



Noise Impact Study

**St. Jacobs North Lands –
52 Hawkesville Road, 110 &
118 Northside Drive**

Schlegel Urban Developments Corp.

30 April 2025

➔ **The Power of Commitment**



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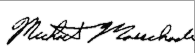


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Executive Summary

GHD Limited (GHD) was retained by *Schlegel Urban Developments Corp.* to prepare a Land Use Compatibility Study for the proposed residential development (Development) located at 52 Hawkesville Road, 110 & 118 Northside Drive, St. Jacobs, Ontario (Site). This Study has been prepared in support of the planning approvals for the Development.

The Development consists of eleven blocks of low density/semi/street towns, five blocks of low-density residential dwellings, and two blocks containing multi-residential buildings. The concept also includes stormwater management (one block), one park, and a parkette.

The purpose of this Study is to assess the following potential impacts:

- Noise impacts at the Development due to future road traffic
- Noise impacts at the Development due to future rail traffic
- Stationary noise impacts from off-site industrial/commercial facilities
- Stationary noise impacts from on-site HVAC equipment

Predicted ambient noise levels at the Development due to future road traffic is sufficiently high that noise mitigation is required in the form of upgraded building façade components, the installation of central air conditioning, and warning clauses.

GHD conducted a site visit to observe and measure noise emissions from any nearby stationary sources. Cumulative stationary noise levels at the Site from nearby industrial and commercial facilities are within the applicable stationary noise limits of the MECP. Therefore, the Development is not expected reduce the ability of the facilities to comply with the MECP noise guidelines.

The adjacent rail line is a spur line with infrequent train movements (approximately 2 trains per day). CN's Proximity department has confirmed that vibration impact assessment is not warranted for sensitive uses adjacent to spur lines.

This report is subject to, and must be read in conjunction with, the limitations set out in section 1.2 and the assumptions and qualifications contained throughout the Report.

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1. Introduction

1.1 Purpose of this Report

GHD Limited (GHD) was retained by *Schlegel Urban Developments Corp.* to prepare a Noise Impact Study (Study) for the proposed residential development (Development) located at 52 Hawkesville Road, 110 & 118 Northside Drive, St. Jacobs, Ontario (Site). This Study has been prepared in support of the planning applications for the Development.

1.2 Scope and Limitations

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

GHD otherwise disclaims responsibility to any person other than Schlegel Urban Developments Corp. 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. Site and Development Description

The Site is located in the northwest quadrant of the intersection of Hawkesville Road and Northside Drive, approximately 155 metres southwest of Highway 85. The Waterloo Spur Line (owned by the Southern Ontario Locomotive Restoration Society and operated by the Waterloo Central Railway and Canadian National Railway [CN]), is located approximately 15 metres west of the Site. A key plan is included as Figure 2.1, which shows the location of the Site in relation to these transportation corridors.

The Site is currently zoned as Agricultural (A). The lands surrounding the Site include properties zoned as Agricultural (A) to the south, west, and north, Institutional (P) to the east, Residential to the east, and Employment (EM-1) and Commercial (C-1) to the far east. A zoning map is included in Figure A.1 of Appendix A.

The area surrounding the Site includes terrain elevation changes particularly to the south and east of the Site which has been captured in the noise model using elevation data obtained from Ontario GeoHub.

The Development consists of eleven blocks of low density/semi/street towns, five blocks of low-density residential dwellings, and two blocks containing multi-residential buildings. The concept also includes stormwater management (one block), a park, and a parkette.

The adjacent rail line is a spur line with infrequent train movements (approximately 2 trains per day). CN's Proximity department has confirmed that vibration impact assessment is not warranted for sensitive uses adjacent to spur lines.

3. Local Industries

3.1 Provincial Planning Statement

The Provincial Planning Statement (“PPS”) is a consolidated statement of the provincial government’s policies on land use planning. It “provides policy direction on matters of provincial interest related to land use planning and development. As a key part of Ontario’s policy-led planning system, the Provincial Planning Statement sets the policy foundation for regulating the development and use of land province-wide, helping achieve the provincial goal of meeting the needs of a fast-growing province while enhancing the quality of life for all Ontarians.”

The PPS, 2024 became effective on October 20, 2024. Policy direction concerning land use compatibility is provided in Section 3.5 of the PPS, 2024:

- “1. Major facilities and sensitive land uses shall be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term operational and economic viability of major facilities in accordance with provincial guidelines, standards and procedures.
2. Where avoidance is not possible in accordance with policy 3.5.1, planning authorities shall protect the long-term viability of existing or planned industrial, manufacturing or other major facilities that are vulnerable to encroachment by ensuring that the planning and development of proposed adjacent sensitive land uses is only permitted if potential adverse effects to the proposed sensitive land use are minimized and mitigated, and potential impacts to industrial, manufacturing or other major facilities are minimized and mitigated in accordance with provincial guidelines, standards and procedures.”

The goals of the PPS are implemented through Municipal and Provincial policies, as discussed below. Provided the Municipal and Provincial policies, guidelines, standards and procedures are met, the requirements of the PPS will be met.

3.2 Guideline D-6

The MECP Guideline D-6 "Compatibility Between Industrial Facilities and Sensitive Land Uses" (Guideline D-6) provides recommended minimum separation distances (RMSD) and potential areas of influence (AOI) based on the class of the industrial facility. RMSDs are provided based on the industry size and operation type. The guideline provides direction for land use planning to maximize compatibility of industrial uses with adjacent land uses. The goal of Guideline D-6 is to minimize encroachment of sensitive land uses on industrial facilities and vice versa, in order to address potential incompatibility due to adverse effects including noise, and vibration.

Guideline D-6 separates industries into three broad categories, depending on the nature of their operations and the types of potential impacts:

- **Class I industries** are small scale, self-contained plants or buildings, which produce and store products internally, and have low probability of fugitive emissions. They have daytime operations only, with infrequent movements of products and/or heavy trucks. Some examples include furniture repair and refinishing, electronics manufacturing, auto parts supply, distribution of dairy products, and beverages bottling.
- **Class II industries** perform medium scale processing, with occasional outputs of point source or fugitive emissions. Activities may include some outdoor storage of wastes and materials, frequent movement of products and/or heavy trucks during the daytime, and shift work. Some examples include paint spray booths, feed packing plant, dairy product manufacturing, and dry-cleaning services.
- **Class III industries** conduct large-scale manufacturing and are characterized by persistent and/or intense dust and/or odour, frequent outputs of major annoyances, and have a high probability of fugitive emissions. Activities may include continuous operations and movements of products, outside storage of raw and finished goods, and high levels of production. Some examples include manufacturing of paint and varnish, manufacturing of resins and coatings, solvent recovery plants, organic chemicals manufacturing, breweries, and metal manufacturing.

The following table summarizes the recommended minimum setback distances and areas of potential influence which represent the distances within which adverse effects could potentially occur.

Table 3.1 *Guideline D-6 Industry Separation Distances*

Industry Classification	RMSD (metres)	AOI (metres)
Class I	20	70
Class II	70	300
Class III	300	1,000

Guideline D-6 provides criteria for classifying industrial land uses, based on their outputs, scale of operations, processes, schedule, and intensity of operations. Often an industry will fall between two Classes. Guideline D-6 states that no incompatible development should occur within the recommended minimum separation distance as noted in Table 3.1. In cases where the recommended minimum separation distances are not met, further detailed assessment is warranted to ensure compatibility as stated in guideline D-6.

3.3 Measurement of Setback Distances

As per Section 4.4.4 of Guideline D-6, where the established use of on-site lands is non-sensitive (e.g., parking lot), the separation distance and setbacks may be measured from the locations which are considered sensitive. In this case, the Development includes a series of residential blocks that are adjacent to non-sensitive uses that are within the Site; therefore, the setbacks and separation distances are measured from the perimeter of the proposed residential blocks.

3.3.1 Classification of Industries

GHD has reviewed available information pertaining to the commercial/industrial facilities in the general vicinity of the Site, including Environmental Compliance Approvals (ECAs) and Environmental Activity Sector Registrations (EASRs) where applicable, to apply the appropriate classification per Guideline D-6. GHD's evaluation and classification of these facilities is summarized in Table 3.2 below.

Table 3.2 Summary of Key Industries Nearby to the Development

Facility Name	Address	MECP Permit / Registration (Air / Noise)	Description of Operations	D-6 Class	RMSD (m)	AOI (m)	Distance from Site (m)	Further Assessment(s) Warranted?
St. Jacob's Produce	51 Hawkesville Road	N/A	Produce distribution centre: – Medium-scale operations – Frequent truck movements – Some outdoor storage of raw materials or products	II	70	300	20	Yes (Noise)
Art's Auto Electric	1549 King Street N	N/A	Auto Body Shop: – Small-scale, self-contained operations – Infrequent truck movements – No outdoor storage of raw materials or products – Noise occasionally audible off-property	II	70	300	300	No (observed to be insignificant)
Mose Martin's Garage	47 Northside Drive	N/A	Auto Body Shop: – Small-scale, self-contained operations – Infrequent truck movements – No outdoor storage of raw materials or products – Noise occasionally audible off-property	II	70	300	215	No (observed to be insignificant)
C-Max Fire Solutions	3040 Sawmill Road	N/A	Fire department equipment supplier: – Medium-scale operations – Frequent truck movements – Some outdoor storage of raw materials or products	II	70	300	470	No
Weber's Fabricating	3044 Sawmill Road	2430-4MBNUJ (ECA)	Custom metal fabrication facility: – Medium-scale operations – Frequent truck movements – Some outdoor storage of raw materials or products	II	70	300	400	No
Multi-tenant commercial building – 3060 Sawmill Road	3060 Sawmill Road	R-010-2110163117 (EASR)	Multi-tenant commercial building (including a display stand manufacturing facility, design service provider, and souvenir distribution centre): – Small-scale, self-contained operations – Frequent truck movements – No outdoor storage of raw materials or products	II	70	300	325	No
W.K. Dahms Mfg. Ltd. (Stone Slinger)	3074 Sawmill Road	R-010-4116206247 (EASR)	High-speed conveyor truck supplier: – Medium-scale operations – Frequent truck movements – Small amount of outdoor storage of raw materials or products – Noise occasionally audible off-property	II	70	300	220	No (observed to be insignificant)
Vacant Lot – 1550 Township Road 24	1550 Township Road 24 (King Street N)	N/A	Vacant Lot (Zoned for Employment)	II	70	300	210	No (observed to be insignificant)
Exposed Work Yard	East of 1590 King Street N	N/A	Unnamed and exposed work yard: – Potential for medium-scale operations – Potential for frequent truck movements – Outdoor storage of raw materials or products	II	70	300	210	No (observed to be insignificant)

Facility Name	Address	MECP Permit / Registration (Air / Noise)	Description of Operations	D-6 Class	RMSD (m)	AOI (m)	Distance from Site (m)	Further Assessment(s) Warranted?
Pioneer Log Homes	3044 Sawmill Road	N/A	Construction company: – Medium-scale operations – Frequent truck movements – Some outdoor storage of raw materials or products	II	70	300	500	No
Frey's Hatchery Ltd.	80 Northside Drive	N/A	Chick Hatchery: – Self-contained operations – Infrequent truck movements – Minimal outdoor storage of raw materials or products	I	20	70	115	No
Multi-tenant commercial building – 1553 King Street N	1553 King Street N	N/A	Multi-tenant commercial building: – Small-scale, self-contained operations – Infrequent truck movements – No outdoor storage of raw materials or products	I	20	70	175	No
Harvest Moon Restaurant	5 Parkside Drive	N/A	Restaurant: – Small-scale, self-contained operations – Infrequent truck movements – No outdoor storage of raw materials or products	I	20	70	380	No
St. Jacobs Midwives	9 Parkside Drive	N/A	Midwife centre: – Small-scale, self-contained operations – Infrequent truck movements – No outdoor storage of raw materials or products	I	20	70	410	No
Woolwich Community Health Centre	10 Parkside Drive	N/A	Health offices: – Small-scale, self-contained operations – Infrequent truck movements – No outdoor storage of raw materials or products	I	20	70	470	No
Picard Foods	3011 Sawmill Road	N/A	Confectionary store: – Small-scale, self-contained operations – Infrequent truck movements – No outdoor storage of raw materials or products	I	20	70	625	No
Multi-tenant commercial building – 1590 King Street N	1590 King Street N	N/A	Day spa: – Small-scale, self-contained operations – Infrequent truck movements – No outdoor storage of raw materials or products	I	20	70	185	No
Multi-tenant commercial building – 1580-1588 King Street N	1580 - 1588 King Street N	N/A	Multi-tenant commercial building: – Small-scale, self-contained operations – Infrequent truck movements – No outdoor storage of raw materials or products	I	20	70	160	No
Multi-tenant commercial building – 1600 King Street N	1600 King Street N	N/A	Multi-tenant commercial building: – Small-scale, self-contained operations – Infrequent truck movements – No outdoor storage of raw materials or products	I	20	70	95	No
Huron Digital Pathology	1620 King Street N	N/A	Slide scanner manufacturer: – Small-scale, self-contained operations – Infrequent truck movements – No outdoor storage of raw materials or products	I	20	70	85	No

The Environmental Compliance Approval (ECA) and Environmental Activity Sector Registration (EASR) documents referenced above are included in Appendix B.

3.4 Guideline D-6 Assessment Conclusions

3.4.1 Existing Industries

Based on the industry classifications noted above and their setbacks relative to the sensitive uses of the Development (see Figure 3.1), GHD has identified that St. Jacobs Produce is the only industry with potential with potential to impact the Development and has areas of influence and/or recommended minimum setback distances within which the Development is located.

Section 4.10.3 of the D-6 Guideline allows the proponent to provide a justifying impact assessment to support an application for a change in land use where the minimum distances are not met. A detailed stationary noise impact assessment is included in Section 6 of this report to satisfy this requirement.

3.4.2 Potential Future Industries

GHD is of the opinion that the proposed Development will not significantly affect the land use compatibility of the industrial development/expansion on nearby lands, as there are existing sensitive residential land uses adjacent to the Development with similar exposure and line of sight. Any future commercial or industrial operations would be required to comply with NPC-300 noise limits at these existing receptors and would be expected to be similar in size/intensity to existing commercial/industrial uses in the area.

Therefore, any future commercial or industrial developments on the employment lands to the east should be able to reasonably comply with NPC-300 standards at adjacent sensitive uses and be compatible with the proposed Development consequently.

4. Noise Impact Assessment

4.1 Sound Level Criteria

4.1.1 Transportation Noise Criteria

4.1.1.1 Road and Rail Traffic Criteria

Under NPC-300, road and rail traffic noise impacts are evaluated separately for exterior receptors and interior receptors based on the average day (07:00 to 23:00) and night (23:00 to 07:00) noise impacts. The sound levels are expressed in terms of A-weighted equivalent sound levels (Leq).

NPC-300 defines two categories of receivers for transportation noise:

- Plane of Window (POW): Point corresponding with the centre of a window of a sensitive space.
- Outdoor Living Area (OLA): Outdoor location intended and designed for quiet enjoyment of the outdoor environment that is readily accessible from the building (e.g., backyards, front yards, gardens, terraces, patios). Private balconies and terraces are only considered OLAs if they are greater than 4 metres in depth and if they are the only outdoor living area for the occupant(s).

NPC-300 specifies sound level limits for POW and OLA receivers as summarized in Table 4.1 below.

Table 4.1 Road and Rail Traffic – Outdoor Sound Level Limits

Receiver Category	Sound Level Limit (dBA)	
	Day (16-hour Leq)	Night (8-hour Leq)
Plane-of-Window (POW)	55	50
Outdoor Living Area (OLA)	55	N/A

For POWs, combined road and rail traffic sound levels exceeding the corresponding criteria above would require additional controls for MECP compliance. Depending on the magnitude of the exceedances, additional controls may include ventilation requirements, requirements for building envelope elements, and/or noise warning clauses. For sound levels greater than 55 dBA and less than or equal to 65 dBA during the day or greater than 50 dBA and less than or equal to 60 dBA during the night, the building should be designed with a provision for the installation of central air conditioning in the future, at the occupant's discretion with the inclusion of warning clause Type C. If the sound levels are greater than 65 dBA during the day or greater than 60 dBA at night, installation of central air conditioning should be implemented with the inclusion of warning clause Type D.

For OLAs, road traffic sound levels exceeding the daytime limit indicated above would require design of noise barriers to achieve the target, and/or warning clauses. NPC-300 states that sound levels up to 5 dBA above the OLA sound level limit (i.e., up to 60 dBA) are acceptable with the use of an appropriate noise warning clause.

If POW sound levels from future road traffic exceed 65 dBA during the day or 60 dBA at night, or if sound levels from future rail traffic exceed 60 dBA during the day or 55 dBA at night, building envelope components must be designed to achieve the indoor sound level limits of NPC-300. The indoor sound level limits for road and rail traffic are summarized in Table 4.2 below.

Table 4.2 Road and Rail Traffic – Indoor Sound Level Limits (Residential uses)

Receiver Category	Road Sound Level Limits (dBA)		Rail Sound Level Limits (dBA)	
	Day (16-hour Leq)	Night (8-hour Leq)	Day (16-hour Leq)	Night (8-hour Leq)
Indoor living areas (excluding sleeping quarters)	45	45	40	40
Sleeping quarters	45	40	40	35

4.1.2 Stationary Noise Limits

4.1.2.1 MECP Standard 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 2 acoustic environment as defined by NPC-300, as the acoustic environment characterized by a mix of Class 1 and Class 3 environmental qualities, that is:

- Sound levels that are dominated by human activities (i.e., road traffic) during the daytime (07:00 to 19:00 or to 23:00 hours); and,
- Low evening and night background sound level defined by natural environment and infrequent human activity starting as early as 19:00 hours (19:00 or 23:00 to 07:00 hours).

Table 4.3 below summarizes the MECP's minimum exclusionary sound level limits for Class 2 areas, which are expressed in terms of 1-hour equivalent sound levels (1-hour Leq):

Table 4.3 MECP Minimum Exclusionary Sound Level Limits for Steady Sound – Class 2 Area

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

4.1.2.2 Residential Air Conditioners

The Ontario Ministry of Environment, Conservation and Parks (MECP) guideline NPC-216 “Residential Air Conditioning Devices” (1993) contains noise level criteria for stationary noise sources (e.g., rooftop mechanical equipment, etc.). The assessment criteria are determined for a point-of-reception based on the minimum exclusionary limits presented in Table 216-2 of NPC-216 in comparison with the existing background sound levels (plus 5 dBA) experienced in the area (whichever is higher):

Table 4.4 NPC-216 Criteria for Central Air Conditioning Devices

Area Type	One Hour Leq
Class 2	45
Class 1	50*

Notes:

* When central air conditioners are requirements for noise control in the interior living spaces of new developments, the specific sound level limit is increased to 55 dBA.

5. Transportation Noise Impact Assessment

5.1 Methodology

The roadways near the Site were modelled as sources of sound using the road element in CadnaA set to predict noise emission rates in accordance with the United States of America’s (US) Department of Transportation’s Traffic Noise Model (TNM).

Rail traffic noise levels are modelled as line sources of sound using the rail source element in CadnaA using the US Federal Transit Administration and Federal Railway Administration’s prediction algorithm (FTA/FRA Model). The rail noise sources were set to use noise emission rates calculated using STAMSON.

The 3D CadnaA model accounts for the complex geometry at the Site and the surrounding area. The area surrounding the Site features elevation changes, which have been captured in the model using ground elevation data obtained from Ontario GeoHub. Road and rail traffic noise levels were predicted at all POWs of the Development using the Building Noise Map feature of CadnaA, and at OLAs using point receivers.

To demonstrate that the model is generally consistent with the STAMSON model that is the standard in Ontario, a sample STAMSON calculation is included in Appendix C representing the southwest outdoor living area (OLA-04). The prediction results are within ± 1 dBA of the CadnaA noise predictions, indicating that the CadnaA model is consistent with STAMSON.

5.2 Traffic Input Parameters

5.2.1 Road Traffic Data

Future road traffic model parameters used in this Study are summarized as follows:

Table 5.1 Future (2035) Road Traffic Input Parameters

Road Segment	Future AADT	Speed Limit (km/h)	Day / Night Split	Commercial Vehicle Rates (medium trucks / heavy trucks)
Highway 85	28,793	80	67% / 33%	5% / 8%
Hawkesville Road	3600	50	90% / 10%	3% / 9%
Northside Drive	1300	50	90% / 10%	4% / 2%
King Street North	2400	50	90% / 10%	3% / 3%

Road traffic volumes for Highway 85 were obtained from data published by the Ontario Ministry of Transportation (MTO) in the form of Annual Average Daily Traffic (AADT) volumes for the year 2021. GHD applied an assumed annual growth rate of 1.4% to the volumes based on the observable growth since 2015 to estimate the future 2035 AADT. The day / night split and commercial vehicle rates were assumed based on guidance from the MTO.

Road traffic volumes for Hawkesville Road, Northside Drive, and King Street North were obtained from the Region of Waterloo in the form of forecasted AADT volumes for the year 2034. A day / night split of 90% / 10% was assumed based on the Region's guidance. Commercial vehicle rates were provided in the data.

Figure 2.1 shows the location of the roadways noted above in relation to the Site. All road traffic data referenced in this Study is included in Appendix D.

5.2.2 Rail Traffic Data

Future rail traffic model parameters used in this Study are summarized as follows:

Table 5.2 Future (2035) Rail Traffic Input Parameters

Rail Source	Future Daytime Trains	Future Nighttime Trains	Locomotive Type	Max. Locomotives per Train	Max. Cars per Train	Max. Speed (km/h)
CN - Freight	0	4	Diesel	4	140	24

Rail traffic data for CN freight traffic operating on the CN Guelph Subdivision Waterloo Industrial Spur Line was obtained from Canadian National (CN) railway. Future rail volumes for these rail traffic sources were estimated using an assumed annual growth rate of 2.5%.

Figure 2.1 shows the location of the rail line noted above in relation to the Site. All rail traffic data referenced in this Study is included in Appendix D.

5.3 Results

5.3.1 Road and Rail Traffic

5.3.1.1 Plane of Window Receivers

Predicted future road and rail traffic noise impacts at the worst-case POW receivers of the Development are summarized as follows:

Table 5.3 Future Road and Rail Noise Levels – Plane of Window

Block	Future Noise Levels (dBA)						Limits Exceeded?
	Road		Rail		Cumulative Road and Rail		
	Day	Night	Day	Night	Day	Night	
Block 1	43	42	0	63	43	63	Yes
Block 2	44	43	0	54	44	54	Yes
Block 3	44	44	0	51	44	52	Yes
Block 4	47	47	0	49	47	51	Yes
Block 5	59	56	0	46	59	56	Yes
Block 6	43	42	0	63	43	63	Yes
Block 7	44	42	0	58	44	58	Yes
Block 8	44	42	0	54	44	54	Yes
Block 9	44	42	0	51	44	52	Yes
Block 10	44	43	0	51	44	52	Yes
Block 11	44	43	0	51	44	52	Yes
Block 12	46	45	0	48	46	50	No
Block 13	61	55	0	49	61	56	Yes
Block 14	46	44	0	51	46	52	Yes
Block 15	44	42	0	55	44	55	Yes
Block 16	44	41	0	63	44	63	Yes
Block 17	48	45	0	63	48	63	Yes
Block 18	61	55	0	52	61	57	Yes

As seen above, future road and rail noise levels at the façades generally range from 43 dBA to 61 dBA during the day and 50 dBA to 63 dBA at night. These sound levels are sufficiently high that the Development must incorporate ventilation requirements, physical noise mitigation, and noise warning clauses in accordance with NPC-300, which are described further in Section 5.4. Figures 5.1 through 5.3 show the predicted road, rail, and cumulative road and rail noise levels at the façades throughout the Development respectively.

5.3.1.2 Outdoor Living Areas

Predicted future road and rail traffic noise impacts at the worst-case OLA receivers of the Development are summarized as follows:

Table 5.4 Future Road and Rail Noise Levels – Outdoor Living Area

Receiver ID	Receiver Description	Future Daytime Noise Levels (dBA)			Limit Exceeded?
		Road	Rail	Cumulative Road and Rail	
OLA-01	Block 5 - Worst-case potential backyard (1.5 m AG)	54	0	54	No
OLA-02	Block 13 - Worst-case potential backyard (1.5 m AG)	55	0	55	No
OLA-03	Block 17 - Worst-case potential backyard (1.5 m AG)	46	0	46	No
OLA-04	Block 17 - Worst-case potential side yard (1.5 m AG)	45	0	45	No
OLA-05	Block 1 - Worst-case potential backyard (1.5 m AG)	43	0	43	No

As seen above, the cumulative daytime road and rail noise levels at the OLAs range from 43 dBA to 55 dBA. Noise levels at the OLAs are within the applicable limits and do not require noise mitigation. The OLA receiver locations are shown in Figure 5.4.

5.4 Transportation Noise Mitigation

5.4.1 Building Envelope Construction

Predicted future traffic noise levels are sufficiently high that the building envelope must be designed with sufficient sound insulation performance to achieve the sound level criteria of NPC-300 for indoor living spaces. Sound insulation performance for windows and walls are commonly specified in terms of Sound Transmission Class (STC) ratings. Higher STC ratings generally correspond to higher sound insulation performance.

STC rating requirements are dependent on the exterior noise levels, source type/spectrum, angles of incidence, sizes of façade components relative to the room size, and sound absorption characteristics of the subject indoor living space. Using these variables, STC rating requirements can be calculated using the method described in the National Research Council Canada's "Controlling Sound Transmission into Buildings" (BPN 56) publication. In accordance with NPC-300, STC rating requirements are calculated separately for road, rail, and air traffic noise, and are then combined on a logarithmic energy sum basis.

Given the preliminary nature of the design of the Development, detailed floor plans and building elevations are not yet available. Therefore, minimum STC rating requirements have been calculated based on assumed window-to-floor area ratios (i.e., total window area for a room divided by its floor area) of up to 50% for sleeping quarters. Other sensitive indoor living areas were assumed to have window-to-floor area ratios of up to 40%. Note that if the actual window-to-floor area ratios are determined to exceed these values during detailed design, then window STC rating requirements would require an updated assessment to ensure acceptable indoor noise levels.

Based on the above assumptions, the minimum STC rating requirements at the worst-case façades are **STC-33** for windows and **STC-43** for exterior walls. Other façades that have less direct exposure to road and rail traffic noise have lower STC rating requirements, as shown in Figure 5.5.

Additionally, exterior wall assemblies must be **brick veneer or equivalent** high-mass construction (e.g., concrete) from the foundation to the rafters for the first row of dwellings due to the Site's proximity to the Waterloo Industrial Spur Line and high associated noise levels. The blocks that require this upgrade are Blocks 1, 3, 16, and 17.

Examples of window assemblies capable of achieving the necessary performance are included in Table 5.5 below:

Table 5.5 Example Window Assemblies and STC Ratings

STC Requirement	Window Assembly Short Form	Window Assembly Description
STC-30	3-13AS-3	Two 3 mm thick monolithic glass panes separated by an air gap of 13 mm
STC-33	6-13AS-6	Two 6 mm thick monolithic glass panes separated by an air gap of 13 mm

STC ratings for windows are dependent on a variety of factors (e.g., frame design, seals, etc.), and can vary significantly between manufacturers. Therefore, the final STC rating requirements for the windows should be included in the specifications, and window suppliers should be required to submit laboratory test data with their shop drawings to demonstrate that the STC requirements will be achieved.

5.4.2 Ventilation

Predicted future traffic noise levels at the façades of the Development are sufficiently high that ventilation requirements are warranted. The blocks that require ventilation requirements are shown in Figure 5.6 and a summary of the requirements is as follows:

- Predicted future traffic noise levels at Blocks 1, 6, 16, and 17 (see Figure 5.6) are sufficiently high that central air conditioning is required to be installed prior to occupancy for all residential dwellings. This will allow windows and doors to remain closed to help ensure that the indoor sound level limits of NPC-300 are met. Warning clause **Type D** should also be used for all residential dwellings (wording included in Section 8.4).
- Predicted future traffic noise levels at Blocks 2 through 5 and 7 through 10, 12, 11, and 13 through 15, and 18 (see Figure 5.6) are sufficiently high that, at a minimum, provisions must be made to enable installation of central air conditioning at the occupant's discretion (i.e., ductwork must be designed and installed to accommodate a future central air conditioning system installation). This will allow windows and doors to remain closed to help ensure that the indoor sound level limits of NPC-300 are met. Warning clause **Type C** would be required in the case that central air conditioning is not installed prior to occupancy. However, if central air conditioning systems are installed prior to occupancy, then warning clause **Type D** should be used instead. Warning clause wording is included in Section 8.4.

6. Stationary Noise Impact Assessment

6.1 Methodology

Detailed assessment of noise impacts from the facility identified in Section 3 above has been carried out using CadnaA version 2025 (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.
- 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.

6.2 Stationary Noise Sources

Stationary noise sources identified in section 3 have been assessed using assumptions described in the sections that follow. Noise source locations are identified in Figure 6.1. Source sound level data, operating conditions, and heights are included in Table E.1 of Appendix E.

GHD also noted that there are no significant emergency noise sources or impulse noise sources at the Site or surrounding area that would warrant assessment.

6.2.1 Trucks (Shipping/Receiving)

St. Jacobs Produce (located directly south of the Development) is assumed to receive deliveries via medium trucks on a regular basis. The number of truck movements was assumed to be 4 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. GHD also assumed that up to 2 heavy trucks could idle continuously for one hour more with one located at the north bay doors and one located at the south bay doors.

6.3 Results

Using the 3D model described above, predicted noise levels at the worst-case PORs of the Development are displayed in Figure 6.2 and summarized as follows in terms of 1-hour Leq:

Table 6.1 Stationary Noise Prediction Results Summary

POR ID - Description	Predicted Noise Level (dBA)			Sound Level Limit (dBA)			Limits Exceeded?
	Day	Evening	Night	Day	Evening	Night	
POR-01 - Block 18 Potential Backyard	45	45	--	50	45	--	No
POR-02 - Block 18 Potential South Facade	45	45	45	50	50	45	No

As seen above, predicted noise levels at the worst-case PORs of the Development are within the applicable sound level limits of NPC-300, and do not warrant mitigation. As such, the Development is not anticipated to impact the ability of nearby stationary sources to comply with the Noise By-Law and NPC-300. A sample CadnaA calculation is included in Appendix F.

6.4 Noise Impacts from the Development

6.4.1 Outdoor Noise Impacts

It is anticipated that each residential dwelling of the Development will be supplied with its own independent heating, cooling, and ventilation system. Residential air conditioners (or similar) for the Development should be selected and located to comply with MECP Guideline NPC-216 "Residential Air Conditioners."

6.4.2 Indoor Noise Impacts

Mechanical equipment and other building services also have the potential to cause annoyance due to noise and vibration transmission to residences. The American Society of Heating, Refrigerating, and Air conditioning Engineers (ASHRAE) guidelines specify acceptable noise levels from such equipment. Specification of noise controls (e.g., acoustic duct lining, vibration isolators) to achieve these criteria is typically completed as part of the detailed building design, once equipment selections are made and floor layouts are more developed.

The Ontario Building Code stipulates minimum STC and apparent sound transmission class (ASTC) rating requirements in multi-family residential buildings for demising partitions separating residential unit from other indoor

spaces. For demising partitions separating residential units from elevator shafts or garbage chutes (if applicable), constructions meeting a minimum STC-55 rating must be used. For demising partitions separating residential units from any other space in the building, constructions meeting a minimum STC-50 rating must be used. Suite-to-suite demising partitions must also achieve a minimum rating of ASTC-47.

7. Recommendations

7.1 Building Envelope Construction

GHD recommends that the building envelope construction assemblies be selected to achieve STC-33 for windows and STC-43 for exterior walls at the worst-case façades of the Development based on the assumptions described in Section 5.4.1. Other façades that have less direct exposure to road and rail traffic noise have lower STC rating requirements, as shown in Figure 5.5. The STC rating requirements should be updated prior to issuance of building permits, based on the locations of the proposed buildings and the detailed floor plans and elevation drawings.

7.2 Ventilation

Central air conditioning is required to be installed prior to occupancy for all residential dwellings. This will allow windows and doors to remain closed to help ensure that the indoor sound level limits of NPC-300 are met.

Predicted future traffic noise levels at the façades of the Development are sufficiently high that, at a minimum, provisions must be made to enable installation of central air conditioning at the occupant's discretion (i.e., ductwork must be designed and installed to accommodate a future central air conditioning system installation). This will allow windows and doors to remain closed to help ensure that the indoor sound level limits of NPC-300 are met.

Warning clause **Type C** would be required in the case that central air conditioning is not installed prior to occupancy. However, if central air conditioning systems are installed prior to occupancy, then warning clause **Type D** should be used instead. Standard warning clause wording of NPC-300 is included in Section 8.4.

7.3 Warning Clauses

The following warning clauses are recommended to be included in agreements of Offers of Purchase and Sale, lease/rental agreements, and condominium declarations for residential dwellings of the Development as specified in Figure 5.6:

CN Rail Warning Clause (within 300 m of ROW): "Warning: Canadian National Railway Company or its assigns or successors in interest has or have a right-of-way within 300 metres from the land the subject hereof. There may be alterations to or expansions of the railway facilities on such rights-of-way in the future including the possibility that the railway or its assigns or successors as aforesaid may expand its operations, which expansion may affect the living environment of the residents in the vicinity, notwithstanding the inclusion of any noise and vibration attenuating measures in the design of the development and individual dwelling(s). CNR will not be responsible for any complaints or claims arising from use of such facilities and/or operations on, over or under the aforesaid rights-of-way."

Applicable only if central air conditioning is not installed prior to occupancy:

Warning Clause Type C: "This dwelling unit has been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning by the occupant in low and medium density developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment, Conservation and Parks."

Applicable only if central air conditioning is installed prior to occupancy:

Warning Clause Type D: “This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment, Conservation and Parks.”

8. Conclusions

The Study concludes that the proposed development is feasible. The recommended noise mitigation at the Development consists of building envelope construction requirements, the installation of central air conditioning, and noise warning clauses.

The Development is not anticipated to affect the ability of the nearby industrial/commercial facilities to comply with the sound level limits of the MECF.

9. References

Ontario Ministry of Environment, Conservation and Parks (MECP, 1995), Guideline D-1: *Land Use Compatibility*

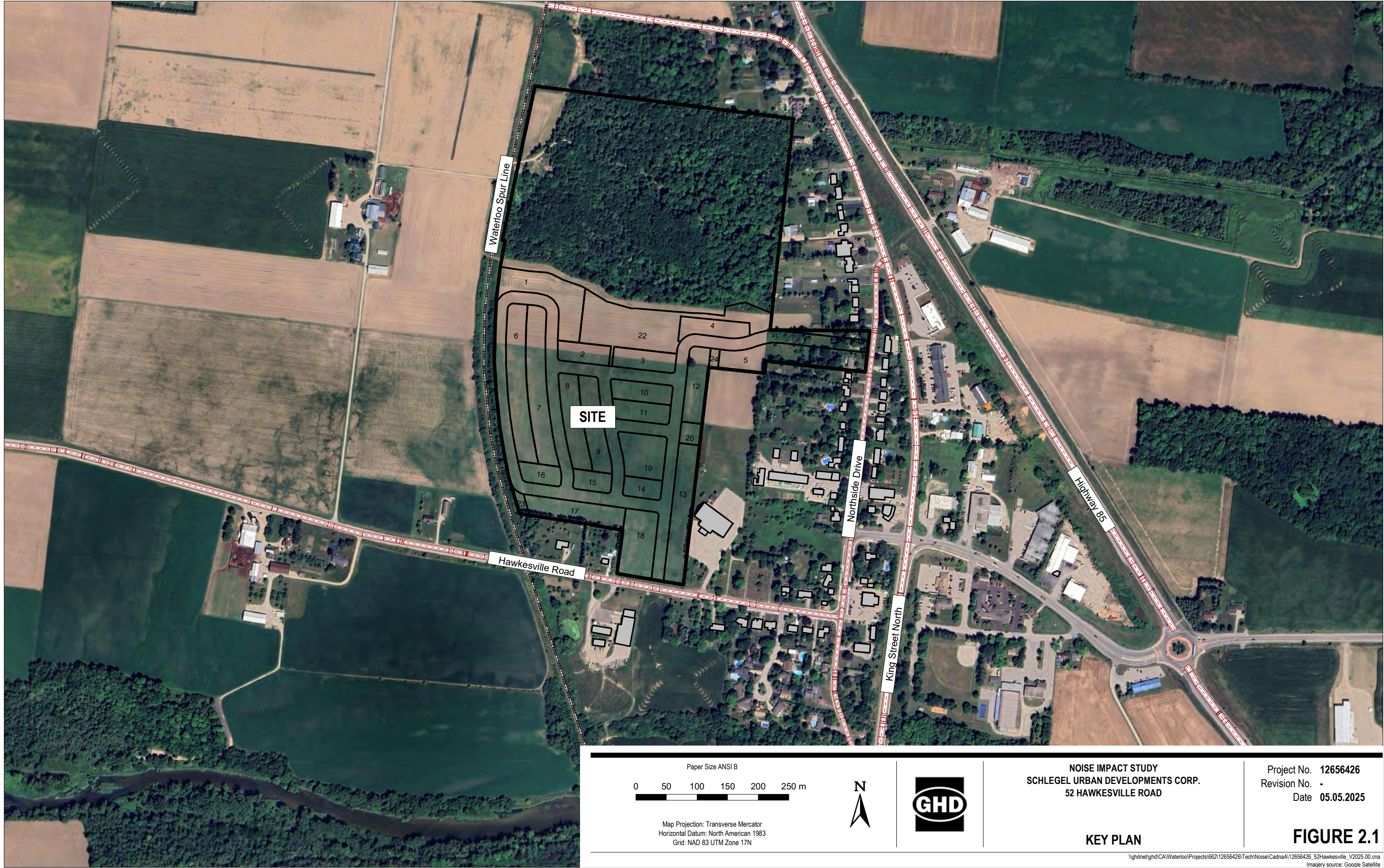
Ontario Ministry of Environment, Conservation and Parks (MECP, 1995), Guideline D-6: *Compatibility Between Industrial Facilities and Sensitive Land Uses*

Ontario Ministry of Environment, Conservation and Parks (MECP, 1993), Publication NPC-216: *Residential Air Conditioning Devices*

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

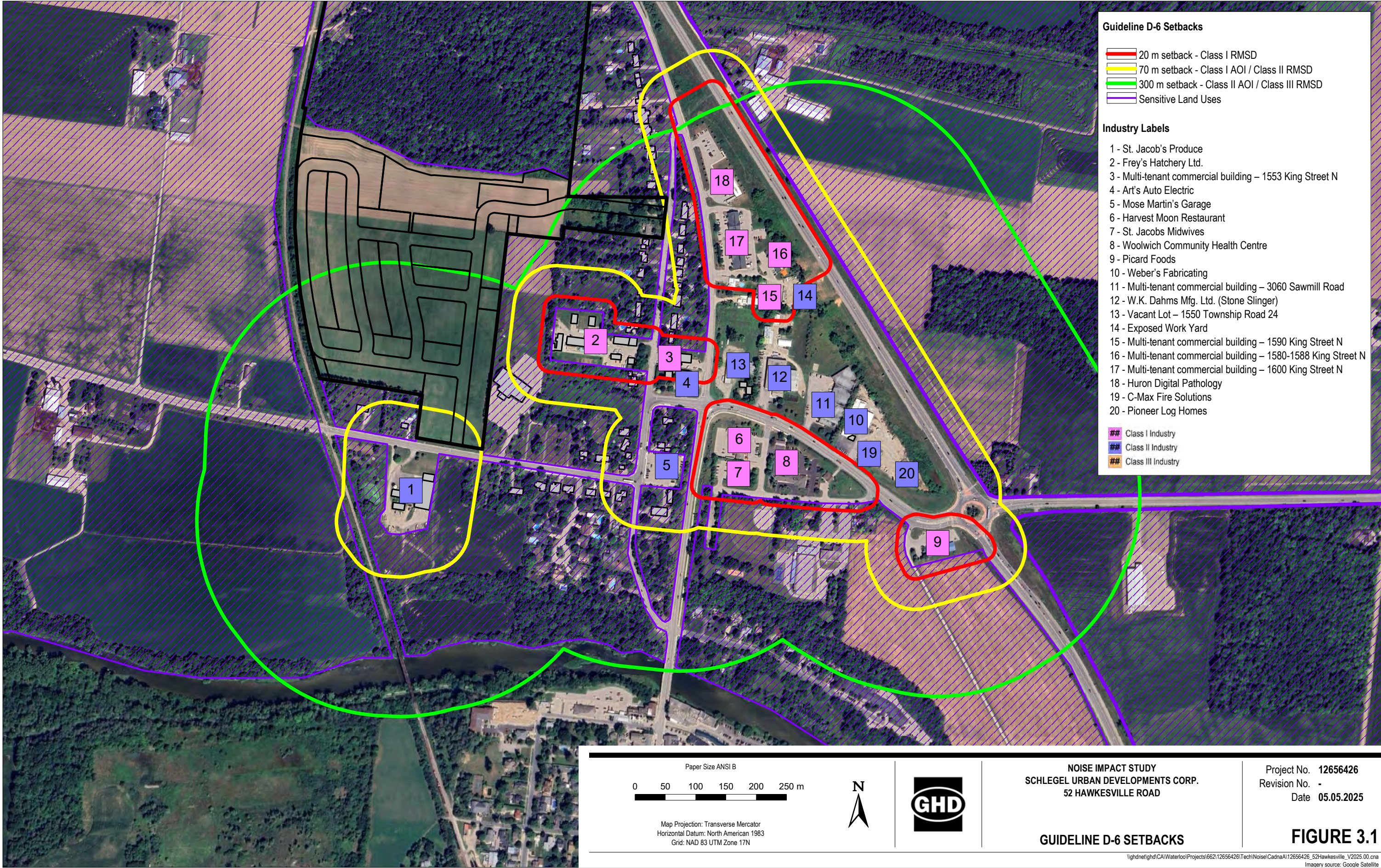
National Research Council Canada (NRC, 1985), Building Practice Note 56: Controlling Sound Transmission Into Buildings

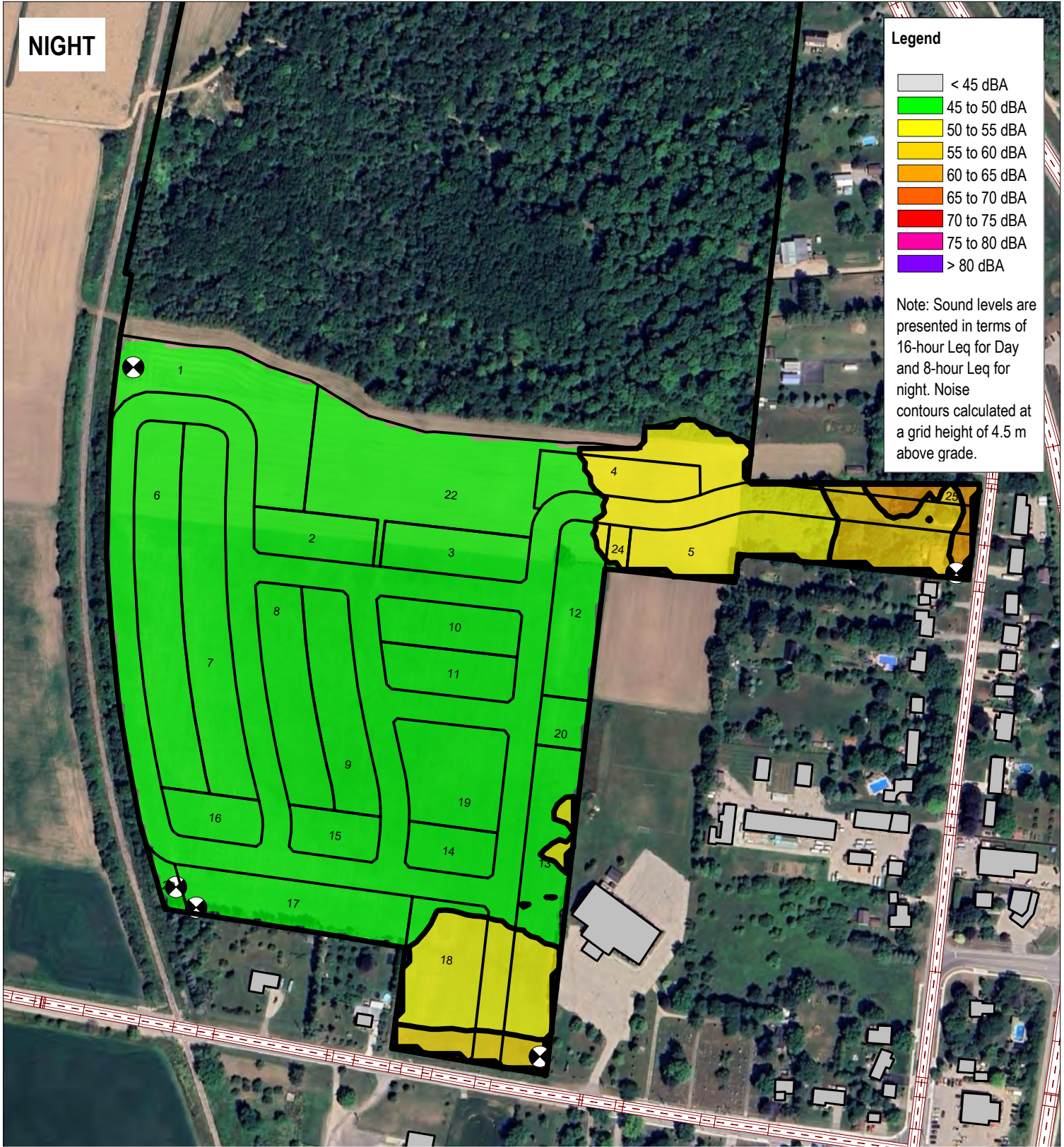
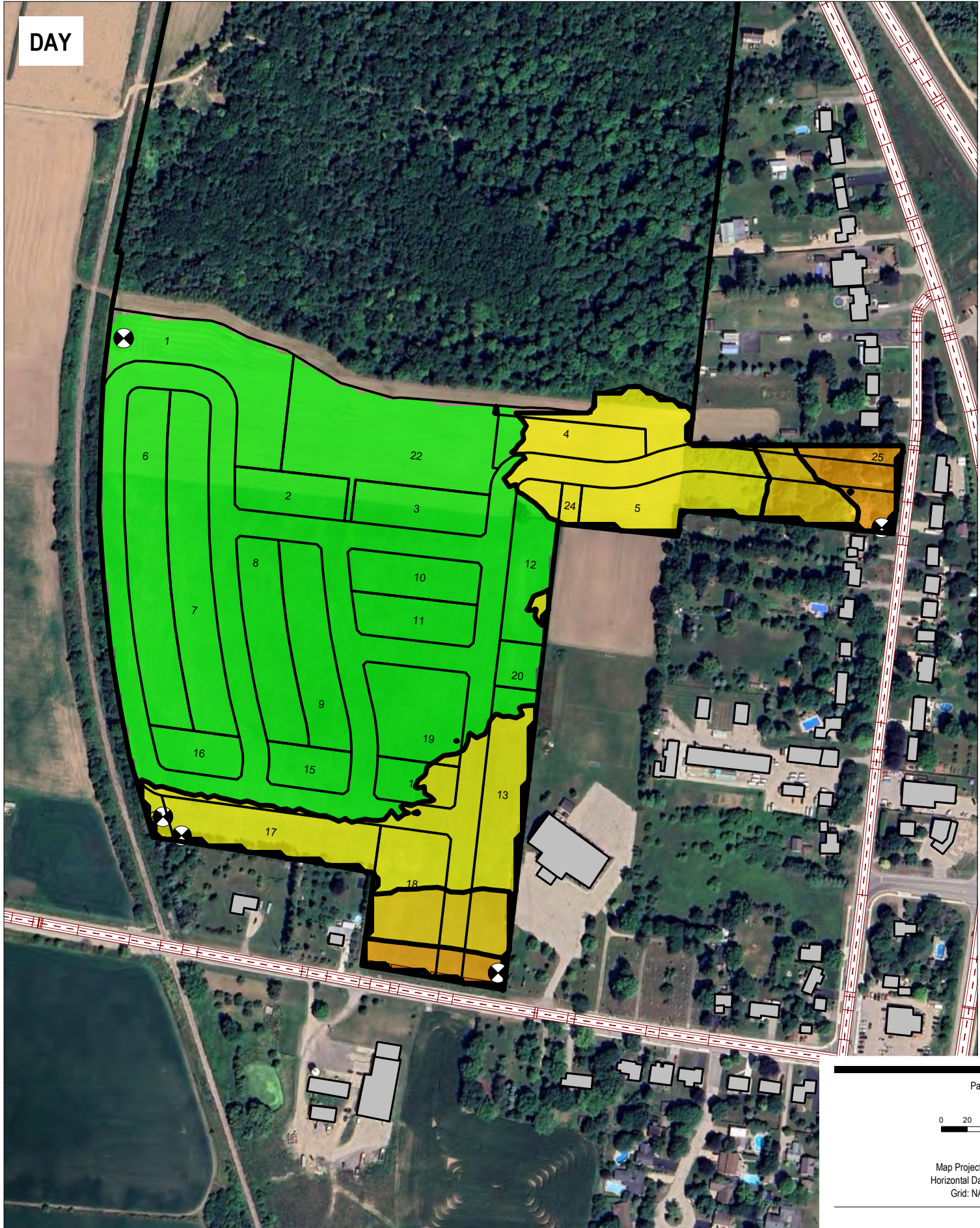
Figures



Paper Size ANSI B 0 50 100 150 200 250 m Map Projection: Transverse Mercator Horizontal Datum: North American 1983 Grid: NAD 83 UTM Zone 17N	N 		NOISE IMPACT STUDY SCHLEGEL URBAN DEVELOPMENTS CORP. 52 HAWKESVILLE ROAD	Project No. 12656426 Revision No. - Date 05.05.2025
KEY PLAN				FIGURE 2.1

\\ghdnet\ghd\CA\Waterloo\Projects\662\12656426\Tech\Noise\CadnaA\12656426_52Hawkesville_V2025.00.cna
Imagery source: Google Satellite





Legend

- < 45 dBA
- 45 to 50 dBA
- 50 to 55 dBA
- 55 to 60 dBA
- 60 to 65 dBA
- 65 to 70 dBA
- 70 to 75 dBA
- 75 to 80 dBA
- > 80 dBA

Note: Sound levels are presented in terms of 16-hour Leq for Day and 8-hour Leq for night. Noise contours calculated at a grid height of 4.5 m above grade.

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

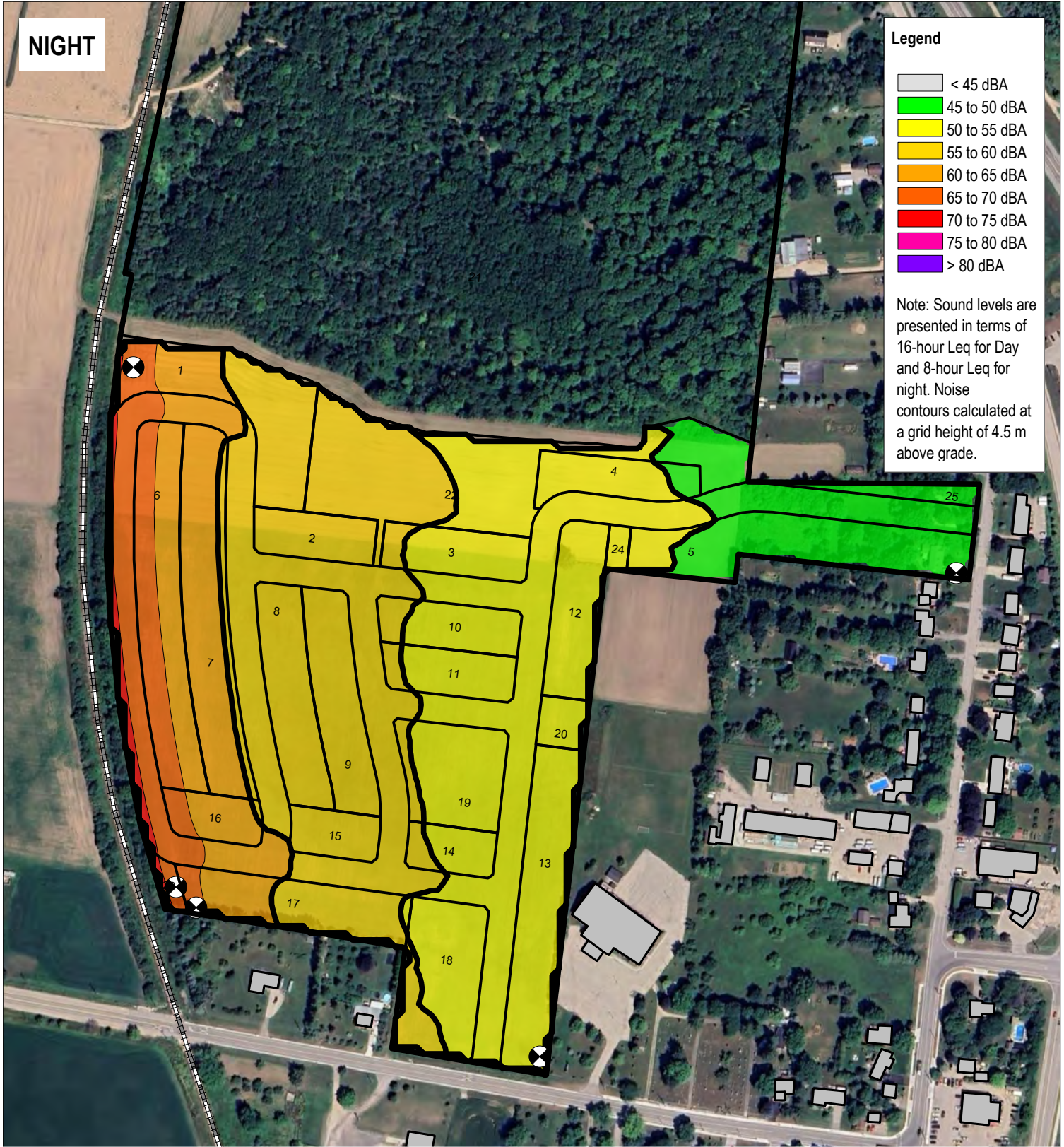
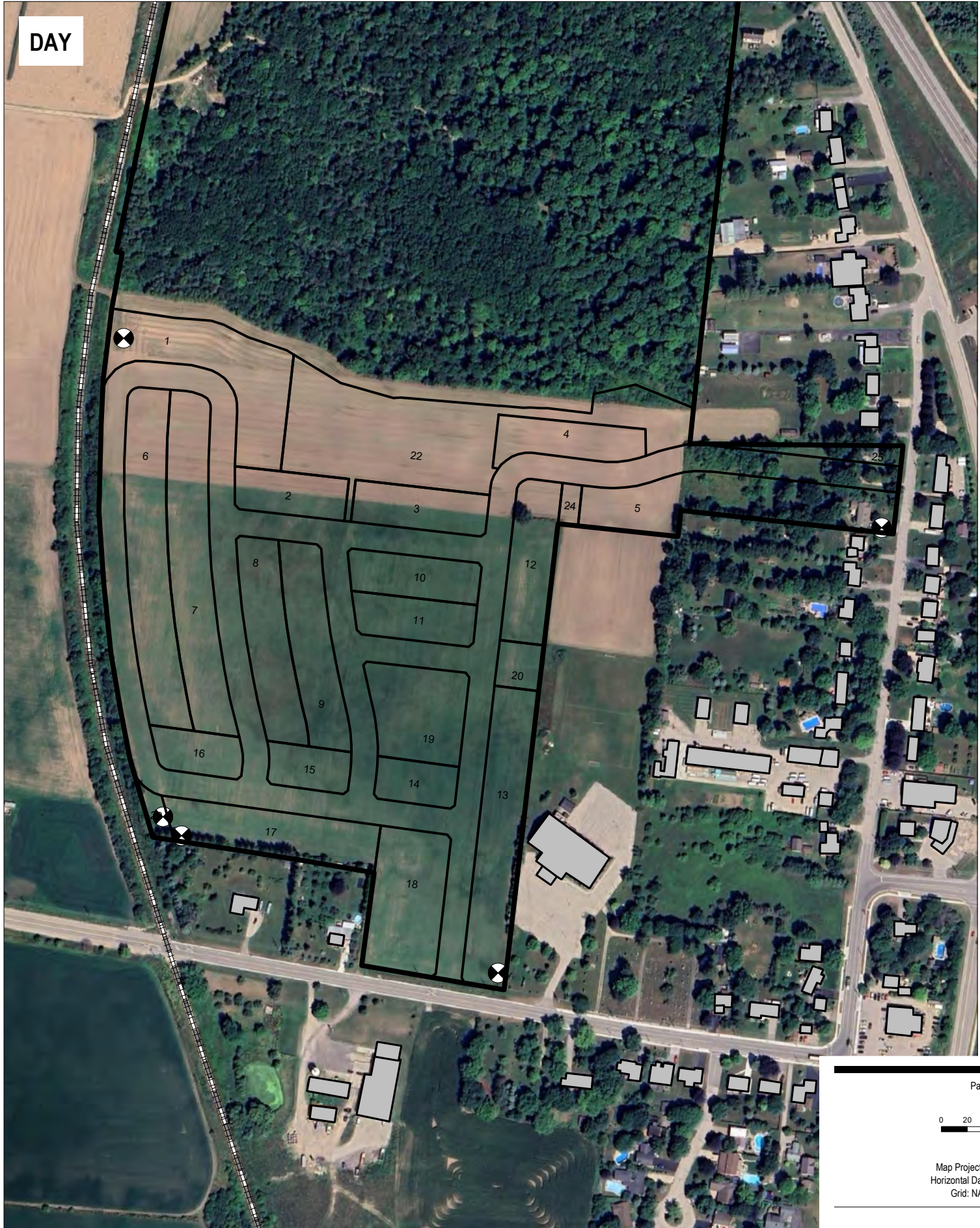
NOISE IMPACT STUDY
SCHLEGEL URBAN DEVELOPMENTS CORP.
52 HAWKESVILLE ROAD

FACADE SOUND LEVELS DUE TO
FUTURE ROAD TRAFFIC

Project No. **12656426**
Revision No. **-**
Date **05.05.2025**

FIGURE 5.1

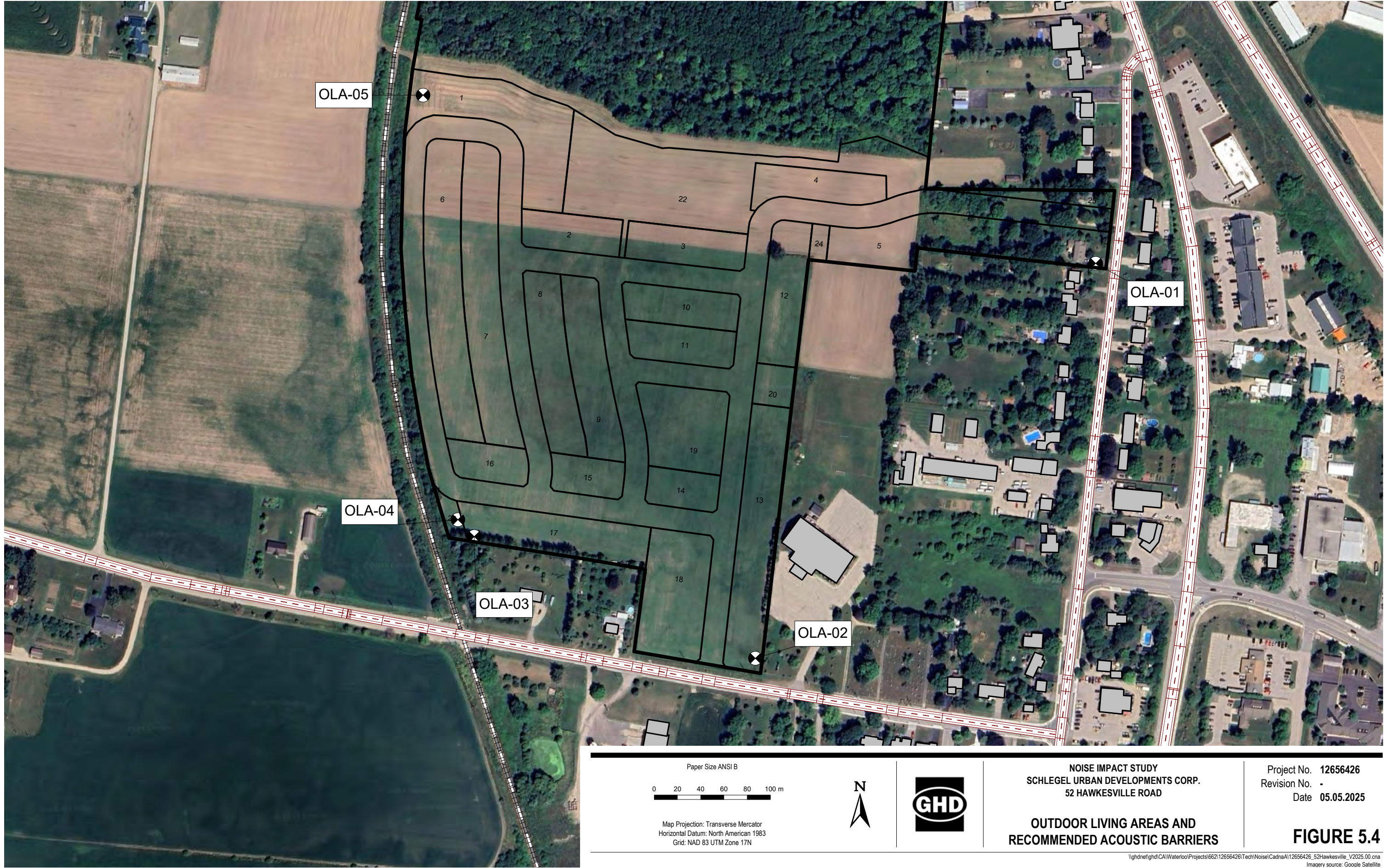
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Imagery source: Google Satellite

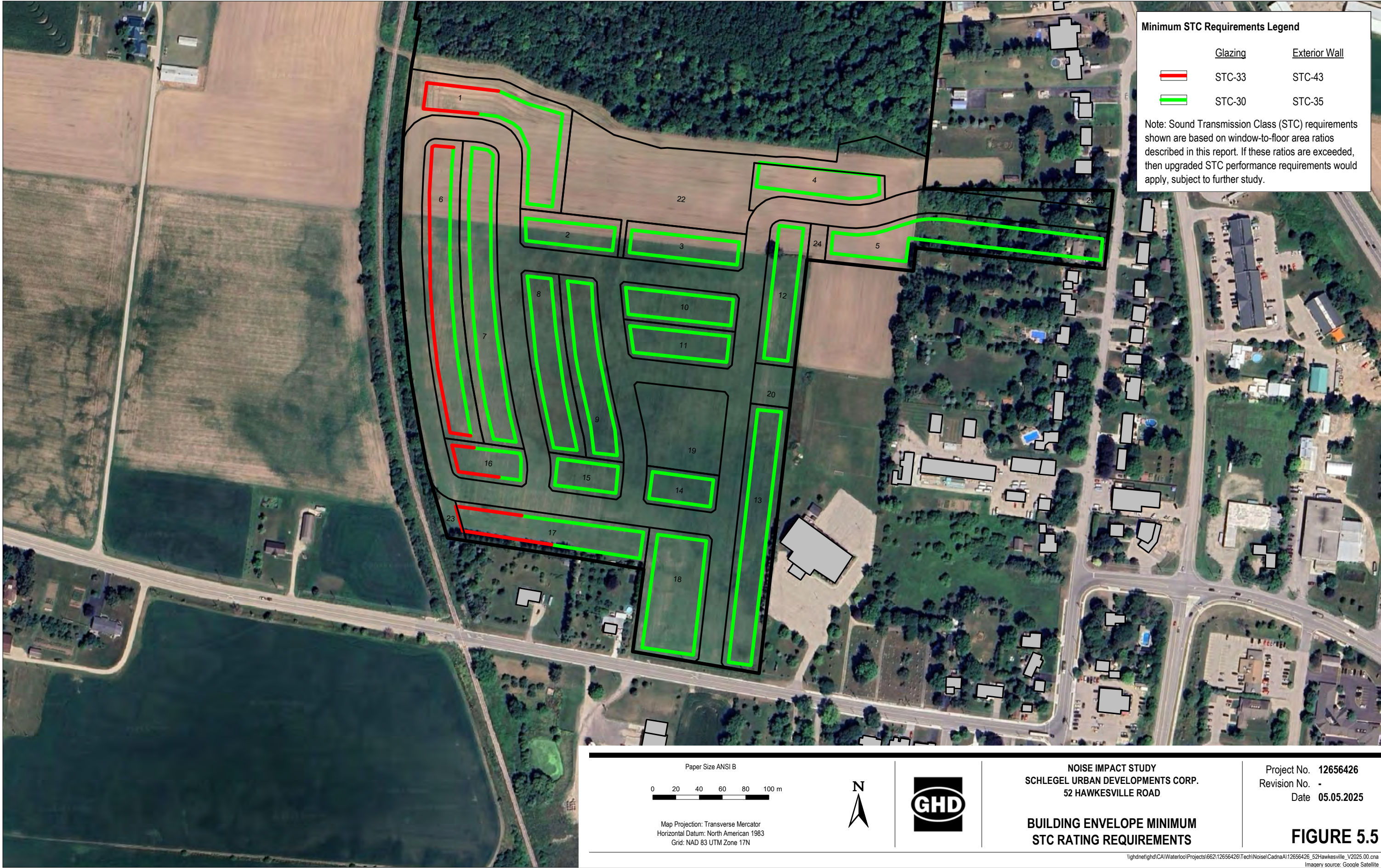


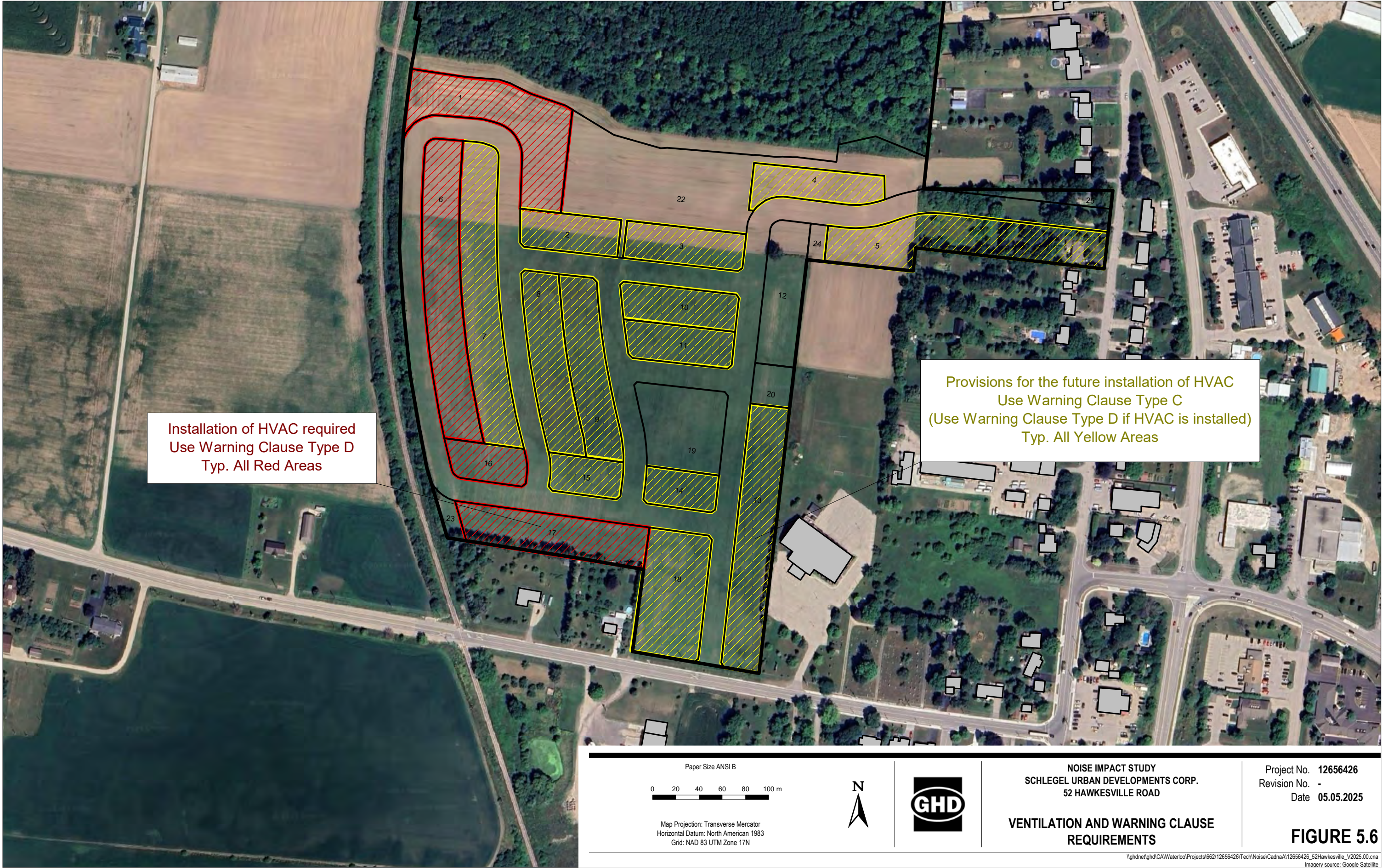
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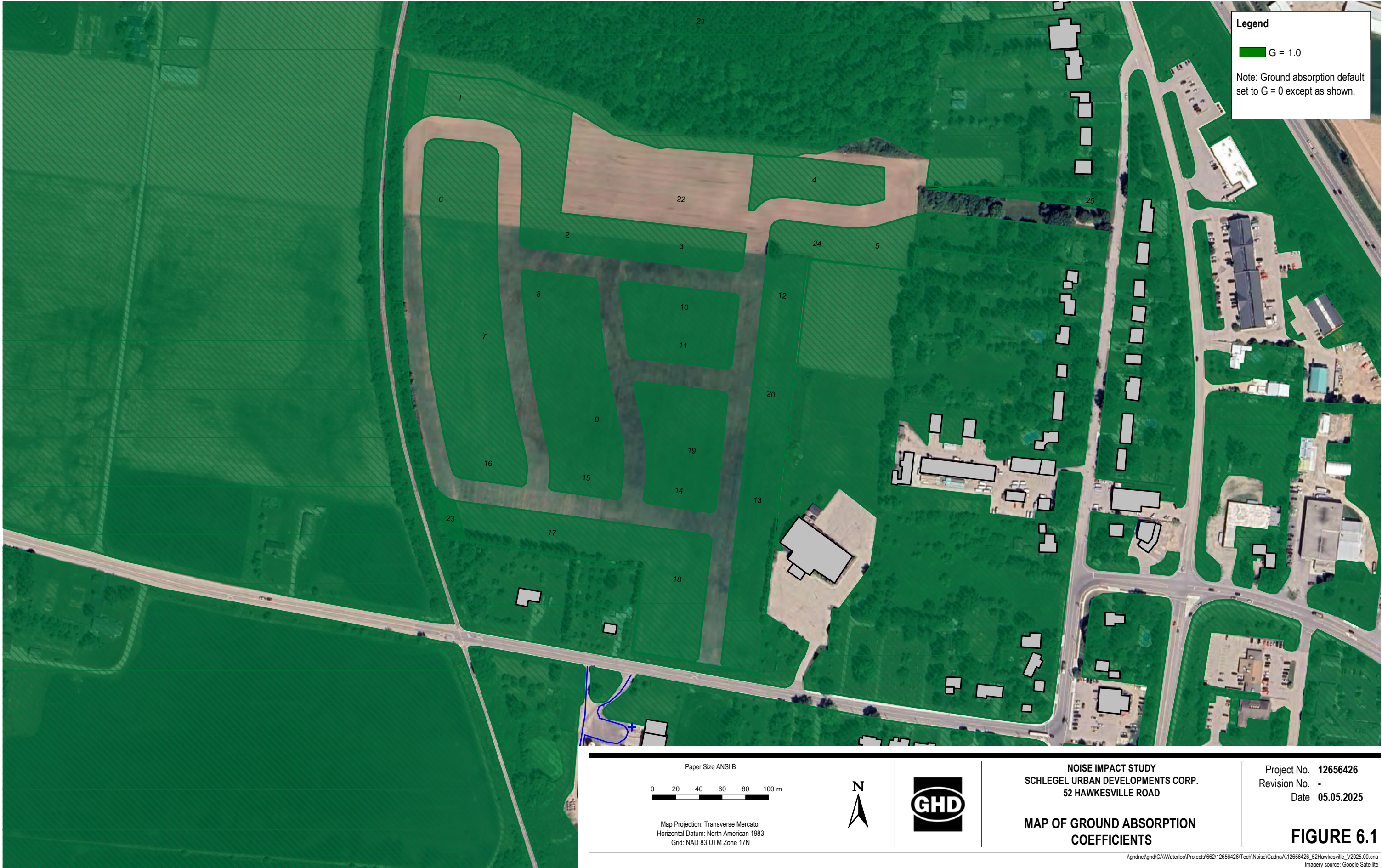
- < 45 dBA
- 45 to 50 dBA
- 50 to 55 dBA
- 55 to 60 dBA
- 60 to 65 dBA
- 65 to 70 dBA
- 70 to 75 dBA
- 75 to 80 dBA
- > 80 dBA

Note: Sound levels are presented in terms of 16-hour Leq for Day and 8-hour Leq for night. Noise contours calculated at a grid height of 4.5 m above grade.

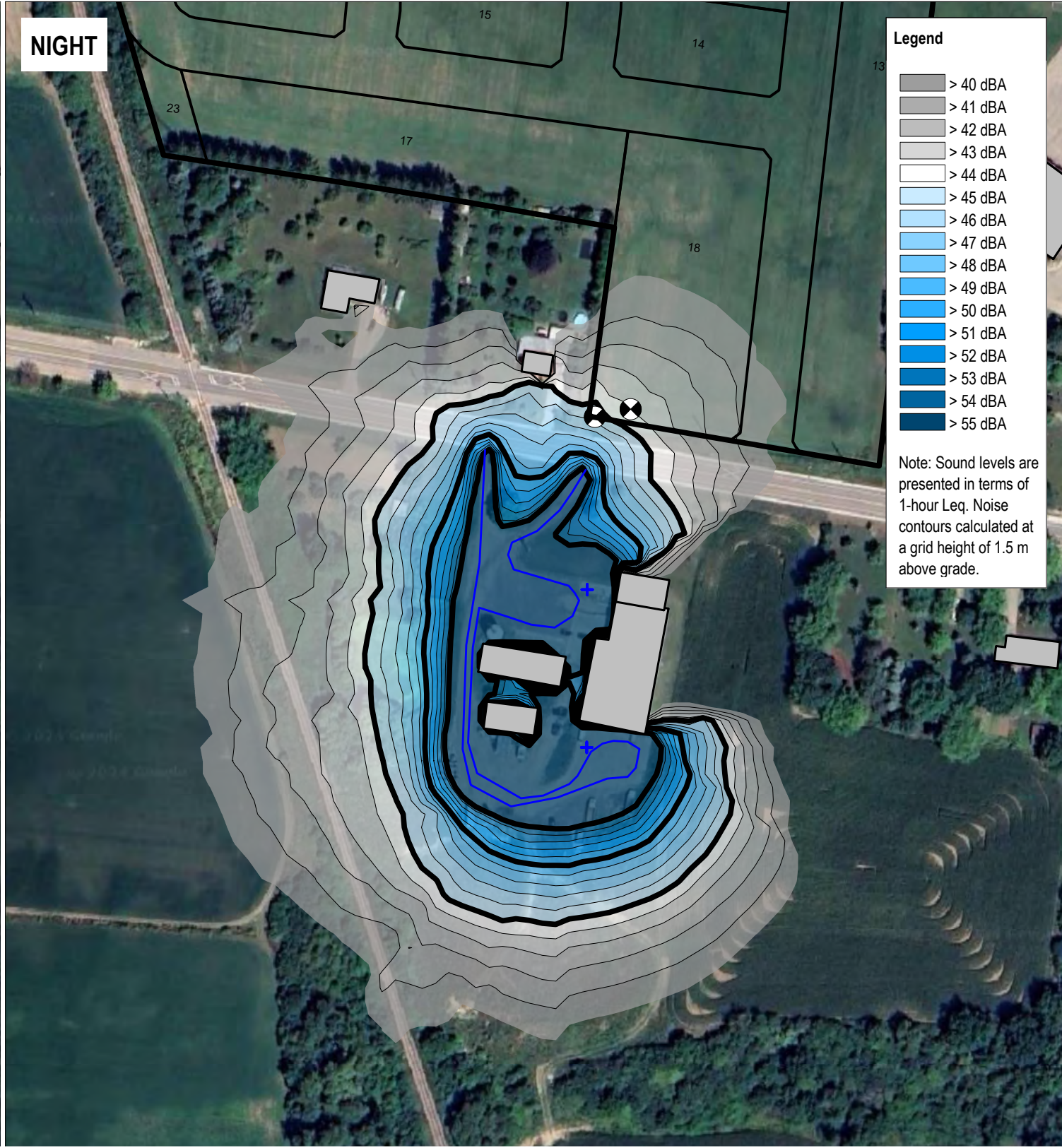
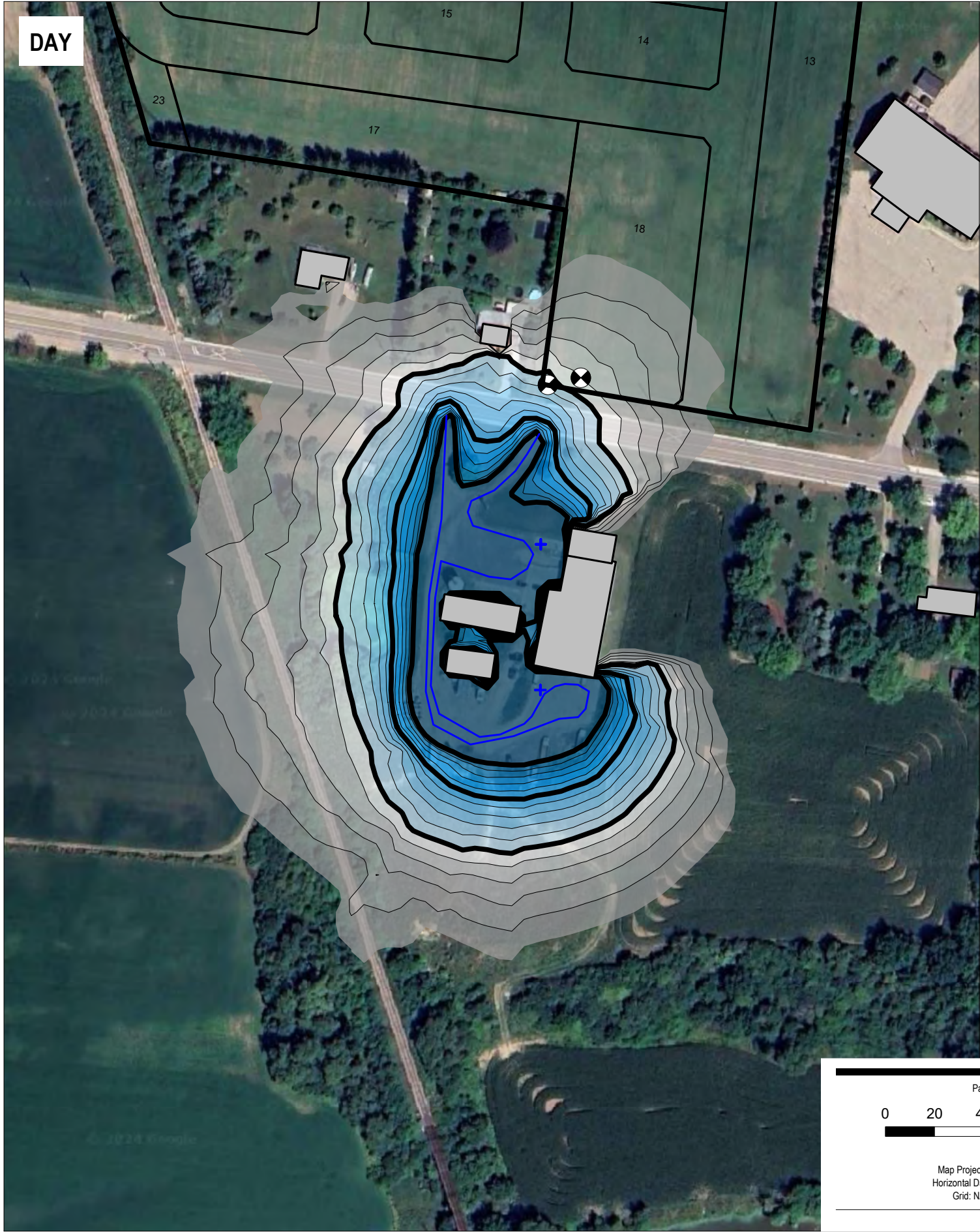












Legend

- > 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 1.5 m above grade.

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

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NOISE IMPACT STUDY
SCHLEGEL URBAN DEVELOPMENTS CORP.
52 HAWKESVILLE ROAD

INDUSTRY NOISE: STEADY
NOISE CONTOURS

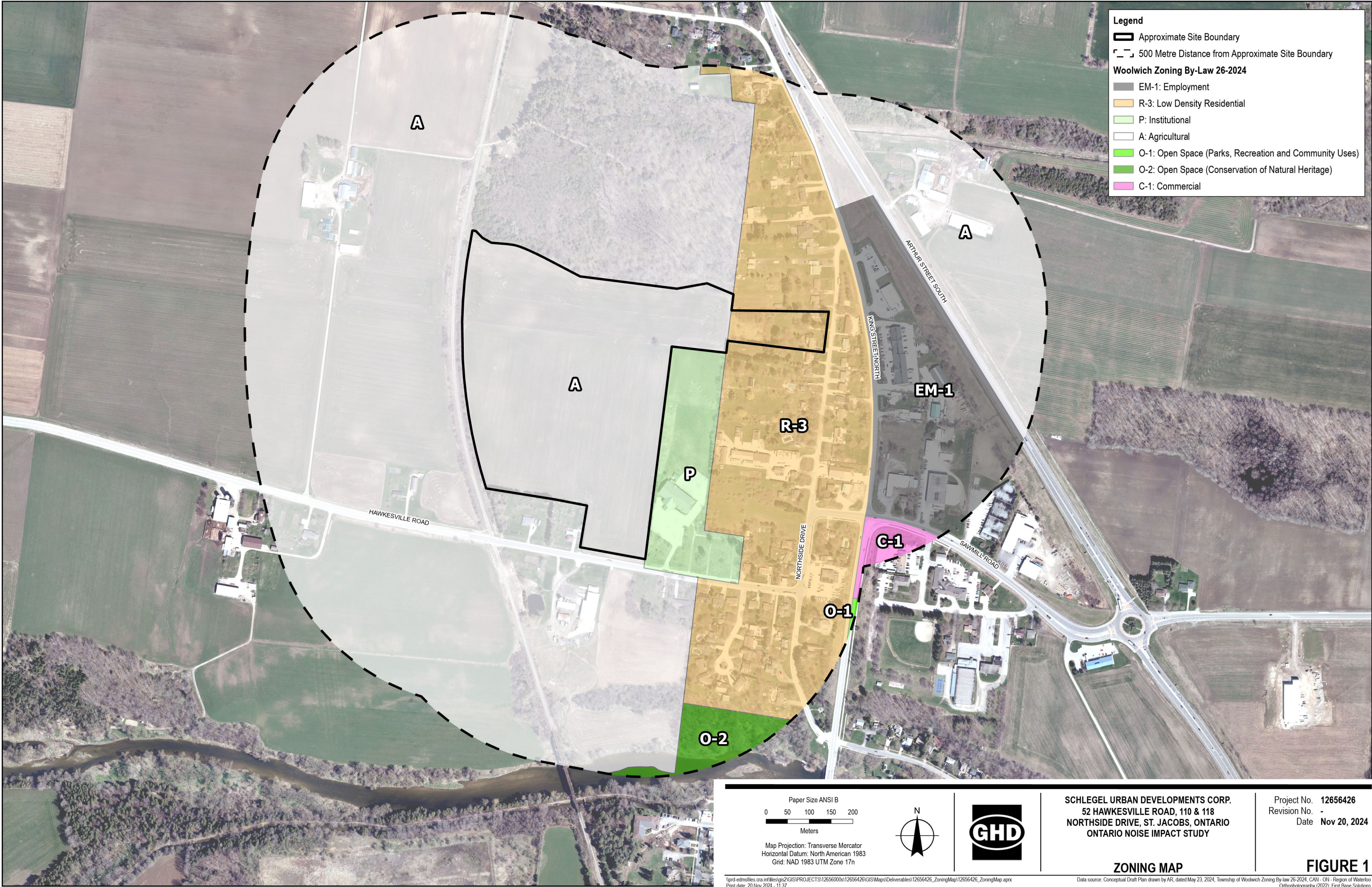
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Revision No. **-**
Date **05.05.2025**

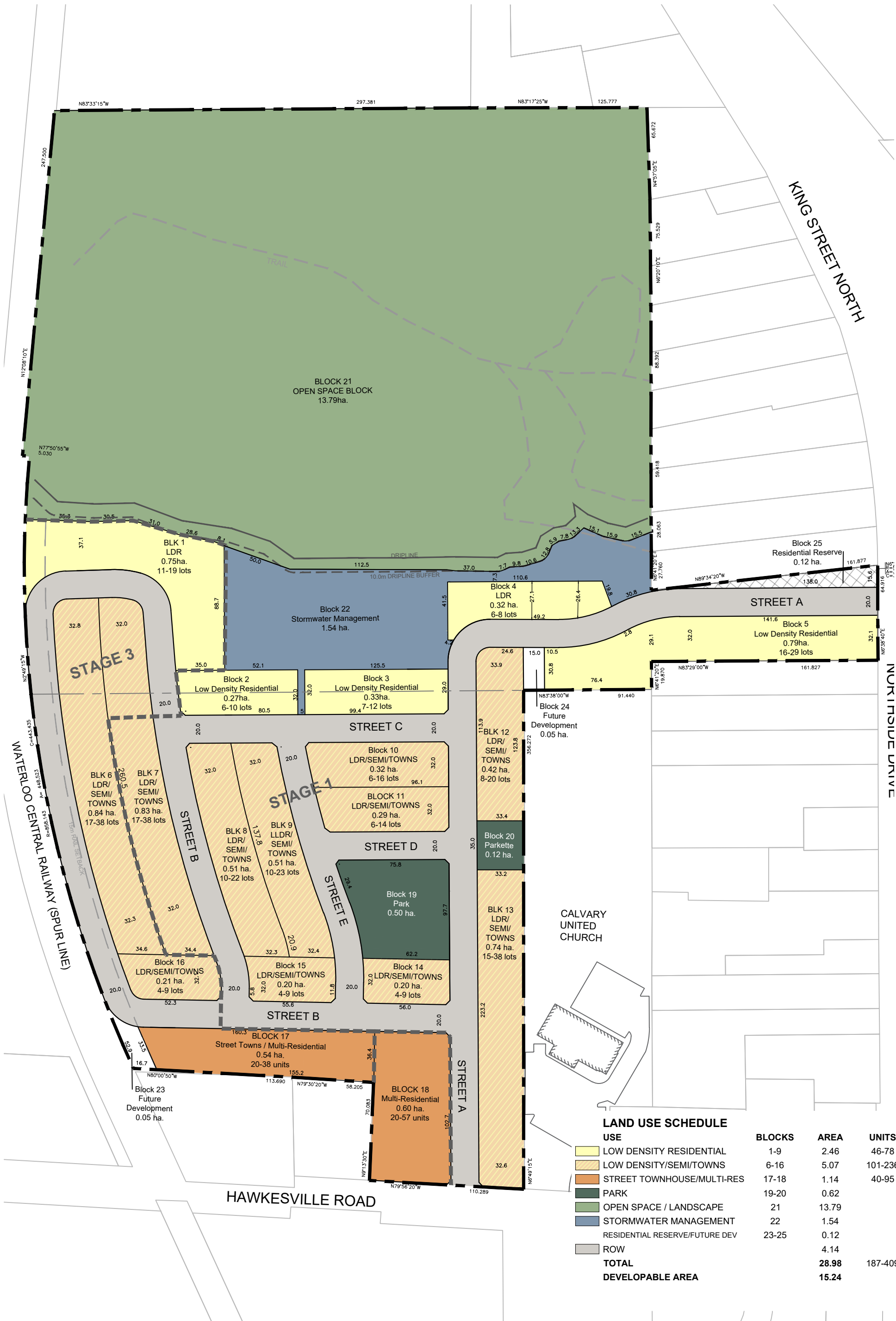
FIGURE 6.3

Appendices

Appendix A

Zoning Map and Site Plan





DEVELOPMENT CONCEPT

Schlegel - St. Jacobs Subddivision

NOTE: This concept should be considered as a preliminary demonstration model that illustrates an 'order of magnitude' development scenario for the site. The number of units, floor area and parking supply are approximate and subject to more detailed design as well as municipal planning approvals.

Scale 1:400 | April 28, 2025 | Project No. 24032 | Drawn By: MN



Appendix B

Existing Nearby ECAs/EASRs



Ministry of the Environment, Conservation and Parks
Environmental Assessment and Permissions Division

Confirmation of Registration

Registration Number: R-010-4116206247

Version Number: 001

Date Registration Filed: May 13, 2024 16:00:50 PM

W.K. DAHMS MFG. LTD.

3074 Sawmill Rd.
PO BOX PO Box 520
St. Jacobs ON N0B 2N0

You have registered, in accordance with Section 20.21 (1) (a) of the *Environmental Protection Act*, the use, operation, establishment, alteration, engagement or extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing that is located at the facility noted below, or the alteration of a process or rate of production at the facility, including the activities set out in schedule 'A'.

3074 Sawmill Road St. Jacobs ON N0B 2N0

Please note that the facility noted above is subject to the applicable provisions of O. Reg. 245/11, and O. Reg.1/17.

The activity related information provided during the registration process is included as part of the confirmation of registration as schedule 'A'.

Dated on May 13, 2024

Director
Client Services and Permissions Branch
Ministry of the Environment, Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto ON M4V 1P5

Any questions related to this registration and the Environmental Activity and the Sector Registry should be directed to:

Client Services and Permissions Branch
Ministry of the Environment, Conservation and Parks
Phone:(416) 314-8001
Toll free: 1-800-461-6290
Email: enviroperrmissions@ontario.ca

Part 3 - Activity Information**3.1 Industry Eligibility Check**

- a. Please select the facility's primary North American Industry Classification System (NAICS) code. 333120
-
- b. If the facility has other applicable NAICS code(s), are all of the applicable NAICS codes included in the site profile in your Ministry Account?
- Yes, all the other applicable NAICS codes are listed in the site profile. ☐
 - No, there are other applicable NAICS codes not currently listed in the site profile. ☐
 - My facility does not have more than one applicable NAICS code. ☒
-
- c. Are you engaged in an activity at the facility that may discharge or from which may be discharged a contaminant into any part of the natural environment other than water? ☒ Yes ☐ No
-
- d. Is the activity exempt from the requirement to obtain an Environmental Compliance Approval (ECA) under section 9(1) of the Environmental Protection Act (EPA) for any reason other than because it is an activity that has been prescribed by an EASR regulation under Part II.2 of the Act? ☐ Yes ☒ No
-
- e. If a person is engaging exclusively in prescribed EASR activities that are prescribed under one other EASR regulation, that other EASR regulation applies to the activities rather than O. Reg. 1/17. Are the activities engaged in at the facility, prescribed under any single other EASR regulation? This does not include activities exempted from requiring an ECA under section 9(1) of the EPA. ☐ Yes ☒ No
-
- f. Is an alternative low-carbon fuel site within the meaning of Ontario Regulation (O. Reg.) 79/15 (Alternative Low-Carbon Fuels) operated at the facility? ☐ Yes ☒ No
-
- g. Is the activity a renewable energy project as defined in the EPA, other than a small-wood fired combustor that meets the criteria set out in O. Reg. 1/17? ☐ Yes ☒ No

3.2 Facility Related Information

- a. Has a site-specific air standard ever been set for a contaminant discharged from the facility? (section 35 of O. Reg. 419/05 (Air Pollution -- Local Air Quality)) ☐ Yes ☒ No
-
- b. Has a person ever been registered in the Ministry's Technical Standards Registry – Air Pollution under section 39 of O. Reg. 419/05 (Air Pollution – Local Air Quality) in respect of the facility? ☐ Yes ☒ No
-
- c. Do all of the activities to be registered occur exclusively at the site?
Please Note: Discrete activities that involve the use of equipment that is intended to be moved from one site to another to perform the same function (such as the use of mobile rock crushing equipment or mobile PCB destruction equipment) are ☒ Yes ☐ No

not prescribed for the purpose of the Environmental Activity and Sector Registry, and an Environmental Compliance Approval may be required.

d. Is the facility located on adjacent properties that have been deemed a single property under subsection 4 (2) of O. Reg. 419/05? ☐ Yes ☒ No

e. Is the facility located in an area of development control within the Niagara Escarpment Planning Area? ☐ Yes ☒ No

e. i. If yes, has a development permit required under section 24 of the Niagara Escarpment Planning and Development Act (NEPDA) in respect of the facility been issued? ☐ Yes ☐ No

f. Is there a landfilling site that is no longer permitted to accept waste for disposal located on the site on which the facility is located? ☐ Yes ☒ No

g. Is the activity part of an undertaking to which the Environmental Assessment Act applies? ☐ Yes ☒ No

g. i. If yes, is one or more of the following conditions met: ☐ Yes ☐ No
- All class EA requirements have been completed, including decisions on any Part II order requests; OR
- The facility has received approval to proceed with the undertaking.

h. Please provide a description of the facility. The description should include a summary of operations and activities at the facility that discharge contaminants, as well as what is produced, if applicable.

The primary operations of the Facility include the design and production of mobile aggregate placement equipment. The primary materials used in the manufacturing process are steel, welding consumables, primer, topcoat, rubber conveyor belts, and abrasive blasting media. Finished products include mobile aggregate placement equipment. The Facility processes currently operate five days per week for up to 10 hours per day. Emissions are from MIG and TIG welding, metal working operations (including bending, shearing, sawing, drilling, milling, machining, sanding and grinding operations), a paint spray booth, rubber drilling operations, and abrasive blasting.

i. Please enter the date on which the facility commenced or will commence operations. 1984-05-01

j. Is the facility located in a multi-tenant building? ☐ Yes ☒ No

3.3 Activity Related Information

a. Does the land disposal of waste as defined in Regulation 347 General – Waste Management occur at the facility? ☐ Yes ☒ No

b. Does the facility process or dispose of waste by way of thermal treatment, other than the thermal treatment of wood fuel that meets the specifications in Chapter 5 of the EASR publication in a wood-fired combustor? ☐ Yes ☒ No

c. Does the facility use a small wood-fired combustor that meets the design criteria set out in Chapter 5 of the EASR Publication? ☐ Yes ☒ No

c. i. If yes, does the small wood-fired combustor have a nominal load heat input capacity reported on a higher heating value basis of less than 3 megawatts?	☐ Yes ☐ No
c. ii. If yes, was the small wood-fired combustor installed on or after January 31, 2017?	☐ Yes ☐ No
c. iii. If yes, does the small wood-fired combustor exclusively use one or more of the following as fuel: - Wood chips that meet the specifications set out in Chapter 5 of the EASR publication. - Wood briquettes that meet the specifications set out in Chapter 5 of the EASR publication. - Wood pellets that meet the specifications set out in Chapter 5 of the EASR publication.	☐ Yes ☐ No
d. Does the facility have any plating processes that use cadmium, cyanide, chromium or nickel, including chrome plating, electroplating or electroless plating?	☐ Yes ☒ No
e. Is an electrolytic stripping process that removes cadmium, chromium or nickel from an object used at the facility?	☐ Yes ☒ No
f. Are metals processed outdoors at the facility, including torching, shearing, shredding or plasma cutting, other than for the purpose of routine maintenance carried out at the facility on any plant, structure, equipment, apparatus or thing?	☐ Yes ☒ No
g. Is a fossil-fuel electric power generation facility with a maximum electrical power output capacity equal to or greater than 25 megawatts operated at the facility?	☐ Yes ☒ No
h. Is a combustion source that uses biogas, biomass, coal, petroleum coke or waste as a fuel, or that uses a fuel derived from biogas, biomass, coal, petroleum coke or waste other than a small wood-fired combustor or a combustion turbine operated at the facility?	☐ Yes ☒ No
i. Is a combustion turbine used at the facility?	☐ Yes ☒ No
i. i. Is the fuel burned in the combustion turbine natural gas or other gaseous fuel that meets the following criteria: - It is at least 90 per cent methane by volume. - It has an energy content of at least 35 megajoules per cubic metre. - It has a total sulphur content of less than 120 milligrams per cubic metre.	☐ Yes ☐ No
i. ii. Does the combustion turbine have, or if there is more than one combustion turbine at the facility do all of them have when taken together, a maximum combined electrical and mechanical power output capacity of less than 25 megawatts?	☐ Yes ☐ No
i. iii. Does the combustion turbine have an auxiliary burner?	☐ Yes ☐ No
i. iv. If yes, is the auxiliary burner only fueled by natural gas or other gaseous fuel that meets the following criteria: - It is at least 90 per cent methane by volume.	☐ Yes ☐ No

- It has an energy content of at least 35 megajoules per cubic metre.
- It has a total sulphur content of less than 120 milligrams per cubic metre.

i. v. If yes, is the maximum fuel input capacity of the auxiliary burner less than the maximum fuel input capacity of the combustion turbine? ☐ Yes ☐ No

Part 4 - Operational Information

4.1 - Air

a. Does the EASR Emission Summary and Dispersion Modelling (ESDM) Report provide for modifications that have not yet been implemented at the facility? ☐ Yes ☒ No

a. i. If yes, please provide the date on which the modifications will be completed.

b. Has an instrument (including written notices from a director, orders or approvals) under O. Reg. 419/05 been issued in respect of the facility? ☐ Yes ☒ No

b. i. If yes, what type(s) of instruments (including any director's notices, orders or approvals) has (have) been issued? (select all that apply)

ss. 7(1) Specified Dispersion Models ☐

ss. 8(2) Negligible Sources ☐

ss. 10(2) Operating Conditions ☐

ss. 11(2) Refined Emission Rates ☐

ss. 13(1) Value of Dispersion Modelling Parameters ☐

ss. 13(2) Meteorological Data ☐

ss. 14(6) Area of Modelling Coverage ☐

ss. 20(5) Speed-up Order ☐

Other ☐

List all that have been issued

c. Please confirm which standards used by the licensed engineering practitioner to assess compliance of the facility's emissions

Section 20 of O. Reg. 419/05 (Schedule 3) ☒

N/A – The amount of any contaminant discharged from the site is negligible ☐

N/A – Source(s) discharge only sound as a contaminant ☐

N/A – Source(s) discharge sound as a contaminant and the amount of any other contaminant discharged is negligible ☐

d. Please select all applicable boxes that apply to a discharge of a contaminant(s) to air from the

facility:

Contaminant(s) belonging to Benchmark 1 category of ACB list is at or below the concentration for each specified averaging period set out for the contaminant	☒
Contaminant(s) belonging to Benchmark 1 category of ACB list is above the concentration for a specified averaging period set out for the contaminant By exceeding a Benchmark 1 contaminant limit(s), you must also notify your local District Office and take appropriate action in accordance with Reg. 419/05. Please see https://www.ontario.ca/page/rules-air-quality-and-pollution#section-4 for more details under "Notification of Exceedances".	☐
Contaminant(s) belonging to Benchmark 2 category of ACB list is at or below the concentration for each specified averaging period set out for the contaminant	☒
Contaminant(s) belonging to Benchmark 2 category of ACB list is above the concentration for a specified averaging period set out for the contaminant	☐
The concentration of the contaminant(s) does not have a Ministry standard, guideline, or screening level set out for the contaminant	☐
N/A – The amount of any contaminant discharged from the site is negligible	☐
N/A – Source(s) discharge only sound as a contaminant	☐
N/A – Source(s) discharge sound as a contaminant and the amount of any other contaminant discharged is negligible	☐

e. Does the facility operate a generator for non-emergency purposes? ☐ Yes ☒ No

f. Does the facility use or operate a large boiler or heater greater than 10.5 gigajoules per hour? ☐ Yes ☒ No

h. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the EASR ESDM Report and made statements in the EASR ESDM Report Supplement and the date signed.

First Name	Last Name	Licence Number(s)	Date Signed
Pamela	Cameron	90468513	2024-04-17

4.2 - Fugitive Dust Control

a. Does the EASR ESDM Report prepared for the facility identify a source of fugitive dust? ☐ Yes ☒ No

a. i. If yes, has a licensed engineering practitioner signed and sealed a Best Management Practice Plan (BMPP) for fugitive dust control? ☐ Yes ☐ No
Please note: you can learn more about Best Management Practice Plans for fugitive dust control in [section 7.4 of Guideline A-10](#)

b. Has a BMPP for fugitive dust control been prepared as a result of a written notice from the Director issued under O. Reg. 1/17? ☐ Yes ☒ No

c. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the BMPP for fugitive dust control and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed
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4.3 - Noise

a. Please select the noise assessment method that was completed for the facility:

The facility meets the 1000m setback distance	☐
Primary Noise Screening Method	☐
Secondary Noise Screening Method	☐
Acoustic Assessment Report	☒

a. i. If the Primary Noise Screening Method was used, is the actual separation distance from the facility to the closest Point of Noise Reception equal to or greater than the minimum separation distance as determined by the Primary Noise Screening Method? ☐ Yes ☐ No

a. ii. If the Secondary Noise Screening Method was used, is the combined sound level from the facility at each affected Point of Noise Reception as determined by the Secondary Noise Screening Method less than or equal to the applicable sound level limit set out in Chapter 3 of the EASR publication? ☐ Yes ☐ No

a. iii. If an acoustic assessment was completed, did the acoustic assessment determine that the combined sound level from the facility at each affected Point of Noise Reception less than or equal to of the applicable sound level limit set out in Chapter 3 of the EASR publication? ☐ Yes ☒ No

a. iii. a) If no, has a Noise Abatement Action Plan been developed for the facility? ☒ Yes ☐ No

a. iii. b) If yes, please provide the title of the Noise Abatement Action Plan and the date it was prepared.

Name of NAAP	Date Prepared
Noise Abatement Plan - Section 8 of the Acoustic Assessment Report	2024-04-09

b. Has an Acoustic Audit Report been prepared as a result of a written notice from the Director? ☐ Yes ☒ No

b. i. If yes, please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the acoustic audit report, and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed
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d. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the noise report, and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed
Pamela	Cameron	90456813	2024-04-10

4.4 - Odour

a. Did the Odour Screening Report indicate that a circumstance which requires a BMPP for odour to be prepared exists at the facility? ☒ Yes ☐ No

b. Did the Odour Screening Report indicate that a circumstance which requires an Odour Control Report (OCR) to be prepared exists at the facility? ☐ Yes ☒ No

b. i. If yes, please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the Odour Control Report and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed

c. Has a BMPP for odour been prepared as a result of a written notice from the Director issued under O. Reg. 1/17? ☐ Yes ☒ No

d. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the BMPP for odour and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed
Pamela	Cameron	90468513	2024-04-17

Part 7 - Related Applications

a. Does the facility have one or more existing ECAs? ☐ Yes ☒ No

a. i. If yes, please provide the facility's ECA information.

Environmental Compliance Approval Number *	Date of Issuance *
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b. Does the facility have one or more existing EASR registrations? * ☐ Yes ☒ No

b. i. If yes, please provide the facility's EASR information. *

Environmental Activity and Sector Registry Number *	Date of Registration *	Activity
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c. Has the Director issued a 20.18 order stating that Part II.2 of the Environmental Protection Act does not apply in respect of an activity at the site? ☐ Yes ☒ No

c. i. If yes, please provide the 20.18 order number and date of issuance and the activity that was the subject of the order.

Section 20.18 Order Number	Date of Issuance	Activity
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The fee for this registration is \$2353

Table 5: Acoustic Assessment Summary Table - Mitigated

WK Dahms - St.Jacob's, ON

3/27/2024

Notes to Table:

- "Continuous" noise sources includes sum of steady, quasi-steady impulsive, tonal, cyclical and buzzing noise sources, with appropriate penalties applied, in accordance with documents NPC-104 and EASR Publication, Chapter 3. Impulsive noise sources are assessed separately from continuous noise sources.
- Daytime occurs from 0700-1900h. Evening occurs from 1900h to 2300h. Night-time occurs from 2300-0700h
- Worst-case cumulative sound level from all applicable sources operating. Includes effects of noise control measures presented in the Noise Abatement Action Plan (Section 8 of the Acoustic Assessment Report).
- Has an acoustic audit (as defined in Publication NPC-233) been conducted with source in place and operating?
- Applicable worst-case sound level limit, as per EASR Publication, Chapter 3.
- Performance limit (aka guideline limit) based on following:
 C = Calculated based on road traffic volumes in compliance with NPC-206 requirements.
 M = Measured based on monitoring for a minimum 48 hour period, in accordance with NPC-233 requirements.
 D = Default guideline minima per EASR Publication, Chapter 3, as applicable (e.g., 50 dBA for daytime)

Assessment of Impacts for "Continuous" Noise Sources [1]

Point of Reception ID	Point of Reception Description	Class of Area	Time Period [2]	Total Sound Level at PoR [3] (dBA)	Verified by Acoustic Audit [4] (Yes/No)	Performance Limit [5] (dBA)	Performance Limit Source [6] (C / M / D)	Compliance with Performance Limit (Yes/No)
POR1a	Neighbouring House to West - East Facade	2	Daytime	50	No	50	D	Yes
			Evening	-	No	50		Yes
			Night-time	-	No	45		Yes
POR1b	Neighbouring House to West - North Facade	2	Daytime	49	No	50	D	Yes
			Evening	-	No	50		Yes
			Night-time	-	No	45		Yes
POR2	House to Northwest	2	Daytime	38	No	50	D	Yes
			Evening	-	No	50		Yes
			Night-time	-	No	45		Yes
POR3	House to West - Plane of Window	2	Daytime	37	No	50	D	Yes
			Evening	-	No	50		Yes
			Night-time	-	No	45		Yes
POR3b	House to West - Outdoor	2	Daytime	38	No	50	D	Yes
			Evening	-	No	45		Yes



Ministry of the Environment and Climate Change
Operations Division

Confirmation of Registration

Registration Number: R-010-2110163117

Version Number: 001

Date Registration Filed: Jun 19, 2017 13:31:22 PM

Dear Sir/Madam,

BONZAI DESIGN GROUP INC.

27 CORAL GABLES CRESCENT
ELMIRA ON N3B 3P4

You have registered, in accordance with Section 20.21(1) (a) of the *Environmental Protection Act*, the use, operation, construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing that is located at the facility noted below, or the alteration of a process or rate of production at the facility, including the activities set out in schedule 'A'.

3060 Sawmill Road St. Jacobs ON N0B 2N0

Please note that the facility noted above is subject to the applicable provisions of O. Reg. 245/11, and O. Reg.1/17.

The activity related information provided during the registration process is included as part of the confirmation of registration as schedule 'A'.

Dated on Jun 19, 2017

Director

Environmental Approvals Access and Service Integration Branch
Ministry of the Environment and Climate Change
135 St. Clair Avenue West, 1st Floor
Toronto ON M4V 1P5

Any questions related to this registration and the Environmental Activity and the Sector Registry should be directed to:

Ministry of the Environment and Climate Change

Customer Service Representative

Environmental Approvals Access and Service Integration Branch

Phone:(416) 314-8001

Toll free: 1-800-461-6290

Schedule 'A'

Part 3 - Activity Information

3.1 Industry Eligibility Check

a. Please select the facility's primary North American Industry Classification System (NAICS) code.	337215
b. Does the facility have any other applicable NAICS codes?	☐ Yes ☒ No
b. i. If yes, please select the facility's secondary NAICS code(s), and confirm any other applicable NAICS code(s).	
c. Are you engaged in an activity at the facility that may discharge or from which may be discharged a contaminant into any part of the natural environment other than water?	☒ Yes ☐ No
d. Is the activity exempt from requiring an Environmental Compliance Approval (ECA) under section 9 (1) of the Environmental Protection Act (EPA) other than an activity that has been prescribed by an EASR regulation under Part II.2 of the Act?	☐ Yes ☒ No
e. Are the only activities engaged in at the facility, other than activities described in question 3.1d above, prescribed under a single other EASR regulation?	☐ Yes ☒ No
f. Is an alternative low-carbon fuel site within the meaning of Ontario Regulation (O. Reg.) 79/15 (Alternative Low-Carbon Fuels) operated at the facility?	☐ Yes ☒ No
g. Is the activity a renewable energy project as defined in the EPA?	☐ Yes ☒ No
h. Is an end-of-life vehicle waste disposal site within the meaning of O. Reg. 85/16 operated at the facility?	☐ Yes ☒ No

3.2 Facility Related Information

a. Has a site-specific air standard ever been set for a contaminant discharged from the facility? (section 35 of O. Reg. 419/05 (Air Pollution -- Local Air Quality))	☐ Yes ☒ No
b. Has a person ever been registered in the Ministry's Technical Standards Registry – Air Pollution under section 39 of O. Reg. 419/05 (Air Pollution – Local Air Quality) in respect of the facility?	☐ Yes ☒ No
c. Do all of the activities to be registered occur exclusively at the site? <i>Please Note: Discrete activities that involve the use of equipment that is intended to be moved from one site to another to perform the same function (such as the use of mobile rock crushing equipment or mobile PCB destruction equipment) are not prescribed for the purpose of the Environmental Activity and Sector Registry, and an Environmental Compliance Approval may be required.</i>	☒ Yes ☐ No
d. Is the facility located on a property that has been deemed a single property under subsection 4 (2) of O. Reg. 419/05?	☐ Yes ☒ No
e. Is the facility located in an area of development control within the Niagara Escarpment Planning Area?	☐ Yes ☒ No
e. i. If yes, has a development permit required under section 24 of the Niagara Escarpment Planning and Development Act (NEPDA) in respect of the facility been issued?	☐ Yes ☐ No
f. Is there a landfilling site that is no longer permitted to accept waste for disposal located on the site on which the facility is located?	☐ Yes ☒ No
g. Is the activity part of an undertaking to which the Environmental Assessment Act applies?	☐ Yes ☒ No
g. i. If yes, is one or more of the following conditions met: - All class EA requirements have been completed, including decisions on any Part II order requests; OR - The facility has received approval to proceed with the undertaking.	☐ Yes ☐ No

h. Please provide a description of the facility. The description should include a summary of operations and activities at the facility that discharge contaminants, as well as what is produced, if applicable.

Bonzai Design Group Inc., operating as Armodilo Display Solutions, operates an assembly and painting facility of custom tablet stands located at 3060 Sawmill Rd., St. Jacobs, Ontario; the facility is located in an area zoned for General Industrial use. The main processes consist of assembly and painting of tablet display supports.

i. Please enter the date on which the facility commenced or will commence operations.	2011-10-06
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j. Is the facility located in a multi-tenant building?	☒ Yes	☐ No
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3.3 Activity Related Information

a. Does the land disposal of waste as defined in Regulation 347 General – Waste Management occur at the facility?	☐ Yes	☒ No
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b. Does the facility process or dispose of waste by way of thermal treatment, other than the thermal treatment of wood fuel that meets the specifications in Chapter 5 of the EASR publication in a wood-fired combustor?	☐ Yes	☒ No
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c. Does the facility use a wood-fired combustor?	☐ Yes	☒ No
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c. i. If yes, does the wood-fired combustor have a nominal load heat input capacity of less than 3 megawatts?	☐ Yes	☐ No
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c. ii. If yes, was the wood-fired combustor installed at the facility on or after January 31, 2017?	☐ Yes	☐ No
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c. iii. If yes, does the wood-fired combustor exclusively use one or more of the following as fuel: - Wood chips that meet the specifications set out in Chapter 5 of the EASR publication. - Wood briquettes that meet the specifications set out in Chapter 5 of the EASR publication. - Wood pellets that meet the specifications set out in Chapter 5 of the EASR publication.	☐ Yes	☐ No
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d. Does the facility have any plating processes that use cadmium, cyanide, chromium or nickel, including chrome plating, electroplating or electroless plating?	☐ Yes	☒ No
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e. Is an electrolytic stripping process that removes cadmium, chromium or nickel from an object used at the facility?	☐ Yes	☒ No
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f. Are metals processed outdoors at the facility, including torching, shearing, shredding or plasma cutting, other than for the purpose of routine maintenance carried out at the facility on any plant, structure, equipment, apparatus or thing?	☐ Yes	☒ No
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g. Is a fossil-fuel electric power generation facility with a maximum electrical power output capacity equal to or greater than 25 megawatts operated at the facility?	☐ Yes	☒ No
--	------------------------------	--

h. Is a combustion source that uses biogas, biomass, coal, petroleum coke or waste as a fuel, or that uses a fuel derived from biogas, biomass, coal, petroleum coke or waste other than a small wood-fired combustor operated at the facility?	☐ Yes	☒ No
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i. Is a combustion turbine used at the facility?	☐ Yes	☒ No
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Part 4 - Operational Information

4.1 Air

a. Does the EASR Emission Summary and Dispersion Modelling (ESDM) Report provide for modifications that have not yet been implemented at the facility?	☐ Yes	☒ No
a. i. If yes, please provide the date on which the modifications will be completed.		
b. Has an instrument under O. Reg. 419/05 been issued in respect of the facility?	☐ Yes	☒ No
b. i. If yes, what type(s) of instruments (including any notices, orders or approvals) has (have) been issued? (select all that apply)		
ss. 7(1) Specified Dispersion Models	☐	
ss. 8(2) Negligible Sources	☐	
ss. 10(2) Operating Conditions	☐	
ss. 11(2) Refined Emission Rates	☐	
ss. 13.1 Value of Dispersion Modelling Parameters	☐	
ss. 13(1) Meteorological Data	☐	
ss. 14(6) Area of Modelling Coverage	☐	
ss. 20(5) Speed-up Order	☐	
Other	☐	
List all that have been issued		
c. To what standard did the licensed engineering practitioner assess compliance of the facility's emissions (please select the applicable box(es)):		
Section 19 of O. Reg. 419/05 (Schedule 2)	☒	
Section 20 of O. Reg. 419/05 (Schedule 3)	☒	
d. Please select all applicable boxes that apply to a discharge of a contaminant(s) to air from the facility:		
Contaminant(s) belonging to Benchmark 1 category of ACB list is at or below the concentration for each specified averaging period set out for the contaminant	☒	
Contaminant(s) belonging to Benchmark 2 category of ACB list is at or below the concentration for each specified averaging period set out for the contaminant	☒	
Contaminant(s) belonging to Benchmark 2 category of ACB list is above the concentration for a specified averaging period set out for the contaminant	☐	
The concentration of the contaminant(s) does not have a Ministry standard, guideline, or screening level set out for the contaminant	☐	
e. Does the facility operate a generator for non-emergency purposes?	☐ Yes	☒ No
f. Does the facility use or operate a large boiler or heater greater than 10.5 gigajoules per hour?	☐ Yes	☒ No
g. Will an Emissions Summary Table be uploaded?	☒ Yes	☐ No
<i>Please Note: An Emissions Summary Table is required to be uploaded at the time of registration. An</i>		

Emissions Summary Table is also required to be uploaded if any modifications to the facility require an update to the EASR ESDM. Additionally, as part of the 10 year review required by O. Reg. 1/17, an updated Emissions Summary Table is required to be uploaded.

h. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the EASR ESDM Report and made statements in the EASR ESDM Report Supplement and the date signed.

First Name	Last Name	Licence Number(s)	Date Signed
Sadie	Bachynski	100135636	2017-05-15

4.2 Fugitive Dust Control

a. Does the EASR ESDM Report prepared for the facility identify a source of fugitive dust? ☐ Yes ☒ No

a. i. If yes, has a licensed engineering practitioner signed and sealed a Best Management Practice Plan (BMPP) for fugitive dust control? ☐ Yes ☐ No

b. Has a BMPP for fugitive dust control been prepared as a result of a written notice from the Director issued under O. Reg. 1/17? ☐ Yes ☒ No

c. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the BMPP for fugitive dust control and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed

4.3 Noise

a. Please select the noise assessment method that was completed for the facility:

The facility meets the 1000m setback distance ☐

Primary Noise Screening Method ☐

Secondary Noise Screening Method ☒

Acoustic Assessment Report ☐

a. i. If the Primary Noise Screening Method was used, is the actual separation distance from the facility to the closest Point of Noise Reception equal to or greater than the minimum separation distance as determined by the Primary Noise Screening Method? ☐ Yes ☐ No

a. ii. If the Secondary Noise Screening Method was used, is the combined sound level from the facility at each affected Point of Noise Reception as determined by the Secondary Noise Screening Method less than or equal to the applicable sound level limit set out in Chapter 3 of the EASR publication? ☒ Yes ☐ No

a. iii. If an acoustic assessment was completed, did the acoustic assessment determine that the combined sound level from the facility at each affected Point of Noise Reception less than or equal to of the applicable sound level limit set out in Chapter 3 of the EASR publication? ☐ Yes ☐ No

a. iii. a) If no, has a Noise Abatement Action Plan been developed for the facility? ☐ Yes ☐ No

a. iii. b) If yes, please provide the title of the Noise Abatement Action Plan and the date it was prepared.

Name of NAAP	Date Prepared

b. Has an Acoustic Audit Report been prepared as a result of a written notice from the Director? ☐ Yes ☒ No

b. i. If yes, please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the acoustic audit report, and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed

c. Will an Acoustic Assessment Summary Table be uploaded? ☐ Yes ☒ No
Please Note: An Acoustic Assessment Summary Table is required to be uploaded at the time of

registration if an Acoustic Assessment was completed for the facility. An Acoustic Assessment Summary Table is also required to be uploaded if any modifications to the facility require an update to the facility's noise report. Additionally, as part of the 10 year review required by O. Reg. 1/17, an updated Acoustic Assessment Summary Table is required to be uploaded.

d. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the noise report, and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed
Sadie	Bachynski	100135636	2017-05-15

4.4 Odour

a. Did the Odour Screening Report indicate that a circumstance which requires a BMPP for odour to be prepared exists at the facility? ☐ Yes ☒ No

b. Did the Odour Screening Report indicate that a circumstance which requires an Odour Control Report (OCR) to be prepared exists at the facility? ☐ Yes ☐ No

b. i. If yes, please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the Odour Control Report and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed

c. Has a BMPP for odour been prepared as a result of a written notice from the Director issued under O. Reg. 1/17? ☐ Yes ☒ No

d. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the BMPP for odour and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed



Ministry
of the
Environment

Ministère
de
l'Environnement

AMENDED CERTIFICATE OF APPROVAL
AIR
NUMBER 2430-4MBNUJ

(Clare) Weber's Fabricating Ltd.
3044 Sawmill Road, P.O. Box 610
Woolwich, Ontario
N0B 2N0

Site Location: 3044 Sawmill Road, P.O. Box 610
Woolwich Township, Regional Municipality Of Waterloo
N0B 2N0

You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:

- one (1) paint spray booth for the application of solvent based coatings at a maximum rate of 10.0 litres per hour, equipped with 10.3 square metres of dry type paint arrestor filters, exhausting into the atmosphere at a volumetric flow rate of 10.85 actual cubic metres per second, through a stack, having an exit diameter of 0.98 metre, extending 3.1 metres above roof and 9.1 metres above grade;
- one (1) outdoor acid wash process for the application of a solution that contains 3 per cent sulphuric acid by weight at a maximum rate of 6.0 litres of solution per hour, naturally evaporating into the atmosphere;

all in accordance with the application for a Certificate of Approval (Air), and all supporting information dated April 11, 2000 and signed by Clare Weber and a facsimile message from Carla Luis, dated July 14, 2000, requesting address change.

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

"Act" means the *Environmental Protection Act*;

"Certificate" means this Certificate of Approval issued in accordance with the Act;

"Company" means (Clare) Weber's Fabricating Ltd.;

"Equipment" means the spray booth described in the Company's application, this Certificate and in the supporting documentation referred to herein, to the extent approved by this Certificate;

"Manual" means a document or a set of documents that provide written instructions to staff of the Company.

"Ministry" means the Ontario Ministry of the Environment

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. The Company shall ensure that the Equipment is properly operated and maintained at all times. The Company shall:

- (1) prepare, not later than three (3) months after the date of this Certificate, and update as necessary, a Manual

outlining the operating procedures and a maintenance program for the Equipment, including:

- (a) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;
 - (b) emergency procedures;
 - (c) procedures for any record keeping activities relating to operation and maintenance of the Equipment; and
 - (d) all appropriate measures to minimize odourous emissions from all potential sources; and
- (2) implement the recommendations of the operating and maintenance Manual; and
- (3) retain, for a minimum of two (2) years from the date of their creation, all records on the maintenance, repair and inspection of the Equipment, and make these records available for review by staff of the Ministry upon request.

The reasons for the imposition of these terms and conditions are as follows:

Condition No. 1 is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, the regulations and this Certificate.

In addition the Company is required to keep records and to provide information to staff of the Ministry so that compliance with the Act, the regulations and this Certificate can be verified.

This Certificate of Approval revokes and replaces Certificate(s) of Approval No. 3070-4L8QBP issued on June 13, 2000.

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, as amended, you may by written notice served upon me and the Environmental Appeal Board within 15 days after receipt of this Notice, require a hearing by the Board. Section 142 of the Environmental Protection Act, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

CONTENT COPY OF ORIGINAL

The Secretary*
Environmental Appeal Board
2300 Yonge St., 12th Floor
P.O. Box 2382
Toronto, Ontario
M4P 1E4

AND

The Director
Section 9, *Environmental Protection Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Appeal Board's requirements for an appeal can be obtained directly from the Board at:
Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted works are approved under Section 9 of the Environmental Protection Act.

DATED AT TORONTO this 25th day of July, 2000

Dave Staseff, P.Eng.
Director
Section 9, *Environmental Protection Act*

LD/
c: District Manager, MOE Guelph District Office
Matthew T. Dugan, Comcor Environmental Limited

Appendix C

Sample STAMSON Calculation

Filename: 52hroad.te Time Period: Day/Night 16/8 hours
Description: Furthest Southeast POW

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

Car traffic volume : 2851/317 veh/TimePeriod
Medium truck volume : 97/11 veh/TimePeriod
Heavy truck volume : 292/32 veh/TimePeriod
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Hawkesv Rd (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 : 18.29 / 18.29 m
Receiver height : 4.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 1100/366 veh/TimePeriod => Nighttime x3 for 40 veh/h
Medium truck volume : 47/15 veh/TimePeriod => Nighttime x3 for 40 veh/h
Heavy truck volume : 23/9 veh/TimePeriod => Nighttime x3 for 40 veh/h
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 2: Northside Dr (day/night)

Angle1 Angle2 : 0.00 deg 40.00 deg
Wood depth : 0 (No woods.)

No of house rows : 0 / 0
 Surface : 1 (Absorptive ground surface)
 Receiver source distance : 274.28 / 274.28 m
 Receiver height : 4.50 / 4.50 m
 Topography : 1 (Flat/gentle slope; no barrier)
 Reference angle : 0.00

Road data, segment # 3: King St N (day/night)

 Car traffic volume : 2030/452 veh/TimePeriod => Nighttime x2 for 40 veh/h
 Medium truck volume : 65/14 veh/TimePeriod => Nighttime x2 for 40 veh/h
 Heavy truck volume : 65/14 veh/TimePeriod => Nighttime x2 for 40 veh/h
 Posted speed limit : 50 km/h
 Road gradient : 0 %
 Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 3: King St N (day/night)

 Angle1 Angle2 : 0.00 deg 90.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 1 (Absorptive ground surface)
 Receiver source distance : 365.59 / 365.59 m
 Receiver height : 4.50 / 4.50 m
 Topography : 1 (Flat/gentle slope; no barrier)
 Reference angle : 0.00

Result summary (day)

	! source !	Road	Total
	! height !	Leq	Leq
	! (m) !	(dBA)	(dBA)
1.Hawkesv Rd	! 1.73 !	60.96	60.96
2.Northside Dr	! 1.18 !	28.47	28.47
3.King St N	! 1.32 !	32.37	32.37
Total			60.97 dBA

Result summary (night)

```

-----
! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Hawkesv Rd ! 1.73 ! 54.38 ! 54.38
2.Northside Dr ! 1.23 ! 27.02 ! 27.02 => Nighttime -4.8 dBA
3.King St N ! 1.31 ! 28.75 ! 28.75 => Nighttime -3 dBA
-----+-----+-----+-----
Total 54.40 dBA
TOTAL Leq FROM ALL SOURCES (DAY): 60.97
(NIGHT): 54.40

```

Filename: 52hrail.te Time Period: Day/Night 16/8 hours
 Description: southwest ola receiver (OLA-04) with whistle

Rail data, segment # 1: WCR RAIL (day/night)

```

-----
Train          ! Trains      ! Trains      ! Speed !# loc !# Cars! Eng  !Cont
Type           ! (Left)       ! (Right)     !(km/h) !/Train!/Train! type !weld
-----+-----+-----+-----+-----+-----+-----+-----
1. CN          !  0.0/2.0    !  0.0/2.0    ! 24.0 !  4.0 !140.0 !Diesel! Yes
    
```

Data for Segment # 1: WCR RAIL (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 : 25.90 / 25.90 m
Receiver height  :   1.50 / 1.50 m
Topography      :      3      (Elevated; no barrier)
Whistle Angle   :      76 deg   Track 1
Elevation       :   2.54 m
Reference angle  :   0.00
    
```

Train # 1: CN, Segment # 1: WCR RAIL (night)

```

-----
LOCOMOTIVE (0.00 + 62.39 + 0.00) = 62.39 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-----
-90    90     0.51  67.16   -3.58  -1.19   0.00   0.00   0.00  62.39
-----
    
```

```

-----
WHEEL (0.00 + 51.94 + 0.00) = 51.94 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-----
-90    90     0.61  57.14   -3.83  -1.38   0.00   0.00   0.00  51.94
-----
    
```

```

-----
LEFT WHISTLE (0.00 + 68.93 + 0.00) = 68.93 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
    
```

-85	76	0.51	73.88	-3.58	-1.37	0.00	0.00	0.00	68.93
-----	----	------	-------	-------	-------	------	------	------	-------

RIGHT WHISTLE (0.00 + 53.86 + 0.00) = 53.86 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
76	87	0.51	73.88	-3.58	-16.44	0.00	0.00	0.00	53.86

Segment Leq : 69.98 dBA

Total Leq All Segments: 69.98 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 0.0

(NIGHT): 69.98

Filename: 52hrailn.te Time Period: Day/Night 16/8 hours
 Description: southwest ola receiver (OLA-04)

Rail data, segment # 1: WCR RAIL (day/night)

```

-----
Train          ! Trains      ! Speed !# loc !# Cars! Eng  !Cont
Type           !              !(km/h) !/Train!/Train! type !weld
-----+-----+-----+-----+-----+-----
1. CN          !   0.0/4.0   !  24.0 !  4.0 !140.0 !Diesel! Yes
    
```

Data for Segment # 1: WCR RAIL (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 : 25.90 / 25.90 m
Receiver height  :   1.50 / 1.50 m
Topography      :      3      (Elevated; no barrier)
No Whistle
Elevation       :   2.54 m
Reference angle  :   0.00
    
```

Train # 1: CN, Segment # 1: WCR RAIL (night)

```

-----
LOCOMOTIVE (0.00 + 62.39 + 0.00) = 62.39 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-----
-90    90     0.51  67.16   -3.58  -1.19   0.00   0.00   0.00  62.39
-----
WHEEL (0.00 + 51.94 + 0.00) = 51.94 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-----
-90    90     0.61  57.14   -3.83  -1.38   0.00   0.00   0.00  51.94
-----
    
```

Segment Leq : 62.76 dBA

Total Leq All Segments: 62.76 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 0.0
(NIGHT): 62.76

Appendix D

Road and Rail Traffic Data

Region of Waterloo AADT Forecast for Noise Studies

1. Development/Location

52 Hawkesville Rd

2. Current AADT (2024)

Hawkesville Rd	Northside Dr	King St N
2800	1,000	2300

3. Forecast AADT (2034)

Hawkesville Rd	Northside Dr	King St N
3600	1,300	2400

4. Commercial Vehicle Rates

	Hawkesville Rd	Northside Dr	King St N
% Medium Trucks	3%	4%	3%
% Heavy Trucks	9%	2%	3%

5. Posted Speed Limit

Hawkesville Rd	Northside Dr	King ST N
50 km/h	50 km/h	50 km/h

6. Day/Night Splits

Regional Standard 90/10 Day/Night Split

7. Expiry

Dec 31 2025

8. Notes

This forecast is intended for the purpose of carrying out a noise study for **52 Hawkesville Road in the Township of Woolwich**.

Note that, since Northside Dr falls under the jurisdiction of the Woolwich Township, confirmation of the above forecast should be provided by staff from the Township. Accordingly, I'd suggest following up with Bryan Bishop (BBishop@woolwich.ca) to have the data verified by the Township.

Also, the Waterloo Spur railway is within 500m. Rail traffic forecasts will need to be obtained to determine the noise impact.

The Region of Waterloo should be contacted for an updated forecast if there are plans to use this forecast beyond the above validity period.

Year	Highway	Location Description	Dist (KM)	Pattern Type	AADT	SADT	SWADT	WADT	Truck AADT	Total Collisions	Total CR	Trucks Collisions	Truck CR
2021	85			UC	43,400	43,500	44,100	41,800	3,050	5	0.2	0	0.0
1988	85	NORTHFIELD DR IC WATERLOO RD 50	1.9	C	13,900	15,400	15,400	12,500	1,250	12	1.3	0	0.0
1989	85			C	13,900	15,400	15,600	12,500	1,400	31	3.3	4	0.4
1990	85			C	14,000	15,500	15,500	12,600	1,400	11	1.2	1	0.1
1991	85			C	14,000	15,400	15,500	12,700	1,400	3	0.3	1	0.1
1992	85			C	13,100	14,100	14,500	12,100	1,300	5	0.6	0	0.0
1993	85			C	13,300	14,500	14,700	12,200	1,200	5	0.6	0	0.0
1994	85			C	15,300	16,800	17,100	13,800	1,400	7	0.7	0	0.0
1995	85			C	15,800	17,200	17,700	14,500	1,400	10	0.9	0	0.0
1996	85			C	16,300	18,500	18,500	14,700	1,450	5	0.5	0	0.0
1997	85			C	16,900	19,100	19,300	15,200	1,500	4	0.4	0	0.0
1998	85			C	17,400	19,700	19,700	15,700	1,550	4	0.3	1	0.1
1999	85			C	17,900	20,000	20,200	16,100	1,600	5	0.4	0	0.0
2000	85			C	17,400	19,700	19,700	15,700	1,550	6	0.5	0	0.0
2001	85			C	17,700	19,900	20,000	15,900	1,600	3	0.3	0	0.0
2002	85			C	17,900	20,000	20,200	16,100	1,600	6	0.5	1	0.1
2003	85			C	18,200	20,300	20,500	16,400	1,650	8	0.7	1	0.1
2004	85			UC	18,200	19,500	21,400	17,100	2,550	5	0.4	0	0.0
2005	85			UC	18,900	20,000	22,100	17,700	2,650	5	0.4	0	0.0
2006	85			UC	19,100	20,200	22,300	18,000	2,100	7	0.5	0	0.0
2007	85			UC	19,400	20,600	22,500	18,200	2,150	8	0.6	2	0.2
2008	85			UC	19,700	20,800	19,500	18,400	1,950	11	0.8	1	0.1
2009	85			UC	20,000	21,200	23,400	18,800	2,000	6	0.4	0	0.0
2010	85			UC	20,300	21,500	23,600	19,100	1,850	6	0.4	2	0.1
2011	85			UC	20,500	20,600	21,300	19,500	1,850	9	0.7	4	0.3
2012	85			UC	21,400	21,500	22,900	20,300	1,850	11	0.8	1	0.1
2013	85			UC	21,600	21,700	21,700	20,500	1,900	6	0.4	0	0.0
2014	85			UC	21,600	21,700	20,800	20,500	1,900	8	0.5	0	0.0
2015	85			UC	21,700	21,800	20,900	20,600	1,950	7	0.5	1	0.1
2016	85			UC	22,100	22,200	21,300	21,000	2,000	8	0.5	0	0.0
2017	85			UC	22,400	22,300	22,500	21,500	2,050	10	0.7	0	0.0
2018	85			UC	22,700	22,500	22,900	21,800	2,050	8	0.5	2	0.1
2019	85			UC	23,000	22,700	23,000	22,200	2,100	7	0.5	1	0.1
2021	85			UC	23,600	23,700	24,000	22,700	2,100	3	0.2	0	0.0
2021	85	0.35KM N OF WATERLOO RD15IC END OF HWY											
2021	89	HWY 11 START OF NA	5.4										
1988	89	HWY 400 IC	3.3	CR	5,850	7,500	7,000	4,850	530	12	1.7	1	0.1
1989	89			CR	6,750	8,650	8,050	5,650	610	19	2.3	1	0.1
1990	89			C	7,000	7,750	7,750	6,300	630	10	1.2	0	0.0
1991	89			C	7,600	8,350	8,450	6,900	680	12	1.3	0	0.0
1992	89			C	8,200	8,850	9,100	7,550	740	14	1.4	1	0.1



Train Count Data

TRANSMITTAL

To: **GHD**
Destinataire : 455 Phillip Street Unit
#100 Waterloo Ontario
N2L 3X2 Canada

Project : GPH-62.45(8.15)- 52 Hawkesville Rd, Waterloo
ON

Att'n: **Andrew DeFaria**

Routing: andrew.defaria@ghd.com

From: Sarangan Srikanth
Expéditeur :

Date: 2025/01/14

Cc: Adjacent Development
CN via e-mail

☐ Urgent ☐ For Your Use ☐ For Review ☒ For Your Information ☐ Confidential

**Re: Train Traffic Data – CN Guelph Subdivision- Hawkesville Rd in
Waterloo, ON**

Please find attached the requested Train Traffic Data; this data does not reflect GO Metrolinx Traffic. The application fee in the amount of **\$500.00** +HST will be invoiced.

Should you have any questions, please do not hesitate to contact the undersigned at Sarangan.srikanth@cn.ca.

Sincerely,

Sarangan Srikanth

Sarangan Srikanth
Officer Public Works
permits.gld@cn.ca

Date: 2025/01/14 **Project Number:** GPH-62.45(8.15)- 52 Hawkesville Rd, Waterloo ON

Dear Andrew:

Re: Train Traffic Data – CN Guelph Subdivision- Hawkesville Rd in Waterloo, ON

The following is provided in response to Andrew's's 2024/11/08 request for information regarding rail traffic in the vicinity of 52 Hawkesville Road in Waterloo at approximately Mile 62.45 (8.15) on CN's Guelph Subdivision- Waterloo Industrial Spur.

Typical daily traffic volumes are recorded below. However, traffic volumes may fluctuate due to overall economic conditions, varying traffic demands, weather conditions, track maintenance programs, statutory holidays and traffic detours that when required may be heavy although temporary. For the purpose of noise and vibration reports, train volumes must be escalated by 2.5% per annum for a 10-year period.

Typical daily traffic volumes at this site location are as follows:

***Maximum train speed is given in Miles per Hour**

	0700-2300			
Type of Train	Volumes	Max.Consist	Max. Speed	Max. Power
Freight	0	140	15	4
Way Freight	0	25	15	4
Passenger	0	10	15	2

	2300-0700			
Type of Train	Volumes	Max.Consist	Max. Speed	Max. Power
Freight	3	140	15	4
Way Freight	0	25	15	4
Passenger	0	10	15	2

The volumes recorded reflect westbound and eastbound freight and passenger operations on CN's Guelph Subdivision- Waterloo Industrial Spur.

Except where anti-whistling bylaws are in effect, engine-warning whistles and bells are normally sounded at all at-grade crossings. There are Three (2) at-grade crossings in the immediate vicinity of the study area at Mile 62.45(7.28) Henry St. Xing, and Mile 62.45(8.70) Township Rd (King St N) Xing. Anti-whistling bylaws are not in effect at these crossings. Please note that engine warning whistles will be sounded in cases of emergency, as a safety and warning precaution at station locations and pedestrian crossings and occasionally for operating requirements.

With respect to equipment restrictions, the gross weight of the heaviest permissible car is 263,000 lbs.

The Single Industrial spur track is considered to be continuously welded rail throughout the study area. Typically, CN crews operate within these limits from Monday to Friday between 2300 and 0500 hrs.

The Canadian National Railway continues to be strongly opposed to locating developments near railway facilities and rights-of-way due to potential safety and environmental conflicts. Development adjacent to the Railway Right-of-Way is not appropriate without sound impact mitigation measures to reduce the incompatibility. For confirmation of the applicable rail noise, vibration and safety standards, Adjacent Development, Canadian National Railway Properties at Proximity@cn.ca should be contacted directly.

I trust the above information will satisfy your current request.

Sincerely,

Sarangan Srikanth
Sarangan Srikanth
Officer Public Works
permits.gld@cn.ca

Appendix E

Industry Noise Source Data

Table E.1
Noise Source Sound Level Summary
Schlegel Urban Developments Corp.
52 Hawkesville Road, St. Jacobs, 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/Eve/Night	Vehicle Volumes Day/Eve/Night	Speed (km/hr)	Reference/Comments
			32	63	125	250	500	1000	2000	4000	8000						
L-01	Truck Movements	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) Traffic Noise Model (TNM) Technical Manual, December 2019 20 Medium Trucks
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1						
		PWL (dBA)	—	81.6	88.1	92.1	95.1	96.1	94.1	89.1	81.6	101.2	No	0	349.2	—	4/4/4
S-01	Truck Idling	PWL (dB)	84.0	87.0	91.0	90.0	87.0	83.0	80.0	73.0	66.0	95.8					— GHD Reference Spectra
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1						
		PWL (dBA)	44.6	60.8	74.9	81.4	83.8	83.0	81.2	74.0	64.9	88.9	No	0	347.8	60/60/60	—
S-02	Truck Idling	PWL (dB)	84.0	87.0	91.0	90.0	87.0	83.0	80.0	73.0	66.0	95.8					— GHD Reference Spectra
		A-weighted correction	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1						
		PWL (dBA)	44.6	60.8	74.9	81.4	83.8	83.0	81.2	74.0	64.9	88.9	No	0	343.9	60/60/60	—

Appendix F

Sample CadnaA Calculation

Receiver
Name: (untitled)
ID: !07!POR-01
X: 535679.66 m
Y: 4821403.59 m
Z: 349.50 m

Point Source, ISO 9613, Name: "Truck Idling", ID: "!0!S-01"

Nr.	X	Y	Z	Ref.	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	535676.76	4821339.01	347.83	0	DEN	A	88.9	0.0	0.0	0.0	0.0	47.2	0.3	0.4	0.0	0.0	0.1	0.0	0.0	40.9
3	535676.76	4821339.01	347.83	2	DEN	A	88.9	0.0	0.0	0.0	0.0	51.3	0.4	0.4	0.0	0.0	0.0	0.0	4.0	32.6

Line Source, ISO 9613, Name: "Truck Movements", ID: "!0!L-01"

Nr.	X	Y	Z	Ref.	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)
5	535673.61	4821379.56	349.22	0	DEN	A	64.6	9.9	0.0	0.0	0.0	38.9	0.2	-1.9	0.0	0.0	0.0	0.0	0.0	37.3
7	535672.73	4821378.08	349.15	1	DEN	A	64.6	8.0	0.0	0.0	0.0	54.8	0.8	-1.2	0.0	0.0	0.0	0.0	2.8	15.4
9	535671.78	4821376.50	349.08	2	DEN	A	64.6	4.2	0.0	0.0	0.0	54.0	0.8	-0.0	0.0	0.0	0.0	0.0	7.4	6.6
11	535638.04	4821380.65	348.28	0	DEN	A	64.6	13.2	0.0	0.0	0.0	44.5	0.3	-0.4	0.0	0.0	0.0	0.0	0.0	33.3
13	535637.03	4821359.67	347.64	0	DEN	A	64.6	13.2	0.0	0.0	0.0	46.7	0.4	0.4	0.0	0.0	0.0	0.0	0.0	30.3
14	535638.04	4821380.65	348.28	1	DEN	A	64.6	13.2	0.0	0.0	0.0	54.9	0.8	-3.1	0.0	0.0	0.0	0.0	3.6	21.7
16	535637.03	4821359.67	347.64	1	DEN	A	64.6	13.2	0.0	0.0	0.0	53.6	0.7	-2.8	0.0	0.0	0.0	0.0	1.9	24.3
18	535637.63	4821372.19	348.02	2	DEN	A	64.6	11.9	0.0	0.0	0.0	58.8	1.2	-1.2	0.0	0.0	0.3	0.0	8.2	9.1
20	535636.90	4821356.85	347.55	2	DEN	A	64.6	11.9	0.0	0.0	0.0	59.3	1.2	-1.2	0.0	0.0	0.3	0.0	8.4	8.4
24	535668.75	4821372.01	348.86	0	DEN	A	64.6	9.1	0.0	0.0	0.0	41.5	0.2	-2.1	0.0	0.0	0.0	0.0	0.0	34.1
26	535668.75	4821372.01	348.86	1	DEN	A	64.6	9.1	0.0	0.0	0.0	54.4	0.8	-1.3	0.0	0.0	0.0	0.0	2.9	17.0
28	535668.96	4821372.31	348.88	2	DEN	A	64.6	8.7	0.0	0.0	0.0	53.8	0.7	-0.0	0.0	0.0	0.0	0.0	7.4	11.4
30	535668.37	4821371.47	348.83	2	DEN	A	64.6	2.6	0.0	0.0	0.0	53.8	0.7	-0.0	0.0	0.0	0.0	0.0	16.0	-3.3
32	535662.20	4821364.79	348.46	0	DEN	A	64.6	10.6	0.0	0.0	0.0	43.6	0.3	-2.2	0.0	0.0	0.0	0.0	0.0	33.5
34	535661.94	4821364.55	348.45	1	DEN	A	64.6	10.3	0.0	0.0	0.0	53.9	0.8	-1.5	0.0	0.0	0.0	0.0	3.0	18.7
35	535666.14	4821368.41	348.68	1	DEN	A	64.6	-1.5	0.0	0.0	0.0	54.2	0.8	-1.4	0.0	0.0	0.0	0.0	2.9	6.6
37	535634.01	4821333.75	345.78	0	DEN	A	64.6	15.0	0.0	0.0	0.0	49.4	0.5	0.0	0.0	0.0	0.2	0.0	0.0	29.4
39	535635.73	4821344.32	346.83	1	DEN	A	64.6	10.0	0.0	0.0	0.0	52.6	0.7	-2.4	0.0	0.0	0.0	0.0	1.9	21.7
41	535659.54	4821343.48	347.67	0	DEN	A	64.6	13.3	0.0	0.0	0.0	47.0	0.4	-1.2	0.0	0.0	0.0	0.0	0.0	31.6
42	535666.50	4821341.43	347.76	1	DEN	A	64.6	8.4	0.0	0.0	0.0	52.4	0.7	-1.5	0.0	0.0	0.0	0.0	3.1	18.3
44	535656.25	4821344.45	347.63	1	DEN	A	64.6	11.6	0.0	0.0	0.0	52.5	0.7	-1.7	0.0	0.0	0.0	0.0	1.8	22.9
46	535653.31	4821358.75	348.05	0	DEN	A	64.6	10.2	0.0	0.0	0.0	45.3	0.3	-0.1	0.0	0.0	0.0	0.0	0.0	29.2
49	535653.31	4821358.75	348.05	1	DEN	A	64.6	10.2	0.0	0.0	0.0	53.5	0.7	-2.0	0.0	0.0	0.0	0.0	3.2	19.3
51	535631.26	4821311.57	343.97	0	DEN	A	64.6	11.3	0.0	0.0	0.0	51.3	0.6	-1.5	0.0	0.0	2.3	0.0	0.0	23.1
53	535630.59	4821292.11	343.19	0	DEN	A	64.6	14.1	0.0	0.0	0.0	52.7	0.7	-2.5	0.0	0.0	10.1	0.0	0.0	17.7
56	535632.88	4821295.89	343.53	0	DEN	A	64.6	14.5	0.0	0.0	0.0	52.4	0.7	-2.3	0.0	0.0	11.1	0.0	0.0	17.3
57	535633.78	4821313.70	344.25	0	DEN	A	64.6	8.6	0.0	0.0	0.0	51.1	0.6	-1.6	0.0	0.0	2.3	0.0	0.0	20.9
59	535635.16	4821324.81	345.30	0	DEN	A	64.6	11.8	0.0	0.0	0.0	50.1	0.5	-0.6	0.0	0.0	0.5	0.0	0.0	25.8
61	535636.25	4821331.59	346.12	1	DEN	A	64.6	1.4	0.0	0.0	0.0	51.6	0.6	-1.7	0.0	0.0	0.0	0.0	1.3	14.1
63	535641.69	4821330.54	346.42	0	DEN	A	64.6	10.5	0.0	0.0	0.0	49.3	0.5	-1.2	0.0	0.0	0.4	0.0	0.0	26.0
65	535641.69	4821330.54	346.42	1	DEN	A	64.6	10.5	0.0	0.0	0.0	51.5	0.6	-1.8	0.0	0.0	0.0	0.0	1.3	23.5
67	535648.21	4821349.24	347.61	0	DEN	A	64.6	7.7	0.0	0.0	0.0	47.0	0.4	-0.3	0.0	0.0	0.0	0.0	0.0	25.3
69	535648.21	4821349.24	347.61	1	DEN	A	64.6	7.7	0.0	0.0	0.0	52.9	0.7	-2.2	0.0	0.0	0.0	0.0	1.9	19.1
71	535647.88	4821354.27	347.77	0	DEN	A	64.6	6.8	0.0	0.0	0.0	46.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	24.6
73	535647.88	4821354.27	347.77	1	DEN	A	64.6	6.8	0.0	0.0	0.0	53.2	0.7	-2.3	0.0	0.0	0.0	0.0	3.4	16.4
75	535667.50	4821326.67	347.20	0	DEN	A	64.6	8.4	0.0	0.0	0.0	48.8	0.5	-0.5	0.0	0.0	0.2	0.0	0.0	24.0
77	535670.83	4821328.80	347.33	0	DEN	A	64.6	0.1	0.0	0.0	0.0	48.5	0.4	-0.3	0.0	0.0	0.2	0.0	0.0	15.7
78	535667.93	4821326.94	347.22	1	DEN	A	64.6	9.0	0.0	0.0	0.0	51.3	0.6	-0.8	0.0	0.0	0.0	0.0	1.7	20.8
80	535651.41	4821327.34	346.82	0	DEN	A	64.6	9.7	0.0	0.0	0.0	49.2	0.5	-1.6	0.0	0.0	0.0	0.0	0.0	26.2
82	535651.41	4821327.34	346.82	1	DEN	A	64.6	9.7	0.0	0.0	0.0	51.2	0.6	-1.2	0.0	0.0	0.0	0.0	1.4	22.3
84	535660.20	4821325.34	347.05	0	DEN	A	64.6	9.5	0.0	0.0	0.0	49.1	0.5	-0.9	0.0	0.0	0.0	0.0	0.0	25.4
86	535658.62	4821325.53	347.03	1	DEN	A	64.6	7.5	0.0	0.0	0.0	51.1	0.6	-1.0	0.0	0.0	0.0	0.0	1.4	20.1
87	535663.01	4821325.00	347.07	1	DEN	A	64.6	5.0	0.0	0.0	0.0	51.1	0.6	-1.0	0.0	0.0	0.0	0.0	1.4	17.6
89	535672.46	4821332.00	347.49	0	DEN	A	64.6	8.0	0.0	0.0	0.0	48.1	0.4	-0.3	0.0	0.0	0.2	0.0	0.0	24.1
91	535671.59	4821329.88	347.39	1	DEN	A	64.6	2.4	0.0	0.0	0.0	51.6	0.6	-0.8	0.0	0.0	0.0	0.0	1.7	13.9
93	535669.10	4821262.54	342.05	0	DEN	A	64.6	8.6	0.0	0.0	0.0	54.0	0.8	-1.5	0.0	0.0	1.6	0.0	0.0	18.4

Line Source, ISO 9613, Name: "Truck Movements", ID: "I0!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)
95	535678.33	4821266.06	342.95	0	DEN	A	64.6	11.0	0.0	0.0	0.0	53.8	0.7	-1.2	0.0	0.0	12.8	0.0	0.0	9.5
97	535672.32	4821263.77	342.37	2	DEN	A	64.6	-1.8	0.0	0.0	0.0	54.3	0.8	-1.1	0.0	0.0	1.2	0.0	7.2	0.4
99	535643.74	4821265.61	341.81	0	DEN	A	64.6	12.8	0.0	0.0	0.0	54.1	0.8	-2.2	0.0	0.0	11.2	0.0	0.0	13.5
101	535650.65	4821261.67	341.47	1	DEN	A	64.6	4.8	0.0	0.0	0.0	54.6	0.8	-1.2	0.0	0.0	14.8	0.0	15.3	-14.9
103	535649.30	4821262.44	341.54	1	DEN	A	64.6	-11.7	0.0	0.0	0.0	54.6	0.8	-1.2	0.0	0.0	13.3	0.0	12.5	-27.1
104	535648.33	4821262.99	341.59	1	DEN	A	64.6	7.6	0.0	0.0	0.0	54.6	0.8	-1.2	0.0	0.0	1.2	0.0	14.8	2.0
106	535645.56	4821264.58	341.72	1	DEN	A	64.6	-1.8	0.0	0.0	0.0	54.6	0.8	-1.2	0.0	0.0	11.1	0.0	11.8	-14.3
108	535670.96	4821339.10	347.76	0	DEN	A	64.6	5.5	0.0	0.0	0.0	47.3	0.4	-0.3	0.0	0.0	0.0	0.0	0.0	22.7
110	535670.96	4821339.10	347.76	1	DEN	A	64.6	5.5	0.0	0.0	0.0	52.3	0.6	-1.1	0.0	0.0	0.0	0.0	2.9	15.4
112	535649.96	4821258.22	340.63	0	DEN	A	64.6	5.4	0.0	0.0	0.0	54.4	0.8	-2.3	0.0	0.0	10.8	0.0	0.0	6.2
114	535656.84	4821259.54	341.11	0	DEN	A	64.6	10.2	0.0	0.0	0.0	54.3	0.8	-2.0	0.0	0.0	9.0	0.0	0.0	12.7
116	535663.87	4821260.89	341.60	0	DEN	A	64.6	5.8	0.0	0.0	0.0	54.2	0.8	-1.7	0.0	0.0	1.6	0.0	0.0	15.6
118	535658.57	4821259.87	341.23	1	DEN	A	64.6	9.8	0.0	0.0	0.0	54.4	0.8	-1.3	0.0	0.0	1.5	0.0	2.6	16.5
121	535640.72	4821261.92	341.26	0	DEN	A	64.6	12.4	0.0	0.0	0.0	54.4	0.8	-2.3	0.0	0.0	11.2	0.0	0.0	12.9
123	535630.62	4821277.29	342.57	0	DEN	A	64.6	6.3	0.0	0.0	0.0	53.6	0.7	-2.7	0.0	0.0	11.1	0.0	0.0	8.1
125	535632.13	4821270.58	342.23	0	DEN	A	64.6	9.8	0.0	0.0	0.0	54.0	0.8	-2.6	0.0	0.0	10.8	0.0	0.0	11.3
126	535672.89	4821336.34	347.67	0	DEN	A	64.6	5.1	0.0	0.0	0.0	47.6	0.4	-0.3	0.0	0.0	0.2	0.0	0.0	21.8
127	535672.56	4821336.95	347.69	1	DEN	A	64.6	2.6	0.0	0.0	0.0	52.1	0.6	-1.0	0.0	0.0	0.0	0.0	2.9	12.6
128	535634.15	4821274.98	342.52	0	DEN	A	64.6	9.9	0.0	0.0	0.0	53.7	0.7	-2.5	0.0	0.0	11.3	0.0	0.0	11.2
129	535632.47	4821280.69	342.89	0	DEN	A	64.6	3.3	0.0	0.0	0.0	53.4	0.7	-2.6	0.0	0.0	11.5	0.0	0.0	4.9
130	535675.63	4821273.84	343.36	0	DEN	A	64.6	10.2	0.0	0.0	0.0	53.3	0.7	-1.3	0.0	0.0	9.9	0.0	0.0	12.2
131	535666.19	4821264.54	342.15	0	DEN	A	64.6	9.3	0.0	0.0	0.0	53.9	0.8	-1.6	0.0	0.0	1.6	0.0	0.0	19.2
132	535661.33	4821262.36	341.78	0	DEN	A	64.6	3.3	0.0	0.0	0.0	54.1	0.8	-1.7	0.0	0.0	4.4	0.0	0.0	10.3
133	535662.34	4821262.81	341.85	1	DEN	A	64.6	6.4	0.0	0.0	0.0	54.1	0.8	-1.6	0.0	0.0	1.6	0.0	2.6	13.5
134	535695.60	4821275.85	345.00	0	DEN	A	64.6	8.6	0.0	0.0	0.0	53.2	0.7	-0.8	0.0	0.0	19.5	0.0	0.0	0.6
135	535688.05	4821268.63	343.84	0	DEN	A	64.6	8.9	0.0	0.0	0.0	53.6	0.7	-1.0	0.0	0.0	17.6	0.0	0.0	2.5
136	535656.24	4821261.43	341.56	0	DEN	A	64.6	9.2	0.0	0.0	0.0	54.2	0.8	-2.0	0.0	0.0	9.4	0.0	0.0	11.5
137	535652.04	4821260.92	341.41	0	DEN	A	64.6	-8.2	0.0	0.0	0.0	54.3	0.8	-2.1	0.0	0.0	10.4	0.0	0.0	-7.0
138	535657.60	4821261.59	341.60	1	DEN	A	64.6	7.4	0.0	0.0	0.0	54.3	0.8	-1.3	0.0	0.0	1.4	0.0	2.6	14.2
139	535654.89	4821261.26	341.51	1	DEN	A	64.6	7.7	0.0	0.0	0.0	54.5	0.8	-1.2	0.0	0.0	17.1	0.0	14.3	-13.3
140	535689.22	4821282.23	345.05	0	DEN	A	64.6	7.3	0.0	0.0	0.0	52.7	0.7	-0.7	0.0	0.0	20.3	0.0	0.0	-1.0
141	535680.33	4821279.88	344.20	0	DEN	A	64.6	7.3	0.0	0.0	0.0	52.9	0.7	-0.9	0.0	0.0	16.8	0.0	0.0	2.4
142	535694.99	4821280.16	345.31	0	DEN	A	64.6	4.8	0.0	0.0	0.0	52.9	0.7	-0.8	0.0	0.0	20.2	0.0	0.0	-3.7
143	535692.81	4821281.50	345.26	0	DEN	A	64.6	3.3	0.0	0.0	0.0	52.8	0.7	-0.7	0.0	0.0	20.4	0.0	0.0	-5.3
144	535684.52	4821281.89	344.68	0	DEN	A	64.6	6.2	0.0	0.0	0.0	52.7	0.7	-0.8	0.0	0.0	19.3	0.0	0.0	-1.0
145	535693.32	4821270.54	344.38	0	DEN	A	64.6	6.3	0.0	0.0	0.0	53.5	0.7	-0.9	0.0	0.0	18.6	0.0	0.0	-1.1
146	535694.83	4821272.21	344.64	0	DEN	A	64.6	-5.2	0.0	0.0	0.0	53.4	0.7	-0.9	0.0	0.0	18.9	0.0	0.0	-12.8
147	535671.60	4821267.79	342.63	0	DEN	A	64.6	6.3	0.0	0.0	0.0	53.7	0.7	-1.4	0.0	0.0	1.6	0.0	0.0	16.3
148	535671.73	4821267.92	342.64	2	DEN	A	64.6	-1.0	0.0	0.0	0.0	54.1	0.8	-1.1	0.0	0.0	1.3	0.0	7.2	1.3

Point Source, ISO 9613, Name: "Truck Idling", ID: "I0!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)
22	535676.56	4821280.00	343.93	0	DEN	A	88.9	0.0	0.0	0.0	0.0	52.9	0.5	-0.6	0.0	0.0	12.4	0.0	0.0	23.6

Appendix G

Consultant's Declaration

CANADA

PROVINCE OF ONTARIO

) In the Matter of the
) Environmental Protection
) Act and the Planning Act
)
)
) And in the Matter of
) 52 Hawkesville Road, 110 & 118
) Northside Drive in St. Jacobs, ON
) in the Township of Woolwich
) 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 52 Hawkesville Road, 110 & 118 Northside Drive.
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 April 30, 2025, 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 30th day of April, 2025



)
) *Ben Wiseman*
)
)
)

Ben Wiseman

Appendix H

Owner's Statement

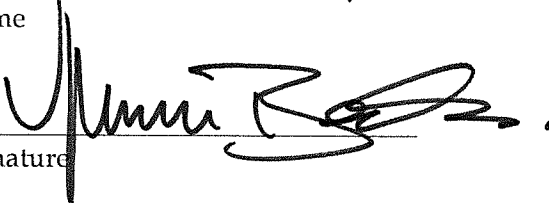
SCHLEZER URBAN DEVELOPMENTS CORP.
Name: VAUGHN BENDER, A.S.O.
Address: 201-325 MAIN STREET DRIVE KITCHENER
ONTARIO
N2E 4H5

Re: Noise Impact Study for the Proposed Residential Development at 52 Hawkesville Road,
110 & 118 Northside Drive in St. Jacobs, 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 April 30th, 2025, for the proposed commercial development located at 52 Hawkesville Road, 110 & 118 Northside Drive in St. Jacobs, 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.

SCHLEZER URBAN DEVELOPMENTS CORP.
VAUGHN BENDER, A.S.O.
Name

Signature

MAY 5, 2025
Date



ghd.com

→ The Power of Commitment