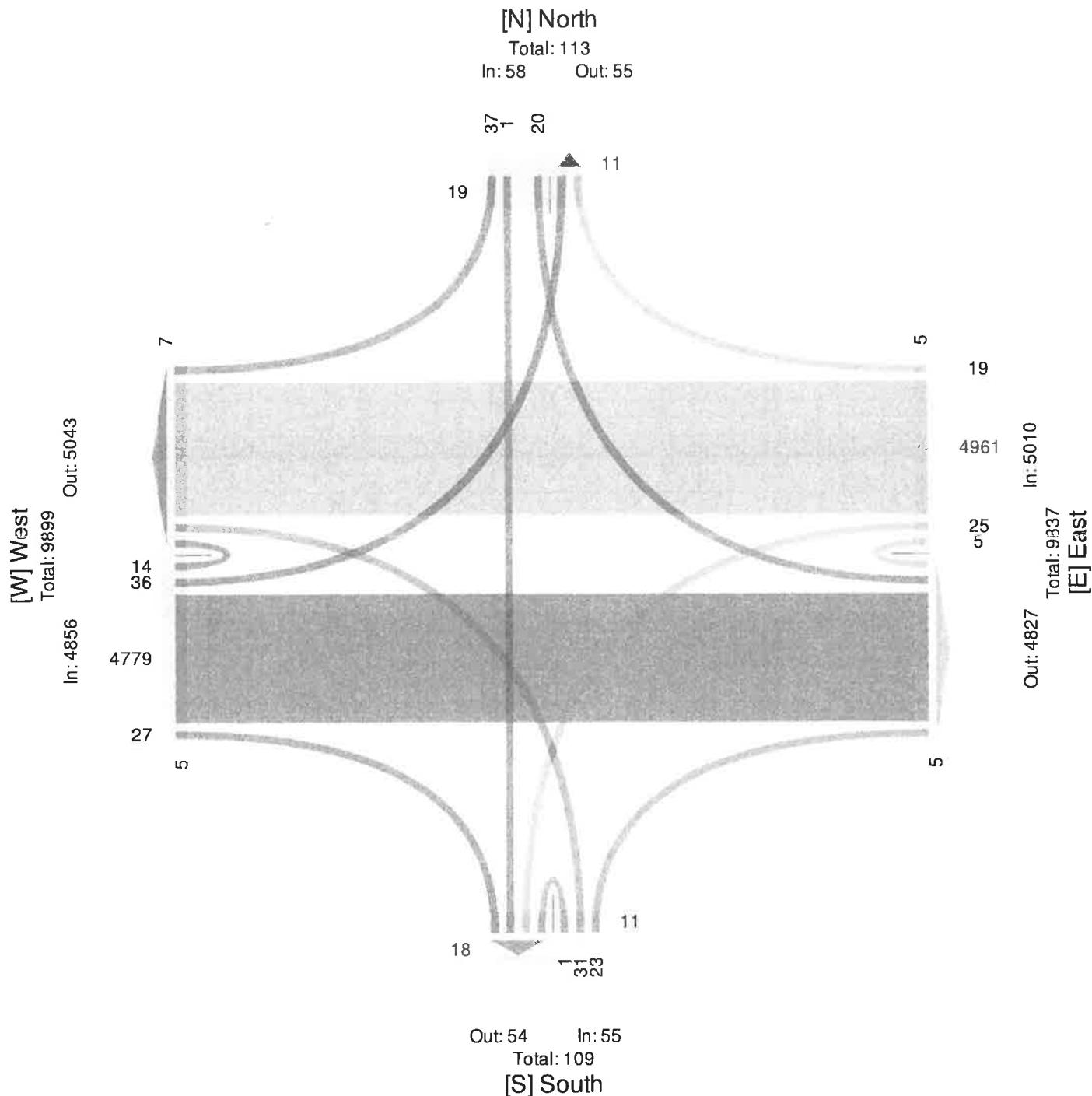
Full Length (10AM-3PM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 546605, Location: 45.44883, -75.522024

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5384457 - Innes and Boyer - July 14th - TMC

Sat Jul 14, 2018

AM Peak (WKND) (10:45AM - 11:45AM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 546605, Location: 45.44883, -75.522024

Provided by: City of Ottawa

100 Constellation Dr, Nepean, ON, K2G 5J9, CA

Leg Direction	North Southbound						East Westbound						South Northbound						West Eastbound						
	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
Time																									
2018-07-14 10:45AM	0	0	1	0	1	1	1	256	3	0	260	1	2	0	2	0	4	0	2	191	2	0	195	1	460
11:00AM	3	0	0	0	3	1	0	243	3	1	247	3	0	0	2	0	2	1	1	225	2	0	228	0	480
11:15AM	1	0	3	0	4	3	0	229	3	0	232	0	2	0	0	0	2	0	2	254	3	1	260	0	498
11:30AM	0	0	0	0	0	2	0	245	1	0	246	0	0	0	2	0	2	2	1	247	0	1	249	0	497
Total	4	0	4	0	8	8	1	973	10	1	985	4	4	0	6	0	10	3	6	917	7	2	932	2	1935
% Approach	50.0%	0%	50.0%	0%	-	-	0.1%	98.8%	1.0%	0.1%	-	-	40.0%	0%	60.0%	0%	-	-	0.6%	98.4%	0.8%	0.2%	-	-	-
% Total	0.2%	0%	0.2%	0%	0.4 %	-	0.1%	50.3%	0.5%	0.1%	50.9 %	-	0.2%	0%	0.3%	0%	0.5 %	-	0.3%	47.4%	0.4%	0.1%	48.2 %	-	-
PHF	0.333	-	0.333	-	0.500	-	0.250	0.950	0.833	0.250	0.947	-	0.500	-	0.750	-	0.625	-	0.750	0.903	0.583	0.500	0.896	-	0.971
Lights and Motorcycles	3	0	2	0	5	-	1	960	10	1	972	-	4	0	6	0	10	-	6	901	7	2	916	-	1903
% Lights and Motorcycles	75.0%	0%	50.0%	0%	62.5 %	-	100%	98.7%	100%	100%	98.7 %	-	100%	0%	100%	0%	100 %	-	100%	98.3%	100%	100%	98.3 %	-	98.3%
Heavy	1	0	2	0	3	-	0	12	0	0	12	-	0	0	0	0	0	-	0	14	0	0	14	-	29
% Heavy	25.0%	0%	50.0%	0%	37.5 %	-	0%	1.2%	0%	0%	1.2 %	-	0%	0%	0%	0%	0 %	-	0%	1.5%	0%	0%	1.5 %	-	1.5%
Bicycles on Road	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	0	2	0	0	2	-	3
% Bicycles on Road	0%	0%	0%	0%	0 %	-	0%	0.1%	0%	0%	0.1 %	-	0%	0%	0%	0%	0 %	-	0%	0.2%	0%	0%	0.2 %	-	0.2%
Pedestrians	-	-	-	-	-	9	-	-	-	-	-	3	-	-	-	-	-	3	-	-	-	-	-	-	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	75.0%	-	-	-	-	-	100%	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	25.0%	-	-	-	-	-	0%	-	-	-	-	-	0%	

* Pedestrians and Bicycles on Crosswalk, L: Left, R: Right, T: Thru, U: U-Turn

5384457 - Innes and Boyer - July 14th - TMC

Sat Jul 14, 2018

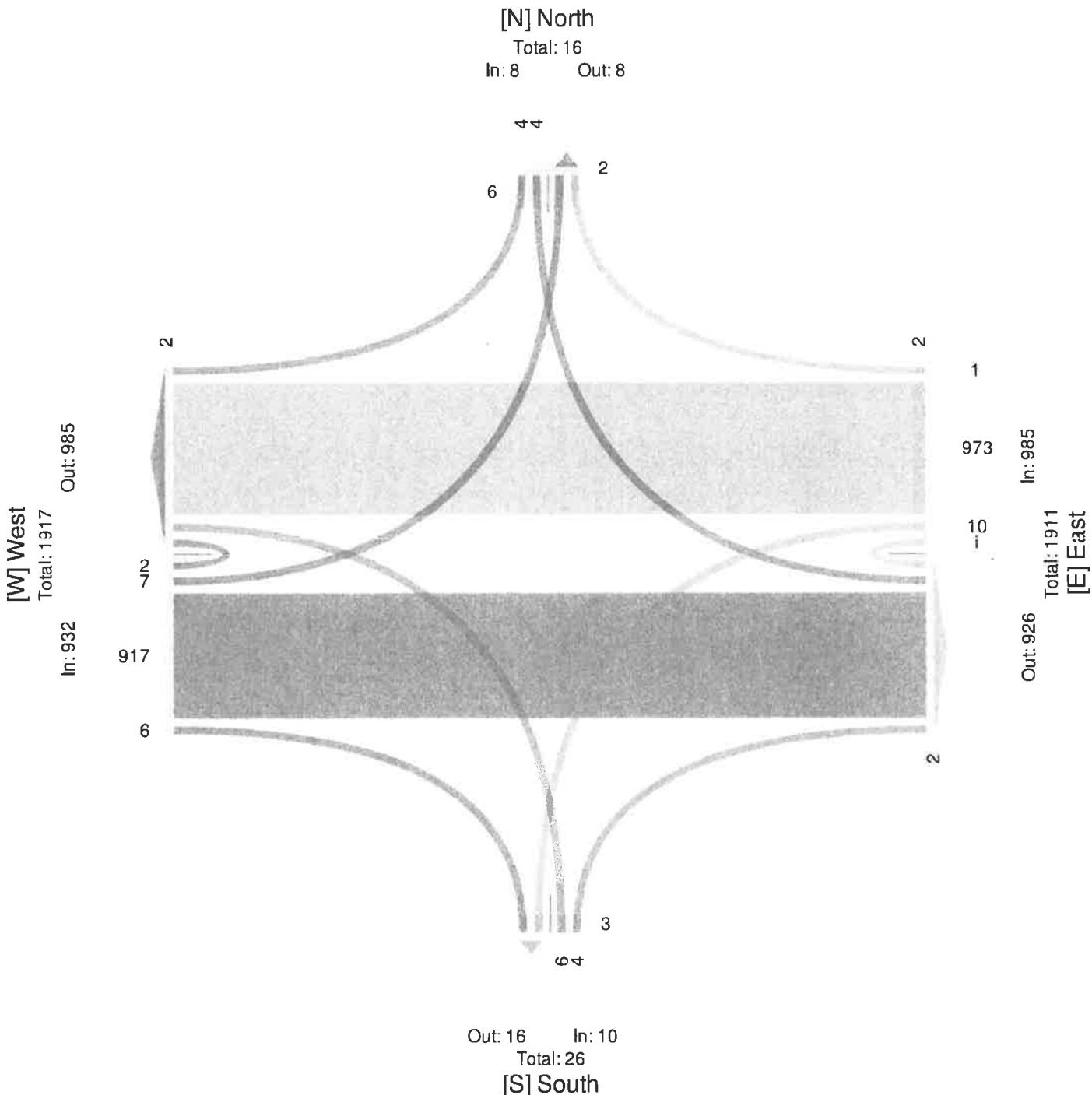
AM Peak (WKND) (10:45AM - 11:45AM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 546605, Location: 45.44883, -75.522024

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5384457 - Innes and Boyer - July 14th - TMC

Sat Jul 14, 2018

Midday Peak (WKND) (1PM - 2PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 546605, Location: 45.44883, -75.522024



Provided by: City of Ottawa

100 Constellation Dr, Nepean, ON, K2G 5J9, CA

Leg Direction	North Southbound					East Westbound					South Northbound					West Eastbound									
	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
Time																									
2018-07-14 1:00PM	1	0	1	0	2	0	0	280	0	0	280	0	1	0	2	0	3	1	0	274	1	0	275	0	560
1:15PM	2	0	1	0	3	1	1	263	1	1	266	0	1	0	2	0	3	1	0	254	3	2	259	1	531
1:30PM	2	0	0	0	2	4	0	272	0	0	272	2	0	0	0	0	0	0	0	237	2	0	239	0	513
1:45PM	2	0	0	0	2	0	2	262	0	0	264	0	0	0	1	0	1	0	1	263	2	1	267	1	534
Total	7	0	2	0	9	5	3	1077	1	1	1082	2	2	0	5	0	7	2	1	1028	8	3	1040	2	2138
% Approach	77.8%	0%	22.2%	0%	-	-	0.3%	99.5%	0.1%	0.1%	-	-	28.6%	0%	71.4%	0%	-	-	0.1%	98.8%	0.8%	0.3%	-	-	-
% Total	0.3%	0%	0.1%	0%	0.4%	-	0.1%	50.4%	0%	0%	50.6%	-	0.1%	0%	0.2%	0%	0.3%	-	0%	48.1%	0.4%	0.1%	48.6%	-	-
PHF	0.875	-	0.500	-	0.750	-	0.375	0.962	0.250	0.250	0.966	-	0.500	-	0.625	-	0.583	-	0.250	0.938	0.667	0.375	0.945	-	0.954
Lights and Motorcycles	7	0	2	0	9	-	3	1064	1	1	1069	-	2	0	5	0	7	-	1	1013	8	3	1025	-	2110
% Lights and Motorcycles	100%	0%	100%	0%	100%	-	100%	98.8%	100%	100%	98.8%	-	100%	0%	100%	0%	100%	-	100%	98.5%	100%	100%	98.6%	-	98.7%
Heavy	0	0	0	0	0	-	0	10	0	0	10	-	0	0	0	0	0	-	0	8	0	0	8	-	18
% Heavy	0%	0%	0%	0%	0%	-	0%	0.9%	0%	0%	0.9%	-	0%	0%	0%	0%	0%	-	0%	0.8%	0%	0%	0.8%	-	0.8%
Bicycles on Road	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	0	7	0	0	7	-	10
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	0.7%	0%	0%	0.7%	-	0.5%
Pedestrians	-	-	-	-	-	4	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	80.0%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100.0%	
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	20.0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	50.0%	

*Pedestrians and Bicycles on Crosswalk, L: Left, R: Right, T: Thru, U: U-Turn

5384457 - Innes and Boyer - July 14th - TMC

Sat Jul 14, 2018

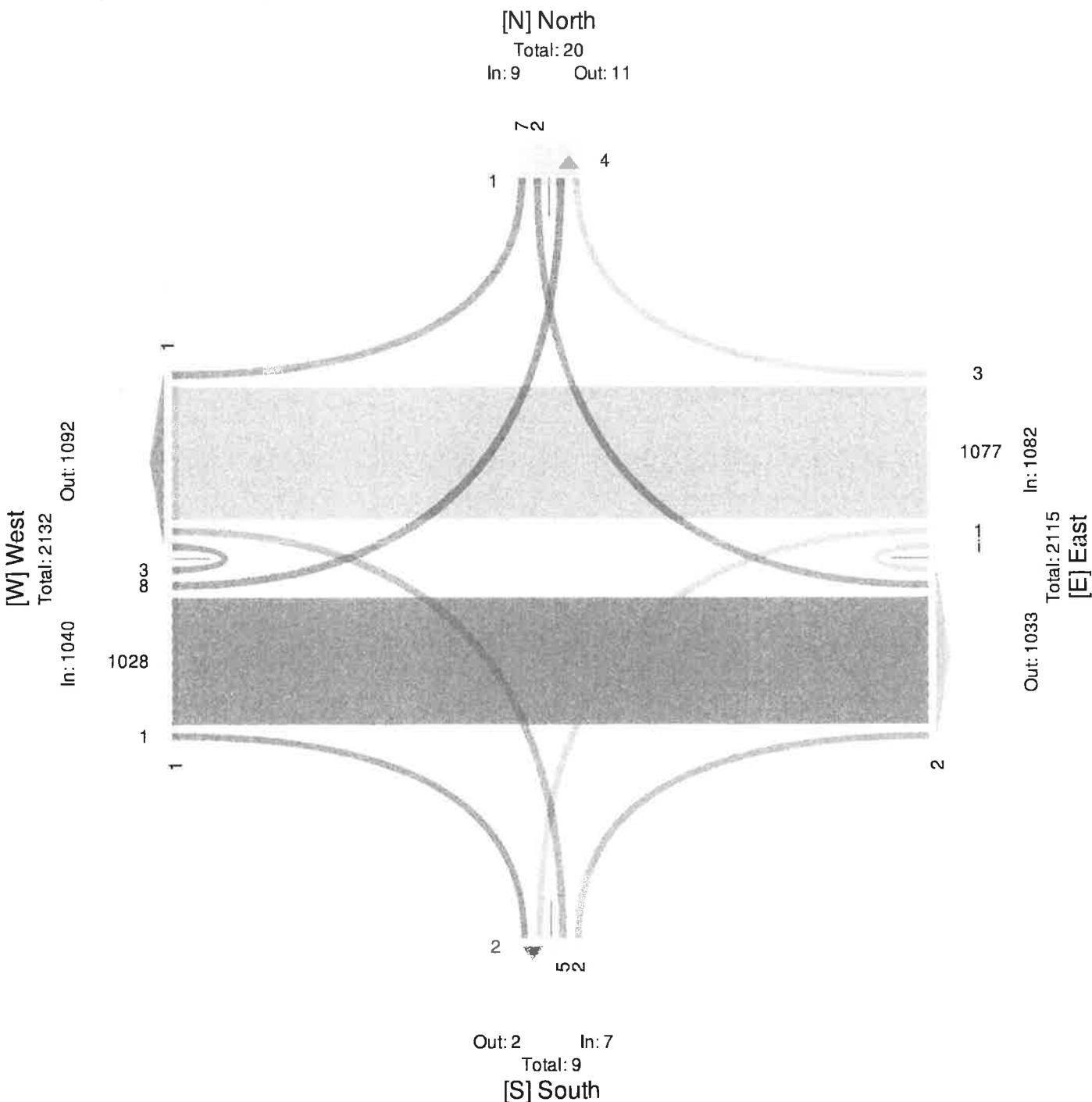
Midday Peak (WKND) (1PM - 2PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 546605, Location: 45.44883, -75.522024

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5384457 - Innes and Boyer - July 14th - TMC

Sat Jul 14, 2018

PM Peak (WKND) (2PM - 3PM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 546605, Location: 45.44883, -75.522024


Provided by: City of Ottawa
100 Constellation Dr, Nepean, ON, K2G 5J9, CA

Leg Direction	North Southbound					East Westbound					South Northbound					West Eastbound					Int				
	R	T	L	U	App	Ped ^a	R	T	L	U	App	Ped ^a	R	T	L	U	App	Ped ^a	R	T	L	U	App	Ped ^a	
Time																									
2018-07-14 2:00PM	2	1	0	0	3	J	2	263	1	1	267	II	2	0	1	0	3	I	0	237	4	1	242	II	515
2:15PM	4	0	1	0	5	I	2	271	1	0	274	0	1	0	3	0	4	6	3	254	1	2	260	3	543
2:30PM	1	0	1	0	2	I	1	240	1	0	242	0	0	0	1	0	1	I	0	240	1	0	241	0	486
2:45PM	3	0	3	0	6	I	3	241	0	0	244	I	0	0	0	0	0	4	0	262	5	1	268	0	518
Total	10	1	5	0	16	I	8	1015	3	1	1027	I	3	0	5	0	8	12	3	993	11	4	1011	3	2062
% Approach	62.5%	6.3%	31.3%	0%	-	-	0.8%	98.8%	0.3%	0.1%	-	-	37.5%	0%	62.5%	0%	-	-	0.3%	98.2%	1.1%	0.4%	-	-	-
% Total	0.5%	0%	0.2%	0%	0.8%	-	0.4%	49.2%	0.1%	0%	49.8%	-	0.1%	0%	0.2%	0%	0.4%	-	0.1%	48.2%	0.5%	0.2%	49.0%	-	-
PHF	0.625	0.250	0.417	-	0.667	-	0.667	0.936	0.750	0.250	0.937	-	0.375	-	0.417	-	0.500	-	0.250	0.948	0.550	0.500	0.943	-	0.949
Lights and Motorcycles	8	1	4	0	13	-	6	1005	3	1	1015	-	3	0	5	0	8	-	3	980	9	4	996	-	2032
% Lights and Motorcycles	80.0%	100%	80.0%	0%	81.3%	-	75.0%	99.0%	100%	100%	98.8%	-	100%	0%	100%	0%	100%	-	100%	98.7%	81.8%	100%	98.5%	-	98.5%
Heavy	2	0	1	0	3	-	2	9	0	0	11	-	0	0	0	0	0	-	0	10	2	0	12	-	26
% Heavy	20.0%	0%	20.0%	0%	18.8%	-	25.0%	0.9%	0%	0%	1.1%	-	0%	0%	0%	0%	0%	-	0%	1.0%	18.2%	0%	1.2%	-	1.3%
Bicycles on Road	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	0	3	0	0	3	-	4
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0.2%
Pedestrians	-	-	-	-	-	6	-	-	-	-	1	-	-	-	-	-	8	-	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	33.3%	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	-	33.3%	-	-	-	-	-	-	0%	

^aPedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

5384457 - Innes and Boyer - July 14th - TMC

Sat Jul 14, 2018

PM Peak (WKND) (2PM - 3PM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

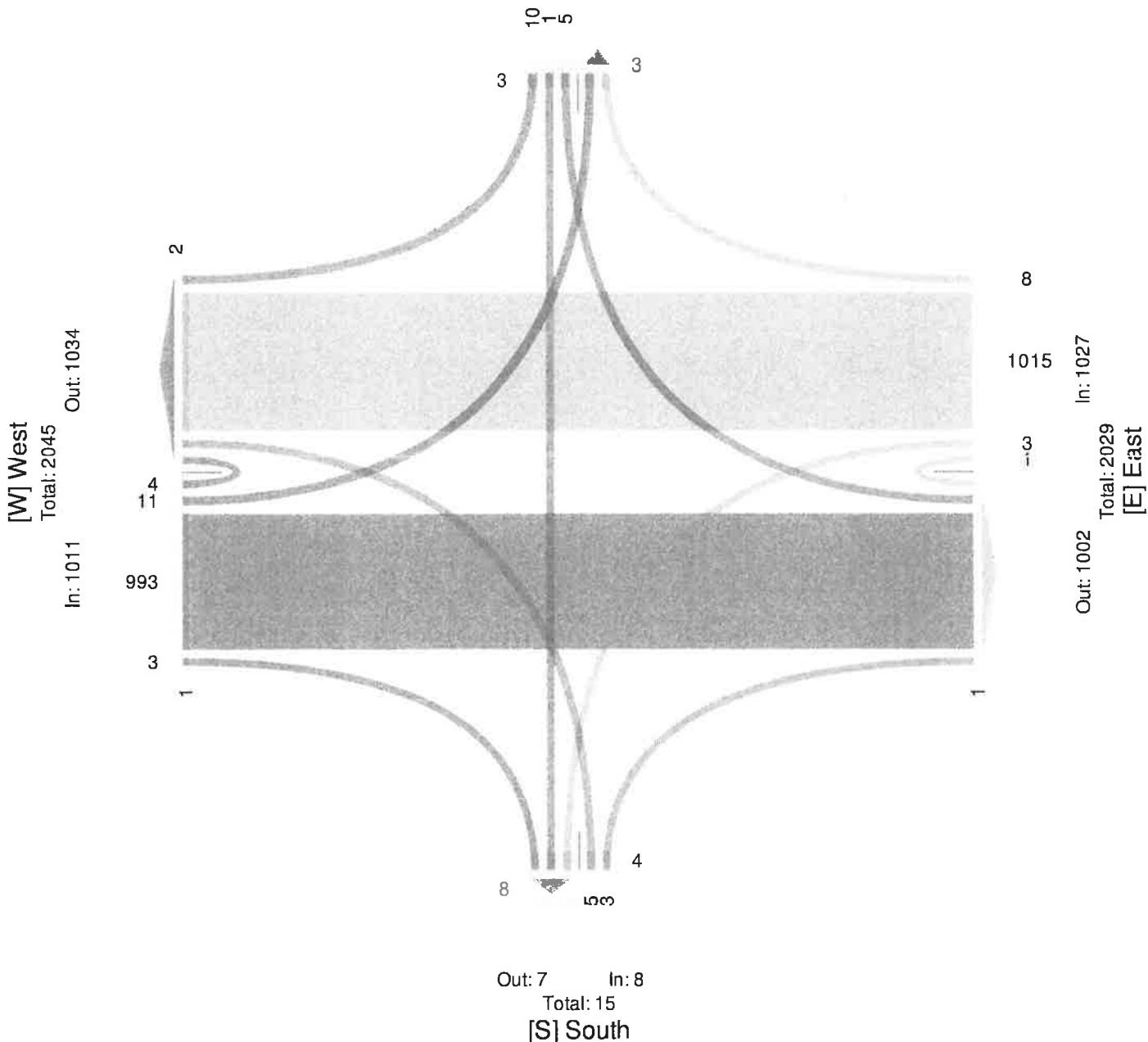
All Movements

ID: 546605, Location: 45.44883, -75.522024

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA**[N] North**

Total: 35

In: 16 Out: 19



5384457 -Innes and Boyer - July 13th - TMC

Fri Jul 13, 2018

Full Length (7AM-10AM, 3PM-6PM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 546602, Location: 45.44883, -75.522024

Provided by: City of Ottawa

100 Constellation Dr, Nepean, ON, K2G 5J9, CA

Leg Direction	North Southbound					East Westbound					South Northbound					West Eastbound									
	R	T	L	U	App	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*		
Time																									
2018-07-13 7:00AM	0	0	0	0	0	0	82	0	0	82	0	1	0	1	0	2	0	2	288	2	0	292	0	376	
7:15AM	0	0	4	0	4	1	88	3	0	92	0	0	1	1	0	2	1	1	283	2	0	286	0	384	
7:30AM	2	0	0	0	2	0	113	2	0	115	0	1	0	3	0	4	1	0	261	1	0	262	0	383	
7:45AM	0	0	1	0	1	2	155	0	0	157	1	0	0	2	0	2	0	244	1	0	245	0	405		
Hourly Total	2	0	5	0	7	5	438	5	0	446	1	2	1	7	0	10	5	3	1076	6	0	1085	0	1548	
8:00AM	1	0	0	0	1	3	128	3	0	131	0	2	0	0	0	2	0	1	241	2	1	245	1	379	
8:15AM	0	0	1	0	1	1	152	3	0	156	0	0	0	0	0	0	0	3	266	1	0	270	0	427	
8:30AM	3	0	0	0	3	3	175	0	0	176	0	2	0	1	0	3	3	0	249	0	0	249	1	431	
8:45AM	2	0	3	0	5	1	178	2	1	183	1	4	0	1	0	5	0	0	216	2	2	220	0	413	
Hourly Total	6	0	4	0	10	8	633	8	1	646	1	8	0	2	0	10	1	4	972	5	3	984	1	1650	
9:00AM	1	0	2	0	3	0	141	1	0	142	0	4	0	0	0	4	0	1	161	2	0	164	0	313	
9:15AM	1	0	0	0	1	2	182	2	0	185	0	1	0	1	0	2	1	1	199	1	0	201	0	389	
9:30AM	0	0	5	0	5	1	201	0	0	203	0	0	0	0	0	0	3	229	2	0	234	3	442		
9:45AM	2	0	0	0	2	3	193	0	0	194	0	1	0	0	0	1	1	2	219	0	1	222	0	419	
Hourly Total	4	0	7	0	11	6	717	3	0	724	0	6	0	1	0	7	8	7	808	5	1	821	3	1563	
3:00PM	0	0	3	0	3	0	318	1	0	320	1	1	0	1	0	2	1	3	237	3	0	243	0	568	
3:15PM	0	0	3	0	3	3	355	0	0	356	1	2	0	1	0	3	2	1	225	0	0	226	0	588	
3:30PM	0	0	1	0	1	3	364	2	1	368	7	2	0	1	0	3	0	1	230	1	0	232	0	604	
3:45PM	3	0	1	0	4	2	362	1	0	364	4	0	0	0	0	0	1	3	257	1	1	262	1	630	
Hourly Total	3	0	8	0	11	8	1399	4	1	1408	13	5	0	3	0	8	4	8	949	5	1	963	1	2390	
4:00PM	2	0	1	0	3	3	370	1	0	371	3	5	0	1	0	6	1	3	236	1	0	240	0	620	
4:15PM	2	0	1	0	3	1	350	0	0	350	1	2	0	3	0	5	1	0	253	1	0	254	0	612	
4:30PM	2	0	0	0	2	2	372	1	0	374	3	2	0	1	0	3	2	4	219	1	1	225	0	604	
4:45PM	1	0	0	0	1	1	392	1	0	395	2	1	0	1	0	2	0	1	231	4	0	236	1	634	
Hourly Total	7	0	2	0	9	1	1484	3	0	1490	9	10	0	6	0	16	4	8	939	7	1	955	1	2470	
5:00PM	2	0	2	0	4	0	339	1	1	344	0	1	0	0	0	1	0	2	236	0	0	238	0	587	
5:15PM	1	0	2	0	3	0	342	0	0	343	2	2	0	1	0	3	2	2	262	2	0	266	2	615	
5:30PM	1	0	1	0	2	1	292	3	0	296	4	2	0	1	0	3	1	4	211	0	2	217	0	518	
5:45PM	0	0	0	0	0	0	305	0	0	306	3	4	0	3	0	7	0	5	223	0	0	228	0	541	
Hourly Total	4	0	5	0	9	1	1278	4	1	1289	9	9	0	5	0	14	3	13	932	2	2	949	2	2261	
Total	26	0	31	0	57	35	5949	27	3	6003	33	40	1	24	0	65	27	43	5676	30	8	5757	9	11882	
% Approach	45.6%	0%	54.4%	0%	-	-	0.4%	99.1%	0.4%	0%	-	61.5%	1.5%	36.9%	0%	-	-	0.7%	98.6%	0.5%	0.1%	-	-	-	
% Total	0.2%	0%	0.3%	0%	0.5%	-	0.2%	50.1%	0.2%	0%	50.5%	-	0.3%	0%	0.2%	0%	0.5%	-	0.4%	47.8%	0.3%	0.1%	48.5%	-	-
Lights and Motorcycles	20	0	26	0	4	6	5716	26	3	5765	-	39	1	23	0	63	-	42	5467	26	8	5543	-	11417	
% Lights and Motorcycles	76.9%	0%	83.9%	0%	80.7%	-	83.3%	96.1%	96.3%	100%	96.0%	-	97.5%	100%	95.8%	0%	96.9%	-	97.7%	96.3%	86.7%	100%	96.3%	-	96.1%
Heavy	6	0	5	0	11	-	4	207	1	0	212	-	0	0	1	0	1	-	0	186	4	0	190	-	414
% Heavy	23.1%	0%	16.1%	0%	19.3%	-	16.7%	3.5%	3.7%	0%	3.5%	-	0%	0%	4.2%	0%	1.5%	-	0%	3.3%	13.3%	0%	3.3%	-	3.5%
Bicycles on Road	0	0	0	0	0	-	0	26	0	0	26	-	1	0	0	0	1	-	1	23	0	0	24	-	51
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.4%	-	2.5%	0%	0%	0%	1.5%	-	2.3%	0.4%	0%	0%	0.4%	-	0.4%
Pedestrians	-	-	-	-	-	-	34	-	-	-	-	-	33	-	-	-	-	-	21	-	-	-	-	-	
% Pedestrians	-	-	-	-	-	-	97.1%	-	-	-	-	-	100%	-	-	-	-	-	22.8%	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	3	
% Bicycles on Crosswalk	-	-	-	-	-	-	2.9%	-	-	-	-	-	0%	-	-	-	-	-	33.2%	-	-	-	-	-	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

5384457 -Innes and Boyer - July 13th - TMC

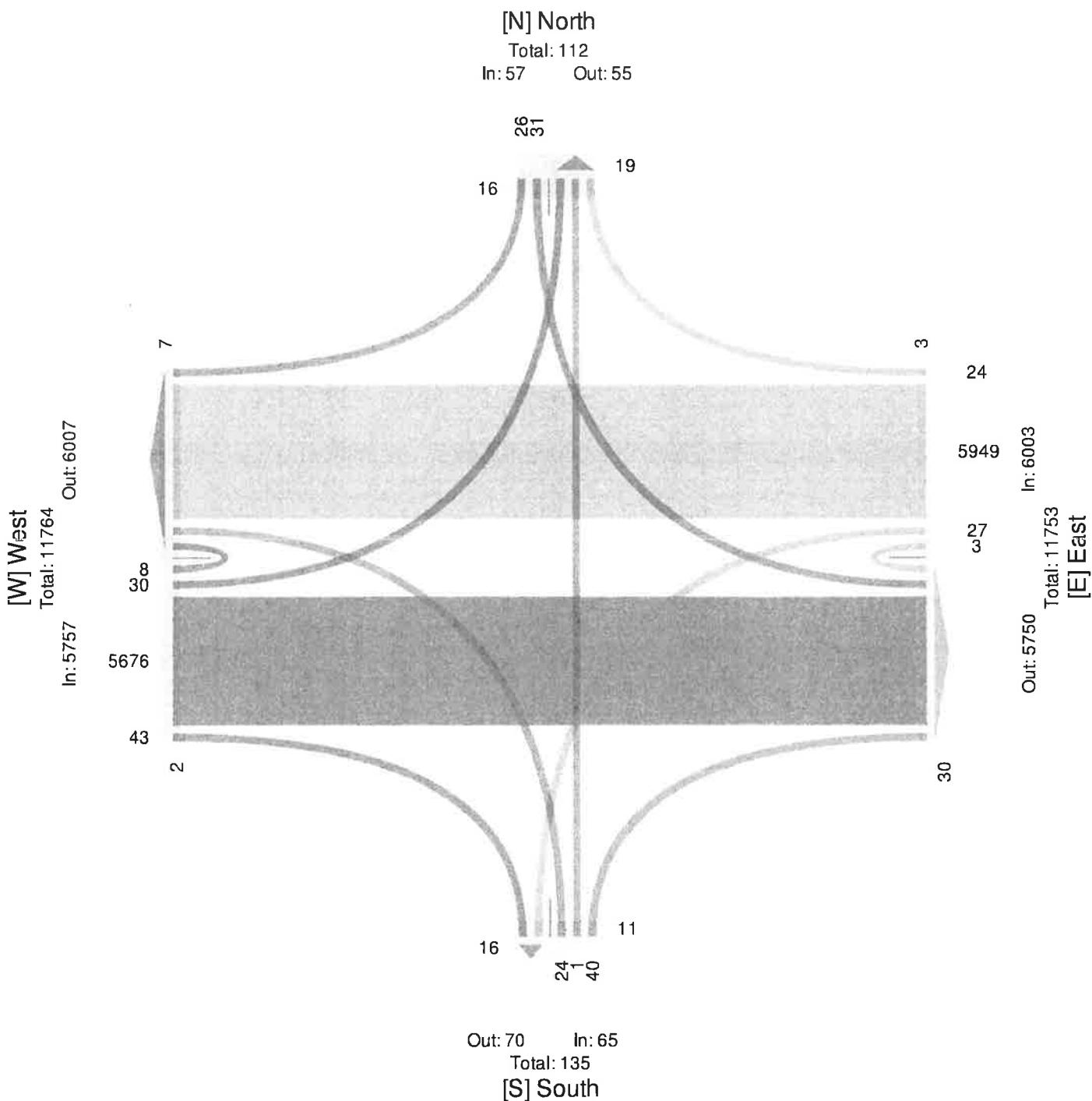
Fri Jul 13, 2018

Full Length (7AM-10AM, 3PM-6PM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 546602, Location: 45.44883, -75.522024

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA

5384457 -Innes and Boyer - July 13th - TMC

Fri Jul 13, 2018

AM Peak (8AM - 9AM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 546602, Location: 45.44883, -75.522024

Provided by: City of Ottawa

100 Constellation Dr, Nepean, ON, K2G 5J9, CA

Leg Direction	North Southbound					East Westbound					South Northbound					West Eastbound									
Time	R	T	L	U	App	Ped	R	T	L	U	App	Ped	R	T	L	U	App	Ped	R	T	L	U	App	Ped	Int
2018-07-13 8:00AM	1	0	0	0	1	3	0	128	3	0	131	0	2	0	0	0	2	0	1	241	2	1	245	1	379
8:15AM	0	0	1	0	1	1	1	152	3	0	156	0	0	0	0	0	0	0	3	266	1	0	270	0	427
8:30AM	3	0	0	0	3	3	1	175	0	0	176	9	2	0	1	0	3	3	0	249	0	0	249	1	431
8:45AM	2	0	3	0	5	1	2	178	2	1	183	1	4	0	1	0	5	0	0	216	2	2	220	0	413
Total	6	0	4	0	10	8	4	633	8	1	646	1	8	0	2	0	10	3	4	972	5	3	984	2	1650
% Approach	60.0%	0%	40.0%	0%	-	-	0.6%	98.0%	1.2%	0.2%	-	-	80.0%	0%	20.0%	0%	-	-	0.4%	98.8%	0.5%	0.3%	-	-	-
% Total	0.4%	0%	0.2%	0%	0.6%	-	0.2%	38.4%	0.5%	0.1%	39.2%	-	0.5%	0%	0.1%	0%	0.6%	-	0.2%	58.9%	0.3%	0.2%	59.6%	-	-
PHF	0.500	-	0.333	-	0.500	-	0.500	0.889	0.667	0.250	0.883	-	0.500	-	0.500	-	0.500	-	0.333	0.914	0.625	0.375	0.911	-	0.957
Lights and Motorcycles	4	0	4	0	8	-	4	578	8	1	591	-	8	0	2	0	10	-	4	931	3	3	941	-	1550
% Lights and Motorcycles	66.7%	0%	100%	0%	80.0%	-	100%	91.3%	100%	100%	91.5%	-	100%	0%	100%	0%	100%	-	100%	95.8%	60.0%	100%	95.6%	-	93.9%
Heavy	2	0	0	0	2	-	0	55	0	0	55	-	0	0	0	0	0	-	0	39	2	0	41	-	98
% Heavy	33.3%	0%	0%	0%	20.0%	-	0%	8.7%	0%	0%	8.5%	-	0%	0%	0%	0%	0%	-	0%	4.0%	40.0%	0%	4.2%	-	5.9%
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	2	0	0	2	-	2
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0.1%
Pedestrians	-	-	-	-	-	8	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	50.0%	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	50.0%	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

5384457 -Innes and Boyer - July 13th - TMC

Fri Jul 13, 2018

AM Peak (8AM - 9AM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 546602, Location: 45.44883, -75.522024

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA**[N] North**Total: 19
In: 10 Out: 9**[W] West**
Total: 15328
Out: 644
In: 984**[E] East**
Total: 15311
Out: 985
In: 646Out: 12 In: 10
Total: 22
[S] South

5384457 -Innes and Boyer - July 13th - TMC

Fri Jul 13, 2018

PM Peak (4PM - 5PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 546602, Location: 45.44883, -75.522024



Provided by: City of Ottawa

100 Constellation Dr, Nepean, ON, K2G 5J9, CA

Leg Direction	North Southbound						East Westbound						South Northbound						West Eastbound						
	R	T	L	U	App	Ped ^a	R	T	L	U	App	Ped ^a	R	T	L	U	App	Ped ^a	R	T	L	U	App	Ped ^a	Int
Time																									
2018-07-13 4:00PM	2	0	1	0	3	3	0	370	1	0	371	3	5	0	1	0	6	1	3	236	1	0	240	0	620
4:15PM	2	0	1	0	3	1	0	350	0	0	350	1	2	0	3	0	5	1	0	253	1	0	254	0	612
4:30PM	2	0	0	0	2	2	1	372	1	0	374	3	2	0	1	0	3	2	4	219	1	1	225	0	604
4:45PM	1	0	0	0	1	1	2	392	1	0	395	2	1	0	1	0	2	0	1	231	4	0	236	1	634
Total	7	0	2	0	9	7	3	1484	3	0	1490	9	10	0	6	0	16	4	8	939	7	1	955	1	2470
% Approach	77.8%	0%	22.2%	0%	-	-	0.2%	99.6%	0.2%	0%	-	-	62.5%	0%	37.5%	0%	-	-	0.8%	98.3%	0.7%	0.1%	-	-	-
% Total	0.3%	0%	0.1%	0%	0.4%	-	0.1%	60.1%	0.1%	0%	60.3%	-	0.4%	0%	0.2%	0%	0.6%	-	0.3%	38.0%	0.3%	0%	38.7%	-	-
PHF	0.875	-	0.500	-	0.750	-	0.375	0.946	0.750	-	0.943	-	0.500	-	0.500	-	0.667	-	0.500	0.928	0.438	0.250	0.940	-	0.974
Lights and Motorcycles	7	0	2	0	9	-	3	1466	3	0	1472	-	10	0	6	0	16	-	8	904	6	1	919	-	2416
% Lights and Motorcycles	100%	0%	100%	0%	100%	-	100%	98.8%	100%	0%	98.8%	-	100%	0%	100%	0%	100%	-	100%	96.3%	85.7%	100%	96.2%	-	97.8%
Heavy	0	0	0	0	0	-	0	15	0	0	15	-	0	0	0	0	0	-	0	31	1	0	32	-	47
% Heavy	0%	0%	0%	0%	0%	-	0%	1.0%	0%	0%	1.0%	-	0%	0%	0%	0%	0%	-	0%	3.3%	14.3%	0%	3.4%	-	1.9%
Bicycles on Road	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	0	4	0	0	4	-	7
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.4%	-	0.3%
Pedestrians	-	-	-	-	-	6	-	-	-	-	4	-	-	-	-	-	1	-	*	*	*	*	*	1	
% Pedestrians	-	-	-	-	-	85.7%	-	-	-	-	100%	-	-	-	-	-	25.0%	-	-	-	-	-	100%	-	
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	11	-	-	-	-	-	3	-	-	-	-	-	0	-	
% Bicycles on Crosswalk	-	-	-	-	-	14.3%	-	-	-	-	0%	-	-	-	-	-	75.0%	-	-	-	-	-	0%	-	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

5384457 -Innes and Boyer - July 13th - TMC

Fri Jul 13, 2018

PM Peak (4PM - 5PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

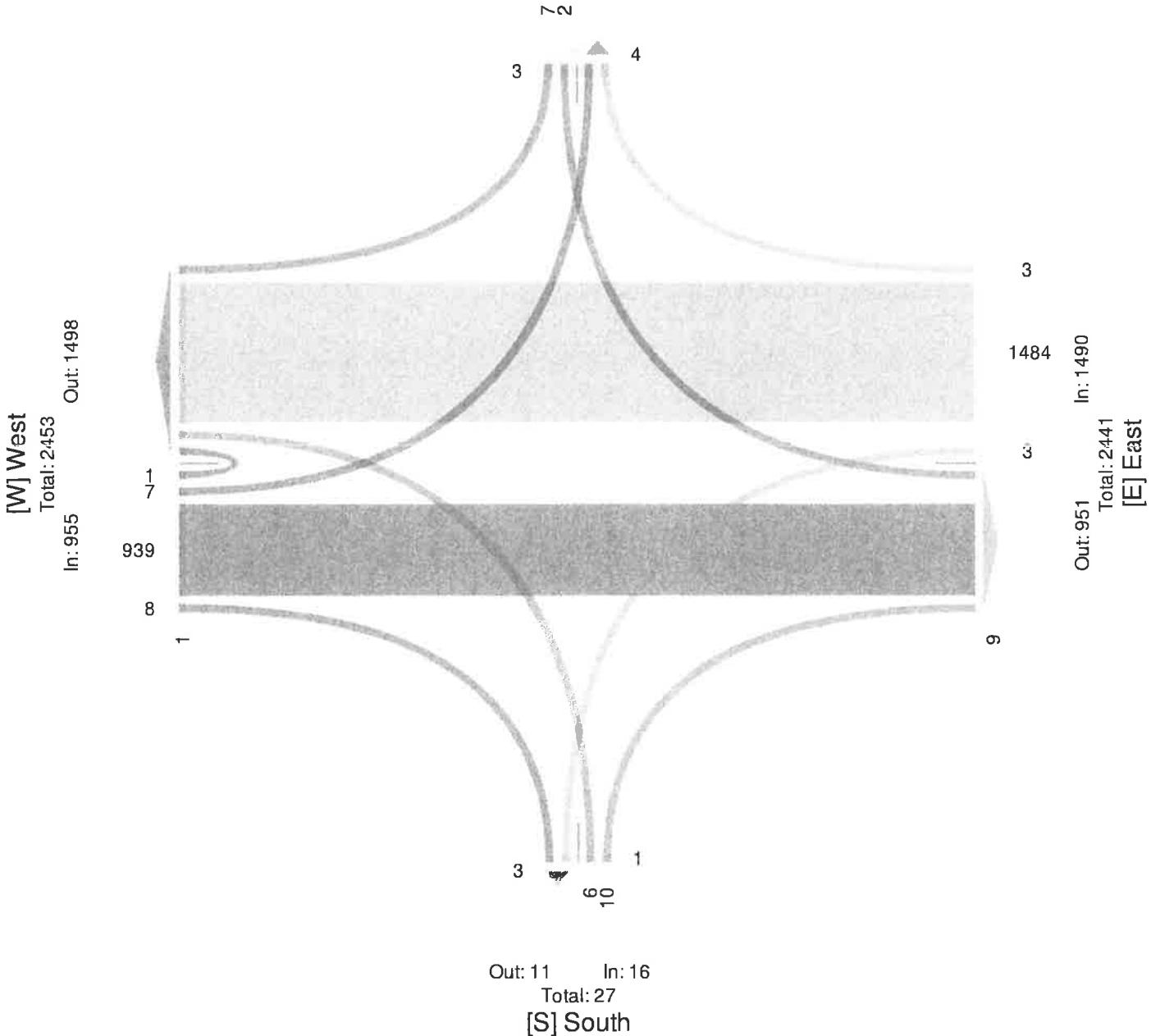
All Movements

ID: 546602, Location: 45.44883, -75.522024

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA**[N] North**

Total: 19

In: 9 Out: 10



APPENDIX D: BY-LAW



Noise By-law

By-law No. 2017-255

A By-law of the City of Ottawa respecting noises.

THIS DOCUMENT IS PROVIDED FOR OFFICE USE AND REFERENCE PURPOSES ONLY. EVERY EFFORT IS MADE TO ENSURE THE ACCURACY OF THIS DOCUMENT. IT IS NOT TO BE USED IN PLACE OF PHOTOCOPIES OF ORIGINAL BY-LAWS, NOR CAN IT BE USED FOR COURT PURPOSES. FOR LEGAL REQUIREMENTS, PLEASE REFER TO THE OFFICIAL BY-LAWS OF THE CITY OF OTTAWA.

Prepared by By-law & Regulatory Services

A by-law of the City of Ottawa respecting noises.

WHEREAS it is in the public interest to reduce the noise level in the City of Ottawa, so as to preserve, protect and promote public health, safety, welfare and peace and quiet of the inhabitants of the City;

THEREFORE, the Council of the City of Ottawa enacts as follows:

DEFINITIONS

1. In this by-law:
 - “agricultural operation” means an agricultural, aquacultural, horticultural or silvicultural operation that is carried on in the expectation of gain or monetary reward;
 - “agricultural processing” includes sawing, cleaning, treating, grading and packaging to the extent that these activities relate to products primarily from and are conducted as a part of an agricultural operation;
 - “bass noise” means any low frequency sound which may be audible or otherwise felt as vibration;
 - “By-law Officer” means a person appointed by the Council of the City of Ottawa as a Municipal Law Enforcement Officer to enforce the provisions of this by-law;
 - “car alarm” means any audible device installed in any form of vehicle for the purposes of deterring theft of, or from, the vehicle;
 - “Chief of Police” means the Chief of Police of the Ottawa Police Service or authorized representative;
 - “City” means the municipal corporation of the City of Ottawa or the geographic area of the City of Ottawa as the context requires;
 - “City Construction Project” means a significant construction project undertaken by the City or on behalf of the City which involves or affects City highways, City property or other property, or City services, and from which noise will be created that requires an exemption from the provisions of this by-law;
 - “Confederation Line Project” means those sections of the existing or future right-of-way between the Tunney’s Pasture and Blair Rapid Transit Stations

that are to be utilised, or are utilised, for light rail transit as approved by City Council, and includes the following components:

- (a) railway tracks;
- (b) guideways;
- (c) overhead catenary system;
- (d) underground tunnel;
- (e) access shafts;
- (f) maintenance and storage facilities (MSF);
- (g) associated access tracks;
- (h) staging areas;
- (i) stations; and
- (j) all associated infrastructure and facilities required for its construction;

“construction” includes erection, alteration, repair, dismantling, demolition, structural maintenance, land clearing, earth moving, grading, excavating, the laying of pipe and conduit whether above or below ground level, street and highway building, application of concrete, equipment installation and alteration and the structural installation of construction components and materials in any form or for any purpose, and includes any work in connection therewith;

“construction equipment” means any equipment or device designed and intended for use in construction, or material handling, including but not limited to, hand tools, power tools, air compressors, pile drivers, pneumatic or hydraulic tools, bulldozers, tractors, excavators, trenchers, cranes, derricks, loaders, scrapers, pavers, generators, off-highway haulers or trucks, ditchers, compactors and rollers, pumps, concrete mixers, graders, or other material handling equipment;

“containerized waste” means waste deposited in a front-end loading container for collection;

“dB(A)” means the sound level in decibels obtained when using a sound level meter with the A-weighting;

“effective muffler” means a muffler in good working order and in constant operation to prevent excessive or unusual noise and excessive smoke, but

it does not include a cut-out muffler, straight exhaust, gutted muffler, hollywood muffler, by-pass or similar device.

"equivalent sound level", sometimes denoted as Leq, means the value of the constant sound level which would result in exposure to the same total A-weighted energy as would the specified time-varying sound, if the constant sound level persisted over an equal time interval and is measured in dB(A);

"highway" means a common and public highway and includes any bridge, trestle, viaduct or other structure forming part of the highway and, except as otherwise provided, includes a portion of the highway;

"infill housing" means a development that occurs on a single lot, or a consolidated number of small lots or sites that are vacant or underdeveloped;

"Manager of By-law & Regulatory Services" means the person occupying the position of the Manager of By-law & Regulatory Services in the Emergency and Protective Services Department of the City of Ottawa or authorized representative;

"motor assisted bicycle" means a bicycle,

- (a) that is fitted with pedals that are operable at all times to propel the bicycle
- (b) that weighs not more than fifty-five (55) kilograms;
- (c) that has no hand or foot operated clutch or gearbox driven by the motor and transferring power to the driven wheel;
- (d) that has an attached motor driven by electricity or having a piston displacement of not more than fifty (50) cubic centimetres; and
- (e) that does not have sufficient power to enable the bicycle to attain a speed greater than fifty (50) kilometres per hour on level ground within a distance of two (2) kilometres from a standing start;

"motorcycle" means a self-propelled vehicle having a seat or saddle for the use of the driver and designed to travel on not more than three (3) wheels in contact with the ground, and includes a motor scooter, but does not include a motor assisted bicycle;

"motor vehicle" includes an automobile, motorcycle, motor assisted bicycle unless otherwise indicated in the *Highway Traffic Act*, and any other vehicle

propelled or driven otherwise than by muscular power, but does not include a streetcar or other motor vehicles running only upon rails, or a motorized snow vehicle, traction engine, farm tractor, self-propelled implement of husbandry or road-building machine within the meaning of the *Highway Traffic Act*;

“municipal waste collection” means the collection, transportation and disposal of refuse as undertaken by the City of Ottawa or its sub-contractors;

“noise level in dB(A) units” means the reading of any precision sound level meter which meets the International Electrotechnical Commission Publication 651 or the American National Standards Institute S1.4-1983 or any successor thereto;

“person” includes an individual, a corporation, a partnership, an association, or other legal entity;

“point of reception” means any point on the premises of a person where sound or vibration originating from other than those premises are received;

“refuse compacting equipment” means a vehicle fitted in order to compact and transport refuse;

“solid waste bulk lift equipment” means a vehicle designed to load, unload and transport containers for handling refuse;

“sound amplifying system” means any system of loudspeakers, amplifiers, microphones or reproducers or any combination of such equipment, including electronic devices or electro-mechanical transducers, used in the reproduction or amplification of music, speech or other sounds;

“sound reproduction device” means a device intended primarily for the production or reproduction of sound, including, but not limited to, any musical instrument, radio receiver, television receiver, tape recorder, phonograph or sound amplifying system;

“special event” includes a demonstration, parade, sports event, festival, carnival, donation station, street dance, residential block party, sidewalk sale, outdoor mass and other like events;

“vehicle” includes a motor vehicle, trailer, traction engine, farm tractor, road-building machine, motorcycle, bicycle and any vehicle drawn, propelled or driven by any kind of power, including muscular power, but does not include

a motorized snow vehicle, or the cars of electric or steam railways running only upon rails.

UNUSUAL NOISE, NOISE LIKELY TO DISTURB

2. No person shall cause or permit any bass noise, unusual noise or noise likely to disturb the inhabitants of the City.

BELLS, HORNS, SHOUTING

3. No person shall cause or permit the ringing of any bell, sounding of any horn, or shouting in a manner likely to disturb the inhabitants of the City provided that nothing herein contained shall prevent,

- (a) the ringing of bells in connection with any church, chapel, meeting house or religious service
- (b) the ringing of bells in connection with City Hall between 0900 hours and 2100 hours of the same day;
- (c) the ringing of fire bells or fire alarms or the making of any other noise for the purpose of giving notice of fire or any other danger or any unlawful act, other than a car alarm, for a continuous period of time of twenty (20) minutes or less.
- (d) the sounding of a car alarm for a continuous period of time of five (5) minutes or less.

SOUND REPRODUCTION OR AMPLIFICATION DEVICES

4. (1) No person shall operate or use or cause to be operated or used any sound reproduction device between 2300 hours of one day and 0700 hours of the next day so as to disturb the peace and comfort of,

- (a) any person in any dwelling house, apartment house, hotel or other type of residence; or
 - (b) any owner or operator of a business in his or her place of business.
- (2) Despite subsection (1), no person shall operate or use or cause to be operated or used any sound reproduction device so as to disturb the peace and comfort of:

- (a) any person in any dwelling house, apartment house, hotel or other type of residence before 0900 hours on any Saturday; or
 - (b) any person in any dwelling house, apartment house, hotel or other type of residence before 1200 hours on any Sunday or statutory or public holiday; or
 - (c) any owner or operator of a business in his or her place of business before 0900 hours on any Saturday; or
 - (d) any owner or operator of a business in his or her place of business before 1200 hours on any Sunday or statutory or public holiday.
- (3) No person shall operate or use or cause to be operated or used any sound reproduction device in any dwelling house, apartment house, hotel or other residence between 0700 hours and 2300 hours of the same day, the noise from which sound reproduction device:
- (a) is clearly audible in another dwelling within the said residence; and
 - (b) has an equivalent sound level (Leq) greater than 45 dB(A) when measured in another dwelling within the said residence.
- (4) On any Sunday or statutory or public holiday, the provisions of subsection (3) shall not come into effect until after 1200 hours.
- (5) No person shall operate or use or cause to be operated or used any sound reproduction device on any highway or other public place.
- (6) No person shall operate or use or cause to be operated or used any sound reproduction device originating from or in connection with the operation of any commercial establishment between 0700 hours and 2300 hours of the same day, the noise from which sound reproduction device when measured in any business, dwelling house, apartment house, hotel or any other type of residence has an equivalent sound level (Leq) greater than 45 dB(A).
- (7) No person shall operate or cause to be operated or used any sound reproduction device between 0700 hours and 2300 hours of the same day, the noise from which sound reproduction device has an equivalent sound level (Leq) greater than 55 dB(A) when measured outside of the business, dwelling house, apartment house, hotel or other residence, at or inside the property line of the business owner or person whose peace and comfort has been disturbed.

- (8) The provisions of subsections (6) or (7) shall not apply where circumstances are such that an infraction is covered by subsections (1), (2), (3) or (4) and those subsections shall prevail.
- (9) Subsections (5), (6) or (7) do not apply to prevent,
 - (a) the use of sound reproduction devices in the City's parks provided that the user has a permit from or the written permission of the City to do so and the user otherwise complies with the provisions of this by-law;
 - (b) the amplification of the sound of the ringing of bells or the playing of chimes in connection with:
 - i. any church, chapel, meeting house or religious service, or
 - ii. City Hall between 0900 hours and 2100 hours of the same day;
 - (c) the use of sound reproduction devices in a reasonable manner for parades or special events carried on under the authority of a permit pursuant to By-law No. 2001-260, the Special Events By-law or any successor thereto, or in accordance with the law;
 - (d) the use of sound reproduction devices in a reasonable manner for any social, recreational, community or athletic activity approved on a highway pursuant to the provisions of By-law No. 2003-530, the Traffic and Parking By-law, or any successor thereto; or
 - (e) the use of musical instruments by street musicians on the highway or other public place, provided that the use is not liable to disturb the peace, enjoyment and comfort or convenience of individuals or the public.
- (10) Assessment of noise complaints may be undertaken at the point of reception of the noise for the purposes of confirming a violation.

AIR CONDITIONERS, HEAT PUMPS, COMPRESSORS, CONDENSERS, CHILLERS, COOLING TOWERS AND SIMILAR DEVICES

5. No person shall use or operate or cause to be used or operated any air conditioner, heat pump, compressor, condenser, chiller, cooling tower or similar device,

the noise from which has a level greater than 50 dB(A) when measured at the point of reception.

EXHAUST FAN, EXHAUST SYSTEM, INTAKE FAN GENERATORS, COMMERCIAL DRYER OR SIMILAR DEVICE

6. (1) No person shall use or operate or cause to be used or operated any exhaust fan, exhaust system, intake fan, generators, dryer in a commercial car wash or similar device which includes combustion exhaust of a high efficiency furnace, the noise from which has a level greater than 50 dB(A) when measured at the point of reception.

(2) Subsection (1) does not apply to a person using or operating a portable generator in a residential area in an emergency situation.

PUMP OR FILTRATION SYSTEMS

7. No person shall use or operate or cause to be used or operated any pump, filtration system or similar device for an outdoor swimming pool, hot tub, spa fountain or water feature, the noise from which has a level greater than 50 dB(A) when measured at the point of reception.

POWER EQUIPMENT

8. (1) No person shall operate or cause to be operated any power equipment such as chainsaws, power lawnmowers, leaf blowers, power tools or other similar devices, between 2100 hours of one day and 0700 hours of the next day, the noise from which disturbs or tends to disturb the inhabitants of the neighbourhood, or persons in the vicinity.

(2) Despite subsection (1), no person shall operate or cause to be operated any power equipment before 0900 hours on any Saturday, Sunday, statutory or public holiday.

(3) Subsections (1) and (2) do not apply to a person operating power equipment used for the purpose of maintaining a golf course.

HEAVY-DUTY EQUIPMENT

9. (1) No person shall use or operate or cause to be used or operated high vacuum (H-Vac) devices, street sweeping equipment or other similar devices between 2300 hours of one day and 0700 hours of the next day,

- the noise from which disturbs or tends to disturb the inhabitants of the neighbourhood, or persons in the vicinity.
- (2) Despite subsection (1), no person shall use or operate high vacuum (H-Vac) devices, street sweeping equipment or other similar devices before 0900 on any Sunday or statutory or public holiday.

REFUSE COLLECTION

10. (1) No person shall cause or permit the operation of:
- (a) refuse compacting equipment; or
 - (b) solid waste bulk lift equipment, between 2300 hours of one day and 0700 hours of the next day so as to make or cause noises that disturb, or tend to disturb, the inhabitants of the neighbourhood, or persons in the vicinity.
- (2) Despite subsection (1), no person shall cause or permit the loading or unloading of containerized waste before 0900 hours on any Sunday or statutory or public holiday.
- (3) The provisions of subsections (1) and (2) shall not apply to:
- (a) municipal waste collection; and
 - (b) the Central Area of the City as described in Schedule "B" attached hereto.

DELIVERIES

11. (1) No person shall cause or permit the delivery of any goods, wares, merchandise or commodities from any vehicle to the owner, lessee, tenant or occupier of any premises between the hours of 2300 hours of one day and 0700 hours of the next day and which delivery disturbs or tends to disturb the quiet, peace, rest, enjoyment, comfort or convenience of the neighbourhood or of persons in the vicinity.
- (2) The provisions of subsection (1) shall not apply to all that area of the City bounded on the east by the east limit of Dalhousie Street, on the south by the south limit of Rideau Street, on the west by the west limit of Sussex Drive and on the north by the south limit of Murray Street.

LOADING AND UNLOADING

12. (1) No person shall cause or permit the loading or unloading of any transport truck, moving van or motor vehicle between 2300 hours of one day and 0700 hours of the next day so as to make or cause noises that disturb, or tend to disturb the quiet, peace, rest, enjoyment, comfort or convenience of the neighbourhood or of persons in the vicinity.
- (2) The provisions of subsection (1) shall not apply to all that area of the City bounded on the east by the east limit of Dalhousie Street, on the south by the south limit of Rideau Street, on the west by the west limit of Sussex Drive and on the north by the south limit of Murray Street.

GENERAL CONSTRUCTION

13. (1) No person shall, between 2200 hours of one day and 0700 hours of the next day, operate or cause to be operated any construction vehicle or construction equipment in connection with the construction of any building or structure, highway, motor car, steam boiler or other engine or machine.
- (2) Despite subsection (1), no person shall operate or cause to be operated any construction vehicle or construction equipment before 0900 hours on any Sunday or statutory or public holiday.
- (3) Despite subsections (1) and (2), no person shall operate or cause to be operated any construction vehicle or construction equipment between 1000 hours and 1200 hours of the same day on the 11th day of November in the area within the boundaries described as follows:

COMMENCING at the intersection of Wellington Street and O'Connor Street and proceeding in an easterly direction on Wellington Street and Rideau Street to MacKenzie Avenue;
THENCE proceeding in a northerly direction on MacKenzie Avenue a distance of 201 metres;
THENCE easterly to and along York Street to William Street;
THENCE southerly on William Street to Rideau Street;
THENCE easterly on Rideau Street to Nicholas Street;
THENCE southerly on Nicholas Street to Laurier Avenue;
THENCE westerly on Laurier Avenue to O'Connor Street;
THENCE northerly on O'Connor Street to the said point of commencement.

INFILL HOUSING CONSTRUCTION

14. (1) Section 13 does not apply to construction in connection with infill housing, and the following subsections shall apply.
 - (2) No person shall, between 2000 hours of one day and 0700 hours of the next day, operate or cause to be operated any construction vehicle or construction equipment in connection with infill housing.
 - (3) No person shall, between 1900 hours of one day and 0900 hours of the next day on any Saturday, Sunday or statutory or public holiday, operate or cause to be operated any construction vehicle or construction equipment in connection with infill housing.

CONFEDERATION LINE PROJECT – CONSTRUCTION AND MAINTENANCE

- 14A. (1) (a) Despite subsection 13(1), tunnel construction work for the Confederation Line Project occurring three (3) metres and deeper below the immediate ground surface using tunneling, sequential excavation or other similar tunnel construction techniques is permitted between 2200 hours of one day and 0700 hours of the next day.
(b) No person shall perform or cause to be performed the tunnel construction work referred to in clause (a) if the noise from such construction has a level greater than 60 dBA when measured at the point of reception.
- (2) (a) Despite subsection 13(2), construction vehicles or construction equipment used for construction of the Confederation Line Project shall be permitted to operate before 0900 hours on any Sunday or statutory or public holiday for work performed three (3) metres or below the immediate ground surface using tunneling, sequential excavation, or other similar tunnel construction techniques.
(b) No person shall operate or use, or permit to be operated or used, any construction vehicle or construction equipment as described in clause (a) if the noise from such operation or use has a level greater than 60 dBA when measured at the point of reception.
- (3) (a) Despite subsection 12(1), transport trucks or vehicles may be used between 2300 hours of one day and 0700 hours of the next day

- to haul, load or unload material in support of the tunnel construction for the Confederation Line Project.
- (b) No person shall operate or use, or permit to be operated or used, any transport trucks or vehicles as described in clause (a) if the noise from such operation or use has a level greater than 60 dBA when measured at the point of reception.
- (4) (a) Despite subsection 8(1), power equipment for the Confederation Line Project shall be permitted to operate between 2100 hours of one day and 0700 hours of the next day to support tunnel excavation work performed three (3) metres and deeper below the immediate ground surface using tunneling, sequential excavation or other similar tunnel construction techniques.
- (b) No person shall operate or use, or permit to be operated or used, any power equipment as described in clause (a) if the noise from such operation or use has a level greater than 60 dBA when measured at the point of reception.
- (5) (a) Despite subsection 8(2), power equipment for the Confederation Line Project shall be permitted to operate before 0900 hours on any Saturday, Sunday or statutory or public holiday, to support tunnel excavation work performed three (3) metres and deeper below the immediate ground surface using tunneling, sequential excavation or other similar tunnel construction techniques.
- (b) No person shall operate or use, or permit to be operated or used, any power equipment as described in clause (a) if the noise from such operation or use has a level greater than 60 dBA when measured at the point of reception.

UNNECESSARY MOTOR VEHICLE NOISE

15. No person shall cause or permit unnecessary motor vehicle noise such as the sounding of the horn, revving of engine and the squealing of tires of any motor vehicle on any property other than a highway.

IDLING MOTOR VEHICLES

16. (1) No person shall operate or permit the operation of an engine or motor in, or on, any motor vehicle or item of attached auxiliary equipment for a

continuous period exceeding five (5) minutes while such vehicle is stationary, unless,

- (a) the vehicles are operated by OC Transpo, Société de transport de l'Outaouais (STO), and Para Transpo in the course of providing transit service;
 - (b) the vehicles are operated by a private bus transportation company in the course of providing transportation services, and the vehicles are carrying passengers;
 - (c) operation of such engine or motor is essential to the basic function of the vehicle or equipment, including but not limited to, operation of ready-mixed concrete trucks, lift platforms and refuse compactors; or
 - (d) weather conditions justify the use of heating or refrigerating systems powered by the motor or engine for the safety and welfare of the operator, passengers or animals, or the preservation of perishable cargo, and the vehicle is stationary for purposes of actively loading or unloading.
- (2) Subsection (1) shall not apply to occupied motor vehicles when the temperature outside the motor vehicle is greater than twenty-seven degrees Celsius (27°C) including the humidex calculation or less than five degrees Celsius (5°C) including the wind chill value as determined by the Environment Canada temperature readings.

MUFFLERS

17. No person shall discharge into the open air, on any property other than a highway, the exhaust of any motor vehicle except through a muffler or other device which effectively prevents loud or explosive noises.

MOTOR SPORTS

18. (1) No person shall operate or permit the operation of racing competitions between motor vehicles on a property other than a highway within the City, whether or not an admission fee is charged, unless,

- (a) the competitions are held at a permanent facility;
- (b) all motor vehicles are properly equipped with effective mufflers;
- (c) such competitions are not carried out between 2300 hours of one day and 1000 hours of the next day.

- (2) Subsection (1) shall not apply to permanent go-kart operations on a property other than a highway.

GO-KART ACTIVITIES

19. No person shall operate or permit the operation of go-kart activities on a property other than a highway within the City, whether or not an admission fee is charged, unless,

- (a) the activities are held at a permanent go-kart facility;
- (b) all go-karts are equipped with effective mufflers; and
- (c) such activities are not carried out between 2300 hours of one day and 0700 hours of the next day.

GENERAL EXEMPTIONS

20. (1) The provisions of this by-law shall not apply to the City or any local board thereof, the Province of Ontario, the Government of Canada or any of their agents when the emission of sound is in connection with work undertaken for the immediate health, safety or welfare of the inhabitants of the City.
- (2) The provisions of this by-law shall not apply to preclude musicians or performers providing outdoor entertainment involving sound reproduction devices during the events staged by the National Capital Commission including Winterlude or Canada Day celebrations.
- (3) The provisions of this by-law shall not apply to agricultural operations and agricultural processing activities.
- (4) The provisions of this by-law shall not apply to snow clearing or snow removal activities.
- (5) The provisions of this by-law shall not apply to the operation of exterior announcements on buses or other authorized vehicles under the jurisdiction and control of OC Transpo, where the announcements notify users of the route and destination, or any other information, in both official languages.

EXEMPTION – CITY CONSTRUCTION PROJECTS

21. (1) The Manager of By-law & Regulatory Services is delegated the authority to grant an exemption in relation to any Section of this by-law, subject to the following conditions:

- (a) the exemption is in respect of a City Construction Project;
 - (b) a requirement that during the exemption period, the noise caused by the particular project for which the exemption is sought does not exceed 85 dB(A) when measured at the point of reception;
 - (c) public notification of the particulars of the exemption is provided to affected parties by the appropriate General Manager of the City Construction Project; and
 - (d) the Manager of By-law & Regulatory Services, has notified the Councillor of the Ward or Wards in which the work is to occur of the application for the exemption and, within fourteen (14) days following such notification, no Ward Councillor has communicated an objection to the application.
- (2) In the event of an objection by any Ward Councillor pursuant to subsection (1), paragraph (d):
- (a) the Manager of By-law & Regulatory Services shall not approve the exemption; and
 - (b) the City staff representative for the project for which the application is sought shall forward the application to the appropriate Standing Committee of Council and Council for determination.
- (3) An application for an exemption under subsection (1) shall be made in writing to the Manager of By-law & Regulatory Services at least sixty (60) days prior to the commencement of the activity for which the exemption is sought, and shall include the following:
- (a) the name and contact information of the City staff representative associated with the project;
 - (b) the source of the sound or vibration in respect of which the exemption is sought;
 - (c) the provision or provisions of this by-law for which the exemption is sought;
 - (d) the rationale for the exemption;
 - (e) the date and time of commencement of the activity for which the exemption is sought;
 - (f) the time of conclusion for each day for the activity for which the exemption is sought;

- (g) the duration of activity for which the exemption is sought;
 - (h) the location of the activity for which the exemption is sought;
 - (i) the name and contact information of the contact person or persons who will be supervising the activities for which the exemption is sought; and
 - (j) any other information requested by the Manager of By-law & Regulatory Services.
- (4) The Manager of By-law & Regulatory Services may require the applicant to provide proof confirming that public notification has been provided to affected parties as required in subsection (1), which may include but are not limited to community associations, business improvement areas and adjacent residents and businesses.
- (5) (a) A noise exemption granted under this Section is subject to review and termination jointly by the Manager of By-law & Regulatory Services and the General Manager, Planning, Infrastructure and Economic Development based on complaints received, and on a review of compliance by the contractor with the project requirements, the terms of the contract, or the Noise By-law, and any other relevant consideration relating to the public health and safety and to the public interest.
- (b) An automatic review will take place ninety (90) days into a project for which a noise exemption has been granted under this Section.
- (c) The termination of an exemption granted under this Section shall be preceded by notification to the Councillor of the Ward or Wards in which the work is to occur.

EXEMPTION – CONSTRUCTION EQUIPMENT

22. (1) The Manager of By-law & Regulatory Services is delegated the authority to grant an exemption to subsection 13(1) for construction equipment subject to the following conditions:
- (a) the use of construction equipment shall not create noise likely to cause a nuisance or disturb the inhabitants or exceed 85 dB(A) when measured at the point of reception;
 - (b) the use of the construction equipment shall not continue for more than eight (8) hours on any one day;

- (c) the duration of the exemption requested shall not exceed eleven (11) calendar days in length; and
 - (d) the Councillor of the Ward or Wards in which the work is to occur shall be in agreement with granting the exemption.
- (2) An application for exemption from the provisions of the Noise By-law for construction equipment shall be made in writing to the Manager of By-law & Regulatory Services at least sixty (60) days prior to the commencement of the use of the construction equipment for which the exemption is sought and shall include the following:
- (a) the name and address of the applicant;
 - (b) the name and address of the business represented by the applicant, if applicable;
 - (c) the source of the sound or vibration in respect of which the exemption is sought;
 - (d) the provision of this by-law from which the exemption is sought;
 - (e) the date and time of commencement of the construction for which the exemption is sought;
 - (f) the time of conclusion for each day for the use of the construction equipment for which the exemption is sought;
 - (g) the duration of the use of the construction equipment for which the exemption is sought;
 - (h) the location of the construction for which the exemption is sought;
 - (i) rationale for granting an exemption;
 - (j) the name of the contact person or persons who will be supervising the use of the construction equipment; and
 - (k) payment of the application fee as described on Schedule "A".
- (3) The Manager of By-law & Regulatory Services may require the applicant to provide documentation confirming that notification of the use of construction equipment has been given to the affected parties including but not limited to community associations, business improvement areas and adjacent residents and businesses.
- (4) Where the Manager of By-law & Regulatory Services requires monitoring of sound levels resulting from the construction, the monitoring shall be

conducted at the applicant's expense as outlined in Schedule "A" attached hereto.

EXEMPTION – SOUND REPRODUCTION DEVICES USED IN A SPECIAL EVENT

23. (1) The Manager of By-law & Regulatory Services is delegated the authority to grant an exemption for an event subject to the following conditions:
 - (a) the event relates to live or recorded music or involves the use of a sound amplifying system or sound reproduction device operated in a reasonable manner in the context of the special event;
 - (b) the event shall not create noise likely to cause a nuisance or disturb the inhabitants or exceed 65 dB(A) when measured at the point of reception;
 - (c) the event shall not exceed eleven (11) calendar days in length;
 - (d) the time at which the event is to be terminated shall be agreed to by the Councillor of the Ward or Wards in which the event is to occur, the Manager of By-law & Regulatory Services and the applicant, and the event shall not continue beyond 0100 hours on Friday and Saturday and on Sunday only if the following Monday is a statutory holiday;
 - (e) an event shall not continue beyond 2300 hours on Sunday through Thursday; and
 - (f) the Councillor of the Ward or Wards in which the event is to occur shall be in agreement with granting the exemption.
- (2) An application for exemption from the provisions of the Noise By-law shall be made in writing to the Manager of By-law & Regulatory Services at least sixty (60) days prior to the event for which the exemption is sought and shall include the following:
 - (a) the name and address of the applicant;
 - (b) the name and address of the organization represented by the applicant, if applicable;
 - (c) the source of the sound or vibration in respect of which the exemption is sought;
 - (d) the provision of this by-law from which the exemption is sought;

- (e) the date and time of commencement of the event for which the exemption is sought;
 - (f) the time of conclusion for each day of the event for which the exemption is sought;
 - (g) the duration of the event for which the exemption is sought;
 - (h) the location of the event for which the exemption is sought;
 - (i) rationale for granting an exemption, the name of the contact person or persons who will be supervising the event; and
 - (j) payment of the application fee as described on Schedule "A".
- (3) The Manager of By-law & Regulatory Services may require the applicant to provide documentation confirming that notification of the event has been given to the affected parties including but not limited to community associations, business improvement areas and adjacent residents and businesses.
- (4) Where the Manager of By-law & Regulatory Services requires monitoring of sound levels resulting from the event or activity, the monitoring shall be conducted at the applicant's expense as outlined in Schedule "A" attached hereto.
- (5) Clause (j) of subsection (2) does not apply in respect of an event held by or on behalf of a registered not-for-profit organization or a registered charity, where the event is solely for cultural or religious goals, social welfare, civic improvement, recreation, amateur sport, education, or any other similar community enhancement initiative for any purpose except profit, and where the event is open to the public and no admission is charged.

EXEMPTION – TEMPORARY MOTOR RACING COMPETITIONS

24. (1) The Manager of By-law & Regulatory Services is delegated the authority to grant an exemption for motor racing competitions at temporary venues subject to the following conditions:
- (a) the competition does not exceed three (3) days in length;
 - (b) the Councillor of the Ward or Wards in which the competition is to occur shall be in agreement with granting the exemption which will

- include the time of day at which the competition will commence and terminate; and
- (c) the motor vehicles shall be equipped with effective mufflers.
- (2) An application for exemption from the provisions of the Noise By-law for motor racing competition at temporary venues shall be made in writing to the Manager of By-law & Regulatory Services at least sixty (60) days prior to the commencement of the competition for which the exemption is sought and shall include the following:
- (a) the name and address of the applicant;
- (b) the name and address of the business represented by the applicant, if applicable;
- (c) the provision of this by-law from which the exemption is sought;
- (d) the date and time of commencement of the competition for which the exemption is sought;
- (e) the time of conclusion for each day of the competition;
- (f) the duration of the competition for which the exemption is sought;
- (g) the location of the competition for which the exemption is sought;
- (h) rationale for granting an exemption;
- (i) the name of the contact person or persons who will be supervising the competition; and
- (j) payment of the application fee as described on Schedule "A".
- (3) The Manager of By-law & Regulatory Services may require the applicant to provide documentation confirming that notification of the motor racing competition at a temporary venue has been given to the affected parties including but not limited to community associations, business improvement areas and adjacent residents and businesses.
- (4) Where the Manager of By-law & Regulatory Services requires monitoring of sound levels resulting from the event or activity, the monitoring shall be conducted at the applicant's expense as outlined in Schedule "A" attached hereto.

AMBIENT SOUND LEVEL MEASUREMENT

25. (1) When a standard sound equivalent level (dB(A)) test cannot be used because ambient noise exceeds the maximum noise limit established for the device, vehicle or equipment to be measured, a differential reading may be used to isolate the level of noise contributed by the device, vehicle or equipment in question as follows:
- (a) a noise level reading shall be taken when the device, vehicle or equipment is not in operation;
 - (b) a noise level reading shall be taken when the device, vehicle or equipment is in operation; and
 - (c) where the noise level reading calculated in paragraph (b) exceeds the noise level reading calculated in paragraph (a) by 5 dB(A) or more, a noise violation exists.
- (2) No person shall use or operate or cause to be used or operated any device, vehicle or equipment, the noise from which has a level greater than 5 dB(A) above ambient noise levels, provided that the ambient noise levels are greater than the specified maximum level for the device, vehicle or equipment in question.

ENFORCEMENT

26. This by-law shall be enforced by the Chief of Police or by the By-law Officers of the City.

OFFENCE AND PENALTIES

27. (1) Every person who contravenes any provision of this by-law is guilty of an offence as provided for in subsection 429(1) of the *Municipal Act, 2001*, and all such offences are designated as continuing offences as provided for in subsection 429(2)(a) of the *Municipal Act, 2001*.
- (2) A person who is convicted of an offence under this by-law is liable, for each day or part of a day that the offence continues, to a minimum fine of \$500.00 and a maximum fine of \$10,000.00, and the total of all daily fines for the offence is not limited to \$100,000.00 as provided for in subsection 429(3)2 of the *Municipal Act, 2001*.
- (3) When a person has been convicted of an offence under this by-law, the Superior Court of Justice or any court of competent jurisdiction thereafter

may, in addition to any penalty imposed on the person convicted, issue an order

- (a) prohibiting the continuation or repetition of the offence by the person convicted; and
- (b) requiring the person convicted to correct the contravention in the manner and within the period that the court considers appropriate.

INTERPRETATION

28. (1) It is declared that if any section, subsection or part or parts thereof be declared by any Court of Law to be bad, illegal or ultra vires, such section, subsection or part or parts shall be deemed to be severable, and all parts hereof are declared to be separate and independent and enacted as such.
- (2) In this by-law, a word interpreted in the singular number has a corresponding meaning when used in the plural.
- (3) Schedules "A" and "B" annexed hereto are hereby declared to form part of this by-law.

REPEAL

29. By-law No. 2004-253, the Noise By-law, is repealed.

SHORT TITLE

30. This by-law may be referred to as the Noise By-law.

EFFECTIVE DATE

31. This by-law shall come into effect on the 30th day of September, 2017.

ENACTED AND PASSED this 12th day of July, 2017.

CITY CLERK

MAYOR

Schedule “A”

FEES

Application Fee	\$50.00
Inspection/Monitoring Fee	\$60.00/hour/Officer

Schedule "B"



	Schedule B - Central Area - Noise By-law Annexe B - Zone centrale - Règlement de bruit
17-XXXX-X	
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BY-LAW NO. 2017 - 255

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A by-law of the City of Ottawa
respecting noises.

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Enacted by City Council at its meeting
of July 12, 2017.

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LEGAL SERVICES
OA/ch

COUNCIL AUTHORITY:

City Council – May 24, 2017

Agenda Item 6 (CPSC Report No. 23)

APPENDIX E: REFERENCES

1. Ministry of the Environment, *ORNAMENT*, "Ontario Road Noise Analysis Method for Environment and Transportation," November 1988.
2. Ministry of the Environment, *STAMSON* Computer Programme (*Version 5.03*) for the IBM PC.
3. Ministry of the Environment, "Publication NPC-300, Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning," August 2013.
4. Cadna/A Computer Aided Noise Abatement, Version 2018.