Thornton Tomasetti

Noise Impact Study & D6 Compatibility Review

13030 Lundy's Lane, Thorold, ON

SW21382.00

Prepared For

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1.0 Introduction

At the request of Rudanco Hospitality Corporation (Client), Thornton Tomasetti (TT) presents this Noise and Impact Study (NIS) regarding the proposed development at 13030 Lundy's Lane in Thorold, Ontario (the Project). The Project consists of a planned residential and mixed use development in the area of the City of Thorold's Neighborhoods of Rolling Meadows Secondary Plan. TT understands that this NIS is required by the City of Thorold for Official Plan Amendment (OPA) and Zoning By-law Amendment (ZBA).

The purpose of this study is to assess the noise and vibration impacts on the Project from surrounding sources and the noise impact of the Project on surrounding noise sensitive areas. This report is intended to support the OPA/ZBA application for the Project as a feasibility study.

Where applicable, this report will provide noise control recommendations to meet the requirements of the relevant Land Use Planning Authority (LUPA). LUPAs generally adopt the noise criteria developed by the Ontario Ministry of the Environment, Conservation and Parks (MECP), but may also have unique requirements.

Where predicted noise impacts are lower than applicable action thresholds identified, the project should be designed to meet the Ontario Building Code (OBC) as a minimum standard.

2.0 Site and Surrounding Area

2.1 Project Location

The Project is located on the northwest corner of the intersection of Lundy's Lane (Highway 20 west of intersection / Regional Road 20 east of intersection) and Thorold Townline Road (Regional Road 70), in Thorold, Ontario. For the purposes of this report, the direction "north" will be referenced to true North, in alignment with Thorold Townline Road.

The Project site is located along the border between the City of Thorold (west of Thorold Townline Road) and the City of Niagara Falls (east of Thorold Townline Road). The Project is located approximately 115 m north of the Canadian National Railway (CN) Stamford Subdivision Main Track.

The Project is currently bordered on the north, east and west by undeveloped / agricultural land. The Project is bordered on the south by scattered small commercial operations out of converted farmhouses. Lundy's Lane passes in an east/west direction adjacent to the south of the Project, and Thorold Townline Road passes in a north/south direction adjacent to the east of the Project. An aerial view of the Project and surrounding area is provided in Figure 1.

2.2 Zoning & Official Plan

The Project site is currently zoned as a combination of "C5 – Highway Commercial" and "FD – Future Development" under the City of Thorold's Zoning By-Law 60-2019. An area zoned "U – Utility" passes through but is not part of the Project Site. Much of the site is classified as FD, which generally requires re-zoning prior to commencement of new uses.

The project site is currently captured in the City of Thorold's Official Plan under Schedule A-3 the Neighbourhoods of Rolling Meadows Secondary Plan, which designates the areas zoned C5 as "RM-Highway Commercial", the areas zoned as FD as a combination of "RM-Residential" and "RM-Employment – Prestige Industrial". The utility corridor passing through the Project Site is designated as "RM-Open Space & Parks".

The official plan further notes that areas in the vicinity of the planned "RM-Employment – Prestige Industrial", including parts of the Project site are in an "Aggregate Impact Area".

In relation to the proposed development, an OPA has been submitted requesting a change in the planned land uses, specifically to designate the lands along Highway 20 and Townline Road to "Village Square Commercial".

A zoning map is presented in Figure 2.

2.3 Planned Development

Proposed for the Project are a combination of greenspace, residential homes, townhomes, midrise, and highrise as well as retail commercial in standalone and mixed-use form in the areas currently zoned FD, and commercial blocks in the areas currently zoned C5. The proposed site plan is provided in Figure 3.

2.4 Site Inspection

TT personnel attended the Project site on November 3, 2022, to review the acoustical environment in the area.

Transportation noise at the Project site was observed to be dominated by road traffic on the nearby Lundy's Lane and nearby Thorold Townline Road. Transportation noise from adjacent roadways is discussed in Section 5.0 of this report.

No individual stationary noise sources on surrounding properties were distinguishable from the Project site, and an inspection of publicly accessible areas of the surrounding neighborhood did not identify potentially significant stationary noise sources (roof top HVAC units, etc.). Stationary noise sources are discussed in Section 6.0 of this report.

2.1 Topography

Based on the observed and/or reported conditions on and around the Project site, the local topography is approximately flat.

3.0 Ministry of the Environment Conservation and Parks

The MECP does not have direct authority in approving land use planning decisions, but their guidance documents have been widely adopted by LUPAs. The MECP's *Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning* (NPC-300) provides province wide guidance regarding assessment standards and criteria for evaluating noise impacts from transportation sources such as roads, railways and aircraft; as well as stationary sources such as mechanical

equipment, and industrial facilities. In preparing this report, TT has referred to *Part A Background* and *Part C Land Use Planning* of NPC-300.

This NIS report has been prepared to support land use planning decisions, and is not intended to support an application for an Environmental Compliance Approval (ECA) in accordance with *Part B Stationary Sources* of NPC-300, and Section 9 of the Environmental Protection Act.

4.0 Land Use Planning Authority

In addition to adopting the MECP's recommended standards and criteria, some LUPAs impose additional requirements on applications for development approval. The LUPAs for this Project are the Regional Municipality of Niagara and the City of Thorold. These LUPAs generally defer to the MECP's guidelines as documented in NPC-300 with the following exceptions.

4.1 City of Thorold

The City of Thorold's By-law No. 37-2014 does not specify specific sound levels for compliance with the noise by-law. However, it has time period restrictions for any noise that might be clearly audible at a point of reception.

5.0 Transportation Noise Assessment

5.1 Critical Transportation Noise Receptors

NPC-300 defines a point of reception for the assessment of transportation noise sources as either the Plane of Window (POW) of a noise sensitive indoor space or an Outdoor Living Area (OLA) representing an area of a noise sensitive land use intended for quiet enjoyment of the outdoor environment.

The POW receptor(s) most likely to be affected by transportation noise are those representing the residential suites of the Project that have maximum exposure to Thorold Townline Road, Lundy's Lane and the CN Stamford Line. Specifically, representative POW receptors were assessed for representative points along the east and south boundaries of the Project Site, at the highest elevation with windows.

Due to the early phase of the design, TT chose one potential representative OLA on the most southeast building to represent the elevated OLAs. Two other OLAs which are located on the yards of the most northeast building and the most southwest building were also assessed.

The heights of relevant floor levels of the Project is summarized in Table 1.

Table 1: Construction Elevations

Floor Level	Floor Height (m)	Midpoint Height (m)
1	0	-
4	14.5	-
14	42.3	43.8
16	48.3	49.8
18	54.3	55.8

The locations of the critical receptors for transportation noise are summarized in Table 2 and shown in Figure 4. POW elevations were taken to be the midpoint height of the highest floor with windows, and OLA elevations were taken to be 1.5m above the applicable level.

Table 2: Points of Reception – Transportation Noise

Receptor ID	Receptor Description	Receptor Location
POW1	South façade, highest window (16 st. build.)	Façade centre, 49.8m above ground
POW2	East façade, highest window (16 st. build.)	Façade centre, 49.8m above ground
POW3	North façade, highest window (16 st. build.)	Façade centre, 49.8m above ground
POW4	West façade, highest window (16 st. build.)	Façade centre, 49.8m above ground
POW5	East façade, highest window (18 st. build.)	Façade centre, 55.8m above ground
POW6	South façade, highest window (14 st. build.)	Façade centre, 43.8m above ground
POW7	North façade, highest window (most NE bld.)	7.5m above ground
POW8	West façade highest window (most SW bld.)	Façade centre, 4.5m above ground
OLA1	Outdoor amenity (16 st. build.)	1.5m above floor
OLA2	Yard of most northeast building	1.5m above ground
OLA3	Yard of most southwest building	1.5m above ground

5.2 Transportation Noise Sources

5.2.1 Road Noise Sources

Thorold Townline Road (adjacent to the east) and Lundy's Lane (adjacent to the south) represent the significant road noise sources for the Project. Traffic data was obtained from the Project's transportation consultant (Paradigm Transportation Solutions Limited) who provided Turning Movement Count (TMC) information for the intersection of Thorold Townline Road and Lundy's Lane. This data is presented in Appendix B.

The highest hourly volumes of cars, trucks and heavy trucks recorded in the TMC data were identified and converted to AADT values by adding the AM and PM peak hour volumes together and multiplying by 5. AADT estimates are summarized in Table 3.

Table 3: Traffic Data Summary

Street	Section	Time Period	Cars		Trucks		Heavy		Total
			Year	Vol.	Year	Vol.	Year	Vol.	
Thorold Townline Rd	North of Lundy's Ln	AM Peak	2023	223	2023	6	2023	30	
		PM Peak	2023	262	2023	13	2023	7	
		Daily	2023	2425	2023	95	2023	185	2705
Lundy's Ln	West of Thorold Townline Rd	AM Peak	2023	561	2023	10	2023	20	
		PM Peak	2023	926	2023	13	2023	10	
		Daily	2023	7435	2023	115	2023	150	7700

The total Annual Average Daily Traffic (AADT) was projected forward to 2045 (20 years after expected completion) using a growth rate of 2% per year from the noted year of measurement.

Posted speed limits on Thorold Townline Road and Lundy's Lane are both 80 km/h respectively. Road grades were assumed to be 0% in the area under review. The day/night split was assumed to be 90%/10%.

The traffic data used in the sound level calculations is summarized in Table 4.

Table 4: Road Traffic Data Summary

Parameter	Thorold Townline Rd	Lundy's Ln
AADT	2,705 (2023)	7,700 (2023)
% Annual Growth	2%	2%
Years of Annual Growth	22	22
% Medium Trucks	3.51%	1.49%
% Heavy Trucks	6.84%	1.95%
% Day (16h) / Night (8h)	90% / 10%	90% / 10%
Speed Limit	80 km/h	80 km/h
Gradient	0%	0%

5.2.2 Rail Noise Sources

A railway operated by CN is located approximately 115 m to the south of the Project. TT contacted CN rail by email at permits.gld@cn.ca requesting available information about current rail traffic data required for the assessment of rail traffic noise. Emails were sent to CN in relation this inquiry on November 24, 2021, December 8, 2021, and May 31, 2023. More emails were sent out on June 27, 2023, and November 6, 2023. No responses were received. Thus, the rail traffic volumes were assumed (according to the FCM/RAC guidelines) that Principal Main Lines have the following characteristics:

- Volume generally exceeds 10 trains per day;
- High speeds exceeding 80 km/hr;
- Includes heavy trains with 3 or 4 locomotives per train;
- Crossings, gradients may increase normal railway noise and vibration.

This section of the Stamford Subdivision is classified by CN as a Principal Main Line. CN traffic on this rail line consists of freight trains only. This track was observed to be bolted rail, with no switches in the area. There is an at-grade crossings near the area (and no anti-whistling by-laws); therefore, train whistling was also modelled. All trains are assumed to be diesel trains.

The assumed 2023 train traffic volumes provided were projected to 2035 (10 years after the anticipated completion of the Project) using an annual growth rate of 2.5% for a 12-year period.

It is TT's understanding that these rail lines are not regularly used by other railway companies. Therefore, this data, as summarized in Table 5 is considered representative of the total rail traffic volume.

Table 5: Rail Traffic Data Summary

Parameter	CN Kingston Subdivision
Train Type	Freight
Number of Trains Per Day (2022) Day (07:00 - 23:00) / Night (23:00 - 07:00)	8 / 2
Annual Growth Rate	2.5%
Growth Period (years)	12
Locomotives Per Train	4
Cars Per Train	140
Maximum Speed (mph) / (km/h)	50 / 80

5.3 Transportation Sound Level Limits

5.3.1 Outdoor Living Areas

Impacts to OLAs from combined road and rail traffic are assessed against a 16-hour daytime (07:00 – 23:00) equivalent sound pressure level (L_{eq}) reported in dBA. The MECP outdoor sound level limits and the sliding scale of required noise reduction measures for road and rail noise at OLAs are listed in Table 6. Note that **whistle noise is not included** in the assessment of rail noise at an OLA.

Table 6: MECP Outdoor Sound Level Limit & Mitigation for OLAs – Combined Road & Rail Traffic

Category	Sound Level $L_{eq,16hr}$ (dBA)	Mitigation Measures	NPC-300 Warning Clause Required
Outdoor Limit	55	None	None
OLA Mitigation Threshold	56 - 60	Optional	Type A unless sound level brought below 55 dBA
OLA Mitigation Threshold	>60	Required to achieve sound level below 60 dBA	Type B unless sound level brought below 55 dBA

5.3.2 Indoor Living Areas

Impacts to indoor living areas are assessed against a 16-hour daytime (07:00 – 23:00) and 8-hour nighttime (23:00 – 07:00) equivalent sound pressure level (L_{eq}) reported in dBA, at the relevant POW receptors.

Requirements for ventilation and warning clauses to address transportation noise impacts to the project Façades are determined based on the impact of combined road and rail transportation sources. The applicable POW sound level limits and the sliding scale of required ventilation measures and warning clauses are listed in Table 7. Note that **whistle noise is not included** in the assessment of rail noise for this purpose.

Table 7: POW Sound Level Limit: Ventilation & Warning Clauses – Road & Rail Traffic

Category	Daytime $L_{eq,16hr}$ (dBA)	Nighttime $L_{eq,8hr}$ (dBA)	Mitigation Measures	NPC-300 Warning Clause Required
POW Limit	55	50	None	None
POW Mitigation Threshold Living & Bedrooms	56 - 65	51 – 60	Include forced air heating and provision for central air conditioning	Type C
POW Mitigation Threshold Living & Bedrooms	>65	>60	Include central air conditioning	Type D

Requirements for building construction to address transportation noise impacts to indoor sound levels are determined independently for road and rail noise, with the resulting requirements then being combined logarithmically. The applicable indoor and POW sound level limits and required construction measures for road and rail noise at in the indoor environment are listed in Table 8. Note that **whistle noise is included** in the assessment of rail noise for this purpose.

Table 8: Indoor Sound Level Limit: Construction Requirements – Road & Rail Traffic

Category	Daytime $L_{eq,16hr}$ (dBA)	Nighttime $L_{eq,8hr}$ (dBA)	Total $L_{eq,24hr}$ (dBA)	Mitigation Measures
Road Sound Level Indoor Limit Living Rooms / Bedrooms	45 / 45	45 / 40	-	Not Applicable
Road POW Sound Level Living & Bedrooms	>65	>60	-	Design building components to achieve indoor sound level limit
Rail Sound Level Indoor Limit Living Rooms / Bedrooms	40 / 40	40 / 35	-	Not Applicable
Rail POW Sound Level Living & Bedrooms	>60	>55	-	Design building components to achieve indoor sound level limit
Rail POW Sound Level Bedrooms	-	-	>60	Minimum of brick veneer or masonry equivalent construction from foundation to rafters in 1st row of dwellings if within 100m of tracks

5.4 Transportation Sound Level Predictions

The predicted noise impacts described below are based on the conditions identified in current drawings and information provided to TT at the time of this report and include any barriers, or other measures currently planned for the Project, but do not include additional noise measures identified in Section 5.5 of this report.

5.4.1 Unmitigated Road & Rail Traffic

Calculations of road & rail traffic sound levels were performed using STAMSON 5.04, the software implementation of the MECP ORNAMENT model, which was developed and published by the MECP for transportation noise prediction. Only daytime sound levels are considered for outdoor amenity areas. The calculated sound levels at the receptors are presented in Table 9.

Table 9: Calculated Sound Levels due to Road & Rail Sources

POR ID	Predicted Transportation Sound Levels (dBA)					
	Daytime (07:00–23:00) $L_{eq,16hr}$			Nighttime (23:00–07:00) $L_{eq,8hr}$		
	Road	Rail*	Combined*	Road	Rail*	Combined*
POW1	66	66 (65)	69 (68)	60	63 (61)	64 (64)
POW2	66	64 (63)	68 (67)	59	61 (60)	63 (63)
POW3	60	56 (56)	62 (61)	53	53 (53)	56 (56)
POW4	60	61 (60)	64 (63)	54	58 (57)	59 (59)
POW5	65	63 (62)	67 (66)	58	59 (58)	62 (61)
POW6	65	65 (64)	68 (68)	59	61 (60)	63 (63)
POW7	59	-	59	52	-	52
POW8	57	56 (56)	59 (59)	50	53 (53)	55 (55)
OLA1	55	- (65)	- (65)	-	-	-
OLA2	62	-	62	-	-	-
OLA3	61	- (61)	- (64)	-	-	-

*Numbers inside parentheses do not include train whistle noise

The STAMSON calculation outputs for the traffic noise predictions are attached in Appendix C.

5.5 Transportation Noise Control Recommendations

Noise control recommendations for the identified critical receptors and the corresponding noise sensitive land uses that they represent in the proposed redevelopment are summarized in Table 10 and Figure 9 and discussed in the subsequent sections.

Table 10: Transportation Noise Control Measures Summary

POR ID	Noise Barrier	Ventilation	Warning Clause	Building Components
POW1	N/A	Central Air Conditioning	Type D	Designed to achieve indoor sound level criteria
POW2	N/A	Central Air Conditioning	Type D	Designed to achieve indoor sound level criteria
POW3	N/A	Forced-Air Heating	Type C	Meet OBC Requirements
POW4	N/A	Forced-Air Heating	Type C	Designed to achieve indoor sound level criteria
POW5	N/A	Central Air Conditioning	Type D	Designed to achieve indoor sound level criteria
POW6	N/A	Central Air Conditioning	Type D	Designed to achieve indoor sound level criteria
POW7	N/A	Forced-Air Heating	Type C	Meet OBC Requirements
POW8	N/A	Forced-Air Heating	Type C	Meet OBC Requirements
OLA1	Yes	N/A	Type B*	N/A
OLA2	Yes	N/A	Type B*	N/A
OLA3	Yes	N/A	Type B*	N/A

*Unless mitigation (barrier) is installed to reduce the sound level to 55 dBA or lower.

5.5.1 Outdoor Living Areas – Barriers

Sound levels at the representative OLAs are expected to be higher than 60 dBA, and therefore require mitigation with a noise barrier. A Type B warning clause is required to be included in applicable land title and/or development agreement documents if the post-mitigation sound level remains above 55 dBA. If noise mitigation for these OLAs (and other similar OLAs) is implemented such that the sound levels in the OLAs is expected to be 55 dBA or lower, no warning clause is required.

Proposed noise barrier heights for OLAs are summarized in Table 11 and illustrated in Figure 9.

Table 11: OLA Barrier Specifications

Receptor ID	Mitigation Level	Predicted Sound Level $L_{eq\ (16h,\ day)}$ dBA
OLA1	Unmitigated	65
	Barrier Option 1: Terrace perimeter, 1.0 m above floor	60
	Barrier Option 2: Terrace perimeter, 3.0 m above floor	55
OLA2	Unmitigated	62
	Barrier Option 1: Perimeter, 1.6 m above grade	57
	Barrier Option 2: Perimeter, 3 m above grade	55
OLA3	Unmitigated	64
	Barrier Option 1: Perimeter, 1.6 m above grade	60
	Barrier Option 2: Perimeter, 3.4 m above grade	53

NPC-300 indicates that typical noise barriers, if constructed, should have a minimum surface density (face weight) of 20 kg/m^2. Barriers should be structurally sound, appropriately designed to withstand wind and snow load, and constructed without cracks or surface gaps. Any gaps under the barrier that are necessary for drainage purposes should be minimized and localized, so that the acoustical performance of the barrier is maintained. To improve the visual characteristics of the barrier, transparent elements may be included, if they meet the above conditions.

5.5.2 Indoor Living Areas - Ventilation

Sensitive receptors along the east and south facades of the development are expected to face POW sound levels above 65 dBA during the 16-hour day (07:00 – 23:00) and/or 60 dBA during the 8-hour night (23:00 – 07:00) due to road and rail noise (excluding whistle noise), therefore central air conditioning will be required for these units.

Sensitive receptors along the other facades of the development are expected to face POW sound levels between 55 dBA and 65 dBA during the 16-hour day (07:00 – 23:00) and/or 50 dBA and 60 dBA during the 8-hour night (23:00 – 07:00) due to road and rail noise (excluding whistle noise), therefore forced air heating with the provision for central air conditioning is the minimum requirement for these units.

TT understands that the Project plan includes forced air heating for the and central air conditioning for the entirety of the Project, therefore the above noted requirements are expected to be met.

5.5.3 Indoor Living Areas - Building Components

The Project Site is located >100m from the nearest railway. Therefore, while exterior façades may need to be designed to achieve indoor sound level requirements, they are not required to include brick or masonry equivalent by default.

Sensitive receptors along the south and east facades of the Project are expected to face POW sound levels above 65/60 dBA during the 16-hour day (07:00 – 23:00) and/or 60/55 dBA during the 8-hour night (23:00 – 07:00) due to road/rail noise, therefore building components on these façades must be designed to achieve the indoor sound level limit.

Sensitive receptors along the other façades of the Project are not expected to face POW sound levels above 65/60 dBA during the 16-hour day (07:00 – 23:00) and/or 60/55 dBA during the 8-hour night (23:00 – 07:00) due to road/rail noise, therefore building components on these façades need only be designed to meet the requirements of OBC.

As the building design is at an early stage, the construction of the building envelopes is not yet confirmed.

Table 12 shows TT's estimation of the maximum exterior wall, fixed window, and operable window component areas as a percentage of the floor area of a typical room and the minimum recommended STC requirement of each component. If a component with a higher STC rating than the noted requirement is used, then the maximum allowable area of that component may increase, and if a component occupies a smaller area the STC rating required may decrease.

Table 12: Building Envelope Requirements

Component	Maximum Component Area as Percentage of Floor Area	STC Required
Sensitive Spaces Along the Southern Facades of the Project (POW1)		
Solid Exterior	100%	42
Fixed Glazing	50%	38
Operable Glazing	50%	38
Sensitive Spaces Along the Eastern Facades of the Project (POW2)		
Solid Exterior	100%	41
Fixed Glazing	50%	37
Operable Glazing	50%	37

Note that these building components are required only for exterior walls of sensitive spaces, such as bedrooms and living rooms. The remaining façades of the Project must meet minimum OBC requirements for the glazing and exterior wall constructions.

As the Project Site's design proceeds, this assessment should be updated.

5.5.4 Example Constructions

Unless otherwise specified, all building components must meet the minimum construction requirements set out in OBC. Examples of building components that are expected to meet the identified STC requirements above are as follows. Example constructions are based on *Building Research Note No. 148* (BRN-148) published by the National Research Council of Canada in 1980 and are provided for reference only. Installed performance should be confirmed with material suppliers and/or as part of an architectural acoustics report.

Exterior wall

For exterior walls, the following construction(s) are recommended in order to meet the identified STC requirements:

- South & East façades, solid exterior (BRN-148: EW2 - STC 41 / 42):
  - 12.7mm gypsum board
  - vapour barrier
  - 38 x 89 mm studs
  - 50 mm (or thicker) mineral wool or glass fibre batts
  - rigid insulation (25-50 mm)
  - wood siding or metal siding and fibre backer board

Glazing

For windows, the following glazing constructions are recommended in order to meet the identified STC requirements:

- Window (STC 38): 6mm glass, 19mm airspace, 6mm glass

These provided glazing constructions are noted for reference only – STC of installed components should be verified with the window manufacturer. Window frames may create flanking paths for noise and could reduce the STC rating of windows compared to the rating of glazing alone; manufacturer specifications for window performance should be based on testing of window constructions that are similar or equivalent to the planned installation. Window constructions with equivalent or greater STC values to the glazing recommendations above are expected to be acceptable.

5.5.5 Warning Clauses

The following examples of warning clause wordings are based on applicable guidance documents and TT's experience regarding common requests from stakeholders. Precise wordings may be modified by the Client with input from the relevant LUPA(s) and legal counsel if required.

The **Type B** warning clause is required to be included in the development agreements for the Project if one or more representative OLA receptors is predicted to be exposed to transportation sound pressure levels greater than 60 dBA (excluding train whistle noise), and the provided mitigations do not reduce the sound level to 55 dBA or less. An example of a Type B warning clause is as follows:

> *"Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road traffic and rail traffic may on occasions interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment, Conservation and Parks."*

The **Type D** warning clause is required to be included in the development agreements for specific dwelling units if one or more representative POW receptors is predicted to be exposed to transportation sound pressure levels greater than 65 dBA during the 16-hour day (07:00 – 23:00) or 60 dBA during the 8-hour night (23:00 – 07:00) (excluding train whistle noise), and the Project includes central air conditioning. An example of a Type D warning clause is as follows:

> *"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."

The **CN Rail** warning clause may be included in the development agreements for the Project if one or more dwelling units included in the Project are located within 300m of rail tracks. The typical rail warning clause is as follows:

"Canadian National Railway Company or their assigns or successors in interest has or have a right-of-way within 300 meters from the land the subject hereof. There may be alterations to or expansions of the rail facilities on such right-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). The railway will not be responsible for any complaints or claims arising from use of such facilities and/or operations on, over or under the aforesaid right-of-way."

6.0 Stationary Noise Assessment

6.1 Critical Stationary Noise Receptors

NPC-300 defines a point of reception for the assessment of stationary noise sources as any location on a noise sensitive land use where noise from a stationary source is received. This typically includes both Points Of Reception on building façades, representing the plane-of-window of noise sensitive spaces (POR) and Outdoor Points Of Reception representing areas such as balconies, gardens, patios, and terraces (OPOR). These locations may be the same or different from the POW and OLA receptors identified as part of a transportation noise assessment.

6.1.1 Project Receptors

Based on the Preliminary Master Site Plan for the Project, TT understands that each residential building or house will have a POPOR. The most impacted POPORs (i.e., yard closest to the quarry, and roof of closest multi-storey building) were selected as representative of the impacts of the surrounding sources to the Project.

The locations of the critical receptors on the Project for stationary noise are summarized in Table 13 and shown in Figure 5. PPORs were assessed using a grid of receptors across all facades of the most impacted buildings, and POPORs were assessed at the most impacted point(s), 1.5m above ground/floor level.

Table 13: Project Points of Reception – Stationary Noise

Receptor ID	Receptor Description	Receptor Location
PPOR1	Most northeast townhouse (Block 61)	Building evaluation of all façades
PPOR2	14 storey building (Block 74D)	Building evaluation of all façades
PPOR3	18 storey building (Block 74E)	Building evaluation of all façades
PPOR4	16 storey building (Block 74C)	Building evaluation of all façades

Receptor ID	Receptor Description	Receptor Location
POPOR1	Rear yard of Block 61	Rear yard, 1.5m above ground
POPOR2	Rooftop of west building (Block 76)	NW corner, 1.5m above floor

6.1.2 Surrounding Receptors

The Surrounding Point of Reception (SPOR) and Surrounding Outdoor Point of Reception (SOPOR) receptor(s) most likely to be affected by stationary noise from the Project include those associated with planned and existing residential areas to the west, east, and south of the Project. Areas north of the project are undeveloped and therefore not considered to be noise sensitive.

The selections and locations of the Project's mechanical equipment are not yet available at this stage. Thus, TT is unable to perform a detailed analysis of the impact of the Project on the surroundings at this time.

6.2 Stationary Noise Sources

NPC-300 defines a stationary source of noise as one or more sources of sound that are normally operated within a given property. Stationary sources typically include mechanical equipment such as Heating, Ventilation and Air Conditioning (HVAC) equipment, standby power generators with routine testing, and heavy vehicle traffic (truck idling, driving, and loading).

Certain sources of noise, such as residential air conditioners, passenger automobile traffic in parking lots, or temporary noise such as that related to construction are not considered to be stationary sources in NPC-300 and are not assessed in this report. These sources are typically handled in a more qualitative fashion by applicable noise by-laws.

6.2.1 Project Sources

Due to the early stage of planning for the Project, detailed information regarding stationary noise sources at the project is not currently available. The impact of the Project sources to the surrounding areas will be assessed as the design and locations of the Project buildings have developed further.

6.2.2 Surrounding Sources

Based on a review of satellite imagery and field inspection, no significant stationary sources have been identified in the surrounding area. However, TT understands that a quarry (Upper's Quarry) is being proposed to be located northeast of the Project.

An acoustic assessment report titled *Upper's Quarry: Acoustic Assessment Report Walker Aggregates Inc.* dated October 28, 2021 (Updated August 2, 2023), by RWDI, was produced to assess the impact of the quarry on the surrounding noise-sensitive receptors. The report states that quarry will have multiple phases - each with different noise producing sources and configurations. From the report, TT has determined that Phases 1A, 1A South, and 1B will have the most impact on the Project. Phase 1A and Phase 1AS were assessed in the report to have marginal impact on the Project site as shown in Figure 5b but Phase 1B was not assessed. Phase 1B was described as the aggregate extraction after the sinking cuts in the mid extraction area (Phase 1A) and south extraction area (Phase 1A South) have been

completed. Thus, TT has assessed the impact of Phase 1B of the quarry based on the information available in the report.

Note that the stationary noise sound levels (and locations) from the Quarry were referenced from the report.

6.3 Project Area Classification

NPC-300 defines the applicable sound pressure level limit at a given receptor as the higher of a set exclusionary sound level limit based on the area classification of that receptor, or the actual background sound level at the location of the receptor, whichever is higher. In this report, the defined exclusionary limits were used for the purposes of assessing compliance.

The Project is currently located in a Class 2 area as defined in NPC-300, based on the surrounding area features and its distance from major roads.

6.3.1 Class 2 Area Exclusionary Sound Level Limits

NPC-300 defines a Class 2 area as having an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as "urban hum" during the daytime (07:00 – 19:00 or 23:00), but with low evening and night background sound levels defined by the natural environment and infrequent human activity (19:00 or 23:00 – 07:00).

Table 14 provides a summary of the applicable exclusionary sound level limits for steady noise sources impacting receptors in a Class 2 area. Steady stationary noise sources are assessed against a 1-hour equivalent sound pressure level (L_{eq}) expressed in A-weighted decibels (dBA). Routine testing of emergency equipment, if applicable, is assessed separately from other stationary noise sources, and is compared to sound level limits that are 5 dBA higher than would otherwise apply.

Table 14: Class 2 Exclusionary Sound Level Limits – Steady Noise

Time Period	Normal Operations Steady Noise ($L_{eq,1hr}$, dBA)		Emergency Equipment Testing Steady Noise ($L_{eq,1hr}$, dBA)	
	POR	OPOR	POR	OPOR
Daytime (07:00 – 19:00)	50	50	55	55
Evening (19:00 – 23:00)	50	45	55	50
Nighttime (23:00 – 07:00)	45	-	50	-

Table 15 provides a summary of the applicable exclusionary sound level limits for impulse noise sources impacting receptors in a Class 2 area. These limits are based on the number of impulses generated by stationary sources in a one-hour period. Impulse noise sources are assessed against a Logarithmic Mean Impulse Sound Level, (L_{LM}) expressed in A-weighted impulsive decibels, dBAI. Impulse noise sources are assessed separately from steady noise sources.

Table 15: Class 2 Exclusionary Sound Level Limits – Impulsive Noise

Actual Number of Impulses in One Hour	Impulsive Sound Level Limits, Class 2 Area (L_{LM}, dBAI)	
	POR (L_{LM}, dBAI) Daytime (07:00 – 23:00) / Nighttime (23:00 – 07:00)	OPOR (L_{LM}, dBAI) Daytime (07:00 – 23:00) Only
9 or more	50 / 45	50
7 to 8	55 / 50	55
5 to 6	60 / 55	60
4	65 / 60	65
3	70 / 65	70
2	75 / 70	75
1	80 / 75	80

6.4 Stationary Sound Level Predictions

Sound levels at the PORs due to the nearby stationary sources were calculated using the software CadnaA in accordance with the methods described in ISO 9613-2. The CadnaA calculation outputs are presented in Appendix D.

Impulsive noises have a duration of less than one second and are therefore unlikely to overlap. As such NPC-300 requires that these sources be assessed in isolation, rather than cumulatively with each other, or with other stationary noise sources. Note that there was only one identified impulsive noise source from the surrounding area (asphalt plant silo).

The predicted noise impacts described below are based on the conditions identified in current drawings and information provided to TT at the time of this report and include any barriers, equipment specifications, or other measures currently planned for the Project, but do not include additional noise measures identified in Section 6.5 of this report.

6.4.1 Unmitigated Stationary Noise Impacts on the Project

Table 16 provides a summary of the modelling results for stationary noise impacts to the Project due to Phase 1B of the Upper's Quarry operation, and Appendix D contains the full modelling output and illustrations.

Table 16: Predicted Stationary Noise Source Impacts to the Project

POR ID	Time Period	Steady Sound Level $L_{eq,1hr}$ (dBA)	Steady Sound Level Limit $L_{eq,1hr}$ (dBA)	Maximum Impulse Sound Level L_{LM} (dBAI)	Impulse Sound Level Limit L_{LM} (dBAI)	Compliance
PPOR1	Daytime	45	50	28	50	Yes
	Evening	31	50	28	50	Yes
	Nighttime	31	45	28	45	Yes
PPOR2	Daytime	34	50	22	50	Yes
	Evening	27	50	22	50	Yes
	Nighttime	27	45	22	45	Yes
PPOR3	Daytime	34	50	22	50	Yes
	Evening	27	50	22	50	Yes
	Nighttime	27	45	22	45	Yes
PPOR4	Daytime	32	50	22	50	Yes
	Evening	27	50	22	50	Yes
	Nighttime	27	45	22	45	Yes
POPOR1	Daytime	41	50	27	50	Yes
	Evening	29	45	27	50	Yes
POPOR2	Daytime	37	50	24	50	Yes
	Evening	28	45	24	50	Yes

Noise due to stationary noise sources is predicted to meet the applicable sound level limits at all modeled receptors on the Project.

6.5 Stationary Noise Control Recommendations

6.5.1 Mitigation for Project Receptors

No predicted exceedances of the applicable stationary sound level limits at the Project receptors have been identified due to the modelled Phase 1B of the Quarry operation; therefore, no additional mitigation is recommended at this time. Constructing the Project to meet OBC and the identified requirements for mitigation of transportation noise is expected to be sufficient to address potential impacts from minor stationary noise sources in the vicinity of the Project.

Note that potential exceedances of the applicable stationary sound level limits have been identified at the Project site due to noise sources from Phase 1A South Sinking Cut of the Upper's Quarry in the Acoustic Assessment Report by RWDI. TT expects that the required 1.6 m barrier on the northeast of the Project (Section 5.5) will reduce impact of the noise from the Sinking Cut phase.

6.5.2 Mitigation for Surrounding Receptors

At the time of writing, the selection and locations of project buildings have not been finalized, and information regarding mechanical equipment and generators are not yet available. The Project's outdoor

mechanical equipment and emergency generators shall be designed to meet NPC-300 sound level limits for stationary sources at the surrounding receptors.

7.0 Railway Vibration Assessment

Currently, there are no provincial guidelines for the impact of railway vibration in the land use approval process in Ontario. However, in May 2013, the Federation of Canadian Municipalities (FCM) and the Railway Association of Canada (RAC) issued *Guidelines for New Development in Proximity to Railway Operations* to address developments near railway operations. The FCM/RAC guidelines identify dwellings within 75 meters from railways alignments as susceptible to vibration impact and recommend an overall maximum vibration limit of 0.14 mm/sec root-mean-square (RMS) between 4 and 200 Hz.

The Project's building envelopes are located more than 75 meters from the nearest railway alignment. Therefore, vibration due to the railway is not assessed in this report.

8.0 Land Use Compatibility

Industrial and sensitive land uses are commonly separated by LUPAs in their official plans and zoning by-laws. When these types of land use occur near each other there is a potential for conflict due to contaminants such as noise, dust, or odours from the industrial land use. While industrial facilities are required to limit their impacts on surrounding sensitive land uses and are often designed with mitigation measures intended to address existing neighbors, the introduction of new sensitive receptors can lead to increased complaints, and more stringent mitigation requirements for existing facilities.

8.1 Regulatory Background

8.1.1 Provincial Policy Statement

The *Provincial Policy Statement, 2020 Under the Planning Act* (PPS), published by the government of Ontario came into effect on May 1, 2020. Section 1.2.6 of the PPS reads as follows:

1.2.6.1 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.

1.2.6.2 Where avoidance is not possible in accordance with policy 1.2.6.1, planning authorities shall protect the long-term viability of existing or planned industrial, manufacturing or other uses that are vulnerable to encroachment by ensuring that the planning and development of proposed adjacent sensitive land uses are only permitted if the following are demonstrated in accordance with provincial guidelines, standards and procedures:

a) there is an identified need for the proposed use;
b) alternative locations for the proposed use have been evaluated and there are no reasonable alternative locations;
c) adverse effects to the proposed sensitive land use are minimized and mitigated; and
d) potential impacts to industrial, manufacturing or other uses are minimized and mitigated.

Ontario's *Planning Act* requires that land use planning decisions "shall be consistent" with the Provincial Policy Statement.

8.1.2 Growth Plan

The *A Place to Grow, Growth Plan for the Greater Golden Horseshoe Office Consolidation 2020* (GP), published by the government of Ontario in August 2020 identifies the following instructions regarding land use compatibility:

Section 2.2.5: 7. Municipalities will plan for all employment areas within settlement areas by:

a) prohibiting residential uses and prohibiting or limiting other sensitive land uses that are not ancillary to the primary employment use;

b) prohibiting major retail uses or establishing a size or scale threshold for any major retail uses that are permitted and prohibiting any major retail uses that would exceed that threshold; and

c) providing an appropriate interface between employment areas and adjacent non-employment areas to maintain land use compatibility.

Ontario's *Places to Grow Act* requires that land use planning decisions "shall conform" with the relevant Growth Plan.

8.1.3 Environmental Protection Act

Section 9 of Ontario's Environmental Protection Act (EPA) requires that industrial facilities obtain an approval to operate from the MECP.

Approval, plant or production process

9 (1) No person shall, except under and in accordance with an environmental compliance approval,

(a) use, operate, construct, alter, extend or replace any plant, structure, equipment, apparatus, mechanism or thing that may discharge or from which may be discharged a contaminant into any part of the natural environment other than water; or

(b) alter a process or rate of production with the result that a contaminant may be discharged into any part of the natural environment other than water or the rate or manner of discharge of a contaminant into any part of the natural environment other than water may be altered.

In order to obtain and maintain this approval, industrial facilities are required to demonstrate that their emissions (including noise emissions) are within applicable limits at nearby sensitive receptors.

8.2 Recommended Setbacks

The *D-6 Compatibility Between Industrial Facilities* (D6) guideline published by the MECP was last revised in July 1995, and sets out potential influence areas, as well as minimum recommended separation distances for industrial facilities from sensitive land uses.

The D6 guidelines are generally accepted as applicable screening standards for demonstrating compliance with the PPS and GP requirements for land use compatibility. In cases where a sensitive land use would be located within the identified minimum recommended separation distance, additional consideration and mitigation is typically recommended in order to ensure that the sensitive land use is not subject to adverse effects, and the industrial facility is not unreasonably limited in its operations.

The separation distances may be determined from different points on the properties depending on the site conditions; however, the typical measurement is based on the property lines. Table 17 provides the potential influence area and recommended minimum separation distance from the industrial facility to the sensitive land use and Table 18 shows the criteria for the categorization of the industrial facilities.

Table 17: D-6 Separation Distances for Industry Classes

Category	Potential Influence Area	Recommended Minimum Separation Distance
Class I	70m	20m
Class II	300m	70m
Class III	1000m	300m

Table 18: D-6 Industrial Categorization Criteria

Category	Outputs	Scale	Process	Operation/Intensity
Class I	- Sound not audible off property - No ground borne vibration on plant property - Infrequent and not intense dust and/or odour	- No outside storage - Small scale plant or scale is irrelevant in relation to all other criteria for this Class	- Self-contained plant or building which produces/stores a packaged product - Low probability of fugitive emissions	- Daytime operations only - Infrequent movement of products and/or heavy trucks
Class II	- Sound occasionally audible off property - Possible ground borne vibration, but cannot be perceived off property - Frequent and occasionally intense dust and/or odour	- Outside storage permitted - Medium level of production allowed	- Open process - Periodic outputs of minor annoyance - Low probability of fugitive emissions	- Shift operations permitted - Frequent movement of products and/or heavy trucks with the majority of movements during daytime hours
Class III	- Sound frequently audible off property - Ground borne vibration can frequently be perceived off property - Persistent and/or intense dust and/or odour.	- Outside storage of raw and finished products - Large production levels	- Open process - Frequent outputs of major annoyances - High probability of fugitive emissions	- Continuous movement of products and employees - Daily shift operations permitted

The D6 guideline also states that: *"When a change in land use is proposed for either industrial or sensitive land use, less than the minimum separation distance … may be acceptable subject to either the municipality or the proponent providing a justifying impact assessment (i.e. a use specific evaluation of the industrial processes and the potential for off-site impacts on existing and proposed sensitive land uses). Mitigation is the key to dealing with less than the minimum to the greatest extent possible."*

8.3 Surrounding Industrial Facilities

Based on a review of satellite imagery, zoning maps, and existing MECP approvals in the vicinity of the Project as well as a field inspection of the surrounding area, TT has identified the actual or potential industrial facilities listed in Table 19 and illustrated in Figure 1 for consideration.

Table 19: Actual or Potential Industrial Facilities Surrounding the Project

Category	Name	Location	Distance	Description
Class I	Marty's Auto Repair	13011 Lundy's Lane	~25m (Adjacent South)	Auto Shop
Class I	Golden Gardens Supply Company	13045 Lundy's Lane	~25m (Adjacent South)	Landscaping Supply
Class II	N/A	N/A	N/A	N/A
Class III	Walker Aggregates Upper's Quarry	NE of Project	~60m	Proposed Gravel Quarry

8.4 Facilities within Potential Influence Area

Two Class I facilities are located on the South side of Lundy's Lane, across from the proposed development. Marty's Auto Repair and Golden Gardens Supply Company are both located within the 70m potential influence area for a Class I facility, but beyond the 20m recommended minimum separation distance.

Neither of these properties operate under an environmental approval for air or noise emissions.

Based on their apparent operations (auto garage with overhead doors, and landscape supplier with outdoor storage of material), and their location across Lundy's Lane, these facilities are not expected to have a significant impact on the Project, or to be limited in their operation by the Project.

8.5 Facilities within Recommended Separation Distance

The area northeast of the Project is proposed to be developed into the Upper's Quarry, which would be considered a Class III industrial facility. The proposed quarry would have potential stationary noise, blasting and air emission impacts on this proposed development.

TT has reviewed the following reports prepared on behalf of the proposed quarry:

- *Walker Aggregates Inc. Niagara Falls, Ontario Upper's Quarry: Acoustic Assessment Report* dated October 28, 2021 (Updated August 2, 2023), prepared by RWDI AIR Inc. (Quarry AAR);
- *Blast Impact Analysis Uppers Quarry, Part of Lots 119, 120, 136 and 137, Part of the road allowance between Lots 120 and 136 (Geographic Township of Stamford), City of Niagara Falls, Regional Municipality of Niagara* dated October 2021 (Updated August 2023), prepared by Explotech (Quarry BIA); and,
- *Walker Aggregates Inc. Niagara Falls, Air Quality Assessment for the Proposed Upper's Quarry* dated October 26, 2021 (Updated July 12, 2023), prepared by RWDI AIR Inc. (Quarry AQA)

TT has identified a number of questions and comments regarding the content and findings of these reports, which are addressed under separate cover as part of the Client's comments and objection to the proposed quarry development.

For the purposes of this report, TT has assumed that the quarry will proceed approximately as described in the above noted reports.

8.5.1 Official Plan Recognition of Proposed Quarry

Section *B1.8.12.3 Aggregate Resource Protection Policies* of the *City of Thorold Official Plan* identifies that development applications within 500m of the potential bedrock resource area (proposed Upper's Quarry) should be reviewed and incorporate mitigation to demonstrate that future aggregate extraction will not be precluded or hindered and to achieve land use compatibility.

It should be noted that the policy goes on to state that *"Once the proponent has prepared the appropriate studies and necessary mitigation is incorporated into the proposed development, if necessary, the utilization of such mitigation measures does not relieve the new mineral aggregate operation from providing appropriate setbacks and mitigation measures in order to achieve land use compatibility."*

Thus, while the City of Thorold's official plan does anticipate the proposed Upper's Quarry, it also identifies the potential for development in close proximity to the quarry, and imposes reciprocal obligations on the proposed quarry and nearby sensitive developments, such as this Project.

8.5.2 Quarry Stationary Noise Impacts

As described in Section 6.0 of this report, noise impacts from the proposed quarry operations are expected to be highest during the "sinking cut" phases, when the noise sources will be closest to existing grade level, and least shielded by the walls of the quarry.

The Quarry AAR identifies that:

- Noise impacts from the Phase 1A (middle area) sinking cut will be <50 dBA (daytime/nighttime) and at the Project Site boundary; and,
- Noise impacts from the Phase 1A (south area) sinking cut will be 50 – 55 dBA (daytime) and <50 dBA (nighttime) in the north-east corner of the Project Site.

Noise emissions from the stationary sources associated with the quarry are not expected to have a significant impact on the Project Site during other phases of the quarry operations.

Although blasting noise is not assessed as a stationary noise sources in the Quarry AAR, TT expects that it will be distinctly noticeable at the Project Site, particularly during extraction in the areas of the quarry closest to the Project Site.

8.5.3 Quarry Blasting Impacts

The MECP's guidance document NPC-119 identifies the following limits for blast induced vibration and overpressure:

- Ground borne vibration: 12.5 mm/sec
- Overpressure limit: 128 dB

The Quarry BIA identifies a maximum blasting explosive load of 118kg/delay.

Ground Borne Vibration

As noted in the Quarry BIA the maximum explosive load is predicted to result in a blast vibration zone of influence of ~320m.

This area would overlap with the Project Site if the maximum explosive load were used at the closest point on the proposed extraction area (~120m from the Project Site, ~170m from the closest proposed building on the Project Site) as illustrated in Figure 6.

It may be possible to design buildings within the ground borne vibration impact area to resist elevated ground borne vibration levels through the use of foundation isolation and/or underground vibration barriers. Details of vibration isolation will depend on blasting parameters, foundation type of the building, and soil properties of the Project Site.

Blast Overpressure

As noted in the Quarry BIA, the maximum explosive load is predicted to result in an overpressure zone of influence of ~580m.

Per the Quarry BIA, overpressure travels primarily through the air, and is therefore directed away from the extraction face. As such, the greatest impact would be expected to occur during the sinking cut for the extraction area closest to the Project Site (~480m from the Project Site, and 520m from the closest proposed building on the Project Site), and would overlap with the Project Site as illustrated in Figure 6.

It would not be practical to implement mitigation measures on the proposed residential development to address the blast overpressure impacts. Considering the variability of the blast overpressure prediction, it is recommended to monitor blast overpressure on the Project Site. By monitoring the overpressure intensities, the blasting design parameters could be modified to reduce the impact on the Project Site.

8.5.4 Quarry Air Impacts

Air emission sources associated with the proposed quarry operations will primarily consist of fugitive dust emissions from on-site vehicle traffic, aggregate extraction and processing.

The Quarry AQA indicates that the proposed quarry will operate in accordance with a Best Management Practices Plan (BMPP) for dust.

Ontario's *Environmental Protection Act* and *O.Reg. 419/05: Air Pollution – Local Air Quality* generally require sources of industrial air emissions such as the proposed quarry operate in accordance with an MECP approval, and limit off-site air emissions to acceptable levels.

Because provincial air quality standards apply at the property boundary of an industrial site, TT expects that fugitive dust emissions from on-site operations at the proposed quarry will not have a significant impact on the Project Site.

In addition to on-site sources, the proposed quarry operations will also result in temporary construction emissions, as well as fugitive dust emissions associated with heavy vehicle traffic serving the quarry traveling on public roads. These emission sources should also be addressed in the proposed quarry BMPP.

8.6 Project Design Recommendations

As noted in the Provincial Policy Statement and Growth Plan, land use planning decisions are required to avoid potential adverse effects, particularly in relation to adjacent properties, and to provide an appropriate interface between industrial facilities and sensitive land uses. The simplest method to achieve this is through separation distance, as described in the MECP's D-6 guidance documents.

As noted in the D-6 guidance, it may be permissible for industrial and sensitive land uses to be located within the recommended minimum separation distances, as is the case for this proposed development, where a use specific evaluation of the industrial processes and potential for off-site impacts supports the development.

8.6.1 Noise Mitigation

Daytime noise emissions from the proposed quarry's Phase 1A (south area) sinking cut are expected to exceed applicable stationary noise limits in the northeast corner of the Project Site as illustrated in Figure 5b.

Proposed buildings in the impacted area of the Project Site will include townhouses (Blocks 59-65) and could be fitted with temporary noise barriers to mitigate the noise associated with the sinking cut.

As described in Section 6.0 of this report, other predicted noise emissions from the quarry operations are expected to meet applicable limits at the Project Site.

To further minimize the potential for impacts from the adjacent industrial facilities at the Project, TT recommends the following general design principles:

- Communal outdoor living areas should be located on the opposite side of the Project building(s) from nearby industrial land uses and/or screened from these land uses so that there is no direct line of sight.

Additionally, it is recommended to include a Type E warning Clause, worded similarly to the following:

"Purchasers/tenants are advised that due to the proximity of the adjacent planned quarry noise from the quarry operations may at times be audible."

8.6.2 Blasting Mitigation

If both the proposed residential development and proposed quarry move forward, TT recommends that an agreement be reached with the quarry operator to see a limit placed on the explosive load used in blasting in proximity to the residential development to address ground borne vibration and overpressure.

The Quarry BIA identifies that a maximum explosive load of 11kg/delay would result in a ground borne vibration influence area of ~100m, which would be expected to be acceptable for the closest proposed buildings on the Project Site during blasting at the closest point on the extraction area.

The Quarry BIA identifies that a maximum explosive load of 75 kg/delay would result in an overpressure influence area of ~500m, which would be expected to be acceptable for the closest proposed buildings on the Project Site during the southern sinking cut.

8.6.3 Air Mitigation

Provincial air quality regulations generally require industrial sites to meet applicable air contaminant limits at their property boundary, rather than at specific receptors, therefore TT does not expect that air emissions from the quarry operations will have a significant impact on the Project Site.

In order to further minimize the potential for impacts from the adjacent industrial facilities at the Project, TT recommends the following general design principles:

- Communal outdoor living areas should be located on the opposite side of the Project building(s) from nearby industrial land uses and/or screened from these land uses so that there is no direct line of sight.

- Air intakes for central HVAC equipment, particularly those at elevated heights should be fitted with air filters to remove fine airborne particulate matter resulting from road traffic and other surrounding sources.

9.0 Concluding Comments

Noise impacts associated with the proposed development at 13030 Lundy's Lane are expected to be able to generally meet all applicable LUPA noise requirements with the inclusion of noise control measures and warning clauses as summarized in Figure 9 and presented in Section 5.5 of this report for transportation noise sources and Section 6.5 of this report for stationary noise sources. The proposed development should therefore be allowed to progress.

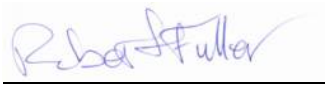
There will need to be additional coordination with the proposed Upper's Quarry in order to address potential land use compatibility concerns, especially in respect to the northeast corner of the Project Site (Blocks 59-65).

As the design of the development proceeds, and mechanical equipment is selected, acoustical modelling of the impacts of this equipment should be confirmed in order to evaluate compliance with applicable sound limits at surrounding sensitive receptors and confirm that impacts to the Project itself will be acceptable.

Please do not hesitate to contact us if there are any questions.

Yours Truly,

Thornton Tomasetti



Robert Fuller, P.Eng.
Project Engineer

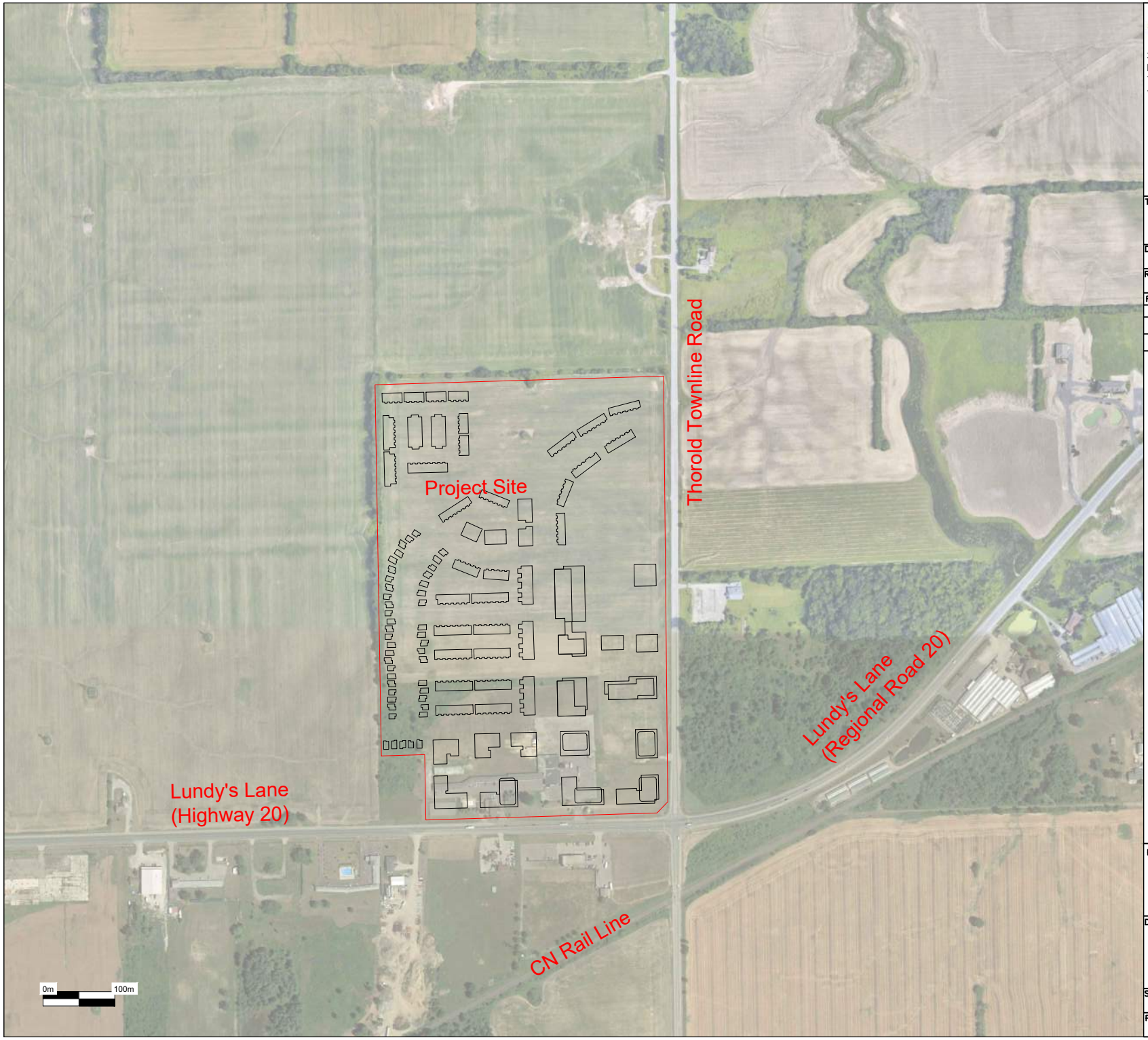
Reviewed by:

Brad Pridham, Ph.D., P.Eng.
Vice President

Disclaimer

Achieving the required noise control requirements relies on correct incorporation of noise control recommendations into Architectural and Mechanical drawings and specifications, as well as correct installation during construction. On Request, TT will conduct drawing reviews and onsite reviews of noise control measures and provide observations as appropriate; however, notwithstanding the foregoing, it is expressly understood and agreed that TT shall not have control or charge of, and shall not be responsible for the acts or omissions, including but not limited to means, methods, techniques, sequences and procedures, of the Design Professionals and/or Contractors performing design and/or construction on the Project. Accordingly, TT shall not be held responsible for the failure of any party to properly incorporate the noise control measures stated in this report.

Appendix A: Figures



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TT PROJECT CODE
SW21382

DRAWN BY: RF

REVIEWED BY:

REVISION

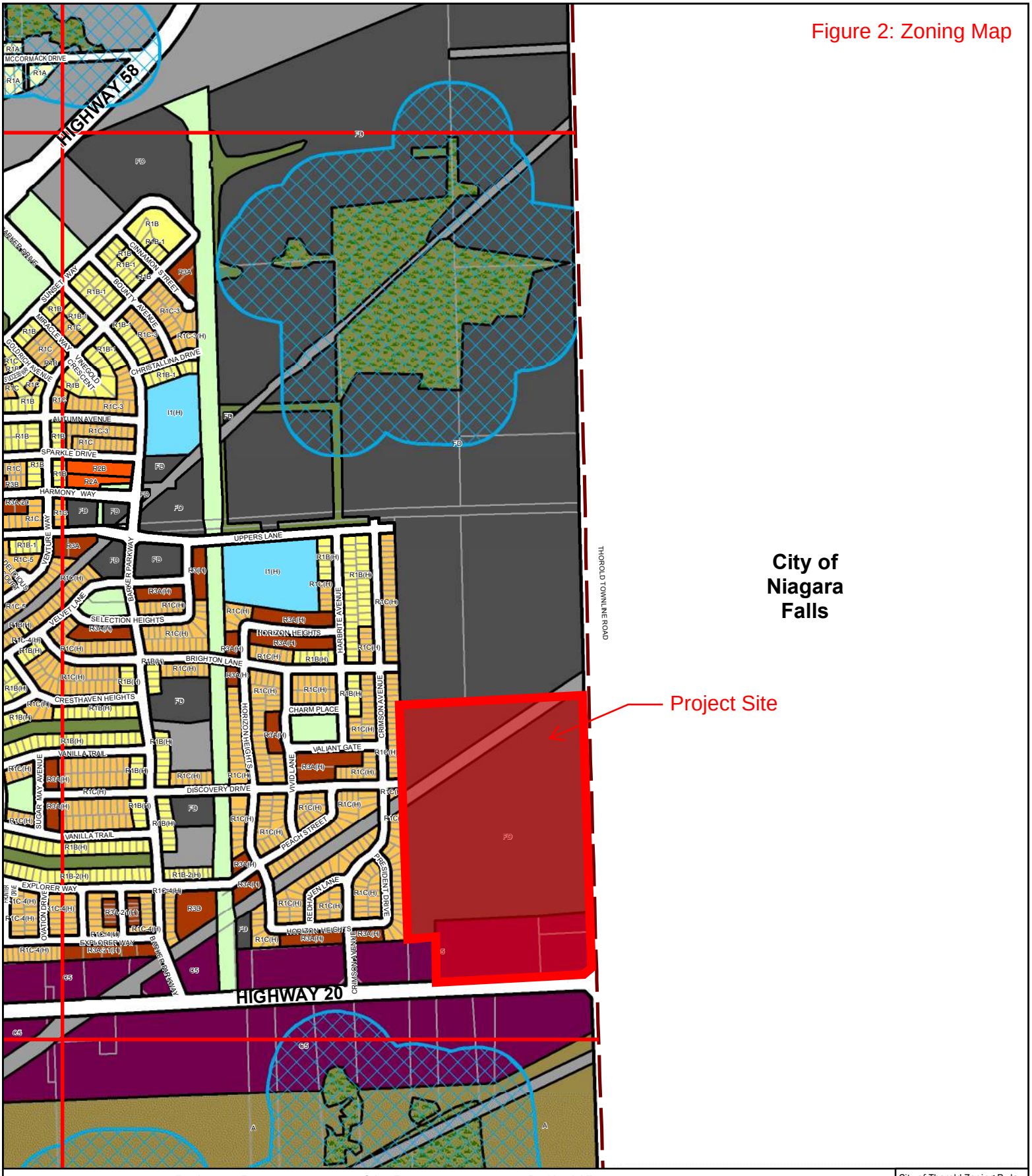
#	DATE	DESCRIPTION
0	2021/11/18	FOR INFORMATION ONLY, NOT FOR CONSTRUCTION
1	202Y/MM/DD	FOR INFORMATION ONLY, NOT FOR CONSTRUCTION

PROJECT NAME
ROLLING MEADOWS
13030 LUNDY'S LANE
CITY OF THOROLD

DRAWING NAME
FIGURE 1
PROJECT LOCATION
AND SURROUNDINGS

SCALE	DATE
ON DRAWING	2023/11/10
Project SK. No	SHEET 1 OF 1

Figure 2: Zoning Map



City of Thorold Boundary

Community Zones
- I1 - Major Institutional
- I2 - Minor Institutional
- OS1 - Parks and Recreation
- OS2 - Open Space Conservation

Countryside Zones
- A - Agricultural
- AS - Specialty Crop
- RU - Rural

Employment Zones
- M1 - Prestige Industrial
- M2 - General Industrial
- M3 - Employment Mixed Use
- M4 - Rural Industrial

Environmental Zones
- EP1 - Environmental Protection One
- EP2 - Environmental Protection Two
- EP3 - Environmental Protection Three

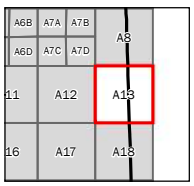
Other Zones
- FD - Future Development
- U - Utility

Commercial Zones
- C1 - Downtown Main Street
- C2 - Downtown Mixed Use
- C3 - General Commercial
- C4 - Neighbourhood Commercial
- C5 - Highway Commercial
- C6 - Mixed Use Commercial

Residential Zones
- R1A - Single Detached
- R1B - Single Detached, Duplex
- R1C - Single Detached, Duplex
- R1D - Single Detached
- R2A, R2B - Semi Detached
- R3A, R3B, R3C, R3D - Townhouse (Street or Stacked), Triplex, Fourplex, and Private Street Development
- R4A, R4B - Apartment and Long Term Care Facility

- Greenbelt Natural Heritage Area
- Source Water Protection Area (area specific provisions apply)
- Niagara Escarpment Plan
- Former Waste Disposal Site
- Solid Waste Dispoal Assessment Area (area specific provisions apply)
- Natural Heritage Feature Buffer Area
- Water Feature

City of Thorold Zoning By-law
Schedule A13



May 2019

1:11,000

Figure 3: Site Plan

Revision Date

NOT FOR CONSTRUCTION

ISSUED FOR OPA / ZBA 23-11-10

Revision Date

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13030 LUNDY'S LANE

THOROLD, ONTARIO

SHEET TITLE

RENDERED MASTER PLAN

DRAWN BY	Author
CHECKED BY	Checker
PROJECT START DATE	YY-MM-DD
PROJECT NUMBER	XXXX
SHEET NUMBER	

A1.01

PLOT DATE: 2023-11-14 3:34:20 PM

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TT PROJECT CODE
SW21382

DRAWN BY: RF

REVIEWED BY:

REVISION

#	DATE	DESCRIPTION
0	2021/11/18	FOR INFORMATION ONLY, NOT FOR CONSTRUCTION
1	202Y/MM/DD	FOR INFORMATION ONLY, NOT FOR CONSTRUCTION

PROJECT NAME
ROLLING MEADOWS
13030 LUNDY'S LANE
CITY OF THOROLD

DRAWING NAME
FIGURE 4
TRANSPORTATION NOISE
PORs & SOURCES

SCALE	DATE
ON DRAWING	2023/11/10
Project SK. No	SHEET 1 OF 1

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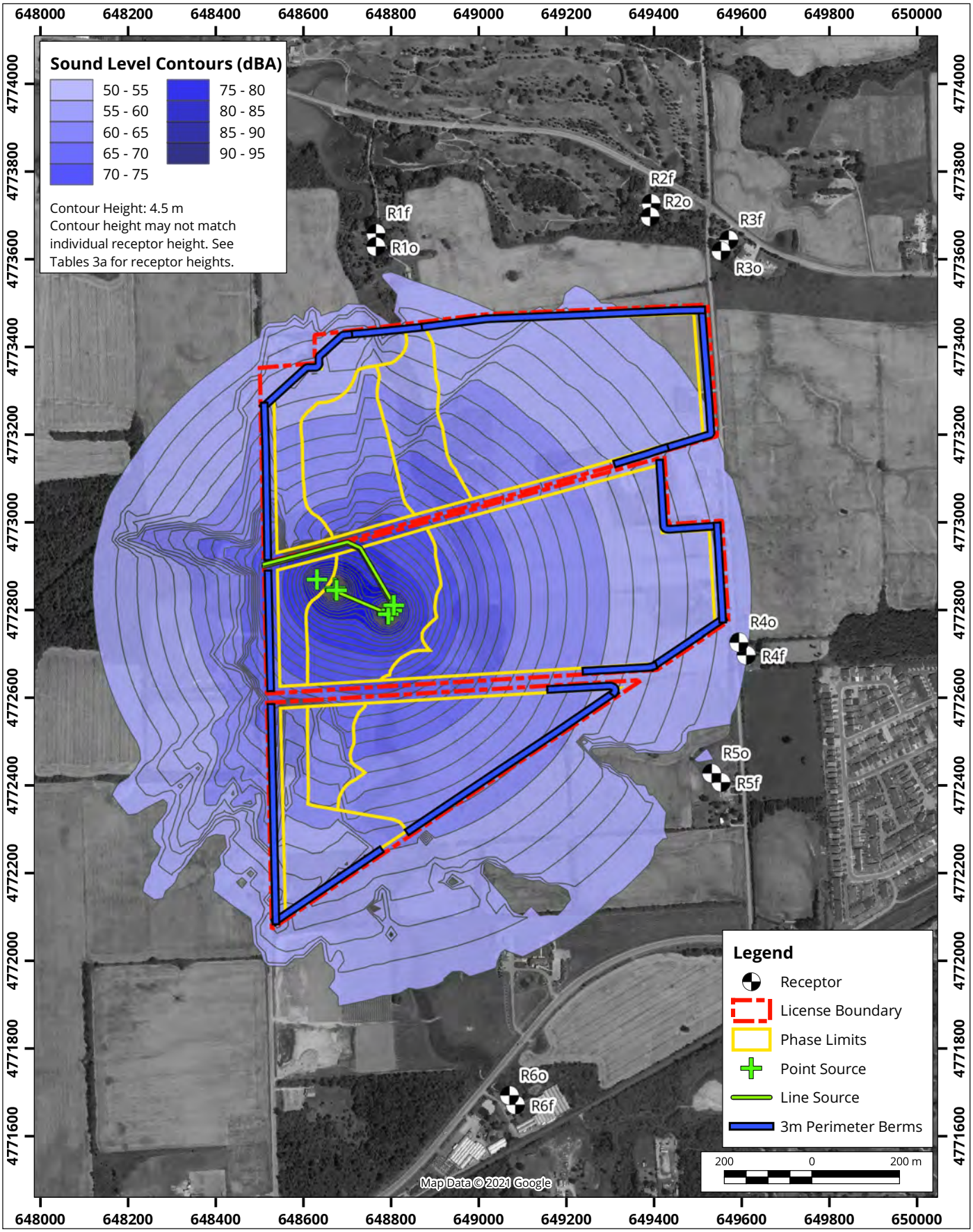
ROLLING MEADOWS
13030 LUNDY'S LANE
CITY OF THOROLD

DRAWING NAME
FIGURE 5
MODELED STATIONARY
PORs & SOURCES

SCALE	DATE
ON DRAWING	2023/11/10
Project SK. No	SHEET 1 OF 1

Figure 5A: Excerpt from Quarry AAR



Sound Level Contours
Proposed Phase 1A Sinking Cut, Daytime

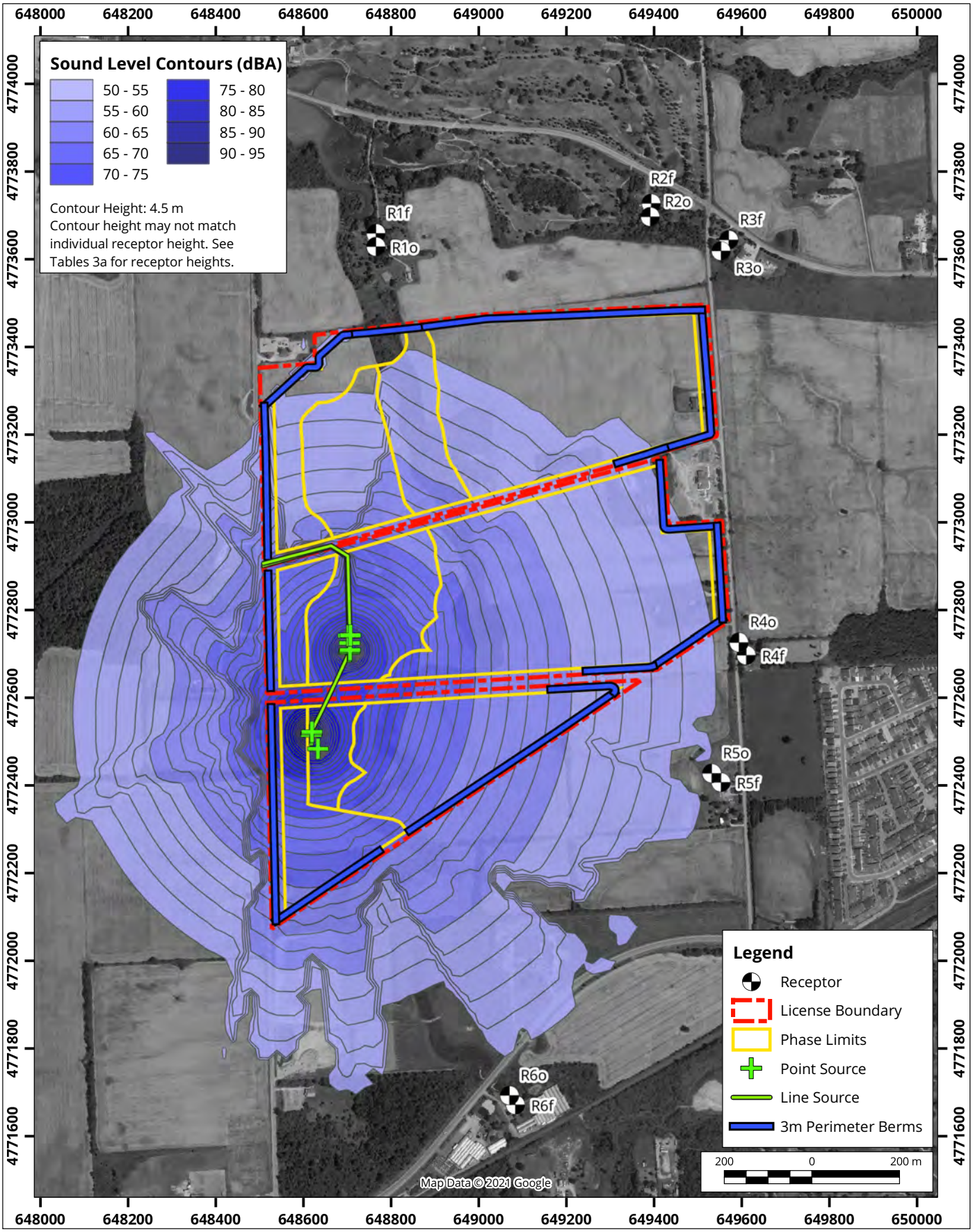
True North

Map Projection: NAD 1983 UTM Zone 17N
Walker Aggregates Inc., Upper's Quarry - Niagara Region, Ontario

Project #: 1603157

Drawn by: RNL	Figure: 3a
Approx. Scale:	1:12000
Date Revised:	Sep 22, 2021

Figure 5B: Excerpt from Quarry AAR



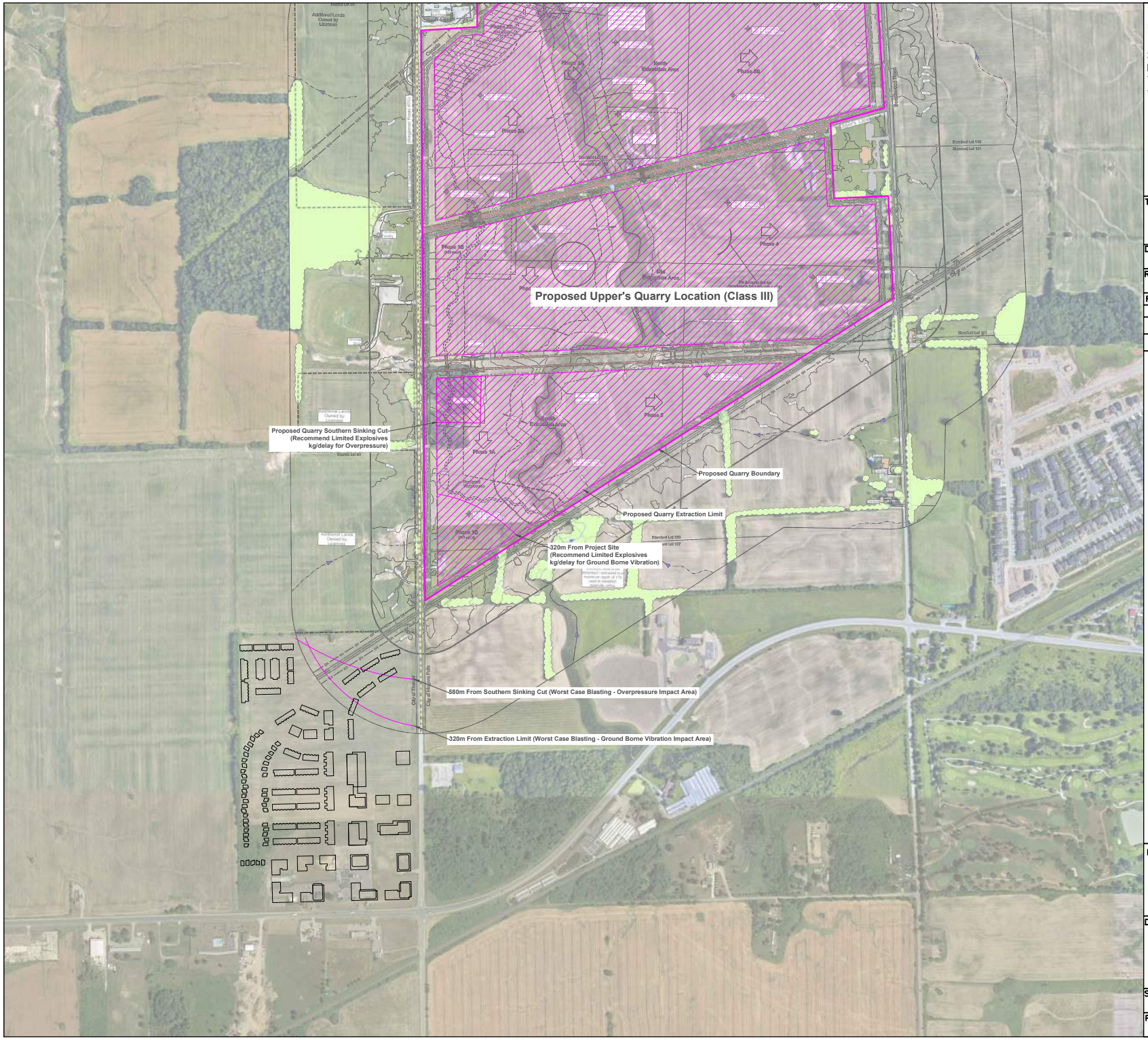
Sound Level Contours
Proposed Phase 1A South Sinking Cut, Daytime

True North

Map Projection: NAD 1983 UTM Zone 17N
Walker Aggregates Inc., Upper's Quarry - Niagara Region, Ontario

Project #: 1603157

Drawn by: RNL	Figure: 3c
Approx. Scale:	1:12000
Date Revised:	Sep 22, 2021



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ROLLING MEADOWS
13030 LUNDY'S LANE
CITY OF THOROLD

DRAWING NAME

FIGURE 6
PROPOSED QUARRY
BLASTING IMPACTS

SCALE	DATE
ON DRAWING	2023/11/10
Project SK. No	SHEET 1 OF 1

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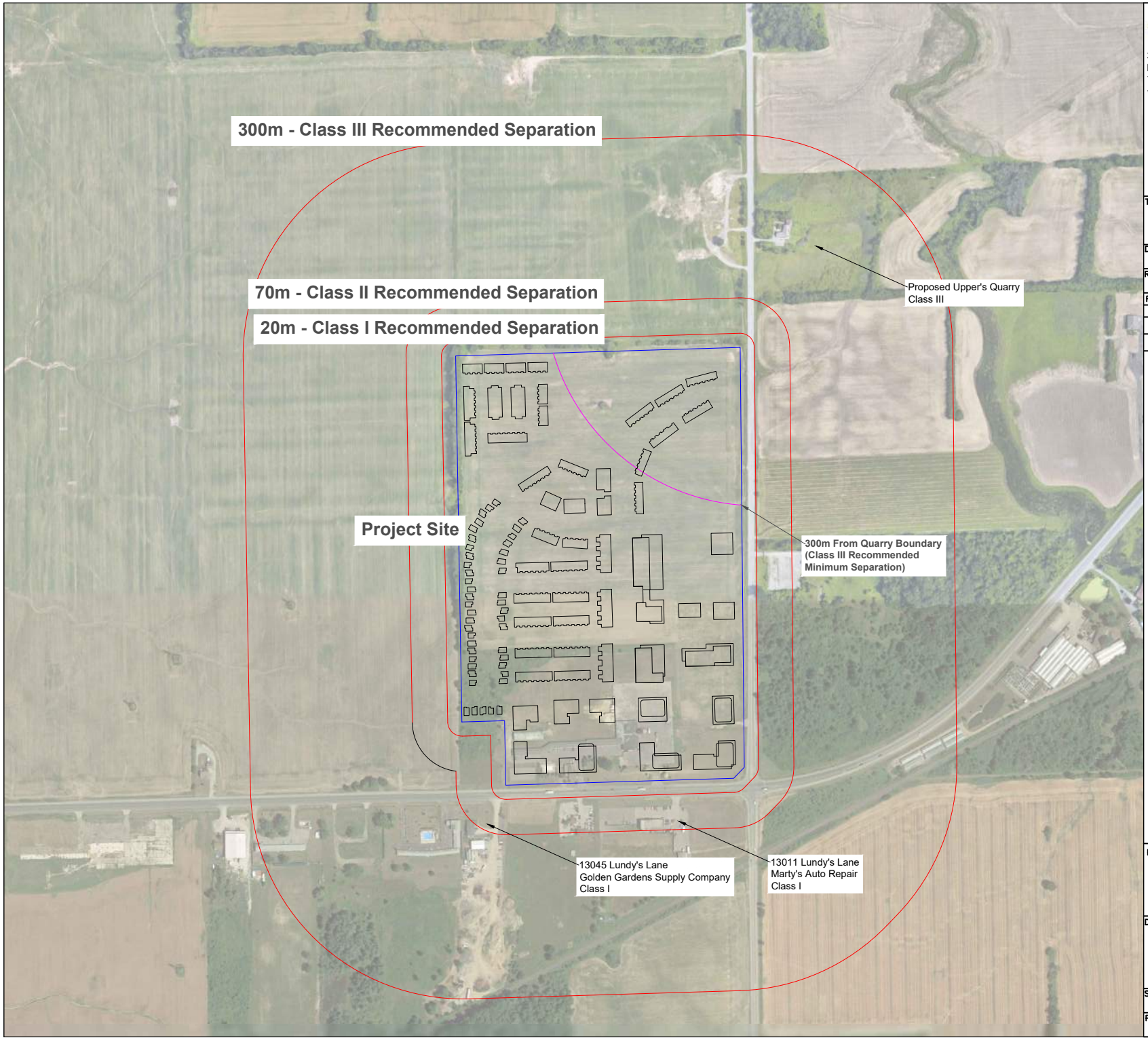
PROJECT NAME
ROLLING MEADOWS
13030 LUNDY'S LANE
CITY OF THOROLD

DRAWING NAME
FIGURE 7
POTENTIAL
INFLUENCE AREA

SCALE	DATE
ON DRAWING	2023/11/10
Project SK. No	SHEET 1 OF 1



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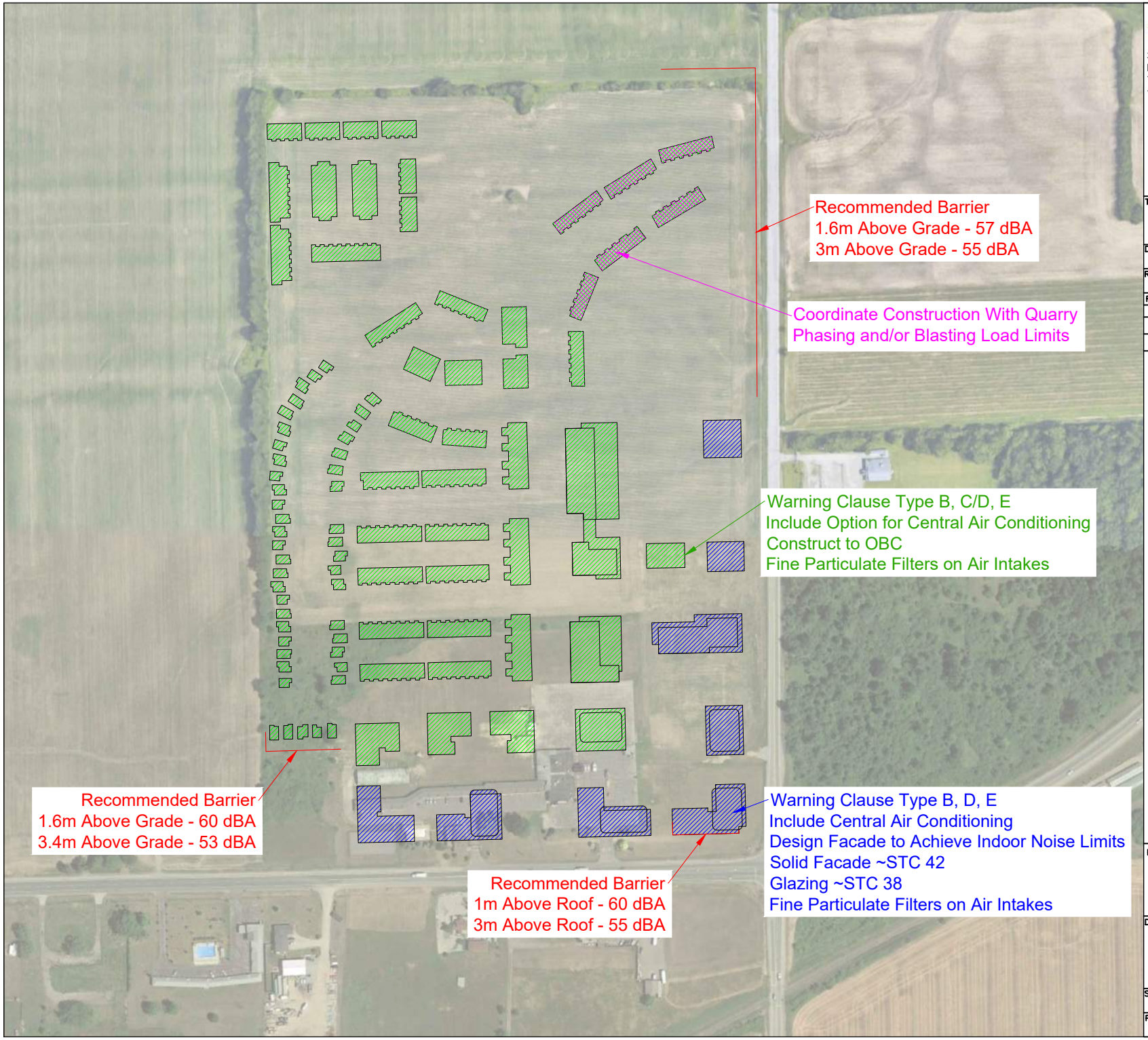
PROJECT NAME
ROLLING MEADOWS
13030 LUNDY'S LANE
CITY OF THOROLD

DRAWING NAME
FIGURE 8
RECOMMENDED
MINIMUM SEPARATION

SCALE	DATE
ON DRAWING	2023/11/10
Project SK. No	SHEET 1 OF 1



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PROJECT NAME
ROLLING MEADOWS
13030 LUNDY'S LANE
CITY OF THOROLD

DRAWING NAME
FIGURE 9
RECOMMENDED
MITIGATION MEASURES

SCALE	DATE
ON DRAWING	2023/11/10
Project SK. No	SHEET 1 OF 1

Appendix B: Traffic Data

Hwy 20 @ Thorold Townline Rd

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 10:00:00

One Hour Peak
From: 7:45:00
To: 8:45:00

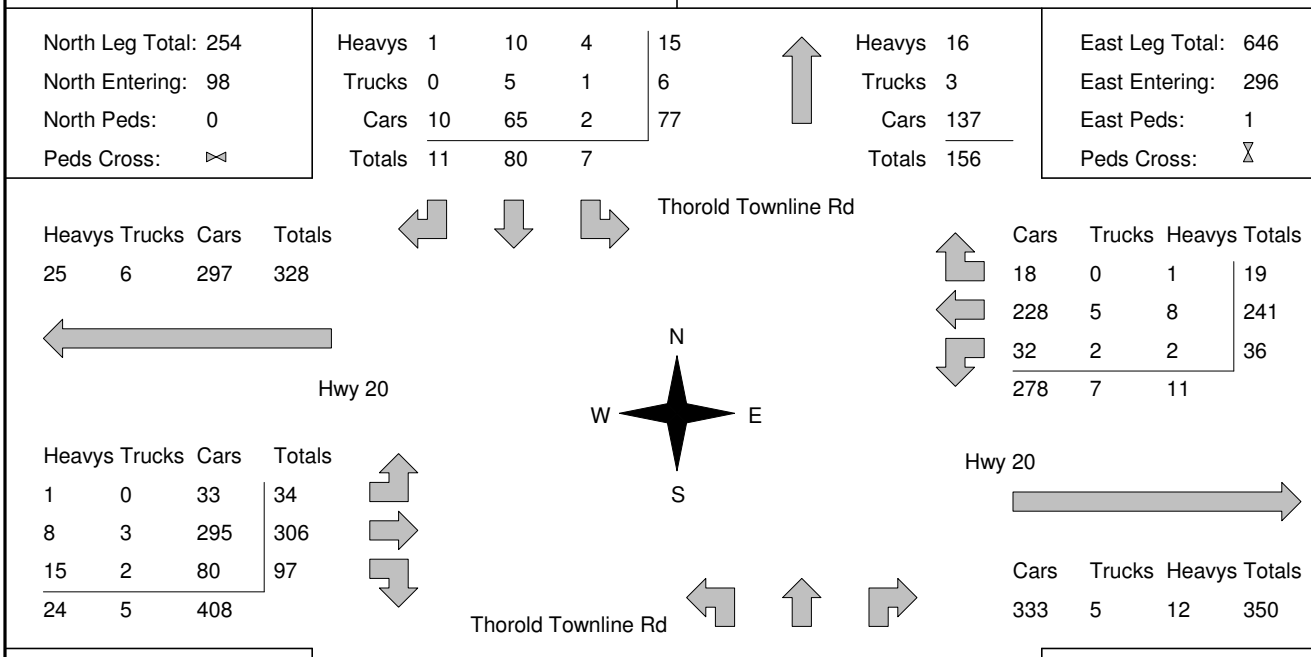
Municipality: Thorold
Site #: 0000000001
Intersection: Hwy 20 & Thorold Townline Rd
TFR File #: 1
Count date: 12-Jul-2023

Weather conditions:
Clear/Dry

Person(s) who counted:
Cam

**** Signalized Intersection ****

Major Road: Hwy 20 runs W/E



Comments

Hwy 20 @ Thorold Townline Rd

Mid-day Peak Diagram

Specified Period
From: 11:00:00
To: 14:00:00

One Hour Peak
From: 13:00:00
To: 14:00:00

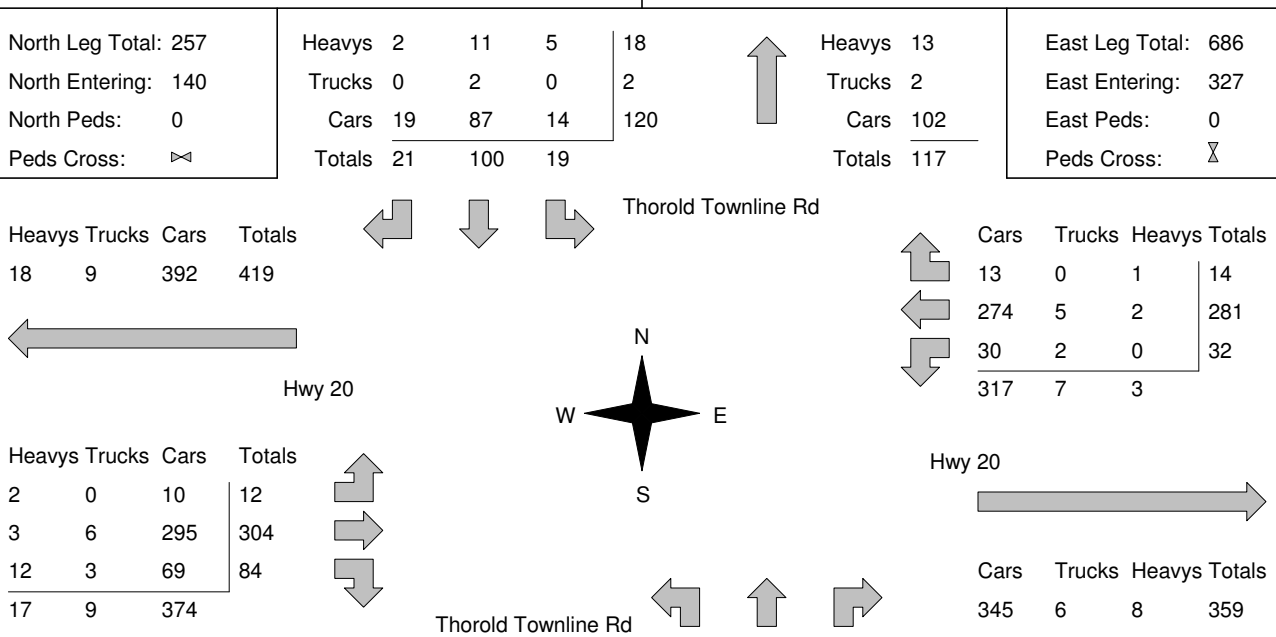
Municipality: Thorold
Site #: 0000000001
Intersection: Hwy 20 & Thorold Townline Rd
TFR File #: 1
Count date: 12-Jul-2023

Weather conditions:
Clear/Dry

Person(s) who counted:
Cam

**** Signalized Intersection ****

Major Road: Hwy 20 runs W/E



Comments

Hwy 20 @ Thorold Townline Rd

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 16:00:00
To: 17:00:00

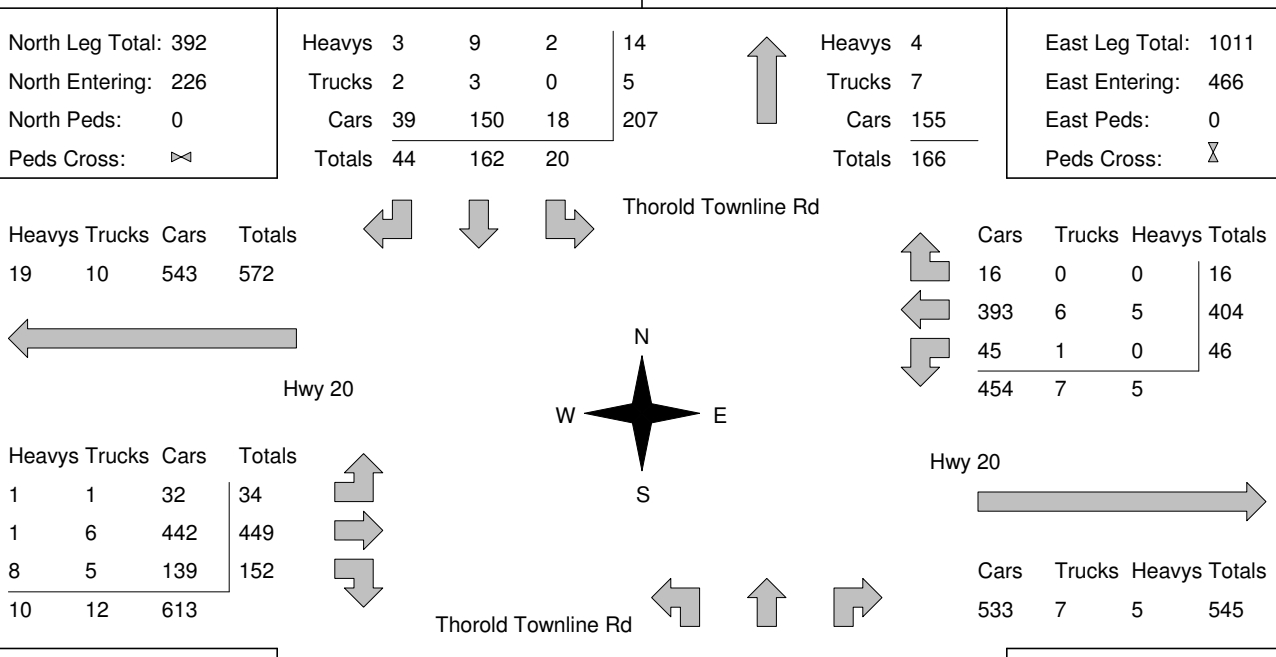
Municipality: Thorold
Site #: 0000000001
Intersection: Hwy 20 & Thorold Townline Rd
TFR File #: 1
Count date: 12-Jul-2023

Weather conditions:
Clear/Dry

Person(s) who counted:
Cam

**** Signalized Intersection ****

Major Road: Hwy 20 runs W/E



Comments

Hwy 20 @ Thorold Townline Rd

Total Count Diagram

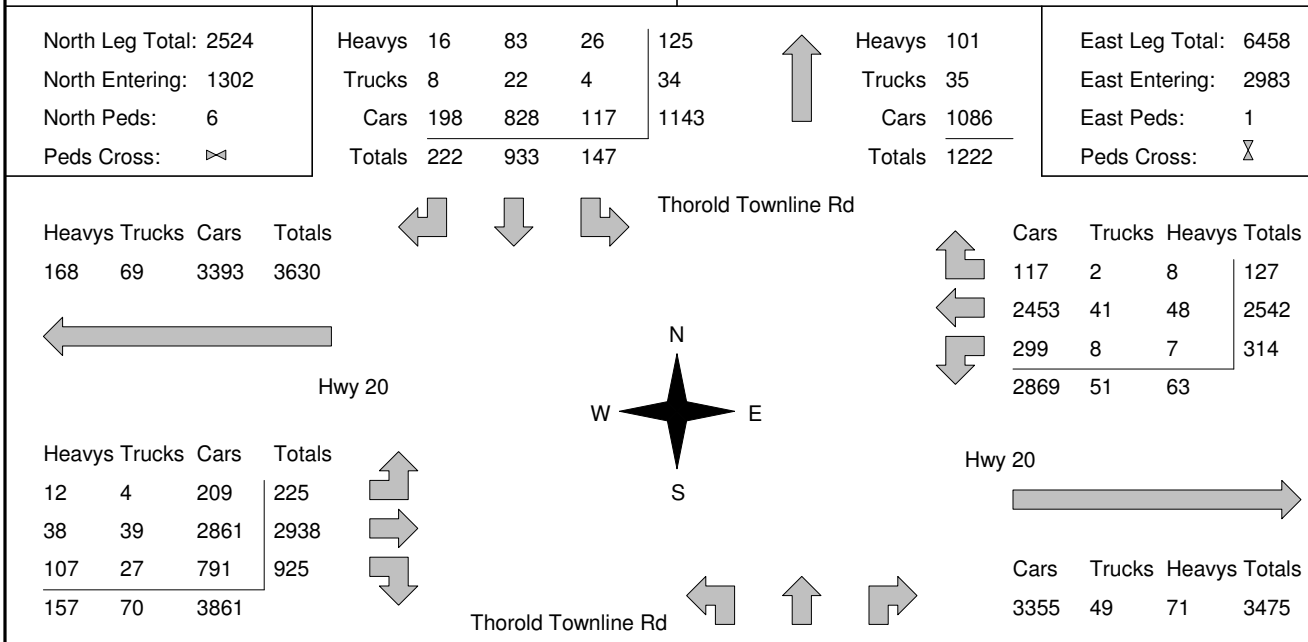
Municipality: Thorold
Site #: 0000000001
Intersection: Hwy 20 & Thorold Townline Rd
TFR File #: 1
Count date: 12-Jul-2023

Weather conditions:
Clear/Dry

Person(s) who counted:
Cam

**** Signalized Intersection ****

Major Road: Hwy 20 runs W/E



Comments

Appendix C: Transportation Noise Predictions

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 11:02:14
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola1.te Time Period: Day/Night 16/8 hours
Description: 14 st. buil. - outdoor amenity at level 4

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

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. Freight	10.8/2.6	80.0	4.0	140.0	Diesel	No

Data for Segment # 1: CN (day/night)

```
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 155.90 / 155.90 m
Receiver height           :  16.00 / 16.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
No Whistle
Barrier angle1            : -90.00 deg   Angle2 : 90.00 deg
Barrier height            :  14.50 m
Barrier receiver distance :  11.72 / 11.72  m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :   0.00 m
Reference angle           :   0.00
```

Results segment # 1: CN (day)

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
4.00	16.00	15.10	15.10
0.50	16.00	14.83	14.83

LOCOMOTIVE (0.00 + 63.09 + 0.00) = 63.09 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	73.26	-10.17	0.00	0.00	0.00	-4.41	58.68*
-90	90	0.00	73.26	-10.17	0.00	0.00	0.00	0.00	63.09

* Bright Zone !

WHEEL (0.00 + 59.49 + 0.00) = 59.49 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	69.66	-10.17	0.00	0.00	0.00	-4.82	54.67*
-90	90	0.00	69.66	-10.17	0.00	0.00	0.00	0.00	59.49

* Bright Zone !

Segment Leq : 64.66 dBA

Total Leq All Segments: 64.66 dBA

Results segment # 1: CN (night)

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
4.00	16.00	15.10	15.10
0.50	16.00	14.83	14.83

LOCOMOTIVE (0.00 + 59.92 + 0.00) = 59.92 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	70.08	-10.17	0.00	0.00	0.00	-4.41	55.51*
-90	90	0.00	70.08	-10.17	0.00	0.00	0.00	0.00	59.92

* Bright Zone !

WHEEL (0.00 + 56.32 + 0.00) = 56.32 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	66.48	-10.17	0.00	0.00	0.00	-4.82	51.49*
-90	90	0.00	66.48	-10.17	0.00	0.00	0.00	0.00	56.32

* Bright Zone !

Segment Leq : 61.49 dBA

Total Leq All Segments: 61.49 dBA

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

Car traffic volume : 3374/375 veh/TimePeriod *
Medium truck volume : 132/15 veh/TimePeriod *
Heavy truck volume : 257/29 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 2705
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 3.51
Heavy Truck % of Total Volume : 6.84
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 71.92 / 71.92 m
Receiver height : 16.00 / 16.00 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 90.00 deg
Barrier height : 14.50 m

```
Barrier receiver distance :  44.78 / 44.78  m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :   0.00 m
Reference angle           :   0.00

Road data, segment # 2: LL (day/night)
--------------------------------------
Car traffic volume  : 10345/1149  veh/TimePeriod  *
Medium truck volume :   160/18    veh/TimePeriod  *
Heavy truck volume  :   209/23    veh/TimePeriod  *
Posted speed limit  :    80 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   7700
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
    Medium Truck % of Total Volume     :   1.49
    Heavy Truck  % of Total Volume     :   1.95
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: LL (day/night)
------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  42.70 / 42.70  m
Receiver height           :  16.00 / 16.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            : -90.00 deg   Angle2 : 90.00 deg
Barrier height            :  14.50 m
Barrier receiver distance :  10.50 / 10.50  m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :   0.00 m
Reference angle           :   0.00

Results segment # 1: TTR (day)
------------------------------

Source height = 1.62 m

Barrier height for grazing incidence
------------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.62 !       16.00 !        7.04 !         7.04

ROAD (0.00 + 45.29 + 0.00) = 45.29 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.00  67.10   0.00  -6.81   0.00   0.00   0.00 -15.00  45.29
-------------------------------------------------------------------------------

Segment Leq : 45.29 dBA

Results segment # 2: LL (day)
-----------------------------
```

Source height = 1.18 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.18	16.00	12.36	12.36

ROAD (0.00 + 54.60 + 0.00) = 54.60 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	68.63	0.00	-4.54	0.00	0.00	0.00	-9.48	54.60

Segment Leq : 54.60 dBA

Total Leq All Segments: 55.08 dBA

Results segment # 1: TTR (night)

Source height = 1.62 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.62	16.00	7.05	7.05

ROAD (0.00 + 38.81 + 0.00) = 38.81 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	60.62	0.00	-6.81	0.00	0.00	0.00	-15.00	38.81

Segment Leq : 38.81 dBA

Results segment # 2: LL (night)

Source height = 1.18 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.18	16.00	12.36	12.36

ROAD (0.00 + 48.06 + 0.00) = 48.06 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	62.09	0.00	-4.54	0.00	0.00	0.00	-9.48	48.06

Segment Leq : 48.06 dBA

Total Leq All Segments: 48.55 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 65.11

(NIGHT): 61.71

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 11:03:18
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola1bar1.te Time Period: Day/Night 16/8 hours
Description: outdoor amenity at level 4 - 1m barrier

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

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. Freight	10.8/2.6	80.0	4.0	140.0	Diesel	No

Data for Segment # 1: CN (day/night)

```
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 155.90 / 155.90 m
Receiver height           :  16.00 / 16.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
No Whistle
Barrier angle1            : -90.00 deg   Angle2 : 90.00 deg
Barrier height            :  15.50 m
Barrier receiver distance :  11.72 / 11.72  m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :   0.00 m
Reference angle           :   0.00
```

Results segment # 1: CN (day)

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
4.00	16.00	15.10	15.10
0.50	16.00	14.83	14.83

LOCOMOTIVE (0.00 + 57.85 + 0.00) = 57.85 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	73.26	-10.17	0.00	0.00	0.00	-5.24	57.85

WHEEL (0.00 + 53.86 + 0.00) = 53.86 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	69.66	-10.17	0.00	0.00	0.00	-5.63	53.86

Segment Leq : 59.31 dBA

Total Leq All Segments: 59.31 dBA

Results segment # 1: CN (night)

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
4.00	16.00	15.10	15.10
0.50	16.00	14.83	14.83

LOCOMOTIVE (0.00 + 54.67 + 0.00) = 54.67 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	70.08	-10.17	0.00	0.00	0.00	-5.24	54.67

WHEEL (0.00 + 50.69 + 0.00) = 50.69 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	66.48	-10.17	0.00	0.00	0.00	-5.63	50.69

Segment Leq : 56.13 dBA

Total Leq All Segments: 56.13 dBA

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

Car traffic volume	3374/375	veh/TimePeriod *
Medium truck volume	132/15	veh/TimePeriod *
Heavy truck volume	257/29	veh/TimePeriod *
Posted speed limit	80 km/h	
Road gradient	0 %	
Road pavement	1 (Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT)	2705
Percentage of Annual Growth	2.00
Number of Years of Growth	22.00
Medium Truck % of Total Volume	3.51
Heavy Truck % of Total Volume	6.84
Day (16 hrs) % of Total Volume	90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2	-90.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	0 / 0	
Surface	2	(Reflective ground surface)
Receiver source distance	71.92 / 71.92	m
Receiver height	16.00 / 16.00	m
Topography	2	(Flat/gentle slope; with barrier)
Barrier angle1	-90.00 deg	Angle2 : 90.00 deg
Barrier height	15.50 m	
Barrier receiver distance	44.78 / 44.78	m
Source elevation	0.00 m	
Receiver elevation	0.00 m	
Barrier elevation	0.00 m	
Reference angle	0.00	

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

Car traffic volume	10345/1149	veh/TimePeriod *
Medium truck volume	160/18	veh/TimePeriod *
Heavy truck volume	209/23	veh/TimePeriod *
Posted speed limit	80 km/h	

```
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   7700
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
    Medium Truck % of Total Volume     :   1.49
    Heavy Truck  % of Total Volume     :   1.95
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: LL (day/night)
------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  42.70 / 42.70  m
Receiver height           :  16.00 / 16.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            : -90.00 deg   Angle2 : 90.00 deg
Barrier height            :  15.50 m
Barrier receiver distance :  10.50 / 10.50  m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :   0.00 m
Reference angle           :   0.00

Results segment # 1: TTR (day)
------------------------------

Source height = 1.62 m

Barrier height for grazing incidence
------------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.62 !       16.00 !        7.04 !         7.04

ROAD (0.00 + 44.58 + 0.00) = 44.58 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.00  67.10   0.00  -6.81   0.00   0.00   0.00 -15.71  44.58
-------------------------------------------------------------------------------

Segment Leq : 44.58 dBA

Results segment # 2: LL (day)
-----------------------------

Source height = 1.18 m

Barrier height for grazing incidence
------------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.18 !       16.00 !       12.36 !        12.36

ROAD (0.00 + 52.39 + 0.00) = 52.39 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
```

```
-------------------------------------------------------------------------------
   -90     90   0.00  68.63   0.00  -4.54   0.00   0.00   0.00 -11.69  52.39
-------------------------------------------------------------------------------

Segment Leq : 52.39 dBA

Total Leq All Segments: 53.06 dBA

Results segment # 1: TTR (night)
--------------------------------

Source height = 1.62 m

Barrier height for grazing incidence
------------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.62 !       16.00 !        7.05 !         7.05

ROAD (0.00 + 38.10 + 0.00) = 38.10 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.00  60.62   0.00  -6.81   0.00   0.00   0.00 -15.71  38.10
-------------------------------------------------------------------------------

Segment Leq : 38.10 dBA

Results segment # 2: LL (night)
-------------------------------

Source height = 1.18 m

Barrier height for grazing incidence
------------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.18 !       16.00 !       12.36 !        12.36

ROAD (0.00 + 45.85 + 0.00) = 45.85 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.00  62.09   0.00  -4.54   0.00   0.00   0.00 -11.70  45.85
-------------------------------------------------------------------------------

Segment Leq : 45.85 dBA

Total Leq All Segments: 46.52 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.23
                           (NIGHT): 56.58
```

```
STAMSON 5.0        NORMAL REPORT        Date: 07-11-2023 11:29:09
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola1bar2.te          Time Period: Day/Night 16/8 hours
Description: outdoor amenity at level 4 - 3m barrier

Rail data, segment # 1: CN (day/night)
-------------------------------------
Train            ! Trains      ! Speed !# loc !# Cars! Eng  !Cont
Type             !             !(km/h) !/Train!/Train! type !weld
-----------------+-------------+-------+------+------+------+----
  1. Freight     !  10.8/2.6   !  80.0 !  4.0 !140.0 !Diesel!  No

Data for Segment # 1: CN (day/night)
-------------------------------------
Angle1   Angle2           : -46.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 155.90 / 155.90 m
Receiver height           :  16.00 / 16.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
No Whistle
Barrier angle1            : -46.00 deg   Angle2 : 90.00 deg
Barrier height            :  17.50 m
Barrier receiver distance :  11.72 / 11.72  m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :   0.00 m
Reference angle           :   0.00

Results segment # 1: CN (day)
------------------------------

Barrier height for grazing incidence
------------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       4.00 !       16.00 !       15.10 !        15.10
       0.50 !       16.00 !       14.83 !        14.83

LOCOMOTIVE (0.00 + 51.69 + 0.00) = 51.69 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------
   -46     90   0.00  73.26 -10.17  -1.22   0.00   0.00 -10.18  51.69
-------------------------------------------------------------------

WHEEL (0.00 + 47.48 + 0.00) = 47.48 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------
   -46     90   0.00  69.66 -10.17  -1.22   0.00   0.00 -10.79  47.48
-------------------------------------------------------------------

Segment Leq : 53.09 dBA

Total Leq All Segments: 53.09 dBA

Results segment # 1: CN (night)
--------------------------------

Barrier height for grazing incidence
------------------------------------
```

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
4.00	16.00	15.10	15.10
0.50	16.00	14.83	14.83

LOCOMOTIVE (0.00 + 48.52 + 0.00) = 48.52 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-46	90	0.00	70.08	-10.17	-1.22	0.00	0.00	-10.18	48.52

WHEEL (0.00 + 44.31 + 0.00) = 44.31 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-46	90	0.00	66.48	-10.17	-1.22	0.00	0.00	-10.79	44.31

Segment Leq : 49.92 dBA

Total Leq All Segments: 49.92 dBA

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

Car traffic volume : 3374/375 veh/TimePeriod *
Medium truck volume : 132/15 veh/TimePeriod *
Heavy truck volume : 257/29 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 2705
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 3.51
Heavy Truck % of Total Volume : 6.84
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 71.92 / 71.92 m
Receiver height : 16.00 / 16.00 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 90.00 deg
Barrier height : 17.50 m
Barrier receiver distance : 44.78 / 44.78 m
Source elevation : 0.00 m
Receiver elevation : 0.00 m
Barrier elevation : 0.00 m
Reference angle : 0.00

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

Car traffic volume : 10345/1149 veh/TimePeriod *
Medium truck volume : 160/18 veh/TimePeriod *
Heavy truck volume : 209/23 veh/TimePeriod *
Posted speed limit : 80 km/h

```
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   7700
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
    Medium Truck % of Total Volume     :   1.49
    Heavy Truck  % of Total Volume     :   1.95
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: LL (day/night)
------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  42.70 / 42.70  m
Receiver height           :  16.00 / 16.00  m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            : -90.00 deg   Angle2 : 90.00 deg
Barrier height            :  17.50 m
Barrier receiver distance :  10.50 / 10.50  m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :   0.00 m
Reference angle           :   0.00

Results segment # 1: TTR (day)
------------------------------

Source height = 1.62 m

Barrier height for grazing incidence
------------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.62 !       16.00 !        7.04 !         7.04

ROAD (0.00 + 43.50 + 0.00) = 43.50 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.00  67.10   0.00  -6.81   0.00   0.00   0.00 -16.79  43.50
-------------------------------------------------------------------------------

Segment Leq : 43.50 dBA

Results segment # 2: LL (day)
-----------------------------

Source height = 1.18 m

Barrier height for grazing incidence
------------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.18 !       16.00 !       12.36 !        12.36

ROAD (0.00 + 49.08 + 0.00) = 49.08 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
```

```
-------------------------------------------------------------------------------
   -90     90   0.00  68.63   0.00  -4.54   0.00   0.00   0.00 -15.01  49.08
-------------------------------------------------------------------------------

Segment Leq : 49.08 dBA

Total Leq All Segments: 50.14 dBA

Results segment # 1: TTR (night)
---------------------------------

Source height = 1.62 m

Barrier height for grazing incidence
------------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.62 !       16.00 !        7.05 !         7.05

ROAD (0.00 + 37.03 + 0.00) = 37.03 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.00  60.62   0.00  -6.81   0.00   0.00   0.00 -16.78  37.03
-------------------------------------------------------------------------------

Segment Leq : 37.03 dBA

Results segment # 2: LL (night)
--------------------------------

Source height = 1.18 m

Barrier height for grazing incidence
------------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.18 !       16.00 !       12.36 !        12.36

ROAD (0.00 + 42.54 + 0.00) = 42.54 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.00  62.09   0.00  -4.54   0.00   0.00   0.00 -15.01  42.54
-------------------------------------------------------------------------------

Segment Leq : 42.54 dBA

Total Leq All Segments: 43.62 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 54.87
                           (NIGHT): 50.83
```

STAMSON 5.0 NORMAL REPORT Date: 09-11-2023 16:38:48
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola2.te Time Period: Day/Night 16/8 hours
Description: OLA northeast of site

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

Car traffic volume : 3374/375 veh/TimePeriod *
Medium truck volume : 132/15 veh/TimePeriod *
Heavy truck volume : 257/29 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 2705
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 3.51
Heavy Truck % of Total Volume : 6.84
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 50.75 / 50.75 m
Receiver height : 1.50 / 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: TTR (day)

Source height = 1.62 m

ROAD (0.00 + 61.80 + 0.00) = 61.80 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	67.10	0.00	-5.29	0.00	0.00	0.00	0.00	61.80

Segment Leq : 61.80 dBA

Total Leq All Segments: 61.80 dBA

Results segment # 1: TTR (night)

Source height = 1.62 m

ROAD (0.00 + 55.33 + 0.00) = 55.33 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	60.62	0.00	-5.29	0.00	0.00	0.00	0.00	55.33

Segment Leq : 55.33 dBA

Total Leq All Segments: 55.33 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 61.80
(NIGHT): 55.33

STAMSON 5.0 NORMAL REPORT Date: 09-11-2023 16:44:52
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola2bar1.te Time Period: Day/Night 16/8 hours
Description: OLA northeast of site - 1.6m barrier

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

Car traffic volume : 3374/375 veh/TimePeriod *
Medium truck volume : 132/15 veh/TimePeriod *
Heavy truck volume : 257/29 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 2705
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 3.51
Heavy Truck % of Total Volume : 6.84
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 50.75 / 50.75 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 80.00 deg
Barrier height : 1.60 m
Barrier receiver distance : 34.81 / 34.81 m
Source elevation : 0.00 m
Receiver elevation : 0.00 m
Barrier elevation : 0.00 m
Reference angle : 0.00

Results segment # 1: TTR (day)

Source height = 1.62 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.62	1.50	1.58	1.58

ROAD (0.00 + 56.55 + 49.25) = 57.30 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	80	0.00	67.10	0.00	-5.29	-0.25	0.00	0.00	-5.00	56.55
80	90	0.00	67.10	0.00	-5.29	-12.55	0.00	0.00	0.00	49.25

Segment Leq : 57.30 dBA

Total Leq All Segments: 57.30 dBA

Results segment # 1: TTR (night)

Source height = 1.62 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.62	1.50	1.58	1.58

ROAD (0.00 + 50.08 + 42.77) = 50.82 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	80	0.00	60.62	0.00	-5.29	-0.25	0.00	0.00	-5.00	50.08
80	90	0.00	60.62	0.00	-5.29	-12.55	0.00	0.00	0.00	42.77

Segment Leq : 50.82 dBA

Total Leq All Segments: 50.82 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 57.30
(NIGHT): 50.82

STAMSON 5.0 NORMAL REPORT Date: 09-11-2023 16:45:21
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola2bar2.te Time Period: Day/Night 16/8 hours
Description: OLA northeast of site - 3m barrier

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

Car traffic volume : 3374/375 veh/TimePeriod *
Medium truck volume : 132/15 veh/TimePeriod *
Heavy truck volume : 257/29 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 2705
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 3.51
Heavy Truck % of Total Volume : 6.84
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 50.75 / 50.75 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 80.00 deg
Barrier height : 3.00 m
Barrier receiver distance : 34.81 / 34.81 m
Source elevation : 0.00 m
Receiver elevation : 0.00 m
Barrier elevation : 0.00 m
Reference angle : 0.00

Results segment # 1: TTR (day)

Source height = 1.62 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.62	1.50	1.58	1.58

ROAD (0.00 + 54.13 + 49.25) = 55.35 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	80	0.00	67.10	0.00	-5.29	-0.25	0.00	0.00	-7.42	54.13
80	90	0.00	67.10	0.00	-5.29	-12.55	0.00	0.00	0.00	49.25

Segment Leq : 55.35 dBA

Total Leq All Segments: 55.35 dBA

Results segment # 1: TTR (night)

Source height = 1.62 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.62	1.50	1.58	1.58

ROAD (0.00 + 47.66 + 42.77) = 48.88 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	80	0.00	60.62	0.00	-5.29	-0.25	0.00	0.00	-7.41	47.66
80	90	0.00	60.62	0.00	-5.29	-12.55	0.00	0.00	0.00	42.77

Segment Leq : 48.88 dBA

Total Leq All Segments: 48.88 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.35
(NIGHT): 48.88

STAMSON 5.0 NORMAL REPORT Date: 09-11-2023 16:49:59
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola3.te Time Period: Day/Night 16/8 hours
Description: OLA southwest of site

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

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. Freight	10.8/2.6	80.0	4.0	140.0	Diesel	No

Data for Segment # 1: CN (day/night)

```
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                 :      0       (No woods.)
No of house rows           :      0 / 0
Surface                    :      2       (Reflective ground surface)
Receiver source distance   : 367.66 / 367.66 m
Receiver height            :   1.50 / 1.50   m
Topography                 :      1       (Flat/gentle slope; no barrier)
No Whistle
Reference angle            :   0.00
```

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 59.36 + 0.00) = 59.36 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	73.26	-13.89	0.00	0.00	0.00	0.00	59.36

WHEEL (0.00 + 55.76 + 0.00) = 55.76 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	69.66	-13.89	0.00	0.00	0.00	0.00	55.76

Segment Leq : 60.93 dBA

Total Leq All Segments: 60.93 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 56.19 + 0.00) = 56.19 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	70.08	-13.89	0.00	0.00	0.00	0.00	56.19

WHEEL (0.00 + 52.59 + 0.00) = 52.59 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	66.48	-13.89	0.00	0.00	0.00	0.00	52.59

Segment Leq : 57.76 dBA

Total Leq All Segments: 57.76 dBA

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

Car traffic volume : 3374/375 veh/TimePeriod *
Medium truck volume : 132/15 veh/TimePeriod *
Heavy truck volume : 257/29 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 2705
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 3.51
Heavy Truck % of Total Volume : 6.84
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 406.35 / 406.35 m
Receiver height : 1.50 / 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 10345/1149 veh/TimePeriod *
Medium truck volume : 160/18 veh/TimePeriod *
Heavy truck volume : 209/23 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 7700
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 1.49
Heavy Truck % of Total Volume : 1.95
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 2: LL (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 112.13 / 112.13 m
Receiver height : 1.50 / 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: TTR (day)

Source height = 1.62 m

ROAD (0.00 + 52.77 + 0.00) = 52.77 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	67.10	0.00	-14.33	0.00	0.00	0.00	0.00	52.77

Segment Leq : 52.77 dBA

Results segment # 2: LL (day)

Source height = 1.18 m

ROAD (0.00 + 59.89 + 0.00) = 59.89 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	68.63	0.00	-8.74	0.00	0.00	0.00	0.00	59.89

Segment Leq : 59.89 dBA

Total Leq All Segments: 60.66 dBA

Results segment # 1: TTR (night)

Source height = 1.62 m

ROAD (0.00 + 46.29 + 0.00) = 46.29 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	60.62	0.00	-14.33	0.00	0.00	0.00	0.00	46.29

Segment Leq : 46.29 dBA

Results segment # 2: LL (night)

Source height = 1.18 m

ROAD (0.00 + 53.35 + 0.00) = 53.35 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	62.09	0.00	-8.74	0.00	0.00	0.00	0.00	53.35

Segment Leq : 53.35 dBA

Total Leq All Segments: 54.13 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 63.81
(NIGHT): 59.32

STAMSON 5.0 NORMAL REPORT Date: 09-11-2023 17:14:19
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola3bar1.te Time Period: Day/Night 16/8 hours
Description: OLA southwest of site - 1.6 m barrier

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

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. Freight	10.8/2.6	80.0	4.0	140.0	Diesel	No

Data for Segment # 1: CN (day/night)

```
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 367.66 / 367.66 m
Receiver height           :   1.50 / 1.50   m
Topography                :      2       (Flat/gentle slope; with barrier)
No Whistle
Barrier angle1            : -57.00 deg   Angle2 : 90.00 deg
Barrier height            :   1.60 m
Barrier receiver distance :   6.65 / 6.65   m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :   0.00 m
Reference angle           :   0.00
```

Results segment # 1: CN (day)

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
4.00	1.50	1.55	1.55
0.50	1.50	1.48	1.48

LOCOMOTIVE (52.00 + 53.48 + 0.00) = 55.81 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-57	0.00	73.26	-13.89	-7.37	0.00	0.00	0.00	52.00
-57	90	0.00	73.26	-13.89	-0.88	0.00	0.00	-5.01	53.48

WHEEL (48.40 + 49.84 + 0.00) = 52.19 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-57	0.00	69.66	-13.89	-7.37	0.00	0.00	0.00	48.40
-57	90	0.00	69.66	-13.89	-0.88	0.00	0.00	-5.04	49.84

Segment Leq : 57.38 dBA

Total Leq All Segments: 57.38 dBA

Results segment # 1: CN (night)

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
4.00	1.50	1.55	1.55
0.50	1.50	1.48	1.48

LOCOMOTIVE (48.82 + 50.30 + 0.00) = 52.64 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-57	0.00	70.08	-13.89	-7.37	0.00	0.00	0.00	48.82
-57	90	0.00	70.08	-13.89	-0.88	0.00	0.00	-5.01	50.30

WHEEL (45.22 + 46.67 + 0.00) = 49.02 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-57	0.00	66.48	-13.89	-7.37	0.00	0.00	0.00	45.22
-57	90	0.00	66.48	-13.89	-0.88	0.00	0.00	-5.04	46.67

Segment Leq : 54.21 dBA

Total Leq All Segments: 54.21 dBA

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

```
Car traffic volume  :  3374/375   veh/TimePeriod  *
Medium truck volume :   132/15    veh/TimePeriod  *
Heavy truck volume  :   257/29    veh/TimePeriod  *
Posted speed limit  :    80 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)
```

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

```
    24 hr Traffic Volume (AADT or SADT):   2705
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
    Medium Truck % of Total Volume     :   3.51
    Heavy Truck  % of Total Volume     :   6.84
    Day (16 hrs) % of Total Volume     :  90.00
```

Data for Segment # 1: TTR (day/night)

```
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 406.35 / 406.35 m
Receiver height           :   1.50 / 1.50   m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            :   0.00 deg   Angle2 : 90.00 deg
Barrier height            :   1.60 m
Barrier receiver distance :  53.85 / 53.85  m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :   0.00 m
```

```
Reference angle           :   0.00

Road data, segment # 2: LL (day/night)
------------------------------------
Car traffic volume  : 10345/1149  veh/TimePeriod  *
Medium truck volume :   160/18    veh/TimePeriod  *
Heavy truck volume  :   209/23    veh/TimePeriod  *
Posted speed limit  :    80 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   7700
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
    Medium Truck % of Total Volume     :   1.49
    Heavy Truck  % of Total Volume     :   1.95
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: LL (day/night)
------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 112.13 / 112.13 m
Receiver height           :   1.50 / 1.50   m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            : -84.00 deg   Angle2 : 90.00 deg
Barrier height            :   1.60 m
Barrier receiver distance :   5.97 / 5.97   m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :   0.00 m
Reference angle           :   0.00

Results segment # 1: TTR (day)
------------------------------

Source height = 1.62 m

Barrier height for grazing incidence
------------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.62 !        1.50 !        1.52 !         1.52

ROAD (49.76 + 44.76 + 0.00) = 50.95 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90      0   0.00  67.10   0.00 -14.33  -3.01   0.00   0.00   0.00  49.76
-------------------------------------------------------------------------------
     0     90   0.00  67.10   0.00 -14.33  -3.01   0.00   0.00  -5.00  44.76
-------------------------------------------------------------------------------

Segment Leq : 50.95 dBA

Results segment # 2: LL (day)
------------------------------

Source height = 1.18 m
```

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.18	1.50	1.48	1.48

ROAD (45.12 + 54.71 + 0.00) = 55.16 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-84	0.00	68.63	0.00	-8.74	-14.77	0.00	0.00	0.00	45.12
-84	90	0.00	68.63	0.00	-8.74	-0.15	0.00	0.00	-5.04	54.71

Segment Leq : 55.16 dBA

Total Leq All Segments: 56.56 dBA

Results segment # 1: TTR (night)

Source height = 1.62 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.62	1.50	1.52	1.52

ROAD (43.28 + 38.28 + 0.00) = 44.47 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	60.62	0.00	-14.33	-3.01	0.00	0.00	0.00	43.28
0	90	0.00	60.62	0.00	-14.33	-3.01	0.00	0.00	-5.00	38.28

Segment Leq : 44.47 dBA

Results segment # 2: LL (night)

Source height = 1.18 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.18	1.50	1.48	1.48

ROAD (38.58 + 48.16 + 0.00) = 48.62 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-84	0.00	62.09	0.00	-8.74	-14.77	0.00	0.00	0.00	38.58
-84	90	0.00	62.09	0.00	-8.74	-0.15	0.00	0.00	-5.04	48.16

Segment Leq : 48.62 dBA

Total Leq All Segments: 50.03 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.00
(NIGHT): 55.62

STAMSON 5.0 NORMAL REPORT Date: 09-11-2023 17:13:44
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ola3bar2.te Time Period: Day/Night 16/8 hours
Description: OLA southwest of site - 3.4 m barrier

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

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. Freight	10.8/2.6	80.0	4.0	140.0	Diesel	No

Data for Segment # 1: CN (day/night)

```
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 367.66 / 367.66 m
Receiver height           :   1.50 / 1.50   m
Topography                :      2       (Flat/gentle slope; with barrier)
No Whistle
Barrier angle1            : -90.00 deg   Angle2 : 90.00 deg
Barrier height            :   3.40 m
Barrier receiver distance :   6.65 / 6.65   m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :   0.00 m
Reference angle           :   0.00
```

Results segment # 1: CN (day)

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
4.00	1.50	1.55	1.55
0.50	1.50	1.48	1.48

LOCOMOTIVE (0.00 + 49.84 + 0.00) = 49.84 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	73.26	-13.89	0.00	0.00	0.00	-9.52	49.84

WHEEL (0.00 + 46.06 + 0.00) = 46.06 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	69.66	-13.89	0.00	0.00	0.00	-9.70	46.06

Segment Leq : 51.36 dBA

Total Leq All Segments: 51.36 dBA

Results segment # 1: CN (night)

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
4.00	1.50	1.55	1.55
0.50	1.50	1.48	1.48

LOCOMOTIVE (0.00 + 46.67 + 0.00) = 46.67 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	70.08	-13.89	0.00	0.00	0.00	-9.52	46.67

WHEEL (0.00 + 42.89 + 0.00) = 42.89 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	66.48	-13.89	0.00	0.00	0.00	-9.70	42.89

Segment Leq : 48.19 dBA

Total Leq All Segments: 48.19 dBA

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

Car traffic volume	3374/375	veh/TimePeriod *
Medium truck volume	132/15	veh/TimePeriod *
Heavy truck volume	257/29	veh/TimePeriod *
Posted speed limit	80 km/h	
Road gradient	0 %	
Road pavement	1 (Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT)	2705
Percentage of Annual Growth	2.00
Number of Years of Growth	22.00
Medium Truck % of Total Volume	3.51
Heavy Truck % of Total Volume	6.84
Day (16 hrs) % of Total Volume	90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2	-90.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	0 / 0	
Surface	2	(Reflective ground surface)
Receiver source distance	406.35 / 406.35 m	
Receiver height	1.50 / 1.50 m	
Topography	2	(Flat/gentle slope; with barrier)
Barrier angle1	0.00 deg	Angle2 : 90.00 deg
Barrier height	3.40 m	
Barrier receiver distance	53.85 / 53.85 m	
Source elevation	0.00 m	
Receiver elevation	0.00 m	
Barrier elevation	0.00 m	
Reference angle	0.00	

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

Car traffic volume	10345/1149	veh/TimePeriod *
Medium truck volume	160/18	veh/TimePeriod *
Heavy truck volume	209/23	veh/TimePeriod *
Posted speed limit	80 km/h	

```
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   7700
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
    Medium Truck % of Total Volume     :   1.49
    Heavy Truck  % of Total Volume     :   1.95
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: LL (day/night)
------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 112.13 / 112.13 m
Receiver height           :   1.50 / 1.50   m
Topography                :      2       (Flat/gentle slope; with barrier)
Barrier angle1            : -90.00 deg   Angle2 : 90.00 deg
Barrier height            :   3.40 m
Barrier receiver distance :   5.97 / 5.97   m
Source elevation          :   0.00 m
Receiver elevation        :   0.00 m
Barrier elevation         :   0.00 m
Reference angle           :   0.00

Results segment # 1: TTR (day)
------------------------------

Source height = 1.62 m

Barrier height for grazing incidence
------------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.62 !        1.50 !        1.52 !         1.52

ROAD (49.76 + 43.65 + 0.00) = 50.71 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90      0   0.00  67.10   0.00 -14.33  -3.01   0.00   0.00   0.00  49.76
-------------------------------------------------------------------------------
     0     90   0.00  67.10   0.00 -14.33  -3.01   0.00   0.00  -6.11  43.65
-------------------------------------------------------------------------------

Segment Leq : 50.71 dBA

Results segment # 2: LL (day)
-----------------------------

Source height = 1.18 m

Barrier height for grazing incidence
------------------------------------
Source      ! Receiver    ! Barrier     ! Elevation of
Height  (m) ! Height  (m) ! Height  (m) ! Barrier Top  (m)
------------+-------------+-------------+--------------
       1.18 !        1.50 !        1.48 !         1.48
```

ROAD (0.00 + 49.81 + 0.00) = 49.81 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	68.63	0.00	-8.74	0.00	0.00	0.00	-10.08	49.81

Segment Leq : 49.81 dBA

Total Leq All Segments: 53.29 dBA

Results segment # 1: TTR (night)

Source height = 1.62 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.62	1.50	1.52	1.52

ROAD (43.28 + 37.17 + 0.00) = 44.23 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	60.62	0.00	-14.33	-3.01	0.00	0.00	0.00	43.28
0	90	0.00	60.62	0.00	-14.33	-3.01	0.00	0.00	-6.11	37.17

Segment Leq : 44.23 dBA

Results segment # 2: LL (night)

Source height = 1.18 m

Barrier height for grazing incidence

Source Height (m)	Receiver Height (m)	Barrier Height (m)	Elevation of Barrier Top (m)
1.18	1.50	1.48	1.48

ROAD (0.00 + 43.27 + 0.00) = 43.27 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	62.09	0.00	-8.74	0.00	0.00	0.00	-10.08	43.27

Segment Leq : 43.27 dBA

Total Leq All Segments: 46.79 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.44
(NIGHT): 50.56

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 10:49:19
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow1.te Time Period: Day/Night 16/8 hours
Description: 16 st. buil. - south facade

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

Train Type	Trains (Left)	Trains (Right)	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
* 1. Freight	5.4/1.3	5.4/1.3	80.0	4.0	140.0	Diesel	No

* The identified number of trains have been adjusted for
future growth using the following parameters:

Train type: No	Name	Unadj. Trains Left	Unadj. Trains Right	Annual % Increase	Years of Growth
1.	Freight	4.0/1.0	4.0/1.0	2.50	12.00

Data for Segment # 1: CN (day/night)

Angle1 Angle2	: -65.00 deg	90.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 2	(Reflective ground surface)
Receiver source distance	: 135.85 / 135.85 m	
Receiver height	: 49.80 / 49.80 m	
Topography	: 1	(Flat/gentle slope; no barrier)
Whistle Angle	: 0 deg	Track 1
Reference angle	: 0.00	

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 63.04 + 0.00) = 63.04 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-65	90	0.00	73.26	-9.57	-0.65	0.00	0.00	0.00	63.04

WHEEL (0.00 + 59.44 + 0.00) = 59.44 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-65	90	0.00	69.66	-9.57	-0.65	0.00	0.00	0.00	59.44

LEFT WHISTLE (0.00 + 55.96 + 0.00) = 55.96 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-65	0	0.00	69.95	-9.57	-4.42	0.00	0.00	0.00	55.96

RIGHT WHISTLE (0.00 + 56.36 + 0.00) = 56.36 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	71	0.00	69.95	-9.57	-4.03	0.00	0.00	0.00	56.36

Segment Leq : 65.71 dBA

Total Leq All Segments: 65.71 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 59.86 + 0.00) = 59.86 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-65	90	0.00	70.08	-9.57	-0.65	0.00	0.00	0.00	59.86

WHEEL (0.00 + 56.26 + 0.00) = 56.26 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-65	90	0.00	66.48	-9.57	-0.65	0.00	0.00	0.00	56.26

LEFT WHISTLE (0.00 + 52.79 + 0.00) = 52.79 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-65	0	0.00	66.78	-9.57	-4.42	0.00	0.00	0.00	52.79

RIGHT WHISTLE (0.00 + 53.18 + 0.00) = 53.18 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	71	0.00	66.78	-9.57	-4.03	0.00	0.00	0.00	53.18

Segment Leq : 62.53 dBA

Total Leq All Segments: 62.53 dBA

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

Car traffic volume : 3374/375 veh/TimePeriod *
Medium truck volume : 132/15 veh/TimePeriod *
Heavy truck volume : 257/29 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 2705
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 3.51
Heavy Truck % of Total Volume : 6.84
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 41.86 / 41.86 m
Receiver height : 49.80 / 49.80 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

```
Car traffic volume  : 10345/1149  veh/TimePeriod  *
Medium truck volume :   160/18    veh/TimePeriod  *
Heavy truck volume  :   209/23    veh/TimePeriod  *
Posted speed limit  :    80 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   7700
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
    Medium Truck % of Total Volume     :   1.49
    Heavy Truck  % of Total Volume     :   1.95
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: LL (day/night)
------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  35.31 / 35.31  m
Receiver height           :  49.80 / 49.80  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Results segment # 1: TTR (day)
------------------------------

Source height = 1.62 m

ROAD (0.00 + 59.63 + 0.00) = 59.63 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
     0     90   0.00  67.10   0.00  -4.46  -3.01   0.00   0.00   0.00  59.63
-------------------------------------------------------------------------------

Segment Leq : 59.63 dBA

Results segment # 2: LL (day)
-----------------------------

Source height = 1.18 m

ROAD (0.00 + 64.91 + 0.00) = 64.91 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.00  68.63   0.00  -3.72   0.00   0.00   0.00   0.00  64.91
-------------------------------------------------------------------------------

Segment Leq : 64.91 dBA

Total Leq All Segments: 66.04 dBA

Results segment # 1: TTR (night)
--------------------------------

Source height = 1.62 m

ROAD (0.00 + 53.15 + 0.00) = 53.15 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
```

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	60.62	0.00	-4.46	-3.01	0.00	0.00	0.00	53.15

Segment Leq : 53.15 dBA

Results segment # 2: LL (night)

Source height = 1.18 m

ROAD (0.00 + 58.37 + 0.00) = 58.37 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	62.09	0.00	-3.72	0.00	0.00	0.00	0.00	58.37

Segment Leq : 58.37 dBA

Total Leq All Segments: 59.51 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 68.89
(NIGHT): 64.29

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 10:55:04
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow1nw.te Time Period: Day/Night 16/8 hours
Description: 16 st. buil. - south facade

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

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. Freight	10.8/2.6	80.0	4.0	140.0	Diesel	No

Data for Segment # 1: CN (day/night)

Angle1 Angle2	-65.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	0 / 0	
Surface	2	(Reflective ground surface)
Receiver source distance	135.85 / 135.85 m	
Receiver height	49.80 / 49.80 m	
Topography	1	(Flat/gentle slope; no barrier)
No Whistle		
Reference angle	0.00	

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 63.04 + 0.00) = 63.04 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-65	90	0.00	73.26	-9.57	-0.65	0.00	0.00	0.00	63.04

WHEEL (0.00 + 59.44 + 0.00) = 59.44 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-65	90	0.00	69.66	-9.57	-0.65	0.00	0.00	0.00	59.44

Segment Leq : 64.61 dBA

Total Leq All Segments: 64.61 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 59.86 + 0.00) = 59.86 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-65	90	0.00	70.08	-9.57	-0.65	0.00	0.00	0.00	59.86

WHEEL (0.00 + 56.26 + 0.00) = 56.26 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-65	90	0.00	66.48	-9.57	-0.65	0.00	0.00	0.00	56.26

Segment Leq : 61.43 dBA

Total Leq All Segments: 61.43 dBA

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

Car traffic volume	: 3374/375	veh/TimePeriod *
Medium truck volume	: 132/15	veh/TimePeriod *
Heavy truck volume	: 257/29	veh/TimePeriod *
Posted speed limit	: 80	km/h
Road gradient	: 0	%
Road pavement	: 1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	: 2705
Percentage of Annual Growth	: 2.00
Number of Years of Growth	: 22.00
Medium Truck % of Total Volume	: 3.51
Heavy Truck % of Total Volume	: 6.84
Day (16 hrs) % of Total Volume	: 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2	: 0.00 deg	90.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 2	(Reflective ground surface)
Receiver source distance	: 41.86 / 41.86	m
Receiver height	: 49.80 / 49.80	m
Topography	: 1	(Flat/gentle slope; no barrier)
Reference angle	: 0.00	

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

Car traffic volume	: 10345/1149	veh/TimePeriod *
Medium truck volume	: 160/18	veh/TimePeriod *
Heavy truck volume	: 209/23	veh/TimePeriod *
Posted speed limit	: 80	km/h
Road gradient	: 0	%
Road pavement	: 1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	: 7700
Percentage of Annual Growth	: 2.00
Number of Years of Growth	: 22.00
Medium Truck % of Total Volume	: 1.49
Heavy Truck % of Total Volume	: 1.95
Day (16 hrs) % of Total Volume	: 90.00

Data for Segment # 2: LL (day/night)

Angle1 Angle2	: -90.00 deg	90.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 2	(Reflective ground surface)
Receiver source distance	: 35.31 / 35.31	m
Receiver height	: 49.80 / 49.80	m
Topography	: 1	(Flat/gentle slope; no barrier)
Reference angle	: 0.00	

Results segment # 1: TTR (day)

Source height = 1.62 m

ROAD (0.00 + 59.63 + 0.00) = 59.63 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	67.10	0.00	-4.46	-3.01	0.00	0.00	0.00	59.63

Segment Leq : 59.63 dBA

Results segment # 2: LL (day)

Source height = 1.18 m

ROAD (0.00 + 64.91 + 0.00) = 64.91 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	68.63	0.00	-3.72	0.00	0.00	0.00	0.00	64.91

Segment Leq : 64.91 dBA

Total Leq All Segments: 66.04 dBA

Results segment # 1: TTR (night)

Source height = 1.62 m

ROAD (0.00 + 53.15 + 0.00) = 53.15 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	60.62	0.00	-4.46	-3.01	0.00	0.00	0.00	53.15

Segment Leq : 53.15 dBA

Results segment # 2: LL (night)

Source height = 1.18 m

ROAD (0.00 + 58.37 + 0.00) = 58.37 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	62.09	0.00	-3.72	0.00	0.00	0.00	0.00	58.37

Segment Leq : 58.37 dBA

Total Leq All Segments: 59.51 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 68.39
(NIGHT): 63.59

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 10:49:37
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow2.te Time Period: Day/Night 16/8 hours
Description: 16 st. buil. - east facade

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

Train Type	Trains (Left)	Trains (Right)	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
* 1. Freight	5.4/1.3	5.4/1.3	80.0	4.0	140.0	Diesel	No

* The identified number of trains have been adjusted for
future growth using the following parameters:

Train type: No	Name	Unadj. Trains Left	Unadj. Trains Right	Annual % Increase	Years of Growth
1.	Freight	4.0/1.0	4.0/1.0	2.50	12.00

Data for Segment # 1: CN (day/night)

Angle1 Angle2	: -90.00 deg	27.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 2	(Reflective ground surface)
Receiver source distance	: 145.63 / 145.63 m	
Receiver height	: 49.80 / 49.80 m	
Topography	: 1	(Flat/gentle slope; no barrier)
Whistle Angle	: 0 deg	Track 1
Reference angle	: 0.00	

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 61.52 + 0.00) = 61.52 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	73.26	-9.87	-1.87	0.00	0.00	0.00	61.52

WHEEL (0.00 + 57.91 + 0.00) = 57.91 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	69.66	-9.87	-1.87	0.00	0.00	0.00	57.91

LEFT WHISTLE (0.00 + 55.98 + 0.00) = 55.98 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-70	0	0.00	69.95	-9.87	-4.10	0.00	0.00	0.00	55.98

RIGHT WHISTLE (0.00 + 51.84 + 0.00) = 51.84 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	27	0.00	69.95	-9.87	-8.24	0.00	0.00	0.00	51.84

Segment Leq : 64.13 dBA

Total Leq All Segments: 64.13 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 58.34 + 0.00) = 58.34 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	70.08	-9.87	-1.87	0.00	0.00	0.00	58.34

WHEEL (0.00 + 54.74 + 0.00) = 54.74 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	66.48	-9.87	-1.87	0.00	0.00	0.00	54.74

LEFT WHISTLE (0.00 + 52.81 + 0.00) = 52.81 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-70	0	0.00	66.78	-9.87	-4.10	0.00	0.00	0.00	52.81

RIGHT WHISTLE (0.00 + 48.67 + 0.00) = 48.67 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	27	0.00	66.78	-9.87	-8.24	0.00	0.00	0.00	48.67

Segment Leq : 60.95 dBA

Total Leq All Segments: 60.95 dBA

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

Car traffic volume : 3374/375 veh/TimePeriod *
Medium truck volume : 132/15 veh/TimePeriod *
Heavy truck volume : 257/29 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 2705
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 3.51
Heavy Truck % of Total Volume : 6.84
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 30.30 / 30.30 m
Receiver height : 49.80 / 49.80 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

```
Car traffic volume  : 10345/1149  veh/TimePeriod  *
Medium truck volume :   160/18    veh/TimePeriod  *
Heavy truck volume  :   209/23    veh/TimePeriod  *
Posted speed limit  :    80 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   7700
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
    Medium Truck % of Total Volume     :   1.49
    Heavy Truck  % of Total Volume     :   1.95
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: LL (day/night)
------------------------------------
Angle1   Angle2           : -90.00 deg   0.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  52.20 / 52.20  m
Receiver height           :  49.80 / 49.80  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Results segment # 1: TTR (day)
------------------------------

Source height = 1.62 m

ROAD (0.00 + 64.04 + 0.00) = 64.04 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.00  67.10   0.00  -3.05   0.00   0.00   0.00   0.00  64.04
-------------------------------------------------------------------------------

Segment Leq : 64.04 dBA

Results segment # 2: LL (day)
-----------------------------

Source height = 1.18 m

ROAD (0.00 + 60.20 + 0.00) = 60.20 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90      0   0.00  68.63   0.00  -5.42  -3.01   0.00   0.00   0.00  60.20
-------------------------------------------------------------------------------

Segment Leq : 60.20 dBA

Total Leq All Segments: 65.54 dBA

Results segment # 1: TTR (night)
--------------------------------

Source height = 1.62 m

ROAD (0.00 + 57.57 + 0.00) = 57.57 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
```

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	60.62	0.00	-3.05	0.00	0.00	0.00	0.00	57.57

Segment Leq : 57.57 dBA

Results segment # 2: LL (night)

Source height = 1.18 m

ROAD (0.00 + 53.66 + 0.00) = 53.66 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	62.09	0.00	-5.42	-3.01	0.00	0.00	0.00	53.66

Segment Leq : 53.66 dBA

Total Leq All Segments: 59.05 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 67.90
(NIGHT): 63.11

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 10:56:57
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow2nw.te Time Period: Day/Night 16/8 hours
Description: 16 st. buil. - east facade

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

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. Freight	10.8/2.6	80.0	4.0	140.0	Diesel	No

Data for Segment # 1: CN (day/night)

```
Angle1   Angle2           : -90.00 deg   27.00 deg
Wood depth                 :      0       (No woods.)
No of house rows           :      0 / 0
Surface                    :      2       (Reflective ground surface)
Receiver source distance   : 145.63 / 145.63 m
Receiver height            :  49.80 / 49.80  m
Topography                 :      1       (Flat/gentle slope; no barrier)
No Whistle
Reference angle            :   0.00
```

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 61.52 + 0.00) = 61.52 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	73.26	-9.87	-1.87	0.00	0.00	0.00	61.52

WHEEL (0.00 + 57.91 + 0.00) = 57.91 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	69.66	-9.87	-1.87	0.00	0.00	0.00	57.91

Segment Leq : 63.09 dBA

Total Leq All Segments: 63.09 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 58.34 + 0.00) = 58.34 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	70.08	-9.87	-1.87	0.00	0.00	0.00	58.34

WHEEL (0.00 + 54.74 + 0.00) = 54.74 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	66.48	-9.87	-1.87	0.00	0.00	0.00	54.74

Segment Leq : 59.91 dBA

Total Leq All Segments: 59.91 dBA

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

Car traffic volume	3374/375	veh/TimePeriod *
Medium truck volume	132/15	veh/TimePeriod *
Heavy truck volume	257/29	veh/TimePeriod *
Posted speed limit	80 km/h	
Road gradient	0 %	
Road pavement	1 (Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT)	2705
Percentage of Annual Growth	2.00
Number of Years of Growth	22.00
Medium Truck % of Total Volume	3.51
Heavy Truck % of Total Volume	6.84
Day (16 hrs) % of Total Volume	90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2	-90.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	0 / 0	
Surface	2	(Reflective ground surface)
Receiver source distance	30.30 / 30.30	m
Receiver height	49.80 / 49.80	m
Topography	1	(Flat/gentle slope; no barrier)
Reference angle	0.00	

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

Car traffic volume	10345/1149	veh/TimePeriod *
Medium truck volume	160/18	veh/TimePeriod *
Heavy truck volume	209/23	veh/TimePeriod *
Posted speed limit	80 km/h	
Road gradient	0 %	
Road pavement	1 (Typical asphalt or concrete)	

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

24 hr Traffic Volume (AADT or SADT)	7700
Percentage of Annual Growth	2.00
Number of Years of Growth	22.00
Medium Truck % of Total Volume	1.49
Heavy Truck % of Total Volume	1.95
Day (16 hrs) % of Total Volume	90.00

Data for Segment # 2: LL (day/night)

Angle1 Angle2	-90.00 deg	0.00 deg
Wood depth	0	(No woods.)
No of house rows	0 / 0	
Surface	2	(Reflective ground surface)
Receiver source distance	52.20 / 52.20	m
Receiver height	49.80 / 49.80	m
Topography	1	(Flat/gentle slope; no barrier)
Reference angle	0.00	

Results segment # 1: TTR (day)

Source height = 1.62 m

ROAD (0.00 + 64.04 + 0.00) = 64.04 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	67.10	0.00	-3.05	0.00	0.00	0.00	0.00	64.04

Segment Leq : 64.04 dBA

Results segment # 2: LL (day)

Source height = 1.18 m

ROAD (0.00 + 60.20 + 0.00) = 60.20 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	68.63	0.00	-5.42	-3.01	0.00	0.00	0.00	60.20

Segment Leq : 60.20 dBA

Total Leq All Segments: 65.54 dBA

Results segment # 1: TTR (night)

Source height = 1.62 m

ROAD (0.00 + 57.57 + 0.00) = 57.57 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	60.62	0.00	-3.05	0.00	0.00	0.00	0.00	57.57

Segment Leq : 57.57 dBA

Results segment # 2: LL (night)

Source height = 1.18 m

ROAD (0.00 + 53.66 + 0.00) = 53.66 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	62.09	0.00	-5.42	-3.01	0.00	0.00	0.00	53.66

Segment Leq : 53.66 dBA

Total Leq All Segments: 59.05 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 67.50
(NIGHT): 62.51

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 10:49:52
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow3.te Time Period: Day/Night 16/8 hours
Description: 16 st. buil. - north facade

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

Train Type	Trains (Left)	Trains (Right)	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
* 1. Freight	5.4/1.3	5.4/1.3	80.0	4.0	140.0	Diesel	No

* The identified number of trains have been adjusted for
future growth using the following parameters:

Train type: No	Name	Unadj. Trains Left	Unadj. Trains Right	Annual % Increase	Years of Growth
1.	Freight	4.0/1.0	4.0/1.0	2.50	12.00

Data for Segment # 1: CN (day/night)

Angle1 Angle2	: -90.00 deg	-63.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 2	(Reflective ground surface)
Receiver source distance	: 165.99 / 165.99 m	
Receiver height	: 49.80 / 49.80 m	
Topography	: 1	(Flat/gentle slope; no barrier)
Whistle Angle	: 0 deg	Track 1
Reference angle	: 0.00	

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 54.58 + 0.00) = 54.58 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-63	0.00	73.26	-10.44	-8.24	0.00	0.00	0.00	54.58

WHEEL (0.00 + 50.98 + 0.00) = 50.98 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-63	0.00	69.66	-10.44	-8.24	0.00	0.00	0.00	50.98

LEFT WHISTLE (0.00 + 43.46 + 0.00) = 43.46 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-67	-63	0.00	69.95	0.00	-16.06	0.00	0.00	0.00	43.46

Segment Leq : 56.38 dBA

Total Leq All Segments: 56.38 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 51.40 + 0.00) = 51.40 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq

```
-------------------------------------------------------------------------
   -90    -63   0.00  70.08 -10.44  -8.24   0.00   0.00   0.00  51.40
-------------------------------------------------------------------------

WHEEL (0.00 + 47.80 + 0.00) = 47.80 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -90    -63   0.00  66.48 -10.44  -8.24   0.00   0.00   0.00  47.80
-------------------------------------------------------------------------

LEFT WHISTLE (0.00 + 40.28 + 0.00) = 40.28 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -67    -63   0.00  66.78   0.00 -16.06   0.00   0.00   0.00  40.28
-------------------------------------------------------------------------

Segment Leq : 53.20 dBA

Total Leq All Segments: 53.20 dBA

Road data, segment # 1: TTR (day/night)
---------------------------------------
Car traffic volume  :  3374/375   veh/TimePeriod  *
Medium truck volume :   132/15    veh/TimePeriod  *
Heavy truck volume  :   257/29    veh/TimePeriod  *
Posted speed limit  :    80 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   2705
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
    Medium Truck % of Total Volume     :   3.51
    Heavy Truck  % of Total Volume     :   6.84
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: TTR (day/night)
-------------------------------------
Angle1   Angle2           : -90.00 deg   0.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  42.50 / 42.50  m
Receiver height           :  49.80 / 49.80  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 2: LL (day/night)
--------------------------------------
Car traffic volume  : 10345/1149  veh/TimePeriod  *
Medium truck volume :   160/18    veh/TimePeriod  *
Heavy truck volume  :   209/23    veh/TimePeriod  *
Posted speed limit  :    80 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   7700
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
```

```
    Medium Truck % of Total Volume     :   1.49
    Heavy Truck  % of Total Volume     :   1.95
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: LL (day/night)
------------------------------------
Angle1   Angle2           : -74.00 deg   -41.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 230.32 / 230.32 m
Receiver height           :  49.80 / 49.80  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Results segment # 1: TTR (day)
------------------------------

Source height = 1.62 m

ROAD (0.00 + 59.56 + 0.00) = 59.56 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90      0   0.00  67.10   0.00  -4.52  -3.01   0.00   0.00   0.00  59.56
-------------------------------------------------------------------------------

Segment Leq : 59.56 dBA

Results segment # 2: LL (day)
-----------------------------

Source height = 1.18 m

ROAD (0.00 + 49.40 + 0.00) = 49.40 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -74    -41   0.00  68.63   0.00 -11.86  -7.37   0.00   0.00   0.00  49.40
-------------------------------------------------------------------------------

Segment Leq : 49.40 dBA

Total Leq All Segments: 59.96 dBA

Results segment # 1: TTR (night)
--------------------------------

Source height = 1.62 m

ROAD (0.00 + 53.09 + 0.00) = 53.09 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90      0   0.00  60.62   0.00  -4.52  -3.01   0.00   0.00   0.00  53.09
-------------------------------------------------------------------------------

Segment Leq : 53.09 dBA

Results segment # 2: LL (night)
-------------------------------

Source height = 1.18 m

ROAD (0.00 + 42.86 + 0.00) = 42.86 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
```

-74	-41	0.00	62.09	0.00	-11.86	-7.37	0.00	0.00	0.00	42.86

Segment Leq : 42.86 dBA

Total Leq All Segments: 53.48 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 61.54
(NIGHT): 56.35

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 10:57:18
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow3nw.te Time Period: Day/Night 16/8 hours
Description: 16 st. buil. - north facade

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

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. Freight	10.8/2.6	80.0	4.0	140.0	Diesel	No

Data for Segment # 1: CN (day/night)

```
Angle1   Angle2           : -90.00 deg   -63.00 deg
Wood depth                 :      0       (No woods.)
No of house rows           :      0 / 0
Surface                    :      2       (Reflective ground surface)
Receiver source distance   : 165.99 / 165.99 m
Receiver height            :  49.80 / 49.80  m
Topography                 :      1       (Flat/gentle slope; no barrier)
No Whistle
Reference angle            :   0.00
```

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 54.58 + 0.00) = 54.58 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-63	0.00	73.26	-10.44	-8.24	0.00	0.00	0.00	54.58

WHEEL (0.00 + 50.98 + 0.00) = 50.98 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-63	0.00	69.66	-10.44	-8.24	0.00	0.00	0.00	50.98

Segment Leq : 56.15 dBA

Total Leq All Segments: 56.15 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 51.40 + 0.00) = 51.40 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-63	0.00	70.08	-10.44	-8.24	0.00	0.00	0.00	51.40

WHEEL (0.00 + 47.80 + 0.00) = 47.80 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-63	0.00	66.48	-10.44	-8.24	0.00	0.00	0.00	47.80

Segment Leq : 52.97 dBA

Total Leq All Segments: 52.97 dBA

```
Road data, segment # 1: TTR (day/night)
---------------------------------------
Car traffic volume  :  3374/375   veh/TimePeriod  *
Medium truck volume :   132/15    veh/TimePeriod  *
Heavy truck volume  :   257/29    veh/TimePeriod  *
Posted speed limit  :    80 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   2705
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
    Medium Truck % of Total Volume     :   3.51
    Heavy Truck  % of Total Volume     :   6.84
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: TTR (day/night)
-------------------------------------
Angle1   Angle2           : -90.00 deg   0.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  42.50 / 42.50  m
Receiver height           :  49.80 / 49.80  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 2: LL (day/night)
--------------------------------------
Car traffic volume  : 10345/1149  veh/TimePeriod  *
Medium truck volume :   160/18    veh/TimePeriod  *
Heavy truck volume  :   209/23    veh/TimePeriod  *
Posted speed limit  :    80 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   7700
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
    Medium Truck % of Total Volume     :   1.49
    Heavy Truck  % of Total Volume     :   1.95
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: LL (day/night)
-------------------------------------
Angle1   Angle2           : -74.00 deg   -41.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 230.32 / 230.32 m
Receiver height           :  49.80 / 49.80  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Results segment # 1: TTR (day)
------------------------------

Source height = 1.62 m
```

ROAD (0.00 + 59.56 + 0.00) = 59.56 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	67.10	0.00	-4.52	-3.01	0.00	0.00	0.00	59.56

Segment Leq : 59.56 dBA

Results segment # 2: LL (day)

Source height = 1.18 m

ROAD (0.00 + 49.40 + 0.00) = 49.40 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-74	-41	0.00	68.63	0.00	-11.86	-7.37	0.00	0.00	0.00	49.40

Segment Leq : 49.40 dBA

Total Leq All Segments: 59.96 dBA

Results segment # 1: TTR (night)

Source height = 1.62 m

ROAD (0.00 + 53.09 + 0.00) = 53.09 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	60.62	0.00	-4.52	-3.01	0.00	0.00	0.00	53.09

Segment Leq : 53.09 dBA

Results segment # 2: LL (night)

Source height = 1.18 m

ROAD (0.00 + 42.86 + 0.00) = 42.86 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-74	-41	0.00	62.09	0.00	-11.86	-7.37	0.00	0.00	0.00	42.86

Segment Leq : 42.86 dBA

Total Leq All Segments: 53.48 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 61.47
(NIGHT): 56.24

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 10:50:06
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow4.te Time Period: Day/Night 16/8 hours
Description: 16 st. buil. - west facade

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

Train Type	Trains (Left)	Trains (Right)	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
* 1. Freight	5.4/1.3	5.4/1.3	80.0	4.0	140.0	Diesel	No

* The identified number of trains have been adjusted for
future growth using the following parameters:

Train type: No	Name	Unadj. Trains Left	Unadj. Trains Right	Annual % Increase	Years of Growth
1.	Freight	4.0/1.0	4.0/1.0	2.50	12.00

Data for Segment # 1: CN (day/night)

Angle1 Angle2	: 26.00 deg	90.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 2	(Reflective ground surface)
Receiver source distance	: 156.21 / 156.21 m	
Receiver height	: 49.80 / 49.80 m	
Topography	: 1	(Flat/gentle slope; no barrier)
Whistle Angle	: 0 deg	Track 1
Reference angle	: 0.00	

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 58.59 + 0.00) = 58.59 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
26	90	0.00	73.26	-10.18	-4.49	0.00	0.00	0.00	58.59

WHEEL (0.00 + 54.99 + 0.00) = 54.99 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
26	90	0.00	69.66	-10.18	-4.49	0.00	0.00	0.00	54.99

LEFT WHISTLE (0.00 + 40.28 + 0.00) = 0.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
26	0	0.00	69.95	-10.18	-16.06	0.00	0.00	0.00	40.28

RIGHT WHISTLE (0.00 + 53.53 + 0.00) = 53.53 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
26	69	0.00	69.95	-10.18	-6.25	0.00	0.00	0.00	53.53

Segment Leq : 61.02 dBA

Total Leq All Segments: 61.02 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 55.42 + 0.00) = 55.42 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
26	90	0.00	70.08	-10.18	-4.49	0.00	0.00	0.00	55.42

WHEEL (0.00 + 51.82 + 0.00) = 51.82 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
26	90	0.00	66.48	-10.18	-4.49	0.00	0.00	0.00	51.82

LEFT WHISTLE (0.00 + 40.28 + 0.00) = 0.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
26	0	0.00	66.78	-10.18	-16.06	0.00	0.00	0.00	40.28

RIGHT WHISTLE (0.00 + 50.35 + 0.00) = 50.35 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
26	69	0.00	66.78	-10.18	-6.25	0.00	0.00	0.00	50.35

Segment Leq : 57.84 dBA

Total Leq All Segments: 57.84 dBA

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

Car traffic volume : 10345/1149 veh/TimePeriod *
Medium truck volume : 160/18 veh/TimePeriod *
Heavy truck volume : 209/23 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 7700
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 1.49
Heavy Truck % of Total Volume : 1.95
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: LL (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 52.09 / 52.09 m
Receiver height : 49.80 / 49.80 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: LL (day)

Source height = 1.18 m

ROAD (0.00 + 60.21 + 0.00) = 60.21 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	68.63	0.00	-5.41	-3.01	0.00	0.00	0.00	60.21

Segment Leq : 60.21 dBA

Total Leq All Segments: 60.21 dBA

Results segment # 1: LL (night)

Source height = 1.18 m

ROAD (0.00 + 53.67 + 0.00) = 53.67 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	62.09	0.00	-5.41	-3.01	0.00	0.00	0.00	53.67

Segment Leq : 53.67 dBA

Total Leq All Segments: 53.67 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 63.64
(NIGHT): 59.25

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 10:57:52
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow4nw.te Time Period: Day/Night 16/8 hours
Description: 16 st. buil. - west facade

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

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. Freight	10.8/2.6	80.0	4.0	140.0	Diesel	No

Data for Segment # 1: CN (day/night)

Angle1 Angle2	: 26.00 deg	90.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 2	(Reflective ground surface)
Receiver source distance	: 156.21 / 156.21 m	
Receiver height	: 49.80 / 49.80 m	
Topography	: 1	(Flat/gentle slope; no barrier)

No Whistle
Reference angle : 0.00

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 58.59 + 0.00) = 58.59 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
26	90	0.00	73.26	-10.18	-4.49	0.00	0.00	0.00	58.59

WHEEL (0.00 + 54.99 + 0.00) = 54.99 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
26	90	0.00	69.66	-10.18	-4.49	0.00	0.00	0.00	54.99

Segment Leq : 60.16 dBA

Total Leq All Segments: 60.16 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 55.42 + 0.00) = 55.42 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
26	90	0.00	70.08	-10.18	-4.49	0.00	0.00	0.00	55.42

WHEEL (0.00 + 51.82 + 0.00) = 51.82 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
26	90	0.00	66.48	-10.18	-4.49	0.00	0.00	0.00	51.82

Segment Leq : 56.99 dBA

Total Leq All Segments: 56.99 dBA

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

Car traffic volume : 10345/1149 veh/TimePeriod *
Medium truck volume : 160/18 veh/TimePeriod *
Heavy truck volume : 209/23 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 7700
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 1.49
Heavy Truck % of Total Volume : 1.95
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: LL (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 52.09 / 52.09 m
Receiver height : 49.80 / 49.80 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: LL (day)

Source height = 1.18 m

ROAD (0.00 + 60.21 + 0.00) = 60.21 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	68.63	0.00	-5.41	-3.01	0.00	0.00	0.00	60.21

Segment Leq : 60.21 dBA

Total Leq All Segments: 60.21 dBA

Results segment # 1: LL (night)

Source height = 1.18 m

ROAD (0.00 + 53.67 + 0.00) = 53.67 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	62.09	0.00	-5.41	-3.01	0.00	0.00	0.00	53.67

Segment Leq : 53.67 dBA

Total Leq All Segments: 53.67 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 63.20
(NIGHT): 58.65

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 10:50:30
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow5.te Time Period: Day/Night 16/8 hours
Description: 18 st. buil. - east facade

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

Train Type	Trains (Left)	Trains (Right)	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
* 1. Freight	5.4/1.3	5.4/1.3	80.0	4.0	140.0	Diesel	No

* The identified number of trains have been adjusted for
future growth using the following parameters:

Train type: No	Name	Unadj. Trains Left	Unadj. Trains Right	Annual % Increase	Years of Growth
1.	Freight	4.0/1.0	4.0/1.0	2.50	12.00

Data for Segment # 1: CN (day/night)

Angle1 Angle2	: -90.00 deg	27.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 2	(Reflective ground surface)
Receiver source distance	: 202.60 / 202.60 m	
Receiver height	: 55.80 / 55.80 m	
Topography	: 1	(Flat/gentle slope; no barrier)
Whistle Angle	: 0 deg	Track 1
Reference angle	: 0.00	

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 60.08 + 0.00) = 60.08 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	73.26	-11.31	-1.87	0.00	0.00	0.00	60.08

WHEEL (0.00 + 56.48 + 0.00) = 56.48 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	69.66	-11.31	-1.87	0.00	0.00	0.00	56.48

LEFT WHISTLE (0.00 + 54.10 + 0.00) = 54.10 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-63	0	0.00	69.95	-11.31	-4.55	0.00	0.00	0.00	54.10

RIGHT WHISTLE (0.00 + 50.41 + 0.00) = 50.41 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	27	0.00	69.95	-11.31	-8.24	0.00	0.00	0.00	50.41

Segment Leq : 62.62 dBA

Total Leq All Segments: 62.62 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 56.91 + 0.00) = 56.91 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	70.08	-11.31	-1.87	0.00	0.00	0.00	56.91

WHEEL (0.00 + 53.31 + 0.00) = 53.31 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	66.48	-11.31	-1.87	0.00	0.00	0.00	53.31

LEFT WHISTLE (0.00 + 50.92 + 0.00) = 50.92 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-63	0	0.00	66.78	-11.31	-4.55	0.00	0.00	0.00	50.92

RIGHT WHISTLE (0.00 + 47.24 + 0.00) = 47.24 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	27	0.00	66.78	-11.31	-8.24	0.00	0.00	0.00	47.24

Segment Leq : 59.45 dBA

Total Leq All Segments: 59.45 dBA

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

Car traffic volume : 3374/375 veh/TimePeriod *
Medium truck volume : 132/15 veh/TimePeriod *
Heavy truck volume : 257/29 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 2705
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 3.51
Heavy Truck % of Total Volume : 6.84
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 32.07 / 32.07 m
Receiver height : 55.80 / 55.80 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

```
Car traffic volume  : 10345/1149  veh/TimePeriod  *
Medium truck volume :   160/18    veh/TimePeriod  *
Heavy truck volume  :   209/23    veh/TimePeriod  *
Posted speed limit  :    80 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   7700
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
    Medium Truck % of Total Volume     :   1.49
    Heavy Truck  % of Total Volume     :   1.95
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: LL (day/night)
------------------------------------
Angle1   Angle2           : -90.00 deg   0.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 115.30 / 115.30 m
Receiver height           :  55.80 / 55.80  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Results segment # 1: TTR (day)
------------------------------

Source height = 1.62 m

ROAD (0.00 + 63.80 + 0.00) = 63.80 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.00  67.10   0.00  -3.30   0.00   0.00   0.00   0.00  63.80
-------------------------------------------------------------------------------

Segment Leq : 63.80 dBA

Results segment # 2: LL (day)
-----------------------------

Source height = 1.18 m

ROAD (0.00 + 56.76 + 0.00) = 56.76 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90      0   0.00  68.63   0.00  -8.86  -3.01   0.00   0.00   0.00  56.76
-------------------------------------------------------------------------------

Segment Leq : 56.76 dBA

Total Leq All Segments: 64.58 dBA

Results segment # 1: TTR (night)
--------------------------------

Source height = 1.62 m

ROAD (0.00 + 57.32 + 0.00) = 57.32 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
```

-90	90	0.00	60.62	0.00	-3.30	0.00	0.00	0.00	0.00	57.32

Segment Leq : 57.32 dBA

Results segment # 2: LL (night)

Source height = 1.18 m

ROAD (0.00 + 50.22 + 0.00) = 50.22 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	62.09	0.00	-8.86	-3.01	0.00	0.00	0.00	50.22

Segment Leq : 50.22 dBA

Total Leq All Segments: 58.09 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 66.72
(NIGHT): 61.83

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 10:58:58
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow5nw.te Time Period: Day/Night 16/8 hours
Description: 18 st. buil. - east facade

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

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. Freight	10.8/2.6	80.0	4.0	140.0	Diesel	No

Data for Segment # 1: CN (day/night)

Angle1 Angle2 : -90.00 deg 27.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 202.60 / 202.60 m
Receiver height : 55.80 / 55.80 m
Topography : 1 (Flat/gentle slope; no barrier)
No Whistle
Reference angle : 0.00

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 60.08 + 0.00) = 60.08 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	73.26	-11.31	-1.87	0.00	0.00	0.00	60.08

WHEEL (0.00 + 56.48 + 0.00) = 56.48 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	69.66	-11.31	-1.87	0.00	0.00	0.00	56.48

Segment Leq : 61.65 dBA

Total Leq All Segments: 61.65 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 56.91 + 0.00) = 56.91 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	70.08	-11.31	-1.87	0.00	0.00	0.00	56.91

WHEEL (0.00 + 53.31 + 0.00) = 53.31 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	27	0.00	66.48	-11.31	-1.87	0.00	0.00	0.00	53.31

Segment Leq : 58.48 dBA

Total Leq All Segments: 58.48 dBA

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

Car traffic volume	: 3374/375	veh/TimePeriod *
Medium truck volume	: 132/15	veh/TimePeriod *
Heavy truck volume	: 257/29	veh/TimePeriod *
Posted speed limit	: 80	km/h
Road gradient	: 0	%
Road pavement	: 1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	: 2705
Percentage of Annual Growth	: 2.00
Number of Years of Growth	: 22.00
Medium Truck % of Total Volume	: 3.51
Heavy Truck % of Total Volume	: 6.84
Day (16 hrs) % of Total Volume	: 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2	: -90.00 deg	90.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 2	(Reflective ground surface)
Receiver source distance	: 32.07 / 32.07	m
Receiver height	: 55.80 / 55.80	m
Topography	: 1	(Flat/gentle slope; no barrier)
Reference angle	: 0.00	

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

Car traffic volume	: 10345/1149	veh/TimePeriod *
Medium truck volume	: 160/18	veh/TimePeriod *
Heavy truck volume	: 209/23	veh/TimePeriod *
Posted speed limit	: 80	km/h
Road gradient	: 0	%
Road pavement	: 1	(Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT)	: 7700
Percentage of Annual Growth	: 2.00
Number of Years of Growth	: 22.00
Medium Truck % of Total Volume	: 1.49
Heavy Truck % of Total Volume	: 1.95
Day (16 hrs) % of Total Volume	: 90.00

Data for Segment # 2: LL (day/night)

Angle1 Angle2	: -90.00 deg	0.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 2	(Reflective ground surface)
Receiver source distance	: 115.30 / 115.30	m
Receiver height	: 55.80 / 55.80	m
Topography	: 1	(Flat/gentle slope; no barrier)
Reference angle	: 0.00	

Results segment # 1: TTR (day)

Source height = 1.62 m

ROAD (0.00 + 63.80 + 0.00) = 63.80 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	67.10	0.00	-3.30	0.00	0.00	0.00	0.00	63.80

Segment Leq : 63.80 dBA

Results segment # 2: LL (day)

Source height = 1.18 m

ROAD (0.00 + 56.76 + 0.00) = 56.76 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	68.63	0.00	-8.86	-3.01	0.00	0.00	0.00	56.76

Segment Leq : 56.76 dBA

Total Leq All Segments: 64.58 dBA

Results segment # 1: TTR (night)

Source height = 1.62 m

ROAD (0.00 + 57.32 + 0.00) = 57.32 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	60.62	0.00	-3.30	0.00	0.00	0.00	0.00	57.32

Segment Leq : 57.32 dBA

Results segment # 2: LL (night)

Source height = 1.18 m

ROAD (0.00 + 50.22 + 0.00) = 50.22 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	62.09	0.00	-8.86	-3.01	0.00	0.00	0.00	50.22

Segment Leq : 50.22 dBA

Total Leq All Segments: 58.09 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 66.37
(NIGHT): 61.30

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 10:50:49
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow6.te Time Period: Day/Night 16/8 hours
Description: 14 st. buil. - south facade

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

Train Type	Trains (Left)	Trains (Right)	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
* 1. Freight	5.4/1.3	5.4/1.3	80.0	4.0	140.0	Diesel	No

* The identified number of trains have been adjusted for
future growth using the following parameters:

No	Train type: Name	Unadj. Trains Left	Unadj. Trains Right	Annual % Increase	Years of Growth
1.	Freight	4.0/1.0	4.0/1.0	2.50	12.00

Data for Segment # 1: CN (day/night)

Angle1 Angle2	: -64.00 deg	90.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 2	(Reflective ground surface)
Receiver source distance	: 172.95 / 172.95 m	
Receiver height	: 43.80 / 43.80 m	
Topography	: 1	(Flat/gentle slope; no barrier)
Whistle Angle	: 0 deg	Track 1
Reference angle	: 0.00	

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 61.96 + 0.00) = 61.96 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-64	90	0.00	73.26	-10.62	-0.68	0.00	0.00	0.00	61.96

WHEEL (0.00 + 58.36 + 0.00) = 58.36 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-64	90	0.00	69.66	-10.62	-0.68	0.00	0.00	0.00	58.36

LEFT WHISTLE (0.00 + 54.84 + 0.00) = 54.84 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-64	0	0.00	69.95	-10.62	-4.49	0.00	0.00	0.00	54.84

RIGHT WHISTLE (0.00 + 55.02 + 0.00) = 55.02 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	67	0.00	69.95	-10.62	-4.32	0.00	0.00	0.00	55.02

Segment Leq : 64.59 dBA

Total Leq All Segments: 64.59 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 58.79 + 0.00) = 58.79 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-64	90	0.00	70.08	-10.62	-0.68	0.00	0.00	0.00	58.79

WHEEL (0.00 + 55.19 + 0.00) = 55.19 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-64	90	0.00	66.48	-10.62	-0.68	0.00	0.00	0.00	55.19

LEFT WHISTLE (0.00 + 51.67 + 0.00) = 51.67 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-64	0	0.00	66.78	-10.62	-4.49	0.00	0.00	0.00	51.67

RIGHT WHISTLE (0.00 + 51.84 + 0.00) = 51.84 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	67	0.00	66.78	-10.62	-4.32	0.00	0.00	0.00	51.84

Segment Leq : 61.42 dBA

Total Leq All Segments: 61.42 dBA

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

Car traffic volume : 3374/375 veh/TimePeriod *
Medium truck volume : 132/15 veh/TimePeriod *
Heavy truck volume : 257/29 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 2705
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 3.51
Heavy Truck % of Total Volume : 6.84
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 125.23 / 125.23 m
Receiver height : 43.80 / 43.80 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

```
Car traffic volume  : 10345/1149  veh/TimePeriod  *
Medium truck volume :   160/18    veh/TimePeriod  *
Heavy truck volume  :   209/23    veh/TimePeriod  *
Posted speed limit  :    80 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

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

    24 hr Traffic Volume (AADT or SADT):   7700
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  22.00
    Medium Truck % of Total Volume     :   1.49
    Heavy Truck  % of Total Volume     :   1.95
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: LL (day/night)
------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  34.94 / 34.94  m
Receiver height           :  43.80 / 43.80  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Results segment # 1: TTR (day)
------------------------------

Source height = 1.62 m

ROAD (0.00 + 54.87 + 0.00) = 54.87 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
     0     90   0.00  67.10   0.00  -9.22  -3.01   0.00   0.00   0.00  54.87
-------------------------------------------------------------------------------

Segment Leq : 54.87 dBA

Results segment # 2: LL (day)
-----------------------------

Source height = 1.18 m

ROAD (0.00 + 64.96 + 0.00) = 64.96 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.00  68.63   0.00  -3.67   0.00   0.00   0.00   0.00  64.96
-------------------------------------------------------------------------------

Segment Leq : 64.96 dBA

Total Leq All Segments: 65.37 dBA

Results segment # 1: TTR (night)
--------------------------------

Source height = 1.62 m

ROAD (0.00 + 48.39 + 0.00) = 48.39 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
```

0	90	0.00	60.62	0.00	-9.22	-3.01	0.00	0.00	0.00	48.39

Segment Leq : 48.39 dBA

Results segment # 2: LL (night)

Source height = 1.18 m

ROAD (0.00 + 58.42 + 0.00) = 58.42 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	62.09	0.00	-3.67	0.00	0.00	0.00	0.00	58.42

Segment Leq : 58.42 dBA

Total Leq All Segments: 58.83 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 68.01
(NIGHT): 63.33

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 10:58:41
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow6nw.te Time Period: Day/Night 16/8 hours
Description: 14 st. buil. - south facade

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

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. Freight	10.8/2.6	80.0	4.0	140.0	Diesel	No

Data for Segment # 1: CN (day/night)

Angle1 Angle2	: -64.00 deg	90.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 2	(Reflective ground surface)
Receiver source distance	: 172.95 / 172.95 m	
Receiver height	: 43.80 / 43.80 m	
Topography	: 1	(Flat/gentle slope; no barrier)
No Whistle		
Reference angle	: 0.00	

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 61.96 + 0.00) = 61.96 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-64	90	0.00	73.26	-10.62	-0.68	0.00	0.00	0.00	61.96

WHEEL (0.00 + 58.36 + 0.00) = 58.36 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-64	90	0.00	69.66	-10.62	-0.68	0.00	0.00	0.00	58.36

Segment Leq : 63.53 dBA

Total Leq All Segments: 63.53 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 58.79 + 0.00) = 58.79 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-64	90	0.00	70.08	-10.62	-0.68	0.00	0.00	0.00	58.79

WHEEL (0.00 + 55.19 + 0.00) = 55.19 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-64	90	0.00	66.48	-10.62	-0.68	0.00	0.00	0.00	55.19

Segment Leq : 60.36 dBA

Total Leq All Segments: 60.36 dBA

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

Car traffic volume : 3374/375 veh/TimePeriod *
Medium truck volume : 132/15 veh/TimePeriod *
Heavy truck volume : 257/29 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 2705
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 3.51
Heavy Truck % of Total Volume : 6.84
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 125.23 / 125.23 m
Receiver height : 43.80 / 43.80 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 10345/1149 veh/TimePeriod *
Medium truck volume : 160/18 veh/TimePeriod *
Heavy truck volume : 209/23 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 7700
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 1.49
Heavy Truck % of Total Volume : 1.95
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 2: LL (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 34.94 / 34.94 m
Receiver height : 43.80 / 43.80 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: TTR (day)

Source height = 1.62 m

ROAD (0.00 + 54.87 + 0.00) = 54.87 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	67.10	0.00	-9.22	-3.01	0.00	0.00	0.00	54.87

Segment Leq : 54.87 dBA

Results segment # 2: LL (day)

Source height = 1.18 m

ROAD (0.00 + 64.96 + 0.00) = 64.96 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	68.63	0.00	-3.67	0.00	0.00	0.00	0.00	64.96

Segment Leq : 64.96 dBA

Total Leq All Segments: 65.37 dBA

Results segment # 1: TTR (night)

Source height = 1.62 m

ROAD (0.00 + 48.39 + 0.00) = 48.39 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	60.62	0.00	-9.22	-3.01	0.00	0.00	0.00	48.39

Segment Leq : 48.39 dBA

Results segment # 2: LL (night)

Source height = 1.18 m

ROAD (0.00 + 58.42 + 0.00) = 58.42 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	62.09	0.00	-3.67	0.00	0.00	0.00	0.00	58.42

Segment Leq : 58.42 dBA

Total Leq All Segments: 58.83 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 67.55
(NIGHT): 62.67

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 15:28:47
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow7.te Time Period: Day/Night 16/8 hours
Description: POW northeast of site

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

Car traffic volume : 3374/375 veh/TimePeriod *
Medium truck volume : 132/15 veh/TimePeriod *
Heavy truck volume : 257/29 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 2705
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 3.51
Heavy Truck % of Total Volume : 6.84
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: TTR (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 50.37 / 50.37 m
Receiver height : 7.50 / 7.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: TTR (day)

Source height = 1.62 m

ROAD (0.00 + 58.83 + 0.00) = 58.83 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	67.10	0.00	-5.26	-3.01	0.00	0.00	0.00	58.83

Segment Leq : 58.83 dBA

Total Leq All Segments: 58.83 dBA

Results segment # 1: TTR (night)

Source height = 1.62 m

ROAD (0.00 + 52.35 + 0.00) = 52.35 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.00	60.62	0.00	-5.26	-3.01	0.00	0.00	0.00	52.35

Segment Leq : 52.35 dBA

Total Leq All Segments: 52.35 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.83
(NIGHT): 52.35

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 15:21:27
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow8.te Time Period: Day/Night 16/8 hours
Description: POW southwest of site

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

Train Type	Trains (Left)	Trains (Right)	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
* 1. Freight	5.4/1.3	5.4/1.3	80.0	4.0	140.0	Diesel	No

* The identified number of trains have been adjusted for
future growth using the following parameters:

No	Train type: Name	Unadj. Trains Left	Unadj. Trains Right	Annual % Increase	Years of Growth
1.	Freight	4.0/1.0	4.0/1.0	2.50	12.00

Data for Segment # 1: CN (day/night)

Angle1 Angle2	: 27.00 deg	90.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 2	(Reflective ground surface)
Receiver source distance	: 377.23 / 377.23 m	
Receiver height	: 4.50 / 377.23 m	
Topography	: 1	(Flat/gentle slope; no barrier)
Whistle Angle	: -23 deg	Track 1
Reference angle	: 0.00	

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 54.69 + 0.00) = 54.69 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
27	90	0.00	73.26	-14.01	-4.56	0.00	0.00	0.00	54.69

WHEEL (0.00 + 51.09 + 0.00) = 51.09 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
27	90	0.00	69.66	-14.01	-4.56	0.00	0.00	0.00	51.09

LEFT WHISTLE (0.00 + 47.61 + 0.00) = 0.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
27	-23	0.00	69.95	-14.01	-5.16	0.00	0.00	0.00	47.61

RIGHT WHISTLE (0.00 + 40.76 + 0.00) = 40.76 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
27	32	0.00	69.95	-14.01	-15.19	0.00	0.00	0.00	40.76

Segment Leq : 56.38 dBA

Total Leq All Segments: 56.38 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 51.52 + 0.00) = 51.52 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
27	90	0.00	70.08	-14.01	-4.56	0.00	0.00	0.00	51.52

WHEEL (0.00 + 47.92 + 0.00) = 47.92 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
27	90	0.00	66.48	-14.01	-4.56	0.00	0.00	0.00	47.92

LEFT WHISTLE (0.00 + 47.61 + 0.00) = 0.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
27	-23	0.00	66.78	-14.01	-5.16	0.00	0.00	0.00	47.61

RIGHT WHISTLE (0.00 + 37.59 + 0.00) = 37.59 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
27	32	0.00	66.78	-14.01	-15.19	0.00	0.00	0.00	37.59

Segment Leq : 53.21 dBA

Total Leq All Segments: 53.21 dBA

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

Car traffic volume : 10345/1149 veh/TimePeriod *
Medium truck volume : 160/18 veh/TimePeriod *
Heavy truck volume : 209/23 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 7700
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 1.49
Heavy Truck % of Total Volume : 1.95
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: LL (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 121.11 / 121.11 m
Receiver height : 4.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: LL (day)

Source height = 1.18 m

ROAD (0.00 + 56.55 + 0.00) = 56.55 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	68.63	0.00	-9.07	-3.01	0.00	0.00	0.00	56.55

Segment Leq : 56.55 dBA

Total Leq All Segments: 56.55 dBA

Results segment # 1: LL (night)

Source height = 1.18 m

ROAD (0.00 + 50.01 + 0.00) = 50.01 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	62.09	0.00	-9.07	-3.01	0.00	0.00	0.00	50.01

Segment Leq : 50.01 dBA

Total Leq All Segments: 50.01 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.48
(NIGHT): 54.91

STAMSON 5.0 NORMAL REPORT Date: 07-11-2023 15:22:23
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: pow8nw.te Time Period: Day/Night 16/8 hours
Description: POW southwest of site

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

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. Freight	10.8/2.6	80.0	4.0	140.0	Diesel	No

Data for Segment # 1: CN (day/night)

Angle1 Angle2	27.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	0 / 0	
Surface	2	(Reflective ground surface)
Receiver source distance	377.23 / 377.23 m	
Receiver height	4.50 / 377.23 m	
Topography	1	(Flat/gentle slope; no barrier)
No Whistle		
Reference angle	0.00	

Results segment # 1: CN (day)

LOCOMOTIVE (0.00 + 54.69 + 0.00) = 54.69 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
27	90	0.00	73.26	-14.01	-4.56	0.00	0.00	0.00	54.69

WHEEL (0.00 + 51.09 + 0.00) = 51.09 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
27	90	0.00	69.66	-14.01	-4.56	0.00	0.00	0.00	51.09

Segment Leq : 56.26 dBA

Total Leq All Segments: 56.26 dBA

Results segment # 1: CN (night)

LOCOMOTIVE (0.00 + 51.52 + 0.00) = 51.52 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
27	90	0.00	70.08	-14.01	-4.56	0.00	0.00	0.00	51.52

WHEEL (0.00 + 47.92 + 0.00) = 47.92 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
27	90	0.00	66.48	-14.01	-4.56	0.00	0.00	0.00	47.92

Segment Leq : 53.09 dBA

Total Leq All Segments: 53.09 dBA

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

Car traffic volume : 10345/1149 veh/TimePeriod *
Medium truck volume : 160/18 veh/TimePeriod *
Heavy truck volume : 209/23 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 7700
Percentage of Annual Growth : 2.00
Number of Years of Growth : 22.00
Medium Truck % of Total Volume : 1.49
Heavy Truck % of Total Volume : 1.95
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: LL (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 121.11 / 121.11 m
Receiver height : 4.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: LL (day)

Source height = 1.18 m

ROAD (0.00 + 56.55 + 0.00) = 56.55 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	68.63	0.00	-9.07	-3.01	0.00	0.00	0.00	56.55

Segment Leq : 56.55 dBA

Total Leq All Segments: 56.55 dBA

Results segment # 1: LL (night)

Source height = 1.18 m

ROAD (0.00 + 50.01 + 0.00) = 50.01 dBA

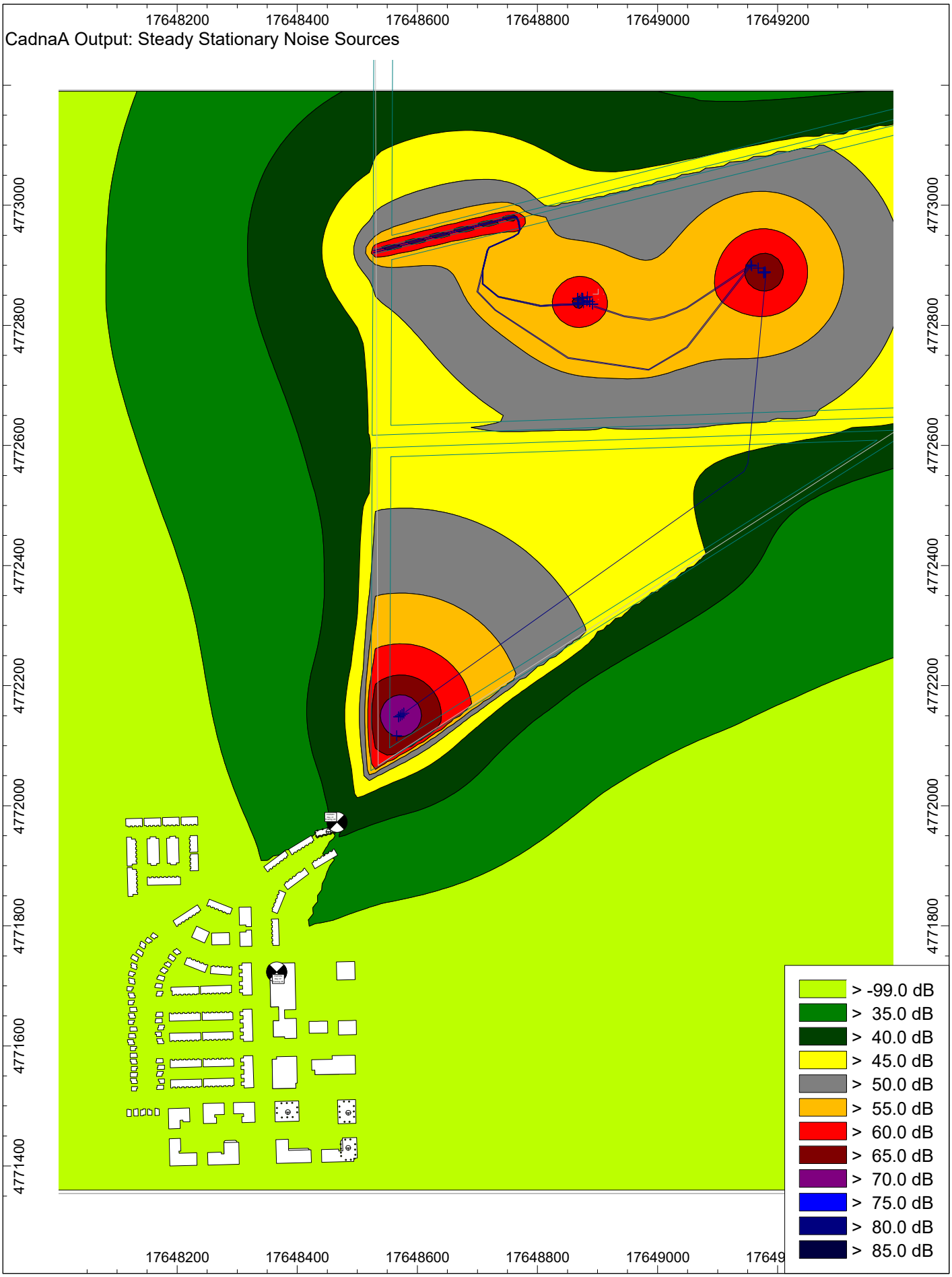
Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.00	62.09	0.00	-9.07	-3.01	0.00	0.00	0.00	50.01

Segment Leq : 50.01 dBA

Total Leq All Segments: 50.01 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.42
(NIGHT): 54.83

Appendix D: CadnaA Calculation Output


CadnaA Output: Steady Stationary Noise Sources
17648200
17648400
17648600
17648800
17649000
17649200
4773000
4772800
4772600
4772400
4772200
4772000
4771800
4771600
4771400
> -99.0 dB
> 35.0 dB
> 40.0 dB
> 45.0 dB
> 50.0 dB
> 55.0 dB
> 60.0 dB
> 65.0 dB
> 70.0 dB
> 75.0 dB
> 80.0 dB
> 85.0 dB

Report (CadnaA Calcs.cna)

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	1000.00
Min. Length of Section (#(Unit,LEN))	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	0
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	1.00
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (RLS-90)	
Strictly acc. to RLS-90	
Railways (Schall 03 (1990))	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (NONE)	
Strictly acc. to AzB	

Result Table

Receiver		Land Use	Limiting Value		rel. Axis			Lr w/o Noise Control		dL req.		Lr w/ Noise Control		Exceeding		passive NC
Name	ID		Day	Night	Station	Distance	Height	Day	Night	Day	Night	Day	Night	Day	Night	
			dB(A)	dB(A)	m	m	m	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
POPOR1	!01!POPOR1		0	0	1023	216.31	23.00	0.0	0.0	-	-	0.0	0.0	-	-	-
POPOR2	!01!POPOR2		0	0	1023	483.45	45.00	0.0	0.0	-	-	0.0	0.0	-	-	-

Group Day and Night

Name	Expression	Partial Sum Level			
		POPOR1		POPOR2	
		Day	Night	Day	Night
Root	!*	40.9	29.4	37.0	28.2
Project Sources	!00*				
Project Receivers	!01*				
Surrounding Sources	!02*	40.9	29.4	37.0	28.2
Steady	!0200*	40.9	29.4	37.0	28.2
Impulse	!0201*				
Surrounding Receivers	!03*				

Partial Day/Night

Source			Partial Level			
Name	M.	ID	POPOR1		POPOR2	
			Day	Night	Day	Night
P1B_S_PC_CrusherDump		!0200!!0200!P1B_S_PC_CrusherDump	38.4		34.2	
P1B_S_PC_Ldr		!0200!P1B_S_PC_Ldr	19.7		15.5	
P1B_S_PC_PrimaryCrush		!0200!P1B_S_PC_PrimaryCrush	34.6		30.3	
P1B_S_PC_PrimaryScreen		!0200!P1B_S_PC_PrimaryScreen	29.7		25.1	
P1B_S_PP_Ldr		!0200!P1B_S_PP_Ldr	10.3	12.0	9.2	10.9
P1B_S_PP_SecondaryCrush1		!0200!P1B_S_PP_SecondaryCrush1	20.8		19.1	
P1B_S_PP_SecondaryCrush2		!0200!P1B_S_PP_SecondaryCrush2	20.8		19.1	
P1B_S_PP_SecondaryTertiaryScreen1		!0200!P1B_S_PP_SecondaryTertiaryScreen1	19.8		18.5	
P1B_S_PP_SecondaryTertiaryScreen2		!0200!P1B_S_PP_SecondaryTertiaryScreen2	19.8		18.5	
P1B_S_PP_TertiaryCrush1		!0200!P1B_S_PP_TertiaryCrush1	5.7		4.9	
P1B_S_PP_TertiaryCrush2		!0200!P1B_S_PP_TertiaryCrush2	5.6		4.9	
P1B_S_PP_Trk1		!0200!P1B_S_PP_Trk1	2.8	4.5	0.8	2.6

Source			Partial Level			
Name	M.	ID	POPOR1		POPOR2	
			Day	Night	Day	Night
P1B_S_PP_Trk2		!0200!P1B_S_PP_Trk2	2.8	4.5	0.8	2.6
P1B_S_WF_Drill		!0200!P1B_S_WF_Drill	22.1		12.4	
ASPH_comp		!0200!ASPH_comp	-0.5	1.2	0.7	2.4
ASPH_DC_m		!0200!ASPH_DC_m	11.9	13.7	12.0	13.8
ASPH_DC_s		!0200!ASPH_DC_s	20.8	22.6	18.7	20.5
ASPH_elev		!0200!ASPH_elev	9.6	11.4	7.0	8.8
ASPH_IDLE_TRK1		!0200!ASPH_IDLE_TRK1	3.1	4.9	2.3	4.1
ASPH_IDLE_TRK2		!0200!ASPH_IDLE_TRK2	3.1	4.9	2.3	4.1
ASPH_imp_silo	~	!0201!ASPH_imp_silo				
ASPH_ldr_Act1		!0200!ASPH_ldr_Act1	8.2	10.0	8.1	9.8
ASPH_ldr_Act2		!0200!ASPH_ldr_Act2	8.2	9.9	8.1	9.8
ASPH_motor		!0200!ASPH_motor	13.2	15.0	11.8	13.6
ASPH_oven		!0200!ASPH_oven	10.7	12.5	9.4	11.2
ASPH_pugdoor		!0200!ASPH_pugdoor	15.5	17.3	14.8	16.5
ASPH_pugmill		!0200!ASPH_pugmill	8.5	10.3	7.7	9.5
P1B_S_RD_Haul_PP_Ap_Em		!0200!P1B_S_RD_Haul_PP_Ap_Em	12.1	12.1	11.3	11.3
P1B_S_RD_Haul_PP_Ap_Fu		!0200!P1B_S_RD_Haul_PP_Ap_Fu	15.5	15.5	14.6	14.6
P1B_S_RD_SHP_Aggr_Em		!0200!P1B_S_RD_SHP_Aggr_Em	20.7	20.7	19.8	19.8
P1B_S_RD_SHP_Aggr_Fu		!0200!P1B_S_RD_SHP_Aggr_Fu	20.7	20.7	19.8	19.8
AP_RD_SHP_AC_RAP_Em		!0200!AP_RD_SHP_AC_RAP_Em	17.0	17.0	15.9	15.9
AP_RD_SHP_AC_RAP_Fu		!0200!AP_RD_SHP_AC_RAP_Fu	17.0	17.0	15.9	15.9
AP_RD_SHP_HMA_Em		!0200!AP_RD_SHP_HMA_Em	17.0	17.0	15.9	15.9
AP_RD_SHP_HMA_Fu		!0200!AP_RD_SHP_HMA_Fu	17.0	17.0	15.9	15.9
P1A_S_Conveyor		!0200!P1A_S_Conveyor	-3.3		-7.2	

Sound Sources

Point Sources

Name	Sel.	M.	ID	Result. PWL			Type	Lw / Li		norm.	Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Height		Coordinates		
				Day	Evening	Night					Day	Evening	Night	R	Area		Day	Special	Night						X	Y	Z
				(dBA)	(dBA)	(dBA)				dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)		(m)		(m)	(m)	(m)
P1B_S_PC_CrusherDump			!0200!!0200!P1B_S_PC_CrusherDump	123.0	123.0	123.0	Lw	P4_SE_PC_CrusherDump			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17648571.64	4772149.98	-22.00
P1B_S_PC_Ldr			!0200!P1B_S_PC_Ldr	105.6	105.6	105.6	Lw	P4_SE_PC_Ldr			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	2.50	r	17648568.78	4772148.15	-22.50
P1B_S_PC_PrimaryCrush			!0200!P1B_S_PC_PrimaryCrush	117.6	117.6	117.6	Lw	P4_SE_PC_PrimaryCrush			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17648574.52	4772152.05	-22.00
P1B_S_PC_PrimaryScreen			!0200!P1B_S_PC_PrimaryScreen	113.8	113.8	113.8	Lw	P4_SE_PC_PrimaryScreen			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17648577.35	4772154.08	-22.00
P1B_S_PP_Ldr			!0200!P1B_S_PP_Ldr	105.6	105.6	105.6	Lw	P4_SE_PP_Ldr			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	2.50	r	17649167.54	4772895.16	-32.50
P1B_S_PP_SecondaryCrush1			!0200!P1B_S_PP_SecondaryCrush1	114.6	114.6	114.6	Lw	P4_SE_PP_SecondaryCrush1			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17649179.20	4772889.11	-32.00
P1B_S_PP_SecondaryCrush2			!0200!P1B_S_PP_SecondaryCrush2	114.6	114.6	114.6	Lw	P4_SE_PP_SecondaryCrush2			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17649179.56	4772888.16	-32.00
P1B_S_PP_SecondaryTertiaryScreen1			!0200!P1B_S_PP_SecondaryTertiaryScreen1	113.8	113.8	113.8	Lw	P4_SE_PP_SecondaryTertiaryScreen1			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17649178.32	4772887.78	-32.00
P1B_S_PP_SecondaryTertiaryScreen2			!0200!P1B_S_PP_SecondaryTertiaryScreen2	113.8	113.8	113.8	Lw	P4_SE_PP_SecondaryTertiaryScreen2			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17649177.92	4772888.64	-32.00
P1B_S_PP_TertiaryCrush1			!0200!P1B_S_PP_TertiaryCrush1	99.2	99.2	99.2	Lw	P4_SE_PP_TertiaryCrush1			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17649176.98	4772887.17	-32.00
P1B_S_PP_TertiaryCrush2			!0200!P1B_S_PP_TertiaryCrush2	99.2	99.2	99.2	Lw	P4_SE_PP_TertiaryCrush2			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17649176.51	4772888.14	-32.00
P1B_S_PP_Trk1			!0200!P1B_S_PP_Trk1	96.3	96.3	96.3	Lw	P4_SE_PP_Trk1			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	3.00	r	17649156.67	4772898.85	-32.00
P1B_S_PP_Trk2			!0200!P1B_S_PP_Trk2	96.3	96.3	96.3	Lw	P4_SE_PP_Trk2			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	3.00	r	17649155.39	4772900.72	-32.00
P1B_S_WF_Drill			!0200!P1B_S_WF_Drill	110.0	110.0	110.0	Lw	P4_SE_PP_WF_Drill			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	2.50	r	17648565.61	4772116.45	-22.50
ASPH_comp			!0200!ASPH_comp	96.0	96.0	96.0	Lw	ASPH_comp			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	0.60	r	17648887.24	4772839.44	-34.40
ASPH_DC_m			!0200!ASPH_DC_m	104.8	104.8	104.8	Lw	ASPH_DC_m			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	2.00	r	17648868.63	4772837.11	-33.00
ASPH_DC_s			!0200!ASPH_DC_s	109.5	109.5	109.5	Lw	ASPH_DC_s			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	20.10	r	17648867.01	4772837.09	-14.90
ASPH_elev			!0200!ASPH_elev	99.8	99.8	99.8	Lw	ASPH_elev			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	19.00	r	17648873.90	4772845.44	-16.00
ASPH_IDLE_TRK1			!0200!ASPH_IDLE_TRK1	96.3	96.3	96.3	Lw	ASPH_IDLE_TRK1			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	3.50	r	17648891.91	4772835.82	-31.50
ASPH_IDLE_TRK2			!0200!ASPH_IDLE_TRK2	96.3	96.3	96.3	Lw	ASPH_IDLE_TRK2			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	3.50	r	17648892.09	4772834.88	-31.50
ASPH_imp_silo		~	!0201!ASPH_imp_silo	126.7	126.7	126.7	Lw	ASPH_imp_silo			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	22.00	r	17648900.97	4772852.04	-13.00
ASPH_ldr_Act1			!0200!ASPH_ldr_Act1	101.7	101.7	101.7	Lw	ASPH_ldr_Act1			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	2.50	r	17648882.29	4772840.75	-32.50
ASPH_ldr_Act2			!0200!ASPH_ldr_Act2	101.7	101.7	101.7	Lw	ASPH_ldr_Act2			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	2.50	r	17648876.50	4772837.65	-32.50
ASPH_motor			!0200!ASPH_motor	107.0	107.0	107.0	Lw	ASPH_motor			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	4.00	r	17648866.84	4772845.04	-31.00
ASPH_oven			!0200!ASPH_oven	102.4	102.4	102.4	Lw	ASPH_oven			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	5.80	r	17648870.86	4772842.35	-29.20
ASPH_pugdoor			!0200!ASPH_pugdoor	107.0	107.0	107.0	Lw	ASPH_pugdoor			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	4.00	r	17648875.49	4772844.81	-31.00
ASPH_pugmill			!0200!ASPH_pugmill	104.9	104.9	104.9	Lw	ASPH_pugmill			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	5.00	r	17648882.99	4772847.07	-30.00

Line Sources

Name	Sel.	M.	ID	Result. PWL			Result. PWL'			Type	Lw / Li		norm.	Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Moving Pt. Src			
				Day	Evening	Night	Day	Evening	Night					Day	Evening	Night	R	Area		Day	Special	Night				Number			Speed
				(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)		Day	Evening	Night	(km/h)
P1B_S_RD_Haul_PP_Ap_Em			!0200!P1B_S_RD_Haul_PP_Ap_Em	94.3	94.3	94.3	69.7	69.7	69.7	PWL-Pt	P4_SE_RD_Haul_PP_Ap_Em			0.0	0.0	0.0							0.0		(none)	3.0	3.0	3.0	20.0
P1B_S_RD_Haul_PP_Ap_Fu			!0200!P1B_S_RD_Haul_PP_Ap_Fu	98.0	98.0	98.0	73.4	73.4	73.4	PWL-Pt	P4_SE_RD_Haul_PP_Ap_Fu			0.0	0.0	0.0							0.0		(none)	3.0	3.0	3.0	20.0
P1B_S_RD_SHP_Aggr_Em			!0200!P1B_S_RD_SHP_Aggr_Em	101.7	101.7	101.7	71.7	71.7	71.7	PWL-Pt	P4_SE_RD_SHP_Aggr_Em			0.0	0.0	0.0							0.0		(none)	12.0	12.0	12.0	20.0
P1B_S_RD_SHP_Aggr_Fu			!0200!P1B_S_RD_SHP_Aggr_Fu	101.7	101.7	101.7	71.7	71.7	71.7	PWL-Pt	P4_SE_RD_SHP_Aggr_Fu			0.0	0.0	0.0							0.0		(none)	12.0	12.0	12.0	20.0
AP_RD_SHP_AC_RAP_Em			!0200!AP_RD_SHP_AC_RAP_Em	96.5	96.5	96.5	68.7	68.7	68.7	PWL-Pt	AP_RD_SHP_AC_RAP_Em			0.0	0.0	0.0							0.0		(none)	6.0	6.0	6.0	20.0
AP_RD_SHP_AC_RAP_Fu			!0200!AP_RD_SHP_AC_RAP_Fu	96.5	96.5	96.5	68.7	68.7	68.7	PWL-Pt	AP_RD_SHP_AC_RAP_Fu			0.0	0.0	0.0							0.0		(none)	6.0	6.0	6.0	20.0
AP_RD_SHP_HMA_Em			!0200!AP_RD_SHP_HMA_Em	96.5	96.5	96.5	68.7	68.7	68.7	PWL-Pt	AP_RD_SHP_HMA_Em			0.0	0.0	0.0							0.0		(none)	6.0	6.0	6.0	20.0
AP_RD_SHP_HMA_Fu			!0200!AP_RD_SHP_HMA_Fu	96.5	96.5	96.5	68.7	68.7	68.7	PWL-Pt	AP_RD_SHP_HMA_Fu			0.0	0.0	0.0							0.0		(none)	6.0	6.0	6.0	20.0
P1A_S_Conveyor			!0200!P1A_S_Conveyor	82.7	82.7	82.7	52.6	52.6	52.6	Lw	P4_SE_Conveyor			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)				

Geometry Line Sources

Name	ID	Height				Coordinates			
		Begin		End		x	y	z	Ground
		(m)		(m)		(m)	(m)	(m)	(m)
P1B_S_RD_Haul_PP_Ap_Em	!0200!P1B_S_RD_Haul_PP_Ap_Em	3.50	r			17648894.00	4772830.85	-31.50	-35.00
						17648944.63	4772814.16	-31.50	-35.00
						17648986.82	4772808.02	-31.50	-35.00
						17649011.36	4772813.29	-31.50	-35.00
						17649048.25	4772827.95	-31.50	-35.00
						17649155.93	4772898.62	-31.50	-35.00
P1B_S_RD_Haul_PP_Ap_Fu	!0200!P1B_S_RD_Haul_PP_Ap_Fu	3.50	r			17649154.81	4772900.52	-31.50	-35.00
						17649048.12	4772829.59	-31.50	-35.00
						17649010.79	4772814.95	-31.50	-35.00
						17648986.27	4772810.20	-31.50	-35.00
						17648944.00	4772816.16	-31.50	-35.00

Name	ID	Height			Coordinates			
		Begin		End	x	y	z	Ground
		(m)		(m)	(m)	(m)	(m)	(m)
					17648894.52	4772832.52	-31.50	-35.00
P1B_S_RD_SHP_Aggr_Em	!0200!P1B_S_RD_SHP_Aggr_Em	3.50	r		17649155.93	4772898.62	-31.50	-35.00
					17649049.52	4772762.80	-31.50	-35.00
					17648985.10	4772725.10	-31.50	-35.00
					17648850.30	4772745.07	-31.50	-35.00
					17648729.23	4772825.15	-31.50	-35.00
					17648699.22	4772855.69	-31.50	-35.00
					17648716.13	4772924.33	-31.50	-35.00
					17648719.23	4772930.03	-31.50	-35.00
					17648759.45	4772948.09	-31.50	-35.00
					17648767.74	4772953.23	-31.50	-35.00
					17648770.17	4772959.87	-31.50	-35.00
					17648767.24	4772973.80	-5.01	-8.51
					17648764.25	4772978.75	3.50	0.00
					17648757.99	4772979.15	3.50	0.00
					17648526.00	4772920.85	3.50	0.00
P1B_S_RD_SHP_Aggr_Fu	!0200!P1B_S_RD_SHP_Aggr_Fu	3.50	r		17649154.82	4772900.51	-31.50	-35.00
					17649048.04	4772764.11	-31.50	-35.00
					17648984.92	4772726.66	-31.50	-35.00
					17648851.51	4772746.46	-31.50	-35.00
					17648730.29	4772825.59	-31.50	-35.00
					17648700.81	4772856.21	-31.50	-35.00
					17648717.23	4772924.20	-31.50	-35.00
					17648719.92	4772929.41	-31.50	-35.00
					17648760.42	4772947.17	-31.50	-35.00
					17648768.85	4772952.77	-31.50	-35.00
					17648771.54	4772959.97	-31.50	-35.00
					17648769.08	4772974.22	-5.10	-8.60
					17648765.63	4772980.67	3.50	0.00
					17648757.34	4772980.96	3.50	0.00
					17648526.10	4772924.15	3.50	0.00
AP_RD_SHP_AC_RAP_Em	!0200!AP_RD_SHP_AC_RAP_Em	3.50	r		17648891.49	4772835.79	-31.50	-35.00
					17648841.58	4772835.30	-31.50	-35.00
					17648805.21	4772833.16	-31.50	-35.00
					17648734.93	4772848.46	-31.50	-35.00
					17648709.55	4772868.98	-31.50	-35.00
					17648709.55	4772892.38	-31.50	-35.00
					17648717.23	4772924.20	-31.50	-35.00
					17648719.92	4772929.41	-31.50	-35.00
					17648760.42	4772947.17	-31.50	-35.00
					17648768.85	4772952.77	-31.50	-35.00
					17648771.54	4772959.97	-31.50	-35.00
					17648769.08	4772974.22	-5.10	-8.60
					17648765.63	4772980.67	3.50	0.00
					17648757.34	4772980.96	3.50	0.00
					17648526.10	4772924.15	3.50	0.00
AP_RD_SHP_AC_RAP_Fu	!0200!AP_RD_SHP_AC_RAP_Fu	3.50	r		17648526.00	4772920.85	3.50	0.00
					17648757.99	4772979.15	3.50	0.00
					17648764.25	4772978.75	3.50	0.00
					17648767.24	4772973.80	-5.01	-8.51
					17648770.17	4772959.87	-31.50	-35.00
					17648767.74	4772953.23	-31.50	-35.00
					17648759.45	4772948.09	-31.50	-35.00
					17648719.23	4772930.03	-31.50	-35.00
					17648716.13	4772924.33	-31.50	-35.00
					17648708.64	4772893.89	-31.50	-35.00
					17648708.08	4772868.73	-31.50	-35.00
					17648734.51	4772846.84	-31.50	-35.00
					17648805.00	4772831.51	-31.50	-35.00
					17648843.73	4772833.66	-31.50	-35.00
					17648891.69	4772834.88	-31.50	-35.00
AP_RD_SHP_HMA_Em	!0200!AP_RD_SHP_HMA_Em	3.50	r		17648891.49	4772835.79	-31.50	-35.00
					17648841.58	4772835.30	-31.50	-35.00
					17648805.21	4772833.16	-31.50	-35.00
					17648734.93	4772848.46	-31.50	-35.00
					17648709.55	4772868.98	-31.50	-35.00
					17648709.55	4772892.38	-31.50	-35.00
					17648717.23	4772924.20	-31.50	-35.00
					17648719.92	4772929.41	-31.50	-35.00
					17648760.42	4772947.17	-31.50	-35.00
					17648768.85	4772952.77	-31.50	-35.00
					17648771.54	4772959.97	-31.50	-35.00
					17648769.08	4772974.22	-5.10	-8.60
					17648765.63	4772980.67	3.50	0.00
					17648757.34	4772980.96	3.50	0.00
					17648526.10	4772924.15	3.50	0.00
AP_RD_SHP_HMA_Fu	!0200!AP_RD_SHP_HMA_Fu	3.50	r		17648526.00	4772920.85	3.50	0.00
					17648757.99	4772979.15	3.50	0.00
					17648764.25	4772978.75	3.50	0.00
					17648767.24	4772973.80	-5.01	-8.51
					17648770.17	4772959.87	-31.50	-35.00
					17648767.74	4772953.23	-31.50	-35.00
					17648759.45	4772948.09	-31.50	-35.00
					17648719.23	4772930.03	-31.50	-35.00
					17648716.13	4772924.33	-31.50	-35.00
					17648708.64	4772893.89	-31.50	-35.00
					17648708.08	4772868.73	-31.50	-35.00
					17648734.51	4772846.84	-31.50	-35.00
					17648805.00	4772831.51	-31.50	-35.00
					17648843.73	4772833.66	-31.50	-35.00

Name	ID	Height			Coordinates			
		Begin		End	x	y	z	Ground
		(m)		(m)	(m)	(m)	(m)	(m)
					17648891.69	4772834.88	-31.50	-35.00
P1A_S_Conveyor	!0200!P1A_S_Conveyor	3.50	r		17649180.47	4772886.08	-31.50	-35.00
					17649150.25	4772570.35	-21.50	-25.00
					17649143.79	4772556.72	-21.50	-25.00
					17648580.34	4772156.36	-21.50	-25.00

Area Sources

Name	Sel.	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Moving Pt. Src		
				Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night				Number		
				(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)		Day	Evening	Night

Geometry Area Sources

Name	ID	Height				Coordinates			
		Begin		End		x	y	z	Ground
		(m)		(m)		(m)	(m)	(m)	(m)

Vertical Area Sources

Name	Sel.	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.
				Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night			
				(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)	

Geometry Vertical Area Sources

Name	ID	Height				Coordinates			
		Begin		End		x	y	z	Ground
		(m)		(m)		(m)	(m)	(m)	(m)

Road

Name	Sel.	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	Surface		Gradient	Mult. Reflection		
				Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Dstro	Type		Drefl	Hbuild	Dist.
				(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(km/h)	(km/h)		(dB)		(%)	(dB)	(m)	(m)

Geometry Road

Name	Height				Coordinates				Dist	LSlope
	Begin		End		x	y	z	Ground	(m)	(%)
	(m)		(m)		(m)	(m)	(m)	(m)		

Receptors

Name	Sel.	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
				Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
				(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
POPOR1			!01!POPOR1	40.9	29.4	0.0	0.0		x	Total	1.50	r	17648466.20	4771972.61	1.50
POPOR2			!01!POPOR2	37.0	28.2	0.0	0.0		x	Total	1.50	g	17648365.88	4771723.08	23.50

Obstacles

Barriers

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height	
				left	right		horz.	vert.	Begin	End
						(m)	(m)	(m)	(m)	(m)

Geometry Barriers

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height		Coordinates			
				left	right		horz.	vert.	Begin	End	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)

Building

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	
							Begin	
							(m)	
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	
							Begin	
							(m)	
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		20.50	a
			Notes - Project Buildings	x	0		20.50	a
			Notes - Project Buildings	x	0		17.50	a
			Notes - Project Buildings	x	0		17.50	a
			Notes - Project Buildings	x	0		45.30	a
			Notes - Project Buildings	x	0		57.30	a
			Notes - Project Buildings	x	0		51.30	a
			Notes - Project Buildings	x	0		45.30	a
			Notes - Project Buildings	x	0		45.30	a
			Notes - Project Buildings	x	0		22.00	a
			Notes - Project Buildings	x	0		7.00	a
			Notes - Project Buildings	x	0		7.00	a
			Notes - Project Buildings	x	0		20.50	a
			Notes - Project Buildings	x	0		20.50	a
			Notes - Project Buildings	x	0		7.00	a
			Notes - Project Buildings	x	0		22.00	a
			Notes - Project Buildings	x	0		14.50	a
			Notes - Project Buildings	x	0		14.50	a
			Notes - Project Buildings	x	0		14.50	a
			Notes - Project Buildings	x	0		14.50	a
			Notes - Project Buildings	x	0		14.50	a
			Notes - Project Buildings	x	0		5.50	a
			Notes - Project Buildings	x	0		5.50	a
			Notes - Project Buildings	x	0		7.00	a

Geometry Building

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
			Notes - Project Buildings	x	0		9.00	a	17648114.37	4771978.46	9.00	0.00
									17648142.08	4771979.15	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648142.43	4771965.30	9.00	0.00
									17648138.97	4771965.21	9.00	0.00
									17648138.93	4771966.69	9.00	0.00
									17648135.47	4771966.61	9.00	0.00
									17648135.50	4771965.12	9.00	0.00
									17648132.04	4771965.04	9.00	0.00
									17648132.00	4771966.52	9.00	0.00
									17648128.54	4771966.43	9.00	0.00
									17648128.57	4771964.95	9.00	0.00
									17648125.05	4771964.86	9.00	0.00
									17648125.07	4771966.35	9.00	0.00
									17648121.67	4771966.26	9.00	0.00
									17648121.71	4771964.78	9.00	0.00
									17648118.18	4771964.69	9.00	0.00
									17648118.14	4771966.17	9.00	0.00
									17648114.68	4771966.09	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648144.95	4771979.23	9.00	0.00
									17648172.67	4771979.92	9.00	0.00
									17648173.02	4771966.06	9.00	0.00
									17648169.55	4771965.98	9.00	0.00
									17648169.51	4771967.46	9.00	0.00
									17648166.05	4771967.37	9.00	0.00
									17648166.09	4771965.89	9.00	0.00
									17648162.62	4771965.80	9.00	0.00
									17648162.59	4771967.29	9.00	0.00
									17648159.12	4771967.20	9.00	0.00
									17648159.16	4771965.72	9.00	0.00
									17648155.63	4771965.63	9.00	0.00
									17648155.66	4771967.11	9.00	0.00
									17648152.25	4771967.03	9.00	0.00
									17648152.29	4771965.54	9.00	0.00
									17648148.77	4771965.46	9.00	0.00
									17648148.73	4771966.94	9.00	0.00
									17648145.26	4771966.85	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648175.64	4771979.99	9.00	0.00
									17648203.35	4771980.69	9.00	0.00
									17648203.70	4771966.83	9.00	0.00
									17648200.23	4771966.75	9.00	0.00
									17648200.20	4771968.23	9.00	0.00
									17648196.73	4771968.14	9.00	0.00
									17648196.77	4771966.66	9.00	0.00
									17648193.31	4771966.57	9.00	0.00
									17648193.27	4771968.06	9.00	0.00
									17648189.80	4771967.97	9.00	0.00
									17648189.84	4771966.49	9.00	0.00
									17648186.32	4771966.40	9.00	0.00
									17648186.34	4771967.88	9.00	0.00
									17648182.94	4771967.80	9.00	0.00
									17648182.97	4771966.31	9.00	0.00
									17648179.45	4771966.22	9.00	0.00
									17648179.41	4771967.71	9.00	0.00
									17648175.95	4771967.62	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648206.62	4771980.77	9.00	0.00
									17648234.33	4771981.47	9.00	0.00
									17648234.68	4771967.61	9.00	0.00
									17648231.21	4771967.52	9.00	0.00
									17648231.18	4771969.01	9.00	0.00
									17648227.71	4771968.92	9.00	0.00
									17648227.75	4771967.44	9.00	0.00
									17648224.29	4771967.35	9.00	0.00
									17648224.25	4771968.83	9.00	0.00
									17648220.78	4771968.75	9.00	0.00
									17648220.82	4771967.26	9.00	0.00
									17648217.30	4771967.18	9.00	0.00
									17648217.32	4771968.66	9.00	0.00
									17648213.92	4771968.57	9.00	0.00
									17648213.95	4771967.09	9.00	0.00
									17648210.43	4771967.00	9.00	0.00
									17648210.39	4771968.49	9.00	0.00
									17648206.93	4771968.40	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648115.73	4771947.33	9.00	0.00
									17648123.95	4771947.54	9.00	0.00
									17648124.03	4771944.37	9.00	0.00
									17648130.56	4771944.53	9.00	0.00
									17648130.65	4771941.07	9.00	0.00
									17648132.13	4771941.11	9.00	0.00
									17648132.22	4771937.64	9.00	0.00
									17648130.73	4771937.61	9.00	0.00
									17648130.82	4771934.14	9.00	0.00
									17648132.31	4771934.18	9.00	0.00
									17648132.39	4771930.71	9.00	0.00
									17648130.91	4771930.68	9.00	0.00
									17648131.00	4771927.21	9.00	0.00
									17648132.48	4771927.25	9.00	0.00
									17648132.57	4771923.79	9.00	0.00
									17648131.08	4771923.75	9.00	0.00
									17648131.17	4771920.28	9.00	0.00
									17648132.65	4771920.32	9.00	0.00
									17648132.74	4771916.86	9.00	0.00
									17648131.26	4771916.86	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648131.34	4771913.36	9.00	0.00
									17648132.83	4771913.39	9.00	0.00
									17648132.91	4771909.93	9.00	0.00
									17648131.43	4771909.93	9.00	0.00
									17648131.52	4771906.43	9.00	0.00
									17648133.00	4771906.46	9.00	0.00
									17648133.09	4771903.00	9.00	0.00
									17648125.07	4771902.80	9.00	0.00
									17648125.15	4771899.63	9.00	0.00
									17648116.94	4771899.43	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648117.00	4771896.85	9.00	0.00
									17648125.21	4771897.06	9.00	0.00
									17648125.29	4771893.89	9.00	0.00
									17648131.83	4771894.05	9.00	0.00
									17648131.91	4771890.59	9.00	0.00
									17648133.40	4771890.63	9.00	0.00
									17648133.49	4771887.16	9.00	0.00
									17648132.00	4771887.13	9.00	0.00
									17648132.09	4771883.66	9.00	0.00
									17648133.57	4771883.70	9.00	0.00
									17648133.66	4771880.24	9.00	0.00
									17648132.17	4771880.20	9.00	0.00
									17648132.26	4771876.73	9.00	0.00
									17648133.75	4771876.77	9.00	0.00
									17648133.83	4771873.31	9.00	0.00
									17648132.35	4771873.27	9.00	0.00
									17648132.43	4771869.81	9.00	0.00
									17648133.92	4771869.84	9.00	0.00
									17648134.01	4771866.38	9.00	0.00
									17648132.52	4771866.38	9.00	0.00
									17648132.61	4771862.88	9.00	0.00
									17648134.09	4771862.91	9.00	0.00
									17648134.18	4771859.45	9.00	0.00
									17648132.69	4771859.45	9.00	0.00
									17648132.78	4771855.95	9.00	0.00
									17648134.27	4771855.99	9.00	0.00
									17648134.35	4771852.52	9.00	0.00
									17648126.34	4771852.32	9.00	0.00
									17648126.42	4771849.15	9.00	0.00
									17648118.20	4771848.95	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648205.56	4771881.11	9.00	0.00
									17648202.09	4771881.02	9.00	0.00
									17648202.05	4771882.50	9.00	0.00
									17648198.59	4771882.42	9.00	0.00
									17648198.63	4771880.93	9.00	0.00
									17648195.16	4771880.85	9.00	0.00
									17648195.16	4771880.90	9.00	0.00
									17648195.13	4771882.33	9.00	0.00
									17648191.66	4771882.24	9.00	0.00
									17648191.70	4771880.76	9.00	0.00
									17648188.23	4771880.67	9.00	0.00
									17648188.20	4771882.16	9.00	0.00
									17648184.73	4771882.07	9.00	0.00
									17648184.77	4771880.58	9.00	0.00
									17648181.31	4771880.50	9.00	0.00
									17648181.27	4771881.98	9.00	0.00
									17648177.80	4771881.90	9.00	0.00
									17648177.84	4771880.41	9.00	0.00
									17648174.38	4771880.32	9.00	0.00
									17648174.34	4771881.81	9.00	0.00
									17648170.88	4771881.72	9.00	0.00
									17648170.91	4771880.24	9.00	0.00
									17648167.45	4771880.15	9.00	0.00
									17648167.41	4771881.64	9.00	0.00
									17648163.95	4771881.55	9.00	0.00
									17648163.98	4771880.06	9.00	0.00
									17648160.52	4771879.98	9.00	0.00
									17648160.48	4771881.46	9.00	0.00
									17648157.02	4771881.37	9.00	0.00
									17648157.06	4771879.89	9.00	0.00
									17648153.59	4771879.80	9.00	0.00
									17648153.55	4771881.29	9.00	0.00
									17648150.09	4771881.20	9.00	0.00
									17648150.44	4771867.34	9.00	0.00
									17648205.87	4771868.73	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648234.73	4771919.78	9.00	0.00
									17648222.36	4771919.47	9.00	0.00
									17648222.45	4771916.01	9.00	0.00
									17648220.96	4771915.97	9.00	0.00
									17648221.05	4771912.51	9.00	0.00
									17648222.54	4771912.54	9.00	0.00
									17648222.62	4771909.08	9.00	0.00
									17648221.14	4771909.04	9.00	0.00
									17648221.22	4771905.58	9.00	0.00
									17648222.71	4771905.61	9.00	0.00
									17648222.79	4771902.15	9.00	0.00
									17648221.31	4771902.11	9.00	0.00
									17648221.40	4771898.65	9.00	0.00
									17648222.88	4771898.69	9.00	0.00
									17648222.97	4771895.22	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates				
							Begin		x	y	z	Ground	
							(m)		(m)	(m)	(m)	(m)	
									17648221.49	4771895.18	9.00	0.00	
									17648221.57	4771891.72	9.00	0.00	
									17648235.43	4771892.07	9.00	0.00	
			Notes - Project Buildings	x	0		9.00	a	17648233.97	4771950.46	9.00	0.00	
									17648221.59	4771950.15	9.00	0.00	
									17648221.68	4771946.69	9.00	0.00	
									17648220.19	4771946.65	9.00	0.00	
									17648220.28	4771943.19	9.00	0.00	
									17648221.77	4771943.23	9.00	0.00	
									17648221.85	4771939.76	9.00	0.00	
									17648220.37	4771939.72	9.00	0.00	
									17648220.46	4771936.26	9.00	0.00	
									17648221.91	4771936.30	9.00	0.00	
									17648222.03	4771932.83	9.00	0.00	
									17648220.54	4771932.80	9.00	0.00	
									17648220.63	4771929.33	9.00	0.00	
									17648222.10	4771929.37	9.00	0.00	
									17648222.20	4771925.90	9.00	0.00	
									17648220.72	4771925.87	9.00	0.00	
									17648220.80	4771922.40	9.00	0.00	
									17648234.66	4771922.75	9.00	0.00	
			Notes - Project Buildings	x	0		9.00	a	17648202.37	4771946.33	9.00	0.00	
									17648197.62	4771946.22	9.00	0.00	
									17648197.55	4771949.18	9.00	0.00	
									17648195.49	4771949.13	9.00	0.00	
									17648192.22	4771949.05	9.00	0.00	
									17648189.31	4771948.98	9.00	0.00	
									17648187.65	4771948.94	9.00	0.00	
									17648187.73	4771945.97	9.00	0.00	
									17648182.58	4771945.84	9.00	0.00	
									17648183.62	4771904.27	9.00	0.00	
									17648188.77	4771904.40	9.00	0.00	
									17648188.84	4771901.43	9.00	0.00	
									17648198.74	4771901.67	9.00	0.00	
									17648198.67	4771904.64	9.00	0.00	
									17648203.42	4771904.76	9.00	0.00	
			Notes - Project Buildings	x	0		9.00	a	17648169.71	4771945.52	9.00	0.00	
									17648164.96	4771945.40	9.00	0.00	
									17648164.89	4771948.37	9.00	0.00	
									17648163.03	4771948.32	9.00	0.00	
									17648158.73	4771948.21	9.00	0.00	
									17648158.73	4771948.21	9.00	0.00	
									17648156.85	4771948.16	9.00	0.00	
									17648154.99	4771948.12	9.00	0.00	
									17648155.06	4771945.15	9.00	0.00	
									17648149.92	4771945.02	9.00	0.00	
									17648150.96	4771903.45	9.00	0.00	
									17648156.10	4771903.58	9.00	0.00	
									17648156.18	4771900.61	9.00	0.00	
									17648166.08	4771900.86	9.00	0.00	
									17648166.00	4771903.83	9.00	0.00	
									17648170.75	4771903.94	9.00	0.00	
			Notes - Project Buildings	x	0		9.00	a	17648467.27	4771917.69	9.00	0.00	
									17648461.19	4771928.04	9.00	0.00	
									17648458.27	4771926.36	9.00	0.00	
									17648459.00	4771925.07	9.00	0.00	
									17648455.92	4771923.16	9.00	0.00	
									17648455.16	4771924.55	9.00	0.00	
									17648451.95	4771922.60	9.00	0.00	
									17648452.69	4771921.31	9.00	0.00	
									17648449.54	4771919.36	9.00	0.00	
									17648448.82	4771920.66	9.00	0.00	
									17648445.64	4771918.84	9.00	0.00	
									17648446.38	4771917.55	9.00	0.00	
									17648443.15	4771915.55	9.00	0.00	
									17648442.44	4771916.86	9.00	0.00	
									17648439.30	4771915.06	9.00	0.00	
									17648440.03	4771913.77	9.00	0.00	
									17648436.77	4771911.75	9.00	0.00	
									17648436.09	4771912.99	9.00	0.00	
									17648432.92	4771911.25	9.00	0.00	
									17648433.66	4771909.96	9.00	0.00	
									17648430.39	4771907.94	9.00	0.00	
									17648429.65	4771909.29	9.00	0.00	
									17648426.91	4771907.66	9.00	0.00	
									17648427.64	4771906.38	9.00	0.00	
									17648424.25	4771904.28	9.00	0.00	
									17648429.30	4771895.06	9.00	0.00	
			Notes - Project Buildings	x	0		9.00	a	17648419.22	4771886.67	9.00	0.00	
									17648412.17	4771896.14	9.00	0.00	
									17648409.54	4771894.22	9.00	0.00	
									17648410.41	4771893.02	9.00	0.00	
									17648404.48	4771888.55	9.00	0.00	
									17648403.49	4771889.91	9.00	0.00	
									17648397.62	4771885.49	9.00	0.00	
									17648398.50	4771884.29	9.00	0.00	
									17648395.34	4771881.82	9.00	0.00	
									17648394.45	4771883.02	9.00	0.00	
									17648391.73	4771881.03	9.00	0.00	
									17648392.60	4771879.83	9.00	0.00	

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648389.45	4771877.37	9.00	0.00
									17648388.53	4771878.54	9.00	0.00
									17648385.80	4771876.56	9.00	0.00
									17648386.68	4771875.36	9.00	0.00
									17648383.17	4771872.57	9.00	0.00
									17648382.22	4771873.79	9.00	0.00
									17648379.67	4771871.94	9.00	0.00
									17648380.55	4771870.73	9.00	0.00
									17648377.94	4771868.69	9.00	0.00
									17648384.27	4771860.30	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648379.59	4771913.12	9.00	0.00
									17648380.44	4771912.05	9.00	0.00
									17648382.90	4771913.84	9.00	0.00
									17648382.03	4771915.04	9.00	0.00
									17648384.90	4771917.29	9.00	0.00
									17648379.64	4771924.81	9.00	0.00
									17648344.37	4771898.23	9.00	0.00
									17648350.75	4771889.67	9.00	0.00
									17648353.47	4771891.65	9.00	0.00
									17648352.60	4771892.85	9.00	0.00
									17648355.75	4771895.32	9.00	0.00
									17648356.70	4771894.19	9.00	0.00
									17648359.34	4771896.07	9.00	0.00
									17648358.47	4771897.28	9.00	0.00
									17648361.70	4771899.83	9.00	0.00
									17648362.63	4771898.66	9.00	0.00
									17648365.21	4771900.50	9.00	0.00
									17648364.33	4771901.70	9.00	0.00
									17648367.74	4771904.17	9.00	0.00
									17648368.57	4771903.11	9.00	0.00
									17648371.10	4771904.95	9.00	0.00
									17648370.23	4771906.15	9.00	0.00
									17648373.66	4771908.64	9.00	0.00
									17648374.50	4771907.58	9.00	0.00
									17648377.03	4771909.42	9.00	0.00
									17648376.16	4771910.62	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648415.72	4771934.80	9.00	0.00
									17648416.62	4771933.56	9.00	0.00
									17648419.31	4771935.15	9.00	0.00
									17648418.55	4771936.43	9.00	0.00
									17648422.07	4771938.65	9.00	0.00
									17648422.95	4771937.45	9.00	0.00
									17648425.56	4771939.01	9.00	0.00
									17648424.81	4771940.28	9.00	0.00
									17648427.88	4771942.25	9.00	0.00
									17648423.26	4771950.40	9.00	0.00
									17648385.64	4771927.25	9.00	0.00
									17648391.28	4771917.96	9.00	0.00
									17648394.18	4771919.68	9.00	0.00
									17648393.43	4771920.95	9.00	0.00
									17648396.80	4771923.11	9.00	0.00
									17648397.65	4771921.87	9.00	0.00
									17648400.44	4771923.53	9.00	0.00
									17648399.68	4771924.81	9.00	0.00
									17648403.08	4771927.01	9.00	0.00
									17648403.97	4771925.77	9.00	0.00
									17648406.70	4771927.38	9.00	0.00
									17648405.94	4771928.66	9.00	0.00
									17648409.41	4771930.88	9.00	0.00
									17648409.48	4771930.93	9.00	0.00
									17648410.30	4771929.66	9.00	0.00
									17648412.99	4771931.26	9.00	0.00
									17648412.23	4771932.53	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648460.54	4771955.84	9.00	0.00
									17648460.95	4771954.40	9.00	0.00
									17648463.99	4771955.13	9.00	0.00
									17648463.64	4771956.57	9.00	0.00
									17648467.74	4771957.64	9.00	0.00
									17648468.14	4771956.26	9.00	0.00
									17648471.10	4771956.98	9.00	0.00
									17648470.75	4771958.42	9.00	0.00
									17648474.26	4771959.40	9.00	0.00
									17648472.21	4771968.64	9.00	0.00
									17648429.46	4771957.53	9.00	0.00
									17648432.15	4771946.91	9.00	0.00
									17648435.43	4771947.70	9.00	0.00
									17648435.08	4771949.14	9.00	0.00
									17648438.94	4771950.21	9.00	0.00
									17648439.38	4771948.78	9.00	0.00
									17648442.54	4771949.54	9.00	0.00
									17648442.19	4771950.99	9.00	0.00
									17648446.15	4771952.12	9.00	0.00
									17648446.57	4771950.65	9.00	0.00
									17648449.65	4771951.39	9.00	0.00
									17648449.30	4771952.84	9.00	0.00
									17648453.34	4771953.99	9.00	0.00
									17648453.76	4771952.52	9.00	0.00
									17648456.80	4771953.26	9.00	0.00
									17648456.45	4771954.70	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648368.86	4771811.60	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates				
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648356.86	4771811.35	9.00	0.00
									17648356.90	4771807.98	9.00	0.00
									17648358.38	4771807.96	9.00	0.00
									17648358.55	4771804.20	9.00	0.00
									17648357.06	4771804.16	9.00	0.00
									17648357.09	4771800.64	9.00	0.00
									17648358.58	4771800.65	9.00	0.00
									17648358.75	4771796.78	9.00	0.00
									17648357.26	4771796.74	9.00	0.00
									17648357.29	4771793.29	9.00	0.00
									17648358.77	4771793.31	9.00	0.00
									17648358.95	4771789.35	9.00	0.00
									17648357.46	4771789.32	9.00	0.00
									17648357.49	4771785.91	9.00	0.00
									17648358.98	4771785.92	9.00	0.00
									17648359.15	4771781.92	9.00	0.00
									17648357.66	4771781.89	9.00	0.00
									17648357.70	4771778.48	9.00	0.00
									17648359.18	4771778.50	9.00	0.00
									17648359.36	4771774.50	9.00	0.00
									17648357.86	4771774.47	9.00	0.00
									17648357.89	4771771.14	9.00	0.00
									17648359.38	4771771.15	9.00	0.00
									17648359.54	4771767.51	9.00	0.00
									17648370.06	4771767.41	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648381.06	4771854.90	9.00	0.00
									17648370.00	4771859.24	9.00	0.00
									17648368.73	4771856.12	9.00	0.00
									17648370.11	4771855.56	9.00	0.00
									17648368.73	4771851.80	9.00	0.00
									17648367.33	4771852.31	9.00	0.00
									17648366.06	4771849.19	9.00	0.00
									17648367.43	4771848.63	9.00	0.00
									17648366.06	4771844.87	9.00	0.00
									17648364.65	4771845.38	9.00	0.00
									17648363.38	4771842.26	9.00	0.00
									17648364.76	4771841.70	9.00	0.00
									17648363.32	4771837.82	9.00	0.00
									17648361.94	4771838.36	9.00	0.00
									17648360.67	4771835.24	9.00	0.00
									17648362.05	4771834.68	9.00	0.00
									17648360.61	4771830.91	9.00	0.00
									17648359.22	4771831.44	9.00	0.00
									17648357.96	4771828.33	9.00	0.00
									17648359.34	4771827.77	9.00	0.00
									17648357.95	4771823.98	9.00	0.00
									17648367.05	4771820.40	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648253.90	4771789.29	9.00	0.00
									17648232.29	4771799.17	9.00	0.00
									17648226.95	4771787.50	9.00	0.00
									17648226.95	4771787.50	9.00	0.00
									17648224.06	4771781.16	9.00	0.00
									17648245.67	4771771.28	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648292.08	4771828.99	9.00	0.00
									17648253.57	4771844.32	9.00	0.00
									17648249.21	4771833.58	9.00	0.00
									17648251.97	4771832.42	9.00	0.00
									17648252.55	4771833.80	9.00	0.00
									17648255.85	4771832.55	9.00	0.00
									17648255.29	4771831.17	9.00	0.00
									17648258.05	4771830.01	9.00	0.00
									17648258.62	4771831.37	9.00	0.00
									17648262.48	4771829.91	9.00	0.00
									17648261.87	4771828.41	9.00	0.00
									17648264.63	4771827.25	9.00	0.00
									17648265.20	4771828.61	9.00	0.00
									17648268.86	4771827.22	9.00	0.00
									17648268.30	4771825.84	9.00	0.00
									17648271.06	4771824.68	9.00	0.00
									17648271.63	4771826.04	9.00	0.00
									17648275.30	4771824.65	9.00	0.00
									17648274.74	4771823.27	9.00	0.00
									17648277.50	4771822.11	9.00	0.00
									17648278.07	4771823.47	9.00	0.00
									17648281.64	4771822.11	9.00	0.00
									17648281.08	4771820.73	9.00	0.00
									17648283.84	4771819.57	9.00	0.00
									17648284.42	4771820.94	9.00	0.00
									17648288.23	4771819.49	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648287.18	4771781.53	9.00	0.00
									17648287.01	4771788.56	9.00	0.00
									17648257.31	4771787.81	9.00	0.00
									17648257.81	4771768.02	9.00	0.00
									17648287.50	4771768.76	9.00	0.00
									17648287.33	4771775.59	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648323.94	4771792.74	9.00	0.00
									17648314.64	4771792.51	9.00	0.00
									17648314.71	4771789.55	9.00	0.00
									17648314.59	4771789.55	9.00	0.00
									17648304.22	4771789.29	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648304.82	4771765.52	9.00	0.00
									17648324.61	4771766.02	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648322.97	4771831.42	9.00	0.00
									17648303.18	4771830.92	9.00	0.00
									17648303.77	4771807.47	9.00	0.00
									17648303.92	4771801.22	9.00	0.00
									17648314.41	4771801.48	9.00	0.00
									17648314.49	4771798.52	9.00	0.00
									17648323.79	4771798.76	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648218.51	4771812.50	9.00	0.00
									17648221.77	4771814.68	9.00	0.00
									17648222.57	4771813.42	9.00	0.00
									17648225.12	4771814.99	9.00	0.00
									17648224.34	4771816.25	9.00	0.00
									17648227.52	4771818.37	9.00	0.00
									17648228.32	4771817.12	9.00	0.00
									17648230.86	4771818.69	9.00	0.00
									17648230.08	4771819.95	9.00	0.00
									17648233.47	4771822.21	9.00	0.00
									17648234.30	4771820.92	9.00	0.00
									17648236.84	4771822.49	9.00	0.00
									17648236.06	4771823.75	9.00	0.00
									17648239.45	4771826.01	9.00	0.00
									17648233.93	4771834.70	9.00	0.00
									17648193.15	4771808.39	9.00	0.00
									17648199.36	4771798.61	9.00	0.00
									17648201.91	4771800.19	9.00	0.00
									17648201.12	4771801.46	9.00	0.00
									17648204.06	4771803.41	9.00	0.00
									17648204.85	4771802.16	9.00	0.00
									17648207.40	4771803.74	9.00	0.00
									17648206.62	4771804.99	9.00	0.00
									17648210.05	4771807.28	9.00	0.00
									17648210.92	4771805.92	9.00	0.00
									17648213.46	4771807.49	9.00	0.00
									17648212.68	4771808.75	9.00	0.00
									17648215.94	4771810.93	9.00	0.00
									17648216.74	4771809.67	9.00	0.00
									17648219.29	4771811.24	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648251.46	4771734.68	9.00	0.00
									17648248.33	4771736.01	9.00	0.00
									17648247.75	4771734.65	9.00	0.00
									17648244.10	4771736.05	9.00	0.00
									17648244.67	4771737.43	9.00	0.00
									17648241.54	4771738.76	9.00	0.00
									17648240.96	4771737.39	9.00	0.00
									17648237.20	4771738.83	9.00	0.00
									17648237.72	4771740.10	9.00	0.00
									17648234.59	4771741.43	9.00	0.00
									17648234.01	4771740.06	9.00	0.00
									17648230.27	4771741.50	9.00	0.00
									17648230.79	4771742.76	9.00	0.00
									17648227.65	4771744.10	9.00	0.00
									17648227.07	4771742.73	9.00	0.00
									17648223.33	4771744.17	9.00	0.00
									17648223.91	4771745.57	9.00	0.00
									17648220.78	4771746.91	9.00	0.00
									17648220.20	4771745.54	9.00	0.00
									17648216.46	4771746.98	9.00	0.00
									17648211.93	4771735.79	9.00	0.00
									17648246.30	4771722.14	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648291.42	4771731.40	9.00	0.00
									17648288.03	4771731.71	9.00	0.00
									17648287.90	4771730.20	9.00	0.00
									17648284.96	4771730.37	9.00	0.00
									17648285.08	4771731.85	9.00	0.00
									17648281.69	4771732.16	9.00	0.00
									17648281.56	4771730.68	9.00	0.00
									17648277.66	4771730.91	9.00	0.00
									17648277.78	4771732.38	9.00	0.00
									17648274.39	4771732.69	9.00	0.00
									17648274.25	4771731.22	9.00	0.00
									17648270.25	4771731.44	9.00	0.00
									17648270.35	4771732.92	9.00	0.00
									17648266.96	4771733.24	9.00	0.00
									17648266.82	4771731.76	9.00	0.00
									17648262.73	4771731.98	9.00	0.00
									17648262.85	4771733.47	9.00	0.00
									17648259.46	4771733.78	9.00	0.00
									17648259.32	4771732.30	9.00	0.00
									17648256.28	4771732.48	9.00	0.00
									17648255.32	4771720.43	9.00	0.00
									17648290.34	4771717.87	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648290.36	4771700.91	9.00	0.00
									17648238.87	4771699.33	9.00	0.00
									17648239.32	4771685.91	9.00	0.00
									17648242.58	4771685.93	9.00	0.00
									17648242.58	4771687.41	9.00	0.00
									17648246.71	4771687.59	9.00	0.00
									17648246.75	4771686.21	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648250.00	4771686.23	9.00	0.00
									17648250.00	4771687.71	9.00	0.00
									17648254.13	4771687.88	9.00	0.00
									17648254.17	4771686.38	9.00	0.00
									17648257.35	4771686.40	9.00	0.00
									17648257.34	4771687.88	9.00	0.00
									17648261.56	4771688.05	9.00	0.00
									17648261.59	4771686.55	9.00	0.00
									17648264.81	4771686.57	9.00	0.00
									17648264.80	4771688.05	9.00	0.00
									17648268.98	4771688.22	9.00	0.00
									17648269.02	4771686.72	9.00	0.00
									17648272.28	4771686.74	9.00	0.00
									17648272.27	4771688.22	9.00	0.00
									17648276.40	4771688.39	9.00	0.00
									17648276.44	4771686.89	9.00	0.00
									17648279.74	4771686.91	9.00	0.00
									17648279.73	4771688.39	9.00	0.00
									17648283.83	4771688.56	9.00	0.00
									17648283.86	4771687.20	9.00	0.00
									17648287.28	4771687.21	9.00	0.00
									17648287.27	4771688.70	9.00	0.00
									17648290.64	4771688.83	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648236.17	4771698.88	9.00	0.00
									17648189.57	4771697.81	9.00	0.00
									17648189.63	4771691.53	9.00	0.00
									17648191.81	4771691.55	9.00	0.00
									17648191.93	4771684.30	9.00	0.00
									17648195.34	4771684.32	9.00	0.00
									17648195.33	4771685.80	9.00	0.00
									17648199.21	4771685.96	9.00	0.00
									17648199.25	4771684.47	9.00	0.00
									17648202.76	4771684.49	9.00	0.00
									17648202.75	4771685.97	9.00	0.00
									17648206.64	4771686.13	9.00	0.00
									17648206.67	4771684.64	9.00	0.00
									17648210.19	4771684.66	9.00	0.00
									17648210.18	4771686.14	9.00	0.00
									17648214.06	4771686.30	9.00	0.00
									17648214.10	4771684.81	9.00	0.00
									17648217.61	4771684.83	9.00	0.00
									17648217.60	4771686.31	9.00	0.00
									17648221.48	4771686.47	9.00	0.00
									17648221.52	4771684.98	9.00	0.00
									17648225.03	4771685.00	9.00	0.00
									17648225.03	4771686.48	9.00	0.00
									17648228.91	4771686.64	9.00	0.00
									17648228.94	4771685.15	9.00	0.00
									17648232.46	4771685.17	9.00	0.00
									17648232.45	4771686.65	9.00	0.00
									17648236.57	4771686.82	9.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648174.71	4771686.94	6.00	0.00
									17648176.30	4771686.96	6.00	0.00
									17648176.26	4771690.92	6.00	0.00
									17648166.36	4771690.82	6.00	0.00
									17648166.40	4771686.74	6.00	0.00
									17648165.11	4771686.72	6.00	0.00
									17648165.15	4771682.66	6.00	0.00
									17648174.75	4771682.98	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648175.66	4771702.93	6.00	0.00
									17648164.89	4771704.34	6.00	0.00
									17648164.38	4771700.89	6.00	0.00
									17648163.49	4771701.02	6.00	0.00
									17648162.96	4771697.40	6.00	0.00
									17648174.74	4771695.86	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648179.49	4771714.88	6.00	0.00
									17648169.06	4771717.93	6.00	0.00
									17648168.03	4771714.60	6.00	0.00
									17648167.17	4771714.87	6.00	0.00
									17648166.09	4771711.37	6.00	0.00
									17648177.49	4771708.04	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648184.99	4771726.22	6.00	0.00
									17648176.45	4771731.23	6.00	0.00
									17648174.38	4771727.71	6.00	0.00
									17648173.27	4771728.36	6.00	0.00
									17648171.22	4771724.86	6.00	0.00
									17648179.61	4771720.19	6.00	0.00
									17648181.61	4771723.60	6.00	0.00
									17648182.98	4771722.80	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648190.45	4771736.08	6.00	0.00
									17648183.97	4771740.39	6.00	0.00
									17648182.11	4771737.70	6.00	0.00
									17648180.40	4771738.89	6.00	0.00
									17648178.33	4771735.90	6.00	0.00
									17648186.64	4771730.36	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648188.21	4771753.14	6.00	0.00
									17648186.11	4771750.14	6.00	0.00
									17648186.84	4771749.63	6.00	0.00
									17648184.84	4771746.78	6.00	0.00
									17648193.62	4771740.38	6.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648197.82	4771746.14	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648199.11	4771762.55	6.00	0.00
									17648196.44	4771759.47	6.00	0.00
									17648195.46	4771760.31	6.00	0.00
									17648192.80	4771757.25	6.00	0.00
									17648200.20	4771751.12	6.00	0.00
									17648202.80	4771754.12	6.00	0.00
									17648203.99	4771753.08	6.00	0.00
									17648206.59	4771756.07	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.53	4771735.23	6.00	0.00
									17648124.29	4771738.78	6.00	0.00
									17648122.76	4771734.81	6.00	0.00
									17648124.34	4771734.20	6.00	0.00
									17648122.86	4771730.37	6.00	0.00
									17648132.01	4771726.85	6.00	0.00
									17648133.56	4771730.87	6.00	0.00
									17648132.08	4771731.44	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648135.72	4771746.92	6.00	0.00
									17648126.23	4771752.20	6.00	0.00
									17648122.76	4771745.98	6.00	0.00
									17648133.14	4771740.20	6.00	0.00
									17648134.87	4771743.43	6.00	0.00
									17648134.08	4771743.85	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648144.28	4771755.37	6.00	0.00
									17648135.24	4771761.39	6.00	0.00
									17648131.28	4771755.46	6.00	0.00
									17648141.17	4771748.87	6.00	0.00
									17648143.15	4771751.95	6.00	0.00
									17648142.40	4771752.44	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648148.49	4771769.17	6.00	0.00
									17648140.25	4771774.66	6.00	0.00
									17648137.89	4771771.12	6.00	0.00
									17648139.29	4771770.19	6.00	0.00
									17648137.01	4771766.77	6.00	0.00
									17648145.16	4771761.33	6.00	0.00
									17648147.55	4771764.91	6.00	0.00
									17648146.23	4771765.79	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648158.94	4771775.44	6.00	0.00
									17648150.47	4771781.09	6.00	0.00
									17648146.46	4771775.08	6.00	0.00
									17648153.30	4771770.52	6.00	0.00
									17648155.42	4771773.70	6.00	0.00
									17648157.05	4771772.61	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648159.76	4771788.49	6.00	0.00
									17648155.75	4771782.48	6.00	0.00
									17648162.59	4771777.92	6.00	0.00
									17648164.71	4771781.10	6.00	0.00
									17648166.34	4771780.01	6.00	0.00
									17648168.23	4771782.85	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.14	4771660.83	6.00	0.00
									17648132.25	4771660.80	6.00	0.00
									17648132.15	4771664.28	6.00	0.00
									17648121.29	4771664.18	6.00	0.00
									17648121.36	4771657.05	6.00	0.00
									17648133.24	4771657.16	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648128.68	4771675.78	6.00	0.00
									17648118.50	4771675.68	6.00	0.00
									17648118.57	4771668.45	6.00	0.00
									17648126.79	4771668.53	6.00	0.00
									17648126.75	4771672.35	6.00	0.00
									17648128.71	4771672.37	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648130.03	4771684.16	6.00	0.00
									17648128.45	4771684.15	6.00	0.00
									17648128.41	4771688.21	6.00	0.00
									17648118.51	4771688.11	6.00	0.00
									17648118.55	4771683.85	6.00	0.00
									17648120.23	4771683.87	6.00	0.00
									17648120.27	4771679.76	6.00	0.00
									17648130.07	4771679.86	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648124.90	4771695.01	6.00	0.00
									17648126.85	4771694.84	6.00	0.00
									17648127.13	4771698.24	6.00	0.00
									17648116.98	4771699.07	6.00	0.00
									17648116.39	4771691.87	6.00	0.00
									17648124.58	4771691.20	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648129.52	4771711.13	6.00	0.00
									17648119.83	4771713.19	6.00	0.00
									17648118.95	4771709.03	6.00	0.00
									17648120.59	4771708.68	6.00	0.00
									17648119.74	4771704.66	6.00	0.00
									17648129.32	4771702.62	6.00	0.00
									17648130.22	4771706.83	6.00	0.00
									17648128.67	4771707.16	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648130.61	4771721.73	6.00	0.00
									17648120.84	4771724.58	6.00	0.00
									17648118.82	4771717.64	6.00	0.00
									17648126.70	4771715.34	6.00	0.00
									17648127.78	4771719.01	6.00	0.00
									17648129.66	4771718.46	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648132.30	4771528.82	6.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648134.26	4771528.84	6.00	0.00
									17648134.22	4771532.24	6.00	0.00
									17648124.04	4771532.14	6.00	0.00
									17648124.12	4771524.92	6.00	0.00
									17648132.33	4771525.00	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.79	4771541.74	6.00	0.00
									17648132.21	4771541.72	6.00	0.00
									17648132.17	4771545.78	6.00	0.00
									17648122.27	4771545.69	6.00	0.00
									17648122.31	4771541.43	6.00	0.00
									17648123.99	4771541.44	6.00	0.00
									17648124.03	4771537.34	6.00	0.00
									17648133.84	4771537.43	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.23	4771551.87	6.00	0.00
									17648134.12	4771551.87	6.00	0.00
									17648134.14	4771555.53	6.00	0.00
									17648122.26	4771555.41	6.00	0.00
									17648122.33	4771548.29	6.00	0.00
									17648133.20	4771548.39	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.90	4771565.65	6.00	0.00
									17648123.72	4771565.55	6.00	0.00
									17648123.79	4771558.33	6.00	0.00
									17648132.01	4771558.41	6.00	0.00
									17648131.97	4771562.23	6.00	0.00
									17648133.93	4771562.25	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.48	4771574.02	6.00	0.00
									17648131.89	4771574.00	6.00	0.00
									17648131.85	4771578.06	6.00	0.00
									17648121.95	4771577.96	6.00	0.00
									17648121.99	4771573.71	6.00	0.00
									17648123.68	4771573.72	6.00	0.00
									17648123.72	4771569.62	6.00	0.00
									17648133.52	4771569.71	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648132.81	4771587.88	6.00	0.00
									17648121.95	4771587.78	6.00	0.00
									17648122.02	4771580.65	6.00	0.00
									17648133.90	4771580.77	6.00	0.00
									17648133.80	4771584.43	6.00	0.00
									17648132.91	4771584.40	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648130.57	4771595.86	6.00	0.00
									17648132.53	4771595.88	6.00	0.00
									17648132.49	4771599.29	6.00	0.00
									17648122.32	4771599.19	6.00	0.00
									17648122.39	4771591.96	6.00	0.00
									17648130.60	4771592.04	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648128.92	4771606.17	6.00	0.00
									17648127.34	4771606.15	6.00	0.00
									17648127.30	4771610.21	6.00	0.00
									17648117.40	4771610.11	6.00	0.00
									17648117.44	4771605.86	6.00	0.00
									17648119.12	4771605.87	6.00	0.00
									17648119.16	4771601.76	6.00	0.00
									17648128.96	4771601.86	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648131.20	4771617.00	6.00	0.00
									17648130.31	4771616.97	6.00	0.00
									17648130.21	4771620.45	6.00	0.00
									17648119.35	4771620.35	6.00	0.00
									17648119.42	4771613.22	6.00	0.00
									17648131.30	4771613.34	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.46	4771628.16	6.00	0.00
									17648132.57	4771628.13	6.00	0.00
									17648132.47	4771631.61	6.00	0.00
									17648121.61	4771631.51	6.00	0.00
									17648121.68	4771624.38	6.00	0.00
									17648133.56	4771624.49	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648127.07	4771639.68	6.00	0.00
									17648129.03	4771639.70	6.00	0.00
									17648129.00	4771643.11	6.00	0.00
									17648118.82	4771643.01	6.00	0.00
									17648118.89	4771635.78	6.00	0.00
									17648127.11	4771635.86	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648128.74	4771654.54	6.00	0.00
									17648118.84	4771654.45	6.00	0.00
									17648118.88	4771650.19	6.00	0.00
									17648120.56	4771650.21	6.00	0.00
									17648120.60	4771646.10	6.00	0.00
									17648130.40	4771646.20	6.00	0.00
									17648130.36	4771650.50	6.00	0.00
									17648128.78	4771650.48	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648177.40	4771534.60	6.00	0.00
									17648166.81	4771534.25	6.00	0.00
									17648166.85	4771530.88	6.00	0.00
									17648165.96	4771530.87	6.00	0.00
									17648165.99	4771527.49	6.00	0.00
									17648177.63	4771527.87	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648178.75	4771545.10	6.00	0.00
									17648168.58	4771544.65	6.00	0.00
									17648168.74	4771541.25	6.00	0.00
									17648170.69	4771541.33	6.00	0.00
									17648170.86	4771537.52	6.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648179.07	4771537.88	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648175.10	4771553.48	6.00	0.00
									17648176.69	4771553.50	6.00	0.00
									17648176.65	4771557.46	6.00	0.00
									17648166.75	4771557.36	6.00	0.00
									17648166.79	4771553.28	6.00	0.00
									17648165.50	4771553.26	6.00	0.00
									17648165.54	4771549.20	6.00	0.00
									17648175.14	4771549.52	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648178.90	4771568.13	6.00	0.00
									17648168.04	4771567.84	6.00	0.00
									17648168.08	4771564.36	6.00	0.00
									17648167.19	4771564.35	6.00	0.00
									17648167.22	4771560.68	6.00	0.00
									17648179.10	4771561.01	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648176.51	4771578.86	6.00	0.00
									17648165.65	4771578.57	6.00	0.00
									17648165.69	4771575.08	6.00	0.00
									17648164.80	4771575.07	6.00	0.00
									17648164.83	4771571.41	6.00	0.00
									17648176.71	4771571.74	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648177.69	4771608.01	6.00	0.00
									17648176.11	4771608.00	6.00	0.00
									17648176.07	4771612.06	6.00	0.00
									17648166.17	4771611.96	6.00	0.00
									17648166.21	4771607.70	6.00	0.00
									17648167.89	4771607.72	6.00	0.00
									17648167.93	4771603.61	6.00	0.00
									17648177.64	4771603.71	6.00	0.00
									17648177.73	4771603.71	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648173.59	4771623.24	6.00	0.00
									17648163.42	4771622.79	6.00	0.00
									17648163.57	4771619.38	6.00	0.00
									17648165.53	4771619.47	6.00	0.00
									17648165.70	4771615.65	6.00	0.00
									17648173.91	4771616.02	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648177.47	4771630.77	6.00	0.00
									17648179.05	4771630.79	6.00	0.00
									17648179.02	4771634.75	6.00	0.00
									17648169.12	4771634.65	6.00	0.00
									17648169.16	4771630.57	6.00	0.00
									17648167.87	4771630.55	6.00	0.00
									17648167.91	4771626.49	6.00	0.00
									17648177.51	4771626.81	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648175.10	4771645.86	6.00	0.00
									17648164.24	4771645.57	6.00	0.00
									17648164.28	4771642.08	6.00	0.00
									17648163.38	4771642.08	6.00	0.00
									17648163.42	4771638.41	6.00	0.00
									17648175.30	4771638.74	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648176.09	4771656.21	6.00	0.00
									17648165.23	4771655.92	6.00	0.00
									17648165.26	4771652.43	6.00	0.00
									17648164.37	4771652.43	6.00	0.00
									17648164.41	4771648.76	6.00	0.00
									17648176.28	4771649.09	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648170.13	4771495.09	6.00	0.00
									17648166.64	4771495.14	6.00	0.00
									17648166.65	4771496.00	6.00	0.00
									17648162.99	4771496.06	6.00	0.00
									17648163.10	4771484.18	6.00	0.00
									17648170.23	4771484.25	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648158.20	4771492.89	6.00	0.00
									17648154.38	4771492.85	6.00	0.00
									17648154.36	4771494.81	6.00	0.00
									17648150.95	4771494.78	6.00	0.00
									17648151.05	4771484.60	6.00	0.00
									17648158.28	4771484.67	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648147.32	4771495.05	6.00	0.00
									17648143.02	4771495.01	6.00	0.00
									17648143.03	4771493.43	6.00	0.00
									17648138.97	4771493.39	6.00	0.00
									17648139.07	4771483.49	6.00	0.00
									17648143.33	4771483.53	6.00	0.00
									17648143.31	4771485.21	6.00	0.00
									17648147.42	4771485.25	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648134.90	4771495.33	6.00	0.00
									17648131.24	4771495.23	6.00	0.00
									17648131.26	4771494.34	6.00	0.00
									17648127.78	4771494.24	6.00	0.00
									17648127.89	4771483.38	6.00	0.00
									17648135.02	4771483.45	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648123.62	4771493.54	6.00	0.00
									17648120.13	4771493.59	6.00	0.00
									17648120.14	4771494.45	6.00	0.00
									17648116.48	4771494.51	6.00	0.00
									17648116.60	4771482.63	6.00	0.00
									17648123.72	4771482.70	6.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648240.95	4771544.66	9.00	0.00
									17648188.98	4771543.47	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648189.43	4771529.97	9.00	0.00
									17648192.66	4771529.93	9.00	0.00
									17648192.68	4771531.41	9.00	0.00
									17648196.69	4771531.57	9.00	0.00
									17648196.71	4771530.08	9.00	0.00
									17648200.12	4771530.09	9.00	0.00
									17648200.11	4771531.58	9.00	0.00
									17648204.11	4771531.74	9.00	0.00
									17648204.13	4771530.25	9.00	0.00
									17648207.54	4771530.26	9.00	0.00
									17648207.53	4771531.75	9.00	0.00
									17648211.53	4771531.91	9.00	0.00
									17648211.56	4771530.42	9.00	0.00
									17648214.96	4771530.43	9.00	0.00
									17648214.96	4771531.92	9.00	0.00
									17648218.96	4771532.08	9.00	0.00
									17648218.98	4771530.59	9.00	0.00
									17648222.39	4771530.60	9.00	0.00
									17648222.38	4771532.09	9.00	0.00
									17648226.38	4771532.25	9.00	0.00
									17648226.41	4771530.76	9.00	0.00
									17648229.81	4771530.77	9.00	0.00
									17648229.80	4771532.26	9.00	0.00
									17648233.80	4771532.42	9.00	0.00
									17648233.83	4771530.93	9.00	0.00
									17648237.21	4771530.94	9.00	0.00
									17648237.23	4771532.43	9.00	0.00
									17648241.34	4771532.60	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648294.57	4771546.32	9.00	0.00
									17648243.87	4771544.90	9.00	0.00
									17648244.32	4771531.34	9.00	0.00
									17648247.59	4771531.36	9.00	0.00
									17648247.58	4771532.87	9.00	0.00
									17648251.62	4771533.01	9.00	0.00
									17648251.64	4771531.64	9.00	0.00
									17648255.00	4771531.66	9.00	0.00
									17648255.03	4771533.15	9.00	0.00
									17648259.04	4771533.31	9.00	0.00
									17648259.07	4771531.81	9.00	0.00
									17648262.35	4771531.83	9.00	0.00
									17648262.34	4771533.31	9.00	0.00
									17648266.46	4771533.48	9.00	0.00
									17648266.49	4771531.98	9.00	0.00
									17648269.81	4771532.00	9.00	0.00
									17648269.81	4771533.49	9.00	0.00
									17648273.89	4771533.65	9.00	0.00
									17648273.91	4771532.15	9.00	0.00
									17648277.28	4771532.17	9.00	0.00
									17648277.27	4771533.66	9.00	0.00
									17648281.31	4771533.82	9.00	0.00
									17648281.34	4771532.32	9.00	0.00
									17648284.74	4771532.34	9.00	0.00
									17648284.73	4771533.83	9.00	0.00
									17648288.74	4771533.99	9.00	0.00
									17648288.76	4771532.63	9.00	0.00
									17648292.28	4771532.65	9.00	0.00
									17648292.27	4771534.13	9.00	0.00
									17648294.85	4771534.24	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648294.18	4771578.29	9.00	0.00
									17648291.41	4771578.26	9.00	0.00
									17648291.34	4771579.75	9.00	0.00
									17648288.07	4771579.60	9.00	0.00
									17648288.10	4771578.23	9.00	0.00
									17648283.86	4771578.19	9.00	0.00
									17648283.79	4771579.67	9.00	0.00
									17648280.53	4771579.53	9.00	0.00
									17648280.55	4771578.03	9.00	0.00
									17648276.40	4771577.98	9.00	0.00
									17648276.33	4771579.47	9.00	0.00
									17648273.07	4771579.32	9.00	0.00
									17648273.09	4771577.82	9.00	0.00
									17648268.93	4771577.78	9.00	0.00
									17648268.87	4771579.26	9.00	0.00
									17648265.60	4771579.12	9.00	0.00
									17648265.63	4771577.65	9.00	0.00
									17648261.47	4771577.58	9.00	0.00
									17648261.40	4771579.06	9.00	0.00
									17648258.14	4771578.91	9.00	0.00
									17648258.17	4771577.42	9.00	0.00
									17648254.13	4771577.38	9.00	0.00
									17648254.06	4771578.86	9.00	0.00
									17648250.80	4771578.71	9.00	0.00
									17648250.82	4771577.34	9.00	0.00
									17648246.70	4771577.30	9.00	0.00
									17648246.63	4771578.79	9.00	0.00
									17648243.37	4771578.64	9.00	0.00
									17648243.60	4771565.08	9.00	0.00
									17648294.51	4771566.20	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648240.46	4771577.24	9.00	0.00
									17648236.34	4771577.20	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648236.28	4771578.69	9.00	0.00
									17648233.01	4771578.54	9.00	0.00
									17648233.04	4771577.07	9.00	0.00
									17648228.92	4771577.00	9.00	0.00
									17648228.85	4771578.48	9.00	0.00
									17648225.59	4771578.34	9.00	0.00
									17648225.62	4771576.84	9.00	0.00
									17648221.50	4771576.80	9.00	0.00
									17648221.43	4771578.28	9.00	0.00
									17648218.17	4771578.14	9.00	0.00
									17648218.14	4771576.64	9.00	0.00
									17648214.07	4771576.60	9.00	0.00
									17648214.01	4771578.08	9.00	0.00
									17648210.74	4771577.93	9.00	0.00
									17648210.77	4771576.43	9.00	0.00
									17648206.65	4771576.39	9.00	0.00
									17648206.58	4771577.88	9.00	0.00
									17648203.32	4771577.73	9.00	0.00
									17648203.35	4771576.23	9.00	0.00
									17648199.23	4771576.19	9.00	0.00
									17648199.16	4771577.67	9.00	0.00
									17648195.90	4771577.53	9.00	0.00
									17648195.92	4771576.03	9.00	0.00
									17648191.80	4771575.99	9.00	0.00
									17648191.74	4771577.47	9.00	0.00
									17648188.47	4771577.33	9.00	0.00
									17648188.71	4771563.76	9.00	0.00
									17648240.67	4771565.18	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648292.92	4771623.73	9.00	0.00
									17648242.22	4771622.31	9.00	0.00
									17648242.67	4771608.75	9.00	0.00
									17648245.94	4771608.77	9.00	0.00
									17648245.93	4771610.28	9.00	0.00
									17648249.97	4771610.42	9.00	0.00
									17648249.99	4771609.05	9.00	0.00
									17648253.36	4771609.07	9.00	0.00
									17648253.38	4771610.56	9.00	0.00
									17648257.39	4771610.72	9.00	0.00
									17648257.42	4771609.22	9.00	0.00
									17648260.70	4771609.24	9.00	0.00
									17648260.69	4771610.72	9.00	0.00
									17648264.81	4771610.89	9.00	0.00
									17648264.84	4771609.39	9.00	0.00
									17648268.16	4771609.41	9.00	0.00
									17648268.16	4771610.90	9.00	0.00
									17648272.24	4771611.06	9.00	0.00
									17648272.26	4771609.56	9.00	0.00
									17648275.63	4771609.58	9.00	0.00
									17648275.62	4771611.07	9.00	0.00
									17648279.66	4771611.23	9.00	0.00
									17648279.69	4771609.73	9.00	0.00
									17648283.09	4771609.75	9.00	0.00
									17648283.08	4771611.24	9.00	0.00
									17648287.09	4771611.40	9.00	0.00
									17648287.11	4771610.04	9.00	0.00
									17648290.63	4771610.06	9.00	0.00
									17648290.62	4771611.54	9.00	0.00
									17648293.20	4771611.64	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648239.30	4771622.07	9.00	0.00
									17648187.33	4771620.88	9.00	0.00
									17648187.78	4771607.38	9.00	0.00
									17648191.01	4771607.33	9.00	0.00
									17648191.03	4771608.82	9.00	0.00
									17648195.04	4771608.98	9.00	0.00
									17648195.06	4771607.49	9.00	0.00
									17648198.47	4771607.50	9.00	0.00
									17648198.46	4771608.99	9.00	0.00
									17648202.46	4771609.15	9.00	0.00
									17648202.49	4771607.66	9.00	0.00
									17648205.89	4771607.67	9.00	0.00
									17648205.88	4771609.16	9.00	0.00
									17648209.88	4771609.32	9.00	0.00
									17648209.91	4771607.83	9.00	0.00
									17648213.32	4771607.84	9.00	0.00
									17648213.31	4771609.33	9.00	0.00
									17648217.31	4771609.49	9.00	0.00
									17648217.33	4771608.00	9.00	0.00
									17648220.74	4771608.01	9.00	0.00
									17648220.73	4771609.50	9.00	0.00
									17648224.73	4771609.66	9.00	0.00
									17648224.76	4771608.17	9.00	0.00
									17648228.16	4771608.18	9.00	0.00
									17648228.16	4771609.67	9.00	0.00
									17648232.16	4771609.83	9.00	0.00
									17648232.18	4771608.34	9.00	0.00
									17648235.56	4771608.35	9.00	0.00
									17648235.58	4771609.84	9.00	0.00
									17648239.69	4771610.01	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648292.53	4771655.70	9.00	0.00
									17648289.76	4771655.67	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648289.69	4771657.15	9.00	0.00
									17648286.43	4771657.01	9.00	0.00
									17648286.45	4771655.64	9.00	0.00
									17648282.21	4771655.60	9.00	0.00
									17648282.14	4771657.08	9.00	0.00
									17648278.88	4771656.93	9.00	0.00
									17648278.90	4771655.44	9.00	0.00
									17648274.75	4771655.39	9.00	0.00
									17648274.68	4771656.88	9.00	0.00
									17648271.42	4771656.73	9.00	0.00
									17648271.44	4771655.23	9.00	0.00
									17648267.28	4771655.19	9.00	0.00
									17648267.22	4771656.67	9.00	0.00
									17648263.95	4771656.53	9.00	0.00
									17648263.98	4771655.06	9.00	0.00
									17648259.82	4771654.99	9.00	0.00
									17648259.75	4771656.47	9.00	0.00
									17648256.49	4771656.32	9.00	0.00
									17648256.52	4771654.83	9.00	0.00
									17648252.48	4771654.79	9.00	0.00
									17648252.41	4771656.27	9.00	0.00
									17648249.15	4771656.12	9.00	0.00
									17648249.17	4771654.75	9.00	0.00
									17648245.05	4771654.71	9.00	0.00
									17648244.98	4771656.20	9.00	0.00
									17648241.72	4771656.05	9.00	0.00
									17648241.95	4771642.49	9.00	0.00
									17648292.86	4771643.61	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648238.81	4771654.65	9.00	0.00
									17648234.69	4771654.61	9.00	0.00
									17648234.63	4771656.10	9.00	0.00
									17648231.36	4771655.95	9.00	0.00
									17648231.39	4771654.48	9.00	0.00
									17648227.27	4771654.41	9.00	0.00
									17648227.20	4771655.89	9.00	0.00
									17648223.94	4771655.75	9.00	0.00
									17648223.97	4771654.25	9.00	0.00
									17648219.85	4771654.21	9.00	0.00
									17648219.78	4771655.69	9.00	0.00
									17648216.52	4771655.55	9.00	0.00
									17648216.49	4771654.05	9.00	0.00
									17648212.42	4771654.01	9.00	0.00
									17648212.36	4771655.49	9.00	0.00
									17648209.09	4771655.34	9.00	0.00
									17648209.12	4771653.84	9.00	0.00
									17648205.00	4771653.80	9.00	0.00
									17648204.93	4771655.29	9.00	0.00
									17648201.67	4771655.14	9.00	0.00
									17648201.70	4771653.64	9.00	0.00
									17648197.58	4771653.60	9.00	0.00
									17648197.51	4771655.08	9.00	0.00
									17648194.25	4771654.94	9.00	0.00
									17648194.27	4771653.44	9.00	0.00
									17648190.15	4771653.40	9.00	0.00
									17648190.09	4771654.88	9.00	0.00
									17648186.82	4771654.74	9.00	0.00
									17648187.06	4771641.17	9.00	0.00
									17648239.02	4771642.59	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648326.01	4771583.84	9.00	0.00
									17648310.75	4771583.53	9.00	0.00
									17648310.70	4771579.67	9.00	0.00
									17648305.89	4771579.55	9.00	0.00
									17648306.05	4771573.11	9.00	0.00
									17648311.10	4771573.16	9.00	0.00
									17648311.25	4771567.00	9.00	0.00
									17648306.12	4771566.88	9.00	0.00
									17648306.23	4771560.84	9.00	0.00
									17648311.35	4771560.89	9.00	0.00
									17648311.43	4771552.55	9.00	0.00
									17648306.17	4771552.42	9.00	0.00
									17648306.47	4771546.09	9.00	0.00
									17648311.54	4771546.14	9.00	0.00
									17648311.69	4771540.08	9.00	0.00
									17648306.56	4771539.95	9.00	0.00
									17648306.66	4771534.11	9.00	0.00
									17648311.79	4771534.16	9.00	0.00
									17648311.83	4771530.07	9.00	0.00
									17648327.79	4771530.58	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648324.67	4771661.06	9.00	0.00
									17648309.42	4771660.75	9.00	0.00
									17648309.36	4771656.89	9.00	0.00
									17648304.55	4771656.77	9.00	0.00
									17648304.71	4771650.33	9.00	0.00
									17648309.77	4771650.38	9.00	0.00
									17648309.92	4771644.23	9.00	0.00
									17648304.78	4771644.10	9.00	0.00
									17648304.90	4771638.06	9.00	0.00
									17648310.02	4771638.11	9.00	0.00
									17648310.10	4771629.77	9.00	0.00
									17648304.84	4771629.64	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648305.14	4771623.31	9.00	0.00
									17648310.21	4771623.36	9.00	0.00
									17648310.36	4771617.30	9.00	0.00
									17648305.23	4771617.17	9.00	0.00
									17648305.33	4771611.33	9.00	0.00
									17648310.46	4771611.38	9.00	0.00
									17648310.50	4771607.30	9.00	0.00
									17648326.46	4771607.81	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648323.32	4771738.29	9.00	0.00
									17648308.07	4771737.97	9.00	0.00
									17648308.01	4771734.12	9.00	0.00
									17648303.20	4771733.99	9.00	0.00
									17648303.36	4771727.56	9.00	0.00
									17648308.42	4771727.61	9.00	0.00
									17648308.57	4771721.45	9.00	0.00
									17648303.43	4771721.32	9.00	0.00
									17648303.55	4771715.28	9.00	0.00
									17648308.67	4771715.33	9.00	0.00
									17648308.75	4771706.99	9.00	0.00
									17648303.48	4771706.87	9.00	0.00
									17648303.79	4771700.53	9.00	0.00
									17648308.86	4771700.58	9.00	0.00
									17648309.01	4771694.52	9.00	0.00
									17648303.87	4771694.40	9.00	0.00
									17648303.97	4771688.55	9.00	0.00
									17648309.11	4771688.60	9.00	0.00
									17648309.15	4771684.52	9.00	0.00
									17648325.11	4771685.03	9.00	0.00
			Notes - Project Buildings	x	0		20.50	a	17648328.93	4771506.42	20.50	0.00
									17648293.65	4771505.54	20.50	0.00
									17648294.12	4771486.73	20.50	0.00
									17648310.65	4771487.14	20.50	0.00
									17648310.78	4771482.20	20.50	0.00
									17648307.65	4771482.12	20.50	0.00
									17648307.90	4771472.22	20.50	0.00
									17648329.77	4771472.77	20.50	0.00
			Notes - Project Buildings	x	0		20.50	a	17648278.31	4771504.87	20.50	0.00
									17648243.31	4771504.18	20.50	0.00
									17648243.97	4771470.73	20.50	0.00
									17648265.67	4771471.16	20.50	0.00
									17648265.47	4771481.06	20.50	0.00
									17648262.46	4771481.00	20.50	0.00
									17648262.37	4771485.61	20.50	0.00
									17648278.69	4771485.93	20.50	0.00
			Notes - Project Buildings	x	0		17.50	a	17648232.56	4771422.03	17.50	0.00
									17648203.15	4771421.29	17.50	0.00
									17648203.06	4771424.75	17.50	0.00
									17648206.03	4771424.83	17.50	0.00
									17648205.50	4771445.91	17.50	0.00
									17648186.70	4771445.44	17.50	0.00
									17648187.84	4771399.91	17.50	0.00
									17648233.09	4771401.04	17.50	0.00
			Notes - Project Buildings	x	0		17.50	a	17648220.57	4771496.48	17.50	0.00
									17648185.39	4771495.60	17.50	0.00
									17648186.24	4771461.95	17.50	0.00
									17648204.99	4771462.42	17.50	0.00
									17648204.64	4771476.28	17.50	0.00
									17648209.59	4771476.40	17.50	0.00
									17648209.60	4771475.78	17.50	0.00
									17648209.65	4771473.49	17.50	0.00
									17648221.14	4771473.72	17.50	0.00
			Notes - Project Buildings	x	0		45.30	a	17648399.67	4771501.76	45.30	0.00
									17648399.66	4771501.97	45.30	0.00
									17648399.63	4771502.19	45.30	0.00
									17648399.59	4771502.40	45.30	0.00
									17648399.54	4771502.62	45.30	0.00
									17648399.47	4771502.82	45.30	0.00
									17648399.39	4771503.03	45.30	0.00
									17648399.30	4771503.22	45.30	0.00
									17648399.20	4771503.41	45.30	0.00
									17648399.08	4771503.60	45.30	0.00
									17648398.96	4771503.78	45.30	0.00
									17648398.82	4771503.95	45.30	0.00
									17648398.67	4771504.10	45.30	0.00
									17648398.51	4771504.25	45.30	0.00
									17648398.35	4771504.39	45.30	0.00
									17648398.17	4771504.52	45.30	0.00
									17648397.99	4771504.64	45.30	0.00
									17648397.80	4771504.75	45.30	0.00
									17648397.60	4771504.84	45.30	0.00
									17648397.40	4771504.92	45.30	0.00
									17648397.19	4771504.99	45.30	0.00
									17648396.98	4771505.05	45.30	0.00
									17648396.77	4771505.09	45.30	0.00
									17648396.55	4771505.12	45.30	0.00
									17648396.34	4771505.13	45.30	0.00
									17648396.12	4771505.13	45.30	0.00
									17648369.39	4771504.46	45.30	0.00
									17648369.18	4771504.45	45.30	0.00
									17648368.96	4771504.43	45.30	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648368.75	4771504.39	45.30	0.00
									17648368.54	4771504.33	45.30	0.00
									17648368.33	4771504.27	45.30	0.00
									17648368.13	4771504.19	45.30	0.00
									17648367.93	4771504.10	45.30	0.00
									17648367.74	4771503.99	45.30	0.00
									17648367.55	4771503.88	45.30	0.00
									17648367.37	4771503.75	45.30	0.00
									17648367.21	4771503.61	45.30	0.00
									17648367.05	4771503.47	45.30	0.00
									17648366.90	4771503.31	45.30	0.00
									17648366.76	4771503.14	45.30	0.00
									17648366.63	4771502.97	45.30	0.00
									17648366.51	4771502.78	45.30	0.00
									17648366.40	4771502.59	45.30	0.00
									17648366.31	4771502.40	45.30	0.00
									17648366.23	4771502.19	45.30	0.00
									17648366.16	4771501.99	45.30	0.00
									17648366.10	4771501.78	45.30	0.00
									17648366.06	4771501.56	45.30	0.00
									17648366.03	4771501.35	45.30	0.00
									17648366.02	4771501.13	45.30	0.00
									17648366.02	4771500.91	45.30	0.00
									17648366.43	4771484.25	45.30	0.00
									17648366.45	4771484.02	45.30	0.00
									17648366.48	4771483.80	45.30	0.00
									17648366.52	4771483.58	45.30	0.00
									17648366.58	4771483.36	45.30	0.00
									17648366.65	4771483.14	45.30	0.00
									17648366.73	4771482.93	45.30	0.00
									17648366.83	4771482.73	45.30	0.00
									17648366.94	4771482.53	45.30	0.00
									17648367.07	4771482.34	45.30	0.00
									17648367.20	4771482.16	45.30	0.00
									17648367.35	4771481.99	45.30	0.00
									17648367.51	4771481.83	45.30	0.00
									17648367.68	4771481.68	45.30	0.00
									17648367.86	4771481.54	45.30	0.00
									17648368.05	4771481.41	45.30	0.00
									17648368.24	4771481.29	45.30	0.00
									17648368.44	4771481.19	45.30	0.00
									17648368.65	4771481.10	45.30	0.00
									17648368.87	4771481.03	45.30	0.00
									17648369.09	4771480.97	45.30	0.00
									17648369.31	4771480.92	45.30	0.00
									17648369.53	4771480.89	45.30	0.00
									17648369.76	4771480.87	45.30	0.00
									17648369.99	4771480.87	45.30	0.00
									17648396.71	4771481.54	45.30	0.00
									17648396.93	4771481.56	45.30	0.00
									17648397.14	4771481.58	45.30	0.00
									17648397.36	4771481.62	45.30	0.00
									17648397.57	4771481.67	45.30	0.00
									17648397.78	4771481.74	45.30	0.00
									17648397.98	4771481.82	45.30	0.00
									17648398.18	4771481.91	45.30	0.00
									17648398.37	4771482.01	45.30	0.00
									17648398.55	4771482.13	45.30	0.00
									17648398.73	4771482.26	45.30	0.00
									17648398.90	4771482.39	45.30	0.00
									17648399.06	4771482.54	45.30	0.00
									17648399.21	4771482.70	45.30	0.00
									17648399.35	4771482.87	45.30	0.00
									17648399.48	4771483.04	45.30	0.00
									17648399.59	4771483.22	45.30	0.00
									17648399.70	4771483.41	45.30	0.00
									17648399.79	4771483.61	45.30	0.00
									17648399.88	4771483.81	45.30	0.00
									17648399.94	4771484.02	45.30	0.00
									17648400.00	4771484.23	45.30	0.00
									17648400.04	4771484.44	45.30	0.00
									17648400.07	4771484.66	45.30	0.00
									17648400.09	4771484.88	45.30	0.00
									17648400.09	4771485.09	45.30	0.00
			Notes - Project Buildings	x	0		57.30	a	17648494.05	4771504.12	57.30	0.00
									17648494.03	4771504.35	57.30	0.00
									17648494.01	4771504.57	57.30	0.00
									17648493.96	4771504.80	57.30	0.00
									17648493.91	4771505.02	57.30	0.00
									17648493.84	4771505.23	57.30	0.00
									17648493.75	4771505.44	57.30	0.00
									17648493.65	4771505.65	57.30	0.00
									17648493.54	4771505.84	57.30	0.00
									17648493.42	4771506.03	57.30	0.00
									17648493.28	4771506.21	57.30	0.00
									17648493.13	4771506.39	57.30	0.00
									17648492.97	4771506.55	57.30	0.00
									17648492.80	4771506.70	57.30	0.00
									17648492.62	4771506.84	57.30	0.00
									17648492.44	4771506.96	57.30	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648492.24	4771507.08	57.30	0.00
									17648492.04	4771507.18	57.30	0.00
									17648491.83	4771507.27	57.30	0.00
									17648491.61	4771507.34	57.30	0.00
									17648491.40	4771507.40	57.30	0.00
									17648491.17	4771507.45	57.30	0.00
									17648490.95	4771507.48	57.30	0.00
									17648490.72	4771507.50	57.30	0.00
									17648490.50	4771507.50	57.30	0.00
									17648473.67	4771507.08	57.30	0.00
									17648473.45	4771507.07	57.30	0.00
									17648473.24	4771507.04	57.30	0.00
									17648473.02	4771507.00	57.30	0.00
									17648472.81	4771506.95	57.30	0.00
									17648472.60	4771506.88	57.30	0.00
									17648472.40	4771506.80	57.30	0.00
									17648472.20	4771506.71	57.30	0.00
									17648472.01	4771506.61	57.30	0.00
									17648471.83	4771506.49	57.30	0.00
									17648471.65	4771506.37	57.30	0.00
									17648471.48	4771506.23	57.30	0.00
									17648471.32	4771506.08	57.30	0.00
									17648471.17	4771505.92	57.30	0.00
									17648471.03	4771505.76	57.30	0.00
									17648470.90	4771505.58	57.30	0.00
									17648470.79	4771505.40	57.30	0.00
									17648470.68	4771505.21	57.30	0.00
									17648470.59	4771505.01	57.30	0.00
									17648470.50	4771504.81	57.30	0.00
									17648470.44	4771504.60	57.30	0.00
									17648470.38	4771504.39	57.30	0.00
									17648470.34	4771504.18	57.30	0.00
									17648470.31	4771503.96	57.30	0.00
									17648470.29	4771503.75	57.30	0.00
									17648470.29	4771503.53	57.30	0.00
									17648470.96	4771476.80	57.30	0.00
									17648470.98	4771476.58	57.30	0.00
									17648471.00	4771476.35	57.30	0.00
									17648471.05	4771476.13	57.30	0.00
									17648471.10	4771475.91	57.30	0.00
									17648471.17	4771475.69	57.30	0.00
									17648471.26	4771475.48	57.30	0.00
									17648471.36	4771475.28	57.30	0.00
									17648471.47	4771475.08	57.30	0.00
									17648471.59	4771474.89	57.30	0.00
									17648471.73	4771474.71	57.30	0.00
									17648471.88	4771474.54	57.30	0.00
									17648472.04	4771474.38	57.30	0.00
									17648472.21	4771474.23	57.30	0.00
									17648472.39	4771474.09	57.30	0.00
									17648472.57	4771473.96	57.30	0.00
									17648472.77	4771473.85	57.30	0.00
									17648472.97	4771473.74	57.30	0.00
									17648473.18	4771473.66	57.30	0.00
									17648473.40	4771473.58	57.30	0.00
									17648473.61	4771473.52	57.30	0.00
									17648473.84	4771473.48	57.30	0.00
									17648474.06	4771473.44	57.30	0.00
									17648474.29	4771473.43	57.30	0.00
									17648474.51	4771473.43	57.30	0.00
									17648491.34	4771473.85	57.30	0.00
									17648491.56	4771473.86	57.30	0.00
									17648491.77	4771473.89	57.30	0.00
									17648491.99	4771473.93	57.30	0.00
									17648492.20	4771473.98	57.30	0.00
									17648492.41	4771474.04	57.30	0.00
									17648492.61	4771474.12	57.30	0.00
									17648492.81	4771474.21	57.30	0.00
									17648493.00	4771474.32	57.30	0.00
									17648493.18	4771474.43	57.30	0.00
									17648493.36	4771474.56	57.30	0.00
									17648493.53	4771474.70	57.30	0.00
									17648493.69	4771474.85	57.30	0.00
									17648493.84	4771475.00	57.30	0.00
									17648493.98	4771475.17	57.30	0.00
									17648494.11	4771475.35	57.30	0.00
									17648494.22	4771475.53	57.30	0.00
									17648494.33	4771475.72	57.30	0.00
									17648494.42	4771475.92	57.30	0.00
									17648494.51	4771476.12	57.30	0.00
									17648494.57	4771476.32	57.30	0.00
									17648494.63	4771476.53	57.30	0.00
									17648494.67	4771476.75	57.30	0.00
									17648494.70	4771476.96	57.30	0.00
									17648494.72	4771477.18	57.30	0.00
									17648494.72	4771477.40	57.30	0.00
			Notes - Project Buildings	x	0		51.30	a	17648496.19	4771440.82	51.30	0.00
									17648496.18	4771441.04	51.30	0.00
									17648496.16	4771441.25	51.30	0.00
									17648496.12	4771441.47	51.30	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(m)	(m)	(m)	(m)	(m)
								17648496.06	4771441.68	51.30	0.00
								17648496.00	4771441.88	51.30	0.00
								17648495.92	4771442.09	51.30	0.00
								17648495.83	4771442.28	51.30	0.00
								17648495.72	4771442.48	51.30	0.00
								17648495.61	4771442.66	51.30	0.00
								17648495.48	4771442.84	51.30	0.00
								17648495.34	4771443.01	51.30	0.00
								17648495.20	4771443.17	51.30	0.00
								17648495.04	4771443.32	51.30	0.00
								17648494.87	4771443.46	51.30	0.00
								17648494.70	4771443.58	51.30	0.00
								17648494.51	4771443.70	51.30	0.00
								17648494.32	4771443.81	51.30	0.00
								17648494.13	4771443.90	51.30	0.00
								17648493.92	4771443.98	51.30	0.00
								17648493.72	4771444.05	51.30	0.00
								17648493.51	4771444.11	51.30	0.00
								17648493.29	4771444.15	51.30	0.00
								17648493.08	4771444.18	51.30	0.00
								17648492.86	4771444.19	51.30	0.00
								17648492.64	4771444.20	51.30	0.00
								17648475.82	4771443.77	51.30	0.00
								17648475.60	4771443.76	51.30	0.00
								17648475.38	4771443.74	51.30	0.00
								17648475.17	4771443.70	51.30	0.00
								17648474.96	4771443.64	51.30	0.00
								17648474.75	4771443.58	51.30	0.00
								17648474.55	4771443.50	51.30	0.00
								17648474.35	4771443.41	51.30	0.00
								17648474.16	4771443.30	51.30	0.00
								17648473.97	4771443.19	51.30	0.00
								17648473.80	4771443.06	51.30	0.00
								17648473.63	4771442.92	51.30	0.00
								17648473.47	4771442.78	51.30	0.00
								17648473.32	4771442.62	51.30	0.00
								17648473.18	4771442.45	51.30	0.00
								17648473.05	4771442.28	51.30	0.00
								17648472.93	4771442.09	51.30	0.00
								17648472.83	4771441.90	51.30	0.00
								17648472.73	4771441.71	51.30	0.00
								17648472.65	4771441.50	51.30	0.00
								17648472.58	4771441.30	51.30	0.00
								17648472.53	4771441.09	51.30	0.00
								17648472.48	4771440.87	51.30	0.00
								17648472.46	4771440.66	51.30	0.00
								17648472.44	4771440.44	51.30	0.00
								17648472.44	4771440.22	51.30	0.00
								17648472.82	4771425.08	51.30	0.00
								17648473.11	4771413.50	51.30	0.00
								17648473.12	4771413.27	51.30	0.00
								17648473.15	4771413.05	51.30	0.00
								17648473.19	4771412.82	51.30	0.00
								17648473.25	4771412.60	51.30	0.00
								17648473.32	4771412.39	51.30	0.00
								17648473.41	4771412.18	51.30	0.00
								17648473.50	4771411.98	51.30	0.00
								17648473.62	4771411.78	51.30	0.00
								17648473.74	4771411.59	51.30	0.00
								17648473.88	4771411.41	51.30	0.00
								17648474.03	4771411.24	51.30	0.00
								17648474.18	4771411.07	51.30	0.00
								17648474.35	4771410.92	51.30	0.00
								17648474.53	4771410.78	51.30	0.00
								17648474.72	4771410.66	51.30	0.00
								17648474.92	4771410.54	51.30	0.00
								17648475.12	4771410.44	51.30	0.00
								17648475.33	4771410.35	51.30	0.00
								17648475.54	4771410.28	51.30	0.00
								17648475.76	4771410.22	51.30	0.00
								17648475.98	4771410.17	51.30	0.00
								17648476.21	4771410.14	51.30	0.00
								17648476.43	4771410.12	51.30	0.00
								17648476.66	4771410.12	51.30	0.00
								17648493.49	4771410.54	51.30	0.00
								17648493.70	4771410.56	51.30	0.00
								17648493.92	4771410.58	51.30	0.00
								17648494.13	4771410.62	51.30	0.00
								17648494.35	4771410.67	51.30	0.00
								17648494.55	4771410.74	51.30	0.00
								17648494.76	4771410.82	51.30	0.00
								17648494.95	4771410.91	51.30	0.00
								17648495.14	4771411.01	51.30	0.00
								17648495.33	4771411.13	51.30	0.00
								17648495.51	4771411.26	51.30	0.00
								17648495.67	4771411.39	51.30	0.00
								17648495.83	4771411.54	51.30	0.00
								17648495.98	4771411.70	51.30	0.00
								17648496.12	4771411.87	51.30	0.00
								17648496.25	4771412.04	51.30	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(m)	(m)	(m)	(m)	(m)
								17648496.37	4771412.22	51.30	0.00
								17648496.48	4771412.41	51.30	0.00
								17648496.57	4771412.61	51.30	0.00
								17648496.65	4771412.81	51.30	0.00
								17648496.72	4771413.02	51.30	0.00
								17648496.74	4771413.10	51.30	0.00
								17648496.78	4771413.23	51.30	0.00
								17648496.82	4771413.44	51.30	0.00
								17648496.85	4771413.66	51.30	0.00
								17648496.86	4771413.88	51.30	0.00
								17648496.86	4771414.09	51.30	0.00
			Notes - Project Buildings	x	0		45.30	a 17648419.94	4771426.23	45.30	0.00
								17648419.93	4771426.45	45.30	0.00
								17648419.91	4771426.66	45.30	0.00
								17648419.89	4771426.72	45.30	0.00
								17648419.87	4771426.88	45.30	0.00
								17648419.81	4771427.09	45.30	0.00
								17648419.75	4771427.30	45.30	0.00
								17648419.67	4771427.50	45.30	0.00
								17648419.58	4771427.70	45.30	0.00
								17648419.47	4771427.89	45.30	0.00
								17648419.36	4771428.07	45.30	0.00
								17648419.23	4771428.25	45.30	0.00
								17648419.09	4771428.42	45.30	0.00
								17648418.95	4771428.58	45.30	0.00
								17648418.79	4771428.73	45.30	0.00
								17648418.62	4771428.87	45.30	0.00
								17648418.45	4771429.00	45.30	0.00
								17648418.26	4771429.11	45.30	0.00
								17648418.07	4771429.22	45.30	0.00
								17648417.88	4771429.31	45.30	0.00
								17648417.67	4771429.40	45.30	0.00
								17648417.47	4771429.46	45.30	0.00
								17648417.26	4771429.52	45.30	0.00
								17648417.04	4771429.56	45.30	0.00
								17648416.83	4771429.59	45.30	0.00
								17648416.61	4771429.61	45.30	0.00
								17648416.39	4771429.61	45.30	0.00
								17648385.99	4771428.84	45.30	0.00
								17648385.77	4771428.83	45.30	0.00
								17648385.55	4771428.81	45.30	0.00
								17648385.34	4771428.77	45.30	0.00
								17648385.13	4771428.71	45.30	0.00
								17648384.92	4771428.65	45.30	0.00
								17648384.72	4771428.57	45.30	0.00
								17648384.52	4771428.48	45.30	0.00
								17648384.33	4771428.37	45.30	0.00
								17648384.14	4771428.26	45.30	0.00
								17648383.97	4771428.13	45.30	0.00
								17648383.80	4771427.99	45.30	0.00
								17648383.64	4771427.85	45.30	0.00
								17648383.49	4771427.69	45.30	0.00
								17648383.35	4771427.52	45.30	0.00
								17648383.22	4771427.35	45.30	0.00
								17648383.10	4771427.16	45.30	0.00
								17648382.99	4771426.97	45.30	0.00
								17648382.90	4771426.78	45.30	0.00
								17648382.82	4771426.57	45.30	0.00
								17648382.75	4771426.37	45.30	0.00
								17648382.70	4771426.16	45.30	0.00
								17648382.65	4771425.94	45.30	0.00
								17648382.62	4771425.73	45.30	0.00
								17648382.61	4771425.51	45.30	0.00
								17648382.61	4771425.29	45.30	0.00
								17648382.96	4771411.24	45.30	0.00
								17648382.97	4771411.01	45.30	0.00
								17648383.00	4771410.79	45.30	0.00
								17648383.04	4771410.56	45.30	0.00
								17648383.10	4771410.34	45.30	0.00
								17648383.17	4771410.13	45.30	0.00
								17648383.26	4771409.92	45.30	0.00
								17648383.36	4771409.72	45.30	0.00
								17648383.47	4771409.52	45.30	0.00
								17648383.59	4771409.33	45.30	0.00
								17648383.73	4771409.15	45.30	0.00
								17648383.88	4771408.98	45.30	0.00
								17648384.04	4771408.81	45.30	0.00
								17648384.21	4771408.66	45.30	0.00
								17648384.38	4771408.52	45.30	0.00
								17648384.57	4771408.40	45.30	0.00
								17648384.77	4771408.28	45.30	0.00
								17648384.97	4771408.18	45.30	0.00
								17648385.18	4771408.09	45.30	0.00
								17648385.39	4771408.02	45.30	0.00
								17648385.61	4771407.96	45.30	0.00
								17648385.83	4771407.91	45.30	0.00
								17648386.06	4771407.88	45.30	0.00
								17648386.29	4771407.86	45.30	0.00
								17648386.51	4771407.86	45.30	0.00
								17648416.92	4771408.62	45.30	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates				
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648417.14	4771408.64	45.30	0.00
									17648417.37	4771408.66	45.30	0.00
									17648417.59	4771408.71	45.30	0.00
									17648417.81	4771408.76	45.30	0.00
									17648418.03	4771408.84	45.30	0.00
									17648418.24	4771408.92	45.30	0.00
									17648418.44	4771409.02	45.30	0.00
									17648418.64	4771409.13	45.30	0.00
									17648418.83	4771409.26	45.30	0.00
									17648419.01	4771409.39	45.30	0.00
									17648419.18	4771409.54	45.30	0.00
									17648419.34	4771409.70	45.30	0.00
									17648419.49	4771409.87	45.30	0.00
									17648419.63	4771410.05	45.30	0.00
									17648419.76	4771410.24	45.30	0.00
									17648419.88	4771410.43	45.30	0.00
									17648419.98	4771410.63	45.30	0.00
									17648420.07	4771410.84	45.30	0.00
									17648420.14	4771411.06	45.30	0.00
									17648420.20	4771411.27	45.30	0.00
									17648420.25	4771411.50	45.30	0.00
									17648420.28	4771411.72	45.30	0.00
									17648420.29	4771411.95	45.30	0.00
									17648420.30	4771412.17	45.30	0.00
			Notes - Project Buildings	x	0		45.30	a	17648299.66	4771439.36	45.30	0.00
									17648299.64	4771439.57	45.30	0.00
									17648299.62	4771439.79	45.30	0.00
									17648299.58	4771440.00	45.30	0.00
									17648299.52	4771440.22	45.30	0.00
									17648299.46	4771440.42	45.30	0.00
									17648299.38	4771440.63	45.30	0.00
									17648299.29	4771440.82	45.30	0.00
									17648299.18	4771441.02	45.30	0.00
									17648299.07	4771441.20	45.30	0.00
									17648298.94	4771441.38	45.30	0.00
									17648298.80	4771441.55	45.30	0.00
									17648298.66	4771441.71	45.30	0.00
									17648298.50	4771441.86	45.30	0.00
									17648298.33	4771441.99	45.30	0.00
									17648298.16	4771442.12	45.30	0.00
									17648297.97	4771442.24	45.30	0.00
									17648297.78	4771442.35	45.30	0.00
									17648297.59	4771442.44	45.30	0.00
									17648297.39	4771442.52	45.30	0.00
									17648297.18	4771442.59	45.30	0.00
									17648296.97	4771442.65	45.30	0.00
									17648296.75	4771442.69	45.30	0.00
									17648296.54	4771442.72	45.30	0.00
									17648296.32	4771442.73	45.30	0.00
									17648296.10	4771442.73	45.30	0.00
									17648281.26	4771442.36	45.30	0.00
									17648281.04	4771442.35	45.30	0.00
									17648280.82	4771442.32	45.30	0.00
									17648280.61	4771442.28	45.30	0.00
									17648280.40	4771442.23	45.30	0.00
									17648280.19	4771442.17	45.30	0.00
									17648279.99	4771442.09	45.30	0.00
									17648279.79	4771442.00	45.30	0.00
									17648279.60	4771441.89	45.30	0.00
									17648279.41	4771441.78	45.30	0.00
									17648279.24	4771441.65	45.30	0.00
									17648279.07	4771441.51	45.30	0.00
									17648278.91	4771441.36	45.30	0.00
									17648278.76	4771441.21	45.30	0.00
									17648278.62	4771441.04	45.30	0.00
									17648278.49	4771440.86	45.30	0.00
									17648278.37	4771440.68	45.30	0.00
									17648278.27	4771440.49	45.30	0.00
									17648278.17	4771440.29	45.30	0.00
									17648278.09	4771440.09	45.30	0.00
									17648278.02	4771439.89	45.30	0.00
									17648277.97	4771439.68	45.30	0.00
									17648277.92	4771439.46	45.30	0.00
									17648277.90	4771439.25	45.30	0.00
									17648277.88	4771439.03	45.30	0.00
									17648277.88	4771438.81	45.30	0.00
									17648278.35	4771420.20	45.30	0.00
									17648278.64	4771408.62	45.30	0.00
									17648278.65	4771408.40	45.30	0.00
									17648278.68	4771408.17	45.30	0.00
									17648278.72	4771407.95	45.30	0.00
									17648278.78	4771407.73	45.30	0.00
									17648278.85	4771407.51	45.30	0.00
									17648278.93	4771407.30	45.30	0.00
									17648279.03	4771407.10	45.30	0.00
									17648279.14	4771406.90	45.30	0.00
									17648279.27	4771406.71	45.30	0.00
									17648279.41	4771406.53	45.30	0.00
									17648279.55	4771406.36	45.30	0.00
									17648279.71	4771406.20	45.30	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648279.88	4771406.05	45.30	0.00
									17648280.06	4771405.91	45.30	0.00
									17648280.25	4771405.78	45.30	0.00
									17648280.44	4771405.67	45.30	0.00
									17648280.65	4771405.56	45.30	0.00
									17648280.86	4771405.48	45.30	0.00
									17648281.07	4771405.40	45.30	0.00
									17648281.29	4771405.34	45.30	0.00
									17648281.51	4771405.30	45.30	0.00
									17648281.73	4771405.26	45.30	0.00
									17648281.96	4771405.25	45.30	0.00
									17648282.19	4771405.25	45.30	0.00
									17648297.03	4771405.62	45.30	0.00
									17648297.25	4771405.63	45.30	0.00
									17648297.47	4771405.66	45.30	0.00
									17648297.68	4771405.70	45.30	0.00
									17648297.89	4771405.75	45.30	0.00
									17648298.10	4771405.81	45.30	0.00
									17648298.30	4771405.89	45.30	0.00
									17648298.50	4771405.98	45.30	0.00
									17648298.69	4771406.09	45.30	0.00
									17648298.88	4771406.20	45.30	0.00
									17648299.05	4771406.33	45.30	0.00
									17648299.22	4771406.47	45.30	0.00
									17648299.38	4771406.62	45.30	0.00
									17648299.53	4771406.77	45.30	0.00
									17648299.67	4771406.94	45.30	0.00
									17648299.80	4771407.12	45.30	0.00
									17648299.92	4771407.30	45.30	0.00
									17648300.03	4771407.49	45.30	0.00
									17648300.12	4771407.69	45.30	0.00
									17648300.20	4771407.89	45.30	0.00
									17648300.27	4771408.09	45.30	0.00
									17648300.32	4771408.30	45.30	0.00
									17648300.37	4771408.52	45.30	0.00
									17648300.40	4771408.73	45.30	0.00
									17648300.41	4771408.95	45.30	0.00
									17648300.41	4771409.17	45.30	0.00
			Notes - Project Buildings	x	0		22.00	a	17648395.65	4771636.41	22.00	0.00
									17648373.34	4771635.97	22.00	0.00
									17648373.22	4771641.96	22.00	0.00
									17648369.40	4771641.89	22.00	0.00
									17648359.92	4771641.70	22.00	0.00
									17648360.44	4771615.07	22.00	0.00
									17648396.06	4771615.77	22.00	0.00
			Notes - Project Buildings	x	0		7.00	a	17648450.35	4771641.30	7.00	0.00
									17648438.77	4771641.07	7.00	0.00
									17648432.83	4771640.95	7.00	0.00
									17648419.56	4771640.69	7.00	0.00
									17648419.95	4771620.89	7.00	0.00
									17648450.75	4771621.50	7.00	0.00
			Notes - Project Buildings	x	0		7.00	a	17648498.07	4771642.49	7.00	0.00
									17648495.73	4771642.45	7.00	0.00
									17648490.78	4771642.35	7.00	0.00
									17648468.41	4771641.91	7.00	0.00
									17648468.88	4771618.15	7.00	0.00
									17648498.53	4771618.74	7.00	0.00
			Notes - Project Buildings	x	0		20.50	a	17648492.70	4771581.07	20.50	0.00
									17648468.32	4771580.58	20.50	0.00
									17648468.45	4771573.99	20.50	0.00
									17648429.15	4771573.21	20.50	0.00
									17648429.41	4771559.61	20.50	0.00
									17648429.56	4771552.08	20.50	0.00
									17648470.37	4771552.89	20.50	0.00
									17648470.28	4771557.32	20.50	0.00
									17648493.16	4771557.77	20.50	0.00
			Notes - Project Buildings	x	0		20.50	a	17648381.65	4771578.21	20.50	0.00
									17648365.72	4771577.90	20.50	0.00
									17648358.14	4771577.75	20.50	0.00
									17648359.10	4771528.77	20.50	0.00
									17648397.73	4771529.53	20.50	0.00
									17648397.56	4771537.90	20.50	0.00
									17648397.47	4771542.79	20.50	0.00
									17648382.36	4771542.49	20.50	0.00
			Notes - Project Buildings	x	0		7.00	a	17648495.64	4771740.48	7.00	0.00
									17648465.28	4771739.88	7.00	0.00
									17648465.88	4771709.69	7.00	0.00
									17648496.24	4771710.29	7.00	0.00
			Notes - Project Buildings	x	0		22.00	a	17648377.62	4771733.79	22.00	0.00
									17648367.21	4771733.59	22.00	0.00
									17648354.42	4771733.33	22.00	0.00
									17648355.78	4771664.85	22.00	0.00
									17648368.94	4771665.11	22.00	0.00
									17648369.04	4771660.08	22.00	0.00
									17648378.70	4771660.28	22.00	0.00
									17648379.07	4771660.28	22.00	0.00
			Notes - Project Buildings	x	0		14.50	a	17648302.62	4771439.43	14.50	0.00
									17648277.88	4771438.81	14.50	0.00
									17648278.35	4771420.20	14.50	0.00
									17648273.65	4771420.09	14.50	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648273.58	4771423.05	14.50	0.00
									17648250.81	4771422.48	14.50	0.00
									17648251.34	4771401.50	14.50	0.00
									17648303.54	4771402.81	14.50	0.00
			Notes - Project Buildings	x	0		14.50	a	17648422.90	4771426.80	14.50	0.00
									17648385.57	4771425.86	14.50	0.00
									17648385.10	4771444.47	14.50	0.00
									17648364.31	4771443.95	14.50	0.00
									17648365.31	4771404.36	14.50	0.00
									17648423.43	4771405.82	14.50	0.00
			Notes - Project Buildings	x	0		14.50	a	17648469.06	4771427.96	14.50	0.00
									17648469.14	4771424.99	14.50	0.00
									17648475.79	4771425.15	14.50	0.00
									17648475.25	4771446.73	14.50	0.00
									17648499.00	4771447.33	14.50	0.00
									17648499.86	4771413.18	14.50	0.00
									17648494.02	4771413.03	14.50	0.00
									17648494.15	4771407.59	14.50	0.00
									17648440.88	4771406.25	14.50	0.00
									17648440.36	4771427.24	14.50	0.00
			Notes - Project Buildings	x	0		14.50	a	17648467.16	4771509.89	14.50	0.00
									17648497.03	4771510.64	14.50	0.00
									17648498.02	4771471.04	14.50	0.00
									17648468.15	4771470.30	14.50	0.00
			Notes - Project Buildings	x	0		14.50	a	17648402.31	4771508.26	14.50	0.00
									17648362.44	4771507.26	14.50	0.00
									17648363.29	4771473.61	14.50	0.00
									17648403.15	4771474.61	14.50	0.00
			Notes - Project Buildings	x	0		5.50	a	17648365.64	4771581.84	5.50	0.00
									17648365.72	4771577.90	5.50	0.00
									17648358.14	4771577.75	5.50	0.00
									17648359.10	4771528.77	5.50	0.00
									17648397.73	4771529.53	5.50	0.00
									17648397.56	4771537.90	5.50	0.00
									17648400.05	4771537.95	5.50	0.00
									17648399.17	4771582.50	5.50	0.00
			Notes - Project Buildings	x	0		5.50	a	17648429.56	4771552.08	5.50	0.00
									17648429.41	4771559.61	5.50	0.00
									17648424.38	4771559.51	5.50	0.00
									17648424.04	4771577.06	5.50	0.00
									17648458.23	4771577.74	5.50	0.00
									17648458.12	4771583.57	5.50	0.00
									17648496.45	4771584.32	5.50	0.00
									17648497.06	4771553.42	5.50	0.00
			Notes - Project Buildings	x	0		7.00	a	17648367.12	4771737.66	7.00	0.00
									17648367.21	4771733.59	7.00	0.00
									17648354.42	4771733.33	7.00	0.00
									17648355.78	4771664.85	7.00	0.00
									17648368.94	4771665.11	7.00	0.00
									17648369.40	4771641.89	7.00	0.00
									17648359.93	4771641.70	7.00	0.00
									17648360.45	4771615.07	7.00	0.00
									17648378.97	4771615.41	7.00	0.00
									17648379.03	4771612.26	7.00	0.00
									17648399.04	4771612.66	7.00	0.00
									17648398.38	4771645.93	7.00	0.00
									17648378.99	4771645.54	7.00	0.00
									17648378.70	4771660.28	7.00	0.00
									17648397.63	4771660.65	7.00	0.00
									17648396.10	4771738.23	7.00	0.00

3D Reflector

Name	Sel.	M.	ID	Type	Attenuation	B	m	Height
					dB/100m	%	1/m	(m)

Geometry Absorption

Name	Sel.	M.	ID	Type	Attenuation	B	m	Height	Coordinates			
					dB/100m	%	1/m	(m)	x	y	z	Ground
									(m)	(m)	(m)	(m)

Ground Absorption

Name	Sel.	M.	ID	G

Geometry Absorption

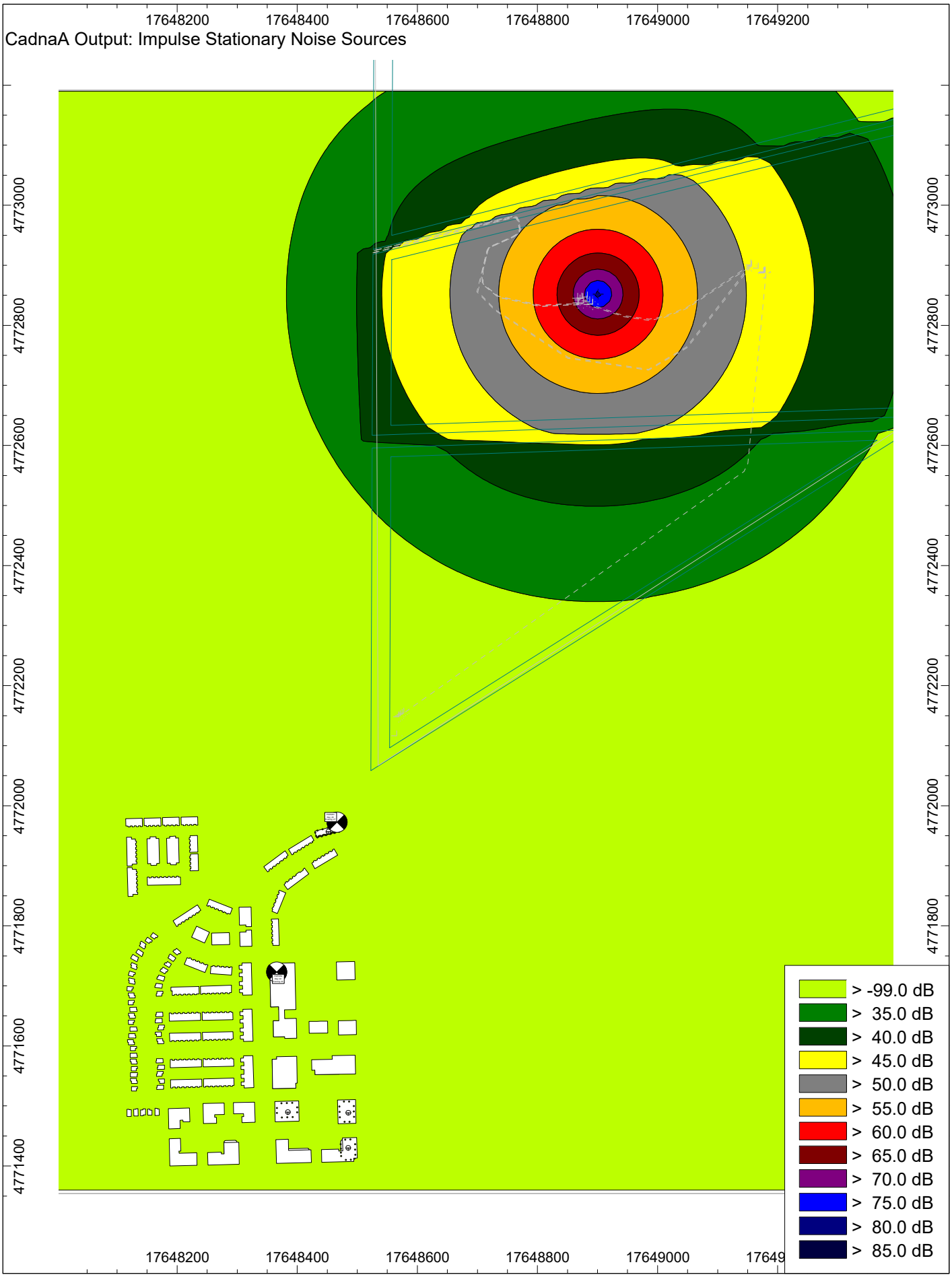
Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(m)	(m)

Contour Lines

Geometry Contour Line

Name	Sel.	M.	ID	OnlyPts	Height		Coordinates		
					Begin	End	x	y	z
					(m)	(m)	(m)	(m)	(m)
			Reference - Contours		0.00		17649423.46	4772626.38	0.00
							17648522.68	4772058.19	0.00
							17648524.84	4772595.71	0.00
			Reference - Contours		0.00		17648526.23	4772926.69	0.00

Name	Sel.	M.	ID	OnlyPts	Height		Coordinates		
					Begin	End	x	y	z
					(m)	(m)	(m)	(m)	(m)
							17649484.05	4773165.56	0.00
							17649609.66	4773199.60	0.00
							17649594.76	4773509.61	0.00
							17649063.27	4773503.59	0.00
							17648660.04	4773467.12	0.00
							17648659.34	4773399.53	0.00
							17648528.03	4773392.89	0.00
							17648526.17	4772926.67	0.00
			Reference - Contours		0.00		17649484.40	4773155.33	0.00
							17648526.13	4772918.13	0.00
							17648524.92	4772616.74	0.00
							17649459.61	4772649.18	0.00
							17649626.30	4772754.32	0.00
							17649617.27	4772994.05	0.00
							17649490.13	4772989.29	0.00
			Reference - Contours		-30.00		17648674.93	4773384.67	-30.00
							17648621.14	4773381.94	-30.00
							17648559.08	4773329.17	-30.00
							17648557.51	4772949.91	-30.00
							17649578.00	4773207.19	-30.00
							17649564.17	4773493.67	-30.00
							17649064.03	4773487.96	-30.00
							17648707.76	4773455.81	-30.00
							17648675.19	4773427.14	-30.00
							17648674.93	4773384.67	-30.00
			Reference - Contours		-35.00		17648557.42	4772909.38	-35.00
							17648556.03	4772633.58	-35.00
							17649454.70	4772664.66	-35.00
							17649595.03	4772753.19	-35.00
							17649586.63	4772977.31	-35.00
							17649475.23	4772973.13	-35.00
							17649469.03	4773135.25	-35.00
							17648557.42	4772909.38	-35.00
			Reference - Contours		-25.00		17648555.89	4772581.10	-25.00
							17648553.92	4772096.21	-25.00
							17649365.76	4772608.59	-25.00
							17648555.89	4772581.10	-25.00


CadnaA Output: Impulse Stationary Noise Sources
17648200
17648400
17648600
17648800
17649000
17649200
4773000
4772800
4772600
4772400
4772200
4772000
4771800
4771600
4771400
> -99.0 dB
> 35.0 dB
> 40.0 dB
> 45.0 dB
> 50.0 dB
> 55.0 dB
> 60.0 dB
> 65.0 dB
> 70.0 dB
> 75.0 dB
> 80.0 dB
> 85.0 dB

Report (CadnaA Calcs.cna)

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	1000.00
Min. Length of Section (#(Unit,LEN))	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	0
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	1.00
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (RLS-90)	
Strictly acc. to RLS-90	
Railways (Schall 03 (1990))	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (NONE)	
Strictly acc. to AzB	

Result Table

Receiver		Land Use	Limiting Value		rel. Axis			Lr w/o Noise Control		dL req.		Lr w/ Noise Control		Exceeding		passive NC
Name	ID		Day	Night	Station	Distance	Height	Day	Night	Day	Night	Day	Night	Day	Night	
			dB(A)	dB(A)	m	m	m	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
POPOR1	!01!POPOR1		0	0				0.0	0.0	-	-	0.0	0.0	-	-	-
POPOR2	!01!POPOR2		0	0				0.0	0.0	-	-	0.0	0.0	-	-	-

Group Day and Night

Name	Expression	Partial Sum Level			
		POPOR1		POPOR2	
		Day	Night	Day	Night
Root	!*	25.7	27.4	22.1	23.8
Project Sources	!00*				
Project Receivers	!01*				
Surrounding Sources	!02*	25.7	27.4	22.1	23.8
Steady	!0200*				
Impulse	!0201*	25.7	27.4	22.1	23.8
Surrounding Receivers	!03*				

Partial Day/Night

Source			Partial Level			
Name	M.	ID	POPOR1		POPOR2	
			Day	Night	Day	Night
P1B_S_PC_CrusherDump	~	!0200!!0200!P1B_S_PC_CrusherDump				
P1B_S_PC_Ldr	~	!0200!P1B_S_PC_Ldr				
P1B_S_PC_PrimaryCrush	~	!0200!P1B_S_PC_PrimaryCrush				
P1B_S_PC_PrimaryScreen	~	!0200!P1B_S_PC_PrimaryScreen				
P1B_S_PP_Ldr	~	!0200!P1B_S_PP_Ldr				
P1B_S_PP_SecondaryCrush1	~	!0200!P1B_S_PP_SecondaryCrush1				
P1B_S_PP_SecondaryCrush2	~	!0200!P1B_S_PP_SecondaryCrush2				
P1B_S_PP_SecondaryTertiaryScreen1	~	!0200!P1B_S_PP_SecondaryTertiaryScreen1				
P1B_S_PP_SecondaryTertiaryScreen2	~	!0200!P1B_S_PP_SecondaryTertiaryScreen2				
P1B_S_PP_TertiaryCrush1	~	!0200!P1B_S_PP_TertiaryCrush1				
P1B_S_PP_TertiaryCrush2	~	!0200!P1B_S_PP_TertiaryCrush2				
P1B_S_PP_Trk1	~	!0200!P1B_S_PP_Trk1				

Source			Partial Level			
Name	M.	ID	POPOR1		POPOR2	
			Day	Night	Day	Night
P1B_S_PP_Trk2	~	!0200!P1B_S_PP_Trk2				
P1B_S_WF_Drill	~	!0200!P1B_S_WF_Drill				
ASPH_comp	~	!0200!ASPH_comp				
ASPH_DC_m	~	!0200!ASPH_DC_m				
ASPH_DC_s	~	!0200!ASPH_DC_s				
ASPH_elev	~	!0200!ASPH_elev				
ASPH_IDLE_TRK1	~	!0200!ASPH_IDLE_TRK1				
ASPH_IDLE_TRK2	~	!0200!ASPH_IDLE_TRK2				
ASPH_imp_silo		!0201!ASPH_imp_silo	25.7	27.4	22.1	23.8
ASPH_ldr_Act1	~	!0200!ASPH_ldr_Act1				
ASPH_ldr_Act2	~	!0200!ASPH_ldr_Act2				
ASPH_motor	~	!0200!ASPH_motor				
ASPH_oven	~	!0200!ASPH_oven				
ASPH_pugdoor	~	!0200!ASPH_pugdoor				
ASPH_pugmill	~	!0200!ASPH_pugmill				
P1B_S_RD_Haul_PP_Ap_Em	~	!0200!P1B_S_RD_Haul_PP_Ap_Em				
P1B_S_RD_Haul_PP_Ap_Fu	~	!0200!P1B_S_RD_Haul_PP_Ap_Fu				
P1B_S_RD_SHP_Aggr_Em	~	!0200!P1B_S_RD_SHP_Aggr_Em				
P1B_S_RD_SHP_Aggr_Fu	~	!0200!P1B_S_RD_SHP_Aggr_Fu				
AP_RD_SHP_AC_RAP_Em	~	!0200!AP_RD_SHP_AC_RAP_Em				
AP_RD_SHP_AC_RAP_Fu	~	!0200!AP_RD_SHP_AC_RAP_Fu				
AP_RD_SHP_HMA_Em	~	!0200!AP_RD_SHP_HMA_Em				
AP_RD_SHP_HMA_Fu	~	!0200!AP_RD_SHP_HMA_Fu				
P1A_S_Conveyor	~	!0200!P1A_S_Conveyor				

Sound Sources

Point Sources

Name	Sel.	M.	ID	Result. PWL			Type	Lw / Li		norm.	Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Height		Coordinates		
				Day	Evening	Night		Value			Day	Evening	Night	R	Area		Day	Special	Night						X	Y	Z
				(dBA)	(dBA)	(dBA)				dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)		(m)		(m)	(m)	(m)
P1B_S_PC_CrusherDump		~	!0200!!0200!P1B_S_PC_CrusherDump	123.0	123.0	123.0	Lw	P4_SE_PC_CrusherDump			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17648571.64	4772149.98	-22.00
P1B_S_PC_Ldr		~	!0200!P1B_S_PC_Ldr	105.6	105.6	105.6	Lw	P4_SE_PC_Ldr			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	2.50	r	17648568.78	4772148.15	-22.50
P1B_S_PC_PrimaryCrush		~	!0200!P1B_S_PC_PrimaryCrush	117.6	117.6	117.6	Lw	P4_SE_PC_PrimaryCrush			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17648574.52	4772152.05	-22.00
P1B_S_PC_PrimaryScreen		~	!0200!P1B_S_PC_PrimaryScreen	113.8	113.8	113.8	Lw	P4_SE_PC_PrimaryScreen			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17648577.35	4772154.08	-22.00
P1B_S_PP_Ldr		~	!0200!P1B_S_PP_Ldr	105.6	105.6	105.6	Lw	P4_SE_PP_Ldr			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	2.50	r	17649167.54	4772895.16	-32.50
P1B_S_PP_SecondaryCrush1		~	!0200!P1B_S_PP_SecondaryCrush1	114.6	114.6	114.6	Lw	P4_SE_PP_SecondaryCrush1			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17649179.20	4772889.11	-32.00
P1B_S_PP_SecondaryCrush2		~	!0200!P1B_S_PP_SecondaryCrush2	114.6	114.6	114.6	Lw	P4_SE_PP_SecondaryCrush2			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17649179.56	4772888.16	-32.00
P1B_S_PP_SecondaryTertiaryScreen1		~	!0200!P1B_S_PP_SecondaryTertiaryScreen1	113.8	113.8	113.8	Lw	P4_SE_PP_SecondaryTertiaryScreen1			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17649178.32	4772887.78	-32.00
P1B_S_PP_SecondaryTertiaryScreen2		~	!0200!P1B_S_PP_SecondaryTertiaryScreen2	113.8	113.8	113.8	Lw	P4_SE_PP_SecondaryTertiaryScreen2			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17649177.92	4772888.64	-32.00
P1B_S_PP_TertiaryCrush1		~	!0200!P1B_S_PP_TertiaryCrush1	99.2	99.2	99.2	Lw	P4_SE_PP_TertiaryCrush1			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17649176.98	4772887.17	-32.00
P1B_S_PP_TertiaryCrush2		~	!0200!P1B_S_PP_TertiaryCrush2	99.2	99.2	99.2	Lw	P4_SE_PP_TertiaryCrush2			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	3.00	r	17649176.51	4772888.14	-32.00
P1B_S_PP_Trk1		~	!0200!P1B_S_PP_Trk1	96.3	96.3	96.3	Lw	P4_SE_PP_Trk1			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	3.00	r	17649156.67	4772898.85	-32.00
P1B_S_PP_Trk2		~	!0200!P1B_S_PP_Trk2	96.3	96.3	96.3	Lw	P4_SE_PP_Trk2			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	3.00	r	17649155.39	4772900.72	-32.00
P1B_S_WF_Drill		~	!0200!P1B_S_WF_Drill	110.0	110.0	110.0	Lw	P4_SE_PP_WF_Drill			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)	2.50	r	17648565.61	4772116.45	-22.50
ASPH_comp		~	!0200!ASPH_comp	96.0	96.0	96.0	Lw	ASPH_comp			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	0.60	r	17648887.24	4772839.44	-34.40
ASPH_DC_m		~	!0200!ASPH_DC_m	104.8	104.8	104.8	Lw	ASPH_DC_m			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	2.00	r	17648868.63	4772837.11	-33.00
ASPH_DC_s		~	!0200!ASPH_DC_s	109.5	109.5	109.5	Lw	ASPH_DC_s			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	20.10	r	17648867.01	4772837.09	-14.90
ASPH_elev		~	!0200!ASPH_elev	99.8	99.8	99.8	Lw	ASPH_elev			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	19.00	r	17648873.90	4772845.44	-16.00
ASPH_IDLE_TRK1		~	!0200!ASPH_IDLE_TRK1	96.3	96.3	96.3	Lw	ASPH_IDLE_TRK1			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	3.50	r	17648891.91	4772835.82	-31.50
ASPH_IDLE_TRK2		~	!0200!ASPH_IDLE_TRK2	96.3	96.3	96.3	Lw	ASPH_IDLE_TRK2			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	3.50	r	17648892.09	4772834.88	-31.50
ASPH_imp_silo			!0201!ASPH_imp_silo	126.7	126.7	126.7	Lw	ASPH_imp_silo			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	22.00	r	17648900.97	4772852.04	-13.00
ASPH_ldr_Act1		~	!0200!ASPH_ldr_Act1	101.7	101.7	101.7	Lw	ASPH_ldr_Act1			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	2.50	r	17648882.29	4772840.75	-32.50
ASPH_ldr_Act2		~	!0200!ASPH_ldr_Act2	101.7	101.7	101.7	Lw	ASPH_ldr_Act2			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	2.50	r	17648876.50	4772837.65	-32.50
ASPH_motor		~	!0200!ASPH_motor	107.0	107.0	107.0	Lw	ASPH_motor			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	4.00	r	17648866.84	4772845.04	-31.00
ASPH_oven		~	!0200!ASPH_oven	102.4	102.4	102.4	Lw	ASPH_oven			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	5.80	r	17648870.86	4772842.35	-29.20
ASPH_pugdoor		~	!0200!ASPH_pugdoor	107.0	107.0	107.0	Lw	ASPH_pugdoor			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	4.00	r	17648875.49	4772844.81	-31.00
ASPH_pugmill		~	!0200!ASPH_pugmill	104.9	104.9	104.9	Lw	ASPH_pugmill			0.0	0.0	0.0				60.00	60.00	60.00	0.0		(none)	5.00	r	17648882.99	4772847.07	-30.00

Line Sources

Name	Sel.	M.	ID	Result. PWL			Result. PWL'			Type	Lw / Li		norm.	Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Moving Pt. Src			
				Day	Evening	Night	Day	Evening	Night		Value			Day	Evening	Night	R	Area		Day	Special	Night				Number			Speed
				(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)		Day	Evening	Night	(km/h)
P1B_S_RD_Haul_PP_Ap_Em		~	!0200!P1B_S_RD_Haul_PP_Ap_Em	94.3	94.3	94.3	69.7	69.7	69.7	PWL-Pt	P4_SE_RD_Haul_PP_Ap_Em			0.0	0.0	0.0							0.0		(none)	3.0	3.0	3.0	20.0
P1B_S_RD_Haul_PP_Ap_Fu		~	!0200!P1B_S_RD_Haul_PP_Ap_Fu	98.0	98.0	98.0	73.4	73.4	73.4	PWL-Pt	P4_SE_RD_Haul_PP_Ap_Fu			0.0	0.0	0.0							0.0		(none)	3.0	3.0	3.0	20.0
P1B_S_RD_SHP_Aggr_Em		~	!0200!P1B_S_RD_SHP_Aggr_Em	101.7	101.7	101.7	71.7	71.7	71.7	PWL-Pt	P4_SE_RD_SHP_Aggr_Em			0.0	0.0	0.0							0.0		(none)	12.0	12.0	12.0	20.0
P1B_S_RD_SHP_Aggr_Fu		~	!0200!P1B_S_RD_SHP_Aggr_Fu	101.7	101.7	101.7	71.7	71.7	71.7	PWL-Pt	P4_SE_RD_SHP_Aggr_Fu			0.0	0.0	0.0							0.0		(none)	12.0	12.0	12.0	20.0
AP_RD_SHP_AC_RAP_Em		~	!0200!AP_RD_SHP_AC_RAP_Em	96.5	96.5	96.5	68.7	68.7	68.7	PWL-Pt	AP_RD_SHP_AC_RAP_Em			0.0	0.0	0.0							0.0		(none)	6.0	6.0	6.0	20.0
AP_RD_SHP_AC_RAP_Fu		~	!0200!AP_RD_SHP_AC_RAP_Fu	96.5	96.5	96.5	68.7	68.7	68.7	PWL-Pt	AP_RD_SHP_AC_RAP_Fu			0.0	0.0	0.0							0.0		(none)	6.0	6.0	6.0	20.0
AP_RD_SHP_HMA_Em		~	!0200!AP_RD_SHP_HMA_Em	96.5	96.5	96.5	68.7	68.7	68.7	PWL-Pt	AP_RD_SHP_HMA_Em			0.0	0.0	0.0							0.0		(none)	6.0	6.0	6.0	20.0
AP_RD_SHP_HMA_Fu		~	!0200!AP_RD_SHP_HMA_Fu	96.5	96.5	96.5	68.7	68.7	68.7	PWL-Pt	AP_RD_SHP_HMA_Fu			0.0	0.0	0.0							0.0		(none)	6.0	6.0	6.0	20.0
P1A_S_Conveyor		~	!0200!P1A_S_Conveyor	82.7	82.7	82.7	52.6	52.6	52.6	Lw	P4_SE_Conveyor			0.0	0.0	0.0				60.00	0.00	0.00	0.0		(none)				

Geometry Line Sources

Name	ID	Height				Coordinates			
		Begin		End		x	y	z	Ground
		(m)		(m)		(m)	(m)	(m)	(m)
P1B_S_RD_Haul_PP_Ap_Em	!0200!P1B_S_RD_Haul_PP_Ap_Em	3.50	r			17648894.00	4772830.85	-31.50	-35.00
						17648944.63	4772814.16	-31.50	-35.00
						17648986.82	4772808.02	-31.50	-35.00
						17649011.36	4772813.29	-31.50	-35.00
						17649048.25	4772827.95	-31.50	-35.00
						17649155.93	4772898.62	-31.50	-35.00
P1B_S_RD_Haul_PP_Ap_Fu	!0200!P1B_S_RD_Haul_PP_Ap_Fu	3.50	r			17649154.81	4772900.52	-31.50	-35.00
						17649048.12	4772829.59	-31.50	-35.00
						17649010.79	4772814.95	-31.50	-35.00
						17648986.27	4772810.20	-31.50	-35.00
						17648944.00	4772816.16	-31.50	-35.00

Name	ID	Height			Coordinates			
		Begin		End	x	y	z	Ground
		(m)		(m)	(m)	(m)	(m)	(m)
					17648894.52	4772832.52	-31.50	-35.00
P1B_S_RD_SHP_Aggr_Em	!0200!P1B_S_RD_SHP_Aggr_Em	3.50	r		17649155.93	4772898.62	-31.50	-35.00
					17649049.52	4772762.80	-31.50	-35.00
					17648985.10	4772725.10	-31.50	-35.00
					17648850.30	4772745.07	-31.50	-35.00
					17648729.23	4772825.15	-31.50	-35.00
					17648699.22	4772855.69	-31.50	-35.00
					17648716.13	4772924.33	-31.50	-35.00
					17648719.23	4772930.03	-31.50	-35.00
					17648759.45	4772948.09	-31.50	-35.00
					17648767.74	4772953.23	-31.50	-35.00
					17648770.17	4772959.87	-31.50	-35.00
					17648767.24	4772973.80	-5.01	-8.51
					17648764.25	4772978.75	3.50	0.00
					17648757.99	4772979.15	3.50	0.00
					17648526.00	4772920.85	3.50	0.00
P1B_S_RD_SHP_Aggr_Fu	!0200!P1B_S_RD_SHP_Aggr_Fu	3.50	r		17649154.82	4772900.51	-31.50	-35.00
					17649048.04	4772764.11	-31.50	-35.00
					17648984.92	4772726.66	-31.50	-35.00
					17648851.51	4772746.46	-31.50	-35.00
					17648730.29	4772825.59	-31.50	-35.00
					17648700.81	4772856.21	-31.50	-35.00
					17648717.23	4772924.20	-31.50	-35.00
					17648719.92	4772929.41	-31.50	-35.00
					17648760.42	4772947.17	-31.50	-35.00
					17648768.85	4772952.77	-31.50	-35.00
					17648771.54	4772959.97	-31.50	-35.00
					17648769.08	4772974.22	-5.10	-8.60
					17648765.63	4772980.67	3.50	0.00
					17648757.34	4772980.96	3.50	0.00
					17648526.10	4772924.15	3.50	0.00
AP_RD_SHP_AC_RAP_Em	!0200!AP_RD_SHP_AC_RAP_Em	3.50	r		17648891.49	4772835.79	-31.50	-35.00
					17648841.58	4772835.30	-31.50	-35.00
					17648805.21	4772833.16	-31.50	-35.00
					17648734.93	4772848.46	-31.50	-35.00
					17648709.55	4772868.98	-31.50	-35.00
					17648709.55	4772892.38	-31.50	-35.00
					17648717.23	4772924.20	-31.50	-35.00
					17648719.92	4772929.41	-31.50	-35.00
					17648760.42	4772947.17	-31.50	-35.00
					17648768.85	4772952.77	-31.50	-35.00
					17648771.54	4772959.97	-31.50	-35.00
					17648769.08	4772974.22	-5.10	-8.60
					17648765.63	4772980.67	3.50	0.00
					17648757.34	4772980.96	3.50	0.00
					17648526.10	4772924.15	3.50	0.00
AP_RD_SHP_AC_RAP_Fu	!0200!AP_RD_SHP_AC_RAP_Fu	3.50	r		17648526.00	4772920.85	3.50	0.00
					17648757.99	4772979.15	3.50	0.00
					17648764.25	4772978.75	3.50	0.00
					17648767.24	4772973.80	-5.01	-8.51
					17648770.17	4772959.87	-31.50	-35.00
					17648767.74	4772953.23	-31.50	-35.00
					17648759.45	4772948.09	-31.50	-35.00
					17648719.23	4772930.03	-31.50	-35.00
					17648716.13	4772924.33	-31.50	-35.00
					17648708.64	4772893.89	-31.50	-35.00
					17648708.08	4772868.73	-31.50	-35.00
					17648734.51	4772846.84	-31.50	-35.00
					17648805.00	4772831.51	-31.50	-35.00
					17648843.73	4772833.66	-31.50	-35.00
					17648891.69	4772834.88	-31.50	-35.00
AP_RD_SHP_HMA_Em	!0200!AP_RD_SHP_HMA_Em	3.50	r		17648891.49	4772835.79	-31.50	-35.00
					17648841.58	4772835.30	-31.50	-35.00
					17648805.21	4772833.16	-31.50	-35.00
					17648734.93	4772848.46	-31.50	-35.00
					17648709.55	4772868.98	-31.50	-35.00
					17648709.55	4772892.38	-31.50	-35.00
					17648717.23	4772924.20	-31.50	-35.00
					17648719.92	4772929.41	-31.50	-35.00
					17648760.42	4772947.17	-31.50	-35.00
					17648768.85	4772952.77	-31.50	-35.00
					17648771.54	4772959.97	-31.50	-35.00
					17648769.08	4772974.22	-5.10	-8.60
					17648765.63	4772980.67	3.50	0.00
					17648757.34	4772980.96	3.50	0.00
					17648526.10	4772924.15	3.50	0.00
AP_RD_SHP_HMA_Fu	!0200!AP_RD_SHP_HMA_Fu	3.50	r		17648526.00	4772920.85	3.50	0.00
					17648757.99	4772979.15	3.50	0.00
					17648764.25	4772978.75	3.50	0.00
					17648767.24	4772973.80	-5.01	-8.51
					17648770.17	4772959.87	-31.50	-35.00
					17648767.74	4772953.23	-31.50	-35.00
					17648759.45	4772948.09	-31.50	-35.00
					17648719.23	4772930.03	-31.50	-35.00
					17648716.13	4772924.33	-31.50	-35.00
					17648708.64	4772893.89	-31.50	-35.00
					17648708.08	4772868.73	-31.50	-35.00
					17648734.51	4772846.84	-31.50	-35.00
					17648805.00	4772831.51	-31.50	-35.00
					17648843.73	4772833.66	-31.50	-35.00

Name	ID	Height			Coordinates			
		Begin		End	x	y	z	Ground
		(m)		(m)	(m)	(m)	(m)	(m)
					17648891.69	4772834.88	-31.50	-35.00
P1A_S_Conveyor	!0200!P1A_S_Conveyor	3.50	r		17649180.47	4772886.08	-31.50	-35.00
					17649150.25	4772570.35	-21.50	-25.00
					17649143.79	4772556.72	-21.50	-25.00
					17648580.34	4772156.36	-21.50	-25.00

Area Sources

Name	Sel.	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Moving Pt. Src		
				Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night				Number		
				(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)		Day	Evening	Night

Geometry Area Sources

Name	ID	Height				Coordinates			
		Begin		End		x	y	z	Ground
		(m)		(m)		(m)	(m)	(m)	(m)

Vertical Area Sources

Name	Sel.	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.
				Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night			
				(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)	

Geometry Vertical Area Sources

Name	ID	Height				Coordinates			
		Begin		End		x	y	z	Ground
		(m)		(m)		(m)	(m)	(m)	(m)

Road

Name	Sel.	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	Surface		Gradient	Mult. Reflection		
				Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Dstro	Type		Drefl	Hbuild	Dist.
				(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(km/h)	(km/h)		(dB)		(%)	(dB)	(m)	(m)

Geometry Road

Name	Height				Coordinates				Dist	LSlope
	Begin		End		x	y	z	Ground	(m)	(%)
	(m)		(m)		(m)	(m)	(m)	(m)		

Receptors

Name	Sel.	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
				Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
				(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
POPOR1			!01!POPOR1	25.7	27.4	0.0	0.0		x	Total	1.50	r	17648466.20	4771972.61	1.50
POPOR2			!01!POPOR2	22.1	23.8	0.0	0.0		x	Total	1.50	g	17648365.88	4771723.08	23.50

Obstacles

Barriers

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height	
				left	right		horz.	vert.	Begin	End
						(m)	(m)	(m)	(m)	(m)

Geometry Barriers

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height		Coordinates			
				left	right		horz.	vert.	Begin	End	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)

Building

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	
							Begin	
							(m)	
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	
							Begin	
							(m)	
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		6.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		9.00	a
			Notes - Project Buildings	x	0		20.50	a
			Notes - Project Buildings	x	0		20.50	a
			Notes - Project Buildings	x	0		17.50	a
			Notes - Project Buildings	x	0		17.50	a
			Notes - Project Buildings	x	0		45.30	a
			Notes - Project Buildings	x	0		57.30	a
			Notes - Project Buildings	x	0		51.30	a
			Notes - Project Buildings	x	0		45.30	a
			Notes - Project Buildings	x	0		45.30	a
			Notes - Project Buildings	x	0		22.00	a
			Notes - Project Buildings	x	0		7.00	a
			Notes - Project Buildings	x	0		7.00	a
			Notes - Project Buildings	x	0		20.50	a
			Notes - Project Buildings	x	0		20.50	a
			Notes - Project Buildings	x	0		7.00	a
			Notes - Project Buildings	x	0		22.00	a
			Notes - Project Buildings	x	0		14.50	a
			Notes - Project Buildings	x	0		14.50	a
			Notes - Project Buildings	x	0		14.50	a
			Notes - Project Buildings	x	0		14.50	a
			Notes - Project Buildings	x	0		14.50	a
			Notes - Project Buildings	x	0		5.50	a
			Notes - Project Buildings	x	0		5.50	a
			Notes - Project Buildings	x	0		7.00	a

Geometry Building

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
			Notes - Project Buildings	x	0		9.00	a	17648114.37	4771978.46	9.00	0.00
									17648142.08	4771979.15	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648142.43	4771965.30	9.00	0.00
									17648138.97	4771965.21	9.00	0.00
									17648138.93	4771966.69	9.00	0.00
									17648135.47	4771966.61	9.00	0.00
									17648135.50	4771965.12	9.00	0.00
									17648132.04	4771965.04	9.00	0.00
									17648132.00	4771966.52	9.00	0.00
									17648128.54	4771966.43	9.00	0.00
									17648128.57	4771964.95	9.00	0.00
									17648125.05	4771964.86	9.00	0.00
									17648125.07	4771966.35	9.00	0.00
									17648121.67	4771966.26	9.00	0.00
									17648121.71	4771964.78	9.00	0.00
									17648118.18	4771964.69	9.00	0.00
									17648118.14	4771966.17	9.00	0.00
									17648114.68	4771966.09	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648144.95	4771979.23	9.00	0.00
									17648172.67	4771979.92	9.00	0.00
									17648173.02	4771966.06	9.00	0.00
									17648169.55	4771965.98	9.00	0.00
									17648169.51	4771967.46	9.00	0.00
									17648166.05	4771967.37	9.00	0.00
									17648166.09	4771965.89	9.00	0.00
									17648162.62	4771965.80	9.00	0.00
									17648162.59	4771967.29	9.00	0.00
									17648159.12	4771967.20	9.00	0.00
									17648159.16	4771965.72	9.00	0.00
									17648155.63	4771965.63	9.00	0.00
									17648155.66	4771967.11	9.00	0.00
									17648152.25	4771967.03	9.00	0.00
									17648152.29	4771965.54	9.00	0.00
									17648148.77	4771965.46	9.00	0.00
									17648148.73	4771966.94	9.00	0.00
									17648145.26	4771966.85	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648175.64	4771979.99	9.00	0.00
									17648203.35	4771980.69	9.00	0.00
									17648203.70	4771966.83	9.00	0.00
									17648200.23	4771966.75	9.00	0.00
									17648200.20	4771968.23	9.00	0.00
									17648196.73	4771968.14	9.00	0.00
									17648196.77	4771966.66	9.00	0.00
									17648193.31	4771966.57	9.00	0.00
									17648193.27	4771968.06	9.00	0.00
									17648189.80	4771967.97	9.00	0.00
									17648189.84	4771966.49	9.00	0.00
									17648186.32	4771966.40	9.00	0.00
									17648186.34	4771967.88	9.00	0.00
									17648182.94	4771967.80	9.00	0.00
									17648182.97	4771966.31	9.00	0.00
									17648179.45	4771966.22	9.00	0.00
									17648179.41	4771967.71	9.00	0.00
									17648175.95	4771967.62	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648206.62	4771980.77	9.00	0.00
									17648234.33	4771981.47	9.00	0.00
									17648234.68	4771967.61	9.00	0.00
									17648231.21	4771967.52	9.00	0.00
									17648231.18	4771969.01	9.00	0.00
									17648227.71	4771968.92	9.00	0.00
									17648227.75	4771967.44	9.00	0.00
									17648224.29	4771967.35	9.00	0.00
									17648224.25	4771968.83	9.00	0.00
									17648220.78	4771968.75	9.00	0.00
									17648220.82	4771967.26	9.00	0.00
									17648217.30	4771967.18	9.00	0.00
									17648217.32	4771968.66	9.00	0.00
									17648213.92	4771968.57	9.00	0.00
									17648213.95	4771967.09	9.00	0.00
									17648210.43	4771967.00	9.00	0.00
									17648210.39	4771968.49	9.00	0.00
									17648206.93	4771968.40	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648115.73	4771947.33	9.00	0.00
									17648123.95	4771947.54	9.00	0.00
									17648124.03	4771944.37	9.00	0.00
									17648130.56	4771944.53	9.00	0.00
									17648130.65	4771941.07	9.00	0.00
									17648132.13	4771941.11	9.00	0.00
									17648132.22	4771937.64	9.00	0.00
									17648130.73	4771937.61	9.00	0.00
									17648130.82	4771934.14	9.00	0.00
									17648132.31	4771934.18	9.00	0.00
									17648132.39	4771930.71	9.00	0.00
									17648130.91	4771930.68	9.00	0.00
									17648131.00	4771927.21	9.00	0.00
									17648132.48	4771927.25	9.00	0.00
									17648132.57	4771923.79	9.00	0.00
									17648131.08	4771923.75	9.00	0.00
									17648131.17	4771920.28	9.00	0.00
									17648132.65	4771920.32	9.00	0.00
									17648132.74	4771916.86	9.00	0.00
									17648131.26	4771916.86	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648131.34	4771913.36	9.00	0.00
									17648132.83	4771913.39	9.00	0.00
									17648132.91	4771909.93	9.00	0.00
									17648131.43	4771909.93	9.00	0.00
									17648131.52	4771906.43	9.00	0.00
									17648133.00	4771906.46	9.00	0.00
									17648133.09	4771903.00	9.00	0.00
									17648125.07	4771902.80	9.00	0.00
									17648125.15	4771899.63	9.00	0.00
									17648116.94	4771899.43	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648117.00	4771896.85	9.00	0.00
									17648125.21	4771897.06	9.00	0.00
									17648125.29	4771893.89	9.00	0.00
									17648131.83	4771894.05	9.00	0.00
									17648131.91	4771890.59	9.00	0.00
									17648133.40	4771890.63	9.00	0.00
									17648133.49	4771887.16	9.00	0.00
									17648132.00	4771887.13	9.00	0.00
									17648132.09	4771883.66	9.00	0.00
									17648133.57	4771883.70	9.00	0.00
									17648133.66	4771880.24	9.00	0.00
									17648132.17	4771880.20	9.00	0.00
									17648132.26	4771876.73	9.00	0.00
									17648133.75	4771876.77	9.00	0.00
									17648133.83	4771873.31	9.00	0.00
									17648132.35	4771873.27	9.00	0.00
									17648132.43	4771869.81	9.00	0.00
									17648133.92	4771869.84	9.00	0.00
									17648134.01	4771866.38	9.00	0.00
									17648132.52	4771866.38	9.00	0.00
									17648132.61	4771862.88	9.00	0.00
									17648134.09	4771862.91	9.00	0.00
									17648134.18	4771859.45	9.00	0.00
									17648132.69	4771859.45	9.00	0.00
									17648132.78	4771855.95	9.00	0.00
									17648134.27	4771855.99	9.00	0.00
									17648134.35	4771852.52	9.00	0.00
									17648126.34	4771852.32	9.00	0.00
									17648126.42	4771849.15	9.00	0.00
									17648118.20	4771848.95	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648205.56	4771881.11	9.00	0.00
									17648202.09	4771881.02	9.00	0.00
									17648202.05	4771882.50	9.00	0.00
									17648198.59	4771882.42	9.00	0.00
									17648198.63	4771880.93	9.00	0.00
									17648195.16	4771880.85	9.00	0.00
									17648195.16	4771880.90	9.00	0.00
									17648195.13	4771882.33	9.00	0.00
									17648191.66	4771882.24	9.00	0.00
									17648191.70	4771880.76	9.00	0.00
									17648188.23	4771880.67	9.00	0.00
									17648188.20	4771882.16	9.00	0.00
									17648184.73	4771882.07	9.00	0.00
									17648184.77	4771880.58	9.00	0.00
									17648181.31	4771880.50	9.00	0.00
									17648181.27	4771881.98	9.00	0.00
									17648177.80	4771881.90	9.00	0.00
									17648177.84	4771880.41	9.00	0.00
									17648174.38	4771880.32	9.00	0.00
									17648174.34	4771881.81	9.00	0.00
									17648170.88	4771881.72	9.00	0.00
									17648170.91	4771880.24	9.00	0.00
									17648167.45	4771880.15	9.00	0.00
									17648167.41	4771881.64	9.00	0.00
									17648163.95	4771881.55	9.00	0.00
									17648163.98	4771880.06	9.00	0.00
									17648160.52	4771879.98	9.00	0.00
									17648160.48	4771881.46	9.00	0.00
									17648157.02	4771881.37	9.00	0.00
									17648157.06	4771879.89	9.00	0.00
									17648153.59	4771879.80	9.00	0.00
									17648153.55	4771881.29	9.00	0.00
									17648150.09	4771881.20	9.00	0.00
									17648150.44	4771867.34	9.00	0.00
									17648205.87	4771868.73	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648234.73	4771919.78	9.00	0.00
									17648222.36	4771919.47	9.00	0.00
									17648222.45	4771916.01	9.00	0.00
									17648220.96	4771915.97	9.00	0.00
									17648221.05	4771912.51	9.00	0.00
									17648222.54	4771912.54	9.00	0.00
									17648222.62	4771909.08	9.00	0.00
									17648221.14	4771909.04	9.00	0.00
									17648221.22	4771905.58	9.00	0.00
									17648222.71	4771905.61	9.00	0.00
									17648222.79	4771902.15	9.00	0.00
									17648221.31	4771902.11	9.00	0.00
									17648221.40	4771898.65	9.00	0.00
									17648222.88	4771898.69	9.00	0.00
									17648222.97	4771895.22	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates				
							Begin		x	y	z	Ground	
							(m)		(m)	(m)	(m)	(m)	
									17648221.49	4771895.18	9.00	0.00	
									17648221.57	4771891.72	9.00	0.00	
									17648235.43	4771892.07	9.00	0.00	
			Notes - Project Buildings	x	0		9.00	a	17648233.97	4771950.46	9.00	0.00	
									17648221.59	4771950.15	9.00	0.00	
									17648221.68	4771946.69	9.00	0.00	
									17648220.19	4771946.65	9.00	0.00	
									17648220.28	4771943.19	9.00	0.00	
									17648221.77	4771943.23	9.00	0.00	
									17648221.85	4771939.76	9.00	0.00	
									17648220.37	4771939.72	9.00	0.00	
									17648220.46	4771936.26	9.00	0.00	
									17648221.91	4771936.30	9.00	0.00	
									17648222.03	4771932.83	9.00	0.00	
									17648220.54	4771932.80	9.00	0.00	
									17648220.63	4771929.33	9.00	0.00	
									17648222.10	4771929.37	9.00	0.00	
									17648222.20	4771925.90	9.00	0.00	
									17648220.72	4771925.87	9.00	0.00	
									17648220.80	4771922.40	9.00	0.00	
									17648234.66	4771922.75	9.00	0.00	
			Notes - Project Buildings	x	0		9.00	a	17648202.37	4771946.33	9.00	0.00	
									17648197.62	4771946.22	9.00	0.00	
									17648197.55	4771949.18	9.00	0.00	
									17648195.49	4771949.13	9.00	0.00	
									17648192.22	4771949.05	9.00	0.00	
									17648189.31	4771948.98	9.00	0.00	
									17648187.65	4771948.94	9.00	0.00	
									17648187.73	4771945.97	9.00	0.00	
									17648182.58	4771945.84	9.00	0.00	
									17648183.62	4771904.27	9.00	0.00	
									17648188.77	4771904.40	9.00	0.00	
									17648188.84	4771901.43	9.00	0.00	
									17648198.74	4771901.67	9.00	0.00	
									17648198.67	4771904.64	9.00	0.00	
									17648203.42	4771904.76	9.00	0.00	
			Notes - Project Buildings	x	0		9.00	a	17648169.71	4771945.52	9.00	0.00	
									17648164.96	4771945.40	9.00	0.00	
									17648164.89	4771948.37	9.00	0.00	
									17648163.03	4771948.32	9.00	0.00	
									17648158.73	4771948.21	9.00	0.00	
									17648158.73	4771948.21	9.00	0.00	
									17648156.85	4771948.16	9.00	0.00	
									17648154.99	4771948.12	9.00	0.00	
									17648155.06	4771945.15	9.00	0.00	
									17648149.92	4771945.02	9.00	0.00	
									17648150.96	4771903.45	9.00	0.00	
									17648156.10	4771903.58	9.00	0.00	
									17648156.18	4771900.61	9.00	0.00	
									17648166.08	4771900.86	9.00	0.00	
									17648166.00	4771903.83	9.00	0.00	
									17648170.75	4771903.94	9.00	0.00	
			Notes - Project Buildings	x	0		9.00	a	17648467.27	4771917.69	9.00	0.00	
									17648461.19	4771928.04	9.00	0.00	
									17648458.27	4771926.36	9.00	0.00	
									17648459.00	4771925.07	9.00	0.00	
									17648455.92	4771923.16	9.00	0.00	
									17648455.16	4771924.55	9.00	0.00	
									17648451.95	4771922.60	9.00	0.00	
									17648452.69	4771921.31	9.00	0.00	
									17648449.54	4771919.36	9.00	0.00	
									17648448.82	4771920.66	9.00	0.00	
									17648445.64	4771918.84	9.00	0.00	
									17648446.38	4771917.55	9.00	0.00	
									17648443.15	4771915.55	9.00	0.00	
									17648442.44	4771916.86	9.00	0.00	
									17648439.30	4771915.06	9.00	0.00	
									17648440.03	4771913.77	9.00	0.00	
									17648436.77	4771911.75	9.00	0.00	
									17648436.09	4771912.99	9.00	0.00	
									17648432.92	4771911.25	9.00	0.00	
									17648433.66	4771909.96	9.00	0.00	
									17648430.39	4771907.94	9.00	0.00	
									17648429.65	4771909.29	9.00	0.00	
									17648426.91	4771907.66	9.00	0.00	
									17648427.64	4771906.38	9.00	0.00	
									17648424.25	4771904.28	9.00	0.00	
									17648429.30	4771895.06	9.00	0.00	
			Notes - Project Buildings	x	0		9.00	a	17648419.22	4771886.67	9.00	0.00	
									17648412.17	4771896.14	9.00	0.00	
									17648409.54	4771894.22	9.00	0.00	
									17648410.41	4771893.02	9.00	0.00	
									17648404.48	4771888.55	9.00	0.00	
									17648403.49	4771889.91	9.00	0.00	
									17648397.62	4771885.49	9.00	0.00	
									17648398.50	4771884.29	9.00	0.00	
									17648395.34	4771881.82	9.00	0.00	
									17648394.45	4771883.02	9.00	0.00	
									17648391.73	4771881.03	9.00	0.00	
									17648392.60	4771879.83	9.00	0.00	

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648389.45	4771877.37	9.00	0.00
									17648388.53	4771878.54	9.00	0.00
									17648385.80	4771876.56	9.00	0.00
									17648386.68	4771875.36	9.00	0.00
									17648383.17	4771872.57	9.00	0.00
									17648382.22	4771873.79	9.00	0.00
									17648379.67	4771871.94	9.00	0.00
									17648380.55	4771870.73	9.00	0.00
									17648377.94	4771868.69	9.00	0.00
									17648384.27	4771860.30	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648379.59	4771913.12	9.00	0.00
									17648380.44	4771912.05	9.00	0.00
									17648382.90	4771913.84	9.00	0.00
									17648382.03	4771915.04	9.00	0.00
									17648384.90	4771917.29	9.00	0.00
									17648379.64	4771924.81	9.00	0.00
									17648344.37	4771898.23	9.00	0.00
									17648350.75	4771889.67	9.00	0.00
									17648353.47	4771891.65	9.00	0.00
									17648352.60	4771892.85	9.00	0.00
									17648355.75	4771895.32	9.00	0.00
									17648356.70	4771894.19	9.00	0.00
									17648359.34	4771896.07	9.00	0.00
									17648358.47	4771897.28	9.00	0.00
									17648361.70	4771899.83	9.00	0.00
									17648362.63	4771898.66	9.00	0.00
									17648365.21	4771900.50	9.00	0.00
									17648364.33	4771901.70	9.00	0.00
									17648367.74	4771904.17	9.00	0.00
									17648368.57	4771903.11	9.00	0.00
									17648371.10	4771904.95	9.00	0.00
									17648370.23	4771906.15	9.00	0.00
									17648373.66	4771908.64	9.00	0.00
									17648374.50	4771907.58	9.00	0.00
									17648377.03	4771909.42	9.00	0.00
									17648376.16	4771910.62	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648415.72	4771934.80	9.00	0.00
									17648416.62	4771933.56	9.00	0.00
									17648419.31	4771935.15	9.00	0.00
									17648418.55	4771936.43	9.00	0.00
									17648422.07	4771938.65	9.00	0.00
									17648422.95	4771937.45	9.00	0.00
									17648425.56	4771939.01	9.00	0.00
									17648424.81	4771940.28	9.00	0.00
									17648427.88	4771942.25	9.00	0.00
									17648423.26	4771950.40	9.00	0.00
									17648385.64	4771927.25	9.00	0.00
									17648391.28	4771917.96	9.00	0.00
									17648394.18	4771919.68	9.00	0.00
									17648393.43	4771920.95	9.00	0.00
									17648396.80	4771923.11	9.00	0.00
									17648397.65	4771921.87	9.00	0.00
									17648400.44	4771923.53	9.00	0.00
									17648399.68	4771924.81	9.00	0.00
									17648403.08	4771927.01	9.00	0.00
									17648403.97	4771925.77	9.00	0.00
									17648406.70	4771927.38	9.00	0.00
									17648405.94	4771928.66	9.00	0.00
									17648409.41	4771930.88	9.00	0.00
									17648409.48	4771930.93	9.00	0.00
									17648410.30	4771929.66	9.00	0.00
									17648412.99	4771931.26	9.00	0.00
									17648412.23	4771932.53	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648460.54	4771955.84	9.00	0.00
									17648460.95	4771954.40	9.00	0.00
									17648463.99	4771955.13	9.00	0.00
									17648463.64	4771956.57	9.00	0.00
									17648467.74	4771957.64	9.00	0.00
									17648468.14	4771956.26	9.00	0.00
									17648471.10	4771956.98	9.00	0.00
									17648470.75	4771958.42	9.00	0.00
									17648474.26	4771959.40	9.00	0.00
									17648472.21	4771968.64	9.00	0.00
									17648429.46	4771957.53	9.00	0.00
									17648432.15	4771946.91	9.00	0.00
									17648435.43	4771947.70	9.00	0.00
									17648435.08	4771949.14	9.00	0.00
									17648438.94	4771950.21	9.00	0.00
									17648439.38	4771948.78	9.00	0.00
									17648442.54	4771949.54	9.00	0.00
									17648442.19	4771950.99	9.00	0.00
									17648446.15	4771952.12	9.00	0.00
									17648446.57	4771950.65	9.00	0.00
									17648449.65	4771951.39	9.00	0.00
									17648449.30	4771952.84	9.00	0.00
									17648453.34	4771953.99	9.00	0.00
									17648453.76	4771952.52	9.00	0.00
									17648456.80	4771953.26	9.00	0.00
									17648456.45	4771954.70	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648368.86	4771811.60	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates				
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648356.86	4771811.35	9.00	0.00
									17648356.90	4771807.98	9.00	0.00
									17648358.38	4771807.96	9.00	0.00
									17648358.55	4771804.20	9.00	0.00
									17648357.06	4771804.16	9.00	0.00
									17648357.09	4771800.64	9.00	0.00
									17648358.58	4771800.65	9.00	0.00
									17648358.75	4771796.78	9.00	0.00
									17648357.26	4771796.74	9.00	0.00
									17648357.29	4771793.29	9.00	0.00
									17648358.77	4771793.31	9.00	0.00
									17648358.95	4771789.35	9.00	0.00
									17648357.46	4771789.32	9.00	0.00
									17648357.49	4771785.91	9.00	0.00
									17648358.98	4771785.92	9.00	0.00
									17648359.15	4771781.92	9.00	0.00
									17648357.66	4771781.89	9.00	0.00
									17648357.70	4771778.48	9.00	0.00
									17648359.18	4771778.50	9.00	0.00
									17648359.36	4771774.50	9.00	0.00
									17648357.86	4771774.47	9.00	0.00
									17648357.89	4771771.14	9.00	0.00
									17648359.38	4771771.15	9.00	0.00
									17648359.54	4771767.51	9.00	0.00
									17648370.06	4771767.41	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648381.06	4771854.90	9.00	0.00
									17648370.00	4771859.24	9.00	0.00
									17648368.73	4771856.12	9.00	0.00
									17648370.11	4771855.56	9.00	0.00
									17648368.73	4771851.80	9.00	0.00
									17648367.33	4771852.31	9.00	0.00
									17648366.06	4771849.19	9.00	0.00
									17648367.43	4771848.63	9.00	0.00
									17648366.06	4771844.87	9.00	0.00
									17648364.65	4771845.38	9.00	0.00
									17648363.38	4771842.26	9.00	0.00
									17648364.76	4771841.70	9.00	0.00
									17648363.32	4771837.82	9.00	0.00
									17648361.94	4771838.36	9.00	0.00
									17648360.67	4771835.24	9.00	0.00
									17648362.05	4771834.68	9.00	0.00
									17648360.61	4771830.91	9.00	0.00
									17648359.22	4771831.44	9.00	0.00
									17648357.96	4771828.33	9.00	0.00
									17648359.34	4771827.77	9.00	0.00
									17648357.95	4771823.98	9.00	0.00
									17648367.05	4771820.40	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648253.90	4771789.29	9.00	0.00
									17648232.29	4771799.17	9.00	0.00
									17648226.95	4771787.50	9.00	0.00
									17648226.95	4771787.50	9.00	0.00
									17648224.06	4771781.16	9.00	0.00
									17648245.67	4771771.28	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648292.08	4771828.99	9.00	0.00
									17648253.57	4771844.32	9.00	0.00
									17648249.21	4771833.58	9.00	0.00
									17648251.97	4771832.42	9.00	0.00
									17648252.55	4771833.80	9.00	0.00
									17648255.85	4771832.55	9.00	0.00
									17648255.29	4771831.17	9.00	0.00
									17648258.05	4771830.01	9.00	0.00
									17648258.62	4771831.37	9.00	0.00
									17648262.48	4771829.91	9.00	0.00
									17648261.87	4771828.41	9.00	0.00
									17648264.63	4771827.25	9.00	0.00
									17648265.20	4771828.61	9.00	0.00
									17648268.86	4771827.22	9.00	0.00
									17648268.30	4771825.84	9.00	0.00
									17648271.06	4771824.68	9.00	0.00
									17648271.63	4771826.04	9.00	0.00
									17648275.30	4771824.65	9.00	0.00
									17648274.74	4771823.27	9.00	0.00
									17648277.50	4771822.11	9.00	0.00
									17648278.07	4771823.47	9.00	0.00
									17648281.64	4771822.11	9.00	0.00
									17648281.08	4771820.73	9.00	0.00
									17648283.84	4771819.57	9.00	0.00
									17648284.42	4771820.94	9.00	0.00
									17648288.23	4771819.49	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648287.18	4771781.53	9.00	0.00
									17648287.01	4771788.56	9.00	0.00
									17648257.31	4771787.81	9.00	0.00
									17648257.81	4771768.02	9.00	0.00
									17648287.50	4771768.76	9.00	0.00
									17648287.33	4771775.59	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648323.94	4771792.74	9.00	0.00
									17648314.64	4771792.51	9.00	0.00
									17648314.71	4771789.55	9.00	0.00
									17648314.59	4771789.55	9.00	0.00
									17648304.22	4771789.29	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648304.82	4771765.52	9.00	0.00
									17648324.61	4771766.02	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648322.97	4771831.42	9.00	0.00
									17648303.18	4771830.92	9.00	0.00
									17648303.77	4771807.47	9.00	0.00
									17648303.92	4771801.22	9.00	0.00
									17648314.41	4771801.48	9.00	0.00
									17648314.49	4771798.52	9.00	0.00
									17648323.79	4771798.76	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648218.51	4771812.50	9.00	0.00
									17648221.77	4771814.68	9.00	0.00
									17648222.57	4771813.42	9.00	0.00
									17648225.12	4771814.99	9.00	0.00
									17648224.34	4771816.25	9.00	0.00
									17648227.52	4771818.37	9.00	0.00
									17648228.32	4771817.12	9.00	0.00
									17648230.86	4771818.69	9.00	0.00
									17648230.08	4771819.95	9.00	0.00
									17648233.47	4771822.21	9.00	0.00
									17648234.30	4771820.92	9.00	0.00
									17648236.84	4771822.49	9.00	0.00
									17648236.06	4771823.75	9.00	0.00
									17648239.45	4771826.01	9.00	0.00
									17648233.93	4771834.70	9.00	0.00
									17648193.15	4771808.39	9.00	0.00
									17648199.36	4771798.61	9.00	0.00
									17648201.91	4771800.19	9.00	0.00
									17648201.12	4771801.46	9.00	0.00
									17648204.06	4771803.41	9.00	0.00
									17648204.85	4771802.16	9.00	0.00
									17648207.40	4771803.74	9.00	0.00
									17648206.62	4771804.99	9.00	0.00
									17648210.05	4771807.28	9.00	0.00
									17648210.92	4771805.92	9.00	0.00
									17648213.46	4771807.49	9.00	0.00
									17648212.68	4771808.75	9.00	0.00
									17648215.94	4771810.93	9.00	0.00
									17648216.74	4771809.67	9.00	0.00
									17648219.29	4771811.24	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648251.46	4771734.68	9.00	0.00
									17648248.33	4771736.01	9.00	0.00
									17648247.75	4771734.65	9.00	0.00
									17648244.10	4771736.05	9.00	0.00
									17648244.67	4771737.43	9.00	0.00
									17648241.54	4771738.76	9.00	0.00
									17648240.96	4771737.39	9.00	0.00
									17648237.20	4771738.83	9.00	0.00
									17648237.72	4771740.10	9.00	0.00
									17648234.59	4771741.43	9.00	0.00
									17648234.01	4771740.06	9.00	0.00
									17648230.27	4771741.50	9.00	0.00
									17648230.79	4771742.76	9.00	0.00
									17648227.65	4771744.10	9.00	0.00
									17648227.07	4771742.73	9.00	0.00
									17648223.33	4771744.17	9.00	0.00
									17648223.91	4771745.57	9.00	0.00
									17648220.78	4771746.91	9.00	0.00
									17648220.20	4771745.54	9.00	0.00
									17648216.46	4771746.98	9.00	0.00
									17648211.93	4771735.79	9.00	0.00
									17648246.30	4771722.14	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648291.42	4771731.40	9.00	0.00
									17648288.03	4771731.71	9.00	0.00
									17648287.90	4771730.20	9.00	0.00
									17648284.96	4771730.37	9.00	0.00
									17648285.08	4771731.85	9.00	0.00
									17648281.69	4771732.16	9.00	0.00
									17648281.56	4771730.68	9.00	0.00
									17648277.66	4771730.91	9.00	0.00
									17648277.78	4771732.38	9.00	0.00
									17648274.39	4771732.69	9.00	0.00
									17648274.25	4771731.22	9.00	0.00
									17648270.25	4771731.44	9.00	0.00
									17648270.35	4771732.92	9.00	0.00
									17648266.96	4771733.24	9.00	0.00
									17648266.82	4771731.76	9.00	0.00
									17648262.73	4771731.98	9.00	0.00
									17648262.85	4771733.47	9.00	0.00
									17648259.46	4771733.78	9.00	0.00
									17648259.32	4771732.30	9.00	0.00
									17648256.28	4771732.48	9.00	0.00
									17648255.32	4771720.43	9.00	0.00
									17648290.34	4771717.87	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648290.36	4771700.91	9.00	0.00
									17648238.87	4771699.33	9.00	0.00
									17648239.32	4771685.91	9.00	0.00
									17648242.58	4771685.93	9.00	0.00
									17648242.58	4771687.41	9.00	0.00
									17648246.71	4771687.59	9.00	0.00
									17648246.75	4771686.21	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648250.00	4771686.23	9.00	0.00
									17648250.00	4771687.71	9.00	0.00
									17648254.13	4771687.88	9.00	0.00
									17648254.17	4771686.38	9.00	0.00
									17648257.35	4771686.40	9.00	0.00
									17648257.34	4771687.88	9.00	0.00
									17648261.56	4771688.05	9.00	0.00
									17648261.59	4771686.55	9.00	0.00
									17648264.81	4771686.57	9.00	0.00
									17648264.80	4771688.05	9.00	0.00
									17648268.98	4771688.22	9.00	0.00
									17648269.02	4771686.72	9.00	0.00
									17648272.28	4771686.74	9.00	0.00
									17648272.27	4771688.22	9.00	0.00
									17648276.40	4771688.39	9.00	0.00
									17648276.44	4771686.89	9.00	0.00
									17648279.74	4771686.91	9.00	0.00
									17648279.73	4771688.39	9.00	0.00
									17648283.83	4771688.56	9.00	0.00
									17648283.86	4771687.20	9.00	0.00
									17648287.28	4771687.21	9.00	0.00
									17648287.27	4771688.70	9.00	0.00
									17648290.64	4771688.83	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648236.17	4771698.88	9.00	0.00
									17648189.57	4771697.81	9.00	0.00
									17648189.63	4771691.53	9.00	0.00
									17648191.81	4771691.55	9.00	0.00
									17648191.93	4771684.30	9.00	0.00
									17648195.34	4771684.32	9.00	0.00
									17648195.33	4771685.80	9.00	0.00
									17648199.21	4771685.96	9.00	0.00
									17648199.25	4771684.47	9.00	0.00
									17648202.76	4771684.49	9.00	0.00
									17648202.75	4771685.97	9.00	0.00
									17648206.64	4771686.13	9.00	0.00
									17648206.67	4771684.64	9.00	0.00
									17648210.19	4771684.66	9.00	0.00
									17648210.18	4771686.14	9.00	0.00
									17648214.06	4771686.30	9.00	0.00
									17648214.10	4771684.81	9.00	0.00
									17648217.61	4771684.83	9.00	0.00
									17648217.60	4771686.31	9.00	0.00
									17648221.48	4771686.47	9.00	0.00
									17648221.52	4771684.98	9.00	0.00
									17648225.03	4771685.00	9.00	0.00
									17648225.03	4771686.48	9.00	0.00
									17648228.91	4771686.64	9.00	0.00
									17648228.94	4771685.15	9.00	0.00
									17648232.46	4771685.17	9.00	0.00
									17648232.45	4771686.65	9.00	0.00
									17648236.57	4771686.82	9.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648174.71	4771686.94	6.00	0.00
									17648176.30	4771686.96	6.00	0.00
									17648176.26	4771690.92	6.00	0.00
									17648166.36	4771690.82	6.00	0.00
									17648166.40	4771686.74	6.00	0.00
									17648165.11	4771686.72	6.00	0.00
									17648165.15	4771682.66	6.00	0.00
									17648174.75	4771682.98	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648175.66	4771702.93	6.00	0.00
									17648164.89	4771704.34	6.00	0.00
									17648164.38	4771700.89	6.00	0.00
									17648163.49	4771701.02	6.00	0.00
									17648162.96	4771697.40	6.00	0.00
									17648174.74	4771695.86	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648179.49	4771714.88	6.00	0.00
									17648169.06	4771717.93	6.00	0.00
									17648168.03	4771714.60	6.00	0.00
									17648167.17	4771714.87	6.00	0.00
									17648166.09	4771711.37	6.00	0.00
									17648177.49	4771708.04	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648184.99	4771726.22	6.00	0.00
									17648176.45	4771731.23	6.00	0.00
									17648174.38	4771727.71	6.00	0.00
									17648173.27	4771728.36	6.00	0.00
									17648171.22	4771724.86	6.00	0.00
									17648179.61	4771720.19	6.00	0.00
									17648181.61	4771723.60	6.00	0.00
									17648182.98	4771722.80	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648190.45	4771736.08	6.00	0.00
									17648183.97	4771740.39	6.00	0.00
									17648182.11	4771737.70	6.00	0.00
									17648180.40	4771738.89	6.00	0.00
									17648178.33	4771735.90	6.00	0.00
									17648186.64	4771730.36	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648188.21	4771753.14	6.00	0.00
									17648186.11	4771750.14	6.00	0.00
									17648186.84	4771749.63	6.00	0.00
									17648184.84	4771746.78	6.00	0.00
									17648193.62	4771740.38	6.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648197.82	4771746.14	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648199.11	4771762.55	6.00	0.00
									17648196.44	4771759.47	6.00	0.00
									17648195.46	4771760.31	6.00	0.00
									17648192.80	4771757.25	6.00	0.00
									17648200.20	4771751.12	6.00	0.00
									17648202.80	4771754.12	6.00	0.00
									17648203.99	4771753.08	6.00	0.00
									17648206.59	4771756.07	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.53	4771735.23	6.00	0.00
									17648124.29	4771738.78	6.00	0.00
									17648122.76	4771734.81	6.00	0.00
									17648124.34	4771734.20	6.00	0.00
									17648122.86	4771730.37	6.00	0.00
									17648132.01	4771726.85	6.00	0.00
									17648133.56	4771730.87	6.00	0.00
									17648132.08	4771731.44	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648135.72	4771746.92	6.00	0.00
									17648126.23	4771752.20	6.00	0.00
									17648122.76	4771745.98	6.00	0.00
									17648133.14	4771740.20	6.00	0.00
									17648134.87	4771743.43	6.00	0.00
									17648134.08	4771743.85	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648144.28	4771755.37	6.00	0.00
									17648135.24	4771761.39	6.00	0.00
									17648131.28	4771755.46	6.00	0.00
									17648141.17	4771748.87	6.00	0.00
									17648143.15	4771751.95	6.00	0.00
									17648142.40	4771752.44	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648148.49	4771769.17	6.00	0.00
									17648140.25	4771774.66	6.00	0.00
									17648137.89	4771771.12	6.00	0.00
									17648139.29	4771770.19	6.00	0.00
									17648137.01	4771766.77	6.00	0.00
									17648145.16	4771761.33	6.00	0.00
									17648147.55	4771764.91	6.00	0.00
									17648146.23	4771765.79	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648158.94	4771775.44	6.00	0.00
									17648150.47	4771781.09	6.00	0.00
									17648146.46	4771775.08	6.00	0.00
									17648153.30	4771770.52	6.00	0.00
									17648155.42	4771773.70	6.00	0.00
									17648157.05	4771772.61	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648159.76	4771788.49	6.00	0.00
									17648155.75	4771782.48	6.00	0.00
									17648162.59	4771777.92	6.00	0.00
									17648164.71	4771781.10	6.00	0.00
									17648166.34	4771780.01	6.00	0.00
									17648168.23	4771782.85	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.14	4771660.83	6.00	0.00
									17648132.25	4771660.80	6.00	0.00
									17648132.15	4771664.28	6.00	0.00
									17648121.29	4771664.18	6.00	0.00
									17648121.36	4771657.05	6.00	0.00
									17648133.24	4771657.16	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648128.68	4771675.78	6.00	0.00
									17648118.50	4771675.68	6.00	0.00
									17648118.57	4771668.45	6.00	0.00
									17648126.79	4771668.53	6.00	0.00
									17648126.75	4771672.35	6.00	0.00
									17648128.71	4771672.37	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648130.03	4771684.16	6.00	0.00
									17648128.45	4771684.15	6.00	0.00
									17648128.41	4771688.21	6.00	0.00
									17648118.51	4771688.11	6.00	0.00
									17648118.55	4771683.85	6.00	0.00
									17648120.23	4771683.87	6.00	0.00
									17648120.27	4771679.76	6.00	0.00
									17648130.07	4771679.86	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648124.90	4771695.01	6.00	0.00
									17648126.85	4771694.84	6.00	0.00
									17648127.13	4771698.24	6.00	0.00
									17648116.98	4771699.07	6.00	0.00
									17648116.39	4771691.87	6.00	0.00
									17648124.58	4771691.20	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648129.52	4771711.13	6.00	0.00
									17648119.83	4771713.19	6.00	0.00
									17648118.95	4771709.03	6.00	0.00
									17648120.59	4771708.68	6.00	0.00
									17648119.74	4771704.66	6.00	0.00
									17648129.32	4771702.62	6.00	0.00
									17648130.22	4771706.83	6.00	0.00
									17648128.67	4771707.16	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648130.61	4771721.73	6.00	0.00
									17648120.84	4771724.58	6.00	0.00
									17648118.82	4771717.64	6.00	0.00
									17648126.70	4771715.34	6.00	0.00
									17648127.78	4771719.01	6.00	0.00
									17648129.66	4771718.46	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648132.30	4771528.82	6.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648134.26	4771528.84	6.00	0.00
									17648134.22	4771532.24	6.00	0.00
									17648124.04	4771532.14	6.00	0.00
									17648124.12	4771524.92	6.00	0.00
									17648132.33	4771525.00	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.79	4771541.74	6.00	0.00
									17648132.21	4771541.72	6.00	0.00
									17648132.17	4771545.78	6.00	0.00
									17648122.27	4771545.69	6.00	0.00
									17648122.31	4771541.43	6.00	0.00
									17648123.99	4771541.44	6.00	0.00
									17648124.03	4771537.34	6.00	0.00
									17648133.84	4771537.43	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.23	4771551.87	6.00	0.00
									17648134.12	4771551.87	6.00	0.00
									17648134.14	4771555.53	6.00	0.00
									17648122.26	4771555.41	6.00	0.00
									17648122.33	4771548.29	6.00	0.00
									17648133.20	4771548.39	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.90	4771565.65	6.00	0.00
									17648123.72	4771565.55	6.00	0.00
									17648123.79	4771558.33	6.00	0.00
									17648132.01	4771558.41	6.00	0.00
									17648131.97	4771562.23	6.00	0.00
									17648133.93	4771562.25	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.48	4771574.02	6.00	0.00
									17648131.89	4771574.00	6.00	0.00
									17648131.85	4771578.06	6.00	0.00
									17648121.95	4771577.96	6.00	0.00
									17648121.99	4771573.71	6.00	0.00
									17648123.68	4771573.72	6.00	0.00
									17648123.72	4771569.62	6.00	0.00
									17648133.52	4771569.71	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648132.81	4771587.88	6.00	0.00
									17648121.95	4771587.78	6.00	0.00
									17648122.02	4771580.65	6.00	0.00
									17648133.90	4771580.77	6.00	0.00
									17648133.80	4771584.43	6.00	0.00
									17648132.91	4771584.40	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648130.57	4771595.86	6.00	0.00
									17648132.53	4771595.88	6.00	0.00
									17648132.49	4771599.29	6.00	0.00
									17648122.32	4771599.19	6.00	0.00
									17648122.39	4771591.96	6.00	0.00
									17648130.60	4771592.04	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648128.92	4771606.17	6.00	0.00
									17648127.34	4771606.15	6.00	0.00
									17648127.30	4771610.21	6.00	0.00
									17648117.40	4771610.11	6.00	0.00
									17648117.44	4771605.86	6.00	0.00
									17648119.12	4771605.87	6.00	0.00
									17648119.16	4771601.76	6.00	0.00
									17648128.96	4771601.86	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648131.20	4771617.00	6.00	0.00
									17648130.31	4771616.97	6.00	0.00
									17648130.21	4771620.45	6.00	0.00
									17648119.35	4771620.35	6.00	0.00
									17648119.42	4771613.22	6.00	0.00
									17648131.30	4771613.34	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648133.46	4771628.16	6.00	0.00
									17648132.57	4771628.13	6.00	0.00
									17648132.47	4771631.61	6.00	0.00
									17648121.61	4771631.51	6.00	0.00
									17648121.68	4771624.38	6.00	0.00
									17648133.56	4771624.49	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648127.07	4771639.68	6.00	0.00
									17648129.03	4771639.70	6.00	0.00
									17648129.00	4771643.11	6.00	0.00
									17648118.82	4771643.01	6.00	0.00
									17648118.89	4771635.78	6.00	0.00
									17648127.11	4771635.86	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648128.74	4771654.54	6.00	0.00
									17648118.84	4771654.45	6.00	0.00
									17648118.88	4771650.19	6.00	0.00
									17648120.56	4771650.21	6.00	0.00
									17648120.60	4771646.10	6.00	0.00
									17648130.40	4771646.20	6.00	0.00
									17648130.36	4771650.50	6.00	0.00
									17648128.78	4771650.48	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648177.40	4771534.60	6.00	0.00
									17648166.81	4771534.25	6.00	0.00
									17648166.85	4771530.88	6.00	0.00
									17648165.96	4771530.87	6.00	0.00
									17648165.99	4771527.49	6.00	0.00
									17648177.63	4771527.87	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648178.75	4771545.10	6.00	0.00
									17648168.58	4771544.65	6.00	0.00
									17648168.74	4771541.25	6.00	0.00
									17648170.69	4771541.33	6.00	0.00
									17648170.86	4771537.52	6.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648179.07	4771537.88	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648175.10	4771553.48	6.00	0.00
									17648176.69	4771553.50	6.00	0.00
									17648176.65	4771557.46	6.00	0.00
									17648166.75	4771557.36	6.00	0.00
									17648166.79	4771553.28	6.00	0.00
									17648165.50	4771553.26	6.00	0.00
									17648165.54	4771549.20	6.00	0.00
									17648175.14	4771549.52	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648178.90	4771568.13	6.00	0.00
									17648168.04	4771567.84	6.00	0.00
									17648168.08	4771564.36	6.00	0.00
									17648167.19	4771564.35	6.00	0.00
									17648167.22	4771560.68	6.00	0.00
									17648179.10	4771561.01	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648176.51	4771578.86	6.00	0.00
									17648165.65	4771578.57	6.00	0.00
									17648165.69	4771575.08	6.00	0.00
									17648164.80	4771575.07	6.00	0.00
									17648164.83	4771571.41	6.00	0.00
									17648176.71	4771571.74	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648177.69	4771608.01	6.00	0.00
									17648176.11	4771608.00	6.00	0.00
									17648176.07	4771612.06	6.00	0.00
									17648166.17	4771611.96	6.00	0.00
									17648166.21	4771607.70	6.00	0.00
									17648167.89	4771607.72	6.00	0.00
									17648167.93	4771603.61	6.00	0.00
									17648177.64	4771603.71	6.00	0.00
									17648177.73	4771603.71	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648173.59	4771623.24	6.00	0.00
									17648163.42	4771622.79	6.00	0.00
									17648163.57	4771619.38	6.00	0.00
									17648165.53	4771619.47	6.00	0.00
									17648165.70	4771615.65	6.00	0.00
									17648173.91	4771616.02	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648177.47	4771630.77	6.00	0.00
									17648179.05	4771630.79	6.00	0.00
									17648179.02	4771634.75	6.00	0.00
									17648169.12	4771634.65	6.00	0.00
									17648169.16	4771630.57	6.00	0.00
									17648167.87	4771630.55	6.00	0.00
									17648167.91	4771626.49	6.00	0.00
									17648177.51	4771626.81	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648175.10	4771645.86	6.00	0.00
									17648164.24	4771645.57	6.00	0.00
									17648164.28	4771642.08	6.00	0.00
									17648163.38	4771642.08	6.00	0.00
									17648163.42	4771638.41	6.00	0.00
									17648175.30	4771638.74	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648176.09	4771656.21	6.00	0.00
									17648165.23	4771655.92	6.00	0.00
									17648165.26	4771652.43	6.00	0.00
									17648164.37	4771652.43	6.00	0.00
									17648164.41	4771648.76	6.00	0.00
									17648176.28	4771649.09	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648170.13	4771495.09	6.00	0.00
									17648166.64	4771495.14	6.00	0.00
									17648166.65	4771496.00	6.00	0.00
									17648162.99	4771496.06	6.00	0.00
									17648163.10	4771484.18	6.00	0.00
									17648170.23	4771484.25	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648158.20	4771492.89	6.00	0.00
									17648154.38	4771492.85	6.00	0.00
									17648154.36	4771494.81	6.00	0.00
									17648150.95	4771494.78	6.00	0.00
									17648151.05	4771484.60	6.00	0.00
									17648158.28	4771484.67	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648147.32	4771495.05	6.00	0.00
									17648143.02	4771495.01	6.00	0.00
									17648143.03	4771493.43	6.00	0.00
									17648138.97	4771493.39	6.00	0.00
									17648139.07	4771483.49	6.00	0.00
									17648143.33	4771483.53	6.00	0.00
									17648143.31	4771485.21	6.00	0.00
									17648147.42	4771485.25	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648134.90	4771495.33	6.00	0.00
									17648131.24	4771495.23	6.00	0.00
									17648131.26	4771494.34	6.00	0.00
									17648127.78	4771494.24	6.00	0.00
									17648127.89	4771483.38	6.00	0.00
									17648135.02	4771483.45	6.00	0.00
			Notes - Project Buildings	x	0		6.00	a	17648123.62	4771493.54	6.00	0.00
									17648120.13	4771493.59	6.00	0.00
									17648120.14	4771494.45	6.00	0.00
									17648116.48	4771494.51	6.00	0.00
									17648116.60	4771482.63	6.00	0.00
									17648123.72	4771482.70	6.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648240.95	4771544.66	9.00	0.00
									17648188.98	4771543.47	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648189.43	4771529.97	9.00	0.00
									17648192.66	4771529.93	9.00	0.00
									17648192.68	4771531.41	9.00	0.00
									17648196.69	4771531.57	9.00	0.00
									17648196.71	4771530.08	9.00	0.00
									17648200.12	4771530.09	9.00	0.00
									17648200.11	4771531.58	9.00	0.00
									17648204.11	4771531.74	9.00	0.00
									17648204.13	4771530.25	9.00	0.00
									17648207.54	4771530.26	9.00	0.00
									17648207.53	4771531.75	9.00	0.00
									17648211.53	4771531.91	9.00	0.00
									17648211.56	4771530.42	9.00	0.00
									17648214.96	4771530.43	9.00	0.00
									17648214.96	4771531.92	9.00	0.00
									17648218.96	4771532.08	9.00	0.00
									17648218.98	4771530.59	9.00	0.00
									17648222.39	4771530.60	9.00	0.00
									17648222.38	4771532.09	9.00	0.00
									17648226.38	4771532.25	9.00	0.00
									17648226.41	4771530.76	9.00	0.00
									17648229.81	4771530.77	9.00	0.00
									17648229.80	4771532.26	9.00	0.00
									17648233.80	4771532.42	9.00	0.00
									17648233.83	4771530.93	9.00	0.00
									17648237.21	4771530.94	9.00	0.00
									17648237.23	4771532.43	9.00	0.00
									17648241.34	4771532.60	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648294.57	4771546.32	9.00	0.00
									17648243.87	4771544.90	9.00	0.00
									17648244.32	4771531.34	9.00	0.00
									17648247.59	4771531.36	9.00	0.00
									17648247.58	4771532.87	9.00	0.00
									17648251.62	4771533.01	9.00	0.00
									17648251.64	4771531.64	9.00	0.00
									17648255.00	4771531.66	9.00	0.00
									17648255.03	4771533.15	9.00	0.00
									17648259.04	4771533.31	9.00	0.00
									17648259.07	4771531.81	9.00	0.00
									17648262.35	4771531.83	9.00	0.00
									17648262.34	4771533.31	9.00	0.00
									17648266.46	4771533.48	9.00	0.00
									17648266.49	4771531.98	9.00	0.00
									17648269.81	4771532.00	9.00	0.00
									17648269.81	4771533.49	9.00	0.00
									17648273.89	4771533.65	9.00	0.00
									17648273.91	4771532.15	9.00	0.00
									17648277.28	4771532.17	9.00	0.00
									17648277.27	4771533.66	9.00	0.00
									17648281.31	4771533.82	9.00	0.00
									17648281.34	4771532.32	9.00	0.00
									17648284.74	4771532.34	9.00	0.00
									17648284.73	4771533.83	9.00	0.00
									17648288.74	4771533.99	9.00	0.00
									17648288.76	4771532.63	9.00	0.00
									17648292.28	4771532.65	9.00	0.00
									17648292.27	4771534.13	9.00	0.00
									17648294.85	4771534.24	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648294.18	4771578.29	9.00	0.00
									17648291.41	4771578.26	9.00	0.00
									17648291.34	4771579.75	9.00	0.00
									17648288.07	4771579.60	9.00	0.00
									17648288.10	4771578.23	9.00	0.00
									17648283.86	4771578.19	9.00	0.00
									17648283.79	4771579.67	9.00	0.00
									17648280.53	4771579.53	9.00	0.00
									17648280.55	4771578.03	9.00	0.00
									17648276.40	4771577.98	9.00	0.00
									17648276.33	4771579.47	9.00	0.00
									17648273.07	4771579.32	9.00	0.00
									17648273.09	4771577.82	9.00	0.00
									17648268.93	4771577.78	9.00	0.00
									17648268.87	4771579.26	9.00	0.00
									17648265.60	4771579.12	9.00	0.00
									17648265.63	4771577.65	9.00	0.00
									17648261.47	4771577.58	9.00	0.00
									17648261.40	4771579.06	9.00	0.00
									17648258.14	4771578.91	9.00	0.00
									17648258.17	4771577.42	9.00	0.00
									17648254.13	4771577.38	9.00	0.00
									17648254.06	4771578.86	9.00	0.00
									17648250.80	4771578.71	9.00	0.00
									17648250.82	4771577.34	9.00	0.00
									17648246.70	4771577.30	9.00	0.00
									17648246.63	4771578.79	9.00	0.00
									17648243.37	4771578.64	9.00	0.00
									17648243.60	4771565.08	9.00	0.00
									17648294.51	4771566.20	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648240.46	4771577.24	9.00	0.00
									17648236.34	4771577.20	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648236.28	4771578.69	9.00	0.00
									17648233.01	4771578.54	9.00	0.00
									17648233.04	4771577.07	9.00	0.00
									17648228.92	4771577.00	9.00	0.00
									17648228.85	4771578.48	9.00	0.00
									17648225.59	4771578.34	9.00	0.00
									17648225.62	4771576.84	9.00	0.00
									17648221.50	4771576.80	9.00	0.00
									17648221.43	4771578.28	9.00	0.00
									17648218.17	4771578.14	9.00	0.00
									17648218.14	4771576.64	9.00	0.00
									17648214.07	4771576.60	9.00	0.00
									17648214.01	4771578.08	9.00	0.00
									17648210.74	4771577.93	9.00	0.00
									17648210.77	4771576.43	9.00	0.00
									17648206.65	4771576.39	9.00	0.00
									17648206.58	4771577.88	9.00	0.00
									17648203.32	4771577.73	9.00	0.00
									17648203.35	4771576.23	9.00	0.00
									17648199.23	4771576.19	9.00	0.00
									17648199.16	4771577.67	9.00	0.00
									17648195.90	4771577.53	9.00	0.00
									17648195.92	4771576.03	9.00	0.00
									17648191.80	4771575.99	9.00	0.00
									17648191.74	4771577.47	9.00	0.00
									17648188.47	4771577.33	9.00	0.00
									17648188.71	4771563.76	9.00	0.00
									17648240.67	4771565.18	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648292.92	4771623.73	9.00	0.00
									17648242.22	4771622.31	9.00	0.00
									17648242.67	4771608.75	9.00	0.00
									17648245.94	4771608.77	9.00	0.00
									17648245.93	4771610.28	9.00	0.00
									17648249.97	4771610.42	9.00	0.00
									17648249.99	4771609.05	9.00	0.00
									17648253.36	4771609.07	9.00	0.00
									17648253.38	4771610.56	9.00	0.00
									17648257.39	4771610.72	9.00	0.00
									17648257.42	4771609.22	9.00	0.00
									17648260.70	4771609.24	9.00	0.00
									17648260.69	4771610.72	9.00	0.00
									17648264.81	4771610.89	9.00	0.00
									17648264.84	4771609.39	9.00	0.00
									17648268.16	4771609.41	9.00	0.00
									17648268.16	4771610.90	9.00	0.00
									17648272.24	4771611.06	9.00	0.00
									17648272.26	4771609.56	9.00	0.00
									17648275.63	4771609.58	9.00	0.00
									17648275.62	4771611.07	9.00	0.00
									17648279.66	4771611.23	9.00	0.00
									17648279.69	4771609.73	9.00	0.00
									17648283.09	4771609.75	9.00	0.00
									17648283.08	4771611.24	9.00	0.00
									17648287.09	4771611.40	9.00	0.00
									17648287.11	4771610.04	9.00	0.00
									17648290.63	4771610.06	9.00	0.00
									17648290.62	4771611.54	9.00	0.00
									17648293.20	4771611.64	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648239.30	4771622.07	9.00	0.00
									17648187.33	4771620.88	9.00	0.00
									17648187.78	4771607.38	9.00	0.00
									17648191.01	4771607.33	9.00	0.00
									17648191.03	4771608.82	9.00	0.00
									17648195.04	4771608.98	9.00	0.00
									17648195.06	4771607.49	9.00	0.00
									17648198.47	4771607.50	9.00	0.00
									17648198.46	4771608.99	9.00	0.00
									17648202.46	4771609.15	9.00	0.00
									17648202.49	4771607.66	9.00	0.00
									17648205.89	4771607.67	9.00	0.00
									17648205.88	4771609.16	9.00	0.00
									17648209.88	4771609.32	9.00	0.00
									17648209.91	4771607.83	9.00	0.00
									17648213.32	4771607.84	9.00	0.00
									17648213.31	4771609.33	9.00	0.00
									17648217.31	4771609.49	9.00	0.00
									17648217.33	4771608.00	9.00	0.00
									17648220.74	4771608.01	9.00	0.00
									17648220.73	4771609.50	9.00	0.00
									17648224.73	4771609.66	9.00	0.00
									17648224.76	4771608.17	9.00	0.00
									17648228.16	4771608.18	9.00	0.00
									17648228.16	4771609.67	9.00	0.00
									17648232.16	4771609.83	9.00	0.00
									17648232.18	4771608.34	9.00	0.00
									17648235.56	4771608.35	9.00	0.00
									17648235.58	4771609.84	9.00	0.00
									17648239.69	4771610.01	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648292.53	4771655.70	9.00	0.00
									17648289.76	4771655.67	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648289.69	4771657.15	9.00	0.00
									17648286.43	4771657.01	9.00	0.00
									17648286.45	4771655.64	9.00	0.00
									17648282.21	4771655.60	9.00	0.00
									17648282.14	4771657.08	9.00	0.00
									17648278.88	4771656.93	9.00	0.00
									17648278.90	4771655.44	9.00	0.00
									17648274.75	4771655.39	9.00	0.00
									17648274.68	4771656.88	9.00	0.00
									17648271.42	4771656.73	9.00	0.00
									17648271.44	4771655.23	9.00	0.00
									17648267.28	4771655.19	9.00	0.00
									17648267.22	4771656.67	9.00	0.00
									17648263.95	4771656.53	9.00	0.00
									17648263.98	4771655.06	9.00	0.00
									17648259.82	4771654.99	9.00	0.00
									17648259.75	4771656.47	9.00	0.00
									17648256.49	4771656.32	9.00	0.00
									17648256.52	4771654.83	9.00	0.00
									17648252.48	4771654.79	9.00	0.00
									17648252.41	4771656.27	9.00	0.00
									17648249.15	4771656.12	9.00	0.00
									17648249.17	4771654.75	9.00	0.00
									17648245.05	4771654.71	9.00	0.00
									17648244.98	4771656.20	9.00	0.00
									17648241.72	4771656.05	9.00	0.00
									17648241.95	4771642.49	9.00	0.00
									17648292.86	4771643.61	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648238.81	4771654.65	9.00	0.00
									17648234.69	4771654.61	9.00	0.00
									17648234.63	4771656.10	9.00	0.00
									17648231.36	4771655.95	9.00	0.00
									17648231.39	4771654.48	9.00	0.00
									17648227.27	4771654.41	9.00	0.00
									17648227.20	4771655.89	9.00	0.00
									17648223.94	4771655.75	9.00	0.00
									17648223.97	4771654.25	9.00	0.00
									17648219.85	4771654.21	9.00	0.00
									17648219.78	4771655.69	9.00	0.00
									17648216.52	4771655.55	9.00	0.00
									17648216.49	4771654.05	9.00	0.00
									17648212.42	4771654.01	9.00	0.00
									17648212.36	4771655.49	9.00	0.00
									17648209.09	4771655.34	9.00	0.00
									17648209.12	4771653.84	9.00	0.00
									17648205.00	4771653.80	9.00	0.00
									17648204.93	4771655.29	9.00	0.00
									17648201.67	4771655.14	9.00	0.00
									17648201.70	4771653.64	9.00	0.00
									17648197.58	4771653.60	9.00	0.00
									17648197.51	4771655.08	9.00	0.00
									17648194.25	4771654.94	9.00	0.00
									17648194.27	4771653.44	9.00	0.00
									17648190.15	4771653.40	9.00	0.00
									17648190.09	4771654.88	9.00	0.00
									17648186.82	4771654.74	9.00	0.00
									17648187.06	4771641.17	9.00	0.00
									17648239.02	4771642.59	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648326.01	4771583.84	9.00	0.00
									17648310.75	4771583.53	9.00	0.00
									17648310.70	4771579.67	9.00	0.00
									17648305.89	4771579.55	9.00	0.00
									17648306.05	4771573.11	9.00	0.00
									17648311.10	4771573.16	9.00	0.00
									17648311.25	4771567.00	9.00	0.00
									17648306.12	4771566.88	9.00	0.00
									17648306.23	4771560.84	9.00	0.00
									17648311.35	4771560.89	9.00	0.00
									17648311.43	4771552.55	9.00	0.00
									17648306.17	4771552.42	9.00	0.00
									17648306.47	4771546.09	9.00	0.00
									17648311.54	4771546.14	9.00	0.00
									17648311.69	4771540.08	9.00	0.00
									17648306.56	4771539.95	9.00	0.00
									17648306.66	4771534.11	9.00	0.00
									17648311.79	4771534.16	9.00	0.00
									17648311.83	4771530.07	9.00	0.00
									17648327.79	4771530.58	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648324.67	4771661.06	9.00	0.00
									17648309.42	4771660.75	9.00	0.00
									17648309.36	4771656.89	9.00	0.00
									17648304.55	4771656.77	9.00	0.00
									17648304.71	4771650.33	9.00	0.00
									17648309.77	4771650.38	9.00	0.00
									17648309.92	4771644.23	9.00	0.00
									17648304.78	4771644.10	9.00	0.00
									17648304.90	4771638.06	9.00	0.00
									17648310.02	4771638.11	9.00	0.00
									17648310.10	4771629.77	9.00	0.00
									17648304.84	4771629.64	9.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648305.14	4771623.31	9.00	0.00
									17648310.21	4771623.36	9.00	0.00
									17648310.36	4771617.30	9.00	0.00
									17648305.23	4771617.17	9.00	0.00
									17648305.33	4771611.33	9.00	0.00
									17648310.46	4771611.38	9.00	0.00
									17648310.50	4771607.30	9.00	0.00
									17648326.46	4771607.81	9.00	0.00
			Notes - Project Buildings	x	0		9.00	a	17648323.32	4771738.29	9.00	0.00
									17648308.07	4771737.97	9.00	0.00
									17648308.01	4771734.12	9.00	0.00
									17648303.20	4771733.99	9.00	0.00
									17648303.36	4771727.56	9.00	0.00
									17648308.42	4771727.61	9.00	0.00
									17648308.57	4771721.45	9.00	0.00
									17648303.43	4771721.32	9.00	0.00
									17648303.55	4771715.28	9.00	0.00
									17648308.67	4771715.33	9.00	0.00
									17648308.75	4771706.99	9.00	0.00
									17648303.48	4771706.87	9.00	0.00
									17648303.79	4771700.53	9.00	0.00
									17648308.86	4771700.58	9.00	0.00
									17648309.01	4771694.52	9.00	0.00
									17648303.87	4771694.40	9.00	0.00
									17648303.97	4771688.55	9.00	0.00
									17648309.11	4771688.60	9.00	0.00
									17648309.15	4771684.52	9.00	0.00
									17648325.11	4771685.03	9.00	0.00
			Notes - Project Buildings	x	0		20.50	a	17648328.93	4771506.42	20.50	0.00
									17648293.65	4771505.54	20.50	0.00
									17648294.12	4771486.73	20.50	0.00
									17648310.65	4771487.14	20.50	0.00
									17648310.78	4771482.20	20.50	0.00
									17648307.65	4771482.12	20.50	0.00
									17648307.90	4771472.22	20.50	0.00
									17648329.77	4771472.77	20.50	0.00
			Notes - Project Buildings	x	0		20.50	a	17648278.31	4771504.87	20.50	0.00
									17648243.31	4771504.18	20.50	0.00
									17648243.97	4771470.73	20.50	0.00
									17648265.67	4771471.16	20.50	0.00
									17648265.47	4771481.06	20.50	0.00
									17648262.46	4771481.00	20.50	0.00
									17648262.37	4771485.61	20.50	0.00
									17648278.69	4771485.93	20.50	0.00
			Notes - Project Buildings	x	0		17.50	a	17648232.56	4771422.03	17.50	0.00
									17648203.15	4771421.29	17.50	0.00
									17648203.06	4771424.75	17.50	0.00
									17648206.03	4771424.83	17.50	0.00
									17648205.50	4771445.91	17.50	0.00
									17648186.70	4771445.44	17.50	0.00
									17648187.84	4771399.91	17.50	0.00
									17648233.09	4771401.04	17.50	0.00
			Notes - Project Buildings	x	0		17.50	a	17648220.57	4771496.48	17.50	0.00
									17648185.39	4771495.60	17.50	0.00
									17648186.24	4771461.95	17.50	0.00
									17648204.99	4771462.42	17.50	0.00
									17648204.64	4771476.28	17.50	0.00
									17648209.59	4771476.40	17.50	0.00
									17648209.60	4771475.78	17.50	0.00
									17648209.65	4771473.49	17.50	0.00
									17648221.14	4771473.72	17.50	0.00
			Notes - Project Buildings	x	0		45.30	a	17648399.67	4771501.76	45.30	0.00
									17648399.66	4771501.97	45.30	0.00
									17648399.63	4771502.19	45.30	0.00
									17648399.59	4771502.40	45.30	0.00
									17648399.54	4771502.62	45.30	0.00
									17648399.47	4771502.82	45.30	0.00
									17648399.39	4771503.03	45.30	0.00
									17648399.30	4771503.22	45.30	0.00
									17648399.20	4771503.41	45.30	0.00
									17648399.08	4771503.60	45.30	0.00
									17648398.96	4771503.78	45.30	0.00
									17648398.82	4771503.95	45.30	0.00
									17648398.67	4771504.10	45.30	0.00
									17648398.51	4771504.25	45.30	0.00
									17648398.35	4771504.39	45.30	0.00
									17648398.17	4771504.52	45.30	0.00
									17648397.99	4771504.64	45.30	0.00
									17648397.80	4771504.75	45.30	0.00
									17648397.60	4771504.84	45.30	0.00
									17648397.40	4771504.92	45.30	0.00
									17648397.19	4771504.99	45.30	0.00
									17648396.98	4771505.05	45.30	0.00
									17648396.77	4771505.09	45.30	0.00
									17648396.55	4771505.12	45.30	0.00
									17648396.34	4771505.13	45.30	0.00
									17648396.12	4771505.13	45.30	0.00
									17648369.39	4771504.46	45.30	0.00
									17648369.18	4771504.45	45.30	0.00
									17648368.96	4771504.43	45.30	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648368.75	4771504.39	45.30	0.00
									17648368.54	4771504.33	45.30	0.00
									17648368.33	4771504.27	45.30	0.00
									17648368.13	4771504.19	45.30	0.00
									17648367.93	4771504.10	45.30	0.00
									17648367.74	4771503.99	45.30	0.00
									17648367.55	4771503.88	45.30	0.00
									17648367.37	4771503.75	45.30	0.00
									17648367.21	4771503.61	45.30	0.00
									17648367.05	4771503.47	45.30	0.00
									17648366.90	4771503.31	45.30	0.00
									17648366.76	4771503.14	45.30	0.00
									17648366.63	4771502.97	45.30	0.00
									17648366.51	4771502.78	45.30	0.00
									17648366.40	4771502.59	45.30	0.00
									17648366.31	4771502.40	45.30	0.00
									17648366.23	4771502.19	45.30	0.00
									17648366.16	4771501.99	45.30	0.00
									17648366.10	4771501.78	45.30	0.00
									17648366.06	4771501.56	45.30	0.00
									17648366.03	4771501.35	45.30	0.00
									17648366.02	4771501.13	45.30	0.00
									17648366.02	4771500.91	45.30	0.00
									17648366.43	4771484.25	45.30	0.00
									17648366.45	4771484.02	45.30	0.00
									17648366.48	4771483.80	45.30	0.00
									17648366.52	4771483.58	45.30	0.00
									17648366.58	4771483.36	45.30	0.00
									17648366.65	4771483.14	45.30	0.00
									17648366.73	4771482.93	45.30	0.00
									17648366.83	4771482.73	45.30	0.00
									17648366.94	4771482.53	45.30	0.00
									17648367.07	4771482.34	45.30	0.00
									17648367.20	4771482.16	45.30	0.00
									17648367.35	4771481.99	45.30	0.00
									17648367.51	4771481.83	45.30	0.00
									17648367.68	4771481.68	45.30	0.00
									17648367.86	4771481.54	45.30	0.00
									17648368.05	4771481.41	45.30	0.00
									17648368.24	4771481.29	45.30	0.00
									17648368.44	4771481.19	45.30	0.00
									17648368.65	4771481.10	45.30	0.00
									17648368.87	4771481.03	45.30	0.00
									17648369.09	4771480.97	45.30	0.00
									17648369.31	4771480.92	45.30	0.00
									17648369.53	4771480.89	45.30	0.00
									17648369.76	4771480.87	45.30	0.00
									17648369.99	4771480.87	45.30	0.00
									17648396.71	4771481.54	45.30	0.00
									17648396.93	4771481.56	45.30	0.00
									17648397.14	4771481.58	45.30	0.00
									17648397.36	4771481.62	45.30	0.00
									17648397.57	4771481.67	45.30	0.00
									17648397.78	4771481.74	45.30	0.00
									17648397.98	4771481.82	45.30	0.00
									17648398.18	4771481.91	45.30	0.00
									17648398.37	4771482.01	45.30	0.00
									17648398.55	4771482.13	45.30	0.00
									17648398.73	4771482.26	45.30	0.00
									17648398.90	4771482.39	45.30	0.00
									17648399.06	4771482.54	45.30	0.00
									17648399.21	4771482.70	45.30	0.00
									17648399.35	4771482.87	45.30	0.00
									17648399.48	4771483.04	45.30	0.00
									17648399.59	4771483.22	45.30	0.00
									17648399.70	4771483.41	45.30	0.00
									17648399.79	4771483.61	45.30	0.00
									17648399.88	4771483.81	45.30	0.00
									17648399.94	4771484.02	45.30	0.00
									17648400.00	4771484.23	45.30	0.00
									17648400.04	4771484.44	45.30	0.00
									17648400.07	4771484.66	45.30	0.00
									17648400.09	4771484.88	45.30	0.00
									17648400.09	4771485.09	45.30	0.00
			Notes - Project Buildings	x	0		57.30	a	17648494.05	4771504.12	57.30	0.00
									17648494.03	4771504.35	57.30	0.00
									17648494.01	4771504.57	57.30	0.00
									17648493.96	4771504.80	57.30	0.00
									17648493.91	4771505.02	57.30	0.00
									17648493.84	4771505.23	57.30	0.00
									17648493.75	4771505.44	57.30	0.00
									17648493.65	4771505.65	57.30	0.00
									17648493.54	4771505.84	57.30	0.00
									17648493.42	4771506.03	57.30	0.00
									17648493.28	4771506.21	57.30	0.00
									17648493.13	4771506.39	57.30	0.00
									17648492.97	4771506.55	57.30	0.00
									17648492.80	4771506.70	57.30	0.00
									17648492.62	4771506.84	57.30	0.00
									17648492.44	4771506.96	57.30	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648492.24	4771507.08	57.30	0.00
									17648492.04	4771507.18	57.30	0.00
									17648491.83	4771507.27	57.30	0.00
									17648491.61	4771507.34	57.30	0.00
									17648491.40	4771507.40	57.30	0.00
									17648491.17	4771507.45	57.30	0.00
									17648490.95	4771507.48	57.30	0.00
									17648490.72	4771507.50	57.30	0.00
									17648490.50	4771507.50	57.30	0.00
									17648473.67	4771507.08	57.30	0.00
									17648473.45	4771507.07	57.30	0.00
									17648473.24	4771507.04	57.30	0.00
									17648473.02	4771507.00	57.30	0.00
									17648472.81	4771506.95	57.30	0.00
									17648472.60	4771506.88	57.30	0.00
									17648472.40	4771506.80	57.30	0.00
									17648472.20	4771506.71	57.30	0.00
									17648472.01	4771506.61	57.30	0.00
									17648471.83	4771506.49	57.30	0.00
									17648471.65	4771506.37	57.30	0.00
									17648471.48	4771506.23	57.30	0.00
									17648471.32	4771506.08	57.30	0.00
									17648471.17	4771505.92	57.30	0.00
									17648471.03	4771505.76	57.30	0.00
									17648470.90	4771505.58	57.30	0.00
									17648470.79	4771505.40	57.30	0.00
									17648470.68	4771505.21	57.30	0.00
									17648470.59	4771505.01	57.30	0.00
									17648470.50	4771504.81	57.30	0.00
									17648470.44	4771504.60	57.30	0.00
									17648470.38	4771504.39	57.30	0.00
									17648470.34	4771504.18	57.30	0.00
									17648470.31	4771503.96	57.30	0.00
									17648470.29	4771503.75	57.30	0.00
									17648470.29	4771503.53	57.30	0.00
									17648470.96	4771476.80	57.30	0.00
									17648470.98	4771476.58	57.30	0.00
									17648471.00	4771476.35	57.30	0.00
									17648471.05	4771476.13	57.30	0.00
									17648471.10	4771475.91	57.30	0.00
									17648471.17	4771475.69	57.30	0.00
									17648471.26	4771475.48	57.30	0.00
									17648471.36	4771475.28	57.30	0.00
									17648471.47	4771475.08	57.30	0.00
									17648471.59	4771474.89	57.30	0.00
									17648471.73	4771474.71	57.30	0.00
									17648471.88	4771474.54	57.30	0.00
									17648472.04	4771474.38	57.30	0.00
									17648472.21	4771474.23	57.30	0.00
									17648472.39	4771474.09	57.30	0.00
									17648472.57	4771473.96	57.30	0.00
									17648472.77	4771473.85	57.30	0.00
									17648472.97	4771473.74	57.30	0.00
									17648473.18	4771473.66	57.30	0.00
									17648473.40	4771473.58	57.30	0.00
									17648473.61	4771473.52	57.30	0.00
									17648473.84	4771473.48	57.30	0.00
									17648474.06	4771473.44	57.30	0.00
									17648474.29	4771473.43	57.30	0.00
									17648474.51	4771473.43	57.30	0.00
									17648491.34	4771473.85	57.30	0.00
									17648491.56	4771473.86	57.30	0.00
									17648491.77	4771473.89	57.30	0.00
									17648491.99	4771473.93	57.30	0.00
									17648492.20	4771473.98	57.30	0.00
									17648492.41	4771474.04	57.30	0.00
									17648492.61	4771474.12	57.30	0.00
									17648492.81	4771474.21	57.30	0.00
									17648493.00	4771474.32	57.30	0.00
									17648493.18	4771474.43	57.30	0.00
									17648493.36	4771474.56	57.30	0.00
									17648493.53	4771474.70	57.30	0.00
									17648493.69	4771474.85	57.30	0.00
									17648493.84	4771475.00	57.30	0.00
									17648493.98	4771475.17	57.30	0.00
									17648494.11	4771475.35	57.30	0.00
									17648494.22	4771475.53	57.30	0.00
									17648494.33	4771475.72	57.30	0.00
									17648494.42	4771475.92	57.30	0.00
									17648494.51	4771476.12	57.30	0.00
									17648494.57	4771476.32	57.30	0.00
									17648494.63	4771476.53	57.30	0.00
									17648494.67	4771476.75	57.30	0.00
									17648494.70	4771476.96	57.30	0.00
									17648494.72	4771477.18	57.30	0.00
									17648494.72	4771477.40	57.30	0.00
			Notes - Project Buildings	x	0		51.30	a	17648496.19	4771440.82	51.30	0.00
									17648496.18	4771441.04	51.30	0.00
									17648496.16	4771441.25	51.30	0.00
									17648496.12	4771441.47	51.30	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(m)	(m)	(m)	(m)	(m)
								17648496.06	4771441.68	51.30	0.00
								17648496.00	4771441.88	51.30	0.00
								17648495.92	4771442.09	51.30	0.00
								17648495.83	4771442.28	51.30	0.00
								17648495.72	4771442.48	51.30	0.00
								17648495.61	4771442.66	51.30	0.00
								17648495.48	4771442.84	51.30	0.00
								17648495.34	4771443.01	51.30	0.00
								17648495.20	4771443.17	51.30	0.00
								17648495.04	4771443.32	51.30	0.00
								17648494.87	4771443.46	51.30	0.00
								17648494.70	4771443.58	51.30	0.00
								17648494.51	4771443.70	51.30	0.00
								17648494.32	4771443.81	51.30	0.00
								17648494.13	4771443.90	51.30	0.00
								17648493.92	4771443.98	51.30	0.00
								17648493.72	4771444.05	51.30	0.00
								17648493.51	4771444.11	51.30	0.00
								17648493.29	4771444.15	51.30	0.00
								17648493.08	4771444.18	51.30	0.00
								17648492.86	4771444.19	51.30	0.00
								17648492.64	4771444.20	51.30	0.00
								17648475.82	4771443.77	51.30	0.00
								17648475.60	4771443.76	51.30	0.00
								17648475.38	4771443.74	51.30	0.00
								17648475.17	4771443.70	51.30	0.00
								17648474.96	4771443.64	51.30	0.00
								17648474.75	4771443.58	51.30	0.00
								17648474.55	4771443.50	51.30	0.00
								17648474.35	4771443.41	51.30	0.00
								17648474.16	4771443.30	51.30	0.00
								17648473.97	4771443.19	51.30	0.00
								17648473.80	4771443.06	51.30	0.00
								17648473.63	4771442.92	51.30	0.00
								17648473.47	4771442.78	51.30	0.00
								17648473.32	4771442.62	51.30	0.00
								17648473.18	4771442.45	51.30	0.00
								17648473.05	4771442.28	51.30	0.00
								17648472.93	4771442.09	51.30	0.00
								17648472.83	4771441.90	51.30	0.00
								17648472.73	4771441.71	51.30	0.00
								17648472.65	4771441.50	51.30	0.00
								17648472.58	4771441.30	51.30	0.00
								17648472.53	4771441.09	51.30	0.00
								17648472.48	4771440.87	51.30	0.00
								17648472.46	4771440.66	51.30	0.00
								17648472.44	4771440.44	51.30	0.00
								17648472.44	4771440.22	51.30	0.00
								17648472.82	4771425.08	51.30	0.00
								17648473.11	4771413.50	51.30	0.00
								17648473.12	4771413.27	51.30	0.00
								17648473.15	4771413.05	51.30	0.00
								17648473.19	4771412.82	51.30	0.00
								17648473.25	4771412.60	51.30	0.00
								17648473.32	4771412.39	51.30	0.00
								17648473.41	4771412.18	51.30	0.00
								17648473.50	4771411.98	51.30	0.00
								17648473.62	4771411.78	51.30	0.00
								17648473.74	4771411.59	51.30	0.00
								17648473.88	4771411.41	51.30	0.00
								17648474.03	4771411.24	51.30	0.00
								17648474.18	4771411.07	51.30	0.00
								17648474.35	4771410.92	51.30	0.00
								17648474.53	4771410.78	51.30	0.00
								17648474.72	4771410.66	51.30	0.00
								17648474.92	4771410.54	51.30	0.00
								17648475.12	4771410.44	51.30	0.00
								17648475.33	4771410.35	51.30	0.00
								17648475.54	4771410.28	51.30	0.00
								17648475.76	4771410.22	51.30	0.00
								17648475.98	4771410.17	51.30	0.00
								17648476.21	4771410.14	51.30	0.00
								17648476.43	4771410.12	51.30	0.00
								17648476.66	4771410.12	51.30	0.00
								17648493.49	4771410.54	51.30	0.00
								17648493.70	4771410.56	51.30	0.00
								17648493.92	4771410.58	51.30	0.00
								17648494.13	4771410.62	51.30	0.00
								17648494.35	4771410.67	51.30	0.00
								17648494.55	4771410.74	51.30	0.00
								17648494.76	4771410.82	51.30	0.00
								17648494.95	4771410.91	51.30	0.00
								17648495.14	4771411.01	51.30	0.00
								17648495.33	4771411.13	51.30	0.00
								17648495.51	4771411.26	51.30	0.00
								17648495.67	4771411.39	51.30	0.00
								17648495.83	4771411.54	51.30	0.00
								17648495.98	4771411.70	51.30	0.00
								17648496.12	4771411.87	51.30	0.00
								17648496.25	4771412.04	51.30	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(m)	(m)	(m)	(m)	(m)
								17648496.37	4771412.22	51.30	0.00
								17648496.48	4771412.41	51.30	0.00
								17648496.57	4771412.61	51.30	0.00
								17648496.65	4771412.81	51.30	0.00
								17648496.72	4771413.02	51.30	0.00
								17648496.74	4771413.10	51.30	0.00
								17648496.78	4771413.23	51.30	0.00
								17648496.82	4771413.44	51.30	0.00
								17648496.85	4771413.66	51.30	0.00
								17648496.86	4771413.88	51.30	0.00
								17648496.86	4771414.09	51.30	0.00
			Notes - Project Buildings	x	0		45.30	a 17648419.94	4771426.23	45.30	0.00
								17648419.93	4771426.45	45.30	0.00
								17648419.91	4771426.66	45.30	0.00
								17648419.89	4771426.72	45.30	0.00
								17648419.87	4771426.88	45.30	0.00
								17648419.81	4771427.09	45.30	0.00
								17648419.75	4771427.30	45.30	0.00
								17648419.67	4771427.50	45.30	0.00
								17648419.58	4771427.70	45.30	0.00
								17648419.47	4771427.89	45.30	0.00
								17648419.36	4771428.07	45.30	0.00
								17648419.23	4771428.25	45.30	0.00
								17648419.09	4771428.42	45.30	0.00
								17648418.95	4771428.58	45.30	0.00
								17648418.79	4771428.73	45.30	0.00
								17648418.62	4771428.87	45.30	0.00
								17648418.45	4771429.00	45.30	0.00
								17648418.26	4771429.11	45.30	0.00
								17648418.07	4771429.22	45.30	0.00
								17648417.88	4771429.31	45.30	0.00
								17648417.67	4771429.40	45.30	0.00
								17648417.47	4771429.46	45.30	0.00
								17648417.26	4771429.52	45.30	0.00
								17648417.04	4771429.56	45.30	0.00
								17648416.83	4771429.59	45.30	0.00
								17648416.61	4771429.61	45.30	0.00
								17648416.39	4771429.61	45.30	0.00
								17648385.99	4771428.84	45.30	0.00
								17648385.77	4771428.83	45.30	0.00
								17648385.55	4771428.81	45.30	0.00
								17648385.34	4771428.77	45.30	0.00
								17648385.13	4771428.71	45.30	0.00
								17648384.92	4771428.65	45.30	0.00
								17648384.72	4771428.57	45.30	0.00
								17648384.52	4771428.48	45.30	0.00
								17648384.33	4771428.37	45.30	0.00
								17648384.14	4771428.26	45.30	0.00
								17648383.97	4771428.13	45.30	0.00
								17648383.80	4771427.99	45.30	0.00
								17648383.64	4771427.85	45.30	0.00
								17648383.49	4771427.69	45.30	0.00
								17648383.35	4771427.52	45.30	0.00
								17648383.22	4771427.35	45.30	0.00
								17648383.10	4771427.16	45.30	0.00
								17648382.99	4771426.97	45.30	0.00
								17648382.90	4771426.78	45.30	0.00
								17648382.82	4771426.57	45.30	0.00
								17648382.75	4771426.37	45.30	0.00
								17648382.70	4771426.16	45.30	0.00
								17648382.65	4771425.94	45.30	0.00
								17648382.62	4771425.73	45.30	0.00
								17648382.61	4771425.51	45.30	0.00
								17648382.61	4771425.29	45.30	0.00
								17648382.96	4771411.24	45.30	0.00
								17648382.97	4771411.01	45.30	0.00
								17648383.00	4771410.79	45.30	0.00
								17648383.04	4771410.56	45.30	0.00
								17648383.10	4771410.34	45.30	0.00
								17648383.17	4771410.13	45.30	0.00
								17648383.26	4771409.92	45.30	0.00
								17648383.36	4771409.72	45.30	0.00
								17648383.47	4771409.52	45.30	0.00
								17648383.59	4771409.33	45.30	0.00
								17648383.73	4771409.15	45.30	0.00
								17648383.88	4771408.98	45.30	0.00
								17648384.04	4771408.81	45.30	0.00
								17648384.21	4771408.66	45.30	0.00
								17648384.38	4771408.52	45.30	0.00
								17648384.57	4771408.40	45.30	0.00
								17648384.77	4771408.28	45.30	0.00
								17648384.97	4771408.18	45.30	0.00
								17648385.18	4771408.09	45.30	0.00
								17648385.39	4771408.02	45.30	0.00
								17648385.61	4771407.96	45.30	0.00
								17648385.83	4771407.91	45.30	0.00
								17648386.06	4771407.88	45.30	0.00
								17648386.29	4771407.86	45.30	0.00
								17648386.51	4771407.86	45.30	0.00
								17648416.92	4771408.62	45.30	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates				
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648417.14	4771408.64	45.30	0.00
									17648417.37	4771408.66	45.30	0.00
									17648417.59	4771408.71	45.30	0.00
									17648417.81	4771408.76	45.30	0.00
									17648418.03	4771408.84	45.30	0.00
									17648418.24	4771408.92	45.30	0.00
									17648418.44	4771409.02	45.30	0.00
									17648418.64	4771409.13	45.30	0.00
									17648418.83	4771409.26	45.30	0.00
									17648419.01	4771409.39	45.30	0.00
									17648419.18	4771409.54	45.30	0.00
									17648419.34	4771409.70	45.30	0.00
									17648419.49	4771409.87	45.30	0.00
									17648419.63	4771410.05	45.30	0.00
									17648419.76	4771410.24	45.30	0.00
									17648419.88	4771410.43	45.30	0.00
									17648419.98	4771410.63	45.30	0.00
									17648420.07	4771410.84	45.30	0.00
									17648420.14	4771411.06	45.30	0.00
									17648420.20	4771411.27	45.30	0.00
									17648420.25	4771411.50	45.30	0.00
									17648420.28	4771411.72	45.30	0.00
									17648420.29	4771411.95	45.30	0.00
									17648420.30	4771412.17	45.30	0.00
			Notes - Project Buildings	x	0		45.30	a	17648299.66	4771439.36	45.30	0.00
									17648299.64	4771439.57	45.30	0.00
									17648299.62	4771439.79	45.30	0.00
									17648299.58	4771440.00	45.30	0.00
									17648299.52	4771440.22	45.30	0.00
									17648299.46	4771440.42	45.30	0.00
									17648299.38	4771440.63	45.30	0.00
									17648299.29	4771440.82	45.30	0.00
									17648299.18	4771441.02	45.30	0.00
									17648299.07	4771441.20	45.30	0.00
									17648298.94	4771441.38	45.30	0.00
									17648298.80	4771441.55	45.30	0.00
									17648298.66	4771441.71	45.30	0.00
									17648298.50	4771441.86	45.30	0.00
									17648298.33	4771441.99	45.30	0.00
									17648298.16	4771442.12	45.30	0.00
									17648297.97	4771442.24	45.30	0.00
									17648297.78	4771442.35	45.30	0.00
									17648297.59	4771442.44	45.30	0.00
									17648297.39	4771442.52	45.30	0.00
									17648297.18	4771442.59	45.30	0.00
									17648296.97	4771442.65	45.30	0.00
									17648296.75	4771442.69	45.30	0.00
									17648296.54	4771442.72	45.30	0.00
									17648296.32	4771442.73	45.30	0.00
									17648296.10	4771442.73	45.30	0.00
									17648281.26	4771442.36	45.30	0.00
									17648281.04	4771442.35	45.30	0.00
									17648280.82	4771442.32	45.30	0.00
									17648280.61	4771442.28	45.30	0.00
									17648280.40	4771442.23	45.30	0.00
									17648280.19	4771442.17	45.30	0.00
									17648279.99	4771442.09	45.30	0.00
									17648279.79	4771442.00	45.30	0.00
									17648279.60	4771441.89	45.30	0.00
									17648279.41	4771441.78	45.30	0.00
									17648279.24	4771441.65	45.30	0.00
									17648279.07	4771441.51	45.30	0.00
									17648278.91	4771441.36	45.30	0.00
									17648278.76	4771441.21	45.30	0.00
									17648278.62	4771441.04	45.30	0.00
									17648278.49	4771440.86	45.30	0.00
									17648278.37	4771440.68	45.30	0.00
									17648278.27	4771440.49	45.30	0.00
									17648278.17	4771440.29	45.30	0.00
									17648278.09	4771440.09	45.30	0.00
									17648278.02	4771439.89	45.30	0.00
									17648277.97	4771439.68	45.30	0.00
									17648277.92	4771439.46	45.30	0.00
									17648277.90	4771439.25	45.30	0.00
									17648277.88	4771439.03	45.30	0.00
									17648277.88	4771438.81	45.30	0.00
									17648278.35	4771420.20	45.30	0.00
									17648278.64	4771408.62	45.30	0.00
									17648278.65	4771408.40	45.30	0.00
									17648278.68	4771408.17	45.30	0.00
									17648278.72	4771407.95	45.30	0.00
									17648278.78	4771407.73	45.30	0.00
									17648278.85	4771407.51	45.30	0.00
									17648278.93	4771407.30	45.30	0.00
									17648279.03	4771407.10	45.30	0.00
									17648279.14	4771406.90	45.30	0.00
									17648279.27	4771406.71	45.30	0.00
									17648279.41	4771406.53	45.30	0.00
									17648279.55	4771406.36	45.30	0.00
									17648279.71	4771406.20	45.30	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (m)		Coordinates x (m)	y (m)	z (m)	Ground (m)
									17648279.88	4771406.05	45.30	0.00
									17648280.06	4771405.91	45.30	0.00
									17648280.25	4771405.78	45.30	0.00
									17648280.44	4771405.67	45.30	0.00
									17648280.65	4771405.56	45.30	0.00
									17648280.86	4771405.48	45.30	0.00
									17648281.07	4771405.40	45.30	0.00
									17648281.29	4771405.34	45.30	0.00
									17648281.51	4771405.30	45.30	0.00
									17648281.73	4771405.26	45.30	0.00
									17648281.96	4771405.25	45.30	0.00
									17648282.19	4771405.25	45.30	0.00
									17648297.03	4771405.62	45.30	0.00
									17648297.25	4771405.63	45.30	0.00
									17648297.47	4771405.66	45.30	0.00
									17648297.68	4771405.70	45.30	0.00
									17648297.89	4771405.75	45.30	0.00
									17648298.10	4771405.81	45.30	0.00
									17648298.30	4771405.89	45.30	0.00
									17648298.50	4771405.98	45.30	0.00
									17648298.69	4771406.09	45.30	0.00
									17648298.88	4771406.20	45.30	0.00
									17648299.05	4771406.33	45.30	0.00
									17648299.22	4771406.47	45.30	0.00
									17648299.38	4771406.62	45.30	0.00
									17648299.53	4771406.77	45.30	0.00
									17648299.67	4771406.94	45.30	0.00
									17648299.80	4771407.12	45.30	0.00
									17648299.92	4771407.30	45.30	0.00
									17648300.03	4771407.49	45.30	0.00
									17648300.12	4771407.69	45.30	0.00
									17648300.20	4771407.89	45.30	0.00
									17648300.27	4771408.09	45.30	0.00
									17648300.32	4771408.30	45.30	0.00
									17648300.37	4771408.52	45.30	0.00
									17648300.40	4771408.73	45.30	0.00
									17648300.41	4771408.95	45.30	0.00
									17648300.41	4771409.17	45.30	0.00
			Notes - Project Buildings	x	0		22.00	a	17648395.65	4771636.41	22.00	0.00
									17648373.34	4771635.97	22.00	0.00
									17648373.22	4771641.96	22.00	0.00
									17648369.40	4771641.89	22.00	0.00
									17648359.92	4771641.70	22.00	0.00
									17648360.44	4771615.07	22.00	0.00
									17648396.06	4771615.77	22.00	0.00
			Notes - Project Buildings	x	0		7.00	a	17648450.35	4771641.30	7.00	0.00
									17648438.77	4771641.07	7.00	0.00
									17648432.83	4771640.95	7.00	0.00
									17648419.56	4771640.69	7.00	0.00
									17648419.95	4771620.89	7.00	0.00
									17648450.75	4771621.50	7.00	0.00
			Notes - Project Buildings	x	0		7.00	a	17648498.07	4771642.49	7.00	0.00
									17648495.73	4771642.45	7.00	0.00
									17648490.78	4771642.35	7.00	0.00
									17648468.41	4771641.91	7.00	0.00
									17648468.88	4771618.15	7.00	0.00
									17648498.53	4771618.74	7.00	0.00
			Notes - Project Buildings	x	0		20.50	a	17648492.70	4771581.07	20.50	0.00
									17648468.32	4771580.58	20.50	0.00
									17648468.45	4771573.99	20.50	0.00
									17648429.15	4771573.21	20.50	0.00
									17648429.41	4771559.61	20.50	0.00
									17648429.56	4771552.08	20.50	0.00
									17648470.37	4771552.89	20.50	0.00
									17648470.28	4771557.32	20.50	0.00
									17648493.16	4771557.77	20.50	0.00
			Notes - Project Buildings	x	0		20.50	a	17648381.65	4771578.21	20.50	0.00
									17648365.72	4771577.90	20.50	0.00
									17648358.14	4771577.75	20.50	0.00
									17648359.10	4771528.77	20.50	0.00
									17648397.73	4771529.53	20.50	0.00
									17648397.56	4771537.90	20.50	0.00
									17648397.47	4771542.79	20.50	0.00
									17648382.36	4771542.49	20.50	0.00
			Notes - Project Buildings	x	0		7.00	a	17648495.64	4771740.48	7.00	0.00
									17648465.28	4771739.88	7.00	0.00
									17648465.88	4771709.69	7.00	0.00
									17648496.24	4771710.29	7.00	0.00
			Notes - Project Buildings	x	0		22.00	a	17648377.62	4771733.79	22.00	0.00
									17648367.21	4771733.59	22.00	0.00
									17648354.42	4771733.33	22.00	0.00
									17648355.78	4771664.85	22.00	0.00
									17648368.94	4771665.11	22.00	0.00
									17648369.04	4771660.08	22.00	0.00
									17648378.70	4771660.28	22.00	0.00
									17648379.07	4771660.28	22.00	0.00
			Notes - Project Buildings	x	0		14.50	a	17648302.62	4771439.43	14.50	0.00
									17648277.88	4771438.81	14.50	0.00
									17648278.35	4771420.20	14.50	0.00
									17648273.65	4771420.09	14.50	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(m)		(m)	(m)	(m)	(m)
									17648273.58	4771423.05	14.50	0.00
									17648250.81	4771422.48	14.50	0.00
									17648251.34	4771401.50	14.50	0.00
									17648303.54	4771402.81	14.50	0.00
			Notes - Project Buildings	x	0		14.50	a	17648422.90	4771426.80	14.50	0.00
									17648385.57	4771425.86	14.50	0.00
									17648385.10	4771444.47	14.50	0.00
									17648364.31	4771443.95	14.50	0.00
									17648365.31	4771404.36	14.50	0.00
									17648423.43	4771405.82	14.50	0.00
			Notes - Project Buildings	x	0		14.50	a	17648469.06	4771427.96	14.50	0.00
									17648469.14	4771424.99	14.50	0.00
									17648475.79	4771425.15	14.50	0.00
									17648475.25	4771446.73	14.50	0.00
									17648499.00	4771447.33	14.50	0.00
									17648499.86	4771413.18	14.50	0.00
									17648494.02	4771413.03	14.50	0.00
									17648494.15	4771407.59	14.50	0.00
									17648440.88	4771406.25	14.50	0.00
									17648440.36	4771427.24	14.50	0.00
			Notes - Project Buildings	x	0		14.50	a	17648467.16	4771509.89	14.50	0.00
									17648497.03	4771510.64	14.50	0.00
									17648498.02	4771471.04	14.50	0.00
									17648468.15	4771470.30	14.50	0.00
			Notes - Project Buildings	x	0		14.50	a	17648402.31	4771508.26	14.50	0.00
									17648362.44	4771507.26	14.50	0.00
									17648363.29	4771473.61	14.50	0.00
									17648403.15	4771474.61	14.50	0.00
			Notes - Project Buildings	x	0		5.50	a	17648365.64	4771581.84	5.50	0.00
									17648365.72	4771577.90	5.50	0.00
									17648358.14	4771577.75	5.50	0.00
									17648359.10	4771528.77	5.50	0.00
									17648397.73	4771529.53	5.50	0.00
									17648397.56	4771537.90	5.50	0.00
									17648400.05	4771537.95	5.50	0.00
									17648399.17	4771582.50	5.50	0.00
			Notes - Project Buildings	x	0		5.50	a	17648429.56	4771552.08	5.50	0.00
									17648429.41	4771559.61	5.50	0.00
									17648424.38	4771559.51	5.50	0.00
									17648424.04	4771577.06	5.50	0.00
									17648458.23	4771577.74	5.50	0.00
									17648458.12	4771583.57	5.50	0.00
									17648496.45	4771584.32	5.50	0.00
									17648497.06	4771553.42	5.50	0.00
			Notes - Project Buildings	x	0		7.00	a	17648367.12	4771737.66	7.00	0.00
									17648367.21	4771733.59	7.00	0.00
									17648354.42	4771733.33	7.00	0.00
									17648355.78	4771664.85	7.00	0.00
									17648368.94	4771665.11	7.00	0.00
									17648369.40	4771641.89	7.00	0.00
									17648359.93	4771641.70	7.00	0.00
									17648360.45	4771615.07	7.00	0.00
									17648378.97	4771615.41	7.00	0.00
									17648379.03	4771612.26	7.00	0.00
									17648399.04	4771612.66	7.00	0.00
									17648398.38	4771645.93	7.00	0.00
									17648378.99	4771645.54	7.00	0.00
									17648378.70	4771660.28	7.00	0.00
									17648397.63	4771660.65	7.00	0.00
									17648396.10	4771738.23	7.00	0.00

3D Reflector

Name	Sel.	M.	ID	Type	Attenuation	B	m	Height
					dB/100m	%	1/m	(m)

Geometry Absorption

Name	Sel.	M.	ID	Type	Attenuation	B	m	Height	Coordinates			
					dB/100m	%	1/m	(m)	x	y	z	Ground
									(m)	(m)	(m)	(m)

Ground Absorption

Name	Sel.	M.	ID	G

Geometry Absorption

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(m)	(m)

Contour Lines

Geometry Contour Line

Name	Sel.	M.	ID	OnlyPts	Height		Coordinates		
					Begin	End	x	y	z
					(m)	(m)	(m)	(m)	(m)
			Reference - Contours		0.00		17649423.46	4772626.38	0.00
							17648522.68	4772058.19	0.00
							17648524.84	4772595.71	0.00
			Reference - Contours		0.00		17648526.23	4772926.69	0.00

Name	Sel.	M.	ID	OnlyPts	Height		Coordinates		
					Begin	End	x	y	z
					(m)	(m)	(m)	(m)	(m)
							17649484.05	4773165.56	0.00
							17649609.66	4773199.60	0.00
							17649594.76	4773509.61	0.00
							17649063.27	4773503.59	0.00
							17648660.04	4773467.12	0.00
							17648659.34	4773399.53	0.00
							17648528.03	4773392.89	0.00
							17648526.17	4772926.67	0.00
			Reference - Contours		0.00		17649484.40	4773155.33	0.00
							17648526.13	4772918.13	0.00
							17648524.92	4772616.74	0.00
							17649459.61	4772649.18	0.00
							17649626.30	4772754.32	0.00
							17649617.27	4772994.05	0.00
							17649490.13	4772989.29	0.00
			Reference - Contours		-30.00		17648674.93	4773384.67	-30.00
							17648621.14	4773381.94	-30.00
							17648559.08	4773329.17	-30.00
							17648557.51	4772949.91	-30.00
							17649578.00	4773207.19	-30.00
							17649564.17	4773493.67	-30.00
							17649064.03	4773487.96	-30.00
							17648707.76	4773455.81	-30.00
							17648675.19	4773427.14	-30.00
							17648674.93	4773384.67	-30.00
			Reference - Contours		-35.00		17648557.42	4772909.38	-35.00
							17648556.03	4772633.58	-35.00
							17649454.70	4772664.66	-35.00
							17649595.03	4772753.19	-35.00
							17649586.63	4772977.31	-35.00
							17649475.23	4772973.13	-35.00
							17649469.03	4773135.25	-35.00
							17648557.42	4772909.38	-35.00
			Reference - Contours		-25.00		17648555.89	4772581.10	-25.00
							17648553.92	4772096.21	-25.00
							17649365.76	4772608.59	-25.00
							17648555.89	4772581.10	-25.00