

NOISE IMPACT STUDY

RESIDENTIAL TOWNHOUSE DEVELOPMENT
6009-6017 VALLEY WAY
NIAGARA FALLS, ON

Prepared for:

Newcastle Communities Niagara Falls Ltd.
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Our File No: 25-5028
August 2025

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1.0 INTRODUCTION

dBA Acoustical Consulting Inc. has been retained to provide a noise impact study on behalf of Newcastle Communities Niagara Falls Ltd for the proposed 5 Block residential townhouse development located at 6009-6017 Valley Way, Niagara Falls, ON.

The purpose of the study is to determine the noise and vibration impact from Valley Way and Portage Road vehicular traffic that may impact the proposed residential townhouse development as required for Site Plan Application (SPA) resubmission for the City of Niagara Falls.

This study will detail noise impact relative to the site plan and recommend noise control measures necessary (if applicable) to meet Ministry of Environment Conservation and Parks (MECP) Publication NPC-300 entitled “Stationary & Transportation Sources-Approval & Planning guidelines while satisfying the planning requirements of the City of Niagara Falls.

Vibration is not considered as there are no railway lines nearby. Aircraft is not a concern as the development is located outside NEF 25 contour of any area Airports. Site Location attached as Figure 1.

2.0 SITE DESCRIPTION

Proposed for the site are 5 blocks of 3-storey townhouses for a total of 99 units. Currently there are no outdoor amenity areas included on the site plan.

The closest townhouses block is approximately 70m north of Valley Way which is a 2-lane roadway running east and west with a speed limit of 50 km/hr. The closest townhouse block is approximately 67m west of Portage Road, which is a 2-lane roadway running north and south with a speed limit of 50 km/hr. Other area roadways are too far away or have low traffic volumes and cannot be calculated.

The immediate area surrounding the proposed townhouses development is mainly comprised of 1-2 storey residential dwellings.

3.0 NOISE IMPACT ASSESSMENT

3.1 NOISE CRITERIA

The MECP specifies limits for road noise relative to new residential developments. The MECP Publication NPC-300 entitled “Stationary & Transportation Sources-Approval & Planning, specifies the criteria, summarized as follows:

TABLE 1- Road Traffic Sound Levels Limits	
Time Period	Leq (dBA)
07:00 – 23:00 (16 hr.)	55 Outdoor Living area
07:00 – 23:00 (16 hr.)	55 Plane of Window
23:00 – 07:00 (8 hr.)	50 Plane of Bedroom window

Where noise levels estimated at windows are equal to or less than the values listed in Table 1, no noise control measures are required. (See attached in Appendix “A”).

Where noise levels exceed Table 1 values, the following action is required:

TABLE 2 – Noise Control Requirements		
Time Period	Noise Level Leq (dBA)	Action Required
07:00 - 23:00 Daytime (OLA)	56 to 61	Warning Clause Type “A”
	> 61	Barrier & Warning Clause Type “B”
07:00 – 23:00 Daytime (POW)	> 55	Provision for A/C, Warning Clause “C”
	> 65	Central A/C, Warning Clause “D”
	> 65	Building Component Specification
23:00 to 07:00 Nighttime (POW)	> 51	Provision for A/C and Warning Clause Type “C”
	> 60	Building Component Specification
	> 60	Central Air and Warning Clause Type “D”

Where nighttime noise levels exceed 60 dBA, building components must be designed to meet Table 3 indoor sound level limits.

TABLE 3 - Indoor Road & Rail Sound Levels Limits	
Indoor Location	Leq (dBA)
	Road
Living/Dining 7:00 – 23:00	45
Bedroom 23:00 - 07:00	40

3.2 ROAD NOISE

Predicted road traffic noise levels were calculated for Portage Road (2023) and Valley Way (2023), the main road noise sources in the proposed site area. The AADT road traffic volumes for both roadways were obtained via email from John Grubich, C.E.T., Traffic Planning Supervisor, Municipal Works – Transportation Services, City of Niagara Falls. These are the most up to date AADT road traffic volumes available. The MECP computer program STAMSON version 5.04 was used to carry out prediction calculations (See Appendix “A”). Traffic data is summarized in Table 4.

The daytime/nighttime volume ratios relative to Portage Road and Valley Way are typically calculated using a 90/10 split and a 16/8 hr assessment is required by the MECP. The percentage of annual growth was figured at 2% over 22 years. The AADT (Annual Average Daily Traffic) volumes used are reflective of the worst-case scenario. Truck volumes were factored at 2% medium and 2% heavy of the total vehicle volumes for both roadways.

TABLE 4 – Future Road Traffic Volumes (2045)			
Portage Road	AADT - 7217 Vehicles		
	Cars	Medium Trucks	Heavy Trucks
Day	6235	130	130
Night	693	14	14
Valley Way	AADT - 7217 Vehicles		
	Cars	Medium Trucks	Heavy Trucks
Day	6235	130	130
Night	693	14	14

The following Table 5A represents the free field noise levels of road traffic from Portage Road. 10 Receptor locations were considered for this report for the east, south and west facades. See Figure 3 Receptor Locations.

TABLE 5A – Predicted Future Traffic Noise (dBA) Portage Road		
Location	07:00 – 23:00	23:00 – 07:00
R1 - East Façade Block A Main Floor 3m	49 dBA	44 dBA
R2 - East Façade Block A Upper Floor 6m	50 dBA	44 dBA
R3 - East Façade Block B Main Floor 3m	48 dBA	42 dBA
R4 - East Façade Block B Upper Floor 6m	49 dBA	43 dBA
R5 - South Façade Block C Main Floor 3m	38 dBA	31 dBA
R6 - South Façade Block C Upper Floor 6m	39 dBA	32 dBA
R7 - West Façade Block D Main Floor 3m	N/A	N/A
R8 - West Façade Block D Upper Floor 6m	N/A	N/A
R9 - West Façade Block E Main Floor 3m	N/A	N/A
R10 - West Façade Block E Upper Floor 6m	N/A	N/A

The following Table 5B represents the free field noise levels of road traffic from Portage Road. 10 Receptor locations were considered for this report for the east, south and west facades. See Figure 3 Receptor Locations.

TABLE 5B – Predicted Future Traffic Noise (dBA) Valley Way		
Location	07:00 – 23:00	23:00 – 07:00
R1 - East Façade Block A Main Floor 3m	37 dBA	31 dBA
R2 - East Façade Block A Upper Floor 6m	38 dBA	32 dBA
R3 - East Façade Block B Main Floor 3m	39 dBA	33 dBA
R4 - East Façade Block B Upper Floor 6m	39 dBA	34 dBA
R5 - South Façade Block C Main Floor 3m	50 dBA	43 dBA
R6 - South Façade Block C Upper Floor 6m	51 dBA	44 dBA
R7 - West Façade Block D Main Floor 3m	46 dBA	40 dBA
R8 - West Façade Block D Upper Floor 6m	47 dBA	40 dBA
R9 - West Façade Block E Main Floor 3m	35 dBA	28 dBA
R10 - West Façade Block E Upper Floor 6m	36 dBA	29 dBA

The following Table 5C represents the free field noise levels of combined road traffic from Portage Road and Valley Way. 10 Receptor locations were considered for this report for the east, south and west facades. See Figure 3 Receptor Locations.

TABLE 5C – Predicted Combined Future Road Traffic Noise (dBA)		
Location	07:00 – 23:00	23:00 – 07:00
R1 - East Façade Block A Main Floor 3m	50 dBA	44 dBA
R2 - East Façade Block A Upper Floor 6m	50 dBA	45 dBA
R3 - East Façade Block B Main Floor 3m	48 dBA	43 dBA
R4 - East Façade Block B Upper Floor 6m	49 dBA	44 dBA
R5 - South Façade Block C Main Floor 3m	50 dBA	44 dBA
R6 - South Façade Block C Upper Floor 6m	51 dBA	44 dBA
R7 - West Façade Block D Main Floor 3m	46 dBA	40 dBA
R8 - West Façade Block D Upper Floor 6m	47 dBA	40 dBA
R9 - West Façade Block E Main Floor 3m	35 dBA	28 dBA
R10 - West Façade Block E Upper Floor 6m	36 dBA	29 dBA

4.0 RECOMMENDATIONS - NOISE CONTROL

4.1 OUTDOOR LIVING AREAS

Calculated road noise levels do not exceed the 55dBA daytime criteria outlined in Table 1. Standard balconies may be proposed for the second floor however they would be less than 4m in depth and therefore not considered as Outdoor Living Areas (OLA's). Currently there are no outdoor amenity areas listed on the site plan and the noise levels for any OLA are below MECP noise guidelines (55 dBA) therefore mitigation measures would not be required.

4.2 INDOOR NOISE LEVELS

Calculated nighttime road noise levels at the Plane of Window (POW) do not exceed the 50 dBA criteria outlined in Table 1 for indoor spaces. Ontario Building Code (OBC) will suffice for the proposed development. It is recommended that STC-28 non-acoustically tested windows be installed as they will achieve MECP NPC-300 Transportation and Stationary Sources Noise guidelines.

TABLE 11 – Recommended Door, Wall, and Window Construction			
LOCATION	Acoustically Tested Window STC	Exterior Wall STC	Patio Door Construction STC
All Units	Example	Example	Example
Bedroom	OBC	OBC	OBC
Living room	OBC	OBC	OBC

5.0 VENTILATION / WARNING CLAUSES

Ventilation and Warning Clauses are not required for the proposed development.

TABLE 9- Ventilation and Warning Clause Requirements		
LOCATION	VENTILATION	WARNING CLAUSE
All Units	N/A	N/A

6.0 NOISE CONTROL REQUIREMENTS CONFIRMATION

As shown in Table 8 below, the window and exterior wall requirements are extremely low. STC-28 is the lowest STC requirement. Anything less than that would fall under the Ontario Builders Code (OBC). This chart also confirms that ventilation and warning clauses are not required for this project.

TABLE 8 - Noise Control Requirements Confirmation

Time Period	Predicted Impact, Leq (dBA)	A/C Req.	Warning Clause	Indoor Limits, Leq (dBA)		Window / Floor Area Ratio (%)	Wall / Floor Area Ratio (%)	STC Requirements			
				Living, Dining, and Den Areas	Sleeping Quarters			Living, Dining, and Den Areas		Sleeping Quarters	
				Road	Road			Window	Wall	Window	Wall
Day	51	NO	NO	45	45	80%	100%	16	18	16	18
Night	44	NO	NO	45	40	80%	100%	10	12	14	16

7.0 SUMMARY OF RECOMMENDATIONS

The following noise control measures are required to satisfy the indoor and outdoors noise level criterion:

- Ontario Builders Code (OBC) for all windows, doors and exterior walls. (Table 6)
- Qualified Acoustical Consultant certifies that the required noise control measures have been incorporated into the builder’s plans prior to issuance of a building permit.
- Prior to issuance of an occupancy permit or equivalent, it is recommended the Qualified Acoustical Consultant certify that the approved noise control measures have been professionally installed.

8.0 CONCLUSIONS

dBA Acoustical Consulting Inc. has provided a noise impact study on behalf of Newcastle Communities Niagara Falls Ltd for the proposed 5 Block residential townhouse development located at 6009-6017 Valley Way, Niagara Falls, ON.

The study determined the noise impact from Valley Way and Portage Road vehicular traffic that does not impact the proposed residential townhouse development as required for Site Plan Application (SPA) resubmission for the City of Niagara Falls.

This study detailed noise impact relative to the site plan and recommended no noise control measures necessary to meet Ministry of Environment Conservation and Parks (MECP) Publication NPC-300 entitled “Stationary & Transportation Sources-Approval & Planning guidelines while satisfying the planning requirements of the City of Niagara Falls.

FIGURE 1
KEY MAP



FIGURE 2 SITE PLAN

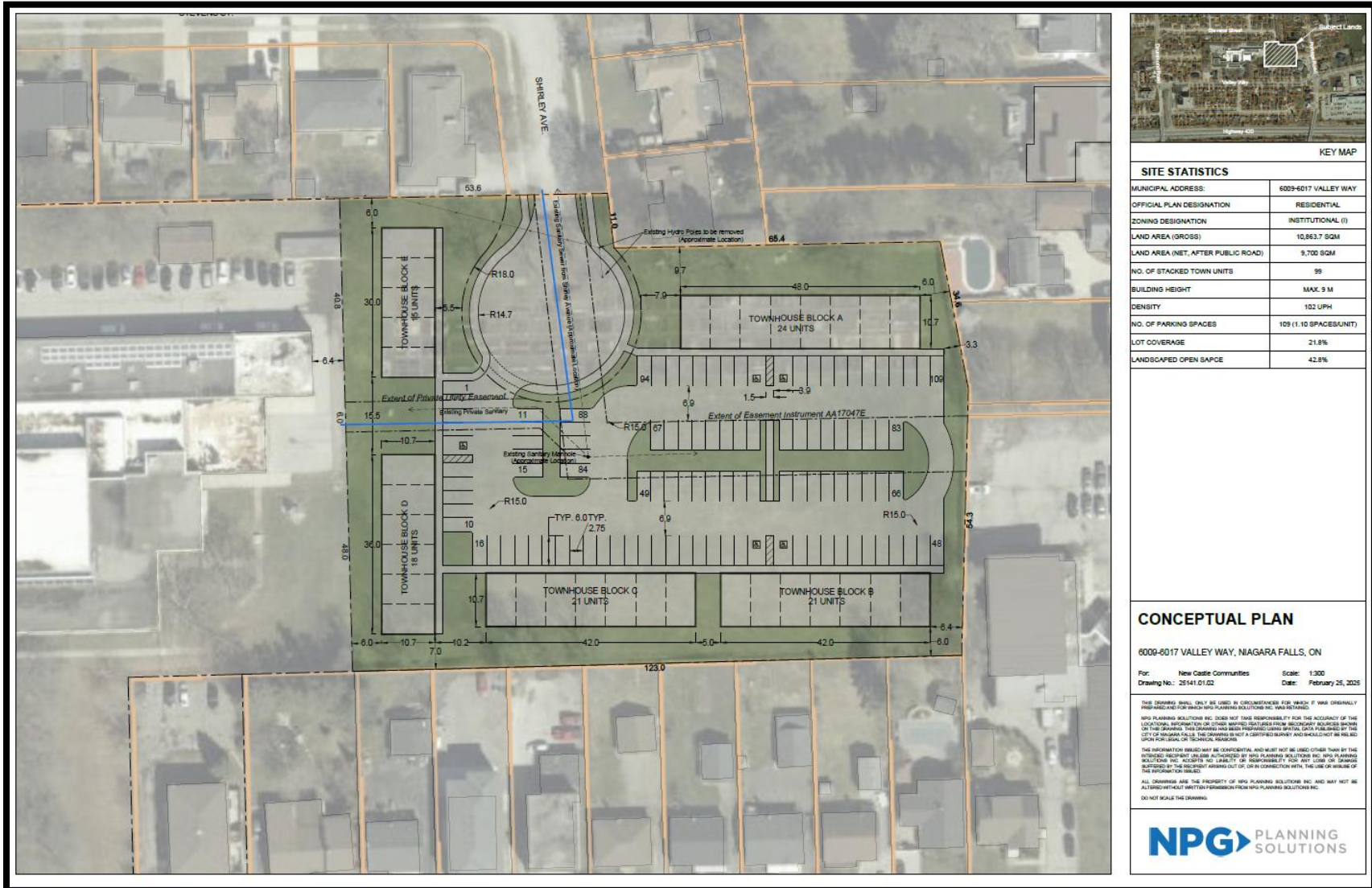
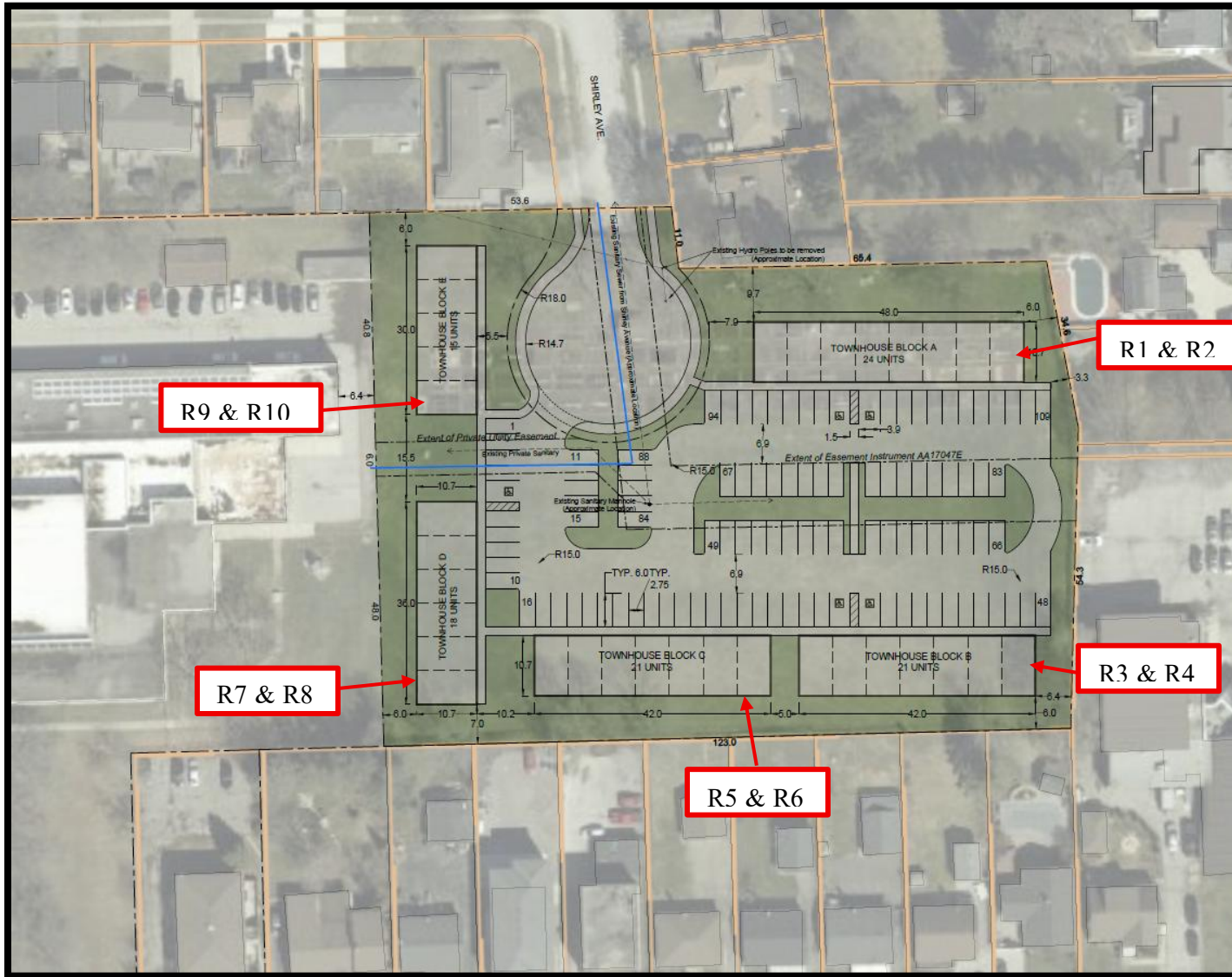


FIGURE 3
RECEPTOR LOCATIONS



APPENDIX “A”

CITY OF NIAGARA FALLS 2023 TRAFFIC DATA VALLEY WAY

Prepared For: City of Niagara Falls				Geo ID: SNS_02931			
Prepared By: <i>FRANCO Traffic Inc.</i>				Site ID: 93			
Location: Valley Way, btwn Biamonte Pkwy & Portage Rd				Interval: 15 min.			
Start Date: Wednesday Jun 14, 2023							
Period Ending	Channel 1 EB	Channel 2 WB	Hourly Summary	Period Ending	Channel 1 EB	Channel 2 WB	Hourly Summary
0:15	9	7		12:15	33	51	308
0:30	4	6		12:30	29	49	308
0:45	4	7		12:45	36	47	328
1:00	2	5	44	13:00	27	50	322
1:15	1	1	30	13:15	31	45	314
1:30	0	1	21	13:30	29	38	303
1:45	1	3	14	13:45	28	48	296
2:00	2	3	12	14:00	35	35	289
2:15	2	1	13	14:15	36	50	299
2:30	3	2	17	14:30	25	50	307
2:45	1	4	18	14:45	31	42	304
3:00	5	0	18	15:00	43	53	330
3:15	1	7	23	15:15	49	70	363
3:30	1	1	20	15:30	38	73	399
3:45	0	1	16	15:45	22	69	417
4:00	1	2	14	16:00	29	57	407
4:15	1	2	9	16:15	32	97	417
4:30	3	2	12	16:30	25	79	410
4:45	2	4	17	16:45	41	65	425
5:00	2	5	21	17:00	45	81	465
5:15	1	3	22	17:15	31	86	453
5:30	5	4	26	17:30	36	61	446
5:45	5	3	28	17:45	41	42	423
6:00	6	8	35	18:00	36	50	383
6:15	7	6	44	18:15	46	43	355
6:30	11	5	51	18:30	20	42	320
6:45	12	10	65	18:45	28	44	309
7:00	17	11	79	19:00	30	32	285
7:15	11	17	94	19:15	20	35	251
7:30	18	17	113	19:30	33	39	261
7:45	18	24	133	19:45	18	24	231
8:00	29	26	160	20:00	21	31	221
8:15	17	37	186	20:15	17	32	215
8:30	36	34	221	20:30	18	30	191
8:45	26	31	236	20:45	25	31	205
9:00	31	53	265	21:00	16	25	194
9:15	19	39	269	21:15	12	16	173
9:30	31	35	265	21:30	14	20	159
9:45	29	43	280	21:45	17	18	138
10:00	21	33	250	22:00	18	13	128
10:15	31	43	266	22:15	11	18	129
10:30	26	36	262	22:30	15	15	125
10:45	17	31	238	22:45	12	16	118
11:00	29	47	260	23:00	10	12	109
11:15	17	47	250	23:15	11	19	110
11:30	41	37	266	23:30	12	9	101
11:45	20	43	281	23:45	11	7	91
12:00	37	46	288	0:00	11	9	89
AM Peak: 288			PM Peak: 465			24 HR VOLUME: 4668	

CITY OF NIAGARA FALLS 2023 TRAFFIC DATA PORTAGE ROAD

Prepared For: City of Niagara Falls				Geo ID: SNS_02235			
Prepared By: <i>FYBANKO</i> Traffic Inc.				Site ID: 65			
Location: Portage Rd, btwn Arthur St & Valley Way				Interval: 15 min.			
Start Date: Wednesday Jun 21, 2023							

Period	Channel 1	Channel 2	Hourly	Period	Channel 1	Channel 2	Hourly
Ending	NB	SB	Summary	Ending	NB	SB	Summary
0:15	9	1		12:15	62	48	361
0:30	6	3		12:30	38	40	361
0:45	1	3		12:45	57	49	392
1:00	4	4	31	13:00	58	57	409
1:15	3	1	25	13:15	36	46	381
1:30	4	1	21	13:30	58	48	409
1:45	5	1	23	13:45	37	30	370
2:00	3	1	19	14:00	58	50	363
2:15	1	4	20	14:15	48	27	356
2:30	2	0	17	14:30	60	41	351
2:45	4	2	17	14:45	45	42	371
3:00	2	0	15	15:00	40	53	356
3:15	2	1	13	15:15	45	70	396
3:30	4	1	16	15:30	52	49	396
3:45	2	0	12	15:45	58	55	422
4:00	4	0	14	16:00	46	44	419
4:15	1	2	14	16:15	63	48	415
4:30	2	3	14	16:30	44	49	407
4:45	1	7	20	16:45	62	39	395
5:00	1	6	23	17:00	49	41	395
5:15	0	1	21	17:15	56	58	398
5:30	0	4	20	17:30	37	43	365
5:45	2	4	18	17:45	35	45	364
6:00	6	11	28	18:00	33	42	349
6:15	3	7	37	18:15	39	28	302
6:30	6	9	48	18:30	36	39	297
6:45	10	19	71	18:45	24	29	270
7:00	17	22	93	19:00	21	24	240
7:15	15	12	110	19:15	19	25	217
7:30	14	23	132	19:30	23	31	196
7:45	15	24	142	19:45	16	22	181
8:00	24	34	161	20:00	21	22	179
8:15	29	21	184	20:15	27	17	179
8:30	21	32	200	20:30	21	25	171
8:45	34	41	236	20:45	16	11	160
9:00	28	53	259	21:00	18	13	148
9:15	27	25	261	21:15	20	11	135
9:30	36	23	267	21:30	18	9	116
9:45	29	34	255	21:45	19	12	120
10:00	32	36	242	22:00	18	12	119
10:15	34	45	269	22:15	12	9	109
10:30	31	37	278	22:30	13	17	112
10:45	34	36	285	22:45	19	11	111
11:00	49	45	311	23:00	14	5	100
11:15	33	43	308	23:15	15	10	104
11:30	36	42	318	23:30	5	5	84
11:45	35	40	323	23:45	9	5	68
12:00	50	48	327	0:00	12	7	68

AM Peak: 327	PM Peak: 422	24 HR VOLUME: 4668
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STAMSON CALCULATIONS

STAMSON 5.04 SUMMARY REPORT Date: 15-08-2025 12:06:26
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

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

Description: R1 - East Facade Block A Main Floor

TOTAL Leq FROM ALL SOURCES

(DAY): 49.56

(NIGHT): 43.85

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

Car traffic volume : 6235/693 veh/TimePeriod *
Medium truck volume : 130/14 veh/TimePeriod *
Heavy truck volume : 130/14 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

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

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 67.00 / 67.00 m
Receiver height : 3.00 / 3.00 m
Topography : 1 (Flat/gentle slope; no barrier)

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

Car traffic volume : 6235/693 veh/TimePeriod *
Medium truck volume : 130/14 veh/TimePeriod *
Heavy truck volume : 130/14 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 2: Valley Way (day/night)

```

-----
Angle1   Angle2           :   -0.00 deg   25.00 deg
Wood depth           :           0   (No woods.)
No of house rows    :           1 / 0
Surface             :           1   (Absorptive ground surface)
Receiver source distance : 140.00 / 140.00 m
Receiver height      :           3.00 / 3.00 m
Topography          :           1   (Flat/gentle slope; no barrier)
    
```

Result summary (day)

```

-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Portage Rd ! 1.19 ! 49.32 ! 49.32
2.Valley Way ! 1.19 ! 36.88 ! 36.88
-----+-----+-----+-----
Total 49.56 dBA
    
```

Result summary (night)

```

-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Portage Rd ! 1.18 ! 43.61 ! 43.61
2.Valley Way ! 1.18 ! 31.14 ! 31.14
-----+-----+-----+-----
Total 43.85 dBA
    
```

STAMSON 5.04 SUMMARY REPORT Date: 15-08-2025 12:07:44
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r2valley.te Time Period: Day/Night 16/8 hours

Description: R2 - East Facade Block A Upper Floor

TOTAL Leq FROM ALL SOURCES

(DAY): 50.32

(NIGHT): 44.60

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

Car traffic volume : 6235/693 veh/TimePeriod *
Medium truck volume : 130/14 veh/TimePeriod *
Heavy truck volume : 130/14 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

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

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 67.00 / 67.00 m
Receiver height : 6.00 / 6.00 m
Topography : 1 (Flat/gentle slope; no barrier)

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

Car traffic volume : 6235/693 veh/TimePeriod *
Medium truck volume : 130/14 veh/TimePeriod *
Heavy truck volume : 130/14 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 2: Valley Way (day/night)

```

-----
Angle1   Angle2           :  -0.00 deg   25.00 deg
Wood depth           :      0      (No woods.)
No of house rows     :      1 / 0
Surface              :      1      (Absorptive ground surface)
Receiver source distance : 140.00 / 140.00 m
Receiver height       :      6.00 / 6.00 m
Topography           :      1      (Flat/gentle slope; no barrier)
    
```

Result summary (day)

```

-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Portage Rd ! 1.19 ! 50.07 ! 50.07
2.Valley Way ! 1.19 ! 37.76 ! 37.76
-----+-----+-----+-----
Total 50.32 dBA
    
```

Result summary (night)

```

-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Portage Rd ! 1.18 ! 44.35 ! 44.35
2.Valley Way ! 1.18 ! 32.03 ! 32.03
-----+-----+-----+-----
Total 44.60 dBA
    
```

STAMSON 5.04 SUMMARY REPORT Date: 15-08-2025 12:14:21
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r3valley.te Time Period: Day/Night 16/8 hours

Description: R3 - East Facade Block B Main Floor

TOTAL Leq FROM ALL SOURCES

(DAY): 48.47

(NIGHT): 42.76

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

Car traffic volume : 6235/693 veh/TimePeriod *
Medium truck volume : 130/14 veh/TimePeriod *
Heavy truck volume : 130/14 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

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

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 81.00 / 81.00 m
Receiver height : 3.00 / 3.00 m
Topography : 1 (Flat/gentle slope; no barrier)

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

Car traffic volume : 6235/693 veh/TimePeriod *
Medium truck volume : 130/14 veh/TimePeriod *
Heavy truck volume : 130/14 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 2: Valley Way (day/night)

```

-----
Angle1   Angle2           :  -0.00 deg   15.00 deg
Wood depth           :      0       (No woods.)
No of house rows     :      1 / 0
Surface              :      1       (Absorptive ground surface)
Receiver source distance :  79.00 / 79.00 m
Receiver height      :      3.00 / 3.00 m
Topography           :      1       (Flat/gentle slope; no barrier)
    
```

Result summary (day)

```

-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Portage Rd ! 1.19 ! 47.98 ! 47.98
2.Valley Way ! 1.19 ! 38.73 ! 38.73
-----+-----+-----+-----
Total 48.47 dBA
    
```

Result summary (night)

```

-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Portage Rd ! 1.18 ! 42.27 ! 42.27
2.Valley Way ! 1.18 ! 33.02 ! 33.02
-----+-----+-----+-----
Total 42.76 dBA
    
```

STAMSON 5.04 SUMMARY REPORT Date: 15-08-2025 12:15:48
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r4valley.te Time Period: Day/Night 16/8 hours

Description: R4 - East Facade Block B Upper Floor

TOTAL Leq FROM ALL SOURCES

(DAY): 49.27

(NIGHT): 43.55

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

Car traffic volume : 6235/693 veh/TimePeriod *
Medium truck volume : 130/14 veh/TimePeriod *
Heavy truck volume : 130/14 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

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

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 81.00 / 81.00 m
Receiver height : 6.00 / 6.00 m
Topography : 1 (Flat/gentle slope; no barrier)

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

Car traffic volume : 6235/693 veh/TimePeriod *
Medium truck volume : 130/14 veh/TimePeriod *
Heavy truck volume : 130/14 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 2: Valley Way (day/night)

```

-----
Angle1   Angle2           :  -0.00 deg   15.00 deg
Wood depth           :      0       (No woods.)
No of house rows     :      1 / 0
Surface              :      1       (Absorptive ground surface)
Receiver source distance :  79.00 / 79.00 m
Receiver height       :      6.00 / 6.00 m
Topography           :      1       (Flat/gentle slope; no barrier)
    
```

Result summary (day)

```

-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Portage Rd ! 1.19 ! 48.80 ! 48.80
2.Valley Way ! 1.19 ! 39.39 ! 39.39
-----+-----+-----+-----
Total 49.27 dBA
    
```

Result summary (night)

```

-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Portage Rd ! 1.18 ! 43.08 ! 43.08
2.Valley Way ! 1.18 ! 33.67 ! 33.67
-----+-----+-----+-----
Total 43.55 dBA
    
```

STAMSON 5.04 SUMMARY REPORT Date: 15-08-2025 12:50:49
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r5valley.te Time Period: Day/Night 16/8 hours

Description: R5 - South Facade Block C Main Floor

TOTAL Leq FROM ALL SOURCES

(DAY): 50.18

(NIGHT): 43.57

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

Car traffic volume : 6235/693 veh/TimePeriod *
Medium truck volume : 130/14 veh/TimePeriod *
Heavy truck volume : 130/14 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

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

Angle1 Angle2 : -25.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 137.00 / 137.00 m
Receiver height : 3.00 / 3.00 m
Topography : 1 (Flat/gentle slope; no barrier)

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

Car traffic volume : 6235/693 veh/TimePeriod *
Medium truck volume : 130/14 veh/TimePeriod *
Heavy truck volume : 130/14 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 2: Valley Way (day/night)

```

-----
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth           :           0   (No woods.)
No of house rows     :           0 / 0
Surface              :           1   (Absorptive ground surface)
Receiver source distance : 70.00 / 70.00 m
Receiver height      :           3.00 / 3.00 m
Topography           :           1   (Flat/gentle slope; no barrier)
    
```

Result summary (day)

```

-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Portage Rd ! 1.19 ! 37.91 ! 37.91
2.Valley Way ! 1.19 ! 49.91 ! 49.91
-----+-----+-----+-----
Total 50.18 dBA
    
```

Result summary (night)

```

-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Portage Rd ! 1.18 ! 31.29 ! 31.29
2.Valley Way ! 1.18 ! 43.30 ! 43.30
-----+-----+-----+-----
Total 43.57 dBA
    
```

STAMSON 5.04 SUMMARY REPORT Date: 15-08-2025 12:51:26
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r6valley.te Time Period: Day/Night 16/8 hours

Description: R6 - South Facade Block C Upper Floor

TOTAL Leq FROM ALL SOURCES

(DAY): 50.94

(NIGHT): 44.33

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

Car traffic volume : 6235/693 veh/TimePeriod *
Medium truck volume : 130/14 veh/TimePeriod *
Heavy truck volume : 130/14 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

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

Angle1 Angle2 : -25.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 137.00 / 137.00 m
Receiver height : 6.00 / 6.00 m
Topography : 1 (Flat/gentle slope; no barrier)

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

Car traffic volume : 6235/693 veh/TimePeriod *
Medium truck volume : 130/14 veh/TimePeriod *
Heavy truck volume : 130/14 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 2: Valley Way (day/night)

```

-----
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth           :      0      (No woods.)
No of house rows     :      0 / 0
Surface              :      1      (Absorptive ground surface)
Receiver source distance : 70.00 / 70.00 m
Receiver height       :      6.00 / 6.00 m
Topography           :      1      (Flat/gentle slope; no barrier)
    
```

Result summary (day)

```

-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Portage Rd ! 1.19 ! 38.79 ! 38.79
2.Valley Way ! 1.19 ! 50.67 ! 50.67
-----+-----+-----+-----
Total 50.94 dBA
    
```

Result summary (night)

```

-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Portage Rd ! 1.18 ! 32.17 ! 32.17
2.Valley Way ! 1.18 ! 44.06 ! 44.06
-----+-----+-----+-----
Total 44.33 dBA
    
```

STAMSON 5.04 SUMMARY REPORT Date: 15-08-2025 12:57:27
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r7valley.te Time Period: Day/Night 16/8 hours

Description: R7 - West Facade Block D Main Floor

TOTAL Leq FROM ALL SOURCES

(DAY): 46.14

(NIGHT): 39.52

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

```
-----
Car traffic volume : 6235/693   veh/TimePeriod *
Medium truck volume : 130/14    veh/TimePeriod *
Heavy truck volume  : 130/14    veh/TimePeriod *
Posted speed limit  : 50 km/h
Road gradient       : 0 %
Road pavement      : 1 (Typical asphalt or concrete)
```

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

```
24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth      : 2.00
Number of Years of Growth        : 22.00
Medium Truck % of Total Volume   : 2.00
Heavy Truck % of Total Volume    : 2.00
Day (16 hrs) % of Total Volume   : 90.00
```

Data for Segment # 1: Valley Way (day/night)

```
-----
Angle1  Angle2      : -90.00 deg  0.00 deg
Wood depth      : 0          (No woods.)
No of house rows : 0 / 0
Surface         : 1          (Absorptive ground surface)
Receiver source distance : 78.00 / 78.00 m
Receiver height  : 3.00 / 3.00 m
Topography      : 1          (Flat/gentle slope; no barrier)
```

Result summary (day)

```
-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Valley Way ! 1.19 ! 46.14 ! 46.14
-----+-----+-----+-----
Total 46.14 dBA
```

Result summary (night)

```
-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Valley Way ! 1.18 ! 39.52 ! 39.52
-----+-----+-----+-----
Total 39.52 dBA
```

STAMSON 5.04 SUMMARY REPORT Date: 15-08-2025 12:58:34
 MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r8valley.te Time Period: Day/Night 16/8 hours

Description: R8 - West Facade Block D Upper Floor

TOTAL Leq FROM ALL SOURCES

(DAY): 46.94

(NIGHT): 40.32

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

```
-----
Car traffic volume : 6235/693   veh/TimePeriod *
Medium truck volume : 130/14   veh/TimePeriod *
Heavy truck volume : 130/14   veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient      : 0 %
Road pavement     : 1 (Typical asphalt or concrete)
```

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

```
24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth      : 2.00
Number of Years of Growth        : 22.00
Medium Truck % of Total Volume   : 2.00
Heavy Truck % of Total Volume    : 2.00
Day (16 hrs) % of Total Volume   : 90.00
```

Data for Segment # 1: Valley Way (day/night)

```
-----
Angle1  Angle2      : -90.00 deg  0.00 deg
Wood depth      : 0          (No woods.)
No of house rows : 0 / 0
Surface         : 1          (Absorptive ground surface)
Receiver source distance : 78.00 / 78.00 m
Receiver height  : 6.00 / 6.00 m
Topography      : 1          (Flat/gentle slope; no barrier)
```

Result summary (day)

```
-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Valley Way ! 1.19 ! 46.94 ! 46.94
-----+-----+-----+-----
Total 46.94 dBA
```

Result summary (night)

```
-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Valley Way ! 1.18 ! 40.32 ! 40.32
-----+-----+-----+-----
Total 40.32 dBA
```

STAMSON 5.04 SUMMARY REPORT Date: 15-08-2025 12:59:37
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r9valley.te Time Period: Day/Night 16/8 hours

Description: R9 - West Facade Block E Main Floor

TOTAL Leq FROM ALL SOURCES (DAY): 35.11
(NIGHT): 28.49

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

```
-----
Car traffic volume : 6235/693   veh/TimePeriod *
Medium truck volume : 130/14   veh/TimePeriod *
Heavy truck volume : 130/14   veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient      : 0 %
Road pavement     : 1 (Typical asphalt or concrete)
```

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

```
24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth      : 2.00
Number of Years of Growth        : 22.00
Medium Truck % of Total Volume   : 2.00
Heavy Truck % of Total Volume    : 2.00
Day (16 hrs) % of Total Volume   : 90.00
```

Data for Segment # 1: Valley Way (day/night)

```
-----
Angle1  Angle2      : -15.00 deg  0.00 deg
Wood depth      : 0 (No woods.)
No of house rows : 0 / 0
Surface         : 1 (Absorptive ground surface)
Receiver source distance : 150.00 / 150.00 m
Receiver height  : 3.00 / 3.00 m
Topography      : 1 (Flat/gentle slope; no barrier)
```

Result summary (day)

```
-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+
1.Valley Way ! 1.19 ! 35.11 ! 35.11
-----+-----+-----+
Total 35.11 dBA
```

Result summary (night)

```
-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+
1.Valley Way ! 1.18 ! 28.49 ! 28.49
-----+-----+-----+
Total 28.49 dBA
```

STAMSON 5.04 SUMMARY REPORT Date: 15-08-2025 13:02:20
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: R10valle.te Time Period: Day/Night 16/8 hours

Description: R10 - West Facade Block E Upper Floor

TOTAL Leq FROM ALL SOURCES

(DAY): 36.01

(NIGHT): 29.40

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

```
-----
Car traffic volume : 6235/693 veh/TimePeriod *
Medium truck volume : 130/14 veh/TimePeriod *
Heavy truck volume : 130/14 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)
```

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

```
24 hr Traffic Volume (AADT or SADT): 4668
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00
```

Data for Segment # 1: Valley Way (day/night)

```
-----
Angle1 Angle2 : -15.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 150.00 / 150.00 m
Receiver height : 6.00 / 6.00 m
Topography : 1 (Flat/gentle slope; no barrier)
```

Result summary (day)

```
-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+
1.Valley Way ! 1.19 ! 36.01 ! 36.01
-----+-----+-----+
Total 36.01 dBA
```

Result summary (night)

```
-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+
1.Valley Way ! 1.18 ! 29.40 ! 29.40
-----+-----+-----+
Total 29.40 dBA
```

SITE STATISTICS

SITE STATISTICS	
MUNICIPAL ADDRESS:	6009-6017 VALLEY WAY
OFFICIAL PLAN DESIGNATION	RESIDENTIAL
ZONING DESIGNATION	INSTITUTIONAL (I)
LAND AREA (GROSS)	10,863.7 SQM
LAND AREA (NET, AFTER PUBLIC ROAD)	9,700 SQM
NO. OF STACKED TOWN UNITS	99
BUILDING HEIGHT	MAX. 9 M
DENSITY	102 UPH
NO. OF PARKING SPACES	100 (1.10 SPACES/UNIT)
LOT COVERAGE	21.8%
LANDSCAPED OPEN SPACE	42.8%

EXTERIOR WALL STC RATINGS

EXTERIOR WALL STC RATINGS

Wall Configuration	EW1	EW2	EW3	EW4	EW1R	EW2R	EW3R	EW5	EW4R	EW6	EW7 EW5R	EW8
STC Rating	38	40	43	46	47	48	49	54	55	57	58	62

Source: National Research Council, Division of Building Research

NOTES:

- 1 The common structure of walls EW1 to EW5 is composed of 12.7mm gypsum board, vapour barrier and 38x89 mm studs with 50 mm (or thicker) mineral wool or glass fibre batts in inter-stud cavities.
 - EW1 denotes the common structure, plus sheathing, plus wood siding or metal siding and fibre backer board
 - EW2 denotes the common structure, plus rigid insulation (25 to 30 mm), and wood siding or metal siding and fibre backer board.
 - EW3 denotes simulated mansard with the common structure, plus sheathing, 28 X89 mm framing, sheathing and asphalt roofing material
 - EW4 denotes the common structure, plus sheathing and 20 mm stucco.
 - EW5 denotes the common structure, plus sheathing, 25 mm air space, 100mm brick veneer.
 - EW6 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25 to 50 mm), 100 mm back-up block 100 mm face brick.
 - EW7 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25 to 50 mm), 140mm back-up block, 100 mm face brick.
 - EW8 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25 to 50 mm), 200 mm concrete.
- 2 R signifies the mounting of the interior gypsum board on resilient clips.
- 3 An exterior wall conforming to rainscreen design principles and composed of 12.7 mm gypsum board, 100 mm concrete block, rigid insulation (25 to 50 mm), 25 mm air space, and 100 mm brick veneer has the same STC as EW6.
- 4 An exterior wall described in EW1 with the addition of rigid insulation (25 to 50 mm) between the sheathing and the external finish has the same STC as EW2.