Noise Impact Study

200 Weber Street North
Waterloo, Ontario

Uniweber Properties Inc.

19 December 2024

→ **The Power of Commitment**



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Document Status

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Executive Summary

GHD Limited (GHD) was retained by *Uniweber Properties Inc.* to prepare a Noise Impact Study (Study) for the proposed commercial development (Development) located at 200 Weber Street North, Waterloo, Ontario (Site). This Study has been prepared in support of the planning approvals for the Development.

The Development consists of one multi-tenant commercial building with a supermarket on the first floor and offices on the second floor. There is a loading bay at the northeast corner of the building used for receiving food products.

The purpose of this Study is to assess the potential for stationary noise impacts from commercial Development on the surrounding sensitive land uses.

Stationary noise levels from the Development at the surrounding sensitive receptors are within the applicable stationary noise limits of the MECP, provided that the sound level performance specifications, and administrative controls are implemented.

This Study is subject to, and must be read in conjunction with, the limitations set out in section 1.3 and the assumptions and qualifications contained throughout the Study.

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1. Introduction

1.1 Purpose of this Report

GHD Limited (GHD) was retained by *Uniweber Properties Inc.* to prepare a Noise Impact Study (Study) for the proposed commercial Development located at 200 Weber Street North, Waterloo, Ontario (Development). This Study has been prepared in support of the planning applications for the Development.

1.2 Site and Development Description

The Site is located at 200 Weber Street North, approximately 160 metres south of University Avenue East and 130 metres north of Marshall Street. A key plan is included as Figure 1.1, which shows the location of the Site in relation to these transportation corridors.

The Site is currently zoned as Corridor Commercial (C5-27). The lands surrounding the Site include properties zoned as Corridor Commercial (C5-27, C5-40, C5-20) to the north, south, and west, and Residential (RMU-20) to the east. A zoning map is included in Figure A.1 of Appendix A.

The area surrounding the Site is relatively flat and has been captured in the model with elevation contours obtained from the City of Waterloo Open Data website.

The Development consists of one multi-tenant commercial building with a supermarket on the first floor and offices on the second floor. There is a loading bay to the northeast of the building used for receiving food products.

1.3 Scope and Limitations

This report: has been prepared by GHD for Uniweber Properties Inc. and may only be used and relied on by Uniweber Properties Inc. for the purpose agreed between GHD and Uniweber Properties Inc. as set out in section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than Uniweber Properties Inc. arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

2. Sound Criteria

2.1 Stationary Noise Limits

NPC-300 defines stationary noise sources as sound from all sources that are normally operated within the property lines of a facility. The noise impact from stationary sources is evaluated based on operations during a predictable worst-case hour. Stationary noise assessment criteria are generally determined based on the MECP's minimum

exclusionary sound level limits, as presented in NPC-300, in comparison to the background sound levels experienced in the area.

The Site is in what would generally be considered a Class 1 acoustic environment as defined by NPC-300, as the acoustic environment is dominated by human activities (i.e., road traffic).

Table 2.1 below summarizes the MECP's minimum exclusionary sound level limits for Class 1 areas, which are expressed in terms of 1-hour equivalent sound levels (1-hour Leq):

Table 2.1 MECP Minimum Exclusionary Sound Level Limits for Steady Sound – Class 1 Area

Point of Reception Type	Sound Level Limits (dBA)	
	Day (7am – 11pm)	Night (11pm – 7am)
Plane of window	50	45
Outdoor space	50	--

3. Stationary Noise Impact Assessment

3.1 Methodology

Detailed assessment of noise impacts from the facility has been carried out using CadnaA version 2024 (CadnaA). CadnaA is the industry standard for noise modelling of industrial and commercial facilities and is based on ISO standard 9613 2 “Acoustics – Attenuation of Sound during Propagation Outdoors”. CadnaA modelling assumptions used in this Study include:

– Reflection Order: A maximum reflection order of 2 was used to evaluate indirect noise impact from reflecting surfaces.
– Ground Absorption: The model was set up with conservative ground absorption coefficients of 0 for asphalt surfaces and 1.0 for absorptive areas of grass. A map of the ground absorption coefficients is provided as Figure 3.1.
– Receptor Elevation: POR receptor heights were modelled appropriately based on an assumed storey height of 3 m.
– Tonality: A 5 dBA tonal penalty was applied to tonal sources, if applicable.
– Building Surfaces: The buildings are modelled as reflective surfaces.

3.2 Stationary Noise Sources

Stationary noise sources have been assessed using assumptions described in the sections that follow. Noise source locations are identified in Figure 3.2. Source sound level data, operating conditions, and heights are included in Table B.1 of Appendix B.

3.2.1 Waste Compactor

The Development will utilize a waste compactor in the area directly south of the loading bays. GHD modelled this compactor sound power levels for typical waste compaction units. The unit is conservatively modelled to operate five minutes during the worst-case hour of the day.

3.2.2 Refrigerated Trucks

The Development is assumed to receive deliveries via heavy refrigerated trucks on a regular basis. The number of truck movements was assumed to be 2 truck movements during the predictable worst-case hours of the day and night.

Noise emissions associated with deliveries were modelled using one line source with noise emissions calculated based on sound level data for medium truck movements published by the United States Federal Highway Administration.

Refrigerated trucks will be unloaded in enclosed loading bays with their respective refrigeration units operating. The model predictions assume that two trucks would be unloaded within the enclosed loading bays with the doors closed. Breakout noise predictions assume that surfaces of the loading bay will be highly reflective (i.e., concrete, painted concrete masonry, and steel deck / overhead doors), with the transmission loss of the bay door based on 16-gauge galvanized steel (approximately STC-32).

3.2.3 HVAC Equipment

The Development will utilize roof-mounted heating, ventilation, and air conditioning (HVAC) equipment. GHD modelled these HVAC systems using achievable not-to-exceed sound power levels for typical HVAC units. The truck bay ventilation fan and office HVAC units were modelled using representative sound data from past GHD projects. With exception of the loading bay exhaust fan, the HVAC systems are conservatively modelled to operate continuously during the day, and on a 50% duty cycle at night (30 minutes per hour). The not-to-exceed sound power level for the supermarket rooftop HVAC units is **80 dBA**.

The supermarket is expected to include a condenser unit, which is assumed to be located on the roof near the loading bays. GHD modelled this source using achievable not-to-exceed sound power levels for typical condenser units. This unit was conservatively modelled to operate continuously during the day, and on a 50% duty cycle at night (30 minutes per hour). The not-to-exceed sound power level for the condenser unit is **85 dBA**.

3.3 Point of Reception Summary

The identification of appropriate sensitive point(s) of reception (POR) is necessary to conduct the noise analysis. A "point of reception" is any point on the premises of a person where sound, originating from other than those premises, is received. The point of reception may be located on permanent or seasonal residences, nursing/retirement homes, rental residences, hospitals, campgrounds, schools, or places of worship.

The objective of this Study is to determine the predictable worst case 1-hour equivalent sound level (1-hour Leq) at the existing and proposed worst case POR(s). The worst-case POR(s) are defined as the sensitive receptors with the greatest potential exposure to the Development noise sources due to proximity and direct line of sight exposure. The worst-case sensitive POR(s) are:

– POR-01a: second storey of the north façade of the House of Friendship – ShelterCare (Homeless Shelter at 190 Weber St N). Worst-case receptor to the east, 4.5 metres above grade (m A.G.)
– POR-01b: second storey of the north façade of the House of Friendship – ShelterCare. Worst-case receptor to the west, 4.5 m A.G.
– POR-02a: second storey of the west façade of the residential townhouse located at 98 Marsland Drive. Worst-case receptor located at 4.5 m A.G.
– POR-02b: front yard of the residential townhouse located at 98 Marsland Drive. Worst-case receptor located at 1.5 m A.G.

The location of the worst-case POR(s) are identified on Figure 3.3.

3.4 Results

Using the 3D model described above, predicted noise levels at the worst-case PORs surrounding Development are summarized as follows in terms of 1-hour Leq:

Table 3.1 Unmitigated Stationary Noise Prediction Results Summary

POR ID and Description	Predicted Noise Level (dBA)		Sound Level Limit (dBA)		Limits Exceeded?
	Day	Night	Day	Night	
POR-01a	49	**48**	50	45	Yes
POR-01b	48	**47**	50	45	Yes
POR-02a	49	44	50	45	No
POR-02b	49	--	50	--	No

As seen above, predicted noise levels exceed the applicable sound level limits of NPC-300 at POR-01a, and 01b. As such, noise mitigation must be implemented to comply with the Noise By-Law and NPC-300. The unmitigated steady noise contours are shown in Figure 3.4 and a sample CadnaA calculation is included in Appendix C representing POR-01a.

3.5 Stationary Noise Mitigation

In order to mitigate the noise levels experienced at the sensitive receptors surrounding the Development, GHD recommends the following mitigation measures:

– Administrative controls in place that restrict shipping/receiving operations to daytime hours only (i.e., between 7:00 a.m. and 11:00 p.m.)
– The exterior loading bay door(s) must be fitted with effective, continuous weather stripping/seals to mitigate sound leakage around the perimeter of the door

With implementation of the above mitigation measures, the sound levels at the surrounding sensitive receptors are as follows:

Table 3.2 Mitigated Stationary Noise Prediction Results Summary

POR ID and Description	Predicted Noise Level (dBA)		Sound Level Limit (dBA)		Limits Exceeded?
	Day	Night	Day	Night	
POR-01a	49	44	50	45	No
POR-01b	48	42	50	45	No
POR-02a	49	40	50	45	No
POR-02b	49	--	50	--	No

As seen above, predicted stationary noise levels at the worst-case residential PORs surrounding the Development are within the applicable sound level limits of NPC-300 with the inclusion of the recommended mitigation. The mitigated steady noise contours are shown in Figure 3.5.

4. Conclusions

The Study concludes that the proposed Development is feasible and will operate within the MECP sound level limits at the surrounding sensitive uses, provided that the not-to-exceed sound power levels and administrative controls are implemented as outlined in this Study (please refer to Section 3.2 and 3.5 respectively).

This Study is preliminary and based on necessary assumptions; therefore, GHD recommends that this assessment be updated once the detailed mechanical design of the Development is available to ensure that the sound level limits of NPC-300 are met. This may be made a condition of approval, to be submitted prior to issuance of a building permit for the Development.

5. References

Ontario Ministry of Environment, Conservation and Parks (MECP, 2013), Publication NPC-300: *Environmental Noise Guideline: Stationary and Transportation Sources – Approval and Planning*



Paper Size ANSI B

0 20 40 60 80 100 m

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 83 UTM Zone 17N

N

GHD

NOISE IMPACT STUDY
UNIWEBER PROPERTIES INC.
200 WEBER STREET NORTH, WATERLOO, ONTARIO

KEY PLAN

Project No. **12656624**
Revision No. **-**
Date **17.01.2025**

FIGURE 1.1

\\ghdnet\ghd\CA\Waterloo\Projects\662\12656624\Tech\Noise\CadnaA\12656624_200Weber_V2024.01.cna
Imagery source: Google Satellite



Paper Size ANSI B

0 10 20 30 40 50 m

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 83 UTM Zone 17N

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NOISE IMPACT STUDY
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MAP OF GROUND ABSORPTION COEFFICIENTS

Project No. **12656624**
Revision No. **-**
Date **17.01.2025**

FIGURE 3.1

\\ghdnet\ghd\CA\Waterloo\Projects\662\12656624\Tech\Noise\CadnaA\12656624_200Weber_V2024.01.cna
Imagery source: Google Satellite



Paper Size ANSI B

0 10 20 30 40 50 m

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 83 UTM Zone 17N

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NOISE IMPACT STUDY
UNIWEBER PROPERTIES INC.
200 WEBER STREET NORTH, WATERLOO, ONTARIO

NOISE SOURCE LOCATION PLAN

Project No. **12656624**
Revision No. **-**
Date **17.01.2025**

FIGURE 3.2

\\ghdnet\ghd\CA\Waterloo\Projects\662\12656624\Tech\Noise\CadnaA\12656624_200Weber_V2024.01.cna
Imagery source: Google Satellite



Paper Size ANSI B

0 10 20 30 40 50 m

N

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 83 UTM Zone 17N

GHD

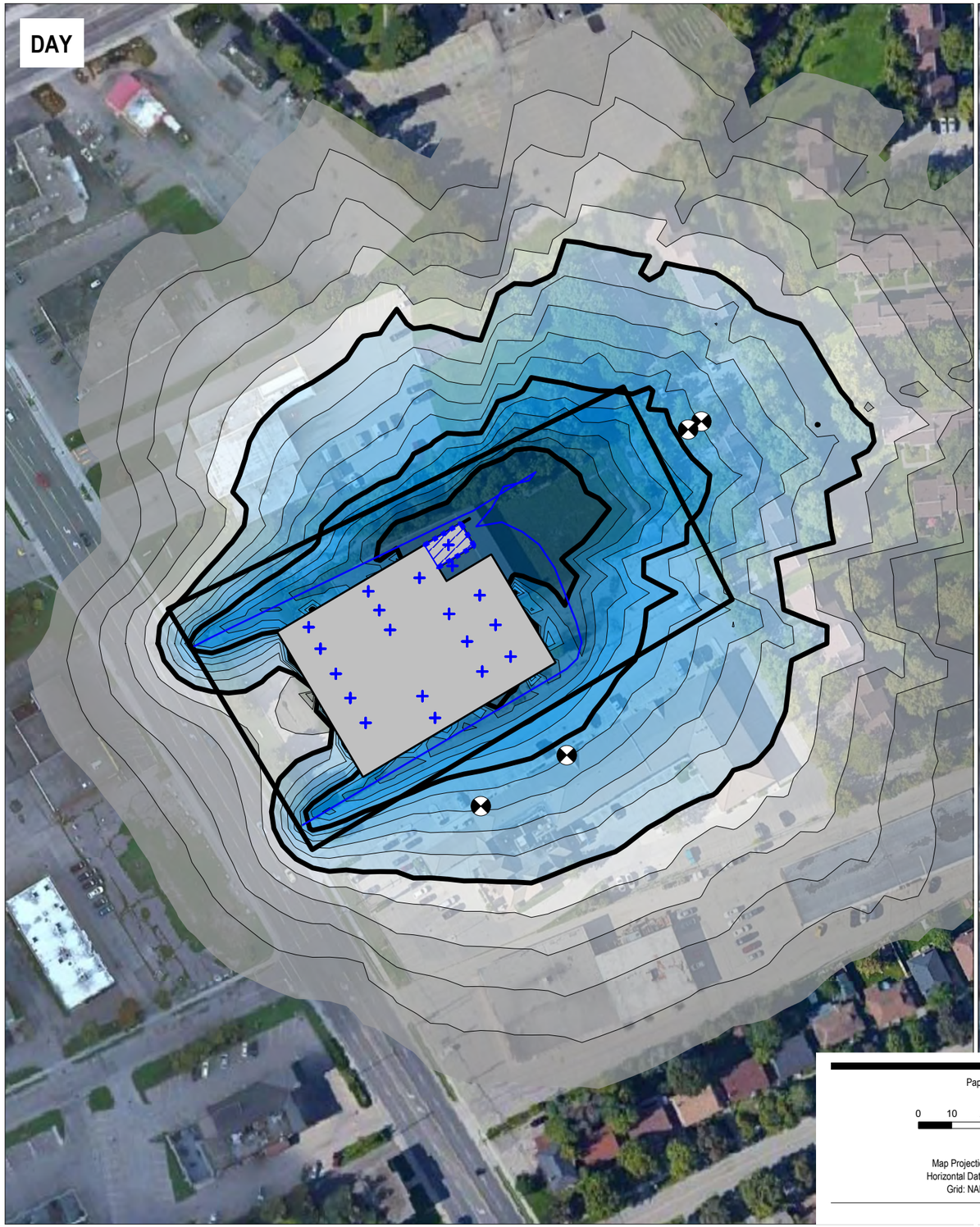
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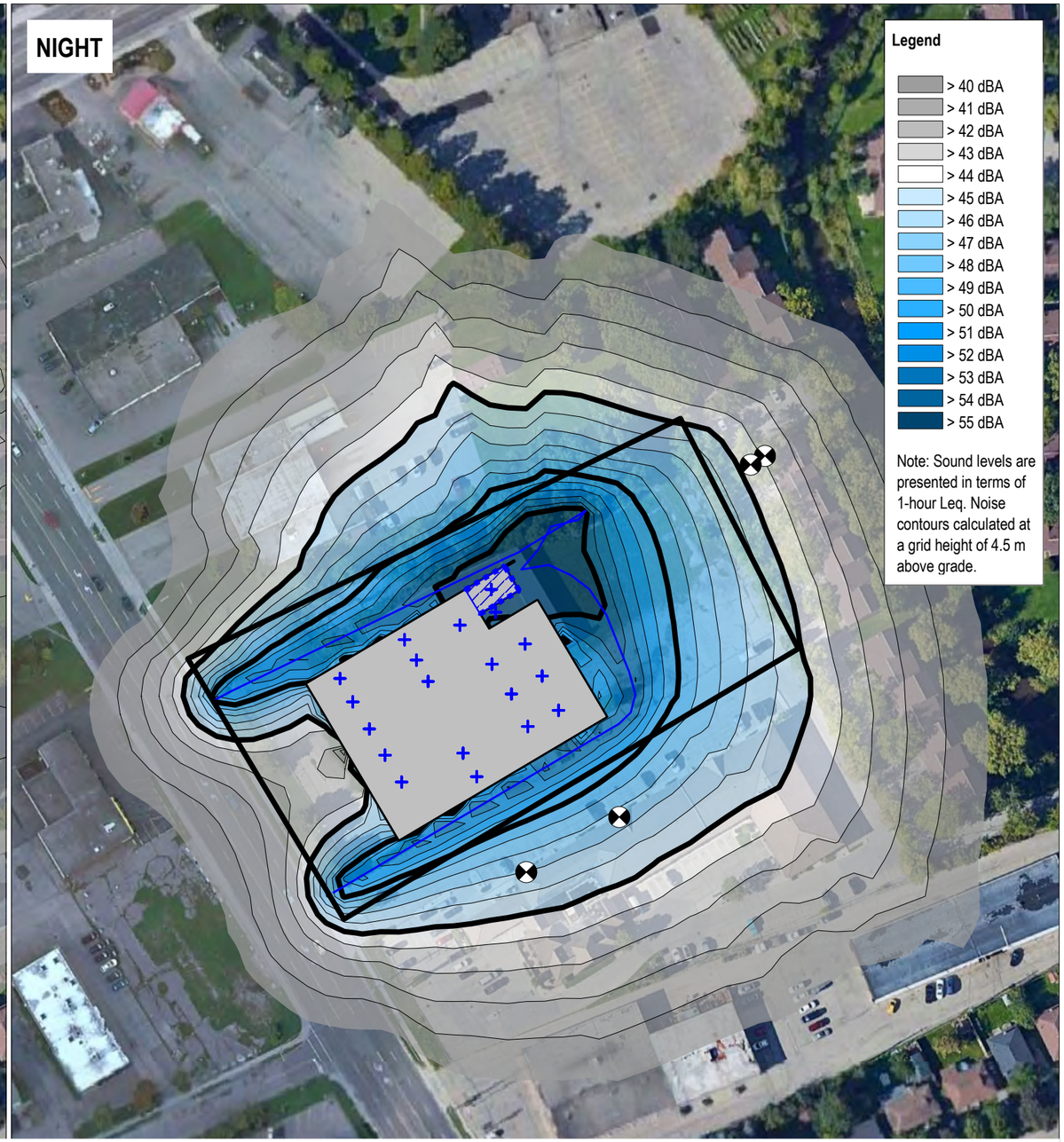
POINT OF RECEPTION LOCATION PLAN

Project No. **12656624**
Revision No. **-**
Date **17.01.2025**

FIGURE 3.3

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Imagery source: Google Satellite





Paper Size ANSI B

0 10 20 30 40 50 m

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 83 UTM Zone 17N

N

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NOISE IMPACT STUDY
UNIWEBER PROPERTIES INC.
200 WEBER STREET NORTH, WATERLOO, ONTARIO

UNMITIGATED STEADY NOISE CONTOUR PLOT

Project No. **12656624**
Revision No. **-**
Date **17.01.2025**

FIGURE 3.4

\\ghdnet\ghd\CA\Waterloo\Projects\662\12656624\Tech\Noise\CadnaA\12656624_200Weber_V2024.01.cna
Imagery source: Google Satellite

DAY

NIGHT

Legend

- > 40 dBA
- > 41 dBA
- > 42 dBA
- > 43 dBA
- > 44 dBA
- > 45 dBA
- > 46 dBA
- > 47 dBA
- > 48 dBA
- > 49 dBA
- > 50 dBA
- > 51 dBA
- > 52 dBA
- > 53 dBA
- > 54 dBA
- > 55 dBA

Note: Sound levels are presented in terms of 1-hour Leq. Noise contours calculated at a grid height of 4.5 m above grade.

Paper Size ANSI B

0 10 20 30 40 50 m

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 83 UTM Zone 17N

N

GHD

NOISE IMPACT STUDY
UNIWEBER PROPERTIES INC.
200 WEBER STREET NORTH, WATERLOO, ONTARIO

MITIGATED STEADY
NOISE CONTOUR PLOT

Project No. **12656624**
Revision No. **-**
Date **17.01.2025**

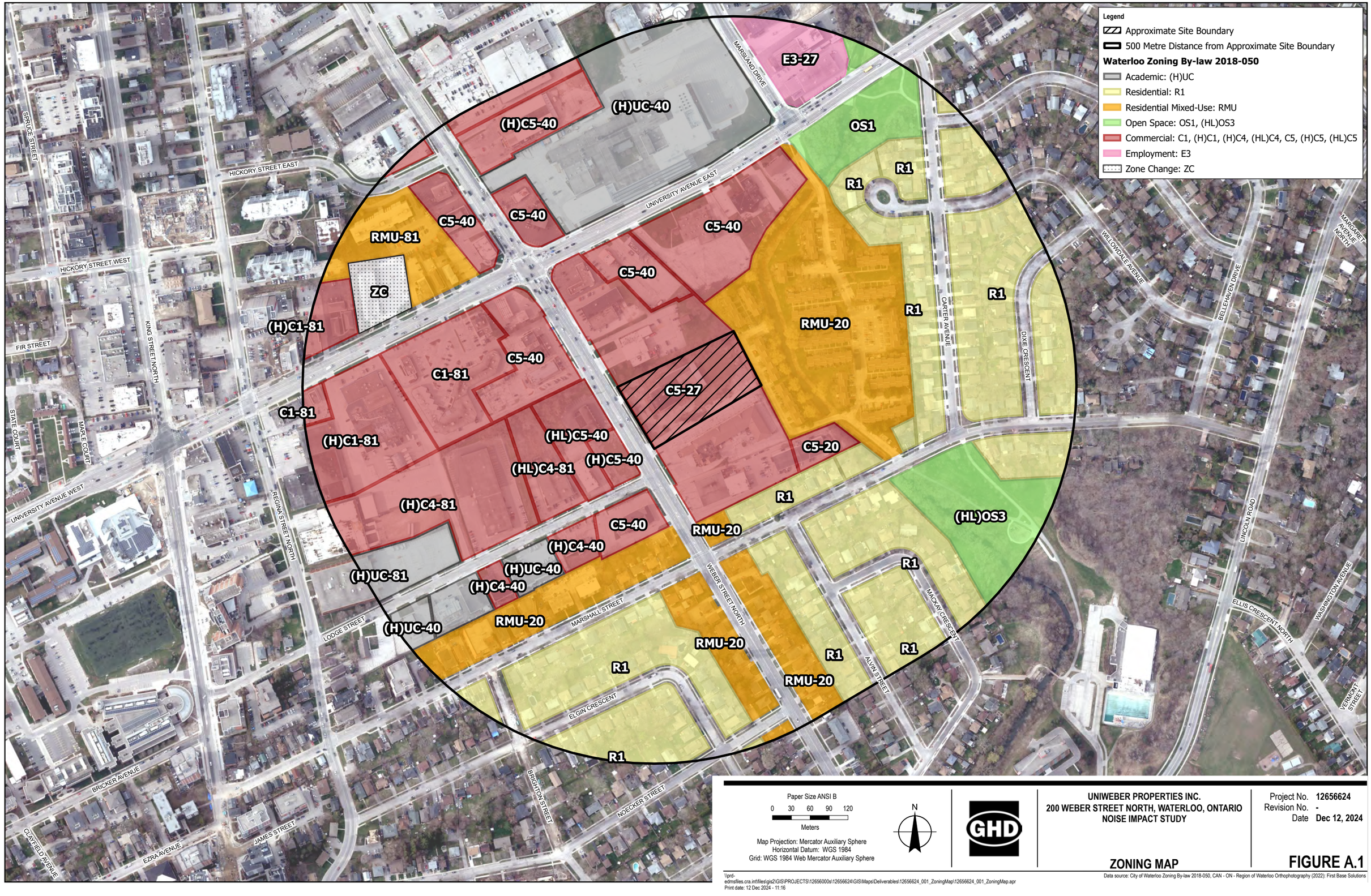
FIGURE 3.5

\\ghdnet\ghd\CA\Waterloo\Projects\662\12656624\Tech\Noise\CadnaA\12656624_200Weber_V2024.01.cna
Imagery source: Google Satellite

Appendices

Appendix A

Zoning Map and Development Drawings



Paper Size ANSI B

0 30 60 90 120

Meters

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxiliary Sphere

N

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200 WEBER STREET NORTH, WATERLOO, ONTARIO
NOISE IMPACT STUDY

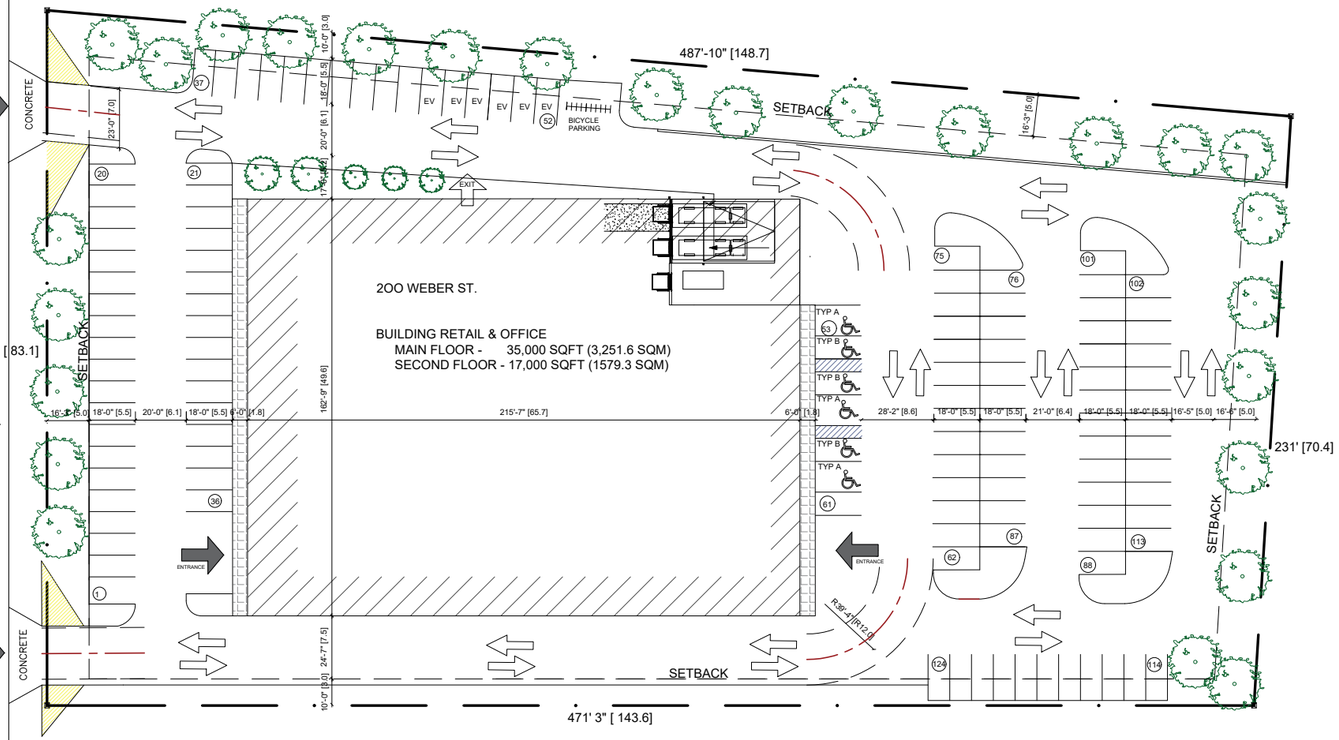
Project No. **12656624**
Revision No. **-**
Date **Dec 12, 2024**

ZONING MAP

FIGURE A.1

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Print date: 12 Dec 2024 - 11:16

Data source: City of Waterloo Zoning By-law 2018-050, CAN - ON - Region of Waterloo Orthophotography (2022): First Base Solutions



CITY OF WATERLOO ZONING BYLAWS FOR PARKING

	REQUIRED	PROVIDED
PARKING (SECTION 8.3.9) BUILDING FLOOR AREA / 100m2 NON-RESIDENTIAL (2.8M X 5.5M)	4877.4/100= 48.7 48.7 X 3.75 = 182.9	
TOTAL	183	124
ACCESSIBLE PARKING (SECTION 6.4) TYPE A (3.7M X 5.5M) QUANTITY : TYPE B (2.4M X 5.5M)QUANTITY :	3 3	3 3
ELECTRIC VEHICLE PARKING PROVISION QUANTITY (SECTION 6.3) :	(3% OF 187) 6	6
LOADING SPACE - TYPE B (SECTION 6.9.4.1) (3M X 12M X 4.5M)	2	2
BICYCLE PARKING (SECTION 6.6.2.C.iv.A)	(10% OF 187) 19	20

AREAS:

LOT: 120,000 SF (11,147.6 SM)
2.768 Acres (1.12 ha)

BUILDING AREA : 35,000 SF (3,251.6 SM)
NO OF FLOORS : 2

FLOOR AREAS	
1ST FLOOR (RETAIL) AREA :	35,000 SF (3,251.6 SM)
2ND FLOOR (OFFICE) AREA :	17,500 SF (1,625.8 SM)
TOTAL BUILDING FLOOR AREA :	52,500 SF (4877.4 SM)

HEIGHT OF BUILDING : 29' (8.8 M)
ZONING: EXISTING C5-27
ZONING PROPOSED: SITE SPECIFIC (REFERENCE FROM C1-20)

SETBACKS (SECTION 8.3.2)	REQUIRED	PROPOSED
FRONT (STREET)	16.4 ft (5.0 m)	16.4 ft (5.0 m)
REAR (EAST)	16.4 ft (5.0 m)	16.4 ft (5.0 m)
SIDE (N)	16.4 ft (5.0 m)	16.4 ft (5.0 m)
SIDE (S) (MINOR VARIANCE)	16.4 ft (5.0 m)	9.8 ft (3.0m)

1 A–1A CONCEPT 1:350

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NuFusion & ASSOCIATES

Ethnic SUPERMARKET

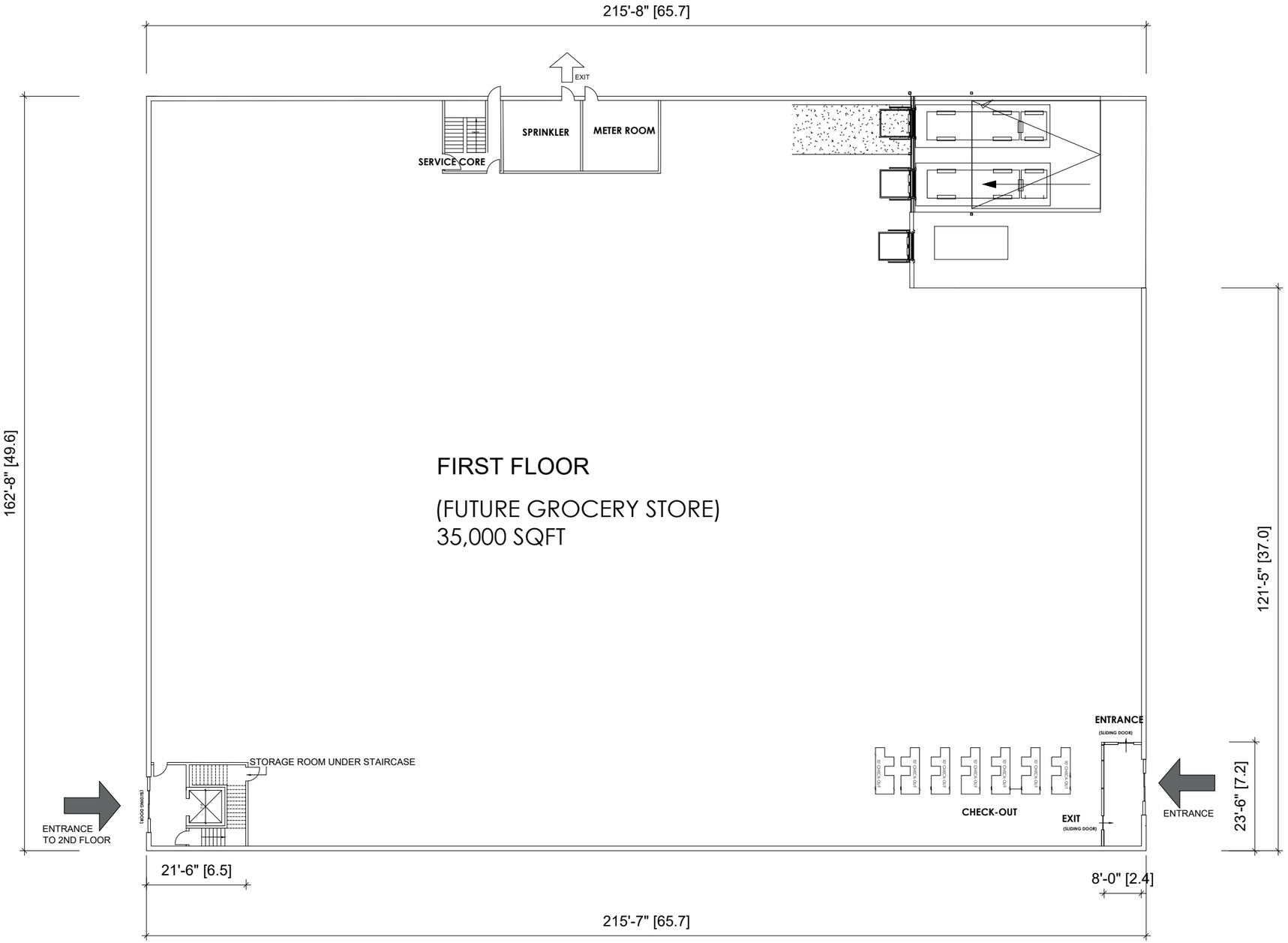
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25 SEP'24		CLIENT REVIEW
31 JUL'24		CLIENT REVIEW
25 JUL'24		CLIENT REVIEW
22 JUL'24		CLIENT REVIEW
19 JUL'24		REVIEW

PROJECT
GROCERY STORE CONCEPT
200 WEBER ST.
WATERLOO ,ON

DWG. TITLE
PROPOSED SITE PLAN – CONCEPT A

DATE : JULY 2024
SCALE : AS NOTED
DESIGNED BY :
DRAWN BY : NS
CHECKED BY : SM
APPROVED BY : SM
PROJECT NO. : 24–128
DWG. NO.
A–1

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1 / A-2 FIRST FLOOR PLAN
3/32"= 1'-0"

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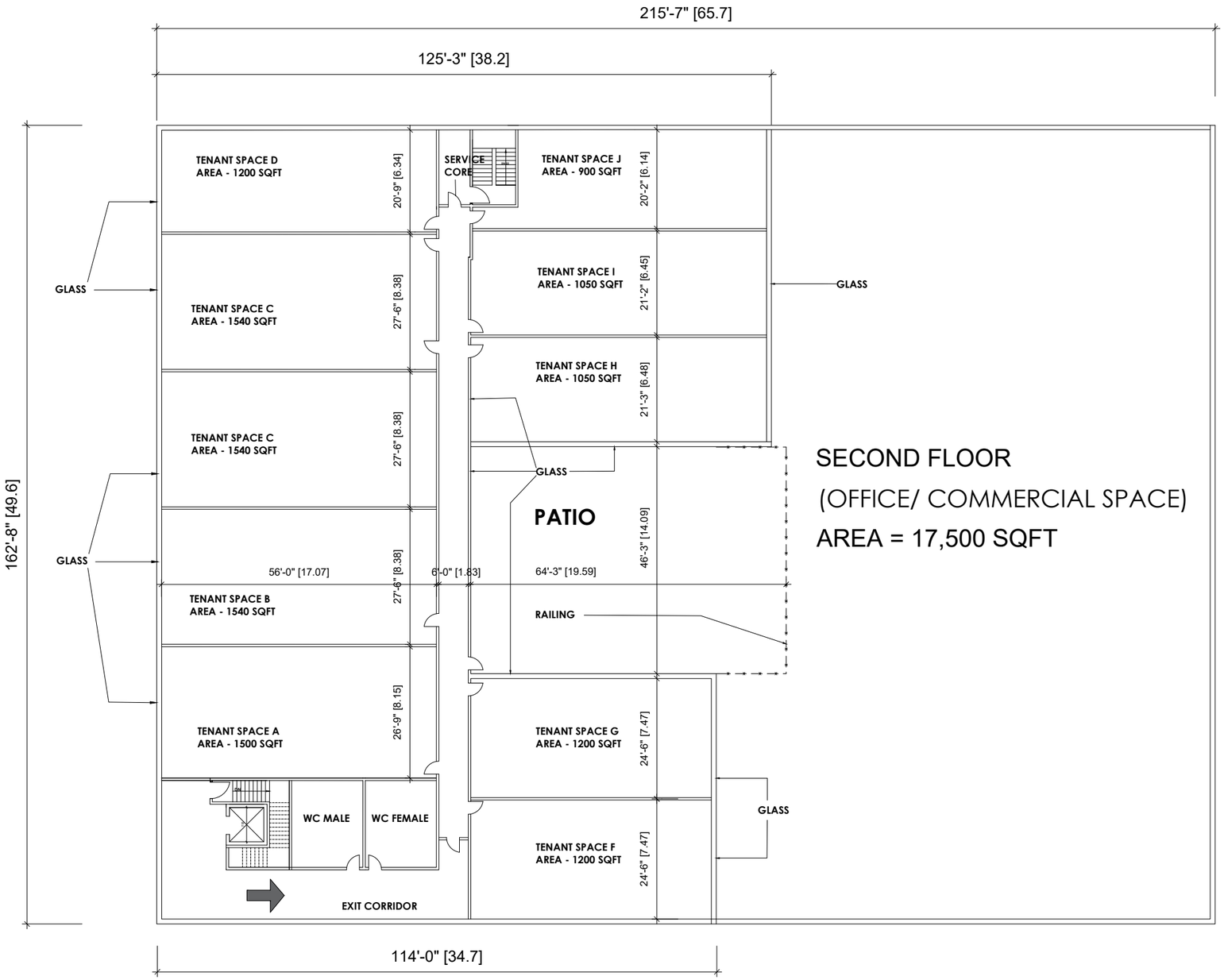
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23 SEP'24		CLIENT REVIEW
31 JUL'24		CLIENT REVIEW
25 JUL'24		CLIENT REVIEW
22 JUL'24		CLIENT REVIEW
19 JUL'24		REVIEW

PROJECT
GROCERY STORE
200 WEBER ST.
WATERLOO ,ON

DWG. TITLE
PROPOSED FIRST FLOOR PLAN

DATE	: JULY 2024
SCALE	: AS NOTED
DESIGNED BY	:
DRAWN BY	: NS
CHECKED BY	: SM
APPROVED BY	: SM
PROJECT NO.	: 24-128
DWG. NO.	A-2



SECOND FLOOR

(OFFICE/ COMMERCIAL SPACE)

AREA = 17,500 SQFT

1 A-3 SECOND FLOOR PLAN

3/32"= 1'-0"

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Ethnic SUPERMARKET

DATE	NO.	ISSUED FOR
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23 JUL'24		CLIENT REVIEW
22 JUL'24		CLIENT REVIEW
19 JUL'24		REVIEW

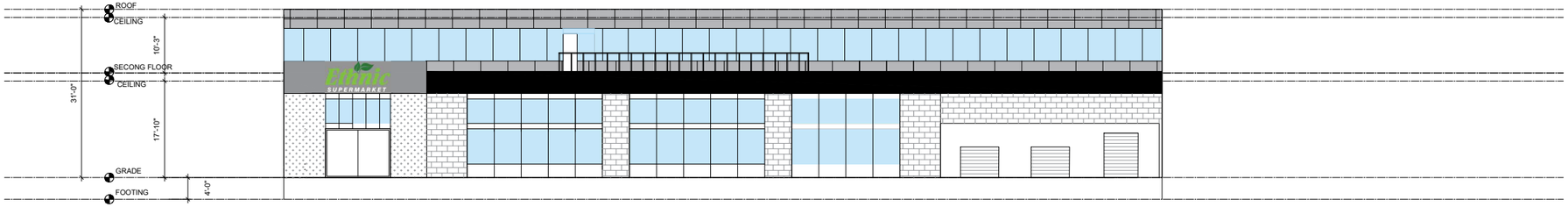
PROJECT

GROCERY STORE
2ND FLOOR
COMMERCIAL SPACE
200 WEBER ST.
WATERLOO ,ON

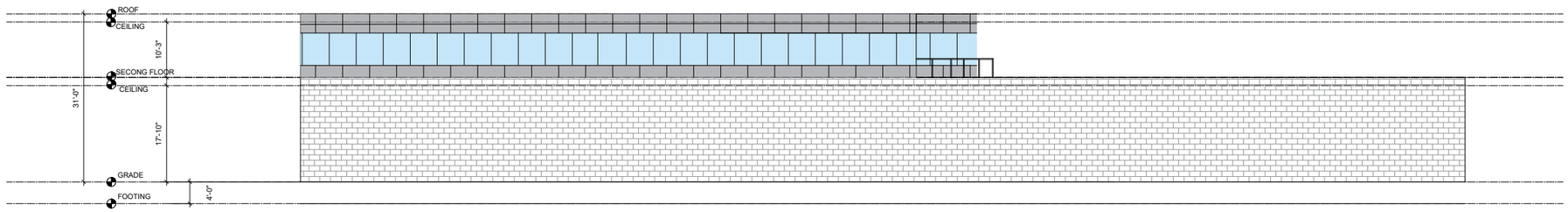
DWG. TITLE

PROPOSED SECOND FLOOR PLAN

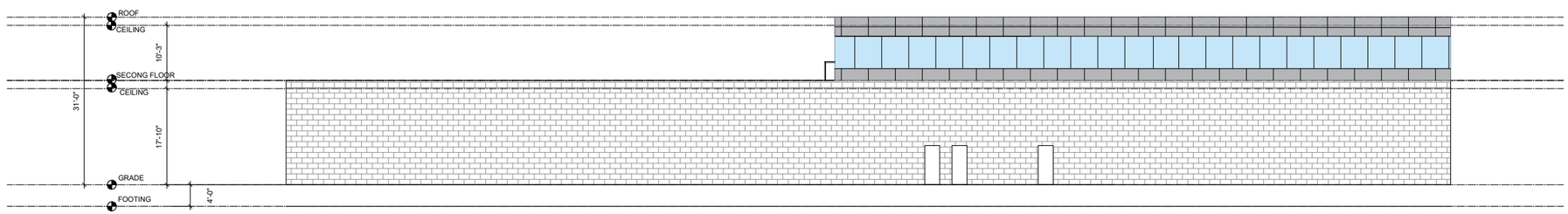
DATE	: JULY 2024
SCALE	: AS NOTED
DESIGNED BY	:
DRAWN BY	: NS
CHECKED BY	: SM
APPROVED BY	: SM
PROJECT NO.	: 24-128
DWG. NO.	A-3



4 WEST ELEVATION
A-4 3/32"= 1'-0"



3 SOUTH ELEVATION
A-4 3/32"= 1'-0"



2 NORTH ELEVATION
A-4 3/32"= 1'-0"



1 EAST ELEVATION
A-4 3/32"= 1'-0"

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NuFusion & ASSOCIATES

Ethnic SUPERMARKET

DATE	NO.	ISSUED FOR
23 SEP'24		CLIENT REVIEW
24 JUL'24		REVIEW

PROJECT
GROCERY STORE

200 WEBER ST.
WATERLOO ,ON

DWG. TITLE
PROPOSED ELEVATIONS

DATE	: JULY 2024
SCALE	: AS NOTED
DESIGNED BY	:
DRAWN BY	: NS
CHECKED BY	: SM
APPROVED BY	: SM
PROJECT NO.	: 24-128
DWG. NO.	A-4

Appendix B

Noise Source Sound Level Summary

Table B.1

Noise Source Sound Level Summary
Uniweber Properties Inc.
200 Weber Street North, Waterloo, Ontario

Cadna A ID	Noise Source Description		1/1 Octave Band Data									Unadjusted Total Sound Power Level	Tonal Penalty Assessment		Height Absolute	Operating Time Day/Night	Vehicle Volumes Day/Night	Speed	Reference/Comments
			32	63	125	250	500	1000	2000	4000	8000	(dBA)		(dBA)	(m)	(min)	(veh/hr)	(km/hr)	
A-01	Roof Breakout Noise - Internal Refrigerated Trucks x2	PWL (dB)	—	60.8	63.0	60.2	42.8	36.3	30.5	13.7	—	66.3							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	—	34.6	46.9	51.6	39.6	36.3	31.7	14.7	—	**53.3**	No	0	323.9	60/60	—	—	GHD Reference Spectra
L-01	Transport Truck Route	PWL (dB)	—	107.8	104.2	100.7	98.3	96.1	92.9	88.1	82.7	110.5							Referenced from US Federal Highway Administration (FHWA)
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								Traffic Noise Model (TNM) Technical Manual, December 2019
		PWL (dBA)	—	81.6	88.1	92.1	95.1	96.1	94.1	89.1	81.6	**101.2**	No	0	320.0	—	2/2	20	Medium Trucks: Cruise Throttle - TNM Technical Manual
S-01	Condenser Unit	PWL (dB)	—	87.4	81.4	84.4	82.4	78.4	77.4	75.4	68.4	91.1							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	—	61.2	65.3	75.8	79.2	78.4	78.6	76.4	67.3	**85.0**	No	0	326.4	60/30	—	—	GHD Reference Spectra
S-02	Supermarket HVAC	PWL (dB)	—	79.8	82.6	79.1	76.7	75.4	71.7	66.6	61.3	86.6							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	—	53.6	66.5	70.5	73.5	75.4	72.9	67.6	60.2	**80.0**	No	0	325.4	60/30	—	—	GHD Reference Spectra
S-03	Supermarket HVAC	PWL (dB)	—	79.8	82.6	79.1	76.7	75.4	71.7	66.6	61.3	86.6							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	—	53.6	66.5	70.5	73.5	75.4	72.9	67.6	60.2	**80.0**	No	0	325.4	60/30	—	—	GHD Reference Spectra
S-04	Supermarket HVAC	PWL (dB)	—	79.8	82.6	79.1	76.7	75.4	71.7	66.6	61.3	86.6							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	—	53.6	66.5	70.5	73.5	75.4	72.9	67.6	60.2	**80.0**	No	0	325.4	60/30	—	—	GHD Reference Spectra
S-05	Supermarket HVAC	PWL (dB)	—	79.8	82.6	79.1	76.7	75.4	71.7	66.6	61.3	86.6							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	—	53.6	66.5	70.5	73.5	75.4	72.9	67.6	60.2	**80.0**	No	0	325.4	60/30	—	—	GHD Reference Spectra
S-06	Supermarket HVAC	PWL (dB)	—	79.8	82.6	79.1	76.7	75.4	71.7	66.6	61.3	86.6							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	—	53.6	66.5	70.5	73.5	75.4	72.9	67.6	60.2	**80.0**	No	0	325.4	60/30	—	—	GHD Reference Spectra
S-07	Supermarket HVAC	PWL (dB)	—	79.8	82.6	79.1	76.7	75.4	71.7	66.6	61.3	86.6							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	—	53.6	66.5	70.5	73.5	75.4	72.9	67.6	60.2	**80.0**	No	0	325.4	60/30	—	—	GHD Reference Spectra
S-08	Ventilation Fan	PWL (dB)	65.0	65.0	69.0	69.0	62.0	65.0	64.0	57.0	44.0	74.8							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	25.6	38.8	52.9	60.4	58.8	65.0	65.2	58.0	42.9	**69.6**	No	0	324.9	60/30	—	—	GHD Reference Spectra
S-09	Office HVAC	PWL (dB)	71.0	74.0	75.0	75.0	74.0	72.0	68.0	64.0	58.0	81.8							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	31.6	47.8	58.9	66.4	70.8	72.0	69.2	65.0	56.9	**76.5**	No	0	328.9	60/30	—	—	GHD Reference Spectra
S-10	Office HVAC	PWL (dB)	71.0	74.0	75.0	75.0	74.0	72.0	68.0	64.0	58.0	81.8							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	31.6	47.8	58.9	66.4	70.8	72.0	69.2	65.0	56.9	**76.5**	No	0	328.9	60/30	—	—	GHD Reference Spectra
S-11	Office HVAC	PWL (dB)	71.0	74.0	75.0	75.0	74.0	72.0	68.0	64.0	58.0	81.8							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	31.6	47.8	58.9	66.4	70.8	72.0	69.2	65.0	56.9	**76.5**	No	0	328.9	60/30	—	—	GHD Reference Spectra
S-12	Office HVAC	PWL (dB)	71.0	74.0	75.0	75.0	74.0	72.0	68.0	64.0	58.0	81.8							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	31.6	47.8	58.9	66.4	70.8	72.0	69.2	65.0	56.9	**76.5**	No	0	328.9	60/30	—	—	GHD Reference Spectra
S-13	Office HVAC	PWL (dB)	71.0	74.0	75.0	75.0	74.0	72.0	68.0	64.0	58.0	81.8							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	31.6	47.8	58.9	66.4	70.8	72.0	69.2	65.0	56.9	**76.5**	No	0	328.9	60/30	—	—	GHD Reference Spectra
S-14	Office HVAC	PWL (dB)	71.0	74.0	75.0	75.0	74.0	72.0	68.0	64.0	58.0	81.8							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	31.6	47.8	58.9	66.4	70.8	72.0	69.2	65.0	56.9	**76.5**	No	0	328.9	60/30	—	—	GHD Reference Spectra
S-15	Office HVAC	PWL (dB)	71.0	74.0	75.0	75.0	74.0	72.0	68.0	64.0	58.0	81.8							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	31.6	47.8	58.9	66.4	70.8	72.0	69.2	65.0	56.9	**76.5**	No	0	328.9	60/30	—	—	GHD Reference Spectra
S-16	Office HVAC	PWL (dB)	71.0	74.0	75.0	75.0	74.0	72.0	68.0	64.0	58.0	81.8							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	31.6	47.8	58.9	66.4	70.8	72.0	69.2	65.0	56.9	**76.5**	No	0	328.9	60/30	—	—	GHD Reference Spectra
S-17	Office HVAC	PWL (dB)	71.0	74.0	75.0	75.0	74.0	72.0	68.0	64.0	58.0	81.8							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	31.6	47.8	58.9	66.4	70.8	72.0	69.2	65.0	56.9	**76.5**	No	0	328.9	60/30	—	—	GHD Reference Spectra
S-18	Office HVAC	PWL (dB)	71.0	74.0	75.0	75.0	74.0	72.0	68.0	64.0	58.0	81.8							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	31.6	47.8	58.9	66.4	70.8	72.0	69.2	65.0	56.9	**76.5**	No	0	328.9	60/30	—	—	GHD Reference Spectra
S-19	Waste Compactor	PWL (dB)	31.0	104.0	106.0	101.0	97.0	99.0	95.0	89.0	81.0	109.8							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	-8.4	77.8	89.9	92.4	93.8	99.0	96.2	90.0	79.9	**102.6**	No	0	319.7	5/0	—	—	
VA-01	North Wall Breakout Noise - Internal Refrigerated Trucks x2	PWL (dB)	—	79.8	85.1	74.2	58.5	43.2	32.1	18.8	—	86.5							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	—	53.6	69.0	65.6	55.3	43.2	33.3	19.8	—	**70.8**	No	0	321.4	60/60	—	—	GHD Reference Spectra
VA-02	East Wall Breakout Noise - Internal Refrigerated Trucks x2	PWL (dB)	—	95.1	94.1	91.4	82.0	72.1	62.6	51.1	—	98.7							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	—	68.9	78.0	82.8	78.8	72.1	63.8	52.1	—	**85.5**	No	0	321.4	60/60	—	—	GHD Reference Spectra
VA-03	South Wall Breakout Noise - Internal Refrigerated Trucks x2	PWL (dB)	—	79.8	85.1	74.2	58.5	43.2	32.1	18.8	—	86.5							
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1								
		PWL (dBA)	—	53.6	69.0	65.6	55.3	43.2	33.3	19.8	—	**70.8**	No	0	320.4	60/60	—	—	GHD Reference Spectra

Appendix C

Sample CadnaA Calculation

Receiver
Name: House of Friendship - ShelterCare Worst Case POW
ID: !06!POR-01a
X: 539055.50 m
Y: 4813831.78 m
Z: 322.50 m

Line Source, ISO 9613, Name: "Transport Truck Route", ID: "!0E00!L-01"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
2	538986.87	4813816.85	320.00	0	D	A	61.6	13.6	0.0	0.0	0.0	47.9	0.4	-3.0	0.0	0.0	0.0	0.0	0.0	29.8
2	538986.87	4813816.85	320.00	0	N	A	61.6	13.6	0.0	0.0	0.0	47.9	0.4	-3.0	0.0	0.0	0.0	0.0	0.0	29.8
2	538986.87	4813816.85	320.00	0	E	A	-41.4	13.6	0.0	0.0	0.0	47.9	0.4	-3.0	0.0	0.0	0.0	0.0	0.0	-73.2
7	539006.47	4813828.43	320.00	0	D	A	61.6	13.6	0.0	0.0	0.0	44.8	0.3	-3.0	0.0	0.0	0.0	0.0	0.0	33.0
7	539006.47	4813828.43	320.00	0	N	A	61.6	13.6	0.0	0.0	0.0	44.8	0.3	-3.0	0.0	0.0	0.0	0.0	0.0	33.0
7	539006.47	4813828.43	320.00	0	E	A	-41.4	13.6	0.0	0.0	0.0	44.8	0.3	-3.0	0.0	0.0	0.0	0.0	0.0	-70.0
9	539021.18	4813837.12	320.00	0	D	A	61.6	10.6	0.0	0.0	0.0	41.8	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	33.0
9	539021.18	4813837.12	320.00	0	N	A	61.6	10.6	0.0	0.0	0.0	41.8	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	33.0
9	539021.18	4813837.12	320.00	0	E	A	-41.4	10.6	0.0	0.0	0.0	41.8	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	-70.0
12	539030.98	4813842.91	320.00	0	D	A	61.6	10.6	0.0	0.0	0.0	39.6	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	35.2
12	539030.98	4813842.91	320.00	0	N	A	61.6	10.6	0.0	0.0	0.0	39.6	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	35.2
12	539030.98	4813842.91	320.00	0	E	A	-41.4	10.6	0.0	0.0	0.0	39.6	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	-67.8
15	539038.33	4813847.26	320.00	0	D	A	61.6	7.6	0.0	0.0	0.0	38.3	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	33.5
15	539038.33	4813847.26	320.00	0	N	A	61.6	7.6	0.0	0.0	0.0	38.3	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	33.5
15	539038.33	4813847.26	320.00	0	E	A	-41.4	7.6	0.0	0.0	0.0	38.3	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	-69.5
18	539043.23	4813850.15	320.00	0	D	A	61.6	7.6	0.0	0.0	0.0	37.9	0.1	-2.9	0.0	0.0	0.0	0.0	0.0	33.9
18	539043.23	4813850.15	320.00	0	N	A	61.6	7.6	0.0	0.0	0.0	37.9	0.1	-2.9	0.0	0.0	0.0	0.0	0.0	33.9
18	539043.23	4813850.15	320.00	0	E	A	-41.4	7.6	0.0	0.0	0.0	37.9	0.1	-2.9	0.0	0.0	0.0	0.0	0.0	-69.1
35	539050.58	4813854.50	320.00	0	D	A	61.6	10.6	0.0	0.0	0.0	38.4	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	36.5
35	539050.58	4813854.50	320.00	0	N	A	61.6	10.6	0.0	0.0	0.0	38.4	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	36.5
35	539050.58	4813854.50	320.00	0	E	A	-41.4	10.6	0.0	0.0	0.0	38.4	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	-66.5
41	539000.35	4813824.81	320.00	1	D	A	61.6	13.6	0.0	0.0	0.0	46.4	0.4	-3.0	0.0	0.0	15.4	0.0	1.0	15.1
41	539000.35	4813824.81	320.00	1	N	A	61.6	13.6	0.0	0.0	0.0	46.4	0.4	-3.0	0.0	0.0	15.4	0.0	1.0	15.1
41	539000.35	4813824.81	320.00	1	E	A	-41.4	13.6	0.0	0.0	0.0	46.4	0.4	-3.0	0.0	0.0	15.4	0.0	1.0	-87.9
60	539017.42	4813834.90	320.00	1	D	A	61.6	12.3	0.0	0.0	0.0	43.6	0.3	-3.0	0.0	0.0	16.3	0.0	1.0	15.7
60	539017.42	4813834.90	320.00	1	N	A	61.6	12.3	0.0	0.0	0.0	43.6	0.3	-3.0	0.0	0.0	16.3	0.0	1.0	15.7
60	539017.42	4813834.90	320.00	1	E	A	-41.4	12.3	0.0	0.0	0.0	43.6	0.3	-3.0	0.0	0.0	16.3	0.0	1.0	-87.4
64	539044.67	4813851.00	320.00	2	D	A	61.6	9.5	0.0	0.0	0.0	52.1	0.6	-3.0	0.0	0.0	21.7	0.0	3.4	-3.8
64	539044.67	4813851.00	320.00	2	N	A	61.6	9.5	0.0	0.0	0.0	52.1	0.6	-3.0	0.0	0.0	21.7	0.0	3.4	-3.8
64	539044.67	4813851.00	320.00	2	E	A	-41.4	9.5	0.0	0.0	0.0	52.1	0.6	-3.0	0.0	0.0	21.7	0.0	3.4	-106.8
75	539012.93	4813832.25	320.00	1	D	A	61.6	12.8	0.0	0.0	0.0	50.6	0.5	-3.0	0.0	0.0	23.3	0.0	2.5	0.5
75	539012.93	4813832.25	320.00	1	N	A	61.6	12.8	0.0	0.0	0.0	50.6	0.5	-3.0	0.0	0.0	23.3	0.0	2.5	0.5
75	539012.93	4813832.25	320.00	1	E	A	-41.4	12.8	0.0	0.0	0.0	50.6	0.5	-3.0	0.0	0.0	23.3	0.0	2.5	-102.6
78	538999.13	4813824.09	320.00	1	D	A	61.6	13.0	0.0	0.0	0.0	46.5	0.4	-3.0	0.0	0.0	0.0	0.0	1.0	29.6
78	538999.13	4813824.09	320.00	1	N	A	61.6	13.0	0.0	0.0	0.0	46.5	0.4	-3.0	0.0	0.0	0.0	0.0	1.0	29.6
78	538999.13	4813824.09	320.00	1	E	A	-41.4	13.0	0.0	0.0	0.0	46.5	0.4	-3.0	0.0	0.0	0.0	0.0	1.0	-73.4
95	539011.90	4813831.64	320.00	1	D	A	61.6	10.0	0.0	0.0	0.0	44.5	0.3	-3.0	0.0	0.0	0.0	0.0	1.0	28.7
95	539011.90	4813831.64	320.00	1	N	A	61.6	10.0	0.0	0.0	0.0	44.5	0.3	-3.0	0.0	0.0	0.0	0.0	1.0	28.7
95	539011.90	4813831.64	320.00	1	E	A	-41.4	10.0	0.0	0.0	0.0	44.5	0.3	-3.0	0.0	0.0	0.0	0.0	1.0	-74.4
97	539020.41	4813836.67	320.00	1	D	A	61.6	10.0	0.0	0.0	0.0	43.0	0.3	-3.0	0.0	0.0	0.0	0.0	1.0	30.2
97	539020.41	4813836.67	320.00	1	N	A	61.6	10.0	0.0	0.0	0.0	43.0	0.3	-3.0	0.0	0.0	0.0	0.0	1.0	30.2
97	539020.41	4813836.67	320.00	1	E	A	-41.4	10.0	0.0	0.0	0.0	43.0	0.3	-3.0	0.0	0.0	0.0	0.0	1.0	-72.9
100	539028.48	4813841.44	320.00	1	D	A	61.6	9.5	0.0	0.0	0.0	41.7	0.2	-2.9	0.0	0.0	0.0	0.0	1.0	31.1
100	539028.48	4813841.44	320.00	1	N	A	61.6	9.5	0.0	0.0	0.0	41.7	0.2	-2.9	0.0	0.0	0.0	0.0	1.0	31.1
100	539028.48	4813841.44	320.00	1	E	A	-41.4	9.5	0.0	0.0	0.0	41.7	0.2	-2.9	0.0	0.0	0.0	0.0	1.0	-72.0
102	539036.09	4813845.93	320.00	1	D	A	61.6	9.5	0.0	0.0	0.0	40.6	0.2	-2.9	0.0	0.0	0.0	0.0	1.0	32.1
102	539036.09	4813845.93	320.00	1	N	A	61.6	9.5	0.0	0.0	0.0	40.6	0.2	-2.9	0.0	0.0	0.0	0.0	1.0	32.1
102	539036.09	4813845.93	320.00	1	E	A	-41.4	9.5	0.0	0.0	0.0	40.6	0.2	-2.9	0.0	0.0	0.0	0.0	1.0	-70.9
104	539043.70	4813850.43	320.00	1	D	A	61.6	9.5	0.0	0.0	0.0	40.2	0.2	-2.9	0.0	0.0	0.0	0.0	1.0	32.6
104	539043.70	4813850.43	320.00	1	N	A	61.6	9.5	0.0	0.0	0.0	40.2	0.2	-2.9	0.0	0.0	0.0	0.0	1.0	32.6
104	539043.70	4813850.43	320.00	1	E	A	-41.4	9.5	0.0	0.0	0.0	40.2	0.2	-2.9	0.0	0.0	0.0	0.0	1.0	-70.4
108	539051.32	4813854.93	320.00	1	D	A	61.6	9.5	0.0	0.0	0.0	40.5	0.2	-2.9	0.0	0.0	0.0	0.0	1.0	32.2

Line Source, ISO 9613, Name: "Transport Truck Route", ID: "!0E00!L-01"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
108	539051.32	4813854.93	320.00	1	N	A	61.6	9.5	0.0	0.0	0.0	40.5	0.2	-2.9	0.0	0.0	0.0	0.0	1.0	32.2
108	539051.32	4813854.93	320.00	1	E	A	-41.4	9.5	0.0	0.0	0.0	40.5	0.2	-2.9	0.0	0.0	0.0	0.0	1.0	-70.8
179	539010.31	4813896.10	320.00	0	D	A	61.6	13.6	0.0	0.0	0.0	48.9	0.5	-3.0	0.0	0.0	21.1	0.0	0.0	7.7
179	539010.31	4813896.10	320.00	0	N	A	61.6	13.6	0.0	0.0	0.0	48.9	0.5	-3.0	0.0	0.0	21.1	0.0	0.0	7.7
179	539010.31	4813896.10	320.00	0	E	A	-41.4	13.6	0.0	0.0	0.0	48.9	0.5	-3.0	0.0	0.0	21.1	0.0	0.0	-95.3
182	538987.26	4813884.92	320.00	0	D	A	61.6	14.5	0.0	0.0	0.0	49.7	0.5	-3.0	0.0	0.0	22.6	0.0	0.0	6.3
182	538987.26	4813884.92	320.00	0	N	A	61.6	14.5	0.0	0.0	0.0	49.7	0.5	-3.0	0.0	0.0	22.6	0.0	0.0	6.3
182	538987.26	4813884.92	320.00	0	E	A	-41.4	14.5	0.0	0.0	0.0	49.7	0.5	-3.0	0.0	0.0	22.6	0.0	0.0	-96.7
198	538961.87	4813872.60	320.00	0	D	A	61.6	14.5	0.0	0.0	0.0	51.2	0.6	-3.0	0.0	0.0	21.1	0.0	0.0	6.2
198	538961.87	4813872.60	320.00	0	N	A	61.6	14.5	0.0	0.0	0.0	51.2	0.6	-3.0	0.0	0.0	21.1	0.0	0.0	6.2
198	538961.87	4813872.60	320.00	0	E	A	-41.4	14.5	0.0	0.0	0.0	51.2	0.6	-3.0	0.0	0.0	21.1	0.0	0.0	-96.8
201	539018.30	4813899.98	320.00	1	D	A	61.6	7.2	0.0	0.0	0.0	50.0	0.5	-3.0	0.0	0.0	21.9	0.0	4.0	-4.6
201	539018.30	4813899.98	320.00	1	N	A	61.6	7.2	0.0	0.0	0.0	50.0	0.5	-3.0	0.0	0.0	21.9	0.0	4.0	-4.6
201	539018.30	4813899.98	320.00	1	E	A	-41.4	7.2	0.0	0.0	0.0	50.0	0.5	-3.0	0.0	0.0	21.9	0.0	4.0	-107.6
203	539014.96	4813898.36	320.00	1	D	A	61.6	3.4	0.0	0.0	0.0	49.8	0.5	-3.0	0.0	0.0	21.7	0.0	4.1	-8.1
203	539014.96	4813898.36	320.00	1	N	A	61.6	3.4	0.0	0.0	0.0	49.8	0.5	-3.0	0.0	0.0	21.7	0.0	4.1	-8.1
203	539014.96	4813898.36	320.00	1	E	A	-41.4	3.4	0.0	0.0	0.0	49.8	0.5	-3.0	0.0	0.0	21.7	0.0	4.1	-111.1
206	538975.07	4813879.00	320.00	2	D	A	61.6	13.8	0.0	0.0	0.0	52.5	0.7	-3.0	0.0	0.0	22.5	0.0	3.6	-1.0
206	538975.07	4813879.00	320.00	2	N	A	61.6	13.8	0.0	0.0	0.0	52.5	0.7	-3.0	0.0	0.0	22.5	0.0	3.6	-1.0
206	538975.07	4813879.00	320.00	2	E	A	-41.4	13.8	0.0	0.0	0.0	52.5	0.7	-3.0	0.0	0.0	22.5	0.0	3.6	-104.0
214	539004.32	4813893.19	320.00	1	D	A	61.6	7.9	0.0	0.0	0.0	49.2	0.5	-3.0	0.0	0.0	21.1	0.0	4.2	-2.5
214	539004.32	4813893.19	320.00	1	N	A	61.6	7.9	0.0	0.0	0.0	49.2	0.5	-3.0	0.0	0.0	21.1	0.0	4.2	-2.5
214	539004.32	4813893.19	320.00	1	E	A	-41.4	7.9	0.0	0.0	0.0	49.2	0.5	-3.0	0.0	0.0	21.1	0.0	4.2	-105.5
225	539055.12	4813879.44	320.00	0	D	A	61.6	12.3	0.0	0.0	0.0	44.6	0.3	-3.0	0.0	0.0	0.0	0.0	0.0	32.0
225	539055.12	4813879.44	320.00	0	N	A	61.6	12.3	0.0	0.0	0.0	44.6	0.3	-3.0	0.0	0.0	0.0	0.0	0.0	32.0
225	539055.12	4813879.44	320.00	0	E	A	-41.4	12.3	0.0	0.0	0.0	44.6	0.3	-3.0	0.0	0.0	0.0	0.0	0.0	-71.0
228	539052.08	4813887.02	320.00	2	D	A	61.6	-1.2	0.0	0.0	0.0	52.6	0.7	-3.0	0.0	0.0	12.6	0.0	25.2	-27.8
228	539052.08	4813887.02	320.00	2	N	A	61.6	-1.2	0.0	0.0	0.0	52.6	0.7	-3.0	0.0	0.0	12.6	0.0	25.2	-27.8
228	539052.08	4813887.02	320.00	2	E	A	-41.4	-1.2	0.0	0.0	0.0	52.6	0.7	-3.0	0.0	0.0	12.6	0.0	25.2	-130.8
336	539057.09	4813858.94	320.00	0	D	A	61.6	6.5	0.0	0.0	0.0	39.7	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	31.0
336	539057.09	4813858.94	320.00	0	N	A	61.6	6.5	0.0	0.0	0.0	39.7	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	31.0
336	539057.09	4813858.94	320.00	0	E	A	-41.4	6.5	0.0	0.0	0.0	39.7	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	-72.0
339	539059.34	4813862.95	320.00	0	D	A	61.6	7.1	0.0	0.0	0.0	41.0	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	30.4
339	539059.34	4813862.95	320.00	0	N	A	61.6	7.1	0.0	0.0	0.0	41.0	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	30.4
339	539059.34	4813862.95	320.00	0	E	A	-41.4	7.1	0.0	0.0	0.0	41.0	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	-72.6
342	539058.97	4813861.56	320.00	1	D	A	61.6	3.5	0.0	0.0	0.0	53.1	0.7	-3.0	0.0	0.0	10.0	0.0	23.7	-19.4
342	539058.97	4813861.56	320.00	1	N	A	61.6	3.5	0.0	0.0	0.0	53.1	0.7	-3.0	0.0	0.0	10.0	0.0	23.7	-19.4
342	539058.97	4813861.56	320.00	1	E	A	-41.4	3.5	0.0	0.0	0.0	53.1	0.7	-3.0	0.0	0.0	10.0	0.0	23.7	-122.5
347	539059.14	4813868.47	320.00	0	D	A	61.6	8.0	0.0	0.0	0.0	42.4	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	29.9
347	539059.14	4813868.47	320.00	0	N	A	61.6	8.0	0.0	0.0	0.0	42.4	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	29.9
347	539059.14	4813868.47	320.00	0	E	A	-41.4	8.0	0.0	0.0	0.0	42.4	0.2	-2.9	0.0	0.0	0.0	0.0	0.0	-73.1
423	539050.00	4813890.32	320.00	0	D	A	61.6	8.5	0.0	0.0	0.0	46.4	0.4	-3.0	0.0	0.0	0.0	0.0	0.0	26.3
423	539050.00	4813890.32	320.00	0	N	A	61.6	8.5	0.0	0.0	0.0	46.4	0.4	-3.0	0.0	0.0	0.0	0.0	0.0	26.3
423	539050.00	4813890.32	320.00	0	E	A	-41.4	8.5	0.0	0.0	0.0	46.4	0.4	-3.0	0.0	0.0	0.0	0.0	0.0	-76.7
426	539047.70	4813893.81	320.00	0	D	A	61.6	1.2	0.0	0.0	0.0	46.9	0.4	-3.0	0.0	0.0	3.6	0.0	0.0	14.8
426	539047.70	4813893.81	320.00	0	N	A	61.6	1.2	0.0	0.0	0.0	46.9	0.4	-3.0	0.0	0.0	3.6	0.0	0.0	14.8
426	539047.70	4813893.81	320.00	0	E	A	-41.4	1.2	0.0	0.0	0.0	46.9	0.4	-3.0	0.0	0.0	3.6	0.0	0.0	-88.2
429	539050.46	4813889.62	320.00	2	D	A	61.6	7.3	0.0	0.0	0.0	52.4	0.7	-3.0	0.0	0.0	12.7	0.0	25.2	-19.1
429	539050.46	4813889.62	320.00	2	N	A	61.6	7.3	0.0	0.0	0.0	52.4	0.7	-3.0	0.0	0.0	12.7	0.0	25.2	-19.1
429	539050.46	4813889.62	320.00	2	E	A	-41.4	7.3	0.0	0.0	0.0	52.4	0.7	-3.0	0.0	0.0	12.7	0.0	25.2	-122.1
434	539032.65	4813907.45	320.00	0	D	A	61.6	10.7	0.0	0.0	0.0	49.0	0.5	-3.0	0.0	0.0	10.2	0.0	0.0	15.6
434	539032.65	4813907.45	320.00	0	N	A	61.6	10.7	0.0	0.0	0.0	49.0	0.5	-3.0	0.0	0.0	10.2	0.0	0.0	15.6
434	539032.65	4813907.45	320.00	0	E	A	-41.4	10.7	0.0	0.0	0.0	49.0	0.5	-3.0	0.0	0.0	10.2	0.0	0.0	-87.4
437	539030.85	4813906.33	320.00	1	D	A	61.6	8.8	0.0	0.0	0.0	50.6	0.5	-3.0	0.0	0.0	15.3	0.0	2.3	4.6
437	539030.85	4813906.33	320.00	1	N	A	61.6	8.8	0.0	0.0	0.0	50.6	0.5	-3.0	0.0	0.0	15.3	0.0	2.3	4.6
437	539030.85	4813906.33	320.00	1	E	A	-41.4	8.8	0.0	0.0	0.0	50.6	0.5	-3.0	0.0	0.0	15.3	0.0	2.3	-98.4
439	539044.86	4813896.25	320.00	0	D	A	61.6	8.0	0.0	0.0	0.0	47.3	0.4	-3.0	0.0	0.0	5.6	0.0	0.0	19.2
439	539044.86	4813896.25	320.00	0	N	A	61.6	8.0	0.0	0.0	0.0	47.3	0.4	-3.0	0.0	0.0	5.6	0.0	0.0	19.2
439	539044.86	4813896.25	320.00	0	E	A	-41.4	8.0	0.0	0.0	0.0	47.3	0.4	-3.0	0.0	0.0	5.6	0.0	0.0	-83.8
441	539045.83	4813915.67	320.00	0	D	A	61.6	0.2	0.0	0.0	0.0	49.5	0.5	-3.0	0.0	0.0	0.0	0.0	0.0	14.8
441	539045.83	4813915.67	320.00	0	N	A	61.6	0.2	0.0	0.0	0.0	49.5	0.5	-3.0	0.0	0.0	0.0	0.0	0.0	14.8
441	539045.83	4813915.67	320.00	0	E	A	-41.4	0.2	0.0	0.0	0.0	49.5	0.5	-3.0	0.0	0.0	0.0	0.0	0.0	-88.2
443	539041.51	4813912.96	320.00	0	D	A	61.6	9.6	0.0	0.0	0.0	49.3	0.5	-3.0	0.0	0.0	5.4	0.0	0.0	19.0

Line Source, ISO 9613, Name: "Transport Truck Route", ID: "!0E00!L-01"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
443	539041.51	4813912.96	320.00	0	N	A	61.6	9.6	0.0	0.0	0.0	49.3	0.5	-3.0	0.0	0.0	5.4	0.0	0.0	19.0
443	539041.51	4813912.96	320.00	0	E	A	-41.4	9.6	0.0	0.0	0.0	49.3	0.5	-3.0	0.0	0.0	5.4	0.0	0.0	-84.0
445	539039.27	4813899.61	320.00	0	D	A	61.6	8.4	0.0	0.0	0.0	47.9	0.4	-3.0	0.0	0.0	8.8	0.0	0.0	15.8
445	539039.27	4813899.61	320.00	0	N	A	61.6	8.4	0.0	0.0	0.0	47.9	0.4	-3.0	0.0	0.0	8.8	0.0	0.0	15.8
445	539039.27	4813899.61	320.00	0	E	A	-41.4	8.4	0.0	0.0	0.0	47.9	0.4	-3.0	0.0	0.0	8.8	0.0	0.0	-87.2
447	539032.41	4813900.42	320.00	0	D	A	61.6	8.8	0.0	0.0	0.0	48.2	0.4	-3.0	0.0	0.0	12.0	0.0	0.0	12.8
447	539032.41	4813900.42	320.00	0	N	A	61.6	8.8	0.0	0.0	0.0	48.2	0.4	-3.0	0.0	0.0	12.0	0.0	0.0	12.8
447	539032.41	4813900.42	320.00	0	E	A	-41.4	8.8	0.0	0.0	0.0	48.2	0.4	-3.0	0.0	0.0	12.0	0.0	0.0	-90.3
449	539030.82	4813900.14	320.00	1	D	A	61.6	6.4	0.0	0.0	0.0	50.0	0.5	-3.0	0.0	0.0	17.3	0.0	2.4	0.7
449	539030.82	4813900.14	320.00	1	N	A	61.6	6.4	0.0	0.0	0.0	50.0	0.5	-3.0	0.0	0.0	17.3	0.0	2.4	0.7
449	539030.82	4813900.14	320.00	1	E	A	-41.4	6.4	0.0	0.0	0.0	50.0	0.5	-3.0	0.0	0.0	17.3	0.0	2.4	-102.3
451	539029.74	4813899.95	320.00	2	D	A	61.6	3.4	0.0	0.0	0.0	50.5	0.5	-3.0	0.0	0.0	18.5	0.0	5.2	-6.8
451	539029.74	4813899.95	320.00	2	N	A	61.6	3.4	0.0	0.0	0.0	50.5	0.5	-3.0	0.0	0.0	18.5	0.0	5.2	-6.8
451	539029.74	4813899.95	320.00	2	E	A	-41.4	3.4	0.0	0.0	0.0	50.5	0.5	-3.0	0.0	0.0	18.5	0.0	5.2	-109.8
453	539029.01	4813899.82	320.00	2	D	A	61.6	-1.4	0.0	0.0	0.0	50.8	0.6	-3.0	0.0	0.0	12.6	0.0	14.2	-15.0
453	539029.01	4813899.82	320.00	2	N	A	61.6	-1.4	0.0	0.0	0.0	50.8	0.6	-3.0	0.0	0.0	12.6	0.0	14.2	-15.0
453	539029.01	4813899.82	320.00	2	E	A	-41.4	-1.4	0.0	0.0	0.0	50.8	0.6	-3.0	0.0	0.0	12.6	0.0	14.2	-118.0
455	539030.96	4813902.50	320.00	0	D	A	61.6	8.6	0.0	0.0	0.0	48.5	0.4	-3.0	0.0	0.0	12.1	0.0	0.0	12.0
455	539030.96	4813902.50	320.00	0	N	A	61.6	8.6	0.0	0.0	0.0	48.5	0.4	-3.0	0.0	0.0	12.1	0.0	0.0	12.0
455	539030.96	4813902.50	320.00	0	E	A	-41.4	8.6	0.0	0.0	0.0	48.5	0.4	-3.0	0.0	0.0	12.1	0.0	0.0	-91.0
457	539030.96	4813902.50	320.00	1	D	A	61.6	8.6	0.0	0.0	0.0	50.3	0.5	-3.0	0.0	0.0	16.4	0.0	2.4	3.5
457	539030.96	4813902.50	320.00	1	N	A	61.6	8.6	0.0	0.0	0.0	50.3	0.5	-3.0	0.0	0.0	16.4	0.0	2.4	3.5
457	539030.96	4813902.50	320.00	1	E	A	-41.4	8.6	0.0	0.0	0.0	50.3	0.5	-3.0	0.0	0.0	16.4	0.0	2.4	-99.5
459	539029.07	4813900.25	320.00	2	D	A	61.6	1.1	0.0	0.0	0.0	50.4	0.5	-3.0	0.0	0.0	18.8	0.0	5.2	-9.4
459	539029.07	4813900.25	320.00	2	N	A	61.6	1.1	0.0	0.0	0.0	50.4	0.5	-3.0	0.0	0.0	18.8	0.0	5.2	-9.4
459	539029.07	4813900.25	320.00	2	E	A	-41.4	1.1	0.0	0.0	0.0	50.4	0.5	-3.0	0.0	0.0	18.8	0.0	5.2	-112.4
462	539028.91	4813900.06	320.00	2	D	A	61.6	-1.0	0.0	0.0	0.0	50.8	0.6	-3.0	0.0	0.0	12.5	0.0	14.2	-14.6
462	539028.91	4813900.06	320.00	2	N	A	61.6	-1.0	0.0	0.0	0.0	50.8	0.6	-3.0	0.0	0.0	12.5	0.0	14.2	-14.6
462	539028.91	4813900.06	320.00	2	E	A	-41.4	-1.0	0.0	0.0	0.0	50.8	0.6	-3.0	0.0	0.0	12.5	0.0	14.2	-117.6
464	539035.02	4813908.43	320.00	0	D	A	61.6	8.6	0.0	0.0	0.0	49.0	0.5	-3.0	0.0	0.0	9.1	0.0	0.0	14.6
464	539035.02	4813908.43	320.00	0	N	A	61.6	8.6	0.0	0.0	0.0	49.0	0.5	-3.0	0.0	0.0	9.1	0.0	0.0	14.6
464	539035.02	4813908.43	320.00	0	E	A	-41.4	8.6	0.0	0.0	0.0	49.0	0.5	-3.0	0.0	0.0	9.1	0.0	0.0	-88.4
466	539033.50	4813905.68	320.00	1	D	A	61.6	-0.1	0.0	0.0	0.0	50.6	0.5	-3.0	0.0	0.0	15.8	0.0	2.3	-4.8
466	539033.50	4813905.68	320.00	1	N	A	61.6	-0.1	0.0	0.0	0.0	50.6	0.5	-3.0	0.0	0.0	15.8	0.0	2.3	-4.8
466	539033.50	4813905.68	320.00	1	E	A	-41.4	-0.1	0.0	0.0	0.0	50.6	0.5	-3.0	0.0	0.0	15.8	0.0	2.3	-107.8
468	539040.54	4813912.50	320.00	0	D	A	61.6	8.9	0.0	0.0	0.0	49.3	0.5	-3.0	0.0	0.0	6.0	0.0	0.0	17.7
468	539040.54	4813912.50	320.00	0	N	A	61.6	8.9	0.0	0.0	0.0	49.3	0.5	-3.0	0.0	0.0	6.0	0.0	0.0	17.7
468	539040.54	4813912.50	320.00	0	E	A	-41.4	8.9	0.0	0.0	0.0	49.3	0.5	-3.0	0.0	0.0	6.0	0.0	0.0	-85.3
471	539022.55	4813902.03	320.00	0	D	A	61.6	6.2	0.0	0.0	0.0	48.8	0.5	-3.0	0.0	0.0	20.6	0.0	0.0	0.9
471	539022.55	4813902.03	320.00	0	N	A	61.6	6.2	0.0	0.0	0.0	48.8	0.5	-3.0	0.0	0.0	20.6	0.0	0.0	0.9
471	539022.55	4813902.03	320.00	0	E	A	-41.4	6.2	0.0	0.0	0.0	48.8	0.5	-3.0	0.0	0.0	20.6	0.0	0.0	-102.1
476	539022.55	4813902.03	320.00	1	D	A	61.6	6.2	0.0	0.0	0.0	50.2	0.5	-3.0	0.0	0.0	22.1	0.0	2.4	-4.4
476	539022.55	4813902.03	320.00	1	N	A	61.6	6.2	0.0	0.0	0.0	50.2	0.5	-3.0	0.0	0.0	22.1	0.0	2.4	-4.4
476	539022.55	4813902.03	320.00	1	E	A	-41.4	6.2	0.0	0.0	0.0	50.2	0.5	-3.0	0.0	0.0	22.1	0.0	2.4	-107.4
479	539026.05	4813903.65	320.00	0	D	A	61.6	5.5	0.0	0.0	0.0	48.8	0.5	-3.0	0.0	0.0	15.9	0.0	0.0	4.8
479	539026.05	4813903.65	320.00	0	N	A	61.6	5.5	0.0	0.0	0.0	48.8	0.5	-3.0	0.0	0.0	15.9	0.0	0.0	4.8
479	539026.05	4813903.65	320.00	0	E	A	-41.4	5.5	0.0	0.0	0.0	48.8	0.5	-3.0	0.0	0.0	15.9	0.0	0.0	-98.2
482	539026.05	4813903.65	320.00	1	D	A	61.6	5.5	0.0	0.0	0.0	50.3	0.5	-3.0	0.0	0.0	22.4	0.0	2.3	-5.6
482	539026.05	4813903.65	320.00	1	N	A	61.6	5.5	0.0	0.0	0.0	50.3	0.5	-3.0	0.0	0.0	22.4	0.0	2.3	-5.6
482	539026.05	4813903.65	320.00	1	E	A	-41.4	5.5	0.0	0.0	0.0	50.3	0.5	-3.0	0.0	0.0	22.4	0.0	2.3	-108.6
485	539026.61	4813903.89	320.00	2	D	A	61.6	2.7	0.0	0.0	0.0	51.2	0.6	-3.0	0.0	0.0	12.7	0.0	14.3	-11.5
485	539026.61	4813903.89	320.00	2	N	A	61.6	2.7	0.0	0.0	0.0	51.2	0.6	-3.0	0.0	0.0	12.7	0.0	14.3	-11.5
485	539026.61	4813903.89	320.00	2	E	A	-41.4	2.7	0.0	0.0	0.0	51.2	0.6	-3.0	0.0	0.0	12.7	0.0	14.3	-114.5
487	539044.88	4813914.14	320.00	0	D	A	61.6	2.6	0.0	0.0	0.0	49.4	0.5	-3.0	0.0	0.0	3.3	0.0	0.0	14.1
487	539044.88	4813914.14	320.00	0	N	A	61.6	2.6	0.0	0.0	0.0	49.4	0.5	-3.0	0.0	0.0	3.3	0.0	0.0	14.1
487	539044.88	4813914.14	320.00	0	E	A	-41.4	2.6	0.0	0.0	0.0	49.4	0.5	-3.0	0.0	0.0	3.3	0.0	0.0	-88.9
489	539045.86	4813915.41	320.00	0	D	A	61.6	1.4	0.0	0.0	0.0	49.5	0.5	-3.0	0.0	0.0	0.0	0.0	0.0	15.9
489	539045.86	4813915.41	320.00	0	N	A	61.6	1.4	0.0	0.0	0.0	49.5	0.5	-3.0	0.0	0.0	0.0	0.0	0.0	15.9
489	539045.86	4813915.41	320.00	0	E	A	-41.4	1.4	0.0	0.0	0.0	49.5	0.5	-3.0	0.0	0.0	0.0	0.0	0.0	-87.1
491	538946.65	4813865.14	320.00	0	D	A	61.6	7.5	0.0	0.0	0.0	52.1	0.6	-3.0	0.0	0.0	18.1	0.0	0.0	1.3
491	538946.65	4813865.14	320.00	0	N	A	61.6	7.5	0.0	0.0	0.0	52.1	0.6	-3.0	0.0	0.0	18.1	0.0	0.0	1.3
491	538946.65	4813865.14	320.00	0	E	A	-41.4	7.5	0.0	0.0	0.0	52.1	0.6	-3.0	0.0	0.0	18.1	0.0	0.0	-101.7

Point Source, ISO 9613, Name: "Waste Compactor", ID: "!0E!S-19"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
114	539021.56	4813888.05	319.70	0	D	A	102.6	0.0	-10.8	0.0	0.0	47.4	0.4	-3.0	0.0	0.0	21.7	0.0	0.0	25.4
114	539021.56	4813888.05	319.70	0	N	A	102.6	0.0	-188.0	0.0	0.0	47.4	0.4	-3.0	0.0	0.0	21.7	0.0	0.0	-151.8
114	539021.56	4813888.05	319.70	0	E	A	102.6	0.0	-188.0	0.0	0.0	47.4	0.4	-3.0	0.0	0.0	21.7	0.0	0.0	-151.8
117	539021.56	4813888.05	319.70	1	D	A	102.6	0.0	-10.8	0.0	0.0	48.7	0.4	-3.0	0.0	0.0	22.1	0.0	2.5	21.1
117	539021.56	4813888.05	319.70	1	N	A	102.6	0.0	-188.0	0.0	0.0	48.7	0.4	-3.0	0.0	0.0	22.1	0.0	2.5	-156.1
117	539021.56	4813888.05	319.70	1	E	A	102.6	0.0	-188.0	0.0	0.0	48.7	0.4	-3.0	0.0	0.0	22.1	0.0	2.5	-156.1
120	539021.56	4813888.05	319.70	2	D	A	102.6	0.0	-10.8	0.0	0.0	49.1	0.5	-3.0	0.0	0.0	19.7	0.0	3.6	22.0
120	539021.56	4813888.05	319.70	2	N	A	102.6	0.0	-188.0	0.0	0.0	49.1	0.5	-3.0	0.0	0.0	19.7	0.0	3.6	-155.2
120	539021.56	4813888.05	319.70	2	E	A	102.6	0.0	-188.0	0.0	0.0	49.1	0.5	-3.0	0.0	0.0	19.7	0.0	3.6	-155.2
124	539021.56	4813888.05	319.70	1	D	A	102.6	0.0	-10.8	0.0	0.0	47.8	0.4	-3.0	0.0	0.0	20.2	0.0	1.0	25.4
124	539021.56	4813888.05	319.70	1	N	A	102.6	0.0	-188.0	0.0	0.0	47.8	0.4	-3.0	0.0	0.0	20.2	0.0	1.0	-151.8
124	539021.56	4813888.05	319.70	1	E	A	102.6	0.0	-188.0	0.0	0.0	47.8	0.4	-3.0	0.0	0.0	20.2	0.0	1.0	-151.8
126	539021.56	4813888.05	319.70	2	D	A	102.6	0.0	-10.8	0.0	0.0	48.6	0.4	-3.0	0.0	0.0	17.7	0.0	3.5	24.6
126	539021.56	4813888.05	319.70	2	N	A	102.6	0.0	-188.0	0.0	0.0	48.6	0.4	-3.0	0.0	0.0	17.7	0.0	3.5	-152.6
126	539021.56	4813888.05	319.70	2	E	A	102.6	0.0	-188.0	0.0	0.0	48.6	0.4	-3.0	0.0	0.0	17.7	0.0	3.5	-152.6

Point Source, ISO 9613, Name: "Supermarket HVAC", ID: "!0E!S-04"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
133	539038.86	4813861.11	325.38	0	D	A	80.0	0.0	0.0	0.0	0.0	41.6	0.2	-2.8	0.0	0.0	0.8	0.0	0.0	40.1
133	539038.86	4813861.11	325.38	0	N	A	80.0	0.0	-3.0	0.0	0.0	41.6	0.2	-2.8	0.0	0.0	0.8	0.0	0.0	37.1
133	539038.86	4813861.11	325.38	0	E	A	80.0	0.0	-188.0	0.0	0.0	41.6	0.2	-2.8	0.0	0.0	0.8	0.0	0.0	-147.9

Point Source, ISO 9613, Name: "Supermarket HVAC", ID: "!0E!S-07"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
137	539030.40	4813856.67	325.38	0	D	A	80.0	0.0	0.0	0.0	0.0	42.0	0.2	-2.8	0.0	0.0	0.9	0.0	0.0	39.6
137	539030.40	4813856.67	325.38	0	N	A	80.0	0.0	-3.0	0.0	0.0	42.0	0.2	-2.8	0.0	0.0	0.9	0.0	0.0	36.6
137	539030.40	4813856.67	325.38	0	E	A	80.0	0.0	-188.0	0.0	0.0	42.0	0.2	-2.8	0.0	0.0	0.9	0.0	0.0	-148.4
142	539030.40	4813856.67	325.38	2	D	A	80.0	0.0	0.0	0.0	0.0	50.9	0.6	-3.0	0.0	0.0	14.5	0.0	3.1	13.9
142	539030.40	4813856.67	325.38	2	N	A	80.0	0.0	-3.0	0.0	0.0	50.9	0.6	-3.0	0.0	0.0	14.5	0.0	3.1	10.9
142	539030.40	4813856.67	325.38	2	E	A	80.0	0.0	-188.0	0.0	0.0	50.9	0.6	-3.0	0.0	0.0	14.5	0.0	3.1	-174.1

Point Source, ISO 9613, Name: "Condenser Unit", ID: "!0E!S-01"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
145	539011.79	4813884.48	326.38	0	D	A	85.0	0.0	0.0	0.0	0.0	47.7	0.6	-2.9	0.0	0.0	3.3	0.0	0.0	36.3
145	539011.79	4813884.48	326.38	0	N	A	85.0	0.0	-3.0	0.0	0.0	47.7	0.6	-2.9	0.0	0.0	3.3	0.0	0.0	33.3
145	539011.79	4813884.48	326.38	0	E	A	85.0	0.0	-188.0	0.0	0.0	47.7	0.6	-2.9	0.0	0.0	3.3	0.0	0.0	-151.7

Point Source, ISO 9613, Name: "Supermarket HVAC", ID: "!0E!S-06"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
148	539034.36	4813870.52	325.38	0	D	A	80.0	0.0	0.0	0.0	0.0	43.9	0.3	-2.9	0.0	0.0	3.6	0.0	0.0	35.0
148	539034.36	4813870.52	325.38	0	N	A	80.0	0.0	-3.0	0.0	0.0	43.9	0.3	-2.9	0.0	0.0	3.6	0.0	0.0	32.0
148	539034.36	4813870.52	325.38	0	E	A	80.0	0.0	-188.0	0.0	0.0	43.9	0.3	-2.9	0.0	0.0	3.6	0.0	0.0	-153.0

Point Source, ISO 9613, Name: "Supermarket HVAC", ID: "!0E!S-05"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
151	539025.92	4813865.57	325.38	0	D	A	80.0	0.0	0.0	0.0	0.0	44.1	0.3	-2.9	0.0	0.0	3.6	0.0	0.0	34.9
151	539025.92	4813865.57	325.38	0	N	A	80.0	0.0	-3.0	0.0	0.0	44.1	0.3	-2.9	0.0	0.0	3.6	0.0	0.0	31.9
151	539025.92	4813865.57	325.38	0	E	A	80.0	0.0	-188.0	0.0	0.0	44.1	0.3	-2.9	0.0	0.0	3.6	0.0	0.0	-153.1
155	539025.92	4813865.57	325.38	1	D	A	80.0	0.0	0.0	0.0	0.0	45.7	0.3	-2.9	0.0	0.0	3.5	0.0	1.0	32.3
155	539025.92	4813865.57	325.38	1	N	A	80.0	0.0	-3.0	0.0	0.0	45.7	0.3	-2.9	0.0	0.0	3.5	0.0	1.0	29.3
155	539025.92	4813865.57	325.38	1	E	A	80.0	0.0	-188.0	0.0	0.0	45.7	0.3	-2.9	0.0	0.0	3.5	0.0	1.0	-155.7

Point Source, ISO 9613, Name: "Supermarket HVAC", ID: "!0E!S-02"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
160	539029.66	4813879.29	325.38	0	D	A	80.0	0.0	0.0	0.0	0.0	45.7	0.3	-2.9	0.0	0.0	3.8	0.0	0.0	33.1
160	539029.66	4813879.29	325.38	0	N	A	80.0	0.0	-3.0	0.0	0.0	45.7	0.3	-2.9	0.0	0.0	3.8	0.0	0.0	30.1
160	539029.66	4813879.29	325.38	0	E	A	80.0	0.0	-188.0	0.0	0.0	45.7	0.3	-2.9	0.0	0.0	3.8	0.0	0.0	-154.9
162	539029.66	4813879.29	325.38	1	D	A	80.0	0.0	0.0	0.0	0.0	47.7	0.4	-2.9	0.0	0.0	3.4	0.0	1.2	30.2

Point Source, ISO 9613, Name: "Supermarket HVAC", ID: "!0E!S-02"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
162	539029.66	4813879.29	325.38	1	N	A	80.0	0.0	-3.0	0.0	0.0	47.7	0.4	-2.9	0.0	0.0	3.4	0.0	1.2	27.2
162	539029.66	4813879.29	325.38	1	E	A	80.0	0.0	-188.0	0.0	0.0	47.7	0.4	-2.9	0.0	0.0	3.4	0.0	1.2	-157.8

Point Source, ISO 9613, Name: "Supermarket HVAC", ID: "!0E!S-03"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
173	539020.57	4813873.76	325.38	0	D	A	80.0	0.0	0.0	0.0	0.0	45.8	0.3	-2.9	0.0	0.0	3.8	0.0	0.0	33.0
173	539020.57	4813873.76	325.38	0	N	A	80.0	0.0	-3.0	0.0	0.0	45.8	0.3	-2.9	0.0	0.0	3.8	0.0	0.0	30.0
173	539020.57	4813873.76	325.38	0	E	A	80.0	0.0	-188.0	0.0	0.0	45.8	0.3	-2.9	0.0	0.0	3.8	0.0	0.0	-155.0
175	539020.57	4813873.76	325.38	1	D	A	80.0	0.0	0.0	0.0	0.0	46.9	0.4	-2.9	0.0	0.0	3.6	0.0	1.2	30.8
175	539020.57	4813873.76	325.38	1	N	A	80.0	0.0	-3.0	0.0	0.0	46.9	0.4	-2.9	0.0	0.0	3.6	0.0	1.2	27.8
175	539020.57	4813873.76	325.38	1	E	A	80.0	0.0	-188.0	0.0	0.0	46.9	0.4	-2.9	0.0	0.0	3.6	0.0	1.2	-157.2

Point Source, ISO 9613, Name: "Office HVAC", ID: "!0E!S-17"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
219	539016.35	4813842.87	328.94	0	D	A	76.5	0.0	0.0	0.0	0.0	43.3	0.3	-2.8	0.0	0.0	0.9	0.0	0.0	34.8
219	539016.35	4813842.87	328.94	0	N	A	76.5	0.0	-3.0	0.0	0.0	43.3	0.3	-2.8	0.0	0.0	0.9	0.0	0.0	31.8
219	539016.35	4813842.87	328.94	0	E	A	76.5	0.0	-188.0	0.0	0.0	43.3	0.3	-2.8	0.0	0.0	0.9	0.0	0.0	-153.2
221	539016.35	4813842.87	328.94	1	D	A	76.5	0.0	0.0	0.0	0.0	49.7	0.5	-2.9	0.0	0.0	2.0	0.0	1.1	26.2
221	539016.35	4813842.87	328.94	1	N	A	76.5	0.0	-3.0	0.0	0.0	49.7	0.5	-2.9	0.0	0.0	2.0	0.0	1.1	23.2
221	539016.35	4813842.87	328.94	1	E	A	76.5	0.0	-188.0	0.0	0.0	49.7	0.5	-2.9	0.0	0.0	2.0	0.0	1.1	-161.8

vert. Area Source, ISO 9613, Name: "East Wall Breakout Noise", ID: "!0E00!VA-02"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
233	539026.05	4813897.27	319.38	0	D	A	69.6	8.7	0.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	17.3	0.0	0.0	15.7
233	539026.05	4813897.27	319.38	0	N	A	69.6	8.7	0.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	17.3	0.0	0.0	15.7
233	539026.05	4813897.27	319.38	0	E	A	69.6	8.7	-188.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	17.3	0.0	0.0	-172.3
235	539026.05	4813897.27	319.38	1	D	A	69.6	8.7	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	21.9	0.0	3.3	6.2
235	539026.05	4813897.27	319.38	1	N	A	69.6	8.7	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	21.9	0.0	3.3	6.2
235	539026.05	4813897.27	319.38	1	E	A	69.6	8.7	-188.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	21.9	0.0	3.3	-181.8
237	539024.28	4813900.26	319.38	1	D	A	69.6	-3.7	0.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	21.6	0.0	1.0	-2.4
237	539024.28	4813900.26	319.38	1	N	A	69.6	-3.7	0.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	21.6	0.0	1.0	-2.4
237	539024.28	4813900.26	319.38	1	E	A	69.6	-3.7	-188.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	21.6	0.0	1.0	-190.4
239	539026.05	4813897.27	320.38	0	D	A	69.6	8.7	0.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	16.9	0.0	0.0	16.2
239	539026.05	4813897.27	320.38	0	N	A	69.6	8.7	0.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	16.9	0.0	0.0	16.2
239	539026.05	4813897.27	320.38	0	E	A	69.6	8.7	-188.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	16.9	0.0	0.0	-171.8
243	539026.05	4813897.27	320.38	1	D	A	69.6	8.7	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	21.0	0.0	3.4	7.1
243	539026.05	4813897.27	320.38	1	N	A	69.6	8.7	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	21.0	0.0	3.4	7.1
243	539026.05	4813897.27	320.38	1	E	A	69.6	8.7	-188.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	21.0	0.0	3.4	-180.9
246	539024.28	4813900.26	320.38	1	D	A	69.6	-3.7	0.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	20.5	0.0	1.0	-1.3
246	539024.28	4813900.26	320.38	1	N	A	69.6	-3.7	0.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	20.5	0.0	1.0	-1.3
246	539024.28	4813900.26	320.38	1	E	A	69.6	-3.7	-188.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	20.5	0.0	1.0	-189.3
249	539026.05	4813897.27	323.38	0	D	A	69.6	8.7	0.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	11.0	0.0	0.0	22.0
249	539026.05	4813897.27	323.38	0	N	A	69.6	8.7	0.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	11.0	0.0	0.0	22.0
249	539026.05	4813897.27	323.38	0	E	A	69.6	8.7	-188.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	11.0	0.0	0.0	-166.0
253	539026.05	4813897.27	323.38	1	D	A	69.6	8.7	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	13.0	0.0	3.1	15.4
253	539026.05	4813897.27	323.38	1	N	A	69.6	8.7	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	13.0	0.0	3.1	15.4
253	539026.05	4813897.27	323.38	1	E	A	69.6	8.7	-188.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	13.0	0.0	3.1	-172.6
268	539024.28	4813900.26	323.38	1	D	A	69.6	-3.7	0.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	11.0	0.0	1.0	8.2
268	539024.28	4813900.26	323.38	1	N	A	69.6	-3.7	0.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	11.0	0.0	1.0	8.2
268	539024.28	4813900.26	323.38	1	E	A	69.6	-3.7	-188.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	11.0	0.0	1.0	-179.8
271	539026.05	4813897.27	322.38	0	D	A	69.6	8.7	0.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	14.7	0.0	0.0	18.4
271	539026.05	4813897.27	322.38	0	N	A	69.6	8.7	0.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	14.7	0.0	0.0	18.4
271	539026.05	4813897.27	322.38	0	E	A	69.6	8.7	-188.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	14.7	0.0	0.0	-169.6
281	539026.05	4813897.27	322.38	1	D	A	69.6	8.7	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	17.5	0.0	3.3	10.7
281	539026.05	4813897.27	322.38	1	N	A	69.6	8.7	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	17.5	0.0	3.3	10.7
281	539026.05	4813897.27	322.38	1	E	A	69.6	8.7	-188.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	17.5	0.0	3.3	-177.3
284	539024.28	4813900.26	322.38	1	D	A	69.6	-3.7	0.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	16.5	0.0	1.0	2.7
284	539024.28	4813900.26	322.38	1	N	A	69.6	-3.7	0.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	16.5	0.0	1.0	2.7
284	539024.28	4813900.26	322.38	1	E	A	69.6	-3.7	-188.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	16.5	0.0	1.0	-185.3
287	539026.05	4813897.27	321.38	0	D	A	69.6	8.7	0.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	16.2	0.0	0.0	16.9

vert. Area Source, ISO 9613, Name: "East Wall Breakout Noise", ID: "!0E00!VA-02"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
287	539026.05	4813897.27	321.38	0	N	A	69.6	8.7	0.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	16.2	0.0	0.0	16.9
287	539026.05	4813897.27	321.38	0	E	A	69.6	8.7	-188.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	16.2	0.0	0.0	-171.1
289	539026.05	4813897.27	321.38	1	D	A	69.6	8.7	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	19.6	0.0	3.4	8.5
289	539026.05	4813897.27	321.38	1	N	A	69.6	8.7	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	19.6	0.0	3.4	8.5
289	539026.05	4813897.27	321.38	1	E	A	69.6	8.7	-188.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	19.6	0.0	3.4	-179.5
292	539024.28	4813900.26	321.38	1	D	A	69.6	-3.7	0.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	19.0	0.0	1.0	0.2
292	539024.28	4813900.26	321.38	1	N	A	69.6	-3.7	0.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	19.0	0.0	1.0	0.2
292	539024.28	4813900.26	321.38	1	E	A	69.6	-3.7	-188.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	19.0	0.0	1.0	-187.8
318	539026.05	4813897.27	318.44	0	D	A	69.6	8.1	0.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	17.6	0.0	0.0	14.9
318	539026.05	4813897.27	318.44	0	N	A	69.6	8.1	0.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	17.6	0.0	0.0	14.9
318	539026.05	4813897.27	318.44	0	E	A	69.6	8.1	-188.0	0.0	0.0	48.1	0.1	-3.0	0.0	0.0	17.6	0.0	0.0	-173.1
323	539026.05	4813897.27	318.44	1	D	A	69.6	8.1	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	22.6	0.0	3.3	5.0
323	539026.05	4813897.27	318.44	1	N	A	69.6	8.1	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	22.6	0.0	3.3	5.0
323	539026.05	4813897.27	318.44	1	E	A	69.6	8.1	-188.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	22.6	0.0	3.3	-183.0
326	539024.28	4813900.26	318.44	1	D	A	69.6	-4.3	0.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	22.3	0.0	1.0	-3.7
326	539024.28	4813900.26	318.44	1	N	A	69.6	-4.3	0.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	22.3	0.0	1.0	-3.7
326	539024.28	4813900.26	318.44	1	E	A	69.6	-4.3	-188.0	0.0	0.0	48.6	0.1	-3.0	0.0	0.0	22.3	0.0	1.0	-191.7

Point Source, ISO 9613, Name: "Office HVAC", ID: "!0E!S-10"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
295	539012.64	4813849.34	328.94	0	D	A	76.5	0.0	0.0	0.0	0.0	44.4	0.3	-2.8	0.0	0.0	3.4	0.0	0.0	31.3
295	539012.64	4813849.34	328.94	0	N	A	76.5	0.0	-3.0	0.0	0.0	44.4	0.3	-2.8	0.0	0.0	3.4	0.0	0.0	28.3
295	539012.64	4813849.34	328.94	0	E	A	76.5	0.0	-188.0	0.0	0.0	44.4	0.3	-2.8	0.0	0.0	3.4	0.0	0.0	-156.7
298	539012.64	4813849.34	328.94	1	D	A	76.5	0.0	0.0	0.0	0.0	48.9	0.5	-2.9	0.0	0.0	1.5	0.0	1.0	27.6
298	539012.64	4813849.34	328.94	1	N	A	76.5	0.0	-3.0	0.0	0.0	48.9	0.5	-2.9	0.0	0.0	1.5	0.0	1.0	24.5
298	539012.64	4813849.34	328.94	1	E	A	76.5	0.0	-188.0	0.0	0.0	48.9	0.5	-2.9	0.0	0.0	1.5	0.0	1.0	-160.4

Point Source, ISO 9613, Name: "Office HVAC", ID: "!0E!S-18"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
345	538995.77	4813841.37	328.94	0	D	A	76.5	0.0	0.0	0.0	0.0	46.7	0.4	-2.9	0.0	0.0	4.8	0.0	0.0	27.6
345	538995.77	4813841.37	328.94	0	N	A	76.5	0.0	-3.0	0.0	0.0	46.7	0.4	-2.9	0.0	0.0	4.8	0.0	0.0	24.5
345	538995.77	4813841.37	328.94	0	E	A	76.5	0.0	-188.0	0.0	0.0	46.7	0.4	-2.9	0.0	0.0	4.8	0.0	0.0	-160.4

Point Source, ISO 9613, Name: "Office HVAC", ID: "!0E!S-13"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
350	539003.02	4813869.03	328.94	0	D	A	76.5	0.0	0.0	0.0	0.0	47.2	0.4	-2.9	0.0	0.0	0.3	0.0	0.0	31.5
350	539003.02	4813869.03	328.94	0	N	A	76.5	0.0	-3.0	0.0	0.0	47.2	0.4	-2.9	0.0	0.0	0.3	0.0	0.0	28.5
350	539003.02	4813869.03	328.94	0	E	A	76.5	0.0	-188.0	0.0	0.0	47.2	0.4	-2.9	0.0	0.0	0.3	0.0	0.0	-156.5

Point Source, ISO 9613, Name: "Office HVAC", ID: "!0E!S-16"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
357	538991.18	4813848.80	328.94	0	D	A	76.5	0.0	0.0	0.0	0.0	47.5	0.4	-2.9	0.0	0.0	6.9	0.0	0.0	24.6
357	538991.18	4813848.80	328.94	0	N	A	76.5	0.0	-3.0	0.0	0.0	47.5	0.4	-2.9	0.0	0.0	6.9	0.0	0.0	21.6
357	538991.18	4813848.80	328.94	0	E	A	76.5	0.0	-188.0	0.0	0.0	47.5	0.4	-2.9	0.0	0.0	6.9	0.0	0.0	-163.4

Point Source, ISO 9613, Name: "Office HVAC", ID: "!0E!S-12"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
359	538999.81	4813874.89	328.94	0	D	A	76.5	0.0	0.0	0.0	0.0	48.0	0.4	-2.9	0.0	0.0	2.2	0.0	0.0	28.8
359	538999.81	4813874.89	328.94	0	N	A	76.5	0.0	-3.0	0.0	0.0	48.0	0.4	-2.9	0.0	0.0	2.2	0.0	0.0	25.8
359	538999.81	4813874.89	328.94	0	E	A	76.5	0.0	-188.0	0.0	0.0	48.0	0.4	-2.9	0.0	0.0	2.2	0.0	0.0	-159.2

Area Source, ISO 9613, Name: "Ceiling Breakout Noise - Continuous", ID: "!0E00!A-01"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
361	539019.45	4813891.98	323.93	0	D	A	57.6	16.8	0.0	0.0	0.0	47.9	0.1	-3.0	0.0	0.0	4.5	0.0	0.0	24.8
361	539019.45	4813891.98	323.93	0	N	A	57.6	16.8	0.0	0.0	0.0	47.9	0.1	-3.0	0.0	0.0	4.5	0.0	0.0	24.8
361	539019.45	4813891.98	323.93	0	E	A	57.6	16.8	-188.0	0.0	0.0	47.9	0.1	-3.0	0.0	0.0	4.5	0.0	0.0	-163.2
363	539024.99	4813893.19	323.93	1	D	A	57.6	7.6	0.0	0.0	0.0	49.3	0.1	-3.0	0.0	0.0	4.3	0.0	2.2	12.3
363	539024.99	4813893.19	323.93	1	N	A	57.6	7.6	0.0	0.0	0.0	49.3	0.1	-3.0	0.0	0.0	4.3	0.0	2.2	12.3

Area Source, ISO 9613, Name: "Ceiling Breakout Noise - Continuous", ID: "!0E00!A-01"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
363	539024.99	4813893.19	323.93	1	E	A	57.6	7.6	-188.0	0.0	0.0	49.3	0.1	-3.0	0.0	0.0	4.3	0.0	2.2	-175.7
365	539019.84	4813891.73	323.93	1	D	A	57.6	14.8	0.0	0.0	0.0	49.1	0.1	-3.0	0.0	0.0	4.3	0.0	2.2	19.6
365	539019.84	4813891.73	323.93	1	N	A	57.6	14.8	0.0	0.0	0.0	49.1	0.1	-3.0	0.0	0.0	4.3	0.0	2.2	19.6
365	539019.84	4813891.73	323.93	1	E	A	57.6	14.8	-188.0	0.0	0.0	49.1	0.1	-3.0	0.0	0.0	4.3	0.0	2.2	-168.4
367	539015.96	4813891.90	323.93	1	D	A	57.6	10.4	0.0	0.0	0.0	49.1	0.1	-3.0	0.0	0.0	4.3	0.0	12.9	4.6
367	539015.96	4813891.90	323.93	1	N	A	57.6	10.4	0.0	0.0	0.0	49.1	0.1	-3.0	0.0	0.0	4.3	0.0	12.9	4.6
367	539015.96	4813891.90	323.93	1	E	A	57.6	10.4	-188.0	0.0	0.0	49.1	0.1	-3.0	0.0	0.0	4.3	0.0	12.9	-183.4
379	539019.12	4813895.71	323.93	0	D	A	57.6	13.7	0.0	0.0	0.0	48.3	0.1	-3.0	0.0	0.0	4.5	0.0	0.0	21.3
379	539019.12	4813895.71	323.93	0	N	A	57.6	13.7	0.0	0.0	0.0	48.3	0.1	-3.0	0.0	0.0	4.5	0.0	0.0	21.3
379	539019.12	4813895.71	323.93	0	E	A	57.6	13.7	-188.0	0.0	0.0	48.3	0.1	-3.0	0.0	0.0	4.5	0.0	0.0	-166.7
387	539023.83	4813896.96	323.93	0	D	A	57.6	13.4	0.0	0.0	0.0	48.2	0.1	-3.0	0.0	0.0	4.5	0.0	0.0	21.2
387	539023.83	4813896.96	323.93	0	N	A	57.6	13.4	0.0	0.0	0.0	48.2	0.1	-3.0	0.0	0.0	4.5	0.0	0.0	21.2
387	539023.83	4813896.96	323.93	0	E	A	57.6	13.4	-188.0	0.0	0.0	48.2	0.1	-3.0	0.0	0.0	4.5	0.0	0.0	-166.8
391	539026.27	4813896.25	323.93	0	D	A	57.6	4.7	0.0	0.0	0.0	48.0	0.1	-3.0	0.0	0.0	4.5	0.0	0.0	12.7
391	539026.27	4813896.25	323.93	0	N	A	57.6	4.7	0.0	0.0	0.0	48.0	0.1	-3.0	0.0	0.0	4.5	0.0	0.0	12.7
391	539026.27	4813896.25	323.93	0	E	A	57.6	4.7	-188.0	0.0	0.0	48.0	0.1	-3.0	0.0	0.0	4.5	0.0	0.0	-175.3
398	539019.58	4813896.10	323.93	1	D	A	57.6	14.3	0.0	0.0	0.0	49.6	0.1	-3.0	0.0	0.0	4.3	0.0	2.2	18.7
398	539019.58	4813896.10	323.93	1	N	A	57.6	14.3	0.0	0.0	0.0	49.6	0.1	-3.0	0.0	0.0	4.3	0.0	2.2	18.7
398	539019.58	4813896.10	323.93	1	E	A	57.6	14.3	-188.0	0.0	0.0	49.6	0.1	-3.0	0.0	0.0	4.3	0.0	2.2	-169.3
403	539023.26	4813897.23	323.93	1	D	A	57.6	8.7	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	4.2	0.0	2.2	13.0
403	539023.26	4813897.23	323.93	1	N	A	57.6	8.7	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	4.2	0.0	2.2	13.0
403	539023.26	4813897.23	323.93	1	E	A	57.6	8.7	-188.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	4.2	0.0	2.2	-175.0
406	539025.19	4813896.26	323.93	1	D	A	57.6	11.3	0.0	0.0	0.0	49.6	0.1	-3.0	0.0	0.0	4.2	0.0	2.2	15.8
406	539025.19	4813896.26	323.93	1	N	A	57.6	11.3	0.0	0.0	0.0	49.6	0.1	-3.0	0.0	0.0	4.2	0.0	2.2	15.8
406	539025.19	4813896.26	323.93	1	E	A	57.6	11.3	-188.0	0.0	0.0	49.6	0.1	-3.0	0.0	0.0	4.2	0.0	2.2	-172.2

Point Source, ISO 9613, Name: "Office HVAC", ID: "!0E!S-15"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
410	538986.88	4813855.97	328.94	0	D	A	76.5	0.0	0.0	0.0	0.0	48.3	0.4	-2.9	0.0	0.0	7.8	0.0	0.0	22.9
410	538986.88	4813855.97	328.94	0	N	A	76.5	0.0	-3.0	0.0	0.0	48.3	0.4	-2.9	0.0	0.0	7.8	0.0	0.0	19.9
410	538986.88	4813855.97	328.94	0	E	A	76.5	0.0	-188.0	0.0	0.0	48.3	0.4	-2.9	0.0	0.0	7.8	0.0	0.0	-165.1

Point Source, ISO 9613, Name: "Office HVAC", ID: "!0E!S-11"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
413	538996.55	4813880.50	328.94	0	D	A	76.5	0.0	0.0	0.0	0.0	48.7	0.5	-2.9	0.0	0.0	3.4	0.0	0.0	26.9
413	538996.55	4813880.50	328.94	0	N	A	76.5	0.0	-3.0	0.0	0.0	48.7	0.5	-2.9	0.0	0.0	3.4	0.0	0.0	23.9
413	538996.55	4813880.50	328.94	0	E	A	76.5	0.0	-188.0	0.0	0.0	48.7	0.5	-2.9	0.0	0.0	3.4	0.0	0.0	-161.1

Point Source, ISO 9613, Name: "Office HVAC", ID: "!0E!S-14"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
416	538982.36	4813863.45	328.94	0	D	A	76.5	0.0	0.0	0.0	0.0	49.1	0.5	-2.9	0.0	0.0	7.7	0.0	0.0	22.3
416	538982.36	4813863.45	328.94	0	N	A	76.5	0.0	-3.0	0.0	0.0	49.1	0.5	-2.9	0.0	0.0	7.7	0.0	0.0	19.2
416	538982.36	4813863.45	328.94	0	E	A	76.5	0.0	-188.0	0.0	0.0	49.1	0.5	-2.9	0.0	0.0	7.7	0.0	0.0	-165.7

Point Source, ISO 9613, Name: "Office HVAC", ID: "!0E!S-09"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
418	538978.83	4813869.84	328.94	0	D	A	76.5	0.0	0.0	0.0	0.0	49.7	0.5	-2.9	0.0	0.0	7.8	0.0	0.0	21.5
418	538978.83	4813869.84	328.94	0	N	A	76.5	0.0	-3.0	0.0	0.0	49.7	0.5	-2.9	0.0	0.0	7.8	0.0	0.0	18.5
418	538978.83	4813869.84	328.94	0	E	A	76.5	0.0	-188.0	0.0	0.0	49.7	0.5	-2.9	0.0	0.0	7.8	0.0	0.0	-166.5
420	538978.83	4813869.84	328.94	2	D	A	76.5	0.0	0.0	0.0	0.0	51.9	0.6	-3.0	0.0	0.0	2.6	0.0	2.1	22.3
420	538978.83	4813869.84	328.94	2	N	A	76.5	0.0	-3.0	0.0	0.0	51.9	0.6	-3.0	0.0	0.0	2.6	0.0	2.1	19.3
420	538978.83	4813869.84	328.94	2	E	A	76.5	0.0	-188.0	0.0	0.0	51.9	0.6	-3.0	0.0	0.0	2.6	0.0	2.1	-165.7

Point Source, ISO 9613, Name: "Ventilation Fan", ID: "!0E!S-08"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
493	539020.37	4813894.28	324.88	0	D	A	69.6	0.0	0.0	0.0	0.0	48.1	0.5	-2.9	0.0	0.0	4.1	0.0	0.0	19.8
493	539020.37	4813894.28	324.88	0	N	A	69.6	0.0	-188.0	0.0	0.0	48.1	0.5	-2.9	0.0	0.0	4.1	0.0	0.0	-168.2
493	539020.37	4813894.28	324.88	0	E	A	69.6	0.0	-188.0	0.0	0.0	48.1	0.5	-2.9	0.0	0.0	4.1	0.0	0.0	-168.2

Point Source, ISO 9613, Name: "Ventilation Fan", ID: "!0E!S-08"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
495	539020.37	4813894.28	324.88	1	D	A	69.6	0.0	0.0	0.0	0.0	49.4	0.6	-3.0	0.0	0.0	3.7	0.0	1.1	17.8
495	539020.37	4813894.28	324.88	1	N	A	69.6	0.0	-188.0	0.0	0.0	49.4	0.6	-3.0	0.0	0.0	3.7	0.0	1.1	-170.2
495	539020.37	4813894.28	324.88	1	E	A	69.6	0.0	-188.0	0.0	0.0	49.4	0.6	-3.0	0.0	0.0	3.7	0.0	1.1	-170.2

vert. Area Source, ISO 9613, Name: "South Wall Breakout Noise", ID: "!0E00!VA-03"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
497	539022.61	4813890.82	322.38	0	D	A	52.6	10.9	0.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	9.0	0.0	0.0	9.9
497	539022.61	4813890.82	322.38	0	N	A	52.6	10.9	0.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	9.0	0.0	0.0	9.9
497	539022.61	4813890.82	322.38	0	E	A	52.6	10.9	-188.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	9.0	0.0	0.0	-178.1
500	539022.61	4813890.82	322.38	1	D	A	52.6	10.9	0.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	8.8	0.0	7.7	1.0
500	539022.61	4813890.82	322.38	1	N	A	52.6	10.9	0.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	8.8	0.0	7.7	1.0
500	539022.61	4813890.82	322.38	1	E	A	52.6	10.9	-188.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	8.8	0.0	7.7	-187.0
503	539022.61	4813890.82	322.38	2	D	A	52.6	10.9	0.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	6.8	0.0	8.2	2.7
503	539022.61	4813890.82	322.38	2	N	A	52.6	10.9	0.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	6.8	0.0	8.2	2.7
503	539022.61	4813890.82	322.38	2	E	A	52.6	10.9	-188.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	6.8	0.0	8.2	-185.3
506	539022.61	4813890.82	323.38	0	D	A	52.6	10.9	0.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	6.0	0.0	0.0	12.9
506	539022.61	4813890.82	323.38	0	N	A	52.6	10.9	0.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	6.0	0.0	0.0	12.9
506	539022.61	4813890.82	323.38	0	E	A	52.6	10.9	-188.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	6.0	0.0	0.0	-175.1
509	539022.61	4813890.82	323.38	1	D	A	52.6	10.9	0.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	5.7	0.0	6.6	5.2
509	539022.61	4813890.82	323.38	1	N	A	52.6	10.9	0.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	5.7	0.0	6.6	5.2
509	539022.61	4813890.82	323.38	1	E	A	52.6	10.9	-188.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	5.7	0.0	6.6	-182.8
512	539022.61	4813890.82	323.38	2	D	A	52.6	10.9	0.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	5.2	0.0	7.4	5.1
512	539022.61	4813890.82	323.38	2	N	A	52.6	10.9	0.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	5.2	0.0	7.4	5.1
512	539022.61	4813890.82	323.38	2	E	A	52.6	10.9	-188.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	5.2	0.0	7.4	-182.9
514	539022.61	4813890.82	321.38	0	D	A	52.6	10.9	0.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	11.6	0.0	0.0	7.2
514	539022.61	4813890.82	321.38	0	N	A	52.6	10.9	0.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	11.6	0.0	0.0	7.2
514	539022.61	4813890.82	321.38	0	E	A	52.6	10.9	-188.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	11.6	0.0	0.0	-180.8
516	539022.61	4813890.82	321.38	1	D	A	52.6	10.9	0.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	11.6	0.0	8.2	-2.3
516	539022.61	4813890.82	321.38	1	N	A	52.6	10.9	0.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	11.6	0.0	8.2	-2.3
516	539022.61	4813890.82	321.38	1	E	A	52.6	10.9	-188.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	11.6	0.0	8.2	-190.3
519	539022.61	4813890.82	321.38	2	D	A	52.6	10.9	0.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	8.7	0.0	8.8	0.3
519	539022.61	4813890.82	321.38	2	N	A	52.6	10.9	0.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	8.7	0.0	8.8	0.3
519	539022.61	4813890.82	321.38	2	E	A	52.6	10.9	-188.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	8.7	0.0	8.8	-187.7
527	539022.61	4813890.82	319.38	0	D	A	52.6	10.9	0.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	15.0	0.0	0.0	3.9
527	539022.61	4813890.82	319.38	0	N	A	52.6	10.9	0.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	15.0	0.0	0.0	3.9
527	539022.61	4813890.82	319.38	0	E	A	52.6	10.9	-188.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	15.0	0.0	0.0	-184.1
530	539022.61	4813890.82	319.38	1	D	A	52.6	10.9	0.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	15.5	0.0	8.6	-6.6
530	539022.61	4813890.82	319.38	1	N	A	52.6	10.9	0.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	15.5	0.0	8.6	-6.6
530	539022.61	4813890.82	319.38	1	E	A	52.6	10.9	-188.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	15.5	0.0	8.6	-194.6
532	539022.61	4813890.82	319.38	2	D	A	52.6	10.9	0.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	11.9	0.0	9.4	-3.6
532	539022.61	4813890.82	319.38	2	N	A	52.6	10.9	0.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	11.9	0.0	9.4	-3.6
532	539022.61	4813890.82	319.38	2	E	A	52.6	10.9	-188.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	11.9	0.0	9.4	-191.6
536	539022.61	4813890.82	320.38	0	D	A	52.6	10.9	0.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	13.6	0.0	0.0	5.3
536	539022.61	4813890.82	320.38	0	N	A	52.6	10.9	0.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	13.6	0.0	0.0	5.3
536	539022.61	4813890.82	320.38	0	E	A	52.6	10.9	-188.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	13.6	0.0	0.0	-182.7
538	539022.61	4813890.82	320.38	1	D	A	52.6	10.9	0.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	13.8	0.0	8.5	-4.8
538	539022.61	4813890.82	320.38	1	N	A	52.6	10.9	0.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	13.8	0.0	8.5	-4.8
538	539022.61	4813890.82	320.38	1	E	A	52.6	10.9	-188.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	13.8	0.0	8.5	-192.8
541	539022.61	4813890.82	320.38	2	D	A	52.6	10.9	0.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	10.4	0.0	9.2	-1.8
541	539022.61	4813890.82	320.38	2	N	A	52.6	10.9	0.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	10.4	0.0	9.2	-1.8
541	539022.61	4813890.82	320.38	2	E	A	52.6	10.9	-188.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	10.4	0.0	9.2	-189.8
543	539022.61	4813890.82	318.44	0	D	A	52.6	10.4	0.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	16.0	0.0	0.0	2.4
543	539022.61	4813890.82	318.44	0	N	A	52.6	10.4	0.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	16.0	0.0	0.0	2.4
543	539022.61	4813890.82	318.44	0	E	A	52.6	10.4	-188.0	0.0	0.0	47.6	0.0	-3.0	0.0	0.0	16.0	0.0	0.0	-185.6
549	539022.61	4813890.82	318.44	1	D	A	52.6	10.4	0.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	16.8	0.0	8.6	-8.5
549	539022.61	4813890.82	318.44	1	N	A	52.6	10.4	0.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	16.8	0.0	8.6	-8.5
549	539022.61	4813890.82	318.44	1	E	A	52.6	10.4	-188.0	0.0	0.0	49.0	0.1	-3.0	0.0	0.0	16.8	0.0	8.6	-196.5
552	539022.61	4813890.82	318.44	2	D	A	52.6	10.4	0.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	13.2	0.0	9.5	-5.5
552	539022.61	4813890.82	318.44	2	N	A	52.6	10.4	0.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	13.2	0.0	9.5	-5.5
552	539022.61	4813890.82	318.44	2	E	A	52.6	10.4	-188.0	0.0	0.0	48.8	0.0	-3.0	0.0	0.0	13.2	0.0	9.5	-193.5

vert. Area Source, ISO 9613, Name: "North Wall Breakout Noise", ID: "!0E00!VA-01"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
554	539018.59	4813897.51	321.38	0	D	A	52.6	11.0	0.0	0.0	0.0	48.5	0.0	-3.0	0.0	0.0	16.9	0.0	0.0	1.1
554	539018.59	4813897.51	321.38	0	N	A	52.6	11.0	0.0	0.0	0.0	48.5	0.0	-3.0	0.0	0.0	16.9	0.0	0.0	1.1
554	539018.59	4813897.51	321.38	0	E	A	52.6	11.0	-188.0	0.0	0.0	48.5	0.0	-3.0	0.0	0.0	16.9	0.0	0.0	-186.9
560	539019.08	4813897.80	321.38	1	D	A	52.6	10.5	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	17.8	0.0	8.5	-10.0
560	539019.08	4813897.80	321.38	1	N	A	52.6	10.5	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	17.8	0.0	8.5	-10.0
560	539019.08	4813897.80	321.38	1	E	A	52.6	10.5	-188.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	17.8	0.0	8.5	-198.0
564	539018.59	4813897.51	320.38	0	D	A	52.6	11.0	0.0	0.0	0.0	48.5	0.0	-3.0	0.0	0.0	17.9	0.0	0.0	0.0
564	539018.59	4813897.51	320.38	0	N	A	52.6	11.0	0.0	0.0	0.0	48.5	0.0	-3.0	0.0	0.0	17.9	0.0	0.0	0.0
564	539018.59	4813897.51	320.38	0	E	A	52.6	11.0	-188.0	0.0	0.0	48.5	0.0	-3.0	0.0	0.0	17.9	0.0	0.0	-188.0
567	539019.08	4813897.80	320.38	1	D	A	52.6	10.5	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	19.2	0.0	8.6	-11.4
567	539019.08	4813897.80	320.38	1	N	A	52.6	10.5	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	19.2	0.0	8.6	-11.4
567	539019.08	4813897.80	320.38	1	E	A	52.6	10.5	-188.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	19.2	0.0	8.6	-199.4
569	539018.59	4813897.51	322.38	0	D	A	52.6	11.0	0.0	0.0	0.0	48.5	0.0	-3.0	0.0	0.0	15.1	0.0	0.0	2.9
569	539018.59	4813897.51	322.38	0	N	A	52.6	11.0	0.0	0.0	0.0	48.5	0.0	-3.0	0.0	0.0	15.1	0.0	0.0	2.9
569	539018.59	4813897.51	322.38	0	E	A	52.6	11.0	-188.0	0.0	0.0	48.5	0.0	-3.0	0.0	0.0	15.1	0.0	0.0	-185.1
572	539019.08	4813897.80	322.38	1	D	A	52.6	10.5	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	15.7	0.0	8.4	-7.8
572	539019.08	4813897.80	322.38	1	N	A	52.6	10.5	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	15.7	0.0	8.4	-7.8
572	539019.08	4813897.80	322.38	1	E	A	52.6	10.5	-188.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	15.7	0.0	8.4	-195.8
575	539018.59	4813897.51	319.38	0	D	A	52.6	11.0	0.0	0.0	0.0	48.6	0.0	-3.0	0.0	0.0	18.7	0.0	0.0	-0.7
575	539018.59	4813897.51	319.38	0	N	A	52.6	11.0	0.0	0.0	0.0	48.6	0.0	-3.0	0.0	0.0	18.7	0.0	0.0	-0.7
575	539018.59	4813897.51	319.38	0	E	A	52.6	11.0	-188.0	0.0	0.0	48.6	0.0	-3.0	0.0	0.0	18.7	0.0	0.0	-188.7
577	539019.08	4813897.80	319.38	1	D	A	52.6	10.5	0.0	0.0	0.0	49.8	0.1	-3.0	0.0	0.0	20.2	0.0	8.5	-12.4
577	539019.08	4813897.80	319.38	1	N	A	52.6	10.5	0.0	0.0	0.0	49.8	0.1	-3.0	0.0	0.0	20.2	0.0	8.5	-12.4
577	539019.08	4813897.80	319.38	1	E	A	52.6	10.5	-188.0	0.0	0.0	49.8	0.1	-3.0	0.0	0.0	20.2	0.0	8.5	-200.4
580	539018.59	4813897.51	323.38	0	D	A	52.6	11.0	0.0	0.0	0.0	48.5	0.0	-3.0	0.0	0.0	11.6	0.0	0.0	6.4
580	539018.59	4813897.51	323.38	0	N	A	52.6	11.0	0.0	0.0	0.0	48.5	0.0	-3.0	0.0	0.0	11.6	0.0	0.0	6.4
580	539018.59	4813897.51	323.38	0	E	A	52.6	11.0	-188.0	0.0	0.0	48.5	0.0	-3.0	0.0	0.0	11.6	0.0	0.0	-181.6
582	539019.08	4813897.80	323.38	1	D	A	52.6	10.5	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	11.6	0.0	8.1	-3.3
582	539019.08	4813897.80	323.38	1	N	A	52.6	10.5	0.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	11.6	0.0	8.1	-3.3
582	539019.08	4813897.80	323.38	1	E	A	52.6	10.5	-188.0	0.0	0.0	49.7	0.1	-3.0	0.0	0.0	11.6	0.0	8.1	-191.3
584	539018.59	4813897.51	318.44	0	D	A	52.6	10.4	0.0	0.0	0.0	48.6	0.0	-3.0	0.0	0.0	19.2	0.0	0.0	-1.8
584	539018.59	4813897.51	318.44	0	N	A	52.6	10.4	0.0	0.0	0.0	48.6	0.0	-3.0	0.0	0.0	19.2	0.0	0.0	-1.8
584	539018.59	4813897.51	318.44	0	E	A	52.6	10.4	-188.0	0.0	0.0	48.6	0.0	-3.0	0.0	0.0	19.2	0.0	0.0	-189.8
586	539019.08	4813897.80	318.44	1	D	A	52.6	10.0	0.0	0.0	0.0	49.8	0.1	-3.0	0.0	0.0	21.0	0.0	8.5	-13.7
586	539019.08	4813897.80	318.44	1	N	A	52.6	10.0	0.0	0.0	0.0	49.8	0.1	-3.0	0.0	0.0	21.0	0.0	8.5	-13.7
586	539019.08	4813897.80	318.44	1	E	A	52.6	10.0	-188.0	0.0	0.0	49.8	0.1	-3.0	0.0	0.0	21.0	0.0	8.5	-201.7

Appendix D

Consultant's Declaration

CANADA

PROVINCE OF ONTARIO

) In the Matter of the
) Environmental Protection
) Act and the Planning Act
)
)
) And in the Matter of
) 200 Weber Street North
) in the City of Waterloo
) in the Regional Municipality
) of Waterloo

I, Ben Wiseman, of the City of Kitchener, in the Regional Municipality of Waterloo, SOLEMNLY DECLARE THAT:

1. I am an Acoustic Specialist with a Professional Engineering License, license number 100216175, issued through the Ontario Professional Engineers Act by Professional Engineers of Ontario (PEO) employed by GHD Limited (GHD) which holds a Certificate of Authorization and have personal knowledge of the matters set out below.
2. I was retained or employed as the principal consultant to undertake the assessment of noise impacts and recommendation of noise mitigation measures for the property described as 200 Weber Street North, Waterloo, Ontario.
3. I have the expertise required to perform these services. Any assessment activities or recommendations requiring the application of engineering principles have been undertaken or supervised by an engineer qualified to perform such services.
4. The information used in the letter report entitled "Noise Impact Study" dated December 19, 2024, is the best available information as of the date of the study.
5. The noise level calculations, the interpretation of noise attenuation requirements, and the recommended measures are in accordance with Ontario Ministry of Environment Guidelines, Region of Waterloo policies, and any applicable policy or guidelines of the Area Municipality, and any other applicable policy or guideline.
6. The physical noise attenuation measures proposed in this study are feasible to implement and will provide the level of attenuation indicated in the study.
7. I acknowledge that this study may be subject to peer review at my cost.
8. I acknowledge that public authorities and future owners, occupants and others may rely on this statement.

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

DECLARED before me at the City of Waterloo, in the Regional Municipality of Waterloo
This 19th day of December, 2024

)
)

Ben Wiseman

Ben Wiseman

KRISTEN MARIE ABLITT NOTARY PUBLIC ONTARIO

Appendix E

Owner's Statement

Name: Shawn Walsh
Address:
130 Dearborn Place
Waterloo ON
N2J4N5.

Re: Noise Impact Study for the Proposed Commercial Development at 200 Weber Street North in Waterloo, Ontario

OWNER'S STATEMENT

I am the owner of the property, or the owner's agent, and that I understand and agree with the noise assessment and potential attenuation measures detailed in the study entitled "Noise Impact Study" dated December 19th, 2024, for the proposed commercial development located at 200 Weber Street in Waterloo, Ontario.

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

Shawn Walsh
Name

Signature

January 20, 2025.
Date

