

# **Environmental Noise Impact Study**

## **Esso Service Station**

**Proposed Gas Bar, Car Wash and Drive-thru**  
Woodroffe Avenue and Medhurst Drive  
City of Ottawa

March 4, 2015  
Project: 114-456

Prepared for

**Imperial Oil Limited**

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**VALCOUSTICS**

*Canada Ltd.*

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# **Environmental Noise Impact Study**

## **Esso Service Station**

**Proposed Gas Bar, Car Wash and Drive-Thru Facility**  
Woodroffe Avenue and Medhurst Drive  
City of Ottawa

### **1.0 THE PROJECT**

Valcoustics Canada Ltd. has prepared this Environmental Noise Impact Study for the proposed gas bar/car wash, drive-thru facility located on the northeast corner of Woodroffe Avenue and Medhurst Drive in the City of Ottawa.

The site is bounded by:

- ▶ Residential dwellings to the north and east;
- ▶ Woodroffe Avenue to the west; and
- ▶ Medhurst Drive, with existing agricultural and residential uses beyond, to the south.

Figure 1 shows a Key Plan of the area. The site is zoned General Mixed Use (GM15), and is surrounded by lands zoned Residential (R3) to the north and east, as well as to the west of Woodroffe Avenue, and Open Space (O1) to the south of Medhurst Drive.

Figure 2 shows the Proposed Site Plan, dated March 17, 2014, last revised October 27, 2014, prepared by Imperial Oil Limited in reduced form.

### **2.0 RECEPTORS OF CONCERN**

The closest receptors of concern are the dwellings immediately north and east of the subject site.

Ten (10) receptors were used in the analysis.

- ▶ Receptors R01 to R03 represent the second storey windows on the dwellings to the north of the subject site;
- ▶ Receptors R04 to R07 represent the second storey windows on the dwellings to the east of the site; and
- ▶ Receptors R08 and R09 represent the second storey windows on the dwellings southeast of the site.
- ▶ Receptor R10 represents the vacant residential land to the west of Woodroffe Avenue.

Figures 3 to 10 show the locations of the assessment receptors. The receptors were assessed at a “worst case” top storey window height of 4.5 m above grade.

## **3.0 ENVIRONMENTAL NOISE GUIDELINES**

### **3.1 MINISTRY OF THE ENVIRONMENT (MOE)**

The applicable noise guidelines for new residential development (and other noise sensitive uses) are those in MOE Publication NPC-300, *“Environmental Noise Guideline, Stationary and Transportation Sources - Approval and Planning”*.

The newly released (October 21, 2013) MOE Publication NPC-300 noise guideline has replaced the four existing noise guidelines (Publications LU-131, NPC-205 and NPC-232, as well as Noise Assessment Criteria in Land Use Planning: Requirements, Procedures and Implementation) in Ontario.

NPC-300 addresses transportation sources of sound as well as stationary noise sources. The environmental noise guidelines of the MOE, as provided in Publication NPC-300, are discussed briefly below.

Note that commercial operations are referred to as “stationary sources” in the MOE terminology. (An industrial/commercial site and all of its operations are termed a stationary source, even though individual components can move on the site.)

The site and area in question is Class 1 – Urban; i.e., an area where the ambient sound environment is dominated by “urban hum”, primarily traffic noise. This is due to the proximity to the area road network.

The guideline indicates that the sound exposure from the proposed facility cannot exceed the higher of the background sound exposures or the exclusion sound exposure limits listed in Table 1, in any hour of the day. Sound exposures in this case are assessed using one-hour  $L_{eq}$  (dBA), the energy equivalent continuous sound level. The noise guideline limits apply at the exterior plane of windows and at outdoor grade level spaces.

The limits contained in Publication NPC-300 do not apply to:

- a) gas stations; or
- b) occasional movement of vehicles on the property such as infrequent delivery of goods to convenience stores.

The assessment of noise impact requires the determination of the “predictable worst case” impact of the facility. Unpredictable or unplanned activity such as the removal of snow from the parking lot area would not be included in the definition of predictable worst case. Therefore, these sources have not been included in the assessment.

It should be noted that for a class 1 area, NPC-300 and NPC-205 are essentially the same except for evening hours where the exclusion limit is 3 dB less (more stringent) in NPC-205 than that in NPC-300 (i.e., 47 dBA in NPC-205 and 50 dBA in NPC-300). Both NPC-205 and NPC-300 indicate that the applicable sound level limits are the higher of the background ambient sound levels or the exclusion limits.

### **3.2 APPLICABLE GUIDELINE LIMITS**

At some receptors, the existing ambient sound exposures from the road traffic on Woodroffe Avenue and Medhurst Drive are predicted to be higher than the exclusionary limits in Table 1. Thus, the existing ambient sound levels define the applicable noise guideline limits at these receptors. Section 5.1 below describes the calculation procedures to predict the ambient sound exposures.

## **4.0 SOUND SOURCES AND SCENARIOS**

### **4.1 SOUND SOURCES**

The proposed development as a whole is considered as one stationary source. It should be noted that noise emissions associated with the gas bar operation would be exempt from the MOE noise guidelines. However, the car wash facility and the drive-thru restaurant must be designed to comply with the sound level guideline limits outlined in NPC-300.

Noise emissions from the proposed development on the subject site were modelled using data from similar facilities.

The noise sources are expected to include:

- ▶ Car Wash Facility:
  - Car Dryer Fans: sound emanating from the car wash entrance and exit doors (doors open);
  - car wash line up (the worst case is 13 cars in the queue);
  - two vacuums; and
  - one air pump.
- ▶ Drive-thru Restaurant Building:
  - Order Board: sound emanating from the loudspeakers and customers ordering;
  - Vehicle Line up: the worst case is 13 cars in the queue during the peak hours;
  - two rooftop air handling/air conditioning units;
  - two condensers; and
  - one compressor.
- ▶ Customer vehicle movements on the site (assumed to travel at a speed of 20 kph while on site).

Figure 11 shows the source ID's and locations.

### **4.2 OPERATING SCENARIOS**

The drive-thru and car wash facilities are both to operate 24-hours per day with reduced usage in the evening and nighttime hours.

The drive-thru and car wash operations are generally related to vehicle volumes on the area

roadways. Typically, this type of facilities becomes busy in the early morning hours (0600 to 0700) and would normally reach peak capacity in the hours around 0700 to 0900. At other hours, usage is expected to be less.

Thus, four operating scenarios with different levels of activity were considered. The scenarios considered reflect operating conditions that would not be expected to occur on a regular basis, and perhaps only occasionally. In practice, it is expected that actual operating activities will be less than considered in this report, making the analysis conservative.

The four operating scenarios analysed are:

1. Peak Daytime Hour (0700 to 0800):

- ▶ Queue full for the full hour at the drive-thru window, with 160 orders per hour (80 orders at each menu board).
- ▶ The car wash facility was assumed to operate at full capacity with 13.33 car washes per hour with 13 cars in the queue idling 100% of the time.
- ▶ All rooftop mechanical units operating at 100% duty cycle (i.e., each unit operates for the full hour).
- ▶ One air pump operating 90 % of the time.
- ▶ Two vacuums operating 90% of the time.
- ▶ 200 vehicle movements representing customers arriving at and departing from the subject site.

2. Peak Evening Hour (2200 to 2300):

- ▶ One car in the queue at the drive-thru window, with 30 orders per hour (15 orders at each menu board) and assuming it takes one minute to fill in each order. That is, each car is in the queue for one minute for a total of 30 car-minutes per hour.
- ▶ The car wash facility was assumed to operate at 50% capacity with 6.67 car washes per hour with no cars in the queue.
- ▶ All rooftop mechanical units operating at 100% duty cycle (i.e., each unit operates for the full hour).
- ▶ One air pump operating 50 % of the time.
- ▶ Two vacuums operating 10% of the time.
- ▶ 70 vehicle movements representing customers arriving at and departing from the subject site.

3. Nighttime 1 (0400 to 0500 hours):

- ▶ One car in the queue at the drive-thru window, with ten orders per hour (five order at each menu board) and assuming it takes one (1) minute to fill each order. That is, each car is in the queue for one minute for a total of ten car-minutes per hour.
- ▶ The car wash facility was assumed to operate at 10% capacity with 1.33 car washes per hour with no cars in the queue.
- ▶ Two rooftop HVAC units operating at 50% duty cycle (i.e., each unit operates for 30 minutes per hour).
- ▶ Two condensers and one compressor units operating at 100% duty cycle (i.e., each unit operates for the full hour).
- ▶ one air pump operating 10% of the time.
- ▶ 40 customer vehicles arriving at and departing from the subject site.

4. Nighttime 2 (0600 to 0700 hours):

- ▶ Queue full for the full hour at the drive-thru window, with 135 orders per hour (67.5 orders at each menu board).
- ▶ The car wash facility was assumed to operate at 50% capacity with 6.67 car washes per hour with no cars in the queue.
- ▶ Two rooftop HVAC units operating at 50% duty cycle (i.e., each unit operates for 30 minutes per hour).
- ▶ Two condensers and one compressor unit operating at 100% duty cycle (i.e. each unit operates for the full hour).
- ▶ One air pump operating 50% of the time.
- ▶ Two vacuum pumps operating 10% of the time.
- ▶ 170 vehicle movements representing customers arriving at and departing from the subject site.

## **5.0 NOISE IMPACT ASSESSMENT**

### **5.1 ANALYSIS**

At each of the assessment receptor locations, the following procedures were used to assess potential noise impact from the proposed development on nearby noise sensitive land uses.

- A 3-D acoustic model of the proposed development, as shown in Figures 3 to 10, was developed using CadnaA V4.4 environmental noise modelling software, which follows the

protocol of the ISO Standard 9613.2, “*Acoustics – Attenuation of Sound During Propagation in Outdoors*”, to determine the predicted sound exposures at each of the receptor locations. Accounting for distance attenuation, ground attenuation and barrier attenuation where applicable, the sound exposure from all the relevant noise sources (hourly  $L_{eq}$ ) was determined for each receptor position, for each of the operating scenarios described in Section 4.2 above.

- Hard ground ( $G = 0$ ) was used for the subject site and roadways. Soft ground ( $G = 1$ ) was used elsewhere.
- One order of sound reflection from the building facades were included in the assessment.
- A mansard roof will be provided for the drive-thru restaurant building. This provides acoustical (and visual) screening of the rooftop equipment. Screening from the mansard roof was accounted for in the analysis.
- Existing topography for the area surrounding the site was used in the assessment.
- Existing traffic data for Woodroffe Avenue and Medhurst Drive were obtained from the City of Ottawa Traffic Services. The hourly volumes during nighttime 1 (0400 to 0500 hours), nighttime 2 (0600 to 0700 hours), peak daytime (0700 to 0800 hours) and peak evening (2200 to 2300 hours) were calculated from the 24-hour volumes using the ITE distribution model. Then, the background road traffic noise was predicted from the RLS-90 model in CadnaA V4.4.

It should be noted that the background sound level calculated from RLS-90 is slightly lower than that calculated using the MOE road traffic noise prediction model (ORNAMENT), making the analysis conservative.

Table 2 summarizes the applicable guideline limits at the assessment receptors.

Appendix B contains the background ambient sound levels at the assessment receptors as well as the traffic data.

## **5.2 ASSESSMENT**

Table 3 summarizes the predicted, site generated, unmitigated hourly sound exposures at the assessment receptors, as well as the applicable guideline limits without any additional noise mitigation other than the proposed mansard roof.

Figures 3 to 6 show the site generated sound exposures for the four scenarios.

As shown in Table 3, as well as on Figures 3 to 6, without noise mitigation measures, sound level excesses over the applicable guideline limits are predicted at some receptors. In the worst case, the excess is 7 dBA at receptor location R09 for the nighttime 2 scenario (0600-0700 hours). The excess is mainly due to noise from the drive-thru queue and loudspeakers, which are approximately 20 m away from the dwelling. During the nighttime 1 scenario (0400-0500), an excess of 3 dBA is predicted at R01 due to the car wash. Excesses of up to 3 dBA are also predicted at R09 during the daytime hours.

### **5.3 SUMMARY OF RECOMMENDATIONS**

To mitigate the sound levels to comply with the applicable guideline limits, noise mitigation measures are required and include:

- ▶ a 2.0 m high sound barrier extending 61 m from the car wash queue toward the drive-thru queue;
- ▶ a 3.2 m high, 32 m long sound barrier along the southeastern portion of the drive-thru queue; and
- ▶ a 3.0 m high wing wall extending 1.5 m along the car wash exit.

The locations and orientations of the sound barriers can be seen on Figures 7 to 11. Note that the sound barrier could be used to replace the board-on-board fence indicated in the site plan.

Table 4 summarizes the mitigated sound levels. Figures 7 to 10 show the mitigated sound exposures for all scenarios.

Sound barriers must be of solid construction having no gaps, cracks or holes and must have a minimum surface density of 20 kg/m<sup>2</sup>.

The analysis should be reviewed once the site grading and specific information regarding mechanical equipment are developed.

Note, with the above mitigation measures, the applicable MOE noise guidelines in both NPC-300 and NPC-205 are predicted to be met.

### **6.0 CONCLUSIONS**

With the above recommendations, the resulting sound exposures from the proposed development are expected to comply with MOE noise guidelines under "worst case" maximum capacity operation conditions and the potential for adverse noise impact from the proposed commercial/retail development will be negligible.

### **7.0 REFERENCES**

1. "Stationary and Transportation Sources – Approval and Planning", Ontario Ministry of the Environment, Publication NPC-300, August 2013.

**TABLE 1**  
**EXCLUSIONARY SOUND LIMITS FOR CLASS 1 AREAS**

<b>Time of Day</b>	<b>One-Hour <math>L_{eq}</math> (dBA) or <math>L_{LM}</math> (dBAL)</b>
0700 to 1900 hours	50
1900 to 2300 hours	50
2300 to 0700 hours	45

**TABLE 2**  
**APPLICABLE NOISE GUIDELINE LIMITS**

<b>Receptor<sup>(1)</sup></b>	<b><math>L_{eq}(1)</math> (dBA) for Indicated Hour</b>			
	<b>Peak Daytime Hour (0700-0800)</b>	<b>Peak Evening Hour (2200-2300)</b>	<b>Nighttime 1 (0400-0500)</b>	<b>Nighttime 2 (0600-0700)</b>
R01	58	53	45 <sup>(2)</sup>	54
R02	55	50 <sup>(2)</sup>	45 <sup>(2)</sup>	50
R03	53	50 <sup>(2)</sup>	45 <sup>(2)</sup>	49
R04	52	50 <sup>(2)</sup>	45 <sup>(2)</sup>	48
R05	53	50 <sup>(2)</sup>	45 <sup>(2)</sup>	48
R06	52	50 <sup>(2)</sup>	45 <sup>(2)</sup>	48
R07	51	50 <sup>(2)</sup>	45 <sup>(2)</sup>	47
R08	50 <sup>(2)</sup>	50 <sup>(2)</sup>	45 <sup>(2)</sup>	45
R09	51	50 <sup>(2)</sup>	45 <sup>(2)</sup>	47
R10	65	60	49	60

Notes:

- (1) See Figures 3 to 10.
- (2) Exclusion limit of the MOE noise guidelines of NPC-300.
- (3) Due to road traffic on the roadways, unless otherwise noted.

**TABLE 3**

**SITE GENERATED HOURLY SOUND EXPOSURES – NO MITIGATION**

<b>Receptor<sup>(1)</sup></b>	<b>L<sub>eq</sub>(1) (dBA) for Indicated Hour<sup>(2)</sup></b>			
	<b>Peak Daytime Hour (0700-0800)</b>	<b>Peak Evening Hour (2200-2300)</b>	<b>Nighttime 1 (0400-0500)</b>	<b>Nighttime 2 (0600-0700)</b>
R01	59 (58)	55 (53)	48 (45)	55 (54)
R02	52 (55)	44 (50)	38 (45)	46 (50)
R03	52 (53)	43 (50)	37 (45)	46 (49)
R04	52 (52)	42 (50)	36 (45)	46 (48)
R05	53 (53)	43 (50)	38 (45)	47 (48)
R06	53 (52)	43 (50)	38 (45)	49 (48)
R07	53 (51)	44 (50)	39 (45)	52 (47)
R08	49 (49)	39 (50)	35 (45)	49 (45)
R09	54 (51)	43 (50)	39 (45)	54 (47)
R10	55 (65)	51 (60)	44 (49)	51 (60)

Notes:

(1) See Figures 3 to 6.

(2) Due to rooftop mechanical equipment, gas bar/car wash and drive-thru operations, as well as customer vehicle movements. (Applicable MOE guideline limits are shown in brackets.)

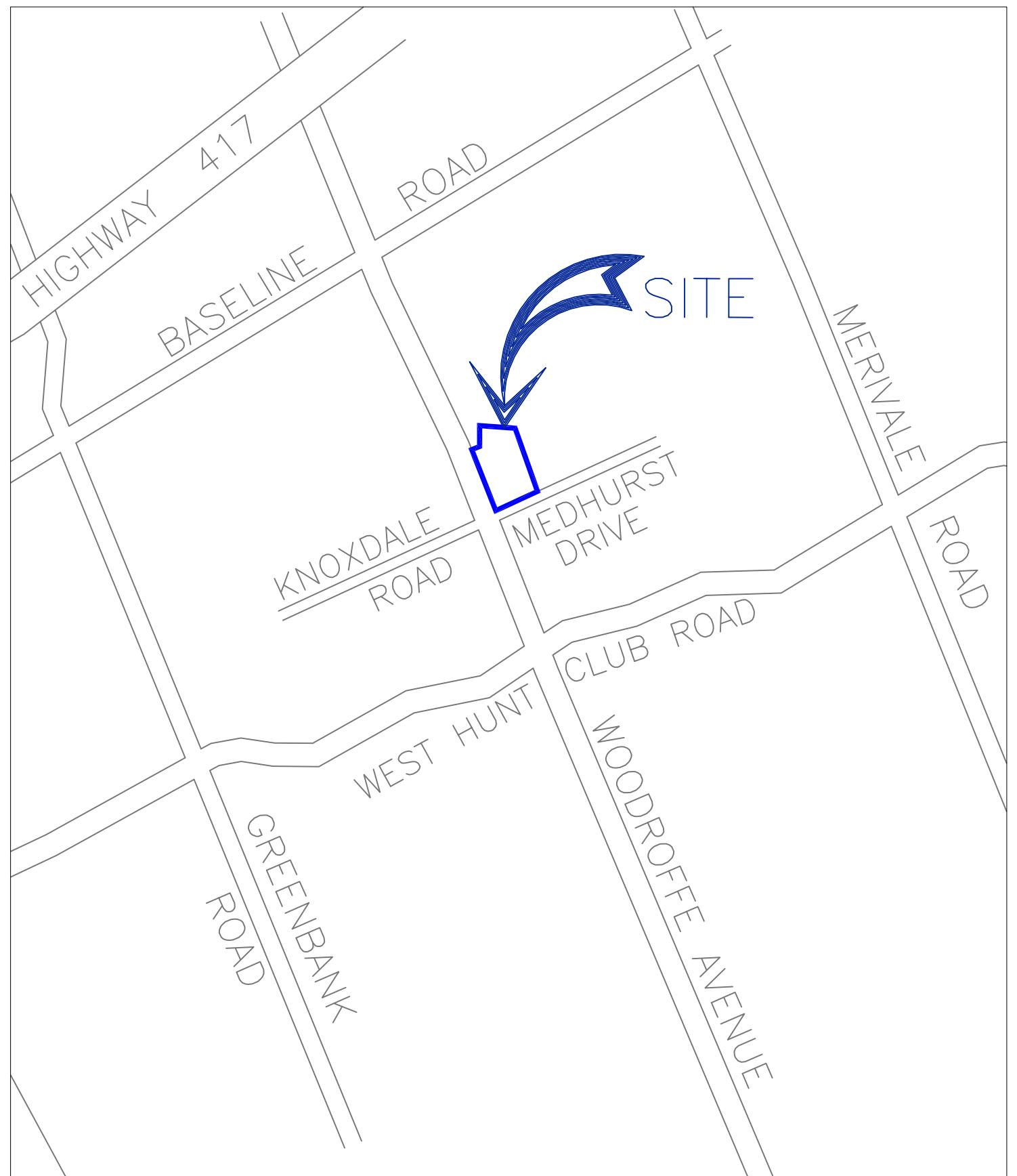
**TABLE 4**

**SITE GENERATED HOURLY SOUND EXPOSURES – WITH MITIGATION**

<b>Receptor<sup>(1)</sup></b>	<b><math>L_{eq}(1)</math> (dBA) for Indicated Hour<sup>(2)</sup></b>			
	<b>Peak Daytime Hour (0700-0800)</b>	<b>Peak Evening Hour (2200-2300)</b>	<b>Nighttime 1 (0400-0500)</b>	<b>Nighttime 2 (0600-0700)</b>
R01	53 (58)	50 (53)	43 (45)	50 (54)
R02	52 (55)	43 (50)	38 (45)	46 (50)
R03	52 (53)	42 (50)	37 (45)	46 (49)
R04	51 (52)	41 (50)	35 (45)	44 (48)
R05	52 (53)	43 (50)	37 (45)	46 (48)
R06	52 (52)	43 (50)	38 (45)	47 (48)
R07	51 (51)	43 (50)	38 (45)	47 (47)
R08	42 (49)	37 (50)	33 (45)	41 (45)
R09	48 (51)	40 (50)	37 (45)	47 (47)
R10	55 (65)	51 (60)	44 (49)	51 (60)

Notes:

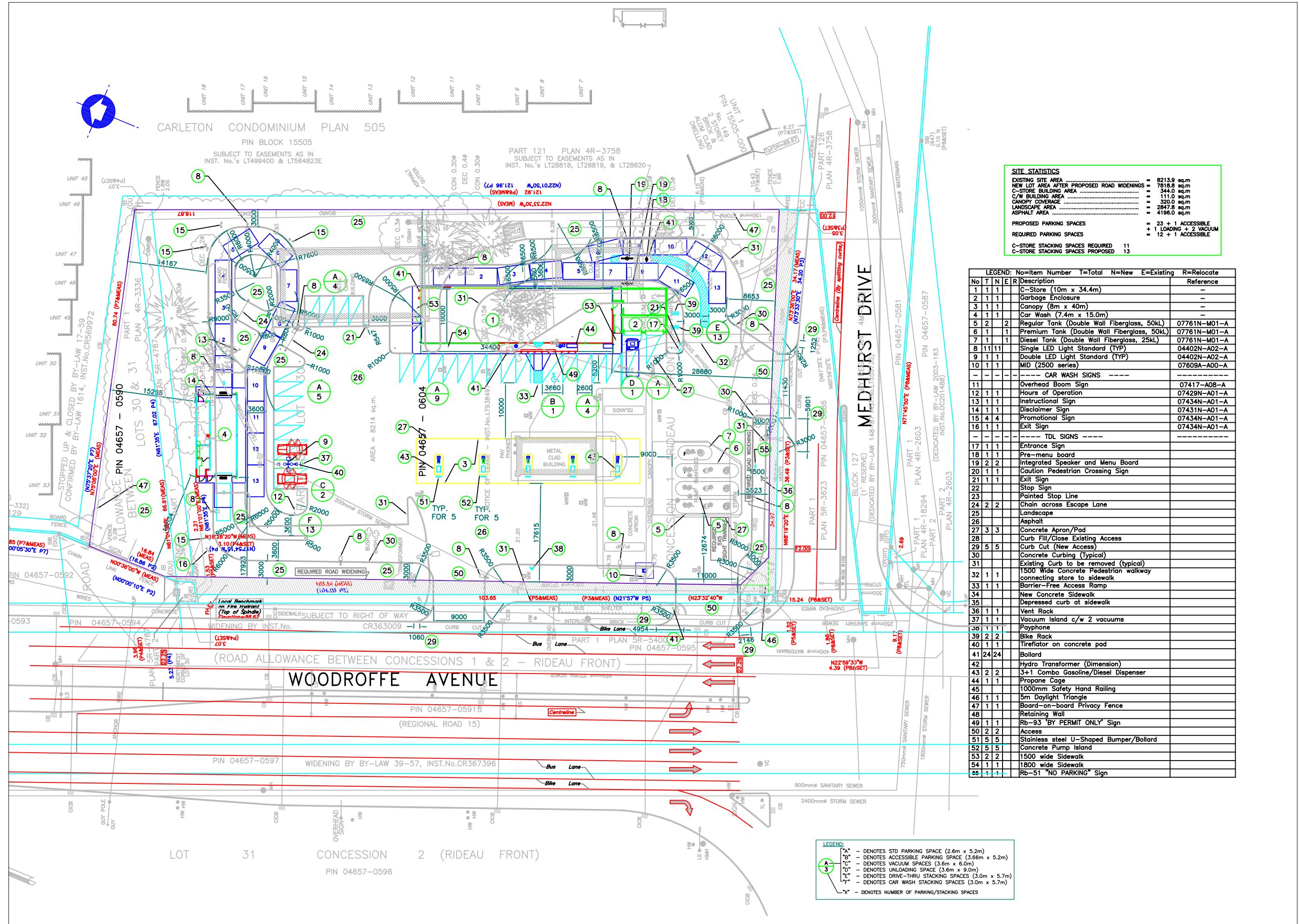
- (1) See Figures 7 to 10.  
 (2) Due to rooftop mechanical equipment, car wash and drive-thru operations, as well as customer vehicle movements.  
 (Applicable MOE guideline limits are shown in brackets.)

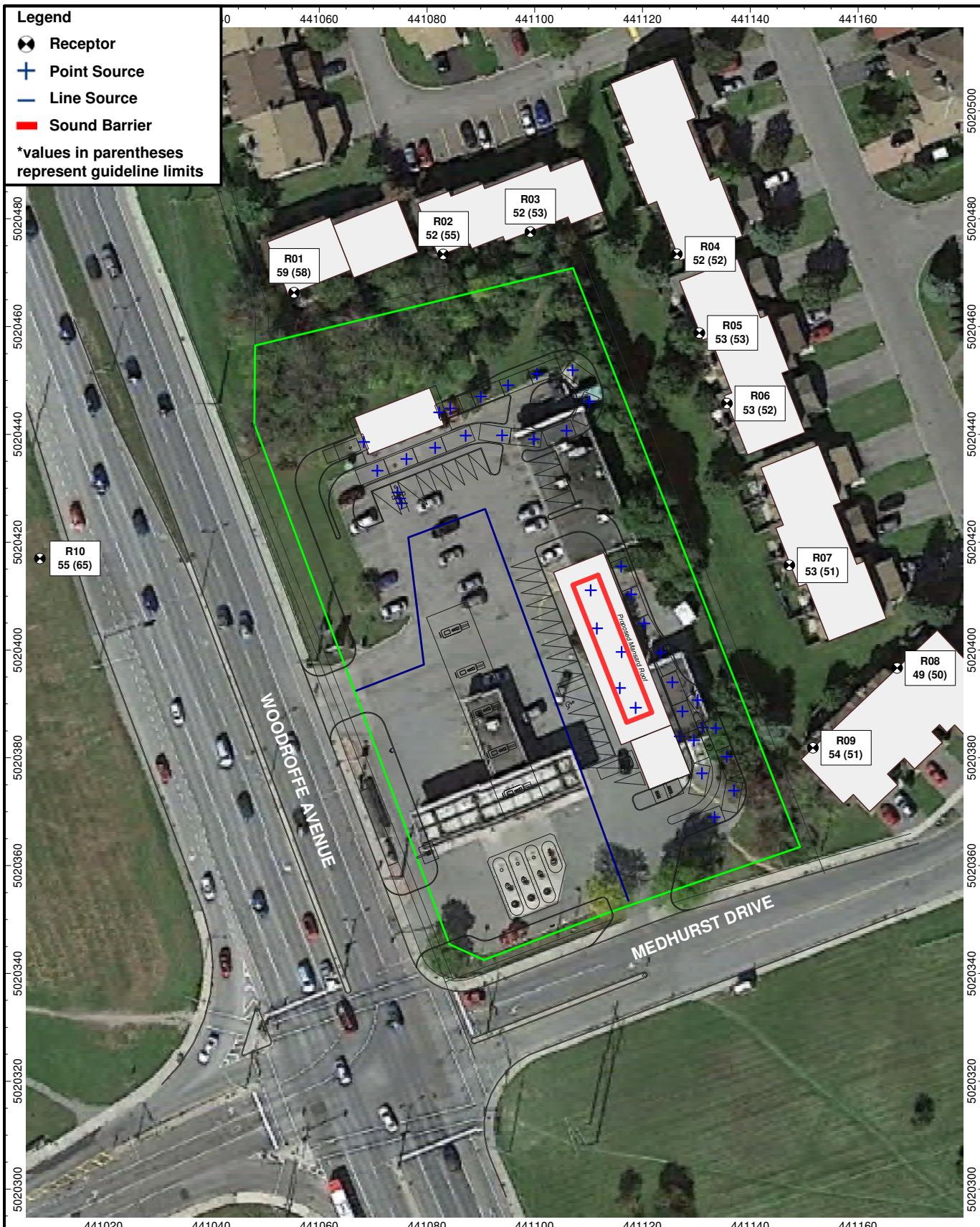


No.	Revision/Issue	Date	VALCOUSTICS Canada Ltd.	Title	Project No.	Date
			30 Wertheim Court, Unit 25 Richmond Hill, Ontario Canada L4B 1B9 Tel: 905-764-5223 Fax: 905-764-5813 <a href="mailto:solutions@valcoustics.com">solutions@valcoustics.com</a>	Key Plan	114-456	2015-01-29
				Project Name Esso GBCW-DT/ Woodroffe Ave & Medhurst Dr	Scale N.T.S.	Figure 1

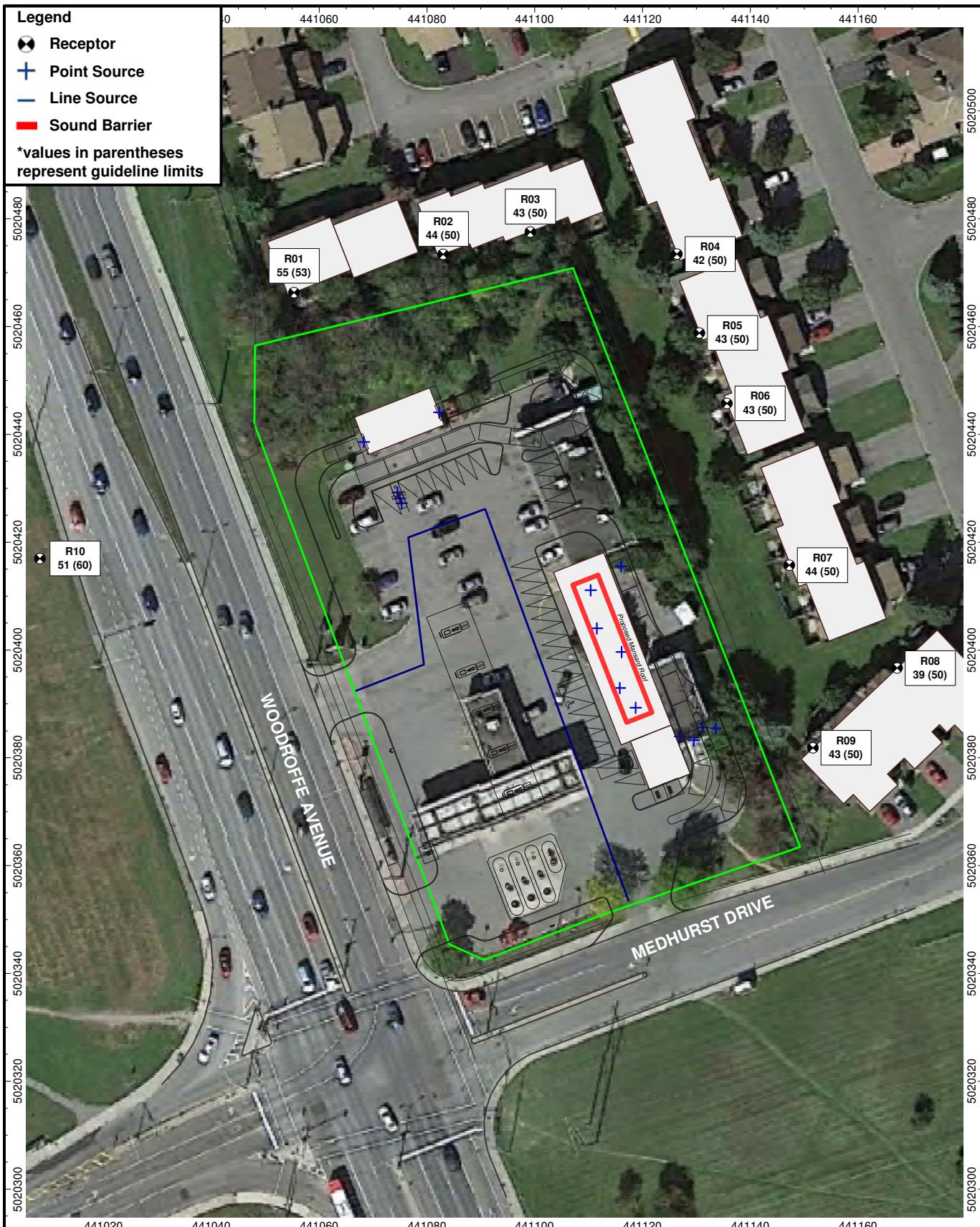
General Notes

Base Drawing by:  
IMPERIAL OIL

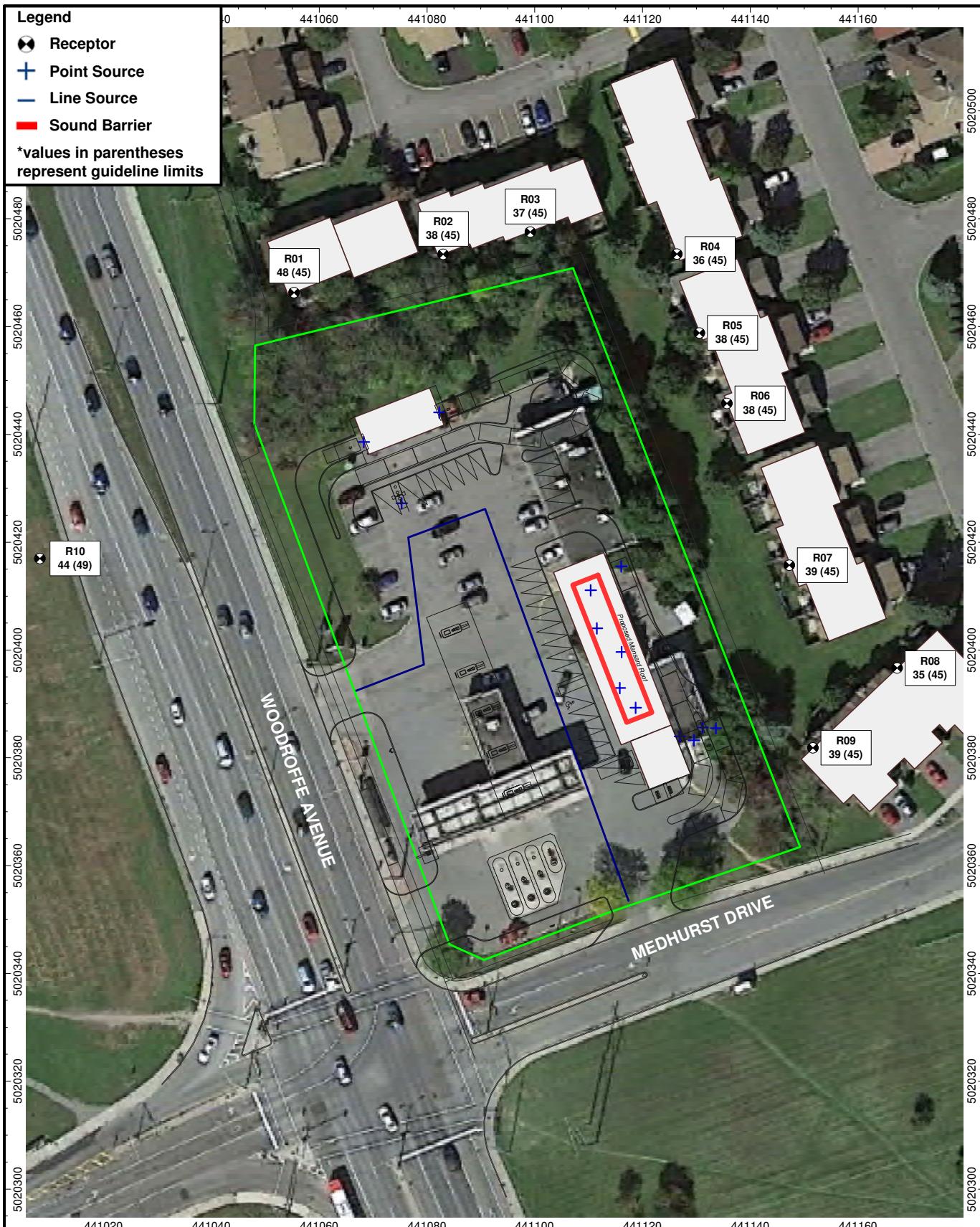




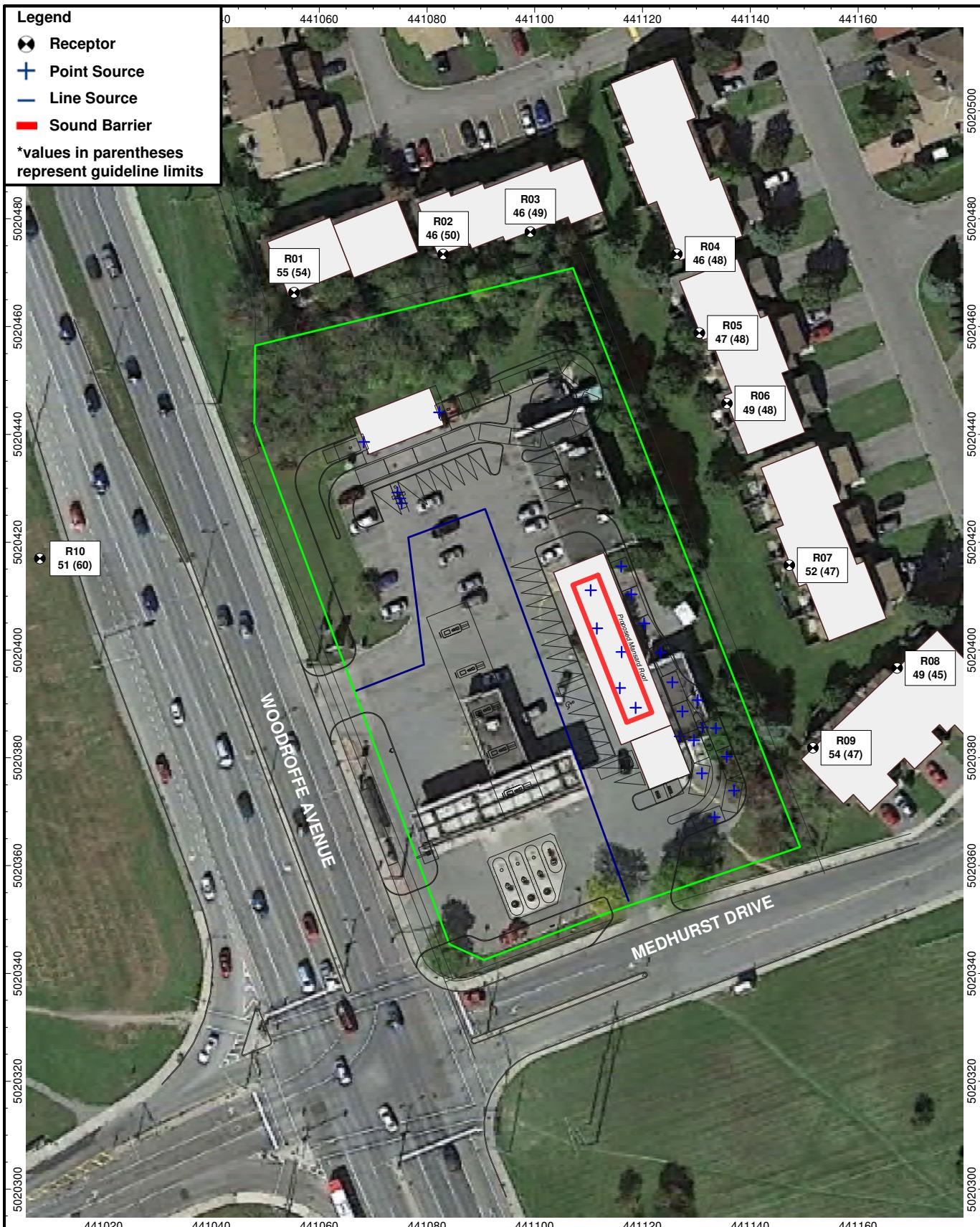
VALCOUSTICS Canada Ltd. consulting acoustical engineers	Title Unmitigated Sound Exposures (dBA) - 0700-0800 Hours	Date 2015-03-04	Figure 3
Project Name <b>Esso GBCW-DT/Woodroffe Ave &amp; Medhurst Dr</b>	Project No. <b>114-456</b>		



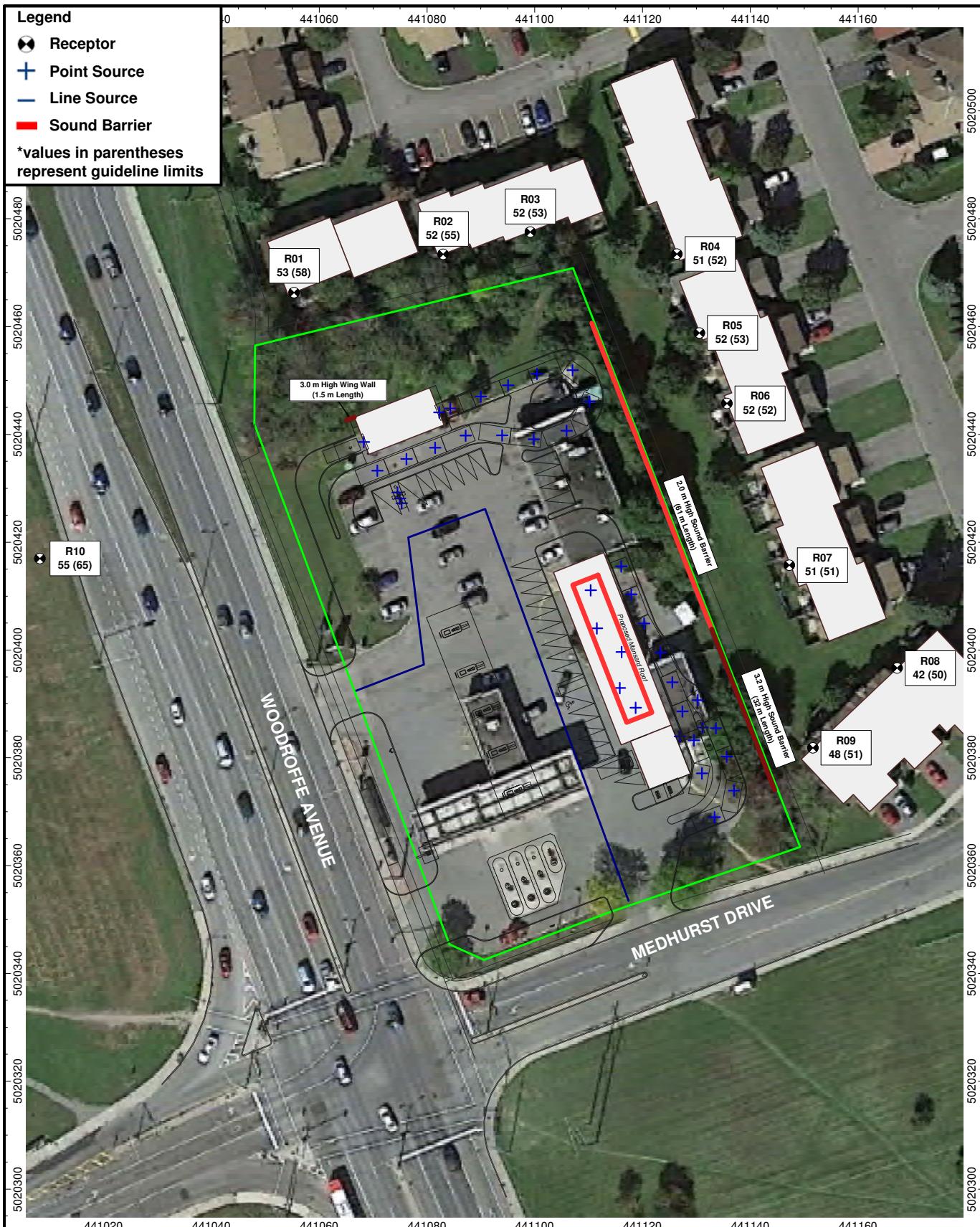
VALCOUSTICS Canada Ltd. consulting acoustical engineers	Title Unmitigated Sound Exposures (dBA) - 2200-2300 Hours	Date 2015-03-04	Figure 4
	Project Name <b>Esso GBCW-DT/Woodroffe Ave &amp; Medhurst Dr</b>	Project No. <b>114-456</b>	



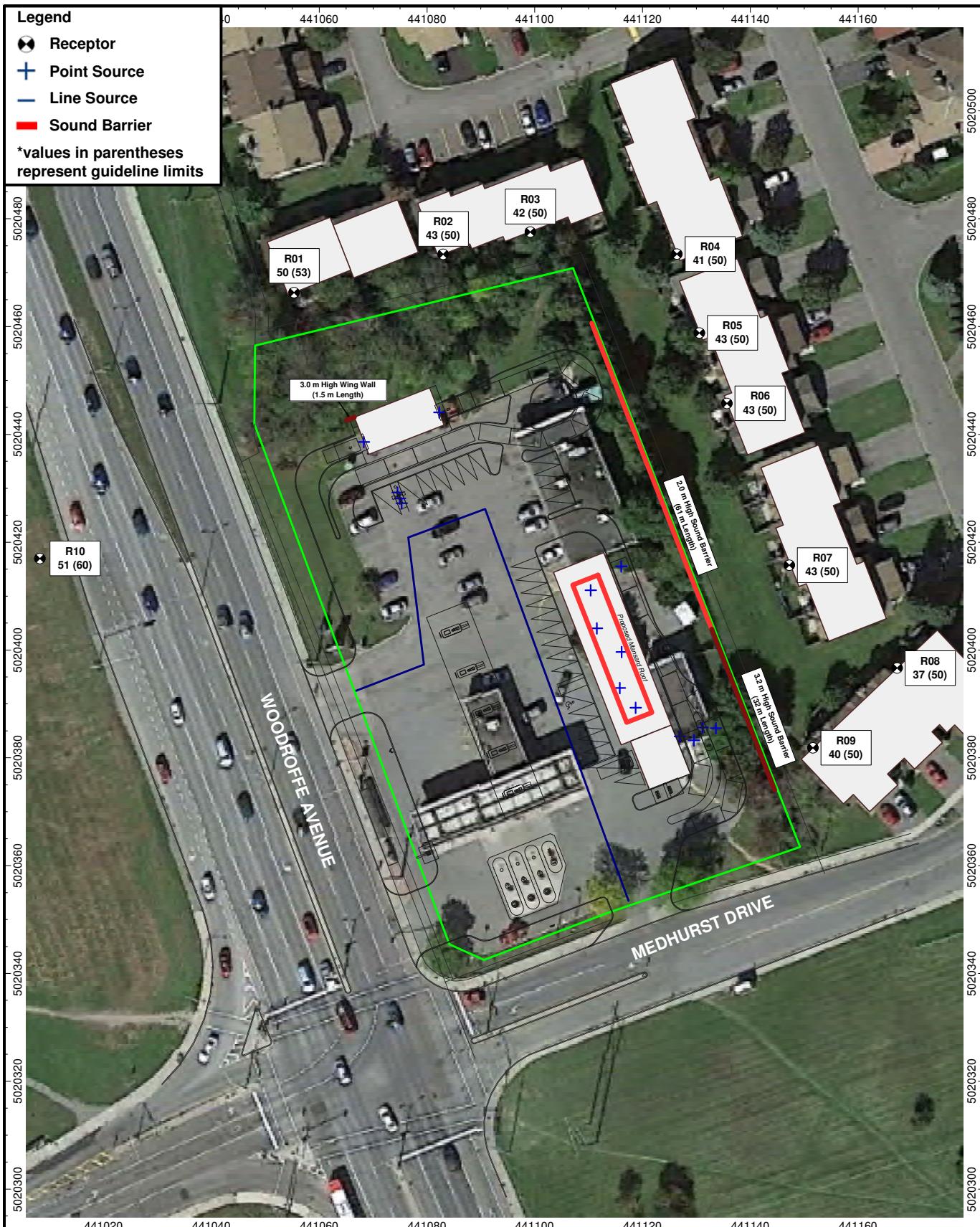
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	Project Name <b>Esso GBCW-DT/Woodroffe Ave &amp; Medhurst Dr</b>	Project No. <b>114-456</b>	



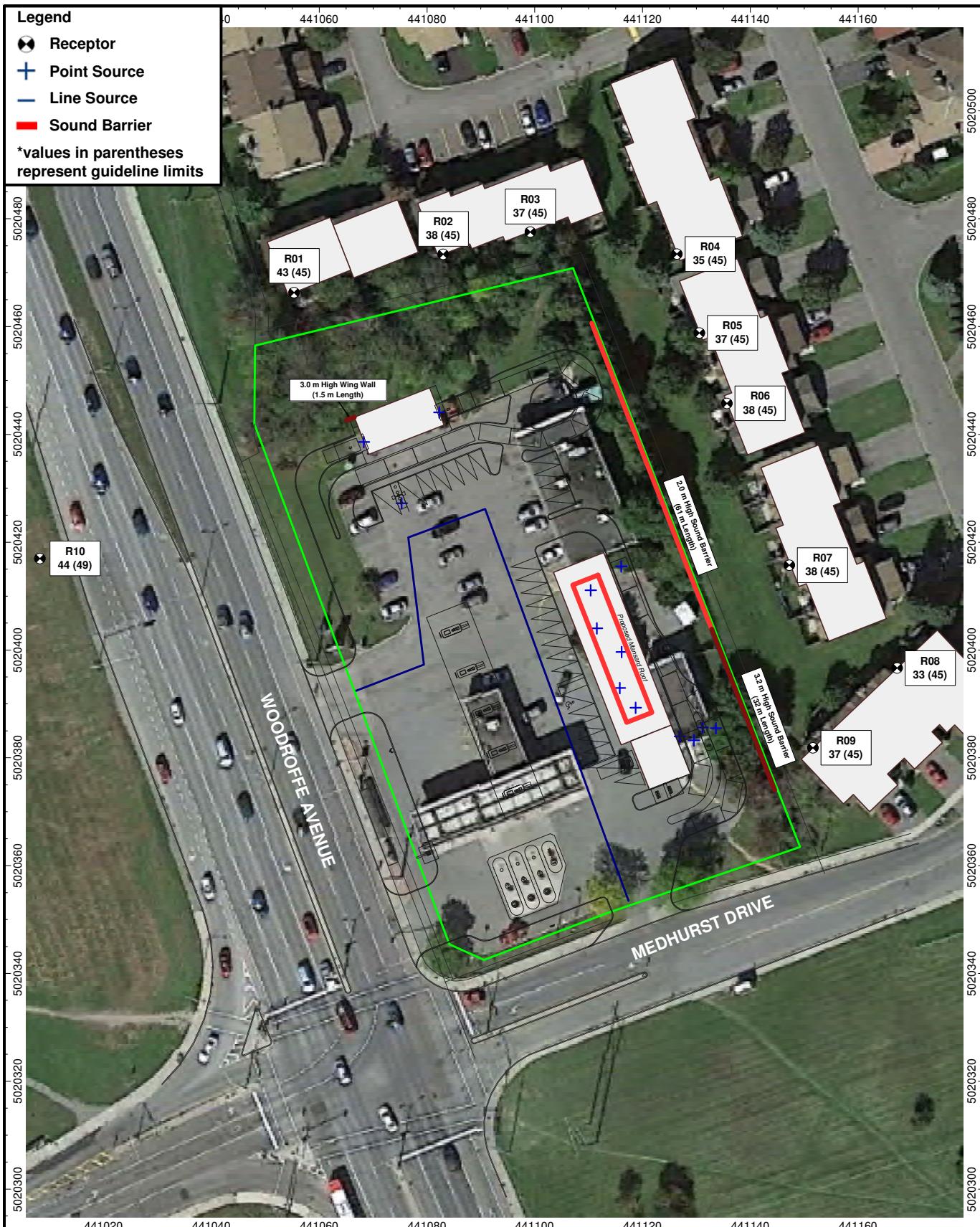
VALCOUSTICS Canada Ltd. consulting acoustical engineers	Title Unmitigated Sound Exposures (dBA) - 0600-0700 Hours	Date 2015-03-04	Figure 6
Project Name <b>Esso GBCW-DT/Woodroffe Ave &amp; Medhurst Dr</b>	Project No. <b>114-456</b>		



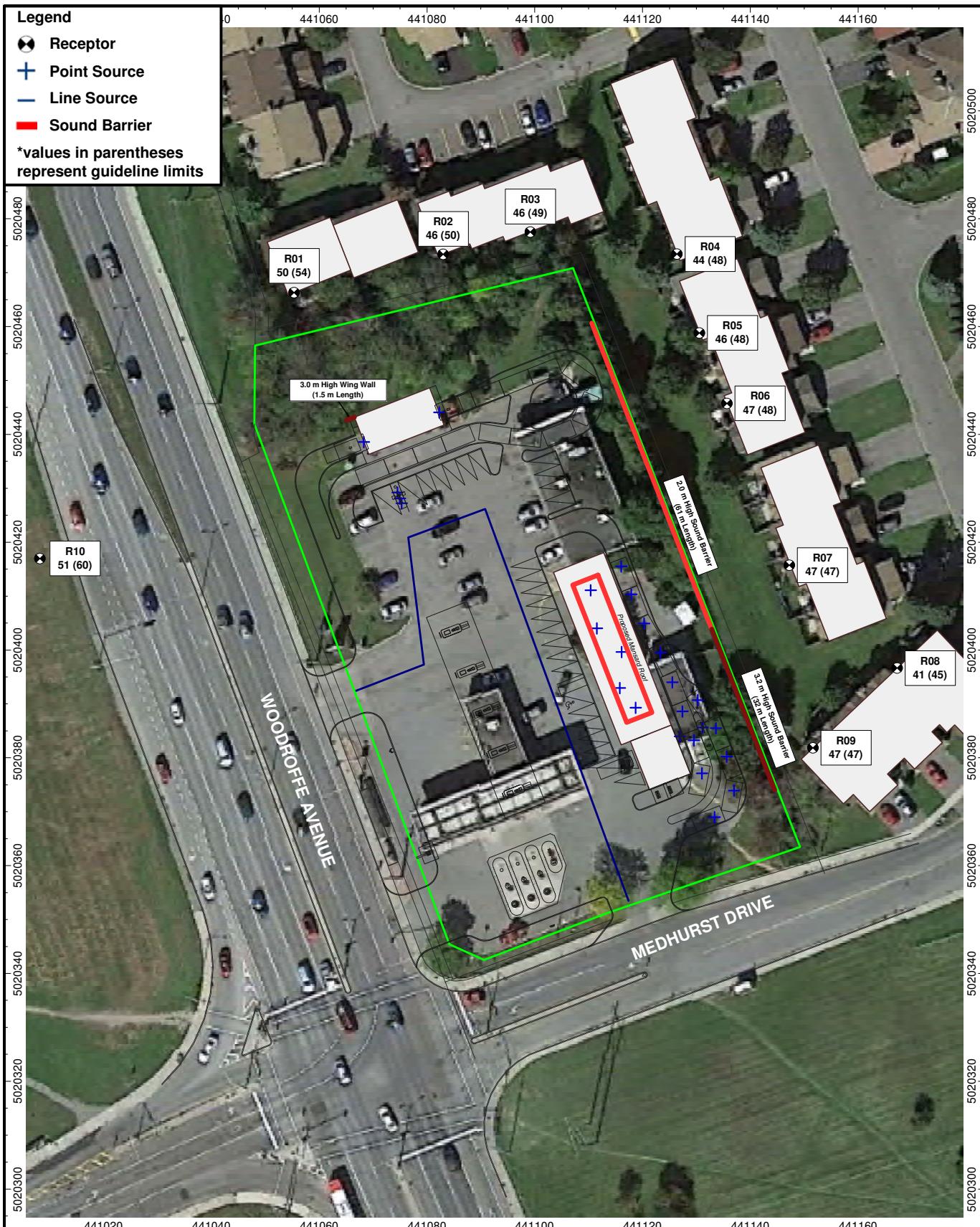
VALCOUSTICS Canada Ltd. consulting acoustical engineers	Title <b>Mitigated Sound Exposures (dBA) - 0700-0800 Hours</b>	Date <b>2015-03-04</b>	Figure <b>7</b>
Project Name <b>Esso GBCW-DT/Woodroffe Ave &amp; Medhurst Dr</b>	Project No. <b>114-456</b>		



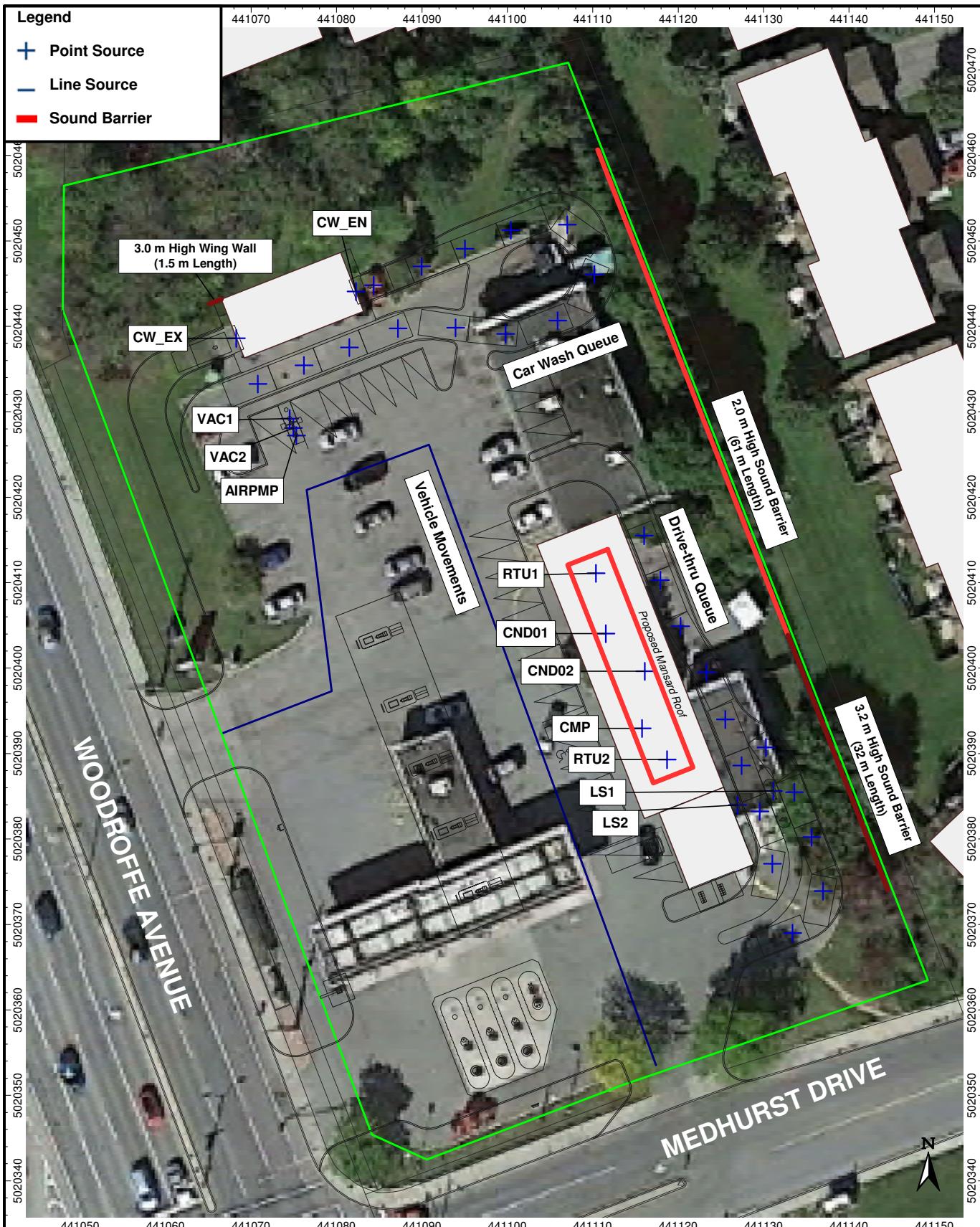
VALCOUSTICS Canada Ltd. consulting acoustical engineers	Title <b>Mitigated Sound Exposures (dBA) - 2200-2300 Hours</b>	Date <b>2015-03-04</b>	Figure <b>8</b>
Project Name <b>Esso GBCW-DT/Woodroffe Ave &amp; Medhurst Dr</b>	Project No. <b>114-456</b>		



VALCOUSTICS Canada Ltd. consulting acoustical engineers	Title <b>Mitigated Sound Exposures (dBA) - 0400-0500 Hours</b>	Date <b>2015-03-04</b>	Figure <b>9</b>
Project Name <b>Esso GBCW-DT/Woodroffe Ave &amp; Medhurst Dr</b>	Project No. <b>114-456</b>		



VALCOUSTICS Canada Ltd. consulting acoustical engineers	Title <b>Mitigated Sound Exposures (dBA) - 0600-0700 Hours</b>	Date <b>2015-03-04</b>	Figure <b>10</b>
Project Name <b>Esso GBCW-DT/Woodroffe Ave &amp; Medhurst Dr</b>	Project No. <b>114-456</b>		



VALCOUSTICS Canada Ltd. consulting acoustical engineers	Title <b>Noise Source ID's and Locations</b>	Date <b>2015-03-04</b>	Figure <b>11</b>
Project Name	Project No.		
<b>Esso GBCW-DT/Woodroffe Ave &amp; Medhurst Dr</b>			<b>11</b>

# **APPENDIX A**

## **ANALYSIS**

## Point Sources

Name	M.	ID	Result. PWL			Lw / Li		Correction			Sound Reduction	Attenuation	Operating Time			K0	Freq.	Direct.	Height	Coordinates							
			Day	Evening	Night	Type	Value	norm.	Day	Evening	Night		(min)	(min)	(min)	X				Y	Z						
			(dBA)	(dBA)	(dBA)				(dB(A))	(dB(A))	(dB(A))									(none)	1.36 g	441110.37	5020411.10	94.95			
Rooftop Unit		DAY_RTU1	80.1	80.1	80.1	Lw	LGH072		0.0	0.0	0.0									(none)	1.36 g	441110.37	5020411.10	94.95			
Rooftop Unit		DAY_RTU2	86.7	86.7	86.7	Lw	LGH092		0.0	0.0	0.0									(none)	1.36 g	441118.70	5020389.30	94.95			
Condensing Unit	CND01		81.7	81.7	81.7	Lw	Condenser1		0.0	0.0	0.0									(none)	1.00 g	441111.52	5020404.04	94.59			
Condensing Unit	CND02		74.0	74.0	74.0	Lw	Condenser2		0.0	0.0	0.0									(none)	1.00 g	441116.10	5020399.63	94.59			
Compressor	CMP		77.4	77.4	77.4	Lw	Compressor		0.0	0.0	0.0									(none)	0.75 g	441115.76	5020392.95	94.34			
Rooftop Unit	- NIGHT_RTU1		80.1	80.1	80.1	Lw	LGH072		0.0	0.0	0.0								30.00	0.00	0.00	0.0	(none)	1.36 g	441110.37	5020411.10	94.95
Rooftop Unit	- NIGHT_RTU2		86.7	86.7	86.7	Lw	LGH092		0.0	0.0	0.0								30.00	0.00	0.00	0.0	(none)	1.36 g	441118.70	5020389.30	94.95
Loudspeaker	07_LS1		86.5	86.5	86.5	Lw	VCLintcmDrvthru		0.0	0.0	0.0								13.33	0.00	0.00	0.0	(none)	0.60 r	441131.14	5020385.62	89.16
Loudspeaker	07_LS2		86.5	86.5	86.5	Lw	VCLintcmDrvthru		0.0	0.0	0.0								13.33	0.00	0.00	0.0	(none)	0.60 r	441126.95	5020383.98	89.13
Drive-thru Car	07_DT01		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441116.02	5020415.51	89.20
Drive-thru Car	07_DT02		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441117.91	5020410.31	89.21
Drive-thru Car	07_DT03		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441120.27	5020404.90	89.21
Drive-thru Car	07_DT04		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441123.31	5020399.51	89.19
Drive-thru Car	07_DT05		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441125.52	5020394.00	89.17
Drive-thru Car	07_DT06		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441130.27	5020390.71	89.18
Drive-thru Car	07_DT07		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441127.41	5020388.61	89.15
Drive-thru Car	07_DT08		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441133.60	5020385.49	89.18
Drive-thru Car	07_DT09		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441129.55	5020383.23	89.14
Drive-thru Car	07_DT10		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441135.60	5020380.21	89.11
Drive-thru Car	07_DT11		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441131.02	5020377.11	89.12
Drive-thru Car	07_DT12		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441136.96	5020373.91	89.03
Drive-thru Car	07_DT13		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441133.38	5020369.00	88.97
Vacuum	07_VAC1		89.6	89.6	89.6	Lw	VacuumApr2013		0.0	0.0	0.0								54.00	0.00	0.00	0.0	(none)	1.90 r	441074.51	5020429.21	90.16
Vacuum	07_VAC2		89.6	89.6	89.6	Lw	VacuumApr2013		0.0	0.0	0.0								54.00	0.00	0.00	0.0	(none)	1.90 r	441074.95	5020428.10	90.18
Air Pump	07_AIRPMP		77.8	77.8	77.8	Lw	AirPumpApr2013		0.0	0.0	0.0								54.00	0.00	0.00	0.0	(none)	1.00 r	441075.29	5020427.22	89.30
Car Wash Entrance	07_CW_EN		94.3	94.3	94.3	Lw	EnDoor		0.0	0.0	0.0								6.67	0.00	0.00	0.0	(none)	2.00 r	441082.28	5020444.09	90.27
Car Wash Exit	07_CW_EX		103.7	103.7	103.7	Lw	ExitDoor		0.0	0.0	0.0								20.00	0.00	0.00	0.0	(none)	2.00 r	441068.27	5020438.60	90.03
Car wash queue	CW01		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441084.34	5020444.82	88.90
Car wash queue	CW02		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441089.97	5020447.01	89.00
Car wash queue	CW03		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441095.03	5020449.09	89.08
Car wash queue	CW04		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441100.40	5020451.24	89.18
Car wash queue	CW05		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441107.00	5020451.90	89.33
Car wash queue	CW06		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441110.18	5020446.07	89.44
Car wash queue	CW07		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441105.89	5020440.67	89.41
Car wash queue	CW08		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441099.80	5020439.11	89.29
Car wash queue	CW09		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441093.93	5020439.84	89.16
Car wash queue	CW10		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441087.19	5020439.77	89.02
Car wash queue	CW11		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441081.49	5020437.52	88.92
Car wash queue	CW12		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441076.19	5020435.44	88.83
Car wash queue	CW13		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								60.00	0.00	0.00	0.0	(none)	0.60 r	441070.79	5020433.26	88.74
Loudspeaker	- 22_LS1		86.5	86.5	86.5	Lw	VCLintcmDrvthru		0.0	0.0	0.0								2.50	0.00	0.00	0.0	(none)	0.60 r	441131.14	5020385.62	89.16
Loudspeaker	- 22_LS2		86.5	86.5	86.5	Lw	VCLintcmDrvthru		0.0	0.0	0.0								2.50	0.00	0.00	0.0	(none)	0.60 r	441126.95	5020383.98	89.13
Drive-thru Car	- 22_DT01		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								30.00	0.00	0.00	0.0	(none)	0.60 r	441116.02	5020415.51	89.20
Drive-thru Car	- 22_DT08		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								2.50	0.00	0.00	0.0	(none)	0.60 r	441133.60	5020385.49	89.18
Drive-thru Car	- 22_DT09		80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0								2.50	0.00	0.00	0.0	(none)	0.60 r	441129.55	5020383.23	89.14
Vacuum	- 22_VAC1		89.6	89.6	89.6	Lw	VacuumApr2013		0.0	0.0	0.0								6.00	0.00	0.00	0.0	(none)	1.90 r	441074.51	5020429.21	90.16
Vacuum	- 22_VAC2		89.6	89.6	89.6	Lw	VacuumApr2013		0.0	0.0	0.0								6.00	0.00	0.00	0.0	(none)	1.90 r	441074.95	5020428.10	90.18
Air Pump	- 22_AIRPMP		77.8	77.8	77.8	Lw	AirPumpApr2013		0.0	0.0	0.0								30.00	0.00	0.00	0.0	(none)	1.00 r	441075.		

Name	M.	ID	Result. PWL			Lw / Li			Correction			Sound Reduction		Attenuation			Operating Time			K0	Freq.	Direct.	Height	Coordinates		
			Day (dBA)	Evening (dBA)	Night (dBA)	Type	Value	norm. dB(A)	Day dB(A)	Evening dB(A)	Night dB(A)	R	Area (m <sup>2</sup> )	Day (min)	Special (min)	Night (min)	(dB)	(Hz)	(m)	(m)	(m)	X	Y	Z		
Drive-thru Car	~	06_DT09	80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0			60.00	0.00	0.00	0.0	(none)	0.60	r	441129.55	5020383.23	89.14			
Drive-thru Car	~	06_DT10	80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0			60.00	0.00	0.00	0.0	(none)	0.60	r	441135.60	5020380.21	89.11			
Drive-thru Car	~	06_DT11	80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0			60.00	0.00	0.00	0.0	(none)	0.60	r	441131.02	5020377.11	89.12			
Drive-thru Car	~	06_DT12	80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0			60.00	0.00	0.00	0.0	(none)	0.60	r	441136.96	5020373.91	89.03			
Drive-thru Car	~	06_DT13	80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0			60.00	0.00	0.00	0.0	(none)	0.60	r	441133.38	5020369.00	88.97			
Vacuum	~	06_VAC1	89.6	89.6	89.6	Lw	VacuumApr2013		0.0	0.0	0.0			6.00	0.00	0.00	0.0	(none)	1.90	r	441074.51	5020429.21	90.16			
Vacuum	~	06_VAC2	89.6	89.6	89.6	Lw	VacuumApr2013		0.0	0.0	0.0			6.00	0.00	0.00	0.0	(none)	1.90	r	441074.95	5020428.10	90.18			
Air Pump	~	06_AIRPMP	77.8	77.8	77.8	Lw	AirPumpApr2013		0.0	0.0	0.0			30.00	0.00	0.00	0.0	(none)	1.00	r	441075.29	5020427.22	89.30			
Car Wash Entrance	~	06_CW_EN	94.3	94.3	94.3	Lw	EnDoor		0.0	0.0	0.0			3.33	0.00	0.00	0.0	(none)	2.00	r	441082.28	5020444.09	90.27			
Car Wash Exit	~	06_CW_EX	103.7	103.7	103.7	Lw	ExitDoor		0.0	0.0	0.0			10.00	0.00	0.00	0.0	(none)	2.00	r	441068.27	5020438.60	90.03			
Loudspeaker	~	04_LS1	86.5	86.5	86.5	Lw	VCLintcmDrvthru		0.0	0.0	0.0			0.83	0.00	0.00	0.0	(none)	0.60	r	441131.14	5020385.62	89.16			
Loudspeaker	~	04_LS2	86.5	86.5	86.5	Lw	VCLintcmDrvthru		0.0	0.0	0.0			0.83	0.00	0.00	0.0	(none)	0.60	r	441126.95	5020383.98	89.13			
Drive-thru Car	~	04_DT01	80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0			10.00	0.00	0.00	0.0	(none)	0.60	r	441116.02	5020415.51	89.20			
Drive-thru Car	~	04_DT08	80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0			0.83	0.00	0.00	0.0	(none)	0.60	r	441133.60	5020385.49	89.18			
Drive-thru Car	~	04_DT09	80.0	80.0	80.0	Lw	VCLcar2014		0.0	0.0	0.0			0.83	0.00	0.00	0.0	(none)	0.60	r	441129.55	5020383.23	89.14			
Air Pump	~	04_AIRPMP	77.8	77.8	77.8	Lw	AirPumpApr2013		0.0	0.0	0.0			6.00	0.00	0.00	0.0	(none)	1.00	r	441075.29	5020427.22	89.30			
Car Wash Entrance	~	04_CW_EN	94.3	94.3	94.3	Lw	EnDoor		0.0	0.0	0.0			0.67	0.00	0.00	0.0	(none)	2.00	r	441082.28	5020444.09	90.27			
Car Wash Exit	~	04_CW_EX	103.7	103.7	103.7	Lw	ExitDoor		0.0	0.0	0.0			2.00	0.00	0.00	0.0	(none)	2.00	r	441068.27	5020438.60	90.03			

## Line Sources

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Correction			Sound Reduction		Attenuation			Operating Time			K0	Freq.	Direct.	Moving Pt. Src		
			Day (dBA)	Evening (dBA)	Night (dBA)	Day (dBA)	Evening (dBA)	Night (dBA)	Type	Value	norm. dB(A)	Day dB(A)	Evening dB(A)	Night dB(A)	R	Area (m <sup>2</sup> )	Day (min)	Special (min)	Night (min)	(dB)	(Hz)	Day	Evening	Night	Number (km/h)	Speed		
Car movements	07_CarMove	83.2	-39.8	-39.8	62.0	-61.0	-61.0	PWL-Pt	VCLcar		0.0	0.0	0.0						0.0	(none)	200.0	0.0	0.0	20.0				
Car movements	~ 22_CarMove	78.6	-39.8	-39.8	57.5	-61.0	-61.0	PWL-Pt	VCLcar		0.0	0.0	0.0						0.0	(none)	70.0	0.0	0.0	20.0				
Car movements	~ 06_CarMove	82.5	-39.8	-39.8	61.3	-61.0	-61.0	PWL-Pt	VCLcar		0.0	0.0	0.0						0.0	(none)	170.0	0.0	0.0	20.0				
Car movements	~ 04_CarMove	76.2	-39.8	-39.8	55.0	-61.0	-61.0	PWL-Pt	VCLcar		0.0	0.0	0.0						0.0	(none)	40.0	0.0	0.0	20.0				

## Sound Level Library

Name	ID	Type	Oktave Spectrum (dB)														Source						
VCLintcmDrvthru	VCLintcmDrvthru	Lw	6.5	6.5	78.0	83.0	84.0	83.0	78.0	70.0	58.0	86.5	89.0	From VCL Measurement									
ESSO_CW_En	EnDoor	Lw (c)	91.3	92.1	87.1	82.3	85.0	85.3	87.6	87.3	89.8	94.3	98.0	Sound Measurements Feb 24/09 at Markham + Steeles									
ESSO_CW_Exit	ExitDoor	Lw (c)	98.2	99.5	100.4	100.9	100.5	99.4	96.6	90.9	83.6	103.7	108.1	Sound Measurements Feb 24/09 at Markham + Steeles									
Keeprite KEZA040H8-HT3B-15546	Condenser1	Lw (c)	81.0	83.8	81.2	79.7	77.3	76.7	74.1	71.5	70.1	81.7	88.7	Sound Measurements - April 17, 2013 @ 12338 Yonge									
Keeprite KEZA10H8-H32B015796	Condenser2	Lw (c)	78.4	74.6	73.4	67.1	68.7	71.0	65.1	63.9	60.1	74.0	81.8	Sound Measurements - April 17, 2013 @ 12338 Yonge									
LAW0200RL3-T139	Compressor	Lw (c)	78.9	80.5	77.7	71.3	72.8	72.2	72.3	63.7	60.4	77.4	85.0	Sound Measurements - April 17, 2013 @ 12338 Yonge									
Lennox LGH072	LGH072	Lw				67.0	72.0	77.0	76.0	73.0	68.0	61.0	80.1	81.4	Manufacturer's Data @ 12338 Yonge								
Lennox LGH092	LGH092	Lw				76.0	79.0	84.0	83.0	79.0	73.0	66.0	86.7	88.3	Manufacturer's Data @ 12338 Yonge								
Vacuum	VacuumApr2013	Lw (c)	64.4	70.7	70.6	78.2	70.5	74.8	81.1	86.5	82.9	89.6	89.5	Sound Measurements - April 17, 2013 @ 12338 Yonge									
Air Pump	AirPumpApr2013	Lw (c)	63.0	81.3	72.6	68.7	77.3	74.4	63.6	61.7	62.7	77.8	83.9	Sound Measurements - April 17, 2013 @ 12338 Yonge									
Lennox 4-Ton (LGA048)	LGH048	Lw	0.0	0.0	85.0	81.0	80.0	76.0	71.0	65.0	70.0	81.5	87.8	Manufacturer's data									
VCL Car Idling	VCLcar2014	Lw	92.5	85.1	78.0	76.1	78.2	73.7	72.2	69.2	67.0	80.0	93.7	2/3/2014 Sound Measurements									
VCLcar	VCLcar	Lw	77.9	80.9	80.9	77.9	78.9	78.9	72.9	66.9	61.9	82.0	87.4	From VCL Measurement									

Receiver Table - 0700-0800 Hours (Unmitigated Scenario)

Name	M.	ID	Level Lr	Limit. Value	Land Use		Height	Coordinates			
					Leq(1) (dBA)	Leq(1) (dBA)	Type	Auto	Noise Type		
									(m)	(m)	
R01	R01	58.6	0.0	x	Total	4.50	r	441055.35	5020466.29	92.19	
R02	R02	51.8	0.0	x	Total	4.50	r	441083.01	5020473.40	92.53	
R03	R03	51.9	0.0	x	Total	4.50	r	441099.19	5020477.55	92.94	
R04	R04	51.7	0.0	x	Total	4.50	r	441126.39	5020473.46	92.79	
R05	R05	53.3	0.0	x	Total	4.50	r	441130.53	5020458.82	93.02	
R06	R06	52.8	0.0	x	Total	4.50	r	441135.66	5020445.75	92.84	
R07	R07	53.4	0.0	x	Total	4.50	r	441147.23	5020415.73	92.71	
R08	R08	49.1	0.0	x	Total	4.50	r	441167.23	5020396.65	92.62	
R09	R09	54.5	0.0	x	Total	4.50	r	441151.61	5020381.86	92.72	
R10	R10	54.6	0.0	x	Total	4.50	r	441008.15	5020416.98	92.33	

Partial Level Table (dBA)

Source	Partial Level Unmit07 Leq(1)											
	Name	M.	ID	R01	R02	R03	R04	R05	R06	R07	R08	R09
Rooftop Unit		DAY_RTU1	22.9	24.5	25.3	24.5	27.1	27.9	29.2	25.3	26.8	20.9
Rooftop Unit		DAY_RTU2	28.9	30.6	31.1	30.1	32.4	33.0	35.1	33.3	36.3	26.9
Condensing Unit		CND01	22.7	25.2	25.9	24.8	27.0	27.6	29.2	25.8	27.8	18.1
Condensing Unit		CND02	15.9	17.0	16.3	14.4	16.7	17.3	19.4	15.9	18.7	12.8
Compressor		CMP	16.2	19.8	19.6	18.6	20.8	21.3	22.7	20.6	23.4	11.4
Loudspeaker		07_LS1	21.0	31.5	31.3	31.6	33.8	35.6	39.8	38.2	43.7	10.5
Loudspeaker		07_LS2	21.7	22.0	33.0	32.6	33.7	35.2	40.4	38.3	43.7	7.7
Drive-thru Car		07_DT01	26.6	33.8	33.5	34.2	36.6	38.6	39.7	34.4	36.4	15.2
Drive-thru Car		07_DT02	22.2	34.0	33.4	33.9	35.6	37.9	40.3	35.1	37.8	19.3
Drive-thru Car		07_DT03	22.0	33.5	35.4	33.2	35.1	36.9	40.8	35.7	38.7	19.0
Drive-thru Car		07_DT04	12.5	32.7	33.9	32.0	34.6	36.4	40.5	36.2	40.4	19.5
Drive-thru Car		07_DT05	20.6	28.5	32.6	31.9	34.2	35.8	40.2	37.1	42.0	12.8
Drive-thru Car		07_DT06	20.6	29.0	28.5	31.4	33.6	35.5	40.1	38.0	43.0	11.6
Drive-thru Car		07_DT07	20.4	27.2	32.1	31.8	34.1	35.5	40.1	37.6	42.9	8.8
Drive-thru Car		07_DT08	20.6	28.8	28.5	30.8	32.9	34.7	39.9	38.2	43.9	11.2
Drive-thru Car		07_DT09	11.3	24.6	32.1	31.7	33.2	34.6	39.9	37.9	43.5	9.2
Drive-thru Car		07_DT10	20.0	30.5	29.1	29.1	31.8	33.5	37.6	38.1	43.7	12.8
Drive-thru Car		07_DT11	20.7	25.2	31.7	31.7	33.3	34.9	38.7	35.9	42.3	13.7
Drive-thru Car		07_DT12	19.9	29.7	31.1	28.8	30.9	32.5	36.7	35.8	43.9	16.8
Drive-thru Car		07_DT13	21.0	24.2	30.0	29.5	31.0	32.4	36.1	35.1	41.9	28.3
Vacuum		07_VAC1	31.7	34.7	36.5	42.2	43.4	41.6	41.9	21.3	20.1	42.0
Vacuum		07_VAC2	32.2	34.9	37.0	42.4	43.4	41.6	41.9	21.1	20.3	42.0
Air Pump		07_AIRPMP	25.8	26.8	29.6	32.6	33.3	32.3	32.6	16.2	15.7	31.0
Car Wash Entrance		07_CW_EN	28.7	44.0	42.0	38.2	40.5	39.7	36.3	22.4	27.5	18.7
Car Wash Exit		07_CW_EX	58.3	40.6	37.5	35.2	36.1	36.0	35.9	29.8	27.1	53.7
Car wash queue		CW01	29.9	40.7	38.9	37.6	39.3	38.6	35.7	21.9	31.2	16.8
Car wash queue		CW02	35.5	39.3	38.1	37.5	39.7	37.8	34.3	21.0	31.5	19.0
Car wash queue		CW03	34.8	39.7	39.2	38.4	40.5	38.8	34.7	20.2	31.4	19.9
Car wash queue		CW04	34.1	38.9	39.7	38.7	40.3	38.9	34.5	19.2	32.5	21.0
Car wash queue		CW05	33.7	37.6	39.6	39.0	41.0	38.6	33.8	18.1	31.1	22.2
Car wash queue		CW06	35.4	38.5	38.4	38.5	40.8	39.9	33.9	18.2	30.8	30.6
Car wash queue		CW07	35.9	38.8	39.3	37.8	39.9	38.4	33.7	19.3	29.2	31.3
Car wash queue		CW08	36.5	38.5	40.5	38.0	40.0	38.4	33.4	20.2	29.9	31.9
Car wash queue		CW09	36.5	38.8	40.1	38.5	39.0	38.5	34.0	21.4	32.4	32.1
Car wash queue		CW10	25.1	40.2	38.2	37.4	37.9	37.3	34.3	23.2	27.0	32.8
Car wash queue		CW11	24.7	30.3	36.8	36.7	36.4	36.0	33.6	25.1	21.5	33.4
Car wash queue		CW12	24.7	28.3	29.8	35.2	35.5	35.2	35.0	26.3	18.7	34.1
Car wash queue		CW13	32.8	22.0	22.0	30.7	35.4	36.3	34.6	19.7	17.2	34.3
Car movements		07_CarMove	33.7	35.9	36.6	35.9	36.8	36.6	32.1	29.2	34.1	36.2

Receiver Table - 2200-2300 Hours (Unmitigated Scenario)

Name	M.	ID	Level Lr	Limit. Value	Land Use		Height	Coordinates			
					Leq(1) (dBA)	Leq(1) (dBA)	Type	Auto	Noise Type		
									(m)	(m)	(m)
R01	R01	55.3		0.0	x	Total	4.50	r	441055.35	5020466.29	92.19
R02	R02	43.8		0.0	x	Total	4.50	r	441083.01	5020473.40	92.53
R03	R03	42.5		0.0	x	Total	4.50	r	441099.19	5020477.55	92.94
R04	R04	41.7		0.0	x	Total	4.50	r	441126.39	5020473.46	92.79
R05	R05	43.4		0.0	x	Total	4.50	r	441130.53	5020458.82	93.02
R06	R06	43.2		0.0	x	Total	4.50	r	441135.66	5020445.75	92.84
R07	R07	43.7		0.0	x	Total	4.50	r	441147.23	5020415.73	92.71
R08	R08	39.2		0.0	x	Total	4.50	r	441167.23	5020396.65	92.62
R09	R09	43.0		0.0	x	Total	4.50	r	441151.61	5020381.86	92.72
R10	R10	50.9		0.0	x	Total	4.50	r	441008.15	5020416.98	92.33

Partial Level Table (dBA)

Source	Partial Level Unmit22 Leq(1)											
	Name	M.	ID	R01	R02	R03	R04	R05	R06	R07	R08	R09
Rooftop Unit		DAY_RTU1	22.9	24.5	25.3	24.5	27.1	27.9	29.2	25.3	26.8	20.9
Rooftop Unit		DAY_RTU2	28.9	30.6	31.1	30.1	32.4	33.0	35.1	33.3	36.3	26.9
Condensing Unit		CND01	22.7	25.2	25.9	24.8	27.0	27.6	29.2	25.8	27.8	18.1
Condensing Unit		CND02	15.9	17.0	16.3	14.4	16.7	17.3	19.4	15.9	18.7	12.8
Compressor		CMP	16.2	19.8	19.6	18.6	20.8	21.3	22.7	20.6	23.4	11.4
Loudspeaker		22_LS1	13.7	24.2	24.0	24.3	26.5	28.3	32.5	30.9	36.4	3.2
Loudspeaker		22_LS2	14.4	14.7	25.8	25.4	26.4	27.9	33.1	31.0	36.5	0.4
Drive-thru Car		22_DT01	23.6	30.8	30.5	31.2	33.6	35.6	36.7	31.4	33.4	12.2
Drive-thru Car		22_DT08	6.8	15.0	14.7	17.0	19.1	20.9	26.1	24.4	30.1	-2.6
Drive-thru Car		22_DT09	-2.5	10.8	18.3	17.9	19.4	20.8	26.1	24.1	29.7	-4.7
Vacuum		22_VAC1	22.1	25.2	26.9	32.6	33.8	32.0	32.3	11.7	10.6	32.5
Vacuum		22_VAC2	22.7	25.3	27.5	32.9	33.8	32.1	32.4	11.5	10.7	32.5
Air Pump		22_AIRPMP	23.2	24.3	27.0	30.0	30.7	29.7	30.1	13.7	13.2	28.5
Car Wash Entrance		22_CW_EN	25.7	41.0	39.0	35.2	37.5	36.7	33.3	19.4	24.5	15.7
Car Wash Exit		22_CW_EX	55.3	37.6	34.5	32.2	33.1	33.0	32.9	26.8	24.1	50.7
Car movements		22_CarMove	29.2	31.3	32.1	31.4	32.3	32.1	27.5	24.7	29.6	31.6

Receiver Table - 0400-0500 Hours (Unmitigated Scenario)

Name	M.	ID	Level Lr	Limit. Value	Land Use		Height	Coordinates		
					Leq(1) (dBA)	Leq(1) (dBA)	Type	Auto	Noise Type	X
										(m)
R01	R01	48.4	0.0	x	Total	4.50	r	441055.35	5020466.29	92.19
R02	R02	37.9	0.0	x	Total	4.50	r	441083.01	5020473.40	92.53
R03	R03	37.1	0.0	x	Total	4.50	r	441099.19	5020477.55	92.94
R04	R04	35.7	0.0	x	Total	4.50	r	441126.39	5020473.46	92.79
R05	R05	37.5	0.0	x	Total	4.50	r	441130.53	5020458.82	93.02
R06	R06	37.9	0.0	x	Total	4.50	r	441135.66	5020445.75	92.84
R07	R07	38.8	0.0	x	Total	4.50	r	441147.23	5020415.73	92.71
R08	R08	35.5	0.0	x	Total	4.50	r	441167.23	5020396.65	92.62
R09	R09	39.1	0.0	x	Total	4.50	r	441151.61	5020381.86	92.72
R10	R10	43.9	0.0	x	Total	4.50	r	441008.15	5020416.98	92.33

Partial Level Table (dBA)

Source	Partial Level Unmit04 Leq(1)												
	Name	M.	ID	R01	R02	R03	R04	R05	R06	R07	R08	R09	R10
Condensing Unit	CND01			22.7	25.2	25.9	24.8	27.0	27.6	29.2	25.8	27.8	18.1
Condensing Unit	CND02			15.9	17.0	16.3	14.4	16.7	17.3	19.4	15.9	18.7	12.8
Compressor	CMP			16.2	19.8	19.6	18.6	20.8	21.3	22.7	20.6	23.4	11.4
Rooftop Unit	NIGHT_RTU1			19.9	21.5	22.3	21.5	24.1	24.9	26.1	22.2	23.8	17.9
Rooftop Unit	NIGHT_RTU2			25.9	27.6	28.1	27.1	29.4	30.0	32.1	30.3	33.3	23.9
Loudspeaker	04_LS1			8.9	19.4	19.2	19.5	21.7	23.5	27.7	26.2	31.6	-1.6
Loudspeaker	04_LS2			9.6	10.0	21.0	20.6	21.6	23.1	28.3	26.2	31.7	-4.4
Drive-thru Car	04_DT01			18.8	26.0	25.7	26.4	28.8	30.8	31.9	26.6	28.7	7.4
Drive-thru Car	04_DT08			2.0	10.2	10.0	12.2	14.4	16.1	21.3	19.7	25.3	-7.4
Drive-thru Car	04_DT09			-7.3	6.1	13.5	13.1	14.6	16.0	21.3	19.3	24.9	-9.4
Air Pump	04_AIRPMP			16.2	17.3	20.0	23.0	23.8	22.8	23.1	6.7	6.2	21.5
Car Wash Entrance	04_CW_EN			18.8	34.0	32.0	28.2	30.5	29.7	26.3	12.4	17.5	8.7
Car Wash Exit	04_CW_EX			48.3	30.6	27.5	25.2	26.1	26.0	25.9	19.8	17.1	43.7
Car movements	04_CarMove			26.7	28.9	29.6	28.9	29.8	29.6	25.1	22.2	27.1	29.2

Receiver Table - 0600-0700 Hours (Unmitigated Scenario)

Name	M.	ID	Level Lr	Limit. Value	Land Use		Height	Coordinates			
					Leq(1) (dBA)	Leq(1) (dBA)	Type	Auto	Noise Type		
									(m)	(m)	(m)
R01	R01	55.4	0.0	x	Total	4.50	r	441055.35	5020466.29	92.19	
R02	R02	46.0	0.0	x	Total	4.50	r	441083.01	5020473.40	92.53	
R03	R03	46.2	0.0	x	Total	4.50	r	441099.19	5020477.55	92.94	
R04	R04	45.6	0.0	x	Total	4.50	r	441126.39	5020473.46	92.79	
R05	R05	47.4	0.0	x	Total	4.50	r	441130.53	5020458.82	93.02	
R06	R06	48.5	0.0	x	Total	4.50	r	441135.66	5020445.75	92.84	
R07	R07	51.6	0.0	x	Total	4.50	r	441147.23	5020415.73	92.71	
R08	R08	48.8	0.0	x	Total	4.50	r	441167.23	5020396.65	92.62	
R09	R09	54.1	0.0	x	Total	4.50	r	441151.61	5020381.86	92.72	
R10	R10	51.0	0.0	x	Total	4.50	r	441008.15	5020416.98	92.33	

Partial Level Table (dBA)

Source	Partial Level Unmit06 Leq(1)												
	Name	M.	ID	R01	R02	R03	R04	R05	R06	R07	R08	R09	R10
Condensing Unit	CND01			22.7	25.2	25.9	24.8	27.0	27.6	29.2	25.8	27.8	18.1
Condensing Unit	CND02			15.9	17.0	16.3	14.4	16.7	17.3	19.4	15.9	18.7	12.8
Compressor	CMP			16.2	19.8	19.6	18.6	20.8	21.3	22.7	20.6	23.4	11.4
Rooftop Unit	NIGHT_RTU1			19.9	21.5	22.3	21.5	24.1	24.9	26.1	22.2	23.8	17.9
Rooftop Unit	NIGHT_RTU2			25.9	27.6	28.1	27.1	29.4	30.0	32.1	30.3	33.3	23.9
Loudspeaker	06_LS1			20.3	30.7	30.6	30.9	33.0	34.8	39.1	37.5	43.0	9.8
Loudspeaker	06_LS2			20.9	21.3	32.3	31.9	32.9	34.5	39.6	37.5	43.0	6.9
Drive-thru Car	06_DT01			26.6	33.8	33.5	34.2	36.6	38.6	39.7	34.4	36.4	15.2
Drive-thru Car	06_DT02			22.2	34.0	33.4	33.9	35.6	37.9	40.3	35.1	37.8	19.3
Drive-thru Car	06_DT03			22.0	33.5	35.4	33.2	35.1	36.9	40.8	35.7	38.7	19.0
Drive-thru Car	06_DT04			12.5	32.7	33.9	32.0	34.6	36.4	40.5	36.2	40.4	19.5
Drive-thru Car	06_DT05			20.6	28.5	32.6	31.9	34.2	35.8	40.2	37.1	42.0	12.8
Drive-thru Car	06_DT06			20.6	29.0	28.5	31.4	33.6	35.5	40.1	38.0	43.0	11.6
Drive-thru Car	06_DT07			20.4	27.2	32.1	31.8	34.1	35.5	40.1	37.6	42.9	8.8
Drive-thru Car	06_DT08			20.6	28.8	28.5	30.8	32.9	34.7	39.9	38.2	43.9	11.2
Drive-thru Car	06_DT09			11.3	24.6	32.1	31.7	33.2	34.6	39.9	37.9	43.5	9.2
Drive-thru Car	06_DT10			20.0	30.5	29.1	29.1	31.8	33.5	37.6	38.1	43.7	12.8
Drive-thru Car	06_DT11			20.7	25.2	31.7	31.7	33.3	34.9	38.7	35.9	42.3	13.7
Drive-thru Car	06_DT12			19.9	29.7	31.1	28.8	30.9	32.5	36.7	35.8	43.9	16.8
Drive-thru Car	06_DT13			21.0	24.2	30.0	29.5	31.0	32.4	36.1	35.1	41.9	28.3
Vacuum	06_VAC1			22.1	25.2	26.9	32.6	33.8	32.0	32.3	11.7	10.6	32.5
Vacuum	06_VAC2			22.7	25.3	27.5	32.9	33.8	32.1	32.4	11.5	10.7	32.5
Air Pump	06_AIRPMP			23.2	24.3	27.0	30.0	30.7	29.7	30.1	13.7	13.2	28.5
Car Wash Entrance	06_CW_EN			25.7	41.0	39.0	35.2	37.5	36.7	33.3	19.4	24.5	15.7
Car Wash Exit	06_CW_EX			55.3	37.6	34.5	32.2	33.1	33.0	32.9	26.8	24.1	50.7
Car movements	06_CarMove			33.0	35.2	35.9	35.2	36.1	35.9	31.4	28.5	33.4	35.5

Receiver Table - 0700-0800 Hours (Mitigated Scenario)

Name	M.	ID	Level Lr	Limit. Value	Land Use		Height	Coordinates		
					Leq(1) (dBA)	Leq(1) (dBA)	Type	Auto	Noise Type	
R01	R01	53.5	0.0	x	Total	4.50	r	441055.35	5020466.29	92.19
R02	R02	51.7	0.0	x	Total	4.50	r	441083.01	5020473.40	92.53
R03	R03	51.7	0.0	x	Total	4.50	r	441099.19	5020477.55	92.94
R04	R04	50.8	0.0	x	Total	4.50	r	441126.39	5020473.46	92.79
R05	R05	52.4	0.0	x	Total	4.50	r	441130.53	5020458.82	93.02
R06	R06	51.7	0.0	x	Total	4.50	r	441135.66	5020445.75	92.84
R07	R07	50.7	0.0	x	Total	4.50	r	441147.23	5020415.73	92.71
R08	R08	42.1	0.0	x	Total	4.50	r	441167.23	5020396.65	92.62
R09	R09	48.1	0.0	x	Total	4.50	r	441151.61	5020381.86	92.72
R10	R10	54.6	0.0	x	Total	4.50	r	441008.15	5020416.98	92.33

Partial Level Table (dBA)

Source	Partial Level Mit07 Leq(1)											
	Name	M.	ID	R01	R02	R03	R04	R05	R06	R07	R08	R09
Rooftop Unit		DAY_RTU1	22.9	24.5	25.3	24.5	27.1	27.9	29.2	25.3	26.8	20.9
Rooftop Unit		DAY_RTU2	28.9	30.6	31.1	30.1	32.4	33.0	35.1	33.3	36.3	26.9
Condensing Unit		CND01	22.7	25.2	25.9	24.8	27.0	27.6	29.2	25.8	27.8	18.1
Condensing Unit		CND02	15.9	17.0	16.3	14.4	16.7	17.3	19.4	15.9	18.7	12.8
Compressor		CMP	16.2	19.8	19.6	18.6	20.8	21.3	22.7	20.6	23.4	11.4
Loudspeaker		07_LS1	18.6	31.0	30.8	30.3	32.2	33.7	31.4	28.2	36.2	9.3
Loudspeaker		07_LS2	12.7	22.0	33.0	26.8	33.7	32.7	32.0	28.8	36.9	6.2
Drive-thru Car		07_DT01	26.1	33.6	32.9	30.1	34.8	36.9	37.8	30.4	31.4	21.4
Drive-thru Car		07_DT02	20.7	33.8	32.8	29.5	33.8	36.1	38.2	30.9	32.2	21.1
Drive-thru Car		07_DT03	20.0	33.2	35.0	28.8	33.3	35.0	38.5	27.6	33.1	12.6
Drive-thru Car		07_DT04	17.1	32.5	33.4	30.6	33.1	34.4	38.4	27.9	33.9	14.3
Drive-thru Car		07_DT05	15.7	28.1	32.3	30.6	32.5	33.8	32.3	28.2	34.9	10.0
Drive-thru Car		07_DT06	14.1	29.2	27.6	30.1	32.1	33.8	31.4	27.9	34.9	9.9
Drive-thru Car		07_DT07	13.0	26.6	32.1	30.5	32.3	33.2	31.9	28.4	35.9	8.5
Drive-thru Car		07_DT08	14.8	28.3	27.6	29.6	31.3	32.2	30.6	27.6	35.5	10.9
Drive-thru Car		07_DT09	11.2	24.7	31.7	30.0	31.6	32.7	31.3	28.4	36.7	9.2
Drive-thru Car		07_DT10	13.8	30.1	28.3	28.1	30.2	31.5	28.4	27.7	34.2	11.7
Drive-thru Car		07_DT11	14.9	22.7	31.1	29.2	30.8	32.3	30.3	26.5	35.5	13.5
Drive-thru Car		07_DT12	13.4	30.3	30.6	27.6	28.2	29.4	28.0	25.2	34.9	16.9
Drive-thru Car		07_DT13	13.5	20.9	29.2	23.0	24.4	27.3	27.4	26.4	35.4	28.3
Vacuum		07_VAC1	31.7	34.7	36.5	42.2	43.4	41.6	41.9	21.3	20.1	41.9
Vacuum		07_VAC2	32.2	34.9	37.0	42.4	43.4	41.6	41.9	21.1	20.3	41.9
Air Pump		07_AIRPMP	22.3	23.8	29.6	32.6	33.3	32.3	32.6	16.2	15.7	30.8
Car Wash Entrance		07_CW_EN	28.7	44.0	42.0	38.2	40.5	39.7	36.3	22.4	27.5	18.7
Car Wash Exit		07_CW_EX	52.7	39.5	36.9	35.0	36.0	36.0	35.9	29.8	27.0	53.7
Car wash queue		CW01	29.9	40.7	38.9	37.6	39.3	38.6	35.7	21.9	24.1	16.1
Car wash queue		CW02	35.5	39.3	38.1	37.5	39.7	37.8	34.3	19.3	25.7	18.5
Car wash queue		CW03	34.8	39.7	39.2	38.4	40.5	38.8	34.7	18.5	31.4	19.4
Car wash queue		CW04	34.1	38.7	39.7	37.1	36.1	33.5	30.6	17.7	31.4	20.3
Car wash queue		CW05	34.4	38.5	39.3	34.1	36.1	32.4	29.1	16.5	28.6	21.7
Car wash queue		CW06	35.7	38.9	38.4	33.1	35.1	34.0	29.8	16.5	28.8	31.5
Car wash queue		CW07	36.0	39.0	39.3	31.9	35.6	35.0	30.8	18.3	29.2	31.5
Car wash queue		CW08	36.3	38.5	40.1	38.0	40.0	38.4	33.4	19.0	28.3	31.7
Car wash queue		CW09	36.6	38.8	39.7	38.5	39.0	38.5	34.0	21.4	26.5	32.1
Car wash queue		CW10	25.0	40.0	38.2	37.4	37.9	37.3	34.3	23.2	23.8	32.7
Car wash queue		CW11	21.1	30.3	36.8	36.7	36.4	36.0	33.6	25.1	19.4	33.4
Car wash queue		CW12	24.3	28.3	29.8	35.2	35.5	35.2	35.0	26.3	17.2	34.1
Car wash queue		CW13	29.1	22.2	22.1	30.7	35.4	36.3	34.6	19.7	16.2	34.3
Car movements		07_CarMove	32.7	35.6	36.5	35.9	36.8	36.6	32.0	23.0	34.1	36.1

Receiver Table - 2200-2300 Hours (Mitigated Scenario)

Name	M.	ID	Level Lr	Limit. Value	Land Use		Height	Coordinates		
					Leq(1) (dBA)	Leq(1) (dBA)	Type	Auto	Noise Type	X (m)
R01	R01	49.8	0.0	x	Total	4.50	r	441055.35	5020466.29	92.19
R02	R02	43.5	0.0	x	Total	4.50	r	441083.01	5020473.40	92.53
R03	R03	42.4	0.0	x	Total	4.50	r	441099.19	5020477.55	92.94
R04	R04	41.3	0.0	x	Total	4.50	r	441126.39	5020473.46	92.79
R05	R05	43.1	0.0	x	Total	4.50	r	441130.53	5020458.82	93.02
R06	R06	42.8	0.0	x	Total	4.50	r	441135.66	5020445.75	92.84
R07	R07	42.5	0.0	x	Total	4.50	r	441147.23	5020415.73	92.71
R08	R08	36.6	0.0	x	Total	4.50	r	441167.23	5020396.65	92.62
R09	R09	39.9	0.0	x	Total	4.50	r	441151.61	5020381.86	92.72
R10	R10	50.9	0.0	x	Total	4.50	r	441008.15	5020416.98	92.33

Partial Level Table (dBA)

Source	Partial Level Mit22 Leq(1)											
	Name	M.	ID	R01	R02	R03	R04	R05	R06	R07	R08	R09
Rooftop Unit		DAY_RTU1	22.9	24.5	25.3	24.5	27.1	27.9	29.2	25.3	26.8	20.9
Rooftop Unit		DAY_RTU2	28.9	30.6	31.1	30.1	32.4	33.0	35.1	33.3	36.3	26.9
Condensing Unit		CND01	22.7	25.2	25.9	24.8	27.0	27.6	29.2	25.8	27.8	18.1
Condensing Unit		CND02	15.9	17.0	16.3	14.4	16.7	17.3	19.4	15.9	18.7	12.8
Compressor		CMP	16.2	19.8	19.6	18.6	20.8	21.3	22.7	20.6	23.4	11.4
Loudspeaker		22_LS1	11.3	23.8	23.5	23.0	24.9	26.4	24.1	20.9	29.0	2.0
Loudspeaker		22_LS2	5.5	14.7	25.8	19.5	26.4	25.5	24.7	21.5	29.6	-1.1
Drive-thru Car		22_DT01	23.1	30.5	29.9	27.1	31.8	33.9	34.8	27.4	28.4	18.4
Drive-thru Car		22_DT08	1.0	14.5	13.8	15.8	17.5	18.4	16.8	13.8	21.7	-2.9
Drive-thru Car		22_DT09	-2.6	10.9	17.9	16.2	17.8	18.9	17.5	14.6	22.9	-4.6
Vacuum		22_VAC1	22.1	25.2	26.9	32.6	33.8	32.0	32.3	11.7	10.6	32.4
Vacuum		22_VAC2	22.7	25.3	27.5	32.9	33.8	32.1	32.4	11.5	10.7	32.3
Air Pump		22_AIRPMP	19.8	21.3	27.0	30.0	30.7	29.7	30.1	13.7	13.2	28.3
Car Wash Entrance		22_CW_EN	25.7	41.0	39.0	35.2	37.5	36.7	33.3	19.4	24.5	15.7
Car Wash Exit		22_CW_EX	49.7	36.5	33.9	32.0	33.0	33.0	32.9	26.8	24.0	50.7
Car movements		22_CarMove	28.2	31.0	31.9	31.4	32.3	32.1	27.4	18.5	29.5	31.5

Receiver Table - 0400-0500 Hours (Mitigated Scenario)

Name	M.	ID	Level Lr	Limit. Value	Land Use		Height	Coordinates		
					Leq(1) (dBA)	Leq(1) (dBA)	Type	Auto	Noise Type	X
										(m)
R01	R01	43.0	0.0	x	Total	4.50	r	441055.35	5020466.29	92.19
R02	R02	37.7	0.0	x	Total	4.50	r	441083.01	5020473.40	92.53
R03	R03	37.0	0.0	x	Total	4.50	r	441099.19	5020477.55	92.94
R04	R04	35.2	0.0	x	Total	4.50	r	441126.39	5020473.46	92.79
R05	R05	37.3	0.0	x	Total	4.50	r	441130.53	5020458.82	93.02
R06	R06	37.5	0.0	x	Total	4.50	r	441135.66	5020445.75	92.84
R07	R07	37.6	0.0	x	Total	4.50	r	441147.23	5020415.73	92.71
R08	R08	33.4	0.0	x	Total	4.50	r	441167.23	5020396.65	92.62
R09	R09	36.8	0.0	x	Total	4.50	r	441151.61	5020381.86	92.72
R10	R10	43.9	0.0	x	Total	4.50	r	441008.15	5020416.98	92.33

Partial Level Table (dBA)

Source	Partial Level Mit04 Leq(1)												
	Name	M.	ID	R01	R02	R03	R04	R05	R06	R07	R08	R09	R10
Condensing Unit	CND01			22.7	25.2	25.9	24.8	27.0	27.6	29.2	25.8	27.8	18.1
Condensing Unit	CND02			15.9	17.0	16.3	14.4	16.7	17.3	19.4	15.9	18.7	12.8
Compressor	CMP			16.2	19.8	19.6	18.6	20.8	21.3	22.7	20.6	23.4	11.4
Rooftop Unit	NIGHT_RTU1			19.9	21.5	22.3	21.5	24.1	24.9	26.1	22.2	23.8	17.9
Rooftop Unit	NIGHT_RTU2			25.9	27.6	28.1	27.1	29.4	30.0	32.1	30.3	33.3	23.9
Loudspeaker	04_LS1			6.5	19.0	18.7	18.3	20.1	21.6	19.3	16.1	24.2	-2.7
Loudspeaker	04_LS2			0.7	10.0	21.0	14.8	21.6	20.7	19.9	16.7	24.8	-5.9
Drive-thru Car	04_DT01			18.3	25.8	25.1	22.3	27.0	29.1	30.0	22.6	23.6	13.6
Drive-thru Car	04_DT08			-3.8	9.7	9.0	11.0	12.7	13.6	12.0	9.1	16.9	-7.7
Drive-thru Car	04_DT09			-7.4	6.1	13.2	11.4	13.0	14.1	12.7	9.9	18.1	-9.4
Air Pump	04_AIRPMP			12.8	14.3	20.0	23.0	23.8	22.8	23.1	6.7	6.2	21.3
Car Wash Entrance	04_CW_EN			18.7	34.0	32.0	28.2	30.5	29.7	26.3	12.4	17.5	8.7
Car Wash Exit	04_CW_EX			42.7	29.5	26.9	25.0	26.0	26.0	25.9	19.8	17.0	43.7
Car movements	04_CarMove			25.8	28.6	29.5	28.9	29.8	29.6	25.0	16.0	27.1	29.1

Receiver Table - 0600-0700 Hours (Mitigated Scenario)

Name	M.	ID	Level Lr	Limit. Value	Land Use		Height	Coordinates		
					Leq(1) (dBA)	Leq(1) (dBA)	Type	Auto	Noise Type	X
										(m)
R01	R01	49.8	0.0	x	Total	4.50	r	441055.35	5020466.29	92.19
R02	R02	45.7	0.0	x	Total	4.50	r	441083.01	5020473.40	92.53
R03	R03	45.9	0.0	x	Total	4.50	r	441099.19	5020477.55	92.94
R04	R04	44.2	0.0	x	Total	4.50	r	441126.39	5020473.46	92.79
R05	R05	46.4	0.0	x	Total	4.50	r	441130.53	5020458.82	93.02
R06	R06	47.0	0.0	x	Total	4.50	r	441135.66	5020445.75	92.84
R07	R07	47.2	0.0	x	Total	4.50	r	441147.23	5020415.73	92.71
R08	R08	40.9	0.0	x	Total	4.50	r	441167.23	5020396.65	92.62
R09	R09	47.2	0.0	x	Total	4.50	r	441151.61	5020381.86	92.72
R10	R10	51.0	0.0	x	Total	4.50	r	441008.15	5020416.98	92.33

Partial Level Table (dBA)

Source	Partial Level Mit06 Leq(1)												
	Name	M.	ID	R01	R02	R03	R04	R05	R06	R07	R08	R09	R10
Condensing Unit	CND01			22.7	25.2	25.9	24.8	27.0	27.6	29.2	25.8	27.8	18.1
Condensing Unit	CND02			15.9	17.0	16.3	14.4	16.7	17.3	19.4	15.9	18.7	12.8
Compressor	CMP			16.2	19.8	19.6	18.6	20.8	21.3	22.7	20.6	23.4	11.4
Rooftop Unit	NIGHT_RTU1			19.9	21.5	22.3	21.5	24.1	24.9	26.1	22.2	23.8	17.9
Rooftop Unit	NIGHT_RTU2			25.9	27.6	28.1	27.1	29.4	30.0	32.1	30.3	33.3	23.9
Loudspeaker	06_LS1			17.8	30.3	30.0	29.6	31.5	33.0	30.6	27.4	35.5	8.6
Loudspeaker	06_LS2			12.0	21.3	32.3	26.1	32.9	32.0	31.2	28.0	36.2	5.4
Drive-thru Car	06_DT01			26.1	33.6	32.9	30.1	34.8	36.9	37.8	30.4	31.4	21.4
Drive-thru Car	06_DT02			20.7	33.8	32.8	29.5	33.8	36.1	38.2	30.9	32.2	21.1
Drive-thru Car	06_DT03			20.0	33.2	35.0	28.8	33.3	35.0	38.5	27.6	33.1	12.6
Drive-thru Car	06_DT04			17.1	32.5	33.4	30.6	33.1	34.4	38.4	27.9	33.9	14.3
Drive-thru Car	06_DT05			15.7	28.1	32.3	30.6	32.5	33.8	32.3	28.2	34.9	10.0
Drive-thru Car	06_DT06			14.1	29.2	27.6	30.1	32.1	33.8	31.4	27.9	34.9	9.9
Drive-thru Car	06_DT07			13.0	26.6	32.1	30.5	32.3	33.2	31.9	28.4	35.9	8.5
Drive-thru Car	06_DT08			14.8	28.3	27.6	29.6	31.3	32.2	30.6	27.6	35.5	10.9
Drive-thru Car	06_DT09			11.2	24.7	31.7	30.0	31.6	32.7	31.3	28.4	36.7	9.2
Drive-thru Car	06_DT10			13.8	30.1	28.3	28.1	30.2	31.5	28.4	27.7	34.2	11.7
Drive-thru Car	06_DT11			14.9	22.7	31.1	29.2	30.8	32.3	30.3	26.5	35.5	13.5
Drive-thru Car	06_DT12			13.4	30.3	30.6	27.6	28.2	29.4	28.0	25.2	34.9	16.9
Drive-thru Car	06_DT13			13.5	20.9	29.2	23.0	24.4	27.3	27.4	26.4	35.4	28.3
Vacuum	06_VAC1			22.1	25.2	26.9	32.6	33.8	32.0	32.3	11.7	10.6	32.4
Vacuum	06_VAC2			22.7	25.3	27.5	32.9	33.8	32.1	32.4	11.5	10.7	32.3
Air Pump	06_AIRPMP			19.8	21.3	27.0	30.0	30.7	29.7	30.1	13.7	13.2	28.3
Car Wash Entrance	06_CW_EN			25.7	41.0	39.0	35.2	37.5	36.7	33.3	19.4	24.5	15.7
Car Wash Exit	06_CW_EX			49.7	36.5	33.9	32.0	33.0	33.0	32.9	26.8	24.0	50.7
Car movements	06_CarMove			32.0	34.9	35.8	35.2	36.1	35.9	31.3	22.3	33.4	35.4

Configuration	
Parameter	Value
General	
Country	International
Max. Error (dB)	0.00
Max. Search Radius (m)	2000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (m)	1000.00
Min. Length of Section (m)	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	60.00
Reference Time Night (min)	60.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	88.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	1
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rcvr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (°C)	10
rel. Humidity (%)	70
Ground Absorption G	0.00
Wind Speed for Dir. (m/s)	3.0
Roads (RLS-90)	
Strictly acc. to RLS-90	
Railways (Schall 03)	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (???)	
Strictly acc. to AzB	

## Receiver

Name: R09  
 ID: R09  
 X: 441151.61  
 Y: 5020381.86  
 Z: 92.72

Point Source, ISO 9613, Name: "Condensing Unit", ID: "CND01"

Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	441111.52	5020404.04	94.59	0	32	41.6	-88.0	0.0	0.0	44.2	0.0	-3.0	0.0	0.0	8.0	0.0	-0.0	-7.7	-88.0
2	441111.52	5020404.04	94.59	0	63	57.6	-88.0	0.0	0.0	44.2	0.0	-3.0	0.0	0.0	8.3	0.0	-0.0	8.1	-88.0
3	441111.52	5020404.04	94.59	0	125	65.1	-88.0	0.0	0.0	44.2	0.0	0.8	0.0	0.0	4.9	0.0	-0.0	15.1	-88.0
4	441111.52	5020404.04	94.59	0	250	71.1	-88.0	0.0	0.0	44.2	0.1	-0.6	0.0	0.0	7.1	0.0	-0.0	20.3	-88.0
5	441111.52	5020404.04	94.59	0	500	74.1	-88.0	0.0	0.0	44.2	0.1	-1.2	0.0	0.0	8.9	0.0	-0.0	22.1	-88.0
6	441111.52	5020404.04	94.59	0	1000	76.7	-88.0	0.0	0.0	44.2	0.2	-1.2	0.0	0.0	10.7	0.0	-0.0	22.8	-88.0
7	441111.52	5020404.04	94.59	0	2000	75.3	-88.0	0.0	0.0	44.2	0.4	-1.2	0.0	0.0	12.9	0.0	-0.0	18.9	-88.0
8	441111.52	5020404.04	94.59	0	4000	72.5	-88.0	0.0	0.0	44.2	1.5	-1.2	0.0	0.0	15.4	0.0	-0.0	12.6	-88.0
9	441111.52	5020404.04	94.59	0	8000	69.0	-88.0	0.0	0.0	44.2	5.4	-1.2	0.0	0.0	18.2	0.0	-0.0	2.4	-88.0

Point Source, ISO 9613, Name: "Condensing Unit", ID: "CND02"

Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	441116.10	5020399.63	94.59	0	32	39.0	-88.0	0.0	0.0	43.0	0.0	-3.0	0.0	0.0	8.4	0.0	-0.0	-9.4	-88.0
2	441116.10	5020399.63	94.59	0	63	48.4	-88.0	0.0	0.0	43.0	0.0	-3.0	0.0	0.0	8.9	0.0	-0.0	-0.5	-88.0
3	441116.10	5020399.63	94.59	0	125	57.3	-88.0	0.0	0.0	43.0	0.0	0.4	0.0	0.0	6.4	0.0	-0.0	7.5	-88.0
4	441116.10	5020399.63	94.59	0	250	58.5	-88.0	0.0	0.0	43.0	0.0	-0.8	0.0	0.0	8.9	0.0	-0.0	7.3	-88.0
5	441116.10	5020399.63	94.59	0	500	65.5	-88.0	0.0	0.0	43.0	0.1	-1.3	0.0	0.0	11.3	0.0	-0.0	12.4	-88.0
6	441116.10	5020399.63	94.59	0	1000	71.0	-88.0	0.0	0.0	43.0	0.2	-1.3	0.0	0.0	13.6	0.0	-0.0	15.6	-88.0
7	441116.10	5020399.63	94.59	0	2000	66.3	-88.0	0.0	0.0	43.0	0.4	-1.3	0.0	0.0	16.2	0.0	-0.0	8.0	-88.0
8	441116.10	5020399.63	94.59	0	4000	64.9	-88.0	0.0	0.0	43.0	1.3	-1.3	0.0	0.0	19.0	0.0	-0.0	2.9	-88.0
9	441116.10	5020399.63	94.59	0	8000	59.0	-88.0	0.0	0.0	43.0	4.6	-1.3	0.0	0.0	21.3	0.0	-0.0	-8.7	-88.0

Point Source, ISO 9613, Name: "Compressor", ID: "CMP"

Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	441115.76	5020392.95	94.34	0	32	39.5	-88.0	0.0	0.0	42.5	0.0	-3.0	0.0	0.0	8.0	0.0	-0.0	-8.0	-88.0
2	441115.76	5020392.95	94.34	0	63	54.3	-88.0	0.0	0.0	42.5	0.0	-3.0	0.0	0.0	8.5	0.0	-0.0	6.2	-88.0
3	441115.76	5020392.95	94.34	0	125	61.6	-88.0	0.0	0.0	42.5	0.0	-0.3	0.0	0.0	6.7	0.0	-0.0	12.7	-88.0
4	441115.76	5020392.95	94.34	0	250	62.7	-88.0	0.0	0.0	42.5	0.0	-1.3	0.0	0.0	8.8	0.0	-0.0	12.6	-88.0
5	441115.76	5020392.95	94.34	0	500	69.6	-88.0	0.0	0.0	42.5	0.1	-1.7	0.0	0.0	10.9	0.0	-0.0	17.8	-88.0
6	441115.76	5020392.95	94.34	0	1000	72.2	-88.0	0.0	0.0	42.5	0.1	-1.7	0.0	0.0	13.0	0.0	-0.0	18.2	-88.0
7	441115.76	5020392.95	94.34	0	2000	73.5	-88.0	0.0	0.0	42.5	0.4	-1.7	0.0	0.0	15.5	0.0	-0.0	16.8	-88.0
8	441115.76	5020392.95	94.34	0	4000	64.7	-88.0	0.0	0.0	42.5	1.2	-1.7	0.0	0.0	18.2	0.0	-0.0	4.4	-88.0
9	441115.76	5020392.95	94.34	0	8000	59.3	-88.0	0.0	0.0	42.5	4.4	-1.7	0.0	0.0	21.1	0.0	-0.0	-7.1	-88.0

Point Source, ISO 9613, Name: "Rooftop Unit", ID: "NIGHT\_RTU1"

Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	441110.37	5020411.10	94.95	0	125	47.9	-88.0	0.0	0.0	45.1	0.0	0.9	0.0	0.0	4.3	0.0	-0.0	-2.5	-88.0
2	441110.37	5020411.10	94.95	0	250	60.4	-88.0	0.0	0.0	45.1	0.1	-0.5	0.0	0.0	6.2	0.0	-0.0	9.6	-88.0
3	441110.37	5020411.10	94.95	0	500	70.8	-88.0	0.0	0.0	45.1	0.1	-1.1	0.0	0.0	7.6	0.0	-0.0	19.2	-88.0
4	441110.37	5020411.10	94.95	0	1000	73.0	-88.0	0.0	0.0	45.1	0.2	-1.1	0.0	0.0	8.8	0.0	-0.0	20.1	-88.0
5	441110.37	5020411.10	94.95	0	2000	71.2	-88.0	0.0	0.0	45.1	0.5	-1.1	0.0	0.0	10.5	0.0	-0.0	16.3	-88.0
6	441110.37	5020411.10	94.95	0	4000	66.0	-88.0	0.0	0.0	45.1	1.7	-1.1	0.0	0.0	12.7	0.0	-0.0	7.7	-88.0
7	441110.37	5020411.10	94.95	0	8000	56.9	-88.0	0.0	0.0	45.1	5.9	-1.1	0.0	0.0	15.2	0.0	-0.0	-8.2	-88.0

Point Source, ISO 9613, Name: "Rooftop Unit", ID: "NIGHT\_RTU2"

Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	441118.70	5020389.30	94.95	0	125	56.9	-88.0	0.0	0.0	41.6	0.0	-0.4	0.0	0.0	5.8	0.0	-0.0	9.9	-88.0
2	441118.70	5020389.30	94.95	0	250	67.4	-88.0	0.0	0.0	41.6	0.0	-1.2	0.0	0.0	7.3	0.0	-0.0	19.7	-88.0
3	441118.70	5020389.30	94.95	0	500	77.8	-88.0	0.0	0.0	41.6	0.1	-1.6	0.0	0.0	8.8	0.0	-0.0	29.0	-88.0

114-456 Sample Calculation Details - R09 - 0600-0700 Hours (Mitigated Scenario)

Point Source, ISO 9613, Name: "Rooftop Unit", ID: "NIGHT_RTU2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB(A))							
4	441118.70	5020389.30	94.95	0	1000	80.0	-88.0	0.0	0.0	41.6	0.1	-1.6	0.0	0.0	10.3	0.0	-0.0	29.6	-88.0
5	441118.70	5020389.30	94.95	0	2000	77.2	-88.0	0.0	0.0	41.6	0.3	-1.6	0.0	0.0	12.3	0.0	-0.0	24.5	-88.0
6	441118.70	5020389.30	94.95	0	4000	71.0	-88.0	0.0	0.0	41.6	1.1	-1.6	0.0	0.0	14.8	0.0	-0.0	15.1	-88.0
7	441118.70	5020389.30	94.95	0	8000	61.9	-88.0	0.0	0.0	41.6	3.9	-1.6	0.0	0.0	17.4	0.0	-0.0	0.5	-88.0

Point Source, ISO 9613, Name: "Loudspeaker", ID: "06_LS1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB(A))							
1	441131.14	5020385.62	89.16	0	32	-40.2	-88.0	0.0	0.0	37.5	0.0	-3.0	0.0	0.0	6.1	0.0	-0.0	-80.8	-88.0
2	441131.14	5020385.62	89.16	0	63	-27.0	-88.0	0.0	0.0	37.5	0.0	-3.0	0.0	0.0	7.0	0.0	-0.0	-68.4	-88.0
3	441131.14	5020385.62	89.16	0	125	54.6	-88.0	0.0	0.0	37.5	0.0	0.0	0.0	0.0	5.1	0.0	-0.0	12.0	-88.0
4	441131.14	5020385.62	89.16	0	250	67.1	-88.0	0.0	0.0	37.5	0.0	1.5	0.0	0.0	4.5	0.0	-0.0	23.7	-88.0
5	441131.14	5020385.62	89.16	0	500	73.5	-88.0	0.0	0.0	37.5	0.0	1.9	0.0	0.0	5.1	0.0	-0.0	29.0	-88.0
6	441131.14	5020385.62	89.16	0	1000	75.7	-88.0	0.0	0.0	37.5	0.1	0.0	0.0	0.0	8.5	0.0	-0.0	29.6	-88.0
7	441131.14	5020385.62	89.16	0	2000	71.9	-88.0	0.0	0.0	37.5	0.2	-0.8	0.0	0.0	11.4	0.0	-0.0	23.7	-88.0
8	441131.14	5020385.62	89.16	0	4000	63.7	-88.0	0.0	0.0	37.5	0.7	-0.8	0.0	0.0	13.8	0.0	-0.0	12.6	-88.0
9	441131.14	5020385.62	89.16	0	8000	49.6	-88.0	0.0	0.0	37.5	2.5	-0.8	0.0	0.0	16.5	0.0	-0.0	-6.0	-88.0
10	441131.14	5020385.62	89.16	1	500	73.5	-88.0	0.0	0.0	40.7	0.1	-1.7	0.0	0.0	6.5	0.0	2.0	26.0	-88.0
11	441131.14	5020385.62	89.16	1	1000	75.7	-88.0	0.0	0.0	40.7	0.1	-2.0	0.0	0.0	6.9	0.0	2.0	28.1	-88.0
12	441131.14	5020385.62	89.16	1	2000	71.9	-88.0	0.0	0.0	40.7	0.3	-2.2	0.0	0.0	7.1	0.0	2.0	24.0	-88.0
13	441131.14	5020385.62	89.16	1	4000	63.7	-88.0	0.0	0.0	40.7	1.0	-2.2	0.0	0.0	7.3	0.0	2.0	14.9	-88.0
14	441131.14	5020385.62	89.16	1	8000	49.6	-88.0	0.0	0.0	40.7	3.6	-2.2	0.0	0.0	7.7	0.0	2.0	-2.1	-88.0
15	441131.14	5020385.62	89.16	1	2000	71.9	-88.0	0.0	0.0	57.3	2.0	-0.8	0.0	0.0	0.0	0.0	2.0	11.5	-88.0
16	441131.14	5020385.62	89.16	1	4000	63.7	-88.0	0.0	0.0	57.3	6.8	-0.8	0.0	0.0	0.0	0.0	2.0	-1.5	-88.0
17	441131.14	5020385.62	89.16	1	8000	49.6	-88.0	0.0	0.0	57.3	24.1	-0.8	0.0	0.0	0.0	0.0	2.0	-33.0	-88.0

Point Source, ISO 9613, Name: "Loudspeaker", ID: "06_LS2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB(A))							
1	441126.95	5020383.98	89.13	0	32	-40.2	-88.0	0.0	0.0	39.0	0.0	-3.0	0.0	0.0	7.8	0.0	-0.0	-84.0	-88.0
2	441126.95	5020383.98	89.13	0	63	-27.0	-88.0	0.0	0.0	39.0	0.0	-3.0	0.0	0.0	7.9	0.0	-0.0	-70.8	-88.0
3	441126.95	5020383.98	89.13	0	125	54.6	-88.0	0.0	0.0	39.0	0.0	-0.8	0.0	0.0	5.8	0.0	-0.0	10.7	-88.0
4	441126.95	5020383.98	89.13	0	250	67.1	-88.0	0.0	0.0	39.0	0.0	-0.2	0.0	0.0	5.3	0.0	-0.0	23.0	-88.0
5	441126.95	5020383.98	89.13	0	500	73.5	-88.0	0.0	0.0	39.0	0.1	-0.0	0.0	0.0	5.5	0.0	-0.0	29.0	-88.0
6	441126.95	5020383.98	89.13	0	1000	75.7	-88.0	0.0	0.0	39.0	0.1	-1.1	0.0	0.0	7.3	0.0	-0.0	30.5	-88.0
7	441126.95	5020383.98	89.13	0	2000	71.9	-88.0	0.0	0.0	39.0	0.2	-1.6	0.0	0.0	8.8	0.0	-0.0	25.5	-88.0
8	441126.95	5020383.98	89.13	0	4000	63.7	-88.0	0.0	0.0	39.0	0.8	-1.6	0.0	0.0	10.3	0.0	-0.0	15.2	-88.0
9	441126.95	5020383.98	89.13	0	8000	49.6	-88.0	0.0	0.0	39.0	2.9	-1.6	0.0	0.0	12.4	0.0	-0.0	-3.0	-88.0
10	441126.95	5020383.98	89.13	1	63	-27.0	-88.0	0.0	0.0	39.4	0.0	-3.0	0.0	0.0	7.8	0.0	2.0	-73.2	-88.0
11	441126.95	5020383.98	89.13	1	125	54.6	-88.0	0.0	0.0	39.4	0.0	-0.9	0.0	0.0	5.8	0.0	2.0	8.3	-88.0
12	441126.95	5020383.98	89.13	1	250	67.1	-88.0	0.0	0.0	39.4	0.0	-0.2	0.0	0.0	5.2	0.0	2.0	20.7	-88.0
13	441126.95	5020383.98	89.13	1	500	73.5	-88.0	0.0	0.0	39.4	0.1	-0.1	0.0	0.0	5.3	0.0	2.0	26.8	-88.0
14	441126.95	5020383.98	89.13	1	1000	75.7	-88.0	0.0	0.0	39.4	0.1	-1.2	0.0	0.0	6.8	0.0	2.0	28.6	-88.0
15	441126.95	5020383.98	89.13	1	2000	71.9	-88.0	0.0	0.0	39.4	0.3	-1.6	0.0	0.0	8.0	0.0	2.0	23.9	-88.0
16	441126.95	5020383.98	89.13	1	4000	63.7	-88.0	0.0	0.0	39.4	0.9	-1.6	0.0	0.0	9.2	0.0	2.0	13.9	-88.0
17	441126.95	5020383.98	89.13	1	8000	49.6	-88.0	0.0	0.0	39.4	3.1	-1.6	0.0	0.0	10.8	0.0	2.0	-4.1	-88.0
18	441126.95	5020383.98	89.13	1	2000	71.9	-88.0	0.0	0.0	57.3	2.0	-1.9	0.0	0.0	0.0	0.0	2.0	12.5	-88.0
19	441126.95	5020383.98	89.13	1	4000	63.7	-88.0	0.0	0.0	57.3	6.8	-1.9	0.0	0.0	0.0	0.0	2.0	-0.5	-88.0
20	441126.95	5020383.98	89.13	1	8000	49.6	-88.0	0.0	0.0	57.3	24.2	-1.9	0.0	0.0	0.0	0.0	2.0	-31.9	-88.0

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT01"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB(A))							
1	441116.02	5020415.51	89.20	0</															

## 114-456 Sample Calculation Details - R09 - 0600-0700 Hours (Mitigated Scenario)

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT01"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
11	441116.02	5020415.51	89.20	1	250	67.5	-88.0	0.0	0.0	45.1	0.1	-0.2	0.0	0.0	5.1	0.0	2.0	15.4	-88.0
12	441116.02	5020415.51	89.20	1	500	75.0	-88.0	0.0	0.0	45.1	0.1	-0.6	0.0	0.0	5.5	0.0	2.0	22.8	-88.0
13	441116.02	5020415.51	89.20	1	1000	73.7	-88.0	0.0	0.0	45.1	0.2	-1.3	0.0	0.0	6.4	0.0	2.0	21.2	-88.0
14	441116.02	5020415.51	89.20	1	2000	73.4	-88.0	0.0	0.0	45.1	0.5	-1.7	0.0	0.0	7.1	0.0	2.0	20.3	-88.0
15	441116.02	5020415.51	89.20	1	4000	70.2	-88.0	0.0	0.0	45.1	1.7	-1.7	0.0	0.0	7.6	0.0	2.0	15.4	-88.0
16	441116.02	5020415.51	89.20	1	8000	65.9	-88.0	0.0	0.0	45.1	6.0	-1.7	0.0	0.0	8.6	0.0	2.0	5.8	-88.0
17	441116.02	5020415.51	89.20	1	1000	73.7	-88.0	0.0	0.0	55.8	0.6	-0.0	0.0	0.0	0.0	0.0	2.0	15.3	-88.0
18	441116.02	5020415.51	89.20	1	2000	73.4	-88.0	0.0	0.0	55.8	1.7	-1.2	0.0	0.0	0.0	0.0	2.0	15.1	-88.0
19	441116.02	5020415.51	89.20	1	4000	70.2	-88.0	0.0	0.0	55.8	5.7	-1.2	0.0	0.0	0.0	0.0	2.0	7.9	-88.0
20	441116.02	5020415.51	89.20	1	8000	65.9	-88.0	0.0	0.0	55.8	20.3	-1.2	0.0	0.0	0.0	0.0	2.0	-11.0	-88.0

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT02"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	441117.91	5020410.31	89.21	0	32	53.1	-88.0	0.0	0.0	43.9	0.0	-3.0	0.0	0.0	4.4	0.0	-0.0	7.8	-88.0
2	441117.91	5020410.31	89.21	0	63	58.9	-88.0	0.0	0.0	43.9	0.0	-3.0	0.0	0.0	5.1	0.0	-0.0	12.9	-88.0
3	441117.91	5020410.31	89.21	0	125	61.9	-88.0	0.0	0.0	43.9	0.0	0.6	0.0	0.0	3.3	0.0	-0.0	14.0	-88.0
4	441117.91	5020410.31	89.21	0	250	67.5	-88.0	0.0	0.0	43.9	0.1	2.5	0.0	0.0	2.1	0.0	-0.0	18.9	-88.0
5	441117.91	5020410.31	89.21	0	500	75.0	-88.0	0.0	0.0	43.9	0.1	3.1	0.0	0.0	2.1	0.0	-0.0	25.8	-88.0
6	441117.91	5020410.31	89.21	0	1000	73.7	-88.0	0.0	0.0	43.9	0.2	0.3	0.0	0.0	5.4	0.0	-0.0	23.9	-88.0
7	441117.91	5020410.31	89.21	0	2000	73.4	-88.0	0.0	0.0	43.9	0.4	-0.9	0.0	0.0	7.5	0.0	-0.0	22.4	-88.0
8	441117.91	5020410.31	89.21	0	4000	70.2	-88.0	0.0	0.0	43.9	1.5	-0.9	0.0	0.0	9.0	0.0	-0.0	16.7	-88.0
9	441117.91	5020410.31	89.21	0	8000	65.9	-88.0	0.0	0.0	43.9	5.2	-0.9	0.0	0.0	10.9	0.0	-0.0	6.8	-88.0
10	441117.91	5020410.31	89.21	1	125	61.9	-88.0	0.0	0.0	44.3	0.0	-0.5	0.0	0.0	5.3	0.0	2.0	10.8	-88.0
11	441117.91	5020410.31	89.21	1	250	67.5	-88.0	0.0	0.0	44.3	0.1	-0.5	0.0	0.0	5.4	0.0	2.0	16.3	-88.0
12	441117.91	5020410.31	89.21	1	500	75.0	-88.0	0.0	0.0	44.3	0.1	-0.8	0.0	0.0	5.8	0.0	2.0	23.6	-88.0
13	441117.91	5020410.31	89.21	1	1000	73.7	-88.0	0.0	0.0	44.3	0.2	-1.5	0.0	0.0	6.6	0.0	2.0	22.1	-88.0
14	441117.91	5020410.31	89.21	1	2000	73.4	-88.0	0.0	0.0	44.3	0.5	-1.8	0.0	0.0	7.3	0.0	2.0	21.1	-88.0
15	441117.91	5020410.31	89.21	1	4000	70.2	-88.0	0.0	0.0	44.3	1.5	-1.8	0.0	0.0	8.0	0.0	2.0	16.2	-88.0
16	441117.91	5020410.31	89.21	1	8000	65.9	-88.0	0.0	0.0	44.3	5.4	-1.8	0.0	0.0	9.0	0.0	2.0	6.9	-88.0
17	441117.91	5020410.31	89.21	1	1000	73.7	-88.0	0.0	0.0	56.1	0.7	-0.6	0.0	0.0	0.0	0.0	2.0	15.6	-88.0
18	441117.91	5020410.31	89.21	1	2000	73.4	-88.0	0.0	0.0	56.1	1.7	-1.4	0.0	0.0	0.0	0.0	2.0	15.0	-88.0
19	441117.91	5020410.31	89.21	1	4000	70.2	-88.0	0.0	0.0	56.1	5.9	-1.4	0.0	0.0	0.0	0.0	2.0	7.7	-88.0
20	441117.91	5020410.31	89.21	1	8000	65.9	-88.0	0.0	0.0	56.1	20.9	-1.4	0.0	0.0	0.0	0.0	2.0	-11.7	-88.0

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT03"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	441120.27	5020404.90	89.21	0	32	53.1	-88.0	0.0	0.0	42.8	0.0	-3.0	0.0	0.0	4.5	0.0	-0.0	8.8	-88.0
2	441120.27	5020404.90	89.21	0	63	58.9	-88.0	0.0	0.0	42.8	0.0	-3.0	0.0	0.0	5.3	0.0	-0.0	13.8	-88.0
3	441120.27	5020404.90	89.21	0	125	61.9	-88.0	0.0	0.0	42.8	0.0	0.4	0.0	0.0	3.6	0.0	-0.0	15.0	-88.0
4	441120.27	5020404.90	89.21	0	250	67.5	-88.0	0.0	0.0	42.8	0.1	2.6	0.0	0.0	2.7	0.0	-0.0	19.9	-88.0
5	441120.27	5020404.90	89.21	0	500	75.0	-88.0	0.0	0.0	42.8	0.1	2.6	0.0	0.0	5.8	0.0	-0.0	26.8	-88.0
6	441120.27	5020404.90	89.21	0	1000	73.7	-88.0	0.0	0.0	42.8	0.1	0.1	0.0	0.0	5.8	0.0	-0.0	24.8	-88.0
7	441120.27	5020404.90	89.21	0	2000	73.4	-88.0	0.0	0.0	42.8	0.4	-1.0	0.0	0.0	8.0	0.0	-0.0	23.1	-88.0
8	441120.27	5020404.90	89.21	0	4000	70.2	-88.0	0.0	0.0	42.8	1.3	-1.0	0.0	0.0	9.6	0.0	-0.0	17.4	-88.0
9	441120.27	5020404.90	89.21	0	8000	65.9	-88.0	0.0	0.0	42.8	4.6	-1.0	0.0	0.0	11.7	0.0	-0.0	7.7	-88.0
10	441120.27	5020404.90	89.21	1	125	61.9	-88.0	0.0	0.0	43.4	0.0	-0.4	0.0	0.0	5.3	0.0	2.0	11.7	-88.0
11	441120.27	5020404.90	89.21	1	250	67.5	-88.0	0.0	0.0	43.4	0.0	0.2	0.0	0.0	4.7	0.0	2.0	17.2	-88.0
12	441120.27	5020404.90	89.21	1	500	75.0	-88.0	0.0	0.0	43.4	0.1	0.1	0.0	0.0	4.9	0.0	2.0	24.5	-88.0
13	441120.27	5020404.90	89.21	1	1000	73.7	-88.0	0.0	0.0	43.4	0.2	-1.1	0.0	0.0	6.3	0.0	2.0	22.9	-88.0
14	441120.27	5020404.90	89.21	1	2000	73.4	-88.0	0.0	0.0	43.4	0.4	-1.6	0.0	0.0	7.2	0.0	2.0	22.0	-88.0
15	441120.27	5020404.90	89.21	1	4000	70.2	-88.0	0.0	0.0	43.4	1.4	-1.6	0.0	0.0	8.0	0.0	2.0	17.1	-88.0
16	441120.27	5020404.90	89.21	1	8000	65.9	-88.0	0.0	0.0	43.4	4.8	-1.6	0.0	0.0	9.1	0.0	2.0	8.1	-88.0
17	441120.27	5020404.90	89.21	1	100														

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT04"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	Lrn
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
2	441123.31	5020399.51	89.19	0	63	58.9	-88.0	0.0	0.0	41.5	0.0	-3.0	0.0	0.0	5.6	0.0	-0.0	14.8	-88.0
3	441123.31	5020399.51	89.19	0	125	61.9	-88.0	0.0	0.0	41.5	0.0	0.6	0.0	0.0	3.7	0.0	-0.0	16.1	-88.0
4	441123.31	5020399.51	89.19	0	250	67.5	-88.0	0.0	0.0	41.5	0.0	2.5	0.0	0.0	2.6	0.0	-0.0	20.9	-88.0
5	441123.31	5020399.51	89.19	0	500	75.0	-88.0	0.0	0.0	41.5	0.1	3.0	0.0	0.0	2.7	0.0	-0.0	27.7	-88.0
6	441123.31	5020399.51	89.19	0	1000	73.7	-88.0	0.0	0.0	41.5	0.1	0.4	0.0	0.0	6.2	0.0	-0.0	25.5	-88.0
7	441123.31	5020399.51	89.19	0	2000	73.4	-88.0	0.0	0.0	41.5	0.3	-0.8	0.0	0.0	8.7	0.0	-0.0	23.6	-88.0
8	441123.31	5020399.51	89.19	0	4000	70.2	-88.0	0.0	0.0	41.5	1.1	-0.8	0.0	0.0	10.6	0.0	-0.0	17.7	-88.0
9	441123.31	5020399.51	89.19	0	8000	65.9	-88.0	0.0	0.0	41.5	3.9	-0.8	0.0	0.0	12.9	0.0	-0.0	8.3	-88.0
10	441123.31	5020399.51	89.19	1	125	61.9	-88.0	0.0	0.0	42.5	0.0	-1.4	0.0	0.0	6.2	0.0	2.0	12.6	-88.0
11	441123.31	5020399.51	89.19	1	250	67.5	-88.0	0.0	0.0	42.5	0.0	-1.8	0.0	0.0	6.7	0.0	2.0	18.1	-88.0
12	441123.31	5020399.51	89.19	1	500	75.0	-88.0	0.0	0.0	42.5	0.1	-2.2	0.0	0.0	7.2	0.0	2.0	25.5	-88.0
13	441123.31	5020399.51	89.19	1	1000	73.7	-88.0	0.0	0.0	42.5	0.1	-2.2	0.0	0.0	7.4	0.0	2.0	23.9	-88.0
14	441123.31	5020399.51	89.19	1	2000	73.4	-88.0	0.0	0.0	42.5	0.4	-2.2	0.0	0.0	7.7	0.0	2.0	23.1	-88.0
15	441123.31	5020399.51	89.19	1	4000	70.2	-88.0	0.0	0.0	42.5	1.2	-2.2	0.0	0.0	8.4	0.0	2.0	18.4	-88.0
16	441123.31	5020399.51	89.19	1	8000	65.9	-88.0	0.0	0.0	42.5	4.4	-2.2	0.0	0.0	9.4	0.0	2.0	9.9	-88.0
17	441123.31	5020399.51	89.19	1	2000	73.4	-88.0	0.0	0.0	56.6	1.8	-1.4	0.0	0.0	0.0	0.0	2.0	14.4	-88.0
18	441123.31	5020399.51	89.19	1	4000	70.2	-88.0	0.0	0.0	56.6	6.3	-1.4	0.0	0.0	0.0	0.0	2.0	6.8	-88.0
19	441123.31	5020399.51	89.19	1	8000	65.9	-88.0	0.0	0.0	56.6	22.3	-1.4	0.0	0.0	0.0	0.0	2.0	-13.6	-88.0

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT05"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	Lrn
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	441125.52	5020394.00	89.17	0	32	53.1	-88.0	0.0	0.0	40.3	0.0	-3.0	0.0	0.0	5.0	0.0	-0.0	10.8	-88.0
2	441125.52	5020394.00	89.17	0	63	58.9	-88.0	0.0	0.0	40.3	0.0	-3.0	0.0	0.0	5.9	0.0	-0.0	15.8	-88.0
3	441125.52	5020394.00	89.17	0	125	61.9	-88.0	0.0	0.0	40.3	0.0	-0.3	0.0	0.0	4.6	0.0	-0.0	17.3	-88.0
4	441125.52	5020394.00	89.17	0	250	67.5	-88.0	0.0	0.0	40.3	0.0	1.0	0.0	0.0	4.1	0.0	-0.0	22.1	-88.0
5	441125.52	5020394.00	89.17	0	500	75.0	-88.0	0.0	0.0	40.3	0.1	1.3	0.0	0.0	4.5	0.0	-0.0	28.9	-88.0
6	441125.52	5020394.00	89.17	0	1000	73.7	-88.0	0.0	0.0	40.3	0.1	-0.5	0.0	0.0	7.3	0.0	-0.0	26.5	-88.0
7	441125.52	5020394.00	89.17	0	2000	73.4	-88.0	0.0	0.0	40.3	0.3	-1.2	0.0	0.0	9.6	0.0	-0.0	24.5	-88.0
8	441125.52	5020394.00	89.17	0	4000	70.2	-88.0	0.0	0.0	40.3	1.0	-1.2	0.0	0.0	11.6	0.0	-0.0	18.6	-88.0
9	441125.52	5020394.00	89.17	0	8000	65.9	-88.0	0.0	0.0	40.3	3.4	-1.2	0.0	0.0	14.0	0.0	-0.0	9.5	-88.0
10	441125.52	5020394.00	89.17	1	125	61.9	-88.0	0.0	0.0	41.5	0.0	-1.5	0.0	0.0	6.4	0.0	2.0	13.6	-88.0
11	441125.52	5020394.00	89.17	1	250	67.5	-88.0	0.0	0.0	41.5	0.0	-1.9	0.0	0.0	6.8	0.0	2.0	19.1	-88.0
12	441125.52	5020394.00	89.17	1	500	75.0	-88.0	0.0	0.0	41.5	0.1	-2.3	0.0	0.0	7.2	0.0	2.0	26.4	-88.0
13	441125.52	5020394.00	89.17	1	1000	73.7	-88.0	0.0	0.0	41.5	0.1	-2.3	0.0	0.0	7.4	0.0	2.0	24.9	-88.0
14	441125.52	5020394.00	89.17	1	2000	73.4	-88.0	0.0	0.0	41.5	0.3	-2.3	0.0	0.0	7.8	0.0	2.0	24.0	-88.0
15	441125.52	5020394.00	89.17	1	4000	70.2	-88.0	0.0	0.0	41.5	1.1	-2.3	0.0	0.0	8.4	0.0	2.0	19.4	-88.0
16	441125.52	5020394.00	89.17	1	8000	65.9	-88.0	0.0	0.0	41.5	3.9	-2.3	0.0	0.0	9.5	0.0	2.0	11.2	-88.0
17	441125.52	5020394.00	89.17	1	2000	73.4	-88.0	0.0	0.0	56.9	1.9	-1.5	0.0	0.0	0.0	0.0	2.0	14.2	-88.0
18	441125.52	5020394.00	89.17	1	4000	70.2	-88.0	0.0	0.0	56.9	6.5	-1.5	0.0	0.0	0.0	0.0	2.0	6.4	-88.0
19	441125.52	5020394.00	89.17	1	8000	65.9	-88.0	0.0	0.0	56.9	23.0	-1.5	0.0	0.0	0.0	0.0	2.0	-14.4	-88.0

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT06"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	Lrn
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	441130.27	5020390.71	89.18	0	32	53.1	-88.0	0.0	0.0	38.4	0.0	-3.0	0.0	0.0	5.8	0.0	-0.0	11.9	-88.0
2	441130.27	5020390.71	89.18	0	63	58.9	-88.0	0.0	0.0	38.4	0.0	-3.0	0.0	0.0	6.7	0.0	-0.0	16.8	-88.0
3	441130.27	5020390.71	89.18	0	125	61.9	-88.0	0.0	0.0	38.4	0.0	-0.2	0.0	0.0	5.3	0.0	-0.0	18.4	-88.0
4	441130.27	5020390.71	89.18	0	250	67.5	-88.0	0.0	0.0	38.4	0.0	1.2	0.0	0.0	4.9	0.0	-0.0	22.9	-88.0
5	441130.27	5020390.71	89.18	0	500	75.0	-88.0	0.0	0.0	38.4	0.1	1.6	0.0	0.0	5.8	0.0	-0.0	29.2	-88.0
6	441130.27	5020390.71	89.18	0	1000	73.7	-88.0	0.0	0.0	38.4	0.1	-0.2	0.0	0.0	9.3	0.0	-0.0	26.1	-88.0
7	441130.27	5020390.71	89.18	0	2000	73.4	-88.0	0.0	0.0	38.4	0.2	-1.0	0.0	0.0	12.3	0.0	-0.0	23.5	-88.0
8	441130.27	5020390.71	89.18	0	4000	70.2	-88.0	0.0	0.0	38.4	0.8	-1.0	0.0	0.0	14.8	0.0	-0.0	17.3	-88.0
9	441130.27	5020390.71	89.18	0	8000	65.9	-88.0	0.0	0.0	38.4	2.7	-1.0	0.0	0.0	17.6	0.0	-0.0	8.2	-88.0
10	441130.27	5020390.71	89.18	1	500	75.0	-8												

114-456 Sample Calculation Details - R09 - 0600-0700 Hours (Mitigated Scenario)

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT07"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	441127.41	5020388.61	89.15	0	32	53.1	-88.0	0.0	0.0	39.1	0.0	-3.0	0.0	0.0	5.3	0.0	-0.0	11.7	-88.0
2	441127.41	5020388.61	89.15	0	63	58.9	-88.0	0.0	0.0	39.1	0.0	-3.0	0.0	0.0	6.2	0.0	-0.0	16.6	-88.0
3	441127.41	5020388.61	89.15	0	125	61.9	-88.0	0.0	0.0	39.1	0.0	-0.5	0.0	0.0	5.0	0.0	-0.0	18.3	-88.0
4	441127.41	5020388.61	89.15	0	250	67.5	-88.0	0.0	0.0	39.1	0.0	0.6	0.0	0.0	4.6	0.0	-0.0	23.2	-88.0
5	441127.41	5020388.61	89.15	0	500	75.0	-88.0	0.0	0.0	39.1	0.1	0.9	0.0	0.0	5.1	0.0	-0.0	30.0	-88.0
6	441127.41	5020388.61	89.15	0	1000	73.7	-88.0	0.0	0.0	39.1	0.1	-0.7	0.0	0.0	7.6	0.0	-0.0	27.6	-88.0
7	441127.41	5020388.61	89.15	0	2000	73.4	-88.0	0.0	0.0	39.1	0.3	-1.3	0.0	0.0	9.8	0.0	-0.0	25.6	-88.0
8	441127.41	5020388.61	89.15	0	4000	70.2	-88.0	0.0	0.0	39.1	0.8	-1.3	0.0	0.0	11.8	0.0	-0.0	19.8	-88.0
9	441127.41	5020388.61	89.15	0	8000	65.9	-88.0	0.0	0.0	39.1	3.0	-1.3	0.0	0.0	14.2	0.0	-0.0	10.9	-88.0
10	441127.41	5020388.61	89.15	1	250	67.5	-88.0	0.0	0.0	40.6	0.0	-0.7	0.0	0.0	5.5	0.0	2.0	20.0	-88.0
11	441127.41	5020388.61	89.15	1	500	75.0	-88.0	0.0	0.0	40.6	0.1	-0.7	0.0	0.0	5.6	0.0	2.0	27.4	-88.0
12	441127.41	5020388.61	89.15	1	1000	73.7	-88.0	0.0	0.0	40.6	0.1	-1.5	0.0	0.0	6.7	0.0	2.0	25.8	-88.0
13	441127.41	5020388.61	89.15	1	2000	73.4	-88.0	0.0	0.0	40.6	0.3	-1.9	0.0	0.0	7.4	0.0	2.0	25.0	-88.0
14	441127.41	5020388.61	89.15	1	4000	70.2	-88.0	0.0	0.0	40.6	1.0	-1.9	0.0	0.0	8.1	0.0	2.0	20.4	-88.0
15	441127.41	5020388.61	89.15	1	8000	65.9	-88.0	0.0	0.0	40.6	3.5	-1.9	0.0	0.0	9.2	0.0	2.0	12.5	-88.0
16	441127.41	5020388.61	89.15	1	2000	73.4	-88.0	0.0	0.0	57.1	2.0	-1.7	0.0	0.0	0.0	0.0	2.0	14.1	-88.0
17	441127.41	5020388.61	89.15	1	4000	70.2	-88.0	0.0	0.0	57.1	6.6	-1.7	0.0	0.0	0.0	0.0	2.0	6.2	-88.0
18	441127.41	5020388.61	89.15	1	8000	65.9	-88.0	0.0	0.0	57.1	23.7	-1.7	0.0	0.0	0.0	0.0	2.0	-15.2	-88.0

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT08"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	441133.60	5020385.49	89.18	0	32	53.1	-88.0	0.0	0.0	36.4	0.0	-3.0	0.0	0.0	6.6	0.0	-0.0	13.1	-88.0
2	441133.60	5020385.49	89.18	0	63	58.9	-88.0	0.0	0.0	36.4	0.0	-3.0	0.0	0.0	7.5	0.0	-0.0	18.0	-88.0
3	441133.60	5020385.49	89.18	0	125	61.9	-88.0	0.0	0.0	36.4	0.0	0.6	0.0	0.0	5.3	0.0	-0.0	19.7	-88.0
4	441133.60	5020385.49	89.18	0	250	67.5	-88.0	0.0	0.0	36.4	0.0	2.3	0.0	0.0	4.7	0.0	-0.0	24.1	-88.0
5	441133.60	5020385.49	89.18	0	500	75.0	-88.0	0.0	0.0	36.4	0.0	2.9	0.0	0.0	5.6	0.0	-0.0	30.0	-88.0
6	441133.60	5020385.49	89.18	0	1000	73.7	-88.0	0.0	0.0	36.4	0.1	0.7	0.0	0.0	9.9	0.0	-0.0	26.7	-88.0
7	441133.60	5020385.49	89.18	0	2000	73.4	-88.0	0.0	0.0	36.4	0.2	-0.3	0.0	0.0	13.3	0.0	-0.0	23.9	-88.0
8	441133.60	5020385.49	89.18	0	4000	70.2	-88.0	0.0	0.0	36.4	0.6	-0.3	0.0	0.0	15.9	0.0	-0.0	17.5	-88.0
9	441133.60	5020385.49	89.18	0	8000	65.9	-88.0	0.0	0.0	36.4	2.2	-0.3	0.0	0.0	18.8	0.0	-0.0	8.8	-88.0
10	441133.60	5020385.49	89.18	1	500	75.0	-88.0	0.0	0.0	41.2	0.1	-2.3	0.0	0.0	7.1	0.0	2.0	27.0	-88.0
11	441133.60	5020385.49	89.18	1	1000	73.7	-88.0	0.0	0.0	41.2	0.1	-2.3	0.0	0.0	7.1	0.0	2.0	25.6	-88.0
12	441133.60	5020385.49	89.18	1	2000	73.4	-88.0	0.0	0.0	41.2	0.3	-2.3	0.0	0.0	7.1	0.0	2.0	25.1	-88.0
13	441133.60	5020385.49	89.18	1	4000	70.2	-88.0	0.0	0.0	41.2	1.1	-2.3	0.0	0.0	7.1	0.0	2.0	21.2	-88.0
14	441133.60	5020385.49	89.18	1	8000	65.9	-88.0	0.0	0.0	41.2	3.8	-2.3	0.0	0.0	7.1	0.0	2.0	14.2	-88.0
15	441133.60	5020385.49	89.18	1	2000	73.4	-88.0	0.0	0.0	57.3	2.0	-0.8	0.0	0.0	5.6	0.0	2.0	7.3	-88.0
16	441133.60	5020385.49	89.18	1	4000	70.2	-88.0	0.0	0.0	57.3	6.8	-0.8	0.0	0.0	5.6	0.0	2.0	-0.7	-88.0
17	441133.60	5020385.49	89.18	1	8000	65.9	-88.0	0.0	0.0	57.3	24.2	-0.8	0.0	0.0	5.6	0.0	2.0	-22.4	-88.0

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT09"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	441129.55	5020383.23	89.14	0	32	53.1	-88.0	0.0	0.0	38.0	0.0	-3.0	0.0	0.0	7.9	0.0	-0.0	10.2	-88.0
2	441129.55	5020383.23	89.14	0	63	58.9	-88.0	0.0	0.0	38.0	0.0	-3.0	0.0	0.0	8.0	0.0	-0.0	15.9	-88.0
3	441129.55	5020383.23	89.14	0	125	61.9	-88.0	0.0	0.0	38.0	0.0	-0.1	0.0	0.0	5.2	0.0	-0.0	18.8	-88.0
4	441129.55	5020383.23	89.14	0	250	67.5	-88.0	0.0	0.0	38.0	0.0	1.4	0.0	0.0	4.0	0.0	-0.0	24.0	-88.0
5	441129.55	5020383.23	89.14	0	500	75.0	-88.0	0.0	0.0	38.0	0.0	1.9	0.0	0.0	4.2	0.0	-0.0	30.9	-88.0
6	441129.55	5020383.23	89.14	0	1000	73.7	-88.0	0.0	0.0	38.0	0.1	-0.1	0.0	0.0	7.2	0.0	-0.0	28.5	-88.0
7	441129.55	5020383.23	89.14	0	2000	73.4	-88.0	0.0	0.0	38.0	0.2	-0.9	0.0	0.0	9.5	0.0	-0.0	26.6	-88.0
8	441129.55	5020383.23	89.14	0	4000	70.2	-88.0	0.0	0.0	38.0	0.7	-0.9	0.0	0.0	11.6	0.0	-0.0	20.8	-88.0
9	441129.55	5020383.23	89.14	0	8000	65.9	-88.0	0.0	0.0	38.0	2.6	-0.9	0.0	0.0	14.0	0.0	-0.0	12.2	-88.0
10	441129.55	5020383.23	89.14	1	250	67.5	-88.0	0.0	0.0	39.8	0.0	-0.8	0.0	0.0	5.7	0.0	2.0	20.8	-88.0
11	441129.55	5020383.23	89.14	1	500	75.0	-88.0	0.0	0.0	39.8	0.1	-0.8	0.0	0.0	5.7	0.0	2.0	28.1	-88.0
12	441129.55	5020383.23	89.14	1	1000	73.7	-88.0	0.0	0.0	39.8	0.1	-1.6	0.0	0.0	6.7	0.0	2.0	26.6	-88.0
13	441129.55	5020383.23	89.14	1	2000	73.4	-88.0	0.0	0.0	39.8	0.3	-1.9	0.0	0.0	7.4	0.0	2.0	25.8	-88.0
14	441129.55	5020383																	

## 114-456 Sample Calculation Details - R09 - 0600-0700 Hours (Mitigated Scenario)

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT10"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	Lrn
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	441135.60	5020380.21	89.11	0	32	53.1	-88.0	0.0	0.0	35.3	0.0	-3.0	0.0	0.0	8.2	0.0	-0.0	12.6	-88.0
2	441135.60	5020380.21	89.11	0	63	58.9	-88.0	0.0	0.0	35.3	0.0	-3.0	0.0	0.0	8.5	0.0	-0.0	18.0	-88.0
3	441135.60	5020380.21	89.11	0	125	61.9	-88.0	0.0	0.0	35.3	0.0	0.4	0.0	0.0	5.8	0.0	-0.0	20.4	-88.0
4	441135.60	5020380.21	89.11	0	250	67.5	-88.0	0.0	0.0	35.3	0.0	2.0	0.0	0.0	5.3	0.0	-0.0	24.9	-88.0
5	441135.60	5020380.21	89.11	0	500	75.0	-88.0	0.0	0.0	35.3	0.0	2.5	0.0	0.0	6.3	0.0	-0.0	30.9	-88.0
6	441135.60	5020380.21	89.11	0	1000	73.7	-88.0	0.0	0.0	35.3	0.1	0.5	0.0	0.0	10.3	0.0	-0.0	27.5	-88.0
7	441135.60	5020380.21	89.11	0	2000	73.4	-88.0	0.0	0.0	35.3	0.2	-0.4	0.0	0.0	13.6	0.0	-0.0	24.6	-88.0
8	441135.60	5020380.21	89.11	0	4000	70.2	-88.0	0.0	0.0	35.3	0.5	-0.4	0.0	0.0	16.3	0.0	-0.0	18.4	-88.0
9	441135.60	5020380.21	89.11	0	8000	65.9	-88.0	0.0	0.0	35.3	1.9	-0.4	0.0	0.0	19.2	0.0	-0.0	9.8	-88.0

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT11"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	Lrn
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	441131.02	5020377.11	89.12	0	32	53.1	-88.0	0.0	0.0	37.6	0.0	-3.0	0.0	0.0	7.8	0.0	-0.0	10.6	-88.0
2	441131.02	5020377.11	89.12	0	63	58.9	-88.0	0.0	0.0	37.6	0.0	-3.0	0.0	0.0	7.9	0.0	-0.0	16.4	-88.0
3	441131.02	5020377.11	89.12	0	125	61.9	-88.0	0.0	0.0	37.6	0.0	-0.4	0.0	0.0	5.4	0.0	-0.0	19.2	-88.0
4	441131.02	5020377.11	89.12	0	250	67.5	-88.0	0.0	0.0	37.6	0.0	0.8	0.0	0.0	4.5	0.0	-0.0	24.6	-88.0
5	441131.02	5020377.11	89.12	0	500	75.0	-88.0	0.0	0.0	37.6	0.0	1.2	0.0	0.0	4.5	0.0	-0.0	31.6	-88.0
6	441131.02	5020377.11	89.12	0	1000	73.7	-88.0	0.0	0.0	37.6	0.1	-0.4	0.0	0.0	7.0	0.0	-0.0	29.4	-88.0
7	441131.02	5020377.11	89.12	0	2000	73.4	-88.0	0.0	0.0	37.6	0.2	-1.1	0.0	0.0	8.9	0.0	-0.0	27.8	-88.0
8	441131.02	5020377.11	89.12	0	4000	70.2	-88.0	0.0	0.0	37.6	0.7	-1.1	0.0	0.0	10.7	0.0	-0.0	22.3	-88.0
9	441131.02	5020377.11	89.12	0	8000	65.9	-88.0	0.0	0.0	37.6	2.5	-1.1	0.0	0.0	12.9	0.0	-0.0	14.0	-88.0

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT12"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	Lrn
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	441136.96	5020373.91	89.03	0	32	53.1	-88.0	0.0	0.0	35.6	0.0	-3.0	0.0	0.0	8.1	0.0	-0.0	12.4	-88.0
2	441136.96	5020373.91	89.03	0	63	58.9	-88.0	0.0	0.0	35.6	0.0	-3.0	0.0	0.0	8.3	0.0	-0.0	17.9	-88.0
3	441136.96	5020373.91	89.03	0	125	61.9	-88.0	0.0	0.0	35.6	0.0	-0.1	0.0	0.0	5.8	0.0	-0.0	20.5	-88.0
4	441136.96	5020373.91	89.03	0	250	67.5	-88.0	0.0	0.0	35.6	0.0	1.3	0.0	0.0	5.3	0.0	-0.0	25.2	-88.0
5	441136.96	5020373.91	89.03	0	500	75.0	-88.0	0.0	0.0	35.6	0.0	1.8	0.0	0.0	6.1	0.0	-0.0	31.4	-88.0
6	441136.96	5020373.91	89.03	0	1000	73.7	-88.0	0.0	0.0	35.6	0.1	0.0	0.0	0.0	9.7	0.0	-0.0	28.3	-88.0
7	441136.96	5020373.91	89.03	0	2000	73.4	-88.0	0.0	0.0	35.6	0.2	-0.8	0.0	0.0	12.7	0.0	-0.0	25.7	-88.0
8	441136.96	5020373.91	89.03	0	4000	70.2	-88.0	0.0	0.0	35.6	0.6	-0.8	0.0	0.0	15.2	0.0	-0.0	19.5	-88.0
9	441136.96	5020373.91	89.03	0	8000	65.9	-88.0	0.0	0.0	35.6	2.0	-0.8	0.0	0.0	18.0	0.0	-0.0	11.0	-88.0

Point Source, ISO 9613, Name: "Drive-thru Car", ID: "06_DT13"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	Lrn
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	441133.38	5020369.00	88.97	0	32	53.1	-88.0	0.0	0.0	38.1	0.0	-3.0	0.0	0.0	7.8	0.0	-0.0	10.2	-88.0
2	441133.38	5020369.00	88.97	0	63	58.9	-88.0	0.0	0.0	38.1	0.0	-3.0	0.0	0.0	7.9	0.0	-0.0	15.9	-88.0
3	441133.38	5020369.00	88.97	0	125	61.9	-88.0	0.0	0.0	38.1	0.0	-0.4	0.0	0.0	5.4	0.0	-0.0	18.8	-88.0
4	441133.38	5020369.00	88.97	0	250	67.5	-88.0	0.0	0.0	38.1	0.0	0.8	0.0	0.0	4.4	0.0	-0.0	24.2	-88.0
5	441133.38	5020369.00	88.97	0	500	75.0	-88.0	0.0	0.0	38.1	0.0	1.1	0.0	0.0	4.4	0.0	-0.0	31.4	-88.0
6	441133.38	5020369.00	88.97	0	1000	73.7	-88.0	0.0	0.0	38.1	0.1	-0.5	0.0	0.0	6.6	0.0	-0.0	29.4	-88.0
7	441133.38	5020369.00	88.97	0	2000	73.4	-88.0	0.0	0.0	38.1	0.2	-1.2	0.0	0.0	8.4	0.0	-0.0	27.9	-88.0
8	441133.38	5020369.00	88.97	0	4000	70.2	-88.0	0.0	0.0	38.1	0.7	-1.2	0.0	0.0	9.9	0.0	-0.0	22.7	-88.0
9	441133.38	5020369.00	88.97	0	8000	65.9	-88.0	0.0	0.0	38.1	2.6	-1.2	0.0	0.0	11.9	0.0	-0.0	14.5	-88.0

Point Source, ISO 9613, Name: "Vacuum", ID: "06_VAC1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	Lrn
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
1	4																		

## 114-456 Sample Calculation Details - R09 - 0600-0700 Hours (Mitigated Scenario)

Point Source, ISO 9613, Name: "Vacuum", ID: "06_VAC1"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
13	441074.51	5020429.21	90.16	1	4000	77.5	-88.0	0.0	0.0	51.4	3.4	-2.5	0.0	0.0	24.3	0.0	2.0	-1.2	-88.0
14	441074.51	5020429.21	90.16	1	8000	71.8	-88.0	0.0	0.0	51.4	12.2	-2.5	0.0	0.0	27.4	0.0	2.0	-18.8	-88.0
15	441074.51	5020429.21	90.16	1	1000	64.8	-88.0	0.0	0.0	55.2	0.6	-0.6	0.0	0.0	12.2	0.0	2.0	-4.7	-88.0
16	441074.51	5020429.21	90.16	1	2000	72.3	-88.0	0.0	0.0	55.2	1.6	-0.7	0.0	0.0	14.9	0.0	2.0	-0.7	-88.0
17	441074.51	5020429.21	90.16	1	4000	77.5	-88.0	0.0	0.0	55.2	5.3	-0.7	0.0	0.0	17.6	0.0	2.0	-2.0	-88.0
18	441074.51	5020429.21	90.16	1	8000	71.8	-88.0	0.0	0.0	55.2	18.9	-0.7	0.0	0.0	20.5	0.0	2.0	-24.2	-88.0

Point Source, ISO 9613, Name: "Vacuum", ID: "06_VAC2"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	441074.95	5020428.10	90.18	0	32	15.0	-88.0	0.0	0.0	50.0	0.0	-3.0	0.0	0.0	4.9	0.0	-0.0	-37.0	-88.0
2	441074.95	5020428.10	90.18	0	63	34.5	-88.0	0.0	0.0	50.0	0.0	-3.0	0.0	0.0	6.4	0.0	-0.0	-19.0	-88.0
3	441074.95	5020428.10	90.18	0	125	44.5	-88.0	0.0	0.0	50.0	0.0	-1.8	0.0	0.0	7.6	0.0	-0.0	-11.4	-88.0
4	441074.95	5020428.10	90.18	0	250	59.6	-88.0	0.0	0.0	50.0	0.1	-2.2	0.0	0.0	10.5	0.0	-0.0	1.1	-88.0
5	441074.95	5020428.10	90.18	0	500	57.3	-88.0	0.0	0.0	50.0	0.2	-2.5	0.0	0.0	14.1	0.0	-0.0	-4.5	-88.0
6	441074.95	5020428.10	90.18	0	1000	64.8	-88.0	0.0	0.0	50.0	0.3	-2.5	0.0	0.0	17.3	0.0	-0.0	-0.4	-88.0
7	441074.95	5020428.10	90.18	0	2000	72.3	-88.0	0.0	0.0	50.0	0.9	-2.5	0.0	0.0	20.4	0.0	-0.0	3.5	-88.0
8	441074.95	5020428.10	90.18	0	4000	77.5	-88.0	0.0	0.0	50.0	2.9	-2.5	0.0	0.0	23.4	0.0	-0.0	3.6	-88.0
9	441074.95	5020428.10	90.18	0	8000	71.8	-88.0	0.0	0.0	50.0	10.5	-2.5	0.0	0.0	25.5	0.0	-0.0	-11.7	-88.0
10	441074.95	5020428.10	90.18	1	500	57.3	-88.0	0.0	0.0	51.5	0.2	-2.5	0.0	0.0	13.0	0.0	2.0	-6.9	-88.0
11	441074.95	5020428.10	90.18	1	1000	64.8	-88.0	0.0	0.0	51.5	0.4	-2.5	0.0	0.0	16.6	0.0	2.0	-3.3	-88.0
12	441074.95	5020428.10	90.18	1	2000	72.3	-88.0	0.0	0.0	51.5	1.0	-2.5	0.0	0.0	20.6	0.0	2.0	-0.4	-88.0
13	441074.95	5020428.10	90.18	1	4000	77.5	-88.0	0.0	0.0	51.5	3.5	-2.5	0.0	0.0	24.1	0.0	2.0	-1.1	-88.0
14	441074.95	5020428.10	90.18	1	8000	71.8	-88.0	0.0	0.0	51.5	12.4	-2.5	0.0	0.0	27.2	0.0	2.0	-18.8	-88.0
15	441074.95	5020428.10	90.18	1	1000	64.8	-88.0	0.0	0.0	55.2	0.6	-0.6	0.0	0.0	11.6	0.0	2.0	-4.0	-88.0
16	441074.95	5020428.10	90.18	1	2000	72.3	-88.0	0.0	0.0	55.2	1.6	-0.7	0.0	0.0	14.1	0.0	2.0	0.0	-88.0
17	441074.95	5020428.10	90.18	1	4000	77.5	-88.0	0.0	0.0	55.2	5.3	-0.7	0.0	0.0	16.9	0.0	2.0	-1.2	-88.0
18	441074.95	5020428.10	90.18	1	8000	71.8	-88.0	0.0	0.0	55.2	19.1	-0.7	0.0	0.0	19.7	0.0	2.0	-23.5	-88.0

Point Source, ISO 9613, Name: "Air Pump", ID: "06_AIRPMP"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	441075.29	5020427.22	89.30	0	32	20.6	-88.0	0.0	0.0	50.0	0.0	-3.0	0.0	0.0	5.0	0.0	-0.0	-31.5	-88.0
2	441075.29	5020427.22	89.30	0	63	52.1	-88.0	0.0	0.0	50.0	0.0	-3.0	0.0	0.0	6.7	0.0	-0.0	-1.6	-88.0
3	441075.29	5020427.22	89.30	0	125	53.5	-88.0	0.0	0.0	50.0	0.0	-1.8	0.0	0.0	8.0	0.0	-0.0	-2.8	-88.0
4	441075.29	5020427.22	89.30	0	250	57.1	-88.0	0.0	0.0	50.0	0.1	-2.2	0.0	0.0	11.1	0.0	-0.0	-1.9	-88.0
5	441075.29	5020427.22	89.30	0	500	71.1	-88.0	0.0	0.0	50.0	0.2	-2.5	0.0	0.0	14.7	0.0	-0.0	8.7	-88.0
6	441075.29	5020427.22	89.30	0	1000	71.4	-88.0	0.0	0.0	50.0	0.3	-2.5	0.0	0.0	17.9	0.0	-0.0	5.6	-88.0
7	441075.29	5020427.22	89.30	0	2000	61.8	-88.0	0.0	0.0	50.0	0.9	-2.5	0.0	0.0	21.0	0.0	-0.0	-7.6	-88.0
8	441075.29	5020427.22	89.30	0	4000	59.7	-88.0	0.0	0.0	50.0	2.9	-2.5	0.0	0.0	24.0	0.0	-0.0	-14.7	-88.0
9	441075.29	5020427.22	89.30	0	8000	58.6	-88.0	0.0	0.0	50.0	10.4	-2.5	0.0	0.0	25.6	0.0	-0.0	-24.8	-88.0
10	441075.29	5020427.22	89.30	1	500	71.1	-88.0	0.0	0.0	51.5	0.2	-2.5	0.0	0.0	13.4	0.0	2.0	6.4	-88.0
11	441075.29	5020427.22	89.30	1	1000	71.4	-88.0	0.0	0.0	51.5	0.4	-2.5	0.0	0.0	17.0	0.0	2.0	2.9	-88.0
12	441075.29	5020427.22	89.30	1	2000	61.8	-88.0	0.0	0.0	51.5	1.0	-2.5	0.0	0.0	21.2	0.0	2.0	-11.5	-88.0
13	441075.29	5020427.22	89.30	1	4000	59.7	-88.0	0.0	0.0	51.5	3.5	-2.5	0.0	0.0	24.9	0.0	2.0	-19.8	-88.0
14	441075.29	5020427.22	89.30	1	8000	58.6	-88.0	0.0	0.0	51.5	12.4	-2.5	0.0	0.0	27.5	0.0	2.0	-32.4	-88.0
15	441075.29	5020427.22	89.30	1	1000	71.4	-88.0	0.0	0.0	55.3	0.6	-0.6	0.0	0.0	13.7	0.0	2.0	0.3	-88.0
16	441075.29	5020427.22	89.30	1	2000	61.8	-88.0	0.0	0.0	55.3	1.6	-1.2	0.0	0.0	17.0	0.0	2.0	-13.0	-88.0
17	441075.29	5020427.22	89.30	1	4000	59.7	-88.0	0.0	0.0	55.3	5.4	-1.2	0.0	0.0	19.9	0.0	2.0	-21.7	-88.0
18	441075.29	5020427.22	89.30	1	8000	58.6	-88.0	0.0	0.0	55.3	19.2	-1.2	0.0	0.0	21.2	0.0	2.0	-37.9	-88.0

Point Source, ISO 9613, Name: "Car Wash Entrance", ID: "06_CW_EN"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	441082.28	5020444.09	90.27	0	32	39.3	-88.0	0.0	0.0	50.4	0.0	-3.0	0.0	0.0	3.1	0.0	-0.0	-11.2	-88.0
2	441082.28																		

Point Source, ISO 9613, Name: "Car Wash Exit", ID: "06_CW_EX"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB(A))							
1	441068.27	5020438.60	90.03	0	32	51.0	-88.0	0.0	0.0	51.1	0.0	-3.0	0.0	0.0	9.7	0.0	-0.0	-6.8	-88.0
2	441068.27	5020438.60	90.03	0	63	65.5	-88.0	0.0	0.0	51.1	0.0	-3.0	0.0	0.0	13.4	0.0	-0.0	4.0	-88.0
3	441068.27	5020438.60	90.03	0	125	76.5	-88.0	0.0	0.0	51.1	0.0	-1.8	0.0	0.0	16.4	0.0	-0.0	10.7	-88.0
4	441068.27	5020438.60	90.03	0	250	84.5	-88.0	0.0	0.0	51.1	0.1	-2.2	0.0	0.0	20.1	0.0	-0.0	15.4	-88.0
5	441068.27	5020438.60	90.03	0	500	89.5	-88.0	0.0	0.0	51.1	0.2	-2.5	0.0	0.0	23.5	0.0	-0.0	17.3	-88.0
6	441068.27	5020438.60	90.03	0	1000	91.6	-88.0	0.0	0.0	51.1	0.4	-2.5	0.0	0.0	25.6	0.0	-0.0	17.1	-88.0
7	441068.27	5020438.60	90.03	0	2000	90.0	-88.0	0.0	0.0	51.1	1.0	-2.5	0.0	0.0	26.5	0.0	-0.0	14.0	-88.0
8	441068.27	5020438.60	90.03	0	4000	84.1	-88.0	0.0	0.0	51.1	3.3	-2.5	0.0	0.0	27.0	0.0	-0.0	5.3	-88.0
9	441068.27	5020438.60	90.03	0	8000	74.7	-88.0	0.0	0.0	51.1	11.8	-2.5	0.0	0.0	27.3	0.0	-0.0	-12.9	-88.0
10	441068.27	5020438.60	90.03	1	500	89.5	-88.0	0.0	0.0	54.7	0.3	1.3	0.0	0.0	17.0	0.0	2.0	14.2	-88.0
11	441068.27	5020438.60	90.03	1	1000	91.6	-88.0	0.0	0.0	54.7	0.6	-0.5	0.0	0.0	20.5	0.0	2.0	14.4	-88.0
12	441068.27	5020438.60	90.03	1	2000	90.0	-88.0	0.0	0.0	54.7	1.5	-0.6	0.0	0.0	20.6	0.0	2.0	11.9	-88.0
13	441068.27	5020438.60	90.03	1	4000	84.1	-88.0	0.0	0.0	54.7	5.0	-0.6	0.0	0.0	20.6	0.0	2.0	2.4	-88.0
14	441068.27	5020438.60	90.03	1	8000	74.7	-88.0	0.0	0.0	54.7	17.8	-0.6	0.0	0.0	20.6	0.0	2.0	-19.8	-88.0

Line Source, ISO 9613, Name: "Car movements", ID: "06_CarMove"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB(A))							
1	441114.14	5020362.44	88.94	0	32	30.6	-91.7	0.0	0.0	43.5	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	-10.0	-132.3
2	441114.14	5020362.44	88.94	0	63	46.8	-75.5	0.0	0.0	43.5	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	6.2	-116.1
3	441114.14	5020362.44	88.94	0	125	56.9	-65.4	0.0	0.0	43.5	0.0	-2.0	0.0	0.0	0.0	0.0	-0.0	15.3	-107.0
4	441114.14	5020362.44	88.94	0	250	61.4	-60.9	0.0	0.0	43.5	0.0	-2.3	0.0	0.0	0.0	0.0	-0.0	20.1	-102.2
5	441114.14	5020362.44	88.94	0	500	67.8	-54.5	0.0	0.0	43.5	0.1	-2.5	0.0	0.0	0.0	0.0	-0.0	26.7	-95.6
6	441114.14	5020362.44	88.94	0	1000	71.0	-51.3	0.0	0.0	43.5	0.2	-2.5	0.0	0.0	0.0	0.0	-0.0	29.8	-92.5
7	441114.14	5020362.44	88.94	0	2000	66.2	-56.1	0.0	0.0	43.5	0.4	-2.5	0.0	0.0	0.0	0.0	-0.0	24.8	-97.5
8	441114.14	5020362.44	88.94	0	4000	60.0	-62.3	0.0	0.0	43.5	1.4	-2.5	0.0	0.0	0.0	0.0	-0.0	17.6	-104.7
9	441114.14	5020362.44	88.94	0	8000	52.9	-69.4	0.0	0.0	43.5	5.0	-2.5	0.0	0.0	0.0	0.0	-0.0	6.9	-115.4
10	441108.82	5020376.95	89.00	0	32	28.5	-93.8	0.0	0.0	43.7	0.0	-3.0	0.0	0.0	4.5	0.0	-0.0	-16.6	-138.9
11	441108.82	5020376.95	89.00	0	63	44.7	-77.6	0.0	0.0	43.7	0.0	-3.0	0.0	0.0	5.4	0.0	-0.0	-1.4	-123.7
12	441108.82	5020376.95	89.00	0	125	54.8	-67.5	0.0	0.0	43.7	0.0	-2.0	0.0	0.0	6.0	0.0	-0.0	7.1	-115.2
13	441108.82	5020376.95	89.00	0	250	59.3	-63.0	0.0	0.0	43.7	0.1	-2.3	0.0	0.0	7.6	0.0	-0.0	10.3	-112.1
14	441108.82	5020376.95	89.00	0	500	65.7	-56.6	0.0	0.0	43.7	0.1	-2.5	0.0	0.0	9.6	0.0	-0.0	14.9	-107.4
15	441108.82	5020376.95	89.00	0	1000	68.9	-53.4	0.0	0.0	43.7	0.2	-2.5	0.0	0.0	11.8	0.0	-0.0	15.9	-106.5
16	441108.82	5020376.95	89.00	0	2000	64.1	-58.2	0.0	0.0	43.7	0.4	-2.5	0.0	0.0	14.2	0.0	-0.0	8.3	-114.0
17	441108.82	5020376.95	89.00	0	4000	57.9	-64.4	0.0	0.0	43.7	1.4	-2.5	0.0	0.0	16.9	0.0	-0.0	-1.6	-123.9
18	441108.82	5020376.95	89.00	0	8000	50.8	-71.5	0.0	0.0	43.7	5.0	-2.5	0.0	0.0	19.8	0.0	-0.0	-15.2	-137.5
19	441105.73	5020385.39	89.03	0	32	25.6	-96.7	0.0	0.0	44.3	0.0	-3.0	0.0	0.0	7.1	0.0	-0.0	-22.7	-145.0
20	441105.73	5020385.39	89.03	0	63	41.8	-80.5	0.0	0.0	44.3	0.0	-3.0	0.0	0.0	8.9	0.0	-0.0	-8.3	-130.6
21	441105.73	5020385.39	89.03	0	125	51.9	-70.4	0.0	0.0	44.3	0.0	-1.9	0.0	0.0	10.4	0.0	-0.0	-0.9	-123.2
22	441105.73	5020385.39	89.03	0	250	56.4	-65.9	0.0	0.0	44.3	0.1	-2.2	0.0	0.0	13.6	0.0	-0.0	0.7	-121.6
23	441105.73	5020385.39	89.03	0	500	62.8	-59.5	0.0	0.0	44.3	0.1	-2.5	0.0	0.0	17.4	0.0	-0.0	3.5	-118.8
24	441105.73	5020385.39	89.03	0	1000	66.0	-56.3	0.0	0.0	44.3	0.2	-2.5	0.0	0.0	21.0	0.0	-0.0	3.0	-119.3
25	441105.73	5020385.39	89.03	0	2000	61.2	-61.1	0.0	0.0	44.3	0.5	-2.5	0.0	0.0	24.2	0.0	-0.0	-5.3	-127.6
26	441105.73	5020385.39	89.03	0	4000	55.0	-67.3	0.0	0.0	44.3	1.5	-2.5	0.0	0.0	25.7	0.0	-0.0	-13.9	-136.2
27	441105.73	5020385.39	89.03	0	8000	47.9	-74.4	0.0	0.0	44.3	5.4	-2.5	0.0	0.0	26.5	0.0	-0.0	-25.7	-148.0
28	441104.47	5020388.83	89.05	0	32	18.7	-103.6	0.0	0.0	44.6	0.0	-3.0	0.0	0.0	7.7	0.0	-0.0	-30.6	-152.9
29	441104.47	5020388.83	89.05	0	63	34.9	-87.4	0.0	0.0	44.6	0.0	-3.0	0.0	0.0	9.8	0.0	-0.0	-16.6	-138.9
30	441104.47	5020388.83	89.05	0	125	45.0	-77.3	0.0	0.0	44.6	0.0	-1.9	0.0	0.0	11.5	0.0	-0.0	-9.3	-131.6
31	441104.47	5020388.83	89.05	0	250	49.5	-72.8	0.0	0.0	44.6	0.1	-2.2	0.0	0.0	14.4	0.0	-0.0	-7.4	-129.7
32	441104.47	5020388.83	89.05	0	500	55.9	-66.4	0.0	0.0	44.6	0.1	-2.5	0.0	0.0	17.5	0.0	-0.0	-3.8	-126.1
33	441104.47	5020388.83	89.05	0	1000	59.1	-63.2	0.0	0.0	44.6	0.2	-2.5	0.0	0.0	20.7	0.0	-0.0	-3.9	-126.2
34	441104.47	5020388.83	89.05	0	2000	54.3	-68.0	0.0	0.0	44.6	0.5	-2.5	0.0	0.0	24.4	0.0	-0.0	-12.7	-135.0
35	441104.47	5020388.83	89.05	0	4000	48.1	-74.2	0.0	0.0	44.6	1.6	-2.5	0.0	0.0	26.0	0.0	-0.0	-21.6	-143.9
36	441104.47	5020388.83	89.05	0	8000	41.0	-81.3	0.0	0.0	44.6	5.6	-2.5	0.0	0.0	26.7	0.0	-0.0	-33.4	-155.7
37	441100.90	5020398.59	89.09	0	32	30.7	-91.6	0.0	0.0	45.6	0.0	-3.0	0.0	0.0	8.1	0.0	-0.0	-19.9	-142.3
38	441100.90	5020398.59	89.09	0	63	46.9	-75.4	0.0	0.0	45.6	0.0	-3.0	0.0	0.0					

## 114-456 Sample Calculation Details - R09 - 0600-0700 Hours (Mitigated Scenario)

Line Source, ISO 9613, Name: "Car movements", ID: "06_CarMove"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahou	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)										
46	441094.17	5020416.97	89.16	0	32	30.7	-91.6	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	6.7	0.0	-0.0	-20.6	-142.9
47	441094.17	5020416.97	89.16	0	63	46.9	-75.4	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	9.1	0.0	-0.0	-6.8	-129.1
48	441094.17	5020416.97	89.16	0	125	57.0	-65.3	0.0	0.0	47.6	0.0	-1.5	0.0	0.0	11.0	0.0	-0.0	-0.1	-122.4
49	441094.17	5020416.97	89.16	0	250	61.5	-60.8	0.0	0.0	47.6	0.1	-2.0	0.0	0.0	15.1	0.0	-0.0	0.7	-121.6
50	441094.17	5020416.97	89.16	0	500	67.9	-54.4	0.0	0.0	47.6	0.1	-2.4	0.0	0.0	19.5	0.0	-0.0	3.1	-119.2
51	441094.17	5020416.97	89.16	0	1000	71.1	-51.2	0.0	0.0	47.6	0.3	-2.4	0.0	0.0	23.0	0.0	-0.0	2.6	-119.6
52	441094.17	5020416.97	89.16	0	2000	66.3	-56.0	0.0	0.0	47.6	0.7	-2.4	0.0	0.0	25.8	0.0	-0.0	-5.3	-127.6
53	441094.17	5020416.97	89.16	0	4000	60.1	-62.2	0.0	0.0	47.6	2.2	-2.4	0.0	0.0	26.5	0.0	-0.0	-13.8	-136.1
54	441094.17	5020416.97	89.16	0	8000	53.0	-69.3	0.0	0.0	47.6	7.9	-2.4	0.0	0.0	26.9	0.0	-0.0	-27.0	-149.3
55	441077.97	5020409.09	88.86	0	32	31.5	-90.8	0.0	0.0	48.9	0.0	-3.0	0.0	0.0	6.6	0.0	-0.0	-20.9	-143.3
56	441077.97	5020409.09	88.86	0	63	47.7	-74.6	0.0	0.0	48.9	0.0	-3.0	0.0	0.0	8.3	0.0	-0.0	-6.5	-128.8
57	441077.97	5020409.09	88.86	0	125	57.8	-64.5	0.0	0.0	48.9	0.0	-2.2	0.0	0.0	9.8	0.0	-0.0	1.3	-121.0
58	441077.97	5020409.09	88.86	0	250	62.3	-60.0	0.0	0.0	48.9	0.1	-2.4	0.0	0.0	12.9	0.0	-0.0	2.9	-119.4
59	441077.97	5020409.09	88.86	0	500	68.7	-53.6	0.0	0.0	48.9	0.2	-2.7	0.0	0.0	16.8	0.0	-0.0	5.5	-116.8
60	441077.97	5020409.09	88.86	0	1000	71.9	-50.4	0.0	0.0	48.9	0.3	-2.7	0.0	0.0	20.4	0.0	-0.0	5.0	-117.3
61	441077.97	5020409.09	88.86	0	2000	67.1	-55.2	0.0	0.0	48.9	0.8	-2.7	0.0	0.0	23.6	0.0	-0.0	-3.4	-125.7
62	441077.97	5020409.09	88.86	0	4000	60.9	-61.4	0.0	0.0	48.9	2.6	-2.7	0.0	0.0	26.3	0.0	-0.0	-14.2	-136.5
63	441077.97	5020409.09	88.86	0	8000	53.8	-68.5	0.0	0.0	48.9	9.2	-2.7	0.0	0.0	26.9	0.0	-0.0	-28.5	-150.8
64	441083.66	5020423.51	89.08	0	32	29.6	-92.7	0.0	0.0	49.0	0.0	-3.0	0.0	0.0	5.7	0.0	-0.0	-22.1	-144.4
65	441083.66	5020423.51	89.08	0	63	45.8	-76.5	0.0	0.0	49.0	0.0	-3.0	0.0	0.0	7.8	0.0	-0.0	-8.0	-130.3
66	441083.66	5020423.51	89.08	0	125	55.9	-66.4	0.0	0.0	49.0	0.0	-1.7	0.0	0.0	9.5	0.0	-0.0	-1.0	-123.3
67	441083.66	5020423.51	89.08	0	250	60.4	-61.9	0.0	0.0	49.0	0.1	-2.1	0.0	0.0	13.2	0.0	-0.0	0.2	-122.1
68	441083.66	5020423.51	89.08	0	500	66.8	-55.5	0.0	0.0	49.0	0.2	-2.5	0.0	0.0	17.4	0.0	-0.0	2.7	-119.6
69	441083.66	5020423.51	89.08	0	1000	70.0	-52.3	0.0	0.0	49.0	0.3	-2.5	0.0	0.0	20.9	0.0	-0.0	2.2	-120.1
70	441083.66	5020423.51	89.08	0	2000	65.2	-57.1	0.0	0.0	49.0	0.8	-2.5	0.0	0.0	24.1	0.0	-0.0	-6.3	-128.6
71	441083.66	5020423.51	89.08	0	4000	59.0	-63.3	0.0	0.0	49.0	2.6	-2.5	0.0	0.0	26.3	0.0	-0.0	-16.4	-138.8
72	441083.66	5020423.51	89.08	0	8000	51.9	-70.4	0.0	0.0	49.0	9.3	-2.5	0.0	0.0	26.8	0.0	-0.0	-30.8	-153.1
73	441075.80	5020395.91	88.70	0	32	26.7	-95.6	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	6.3	0.0	-0.0	-25.3	-147.6
74	441075.80	5020395.91	88.70	0	63	42.9	-79.4	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	7.9	0.0	-0.0	-10.8	-133.1
75	441075.80	5020395.91	88.70	0	125	53.0	-69.3	0.0	0.0	48.8	0.0	-2.2	0.0	0.0	9.2	0.0	-0.0	-2.8	-125.1
76	441075.80	5020395.91	88.70	0	250	57.5	-64.8	0.0	0.0	48.8	0.1	-2.4	0.0	0.0	11.8	0.0	-0.0	-0.7	-123.0
77	441075.80	5020395.91	88.70	0	500	63.9	-58.4	0.0	0.0	48.8	0.2	-2.7	0.0	0.0	15.3	0.0	-0.0	2.4	-119.9
78	441075.80	5020395.91	88.70	0	1000	67.1	-55.2	0.0	0.0	48.8	0.3	-2.7	0.0	0.0	19.1	0.0	-0.0	1.6	-120.7
79	441075.80	5020395.91	88.70	0	2000	62.3	-60.0	0.0	0.0	48.8	0.8	-2.7	0.0	0.0	22.7	0.0	-0.0	-7.2	-129.5
80	441075.80	5020395.91	88.70	0	4000	56.1	-66.2	0.0	0.0	48.8	2.5	-2.7	0.0	0.0	25.7	0.0	-0.0	-18.2	-140.5
81	441075.80	5020395.91	88.70	0	8000	49.0	-73.3	0.0	0.0	48.8	9.0	-2.7	0.0	0.0	26.6	0.0	-0.0	-32.7	-155.0
82	441070.41	5020393.84	88.64	0	32	23.5	-98.8	0.0	0.0	49.3	0.0	-3.0	0.0	0.0	6.0	0.0	-0.0	-28.7	-151.0
83	441070.41	5020393.84	88.64	0	63	39.7	-82.6	0.0	0.0	49.3	0.0	-3.0	0.0	0.0	7.5	0.0	-0.0	-14.1	-136.4
84	441070.41	5020393.84	88.64	0	125	49.8	-72.5	0.0	0.0	49.3	0.0	-2.3	0.0	0.0	8.7	0.0	-0.0	-6.0	-128.3
85	441070.41	5020393.84	88.64	0	250	54.3	-68.0	0.0	0.0	49.3	0.1	-2.5	0.0	0.0	11.0	0.0	-0.0	-3.5	-125.8
86	441070.41	5020393.84	88.64	0	500	60.7	-61.6	0.0	0.0	49.3	0.2	-2.7	0.0	0.0	13.6	0.0	-0.0	0.4	-121.9
87	441070.41	5020393.84	88.64	0	1000	63.9	-58.4	0.0	0.0	49.3	0.3	-2.7	0.0	0.0	16.6	0.0	-0.0	0.5	-121.8
88	441070.41	5020393.84	88.64	0	2000	59.1	-63.2	0.0	0.0	49.3	0.8	-2.7	0.0	0.0	20.3	0.0	-0.0	-8.6	-130.9
89	441070.41	5020393.84	88.64	0	4000	52.9	-69.4	0.0	0.0	49.3	2.7	-2.7	0.0	0.0	24.3	0.0	-0.0	-20.7	-143.0
90	441070.41	5020393.84	88.64	0	8000	45.8	-76.5	0.0	0.0	49.3	9.6	-2.7	0.0	0.0	26.4	0.0	-0.0	-36.8	-159.1
91	441067.69	5020392.79	88.61	0	32	21.0	-101.3	0.0	0.0	49.6	0.0	-3.0	0.0	0.0	5.8	0.0	-0.0	-31.4	-153.8
92	441067.69	5020392.79	88.61	0	63	37.2	-85.1	0.0	0.0	49.6	0.0	-3.0	0.0	0.0	6.9	0.0	-0.0	-16.3	-138.6
93	441067.69	5020392.79	88.61	0	125	47.3	-75.0	0.0	0.0	49.6	0.0	-2.3	0.0	0.0	7.6	0.0	-0.0	-7.6	-130.0
94	441067.69	5020392.79	88.61	0	250	51.8	-70.5	0.0	0.0	49.6	0.1	-2.5	0.0	0.0	9.8	0.0	-0.0	-5.2	-127.5
95	441067.69	5020392.79	88.61	0	500	58.2	-64.1	0.0	0.0	49.6	0.2	-2.7	0.0	0.0	12.8	0.0	-0.0	-1.7	-124.0
96	441067.69	5020392.79	88.61	0	1000	61.4	-60.9	0.0	0.0	49.6	0.3	-2.7	0.0	0.0	15.8	0.0	-0.0	-1.6	-123.9
97	441067.69	5020392.79	88.61	0	2000	56.6	-65.7	0.0	0.0	49.6	0.8	-2.7	0.0	0.0	18.8	0.0	-0.0	-9.9	-132.2
98	441067.69	5020392.79	88.61	0	4000	50.4	-71.9	0.0	0.0	49.6	2.8	-2.7	0.0	0.0	21.7	0.0	-0.0	-21.0	-143.3
99	441067.69	5020392.79	88.61	0	8000	43.3	-79.0	0.0	0.0	49.6	9.9	-2.7	0.0	0.0	24.7	0.0	-0.0	-38.1	-160.5
100	441112.08	5020368.05	88.96	1	8000	42.7	-79.6	0.0	0.0	43.6	5.0	-2.6	0.0	0.0	0.0	2.0	-5.3	-127.6	
101	441110.68	5020371.87	88.98	1	500	63.1	-59.2	0.0	0.0	44.4	0.1	-2.5	0.0	0.0	10.7	0.0	2.0	8.4	-113.9
102	441110.68	5020371.87	88.98	1	1000	66.3	-56.0	0.0	0.0	44.4	0.2	-2.5	0.0	0.0	12.6	0.0	2.0	9.	

## 114-456 Sample Calculation Details - R09 - 0600-0700 Hours (Mitigated Scenario)

Line Source, ISO 9613, Name: "Car movements", ID: "06_CarMove"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)						
109	441109.39	5020375.41	88.99	1	4000	47.3	-75.0	0.0	0.0	44.1	1.5	-2.5	0.0	0.0	17.7	0.0	2.0	-15.5	-137.8
110	441109.39	5020375.41	88.99	1	8000	40.2	-82.1	0.0	0.0	44.1	5.3	-2.5	0.0	0.0	20.5	0.0	2.0	-29.2	-151.5
111	441094.09	5020417.19	89.16	1	1000	71.0	-51.3	0.0	0.0	55.7	0.6	-2.0	0.0	0.0	0.0	0.0	2.0	14.7	-107.6
112	441094.09	5020417.19	89.16	1	2000	66.2	-56.1	0.0	0.0	55.7	1.7	-2.0	0.0	0.0	0.0	0.0	2.0	8.8	-113.5
113	441094.09	5020417.19	89.16	1	4000	60.0	-62.3	0.0	0.0	55.7	5.6	-2.0	0.0	0.0	0.0	0.0	2.0	-1.4	-123.6
114	441094.09	5020417.19	89.16	1	8000	52.9	-69.4	0.0	0.0	55.7	20.1	-2.0	0.0	0.0	0.0	0.0	2.0	-22.9	-145.2
115	441114.74	5020360.79	88.93	1	2000	65.3	-57.0	0.0	0.0	58.2	2.2	-2.7	0.0	0.0	16.4	0.0	2.0	-10.8	-133.1
116	441114.74	5020360.79	88.93	1	4000	59.1	-63.2	0.0	0.0	58.2	7.5	-2.7	0.0	0.0	19.2	0.0	2.0	-25.1	-147.4
117	441114.74	5020360.79	88.93	1	8000	52.0	-70.3	0.0	0.0	58.2	26.7	-2.7	0.0	0.0	22.1	0.0	2.0	-54.4	-176.7
118	441108.75	5020377.15	89.00	1	2000	66.3	-56.0	0.0	0.0	57.5	2.0	-2.5	0.0	0.0	0.0	0.0	2.0	7.2	-115.1
119	441108.75	5020377.15	89.00	1	4000	60.1	-62.2	0.0	0.0	57.5	6.9	-2.5	0.0	0.0	0.0	0.0	2.0	-3.9	-126.2
120	441108.75	5020377.15	89.00	1	8000	53.0	-69.3	0.0	0.0	57.5	24.7	-2.5	0.0	0.0	0.0	0.0	2.0	-28.8	-151.1
121	441102.10	5020395.32	89.07	1	1000	71.1	-51.2	0.0	0.0	56.7	0.7	-2.3	0.0	0.0	0.0	0.0	2.0	14.0	-108.3
122	441102.10	5020395.32	89.07	1	2000	66.3	-56.0	0.0	0.0	56.7	1.9	-2.3	0.0	0.0	0.0	0.0	2.0	8.0	-114.3
123	441102.10	5020395.32	89.07	1	4000	60.1	-62.2	0.0	0.0	56.7	6.3	-2.3	0.0	0.0	0.0	0.0	2.0	-2.6	-125.0
124	441102.10	5020395.32	89.07	1	8000	53.0	-69.3	0.0	0.0	56.7	22.5	-2.3	0.0	0.0	0.0	0.0	2.0	-25.9	-148.2
125	441077.72	5020411.12	88.88	1	1000	71.1	-51.2	0.0	0.0	52.7	0.5	-2.5	0.0	0.0	13.3	0.0	2.0	5.2	-117.1
126	441077.72	5020411.12	88.88	1	2000	66.3	-56.0	0.0	0.0	52.7	1.2	-2.5	0.0	0.0	16.0	0.0	2.0	-3.1	-125.4
127	441077.72	5020411.12	88.88	1	4000	60.1	-62.2	0.0	0.0	52.7	4.0	-2.5	0.0	0.0	18.9	0.0	2.0	-15.0	-137.3
128	441077.72	5020411.12	88.88	1	8000	53.0	-69.3	0.0	0.0	52.7	14.3	-2.5	0.0	0.0	21.7	0.0	2.0	-35.2	-157.5
129	441076.86	5020418.09	88.94	1	1000	65.7	-56.6	0.0	0.0	55.8	0.6	-1.9	0.0	0.0	12.7	0.0	2.0	-3.5	-125.8
130	441076.86	5020418.09	88.94	1	2000	60.9	-61.4	0.0	0.0	55.8	1.7	-1.9	0.0	0.0	15.1	0.0	2.0	-11.8	-134.1
131	441076.86	5020418.09	88.94	1	4000	54.7	-67.6	0.0	0.0	55.8	5.7	-1.9	0.0	0.0	17.8	0.0	2.0	-24.7	-147.0
132	441076.86	5020418.09	88.94	1	8000	47.6	-74.7	0.0	0.0	55.8	20.2	-1.9	0.0	0.0	20.7	0.0	2.0	-49.2	-171.5
133	441078.32	5020406.31	88.83	1	1000	70.8	-51.5	0.0	0.0	56.3	0.7	-2.1	0.0	0.0	10.6	0.0	2.0	3.3	-119.0
134	441078.32	5020406.31	88.83	1	2000	66.0	-56.3	0.0	0.0	56.3	1.8	-2.1	0.0	0.0	12.6	0.0	2.0	-4.6	-126.9
135	441078.32	5020406.31	88.83	1	4000	59.8	-62.5	0.0	0.0	56.3	6.1	-2.1	0.0	0.0	14.9	0.0	2.0	-17.4	-139.8
136	441078.32	5020406.31	88.83	1	8000	52.7	-69.6	0.0	0.0	56.3	21.6	-2.1	0.0	0.0	17.6	0.0	2.0	-42.8	-165.1
137	441078.84	5020421.72	89.01	1	1000	65.1	-57.2	0.0	0.0	51.9	0.4	-2.5	0.0	0.0	14.2	0.0	2.0	-0.9	-123.2
138	441078.84	5020421.72	89.01	1	2000	60.3	-62.0	0.0	0.0	51.9	1.1	-2.5	0.0	0.0	17.1	0.0	2.0	-9.3	-131.6
139	441078.84	5020421.72	89.01	1	4000	54.1	-68.2	0.0	0.0	51.9	3.6	-2.5	0.0	0.0	20.0	0.0	2.0	-20.9	-143.3
140	441078.84	5020421.72	89.01	1	8000	47.0	-75.3	0.0	0.0	51.9	13.0	-2.5	0.0	0.0	22.9	0.0	2.0	-40.3	-162.6
141	441088.56	5020425.32	89.16	1	1000	65.0	-57.3	0.0	0.0	55.2	0.6	-1.8	0.0	0.0	0.0	0.0	2.0	8.9	-113.4
142	441088.56	5020425.32	89.16	1	2000	60.2	-62.1	0.0	0.0	55.2	1.6	-1.8	0.0	0.0	0.0	0.0	2.0	3.1	-119.2
143	441088.56	5020425.32	89.16	1	4000	54.0	-68.3	0.0	0.0	55.2	5.3	-1.8	0.0	0.0	0.0	0.0	2.0	-6.8	-129.1
144	441088.56	5020425.32	89.16	1	8000	46.9	-75.4	0.0	0.0	55.2	19.0	-1.8	0.0	0.0	0.0	0.0	2.0	-27.6	-149.9
145	441079.74	5020422.06	89.02	1	1000	66.0	-56.3	0.0	0.0	55.6	0.6	-1.8	0.0	0.0	13.2	0.0	2.0	-3.7	-126.0
146	441079.74	5020422.06	89.02	1	2000	61.2	-61.1	0.0	0.0	55.6	1.6	-1.8	0.0	0.0	15.8	0.0	2.0	-12.0	-134.3
147	441079.74	5020422.06	89.02	1	4000	55.0	-67.3	0.0	0.0	55.6	5.5	-1.8	0.0	0.0	18.5	0.0	2.0	-24.9	-147.2
148	441079.74	5020422.06	89.02	1	8000	47.9	-74.4	0.0	0.0	55.6	19.8	-1.8	0.0	0.0	21.4	0.0	2.0	-49.1	-171.4
149	441076.73	5020420.94	88.97	1	1000	54.7	-67.6	0.0	0.0	55.6	0.6	-1.9	0.0	0.0	13.4	0.0	2.0	-15.1	-137.4
150	441076.73	5020420.94	88.97	1	2000	49.9	-72.4	0.0	0.0	55.6	1.6	-1.9	0.0	0.0	15.9	0.0	2.0	-23.4	-145.7
151	441076.73	5020420.94	88.97	1	4000	43.7	-78.6	0.0	0.0	55.6	5.6	-1.9	0.0	0.0	18.7	0.0	2.0	-36.3	-158.6
152	441076.73	5020420.94	88.97	1	8000	36.6	-85.7	0.0	0.0	55.6	19.9	-1.9	0.0	0.0	21.6	0.0	2.0	-60.6	-182.9
153	441075.39	5020395.75	88.70	1	1000	61.6	-60.7	0.0	0.0	53.8	1.3	-2.6	0.0	0.0	14.8	0.0	2.0	-7.7	-130.0
154	441075.39	5020395.75	88.70	1	2000	55.4	-66.9	0.0	0.0	53.8	4.5	-2.6	0.0	0.0	17.4	0.0	2.0	-19.8	-142.1
155	441075.39	5020395.75	88.70	1	4000	48.3	-74.0	0.0	0.0	53.8	16.1	-2.6	0.0	0.0	20.3	0.0	2.0	-41.3	-163.6
156	441069.52	5020393.49	88.63	1	1000	61.2	-61.1	0.0	0.0	54.0	1.4	-2.6	0.0	0.0	19.4	0.0	2.0	-12.9	-135.2
157	441069.52	5020393.49	88.63	1	2000	55.0	-67.3	0.0	0.0	54.0	4.6	-2.6	0.0	0.0	22.9	0.0	2.0	-25.9	-148.3
158	441069.52	5020393.49	88.63	1	4000	47.9	-74.4	0.0	0.0	54.0	16.4	-2.6	0.0	0.0	26.1	0.0	2.0	-48.1	-170.4
159	441078.76	5020397.05	88.74	1	1000	59.8	-62.5	0.0	0.0	56.8	0.7	-2.2	0.0	0.0	9.6	0.0	2.0	-7.0	-129.3
160	441078.76	5020397.05	88.74	1	2000	55.0	-67.3	0.0	0.0	56.8	1.9	-2.2	0.0	0.0	11.2	0.0	2.0	-14.6	-136.9
161	441078.76	5020397.05	88.74	1	4000	48.8	-73.5	0.0	0.0	56.8	6.4	-2.2	0.0	0.0	13.2	0.0	2.0	-27.4	-149.7
162	441078.76	5020397.05	88.74	1	8000	41.7	-80.6	0.0	0.0	56.8	22.7	-2.2	0.0	0.0	15.7	0.0	2.0	-53.3	-175.6
163	441072.41	5020394.60	88.66	1	1000	69.0	-53.3	0.0	0.0	56.9	0.7	-2.3	0.0	0.0	9.7	0.0	2.0	2.1	-120.2
164	441072.41	5020394.60	88.66	1	2000	64.2	-58.1	0.0	0.0	56.9	1.9	-2.3	0.0	0.0	11.3	0.0	2.0	-5.5	-127.8
165	441072.41	5020394																	

## **APPENDIX B**

### **AMBIENT SOUND EXPOSURE CALCULATION AND TRAFFIC DATA**



# Public Works - Traffic Services

## Turning Movements Count - Peak Period Diagram

### WOODROFFE AVE @ KNOXDALE RD/MEDHURST DR

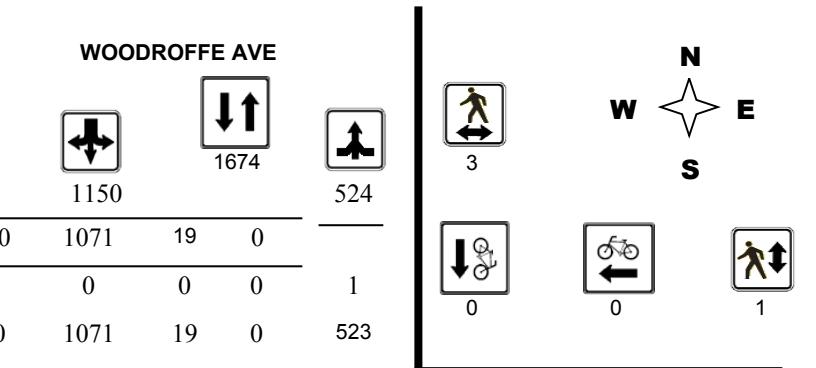
**Survey Date:** Friday, June 29, 2012

**Start Time:** 07:00

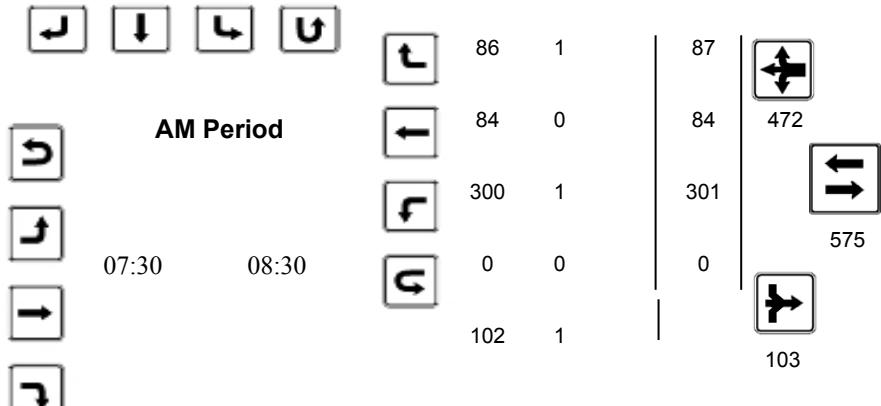
**WO No:** 30798

**Device:**

AM Period	
Peak Period: 07:30 08:30	
Total	
Trucks	
Cars	



KNOXDALE RD/MEDHURST DR	
	183
	0
	387
	117
	25
	204
	62



	Cars	Trucks	Total
	1433	0	1433
	1	0	1
	0	0	0
	0	39	39
	0	0	0
	320	0	320
	58	1	59
	1434	418	1852
	0	418	418
	0	1852	1852

**Validation Note:** Results generated Nov 26, 2014. All records still in violation were set to Edited.



# Public Works - Traffic Services

## Turning Movements Count - Peak Period Diagram

### WOODROFFE AVE @ KNOXDALE RD/MEDHURST DR

Survey Date: Friday, June 29, 2012

Start Time: 07:00

WO No: 30798

Device:

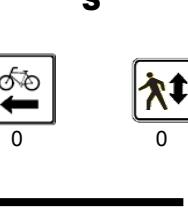
MD Period		Peak Period: 12:30 13:30			
Total		Trucks	Cars		
1036		70	935	31	0
		0	0	0	0
882		70	935	31	0
					882

#### WOODROFFE AVE

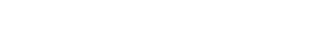
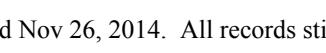
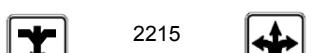
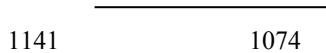
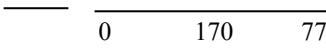
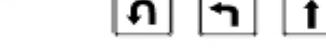
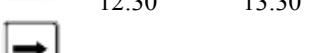
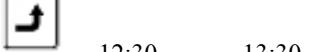


1918

1036



KNOXDALE RD/MEDHURST DR	
	347
	0
	49
	51
	62



#### MD Period

12:30 13:30

	Cars	Trucks	Total
	1138	0	1138
	3	0	3
	0	168	168
	0	2	2
	0	0	0
	170	776	946
	776	128	904
	1074	2215	3289
	2215	1074	3289
	1141	0	1141
	0	0	0

#### Cars

#### Trucks

#### Total

**Validation Note:** Results generated Nov 26, 2014. All records still in violation were set to Edited.



# Public Works - Traffic Services

## Turning Movements Count - Peak Period Diagram

### WOODROFFE AVE @ KNOXDALE RD/MEDHURST DR

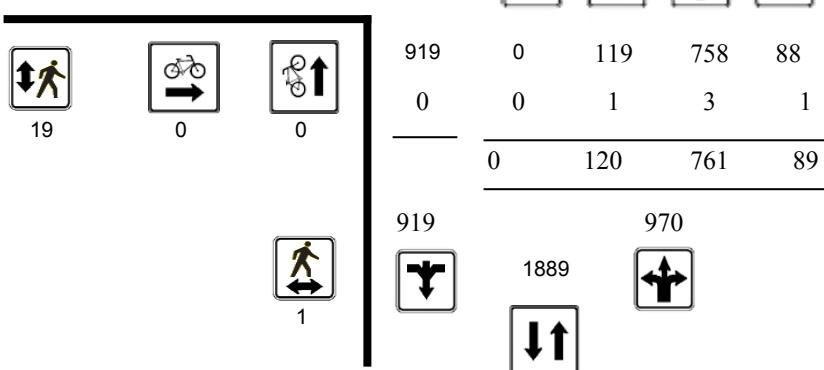
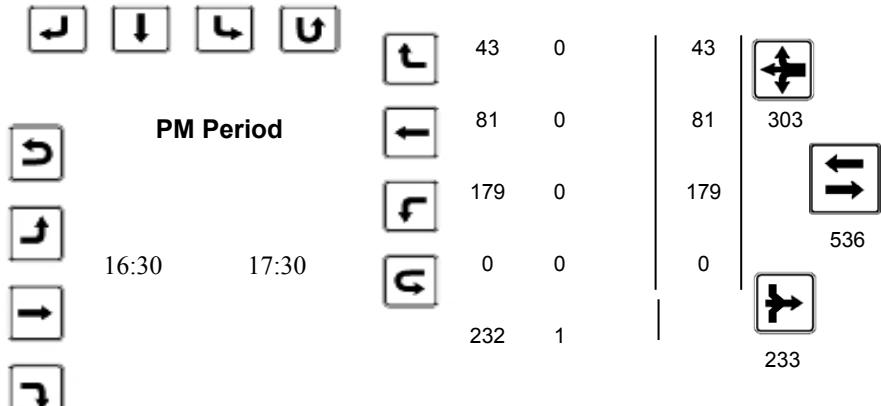
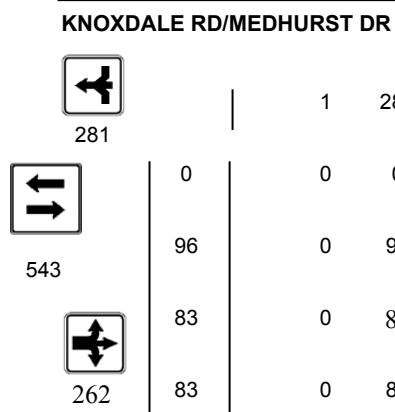
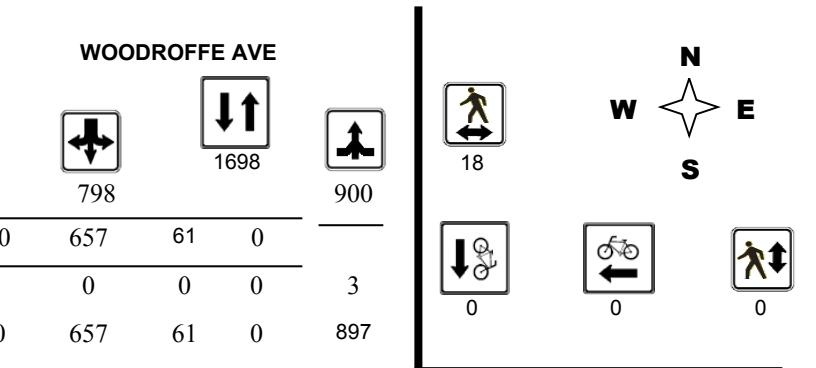
Survey Date: Friday, June 29, 2012

Start Time: 07:00

WO No: 30798

Device:

PM Period	
Peak Period:	16:30 17:30
Total	
Trucks	
Cars	



Validation Note: Results generated Nov 26, 2014. All records still in violation were set to Edited.



# Public Works - Traffic Services

W.O.

30798

## Turning Movement Count - 15 Minute Summary Report

### WOODROFFE AVE @ KNOXDALE RD/MEDHURST DR

Survey Date: Friday, June 29, 2012

#### Total Observed U-Turns

Northbound: 0      Southbound: 0  
 Eastbound: 0      Westbound: 0

#### WOODROFFE AVE

#### KNOXDALE RD/MEDHURST DR

Time Period	Northbound			Southbound			Eastbound			Westbound			W TOT	STR TOT	Grand Total					
	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT				
07:00	07:15	13	65	18	96	2	175	11	188	284	22	1	9	32	36	35	10	81	113	397
07:15	07:30	12	72	23	107	5	243	11	259	366	34	1	15	50	48	41	14	103	153	519
07:30	07:45	9	72	18	99	5	275	20	300	399	35	0	17	52	68	18	22	108	160	559
07:45	08:00	10	89	13	112	0	277	14	291	403	23	11	20	54	91	26	27	144	198	601
08:00	08:15	11	70	16	97	9	251	18	278	375	28	10	15	53	78	21	16	115	168	543
08:15	08:30	9	89	12	110	5	268	8	281	391	31	4	10	45	64	19	22	105	150	541
08:30	08:45	7	105	13	125	6	225	10	241	366	30	2	23	55	58	19	18	95	150	516
08:45	09:00	19	86	23	128	6	217	7	230	358	17	4	27	48	54	24	15	93	141	499
09:00	09:15	4	67	17	88	5	166	6	177	265	20	8	24	52	46	31	16	93	145	410
09:15	09:30	17	84	21	122	6	163	9	178	300	17	5	15	37	45	6	18	69	106	406
09:30	09:45	13	93	16	122	10	163	8	181	303	12	0	16	28	29	3	18	50	78	381
09:45	10:00	14	91	7	112	8	163	6	177	289	14	4	17	35	18	26	11	55	90	379
11:30	11:45	31	145	27	203	9	211	19	239	442	10	7	23	40	52	12	10	74	114	556
11:45	12:00	37	150	23	210	10	217	15	242	452	9	1	18	28	42	12	0	54	82	534
12:00	12:15	28	138	34	200	14	172	19	205	405	13	11	30	54	41	11	12	64	118	523
12:15	12:30	34	181	24	239	6	217	21	244	483	18	4	23	45	23	7	11	41	86	569
12:30	12:45	31	196	32	259	11	226	20	257	516	20	8	22	50	35	8	7	50	100	616
12:45	13:00	37	240	23	300	10	245	23	278	578	9	4	11	24	16	11	10	37	61	639
13:00	13:15	42	169	25	236	2	241	12	255	491	11	35	13	59	52	54	6	112	171	662
13:15	13:30	60	171	48	279	8	223	15	246	525	9	4	16	29	41	34	34	109	138	663
15:00	15:15	37	175	26	238	22	157	15	194	432	6	9	25	40	45	5	12	62	102	534
15:15	15:30	28	168	26	222	5	158	23	186	408	26	9	20	55	30	14	13	57	112	520
15:30	15:45	34	197	32	263	8	195	13	216	479	26	10	20	56	40	14	9	63	119	598
15:45	16:00	26	224	23	273	6	188	15	209	482	24	11	19	54	30	13	6	49	103	585
16:00	16:15	14	216	24	254	11	148	15	174	428	14	11	25	50	24	4	6	34	84	512
16:15	16:30	19	196	9	224	9	120	18	147	371	23	11	10	44	23	5	3	31	75	446
16:30	16:45	15	211	22	248	11	176	16	203	451	27	21	31	79	37	19	11	67	146	597
16:45	17:00	30	177	24	231	9	168	29	206	437	25	23	22	70	36	17	12	65	135	572
17:00	17:15	34	181	28	243	21	155	24	200	443	22	24	9	55	54	25	9	88	143	586
17:15	17:30	41	192	15	248	20	158	11	189	437	22	15	21	58	52	20	11	83	141	578
17:30	17:45	32	183	11	226	14	152	8	174	400	23	16	21	60	44	14	9	67	127	527
17:45	18:00	23	172	6	201	11	154	9	174	375	23	15	21	59	34	13	4	51	110	485

Total ....	771	4665	679	6115	284	6267	468	7019	13134	643	299	608	1550	1386	581	402	2369	3919	17053
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Note: U-Turns are included in Totals.

Validation Note:

Results generated Nov 26, 2014. All records still in violation were set to Edited.



**Public Works - Traffic Services**  
**Turning Movement Count - Cyclist Volume Report**

Work Order  
30798

---

**WOODROFFE AVE @ KNOXDALE RD/MEDHURST DR**

---

**Count Date:** Friday, June 29, 2012

**Start Time:** 07:00

Time Period	WOODROFFE AVE			KNOXDALE RD/MEDHURST DR			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 08:00	0	0	0	0	0	0	0
08:00 09:00	0	0	0	0	0	0	0
09:00 10:00	0	0	0	0	0	0	0
11:30 12:30	0	0	0	0	0	0	0
12:30 13:30	0	0	0	0	0	0	0
15:00 16:00	0	0	0	0	0	0	0
16:00 17:00	0	0	0	0	0	0	0
17:00 18:00	0	0	0	0	0	0	0
Total .....	0	0	0	0	0	0	0

**Validation Note:** Results generated Nov 26, 2014. All records still in violation were set to Edited.



# Public Works - Traffic Services

## Turning Movements Count - Full Study Diagram

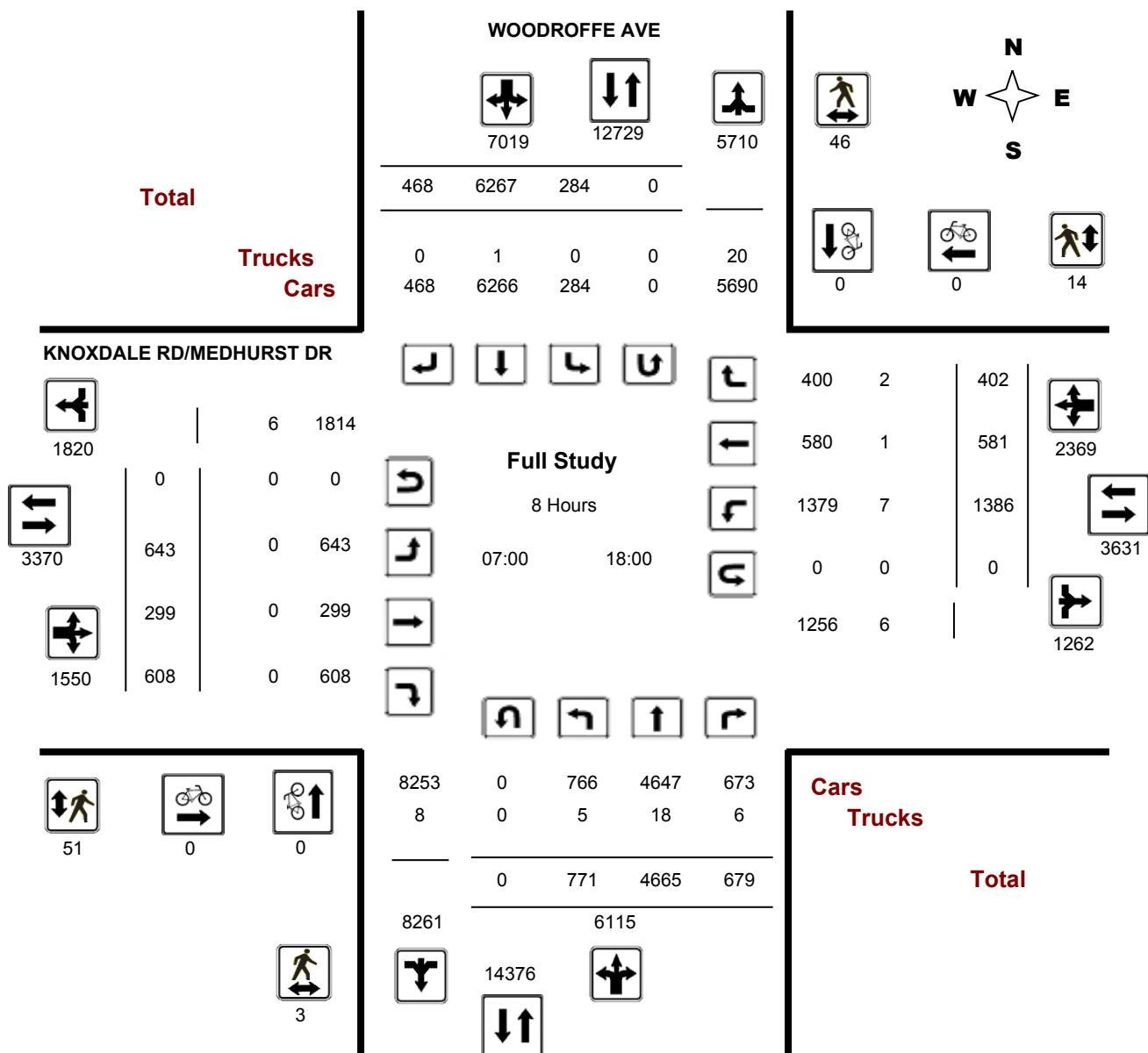
### WOODROFFE AVE @ KNOXDALE RD/MEDHURST DR

**Survey Date:** Friday, June 29, 2012

**Start Time:** 07:00

**WO#:** 30798

**Device:**





# Public Works - Traffic Services

W.O.  
30798

## Turning Movement Count - Heavy Vehicle Report

### WOODROFFE AVE @ KNOXDALE RD/MEDHURST DR

**Survey Date:** Friday, June 29, 2012

WOODROFFE AVE				KNOXDALE RD/MEDHURST DR																
Time Period	Northbound			Southbound			S TOT	STR TOT	Eastbound			Westbound			W TOT	STR TOT	Grand Total			
	LT	ST	RT	N TOT	LT	ST	RT		LT	ST	RT	E TOT	LT	ST	RT					
07:00	08:00	0	0	1	1	0	0	0	1	0	0	0	0	1	0	2	3			
08:00	09:00	0	2	1	3	0	0	0	3	0	0	0	0	0	0	0	3			
09:00	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:30	12:30	1	3	1	5	0	0	0	5	0	0	0	0	1	0	1	6			
12:30	13:30	2	0	0	2	0	0	0	2	0	0	0	0	3	1	0	4			
15:00	16:00	1	7	2	10	0	1	0	11	0	0	0	0	2	0	1	3			
16:00	17:00	1	6	1	8	0	0	0	8	0	0	0	0	0	0	0	8			
17:00	18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
<b>Total :</b>		5	18	6	29	0	1	0	1	30	0	0	0	0	7	1	2	10	10	40

Heavy Vehicles are vehicles having one rear axle with four or more wheels, or having two or more rear axles. These vehicles include most O.C. Transpo, school and inter-city buses. Further, they ARE included in the Turning Movement Count Summary.



**CITY OPERATIONS - PUBLIC WORKS**  
**Turning Movement Count - Pedestrian Volume Report**

Work Order

30798

**WOODROFFE AVE @ KNOXDALE RD/MEDHURST DR**

Count Date: Friday, June 29, 2012

Start Time:

07:00

Time Period	WOODROFFE AVE			KNOXDALE RD/MEDHURST DR			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 07:15	0	0	0	2	0	2	2
07:15 07:30	0	0	0	0	0	0	0
07:30 07:45	0	1	1	0	0	0	1
07:45 08:00	0	1	1	2	0	2	3
<b>07:00 08:00</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>6</b>
08:00 08:15	0	0	0	0	1	1	1
08:15 08:30	0	1	1	0	0	0	1
08:30 08:45	0	0	0	0	0	0	0
08:45 09:00	0	0	0	0	0	0	0
<b>08:00 09:00</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>
09:00 09:15	0	0	0	0	1	1	1
09:15 09:30	0	0	0	0	3	3	3
09:30 09:45	0	0	0	0	4	4	4
09:45 10:00	0	0	0	0	0	0	0
<b>09:00 10:00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>8</b>	<b>8</b>
11:30 11:45	0	0	0	2	0	2	2
11:45 12:00	0	1	1	0	0	0	1
12:00 12:15	1	1	2	0	0	0	2
12:15 12:30	0	1	1	6	0	6	7
<b>11:30 12:30</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>8</b>	<b>0</b>	<b>8</b>	<b>12</b>
12:30 12:45	0	1	1	1	0	1	2
12:45 13:00	0	0	0	0	0	0	0
13:00 13:15	0	0	0	2	0	2	2
13:15 13:30	0	0	0	0	0	0	0
<b>12:30 13:30</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>4</b>
15:00 15:15	0	0	0	3	0	3	3
15:15 15:30	0	0	0	0	3	3	3
15:30 15:45	1	0	1	0	2	2	3
15:45 16:00	0	3	3	3	0	3	6
<b>15:00 16:00</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>5</b>	<b>11</b>	<b>15</b>
16:00 16:15	0	8	8	0	0	0	8
16:15 16:30	0	1	1	1	0	1	2
16:30 16:45	0	3	3	0	0	0	3
16:45 17:00	1	3	4	7	0	7	11
<b>16:00 17:00</b>	<b>1</b>	<b>15</b>	<b>16</b>	<b>8</b>	<b>0</b>	<b>8</b>	<b>24</b>
17:00 17:15	0	7	7	6	0	6	13
17:15 17:30	0	5	5	6	0	6	11
17:30 17:45	0	7	7	5	0	5	12
17:45 18:00	0	2	2	5	0	5	7
<b>17:00 18:00</b>	<b>0</b>	<b>21</b>	<b>21</b>	<b>22</b>	<b>0</b>	<b>22</b>	<b>43</b>
Total .....	3	46	49	51	14	65	114

Validation Note: Results generated Nov 26, 2014. All records still in violation were set to Edited.



# Public Works - Traffic Services

Work Order

30798

## Turning Movement Count - Summary Report

### WOODROFFE AVE @ KNOXDALE RD/MEDHURST DR

**Survey Date:** Friday, June 29, 2012

**Total Observed U-Turns**

**AADT Factor**

Northbound:	0	Southbound:	0	.80
Eastbound:	0	Westbound:	0	

#### Full Study

Period	WOODROFFE AVE				KNOXDALE RD/MEDHURST DR								Grand Total						
	Northbound			NB TOT	Southbound		Eastbound				Westbound				WB TOT	STR TOT			
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	44	298	72	414	12	970	56	1038	1452	114	13	61	188	243	120	73	436	624	2076
08:00 09:00	46	350	64	460	26	961	43	1030	1490	106	20	75	201	254	83	71	408	609	2099
09:00 10:00	48	335	61	444	29	655	29	713	1157	63	17	72	152	138	66	63	267	419	1576
11:30 12:30	130	614	108	852	39	817	74	930	1782	50	23	94	167	158	42	33	233	400	2182
12:30 13:30	170	776	128	1074	31	935	70	1036	2110	49	51	62	162	144	107	57	308	470	2580
15:00 16:00	125	764	107	996	41	698	66	805	1801	82	39	84	205	145	46	40	231	436	2237
16:00 17:00	78	800	79	957	40	612	78	730	1687	89	66	88	243	120	45	32	197	440	2127
17:00 18:00	130	728	60	918	66	619	52	737	1655	90	70	72	232	184	72	33	289	521	2176
Total	771	4665	679	6115	284	6267	468	7019	13134	643	299	608	1550	1386	581	402	2369	3919	17053
Equ 12Hr	1071	6484	943	8498	394	8711	650	9755	18253	893	415	845	2153	1926	807	558	3291	5444	23697

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

**1.39**

Avg 12Hr	857	5187	755	6799	315	6968	520	7803	14602	714	332	676	1722	1540	645	446	2632	4355	18957
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Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

**.80**

Avg 24Hr	1122	6794	989	8906	412	9128	681	10221	19128	935	434	885	2255	2017	844	584	3447	5705	24833
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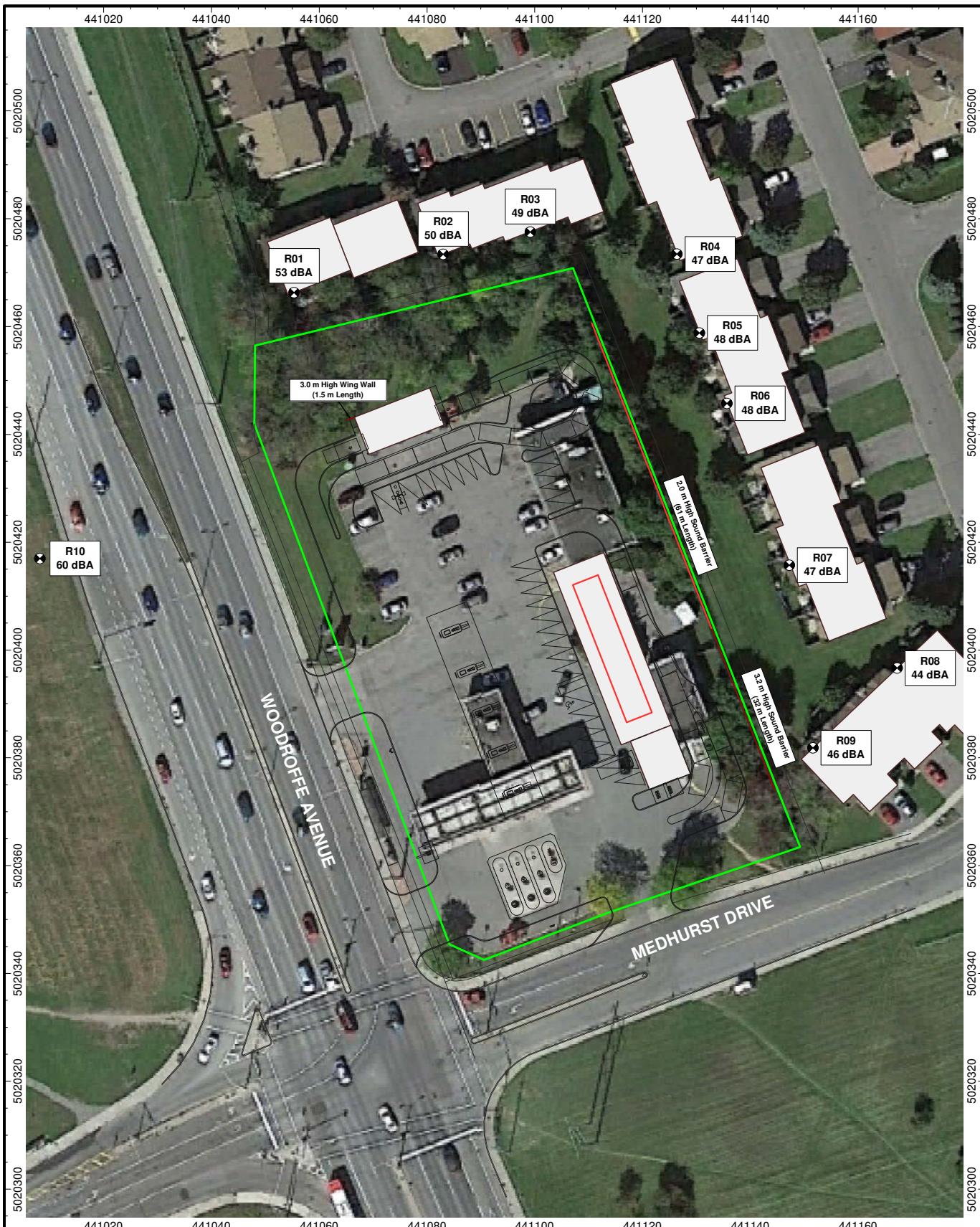
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.

**1.31**

**Validation Note:** Results generated Nov 26, 2014. All records still in violation were set to Edited.



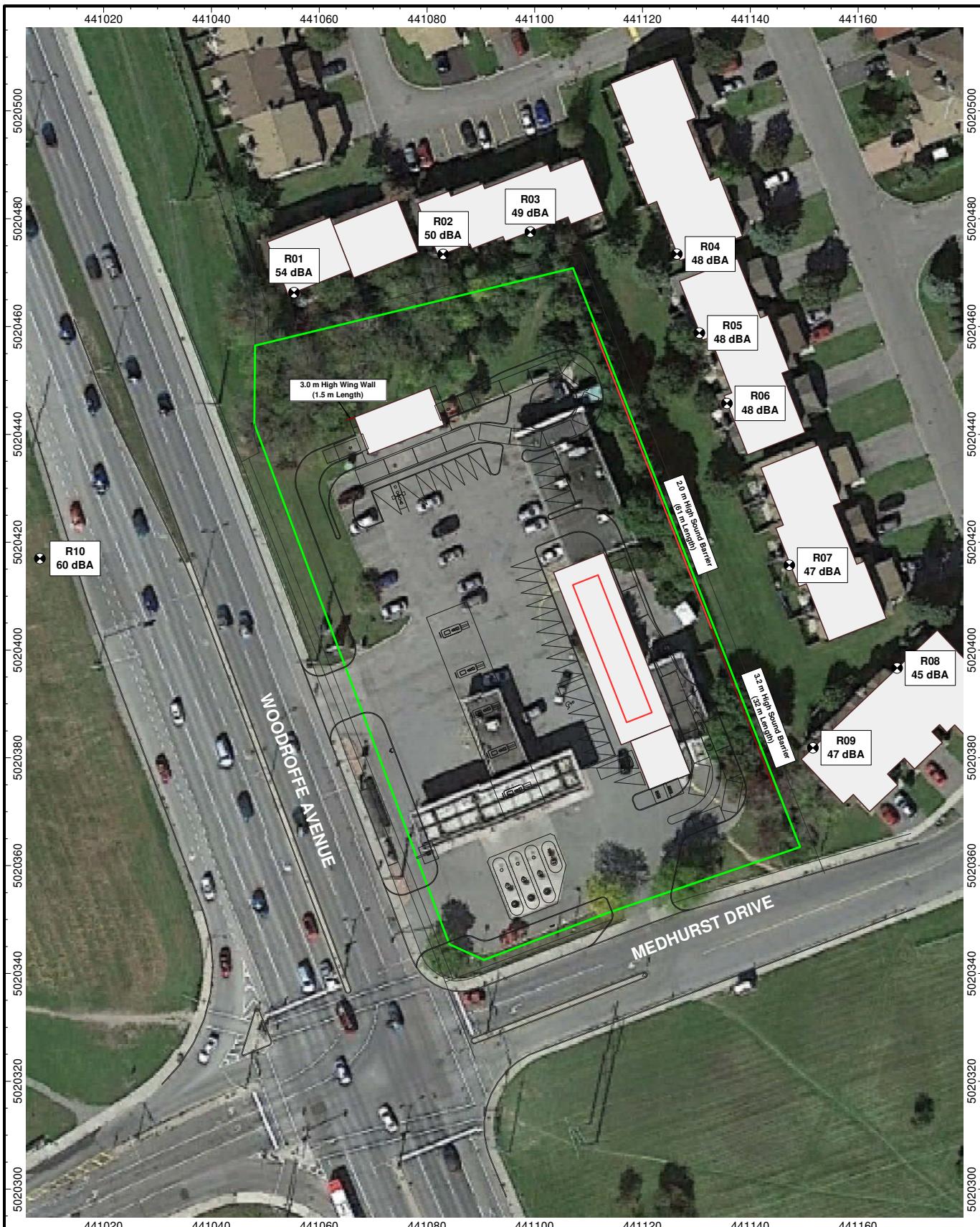
VALCOUSTICS Canada Ltd. consulting acoustical engineers	Title <b>Ambient Sound Levels - 0700-0800 Hours</b>	Date <b>2015-02-27</b>	Figure <b>B1</b>
Project Name <b>Esso GBCW-DT/Woodroffe Ave &amp; Medhurst Dr</b>	Project No. <b>114-456</b>		



VALCOUSTICS Canada Ltd. consulting acoustical engineers	Title <b>Ambient Sound Levels - 2200-2300 Hours</b>	Date <b>2015-02-27</b>	Figure <b>B2</b>
Project Name <b>Esso GBCW-DT/Woodroffe Ave &amp; Medhurst Dr</b>	Project No. <b>114-456</b>		



VALCOUSTICS Canada Ltd. consulting acoustical engineers	Title <b>Ambient Sound Levels - 0400-0500 Hours</b>	Date <b>2015-02-27</b>	Figure <b>B3</b>
Project Name <b>Esso GBCW-DT/Woodroffe Ave &amp; Medhurst Dr</b>	Project No. <b>114-456</b>		



VALCOUSTICS Canada Ltd. consulting acoustical engineers	Title <b>Ambient Sound Levels - 0600-0700 Hours</b>	Date <b>2015-02-27</b>	Figure <b>B4</b>
Project Name <b>Esso GBCW-DT/Woodroffe Ave &amp; Medhurst Dr</b>	Project No. <b>114-456</b>		