

Project Modifications Report – Loyalist Solar Project Version 1.2

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1. Introduction

Loyalist Solar LP, a limited partnership between Mohawks of the Bay of Quinte and BluEarth Renewables Inc., (together the "Proponent"), is proposing to develop a non-rooftop solar facility with a maximum nameplate capacity of 54 megawatts alternating current ("MW_{AC}"), located in the Township of Stone Mills, County of Lennox & Addington, Ontario (**Figure 1**). The renewable energy facility will be known as the Loyalist Solar Project (the Project). The Proponent submitted a proposal to the Independent Electricity System Operator (IESO) under the Large Renewable Procurement I (LRP) process and was subsequently awarded a LRP contract by the IESO to generate electricity.

In accordance with the amended Ontario Regulation (O. Reg.) 359/09, the Proponent submitted a Renewable Energy Approval (REA) application to the Ontario Ministry of the Environment and Climate Change (MOECC) on February 9, 2017. In October 2017 the proponent identified that a reduction in project location could be undertaken to avoid or minimize any potential effects to Species at Risk Habitat in the area. As a result, the project design was reassessed in order to accommodate the reduced project footprint. This process resulted in the relocation of several inverters within the project site. As a result of this modification a change to the REA application is required.

This report has been prepared to describe the proposed modifications to the Project design since the submission of the REA application. The following sections of this REA Project Modifications Report describe the proposed Project design modifications and rationale associated with each modification.

1.1 The Proponent

Applicant:

As noted above, Loyalist Solar Project is a limited partnership between Mohawks of the Bay of Quinte and BluEarth Renewables Inc. The contacts for the Project are as follows:

Tom Bird
Director, Regulatory
Loyalist Solar LP, c/o BluEarth Renewables Inc.
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Guelph, ON N1G 4V8
Phone: 1-844-214-2578
Email: projects@bluearth.ca

Consultant:

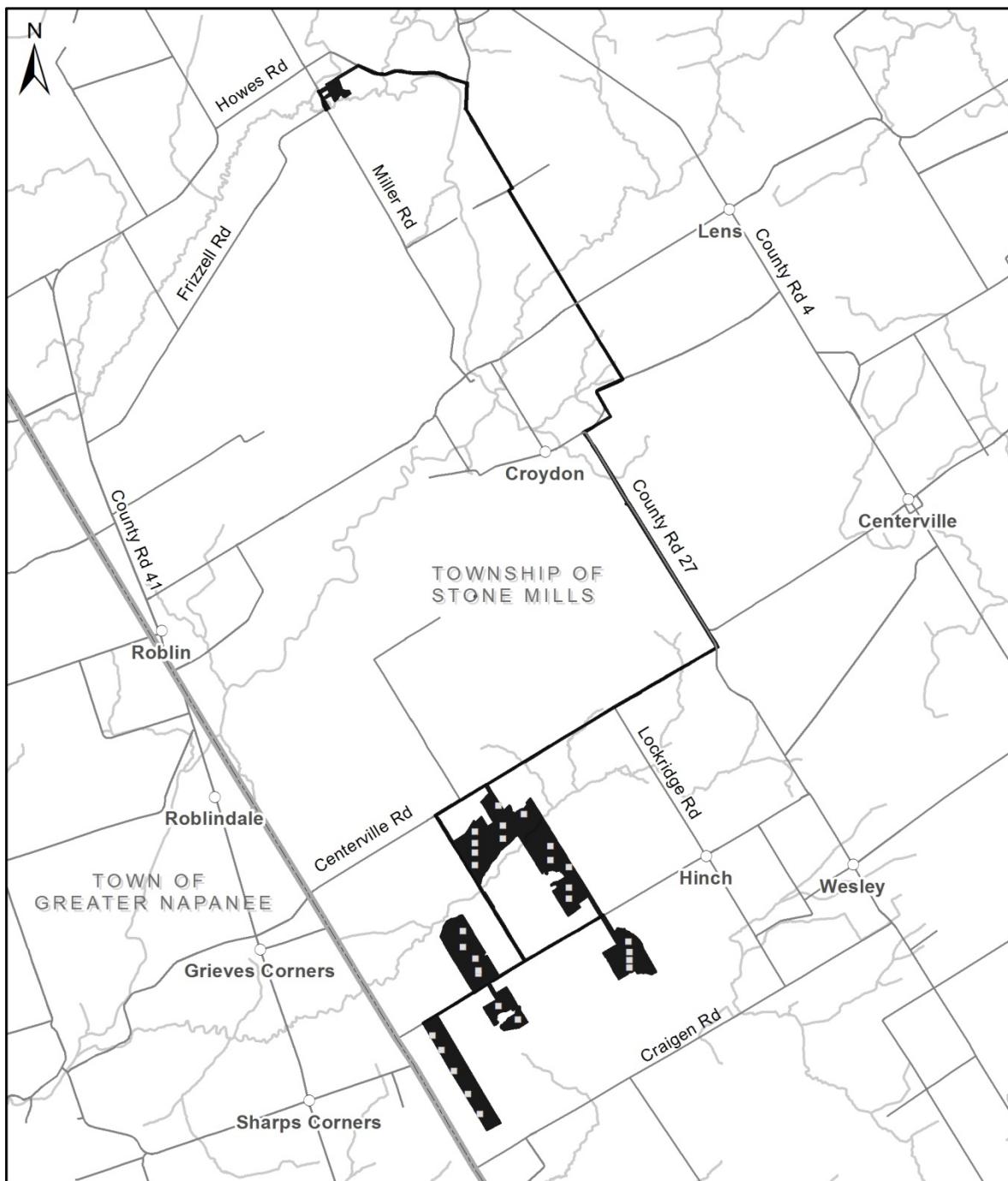
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1.2 Project Location

The Project is located within the Township of Stone Mills, in the County of Lennox & Addington, approximately nine kilometres north of Napanee, Ontario (refer to **Figure 1-1**). The Project, situated on multiple privately owned parcels, consists of approximately 200 hectares (494 acres) and is contained within an area generally bounded on the north by Howes Road, Craigen Road to the south, County Road 27 and Murphy Road to the east, and County Road 41 to the west. It has an approximate centroid at the following geographic coordinates:

- Latitude: 44°22'3.382" N
- Longitude: 76°58'19.543" W

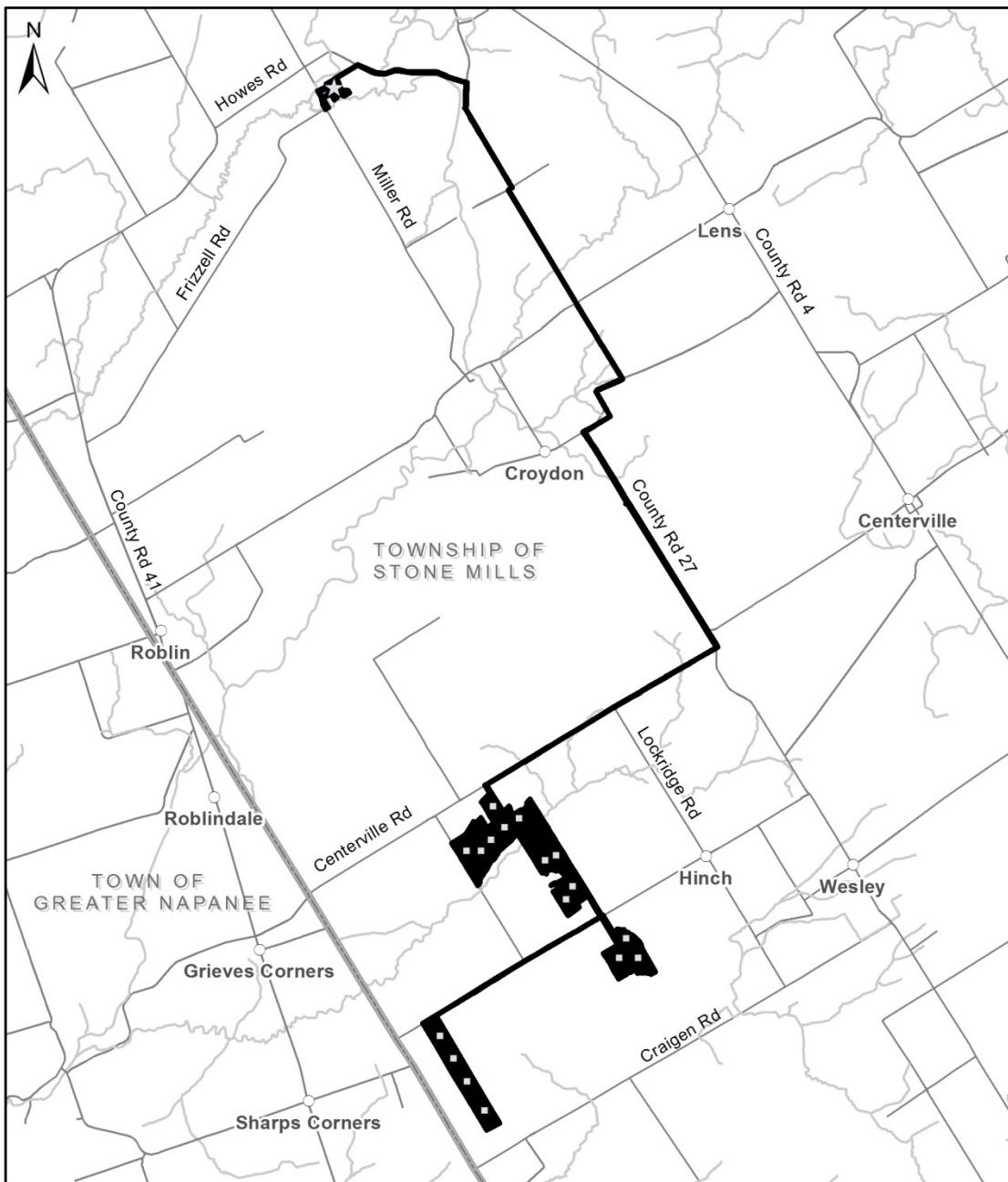
The Project Location has been reduced in size from the initial REA submission. The original Project Location is depicted in **Figure 1-1**. The modified Project Location is depicted in **Figure 1-2**.

Figure 1-1: Original Project Location**Legend**

- | | | | |
|-------------------------|-----------|--------------|--|
| Lower Tier Municipality | Towns | Watercourses | |
| Project Location | Inverters | Roads | |

Map of Project Location**Figure 1-1**

Date: May 26, 2017
Projection: NAD83, Zone 17
Source: Ontario Ministry of Natural Resources and Forestry

Figure 1-2: Modified Project Location**Map of Project Location****Legend**

	Lower Tier Municipality		Towns		Watercourses		Kilometers
	Project Location		Inverters				
	Substation				Roads		

Figure 1-2

Date: November 10, 2017
Projection: NAD83, Zone 17
Source: Ontario Ministry of Natural Resources and Forestry

2. Proposed Project Modification

The Proponent is proposing modifications to the Project that involve the reduction of the Project Location and resulting relocation of inverter stations, and the inclusion of additional noise mitigation.

Table 2-1 summarizes and documents the following about each of the proposed modifications:

1. A description of the modification and the rationale for why the modification is proposed; and
2. New potential environmental effects and corresponding mitigation measures.

Table 2-1: Proposed Project Modifications

Proposed Modification	Rationale for Proposed Modification	New Potential Environmental Effects	New Mitigation Measures
Removal of property from the Project footprint resulting in approximately 45 hectare reduction	Modification was made to avoid potential effects with Species at Risk (SAR) habitat.	This modification resulted in a reduction in Project footprint which is considered a positive effect.	This positive effect does not require any new mitigation.
Updates to solar panel configuration and rerouting of electrical collection system	Modification was made to accommodate reduction in project location size and to facilitate design/constructability	This modification resulted in no additional environmental effects.	No new mitigation is required as a result of this change
Relocation of inverter clusters locations	Modification was made to accommodate reduction in project location size and to facilitate design/constructability.	This modification resulted in a minimal increase in noise levels at some receptors (e.g. dwelling units); however this modification does not result in a change in noise above the MOECC's noise level limit of 40dB at any receptor. The change does result in noise levels increasing slightly at some receptors but not more than 2 decibels (dB).	In order to ensure noise levels at receptors did not increase more than 2dB, additional noise mitigation in the form of "U" shape and "L" shape noise walls will be installed around noise sources (e.g. inverter clusters). The inverter clusters requiring noise walls are shown in Figure 2-1.
Finalization of Connection Line routing to Substation	Engineering and design has progressed sufficiently to allow for selection of one option	This modification resulted in no additional environmental effects.	No new mitigation is required as a result of this change

The Proponent has updated the Noise Impact Assessment to document the change in inverter station locations, the additional noise mitigation and provide the predicted noise levels at receptors. The updated Noise Impact Assessment describing the proposed changes is provided in **Appendix A**. In addition, the Noise Impact Assessment was made available on November 10, 2017 on the Project's website at: <http://www.bluearth.ca/loyalist>.

The **Table 2-2** outlines a summary of the change in noise at individual receptors. Where the receptor is not listed in this table no changes are anticipated. Further information as well as the locations of the receptors are identified in the Noise Impact Assessment.

Table 2-2: Summary of Changes at Noise Receptors

Noise Receptor ID*	Description	Original Impact (dBA)	Revised Impact (dBA)	Change (+/-) dBA
VR081	Vacant Lot	26	25	-1
VR080	Vacant Lot	25.6	24	-1.6
VR079	Vacant Lot	26.9	26	-0.9
VR078	Vacant Lot	24.7	23	-1.7
VR075	Vacant Lot	23.4	22	-1.4
ER119	Existing	21.7	21	-0.7
ER118	Existing	24.5	25	+0.5
ER117	Existing	24.9	25	+0.1
ER116	Existing	24.8	25	+0.2
ER115	Existing	25.7	26	+0.3
ER114	Existing	26.6	27	+0.4
ER113	Existing	27.1	26	-1.1
ER112	Existing	25.4	24	-1.4
ER111	Existing	23.8	22	-1.8
ER108	Existing	28.3	26	-2.3
ER107	Existing	32.2	29	-3.2
VR067	Vacant Lot	34	33	-1
VR066	Vacant Lot	30.5	29	-1.5
VR065	Vacant Lot	27.2	26	-1.2
VR064	Vacant Lot	24.9	23	-1.9
VR062	Vacant Lot	36.8	34	-2.8
VR059	Vacant Lot	35.2	34	-1.2
ER105	Existing	25.7	26	+0.3
ER104	Existing	28.4	28	-0.4
ER103	Existing	33.5	33	-0.5
0ER102	Existing	33.3	32	-1.3
ER100	Existing	31.1	32	+0.9
ER098	Existing	33.4	32	-1.4
ER097	Existing	29.4	28	-1.4
VR060	Vacant Lot	39	36	-3
ER101	Existing	37.1	31	-6.1
ER099	Existing	38.1	30	-8.1
ER095	Existing	35.3	30	-5.3
ER090	Existing	30.3	27	-3.3
ER088	Existing	39.2	27	-12.2
VR058	Vacant Lot	37.9	27	-10.9
VR057	Vacant Lot	38.9	26	-12.9
VR055	Vacant Lot	37.1	27	-10.1
ER096	Existing	35.5	27	-8.5
ER094	Existing	33.4	26	-7.4
ER093	Existing	39.1	26	-13.1
ER092	Existing	38	26	-12
ER091	Existing	32.6	27	-5.6

Noise Receptor ID*	Description	Original Impact (dBA)	Revised Impact (dBA)	Change (+/-) dBA
ER079	Existing	35.3	31	-4.3
VR054	Vacant Lot	33	29	-4
VR053	Vacant Lot	33.9	31	-2.9
VR052	Vacant Lot	31	29	-2
VR050	Vacant Lot	24.6	23	-1.6
ER089	Existing	33.7	29	-4.7
ER086	Existing	34.7	31	-3.7
ER085	Existing	37.2	32	-5.2
ER084	Existing	32.3	30	-2.3
ER083	Existing	30	28	-2
ER082	Existing	23.1	25	+1.9
ER081	Existing	21.9	22	+0.1
ER080	Existing	21.1	22	+0.9
VR092	Vacant Lot	34.2	32	-2.2
VR046	Vacant Lot	25.7	26	+0.3
VR045	Vacant Lot	26.9	27	+0.1
VR043	Vacant Lot	33.3	33	-0.3
VR042	Vacant Lot	35	32	-3
VR041	Vacant Lot	31.9	31	-0.9
VR040	Vacant Lot	29	29	0
VR039	Vacant Lot	25.3	26	+0.7
OLA064	Outdoor Living Area	N/A	34	N/A
ER068	Existing	28.8	29	+0.2
ER067	Existing	29.4	29	-0.4
ER066	Existing	27	26	-1
ER065	Existing	31.5	30	-1.5
ER064	Existing	39.4	35	-4.4
ER063	Existing	34.8	32	-2.8
ER062	Existing	34.3	32	-2.3
ER061	Existing	34	32	-2
ER060	Existing	34.2	32	-2.2
ER059	Existing	34	32	-2
ER058	Existing	33.7	32	-1.7
ER057	Existing	22	23	+1
VR089	Vacant Lot	21.3	21	-0.3
VR012	Vacant Lot	17	17	0
VR011	Vacant Lot	20.4	20	-0.4
VR009	Vacant Lot	21.7	22	+0.3
VR005	Vacant Lot	29.3	29	-0.3
OL013	Outdoor Living Area	38.3	37	-1.3
ER023	Existing	22.5	23	+0.5
ER019	Existing	25.8	26	+0.2
ER018	Existing	24.2	24	-0.2
ER017	Existing	30.6	31	+0.4
ER016	Existing	28.2	28	-0.2

Noise Receptor ID*	Description	Original Impact (dBA)	Revised Impact (dBA)	Change (+/-) dBA
ER014	Existing	36.3	36	-0.3
ER013	Existing	37.5	37	-0.5
ER012	Existing	29.6	30	+0.4
ER011	Existing	26.5	27	+0.5
ER009	Existing	27.5	28	+0.5
ER008	Existing	30	28	-2
ER007	Existing	25.6	26	+0.4
ER006	Existing	27.6	28	+0.4
ER004	Existing	22.5	23	+0.5
ER015	Existing	32.5	33	+0.5
OL008	Outdoor Living Area	N/A	29	N/A
OL015	Outdoor Living Area	N/A	32	N/A

Figure 2-1 illustrates the conceptual site plan as submitted as part of the REA application in February 2017, **Figure 2-2** demonstrates the changes resulting from the proposed modifications.

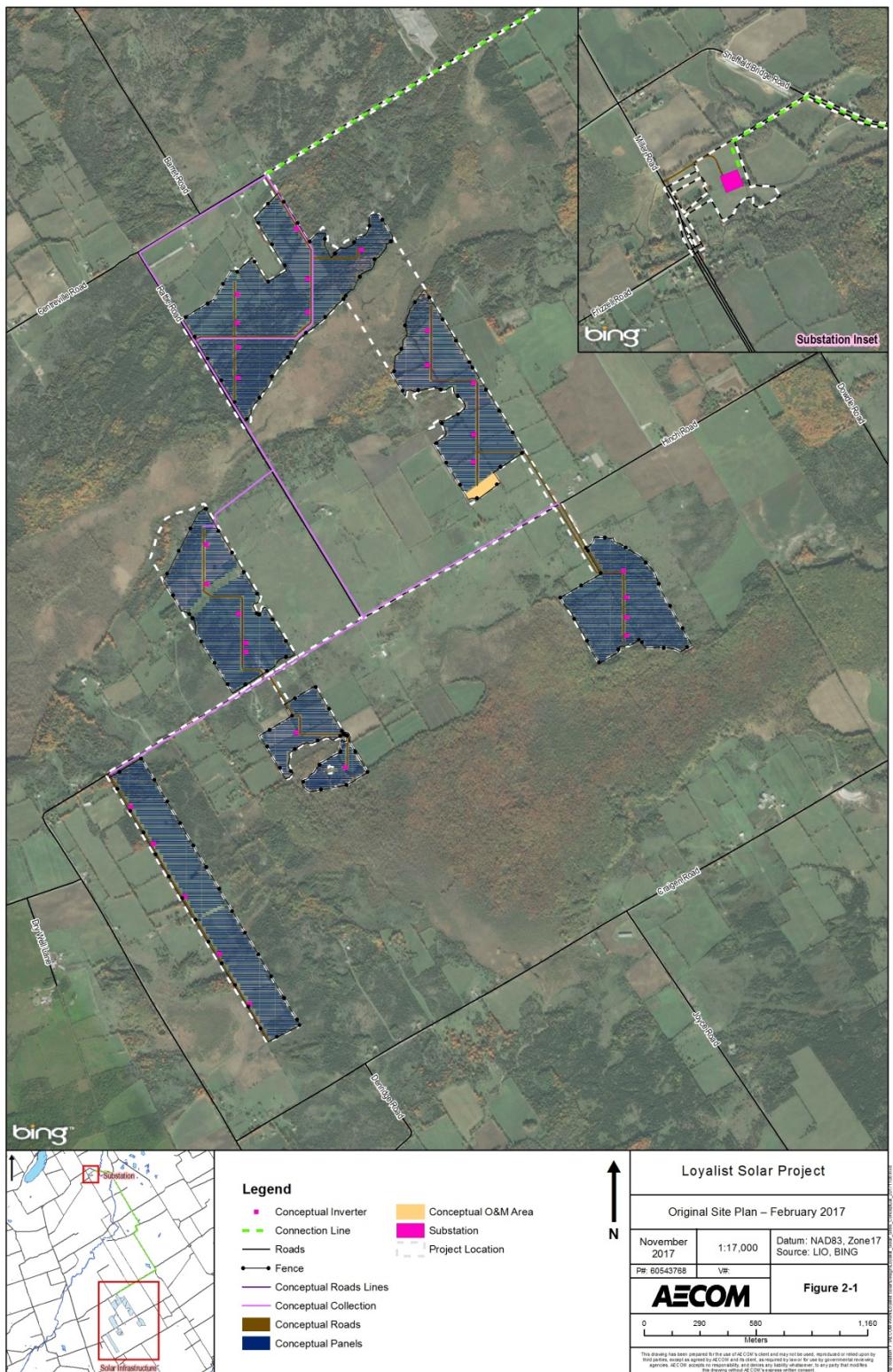
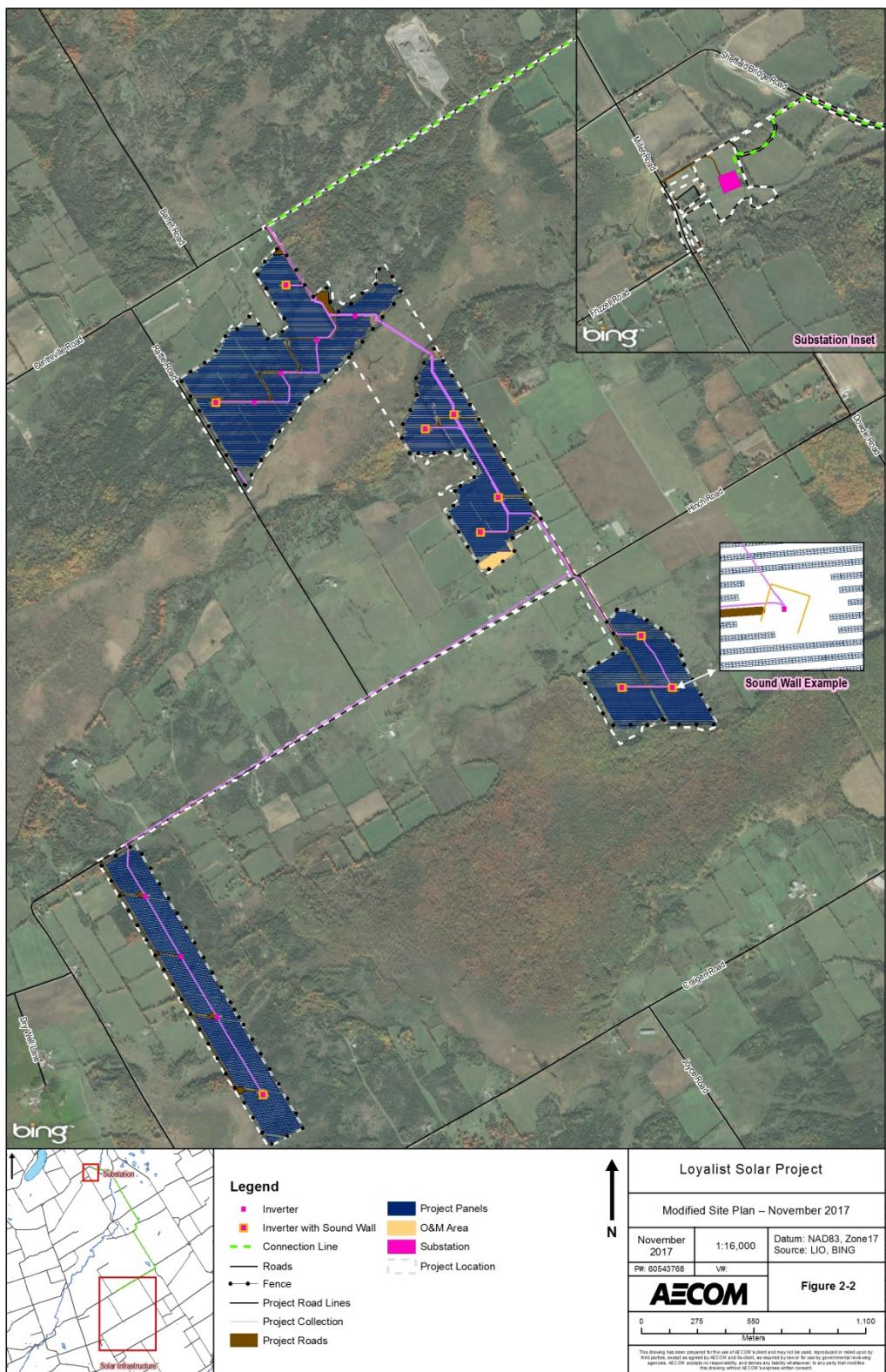


Figure 2-2: Modified Site Plan –November 2017



3. Public, Agency and Stakeholder Notification

A Notice of a Proposed Change to a Renewable Energy Project by the Loyalist Solar LP was published and distributed to individuals on the Project Contact List to inform them of the changes to the Project. The notice identified that a Project Modifications Report had been prepared and was available for review November 10 on the project website. A copy of the public notice is provided in **Appendix B**.

In accordance with the amended O. Reg. 359/09, the notice was distributed to a total of 108 addresses throughout the PSA via Canada Post and was published in the following newspapers:

- The Napanee Beaver on November 9, 2017; and
- Napanee Guide on November 9, 2017;

In addition, the Notice was posted on the Project's website (<http://www.bluearth.ca/loyalist>) on November 10, 2017, and was mailed to relevant federal and provincial agency contacts, local municipalities and potentially interested First Nation communities.

4. Summary and Conclusion

The Project modifications described in this report do not change the name plate capacity of the Project (54 MW_{AC} of electricity), or the overall description of environmental effects that were presented in the Project Description Report (February 2016).

Appendix A – Noise Impact Assessment Amendments



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REPORT ID: 16100.00.RP9

Loyalist Solar Project Environmental Noise Impact Assessment

Prepared for:

BluEarth Renewables Inc.
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Prepared by:

A handwritten signature in blue ink that reads "Adam Collins".

Adam Collins, B. Eng., P.Eng.

A handwritten signature in black ink that reads "Payam Ashtiani".

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September 27 2017 – Revision 9

Revision History

Revision Number	Description	Date
1	First Iteration of Noise Assessment Study	October 12, 2016
2	Updates to Appendix C Figures, minor edits to report body, table B.01 and C.02	October 13, 2016
3	R013 OLA added; Polygon shapes altered slightly, table C.01 updated accordingly; Figures updated to include receptor labels and scale; Inverter/transformer spectrums updated to linear; Table C.02 added, listing noise source locations by assessment zone; Inverter/transformer enclosure insertion loss updated; Table C.03 updated to reflect new predicted levels;	January 20, 2017
4	Table 7 updated	February 1, 2017
5	Updates to Appendix A Figures and Appendix C Figures	March 23, 2017
6	Updates to report based on revised inverter layouts.	July 27, 2017
7	Updates to report based on revised inverter layouts.	September 1, 2017
8	Updates to report based on finalized inverter and main transformer layout. Polygon method and receptor zones no longer considered.	September 18, 2017
9	Table 3, Table 4, and Appendix Table C.01 updated	September 27, 2017

This report in its entirety, including appendices contains 180 pages.

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1 Introduction

Loyalist Solar LP, a limited partnership between Mohawks of the Bay of Quinte and BluEarth Renewables Inc., by its General Partner BER Ontario Solar GP Inc. (together the "Proponent"), proposes to develop a non-rooftop solar facility with a maximum nameplate capacity of 54 megawatts alternating current (MWAC), located in the Township of Stone Mills, County of Lennox & Addington, Ontario. The renewable energy facility will be known as the Loyalist Solar Project (the "Project"). The Project is to be located on approximately 200 hectares of land, approximately nine kilometres north of the Town of Greater Napanee, Ontario. Aercoustics Engineering Limited ("Aercoustics") was retained by the Proponent to prepare an environmental noise impact assessment ("ENIA") for the proposed Project.

The Proponent submitted a proposal to the Independent Electricity System Operator (IESO) under the Large Renewable Procurement I ("LRP") process and was subsequently awarded an LRP contract by the IESO to generate electricity. The Project will now be subject to a number of approvals including, among others, Ontario Regulation 359/09 (O. Reg. 359/09) – Renewable Energy Approval (REA) under Part V.0.1 of the Ontario Environmental Protection Act.

The following report and the related analysis has been completed to fulfil the noise study requirements for a Renewable Energy Approval (REA), as defined by Ontario Regulation (O. Reg.) 359/09. All analysis has been carried out in accordance with ISO 9613-2 [2].

2 Site Description

2.1 Site Location

The Project will be located in the Township of Stone Mills, County of Lennox & Addington, Ontario. The Project location, situated on multiple privately owned parcels, consists of approximately 200 hectares (494 acres) and is contained within an area generally bounded on the north by Howes Road, Craigen Road to the south, County Road 27 and Murphy Road to the east, and County Road 41 to the west. A zoning map of the Lennox and Addington County with the Project location indicated, is included in Appendix A Figure A.01. A scaled site layout plan is included in Appendix A Figure A.02 and A.03. There are no other solar farms near the Project that need to be taken into consideration during this assessment.

2.2 Facility Description

The project will consist of a ground mounted solar facility with a maximum nameplate capacity of 54 megawatts alternating current (MWAC). Since the Project will consist of ground-mounted panels with a total nameplate capacity larger than 10 kW, the project is considered to be a Class 3 Solar Facility as defined by O. Reg. 359/09.

Project infrastructure will consist of approximately 190,000 to 290,000 solar panels, each with an individual rating of 320 watts DC (or higher). The AC voltage produced will be “stepped-up” to 34.5 kV through multiple inverter clusters. For the purposes of this report, inverter clusters will consist of either a single 2.2 MVA inverter and a 2.2 MVA transformer or two 2.2 MVA inverters and 4.4 MVA transformer as well as supervisory control and data acquisition (SCADA) monitoring equipment. Up to 17 inverter clusters (28 inverters total) will be installed throughout the project area based on current planned inverter layout locations.

The Connection Line system voltage will be stepped up to a 230 kV transmission grid voltage at the substation transformer to be located on the northernmost parcel in the Project location, northeast of the intersection of Miller Road and Frizzell Road. The substation transformer will be located adjacent to the Hydro One Networks Inc. (HONI) corridor, and connect to the existing 230 kV H23B transmission line.

Table 1 – General Project Description

Generator Details	
Project Description	Ground-mounted Solar PV, Class 3
System Nameplate Capacity	54-MW AC
Local Distribution Company	Hydro One Networks Inc.

2.3 Acoustical Environment

The Project is located in a rural area and has been assumed to have an acoustic environment in accordance with Class 3, as defined by the Ministry of the Environment and Climate Change (MOECC) document NPC-300 [3]. The ambient noise level is expected to be dominated by natural sounds, with minimal intrusions from road traffic.

2.4 Operating Hours

Since Solar PV facilities operate by converting solar radiation into electricity, the Project will only produce electricity during the day-time hours. After sunset, when the site no longer receives solar radiation, the inverters will no longer produce noise, and the transformers will be energized but not in operation. Based on sunrise and sunset times, operating hours on the longest day of the year will be approximately 5:15 am to 9 pm.

3 Noise Sources

The main sources of noise for this project will be the substation containing the main step-up transformer, and 17 inverter clusters (28 inverters), containing either one 2.2 MVA inverter and one 2.2 MVA transformer or two 2.2 MVA inverters and one 4.4 MVA transformer. The project layout is provided in Appendix A Figures A.02-A.03.

For the purposes of this study it has been assumed that all sources will operate at full capacity 24 hours of the day.

3.1 Substation Transformer

A transformer substation will be constructed on the northernmost parcel in project, approximately 300 meters northeast of the intersection of Miller Road and Frizzel Road. The substation will contain one transformer.

The main project transformer will be rated at 62.5 MVA (37.5/50/62.5 MVA ONAN/ONAF/ONAF). The make and model of the main transformer is Shihlin Electric & Engineering Corporation model TE201129. Sound data for the unit is not yet available however the manufacturer has provided a guarantee letter to meet a sound power level of 88 dBA. See attached letter and noise specification in Appendix F.01. As such, Aercoustics has selected an appropriate sound power level and spectrum from a similarly sized transformer in its database and from available literature. The sound power for this unit has been estimated to be at or below 88 dBA based on IEEE standard C57.12.90-1993 – Part 1 [5]. Sample sound level calculations and equipment dimensions for the main project transformer are included in Appendix F.01.

Noise emitted by transformers is comprised of radiated casing noise from the operational transformer, as well as broadband noise from the cooling fans. Transformer radiated casing noise has a distinct tonal quality and therefore incurs a 5 dB tonal penalty, as per MOE publication NPC-104 [4]. The overall sound power level for the main transformer used in this assessment is 93 dBA including the tonal penalty.

Table 2 – Main Transformer Sound Power

Equipment	Rating	Octave Band Centre Frequency (Hz)									Total (dBA)
		31.5	63	125	250	500	1000	2000	4000	8000	
Substation Transformer*	62.5 MVA	90	96	98	93	93	87	82	77	70	93

*includes 5 dB tonal penalty

3.2 Inverter Clusters

The Project will contain 17 inverter clusters (28 inverters total) spread across multiple privately owned parcels of land. For the purposes of this report, inverter clusters will include either one 2.2 MVA inverter and one medium voltage 2.2 MVA transformer or two 2.2 MVA inverters and one 4.4 MVA transformer.

Sunny Central SC 2200-US model inverters have been assumed for the purposes of this report, with approximate dimensions of 2.3m x 2.7m x 1.6m (HxWxD). The equipment will include a built in sound baffle system for noise control. Sound power data for these inverter units has been obtained from the manufacturer with the sound baffle system option, and is included in Appendix F.02.

A manufacturer has not been selected for the 2.2 MVA or 4.4 MVA medium voltage transformers. Sound power levels have been estimated based on NEMA TRI – 2013 [7] and CAN/CSA-88-M90 [8] respectively for the units.

A surface area of 33 m² for the 2.2 MVA transformer and 46 m² for the 4.4 MVA transformer has been used based on dimensions of 2.3 m x 2.9 m x 2.5 m (LxWxH) and 3 m x 3.4 m x 2.7 m (LxWxH) respectively. A spectrum was determined based on Table 18.1 of Beranek, 1992 [7]. It was assumed that the medium voltage transformers will be ONAN units.

Each inverter-transformer pair has been modelled as a single point source. Both sources are expected to emit steady noise with a tonal quality. As such, a 5 dB tonal penalty has been included in the overall sound power level used for each inverter-transformer pair.

Table 3 – Inverter and Medium Voltage Transformer Sound Power Levels

Octave Band Centre Frequency (Hz)											
Equipment	Rating	31.5	63	125	250	500	1000	2000	4000	8000	Total [dBA]
Inverter ¹	2.2 MVA	92	95	94	90	84	77	77	85	78	89
2.2 MVA Transformer ¹	2.2 MVA	74	80	82	77	77	71	66	61	54	78
4.4 MVA Transformer ¹	4.4 MVA	79	85	87	82	82	76	71	66	59	82
Inverter + 2.2 MVA Transformer Cluster²	-	97	100	99	96	90	83	82	90	83	95

Equipment	Rating	Octave Band Centre Frequency (Hz)										Total [dBA]
		31.5	63	125	250	500	1000	2000	4000	8000		
2 x Inverter + 4.4 MVA Transformer Cluster²	-	100	103	102	99	94	87	86	93	86	98	

¹ Does not include tonal penalty

² Includes tonal penalty of 5 dB

Details regarding the estimate for the sound power level of the medium voltage transformers is included in Appendix F.03.

3.3 Noise Source Summary

The following table summarizes the noise sources taken into consideration for this site.

Table 4 – Noise Source Summary Table

Source ID	Source Description	Sound Power Level (dBA) ¹	Source Location ²	Sound Characteristics ³	Noise Control Measures ⁴
Transformer_62.5MVA	Main Transformer 62.5 MVA	93	O	S,T	U
Inv_A1	2 x 2.2 MVA Inverter + 4.4 MVA Transformer Cluster	98	O	S,T	U
Inv_A2	2.2 MVA Inverter + 2.2 MVA Transformer Cluster	95	O	S,T	U
Inv_A3	2 x 2.2 MVA Inverter + 4.4 MVA Transformer Cluster	98	O	S,T	U
Inv_A4	2 x 2.2 MVA Inverter + 4.4 MVA Transformer Cluster	98	O	S,T	B
Inv_C1	2.2 MVA Inverter + 2.2 MVA Transformer Cluster	95	O	S,T	B
Inv_C2	2 x 2.2 MVA Inverter + 4.4 MVA Transformer Cluster	98	O	S,T	B
Inv_C3	2 x 2.2 MVA Inverter + 4.4 MVA Transformer Cluster	98	O	S,T	B
Inv_E1	2.2 MVA Inverter + 2.2 MVA Transformer Cluster	95	O	S,T	B
Inv_E2	2 x 2.2 MVA Inverter + 4.4 MVA Transformer Cluster	98	O	S,T	B

Source ID	Source Description	Sound Power Level (dBA) ¹	Source Location ²	Sound Characteristics ³	Noise Control Measures ⁴
Inv_E3	2 x 2.2 MVA Inverter + 4.4 MVA Transformer Cluster	98	O	S,T	B
Inv_E4	2.2 MVA Inverter + 2.2 MVA Transformer Cluster	95	O	S,T	B
Inv_F1	2 x 2.2 MVA Inverter + 4.4 MVA Transformer Cluster	98	O	S,T	B
Inv_F2	2 x 2.2 MVA Inverter + 4.4 MVA Transformer Cluster	98	O	S,T	U
Inv_F3	2 x 2.2 MVA Inverter + 4.4 MVA Transformer Cluster	98	O	S,T	U
Inv_F4	2.2 MVA Inverter + 2.2 MVA Transformer Cluster	95	O	S,T	B
Inv_F5	2 x 2.2 MVA Inverter + 4.4 MVA Transformer Cluster	98	O	S,T	U
Inv_F6	2.2 MVA Inverter + 2.2 MVA Transformer Cluster	95	O	S,T	U

1. A 5 dB penalty has been included for all noise sources
2. Location: Inside Building (I) or Outside Building (O)
3. Sound Characteristics: Steady (S), Tonal (T), Impulsive (I), Quasi-Steady Impulsive (QSI)
4. Noise Control: Silencer (S), Acoustic Lining (A), Barrier (B), Lagging (L), Enclosure (E), Other (O), Uncontrolled (U)

Universal Transverse Mercator (UTM) coordinates defining each noise source are included in Appendix C Table C.01.

4 Points of Reception

Points of reception within 1 km of the noise sources (inverters) within The Project were identified as critical noise receptors. Receptor locations were determined by CanAcre, communicated in a report issued to BluEarth on August 9, 2016 titled “Loyalist Solar Project – Noise Receptor Identification”. At the request of the MOECC, receptors were relocated from the centre of existing dwelling units to the building façade closest to the Project noise sources with the exception of ER015.

At existing receptor ER015 no windows are shown on the second storey along the building façade closest to the nearest noise source (Main Transformer) based on inspection from google earth street view. Therefore the second storey receptor has been assigned along the next closest building façade with windows.

In previous revisions of this ENIA various potential operating scenarios receptors were grouped by geographic location into defined “zones”. Based on the latest planned operating scenario, noise sources will have fixed locations and receptor zones are no longer considered.

Except for existing receptor ER008, all points of reception were modelled as two-storey dwellings (a height of 4.5 meters). ER008 has been identified in the CanAcre Report as a one-storey dwelling (a height of 1.5 meters). Existing noise receptors were modelled at the worst case plane of window of the dwelling, while vacant lot receptors were located as indicated by the CanAcre Report.

An assessment of Outdoor Living Area (OLA) receptors, located 30 meters from the façade of any building, at a height of 1.5 meters, was conducted. It was found that in almost all cases the point of reception at the center of the dwelling at a height of 4.5 meters was the worst-case location. Additional cases are shown for Existing Receptors ER008, ER013, ER015 and ER064 with outdoor points of reception located 30 meters from the façade in this assessment.

A Point of Reception Summary Table is included in Appendix B Table B.01.

5 Mitigation Measures

To mitigate sound levels from noise sources in The Project, “U” shape and “L” shape acoustic barriers are required. The acoustic barriers are required to be solid with no gaps or openings and shall satisfy a minimum surface density of 20 kg/m². Acoustic barriers can be constructed using solid walls, blocks, stockpiles, shipping containers or any other like materials that satisfy the acoustic barrier requirements. For reference, see Table 5 for the inverter clusters requiring acoustic barriers and Appendix D for locations.

Table 5 – Acoustic Barrier Summary Table

Source ID	Land Parcel	Min. Barrier Height [m]	Min. Total Length [m]	# of sides	Distance from Noise Source* [m]	UTM Coordinates	
Inv_A4	A	3	86	3	12	18342775	4910917
						18342792	4910892
						18342772	4910880
						18342754	4910905
Inv_C1	C	4.5	55	3	9	18344617	4913139
						18344624	4913155
						18344641	4913149
						18344634	4913132
Inv_C2	C	5	73	3	12	18344518	4912883
						18344526	4912905
						18344549	4912897
						18344541	4912873
Inv_C3	C	5	72	3	12	18344766	4912884
						18344774	4912906
						18344797	4912897
						18344788	4912875
Inv_E1	E	3	41	2	9	18343579	4914170
						18343579	4914150
						18343558	4914150
Inv_E2	E	3	54	2	12	18343722	4914247
						18343722	4914217
						18343698	4914217
Inv_E3	E	5	72	3	12	18343916	4913836
						18343940	4913837
						18343940	4913812
						18343917	4913812

Source ID	Land Parcel	Min. Barrier Height [m]	Min. Total Length [m]	# of sides	Distance from Noise Source* [m]	UTM Coordinates	
						X (m)	Y (m)
Inv_E4	E	3	57	3	9	18343831	4913661
						18343850	4913661
						18343850	4913643
						18343831	4913643
Inv_F1	F	3	60	2	12	18342544	4914267
						18342527	4914291
						18342551	4914308
Inv_F4	F	3	38	2	9	18342874	4914859
						18342882	4914876
						18342899	4914868

*Reference point of noise source defined as centre of skid holding either 2 inverters + transformer or single inverter + transformer.

6 Assessment Criteria

The purpose of this assessment was to evaluate whether The Project will operate within the applicable noise level limits defined by the MOECC. These noise level limits are defined by MOECC Publication NPC-300. As per NPC-300 [3], The Project is located in a Class 3; It is located in a rural setting with minimal road traffic where the ambient sound levels are likely dominated by natural sounds.

The following table lists the applicable noise level limits for a Class 3 environment.

Table 6 – MOECC Class 3 Noise Level Limits

Time of Day	One-Hour Leq (dBA)
07:00 – 19:00	45
19:00 – 07:00	40

Although the facility will only operate during daylight hours, sunrise can occur before 7:00 and sunset can occur past 19:00 depending on the time of year. For this reason, the nighttime limit of 40 dBA was used for this assessment.

7 Impact Assessment

All modelling and predictions in this study were done using the software package CadnaA, in accordance with ISO 9613-2 [2].

All noise sources were modelled as point sources with no directivity. Inverter-transformer clusters were modelled as a single point source. Ground absorption is modelled as 0 in the vicinity of the main project transformer and inverter-transformer pair to reflect project infrastructure. At all other locations within the noise model ground absorption is modelled as 0.7. Elevation contours have been included in the model, even though topography in the region is relatively flat, and is not expected to have a significant impact on noise propagation.

In accordance with the posted Technical Guide for Renewable Energy Approvals last updated April 25, 2017 [9] fixed planned locations for the inverter cluster noise sources was considered. In total 17 inverter clusters have been modelled at fixed planned project locations. Sources within a 1 km radius of all receptors were taken into consideration.

The worst case noise impact surrounding the northern land parcel is the OLA for existing receptor ER013. At this location the predicted sound level is 37 dBA which meets the MOECC noise level limit of 40 dBA.

The worst case noise impact surrounding the southern land parcels is vacant lot receptor VR060. At this location the predicted sound level is 36 dBA which meets the MOECC noise level limit of 40 dBA.

A complete summary of the noise impact at each receptor is included in Appendix C Table C.02. The results of Table C.02 show predicted worst case sound levels for the Project will be in compliance with the MOECC noise limits at all Noise Receptors. Noise contour plots showing the worst case noise impact are included in Appendix C Figures C.01 - C.04.

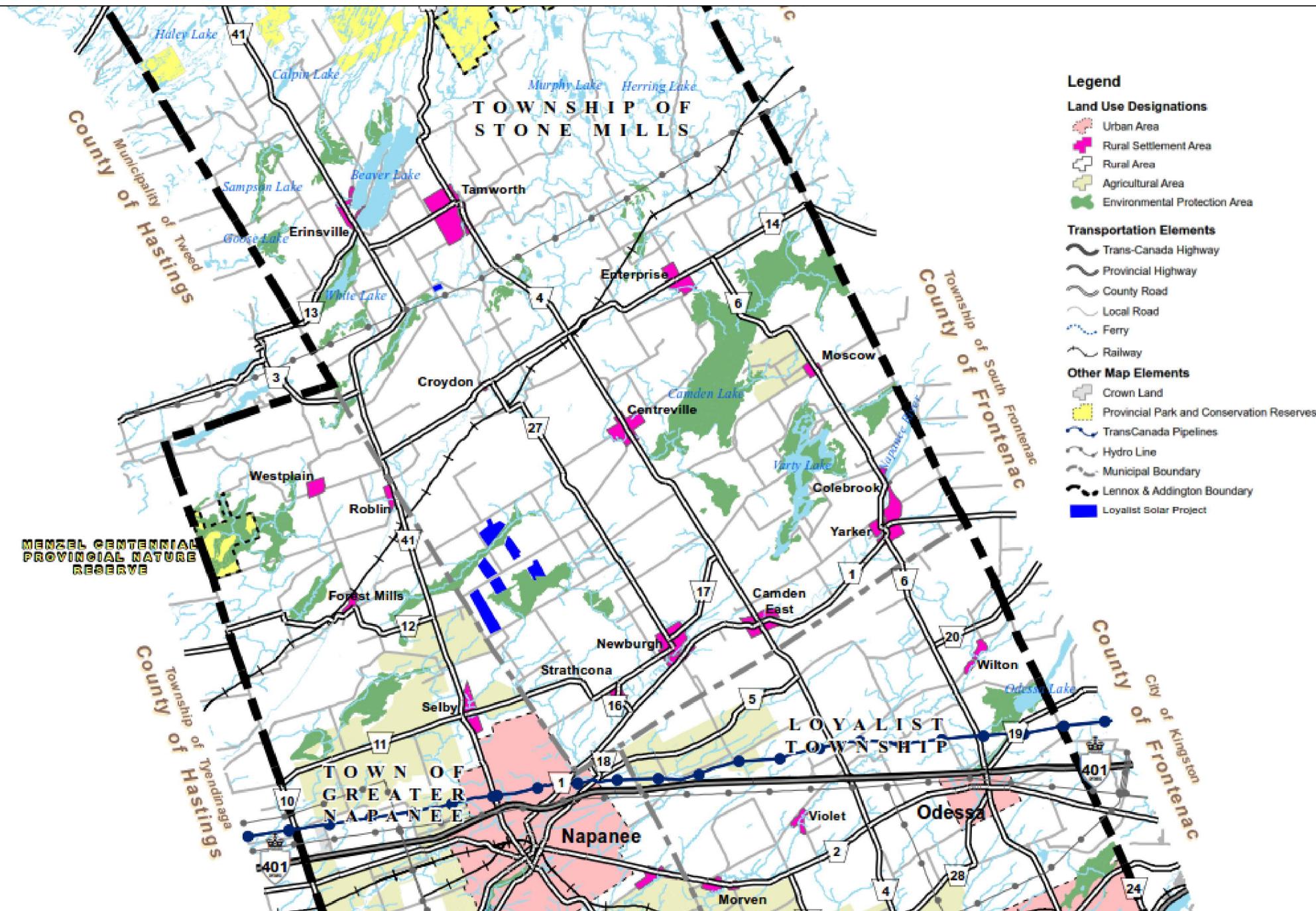
For reference detailed calculations for the worst case noise impact are included in Appendix F.

8 References

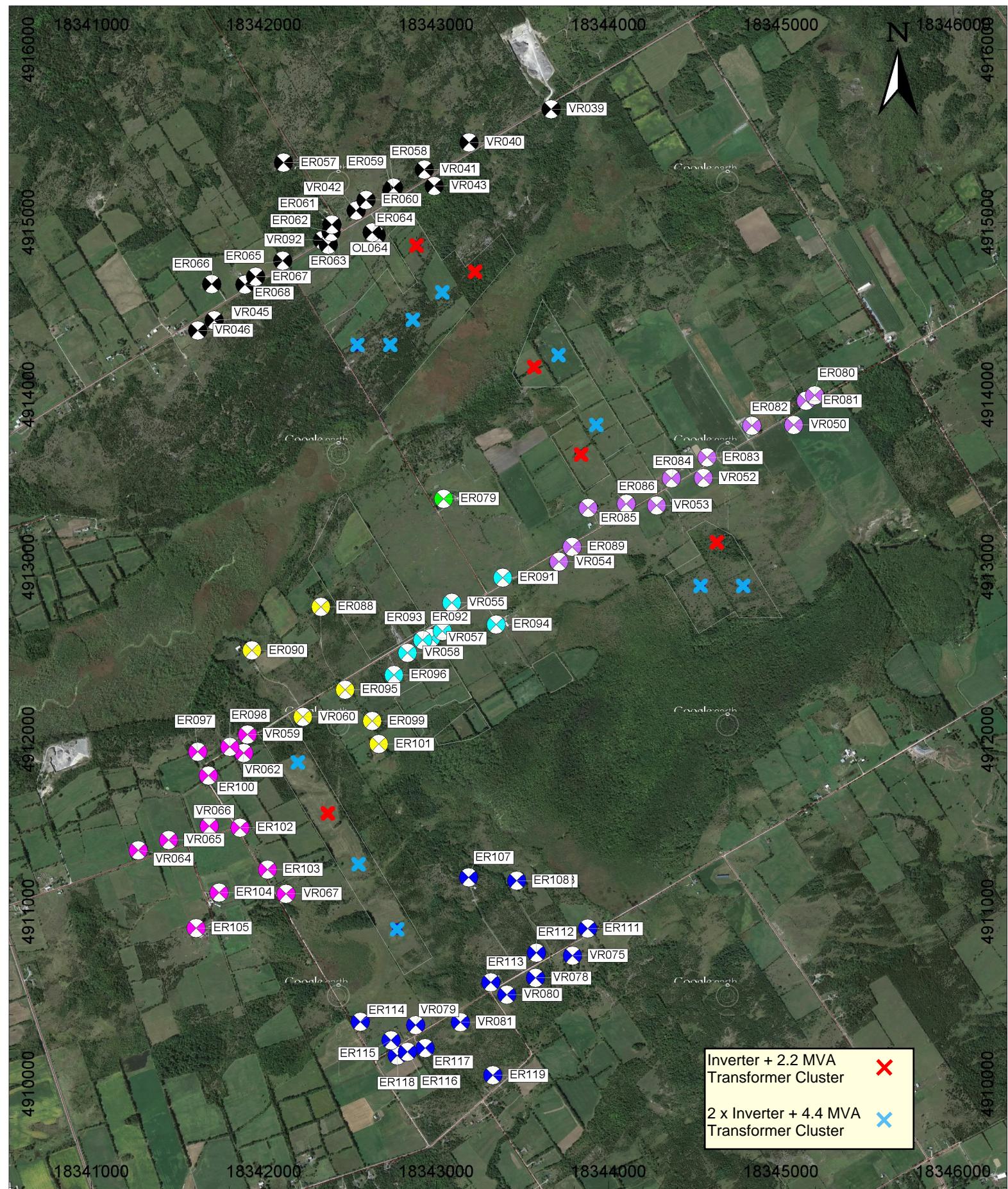
- [1] Ontario Regulation 359/09
- [2] International Standard ISO 9613-2 (Edition 1.0, released 1996) “Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation”.
- [3] MOECC Environmental Noise Guideline NPC-300, “Stationary and Transportation Sources – Approval and Planning.”
- [4] MOECC Environmental Noise Guideline NPC-104, “Sound Level Adjustments.”
- [5] IEEE Power and Energy Society Standard C57.12.90, “IEEE Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers.”
- [6] NEMA TR1 – 2013, “Transformers, Step Voltage Regulators and Reactors.”
- [7] Beranek, “Noise and Vibration Control Engineering – Principles and Applications.” 1992.
- [8] CAN/CSA-C88-M90, “Power Transformers and Reactors – Electrical Power Systems and Equipment.” 2009.
- [9] MOECC Technical Guide, “Technical Guide to Renewable Energy Approvals.” 2017.

Appendix A

Site Details



	Project ID: 16100.00	Project Name
	Scale: NTS Drawn by: AD Reviewed by: PA Date: October 7, 2016 Revision: 1	Loyalist Solar Project
	Figure Title	Zoning Map of Lennox Addington County
		Figure A.01



 aercoustics	Project ID: 16100.00	Project Name
	Scale: NTS Drawn by: KC Reviewed by: AC Date: Sept 15, 2017 Revision: 1	Loyalist Solar Farm
	Figure Title	Site Layout for Southern Parcel
		Figure A.02



 aercoustics	Project ID: 16100.00	Project Name
	Scale: NTS	Loyalist Solar Farm
	Drawn by: KC	
	Reviewed by: AC	
	Date: Sept 15, 2017	Figure Title
	Revision: 1	Site Layout for Northern Parcel

Figure A.03

Appendix B

Receptor Information

Table B.01 Point of Reception Summary

Project: Loyalist Solar Project - Noise Impact Assessment Report
 Report ID: 16100.00.RP9

Page 1 of 3
 Created on: 18/09/2017

*ER=Existing Receptor, VR=Vacant Lot, OL=Outdoor Living Area

Noise Receptor ID*	Description	UTM Coordinates (x)	UTM Coordinates (y)	Height (m)
VR081	Vacant Lot	18343140	4910359	4.5
VR080	Vacant Lot	18343410	4910518	4.5
VR079	Vacant Lot	18342881	4910341	4.5
VR078	Vacant Lot	18343577	4910614	4.5
VR075	Vacant Lot	18343790	4910744	4.5
ER119	Existing	18343328	4910050	4.5
ER118	Existing	18342773	4910166	4.5
ER117	Existing	18342936	4910207	4.5
ER116	Existing	18342835	4910186	4.5
ER115	Existing	18342740	4910254	4.5
ER114	Existing	18342560	4910360	4.5
ER113	Existing	18343318	4910588	4.5
ER112	Existing	18343581	4910760	4.5
ER111	Existing	18343878	4910900	4.5
ER108	Existing	18343466	4911181	4.5
ER107	Existing	18343187	4911201	4.5
VR067	Vacant Lot	18342130	4911106	4.5
VR066	Vacant Lot	18341685	4911499	4.5
VR065	Vacant Lot	18341449	4911418	4.5
VR064	Vacant Lot	18341272	4911357	4.5
VR062	Vacant Lot	18341884	4911921	4.5
VR059	Vacant Lot	18341905	4912029	4.5
ER105	Existing	18341609	4910904	4.5
ER104	Existing	18341741	4911113	4.5
ER103	Existing	18342022	4911246	4.5
ER102	Existing	18341863	4911489	4.5
ER100	Existing	18341680	4911790	4.5
ER098	Existing	18341803	4911958	4.5
ER097	Existing	18341617	4911928	4.5
VR060	Vacant Lot	18342227	4912130	4.5
ER101	Existing	18342667	4911973	4.5
ER099	Existing	18342629	4912107	4.5
ER095	Existing	18342471	4912289	4.5
ER090	Existing	18341930	4912516	4.5
ER088	Existing	18342331	4912769	4.5
VR058	Vacant Lot	18342834	4912503	4.5
VR057	Vacant Lot	18342971	4912588	4.5
VR055	Vacant Lot	18343091	4912792	4.5
ER096	Existing	18342755	4912374	4.5
ER094	Existing	18343349	4912667	4.5
ER093	Existing	18342923	4912576	4.5
ER092	Existing	18343036	4912628	4.5

Table B.01 Point of Reception Summary

Project: Loyalist Solar Project - Noise Impact Assessment Report
 Report ID: 16100.00.RP9

Page 2 of 3
 Created on: 18/09/2017

*ER=Existing Receptor, VR=Vacant Lot, OL=Outdoor Living Area

Noise Receptor ID*	Description	UTM Coordinates (x)	UTM Coordinates (y)	Height (m)
ER091	Existing	18343385	4912939	4.5
ER079	Existing	18343042	4913396	4.5
VR054	Vacant Lot	18343712	4913030	4.5
VR053	Vacant Lot	18344278	4913358	4.5
VR052	Vacant Lot	18344549	4913517	4.5
VR050	Vacant Lot	18345073	4913824	4.5
ER089	Existing	18343788	4913116	4.5
ER086	Existing	18344102	4913367	4.5
ER085	Existing	18343880	4913342	4.5
ER084	Existing	18344364	4913514	4.5
ER083	Existing	18344572	4913635	4.5
ER082	Existing	18344832	4913818	4.5
ER081	Existing	18345146	4913964	4.5
ER080	Existing	18345196	4913995	4.5
VR092	Vacant Lot	18342341	4914894	4.5
VR046	Vacant Lot	18341617	4914372	4.5
VR045	Vacant Lot	18341714	4914431	4.5
VR043	Vacant Lot	18342989	4915209	4.5
VR042	Vacant Lot	18342537	4915066	4.5
VR041	Vacant Lot	18342930	4915305	4.5
VR040	Vacant Lot	18343191	4915462	4.5
VR039	Vacant Lot	18343668	4915655	4.5
OL064	OLA	18342652	4914923	1.5
ER068	Existing	18341890	4914638	4.5
ER067	Existing	18341953	4914682	4.5
ER066	Existing	18341697	4914640	4.5
ER065	Existing	18342110	4914777	4.5
ER064	Existing	18342628	4914940	4.5
ER063	Existing	18342374	4914869	4.5
ER062	Existing	18342390	4914942	4.5
ER061	Existing	18342396	4914985	4.5
ER060	Existing	18342592	4915128	4.5
ER059	Existing	18342742	4915184	4.5
ER058	Existing	18342754	4915200	4.5
ER057	Existing	18342116	4915344	4.5
VR089	Vacant Lot	18340151	4923616	4.5
VR012	Vacant Lot	18341061	4923480	4.5
VR011	Vacant Lot	18340107	4923557	4.5
VR009	Vacant Lot	18341679	4924396	4.5
VR005	Vacant Lot	18340689	4924635	4.5
OL013	OLA	18340708	4924183	1.5
ER023	Existing	18340867	4923449	4.5

Table B.01 Point of Reception Summary

Project: Loyalist Solar Project - Noise Impact Assessment Report

Report ID: 16100.00.RP9

Page 3 of 3

Created on: 18/09/2017

*ER=Existing Receptor, VR=Vacant Lot, OL=Outdoor Living Area

Noise Receptor ID*	Description	UTM Coordinates (x)	UTM Coordinates (y)	Height (m)
ER019	Existing	18340558	4923732	4.5
ER018	Existing	18340376	4923737	4.5
ER017	Existing	18340682	4923929	4.5
ER016	Existing	18340534	4923908	4.5
ER014	Existing	18340751	4924082	4.5
ER013	Existing	18340683	4924164	4.5
ER012	Existing	18341166	4924406	4.5
ER011	Existing	18341274	4924516	4.5
ER009	Existing	18341164	4924577	4.5
ER008	Existing	18340580	4924535	1.5
ER007	Existing	18340284	4924494	4.5
ER006	Existing	18340447	4924558	4.5
ER004	Existing	18340282	4924850	4.5
ER015	Existing	18340742	4923981	4.5
OL008	OLA	18340596	4924510	1.5
OL015	OLA	18340751	4924014	1.5

Appendix C

Impact Assessment

Table C.01 Noise Source Details

Project: Loyalist Solar Project - Noise Impact Assessment Report
Report ID: 16100.00.RP9

Page 1 of 1
Created on: 9/27/2017

Noise Source Details Table						
Source ID	Description	Height	Sound Power with Tonal Penalty (dBA)	Coordinates (UTM)		
				Parcel	X	Y
Inv_A1	Inverter Cluster	2.60 m	98	A	18342198	4911867
Inv_A2	Inverter Cluster	2.60 m	95		18342373	4911572
Inv_A3	Inverter Cluster	2.60 m	98		18342551	4911276
Inv_A4	Inverter Cluster	2.60 m	98		18342775	4910895
Inv_C1	Inverter Cluster	2.60 m	95	C	18344629	4913144
Inv_C2	Inverter Cluster	2.60 m	98		18344534	4912890
Inv_C3	Inverter Cluster	2.60 m	98		18344781	4912890
Inv_E1	Inverter Cluster	2.60 m	95	E	18343570	4914159
Inv_E2	Inverter Cluster	2.60 m	98		18343710	4914229
Inv_E3	Inverter Cluster	2.60 m	98		18343928	4913824
Inv_E4	Inverter Cluster	2.60 m	95		18343841	4913652
Inv_F1	Inverter Cluster	2.60 m	98	F	18342544	4914288
Inv_F2	Inverter Cluster	2.60 m	98		18342734	4914288
Inv_F3	Inverter Cluster	2.60 m	98		18342864	4914432
Inv_F4	Inverter Cluster	2.60 m	95		18342887	4914864
Inv_F5	Inverter Cluster	2.60 m	98		18343037	4914594
Inv_F6	Inverter Cluster	2.60 m	95		18343226	4914711
Transformer_62.5MVA	Main Transformer	4 m	93	G	18340830	4924254

Table C.02 Noise Impact Assessment Table
Project: Loyalist Solar Project - Noise Impact Assessment Report
Report ID: 16100.00.RP9

Page 1 of 2
Created on: 9/18/2017

*ER=Existing Receptor, VR=Vacant Lot, OL=Outdoor Living Area

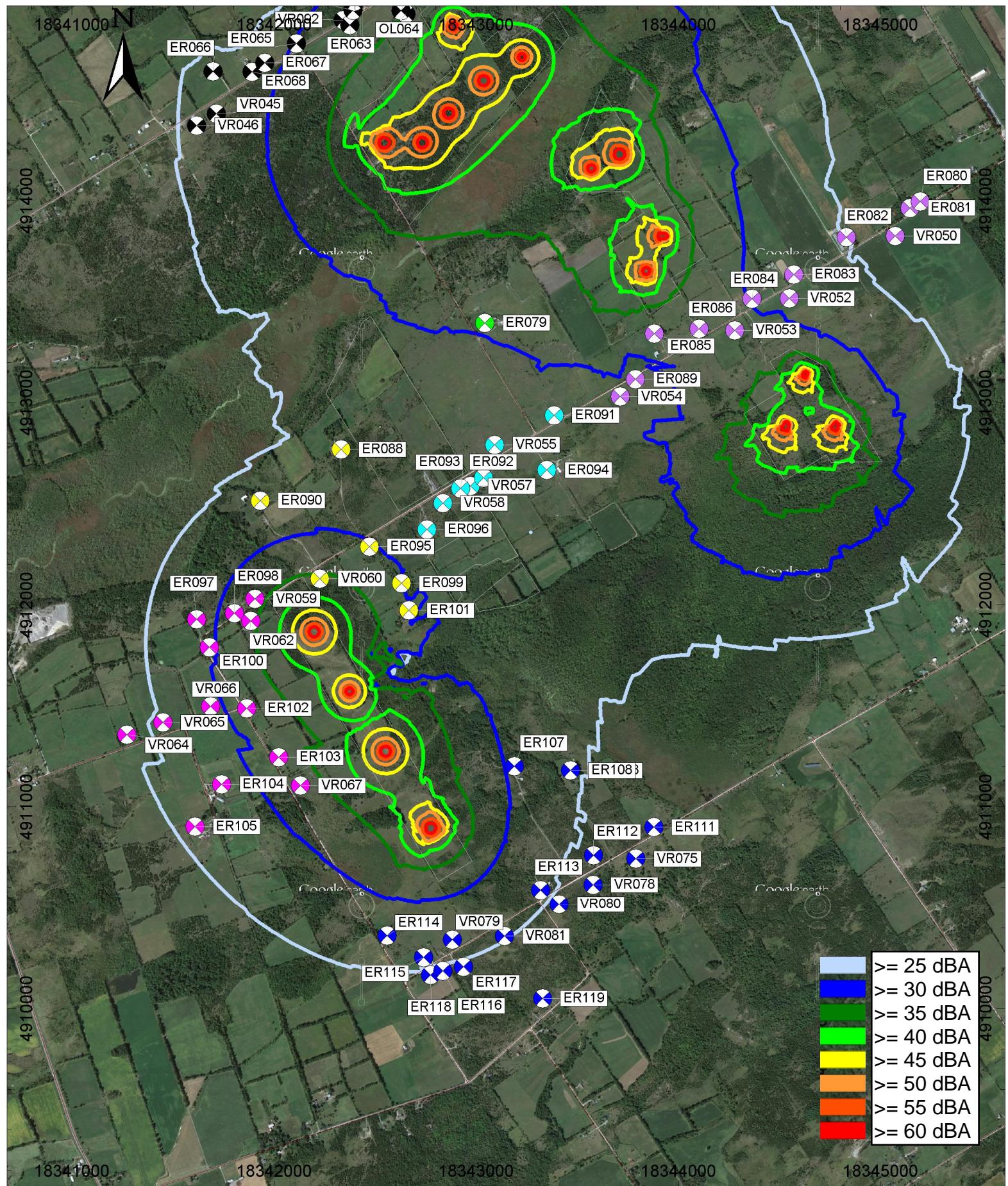
Noise Receptor ID*	Description	Predicted Noise Impact (dBA)	UTM Coordinates (x)	UTM Coordinates (y)	Height (m)	Distance to Nearest Noise Source (m)	Nearest Noise Source
VR081	Vacant Lot	25	18343140	4910359	4.5	649	Inv_A4
VR080	Vacant Lot	24	18343410	4910518	4.5	739	Inv_A4
VR079	Vacant Lot	26	18342881	4910341	4.5	565	Inv_A4
VR078	Vacant Lot	23	18343577	4910614	4.5	851	Inv_A4
VR075	Vacant Lot	22	18343790	4910744	4.5	1026	Inv_A4
ER119	Existing	21	18343328	4910050	4.5	1010	Inv_A4
ER118	Existing	25	18342773	4910166	4.5	729	Inv_A4
ER117	Existing	25	18342936	4910207	4.5	707	Inv_A4
ER116	Existing	25	18342835	4910186	4.5	712	Inv_A4
ER115	Existing	26	18342740	4910254	4.5	642	Inv_A4
ER114	Existing	27	18342560	4910360	4.5	577	Inv_A4
ER113	Existing	26	18343318	4910588	4.5	624	Inv_A4
ER112	Existing	24	18343581	4910760	4.5	817	Inv_A4
ER111	Existing	22	18343878	4910900	4.5	1104	Inv_A4
ER108	Existing	26	18343466	4911181	4.5	748	Inv_A4
ER107	Existing	29	18343187	4911201	4.5	513	Inv_A4
VR067	Vacant Lot	33	18342130	4911106	4.5	454	Inv_A3
VR066	Vacant Lot	29	18341685	4911499	4.5	632	Inv_A1
VR065	Vacant Lot	26	18341449	4911418	4.5	874	Inv_A1
VR064	Vacant Lot	23	18341272	4911357	4.5	1058	Inv_A1
VR062	Vacant Lot	34	18341884	4911921	4.5	319	Inv_A1
VR059	Vacant Lot	34	18341905	4912029	4.5	335	Inv_A1
ER105	Existing	26	18341609	4910904	4.5	1013	Inv_A3
ER104	Existing	28	18341741	4911113	4.5	782	Inv_A2
ER103	Existing	33	18342022	4911246	4.5	479	Inv_A2
ER102	Existing	32	18341863	4911489	4.5	506	Inv_A1
ER100	Existing	29	18341680	4911790	4.5	524	Inv_A1
ER098	Existing	32	18341803	4911958	4.5	406	Inv_A1
ER097	Existing	28	18341617	4911928	4.5	585	Inv_A1
VR060	Vacant Lot	36	18342227	4912130	4.5	264	Inv_A1
ER101	Existing	31	18342667	4911973	4.5	481	Inv_A1
ER099	Existing	30	18342629	4912107	4.5	493	Inv_A1
ER095	Existing	30	18342471	4912289	4.5	502	Inv_A1
ER090	Existing	27	18341930	4912516	4.5	702	Inv_A1
ER088	Existing	27	18342331	4912769	4.5	911	Inv_A1
VR058	Vacant Lot	27	18342834	4912503	4.5	899	Inv_A1
VR057	Vacant Lot	26	18342971	4912588	4.5	1056	Inv_A1
VR055	Vacant Lot	27	18343091	4912792	4.5	1141	Inv_E4
ER096	Existing	27	18342755	4912374	4.5	753	Inv_A1
ER094	Existing	26	18343349	4912667	4.5	1101	Inv_E4
ER093	Existing	26	18342923	4912576	4.5	1013	Inv_A1
ER092	Existing	26	18343036	4912628	4.5	1132	Inv_A1
ER091	Existing	27	18343385	4912939	4.5	846	Inv_E4
ER079	Existing	31	18343042	4913396	4.5	839	Inv_E4
VR054	Vacant Lot	29	18343712	4913030	4.5	635	Inv_E4
VR053	Vacant Lot	31	18344278	4913358	4.5	411	Inv_C1
VR052	Vacant Lot	29	18344549	4913517	4.5	382	Inv_C1
VR050	Vacant Lot	23	18345073	4913824	4.5	812	Inv_C1
ER089	Existing	29	18343788	4913116	4.5	538	Inv_E4
ER086	Existing	31	18344102	4913367	4.5	386	Inv_E4
ER085	Existing	32	18344380	4913342	4.5	312	Inv_E4
ER084	Existing	30	18344364	4913514	4.5	455	Inv_C1
ER083	Existing	28	18344572	4913635	4.5	494	Inv_C1

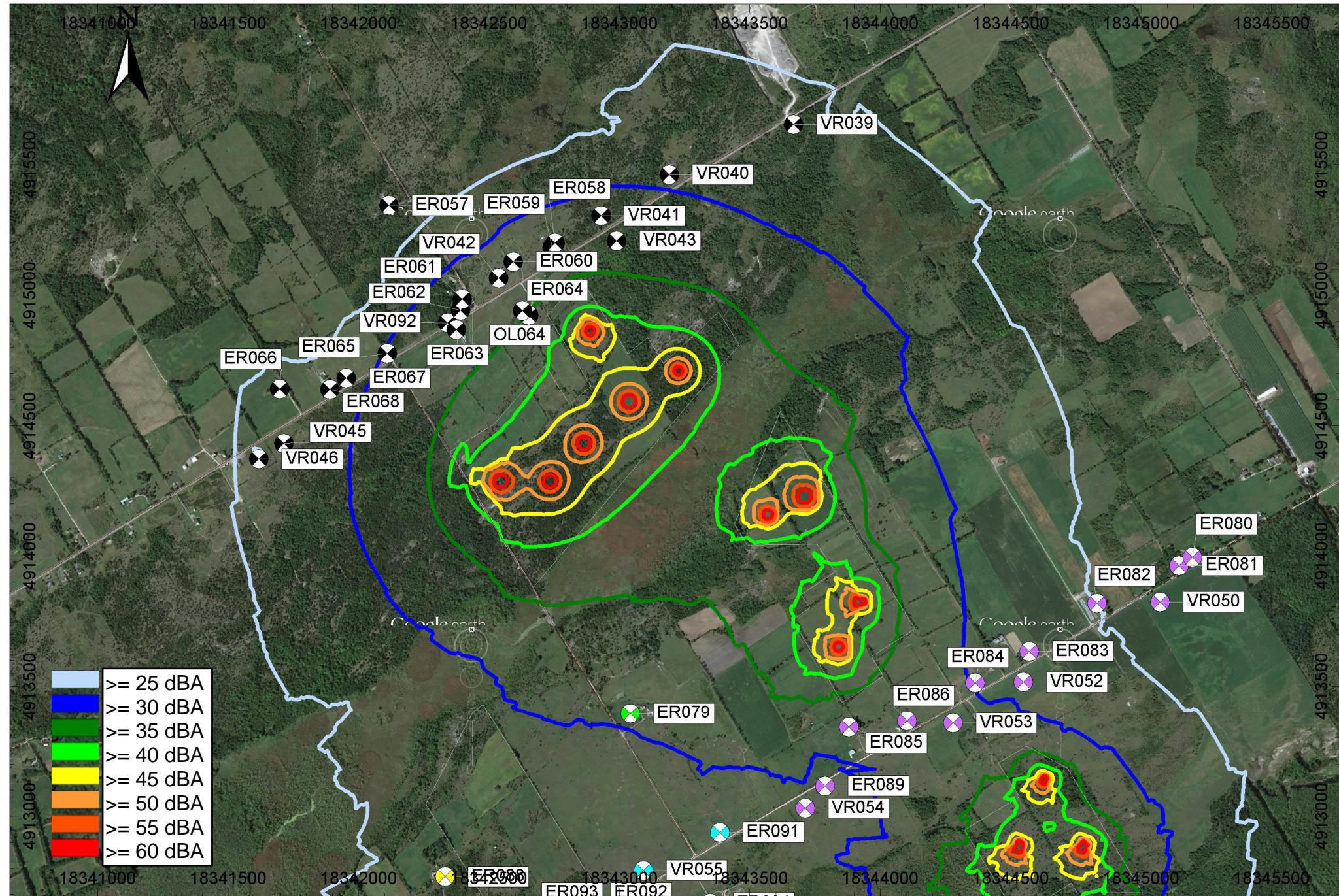
Table C.02 Noise Impact Assessment Table
Project: Loyalist Solar Project - Noise Impact Assessment Report
Report ID: 16100.00.RP9

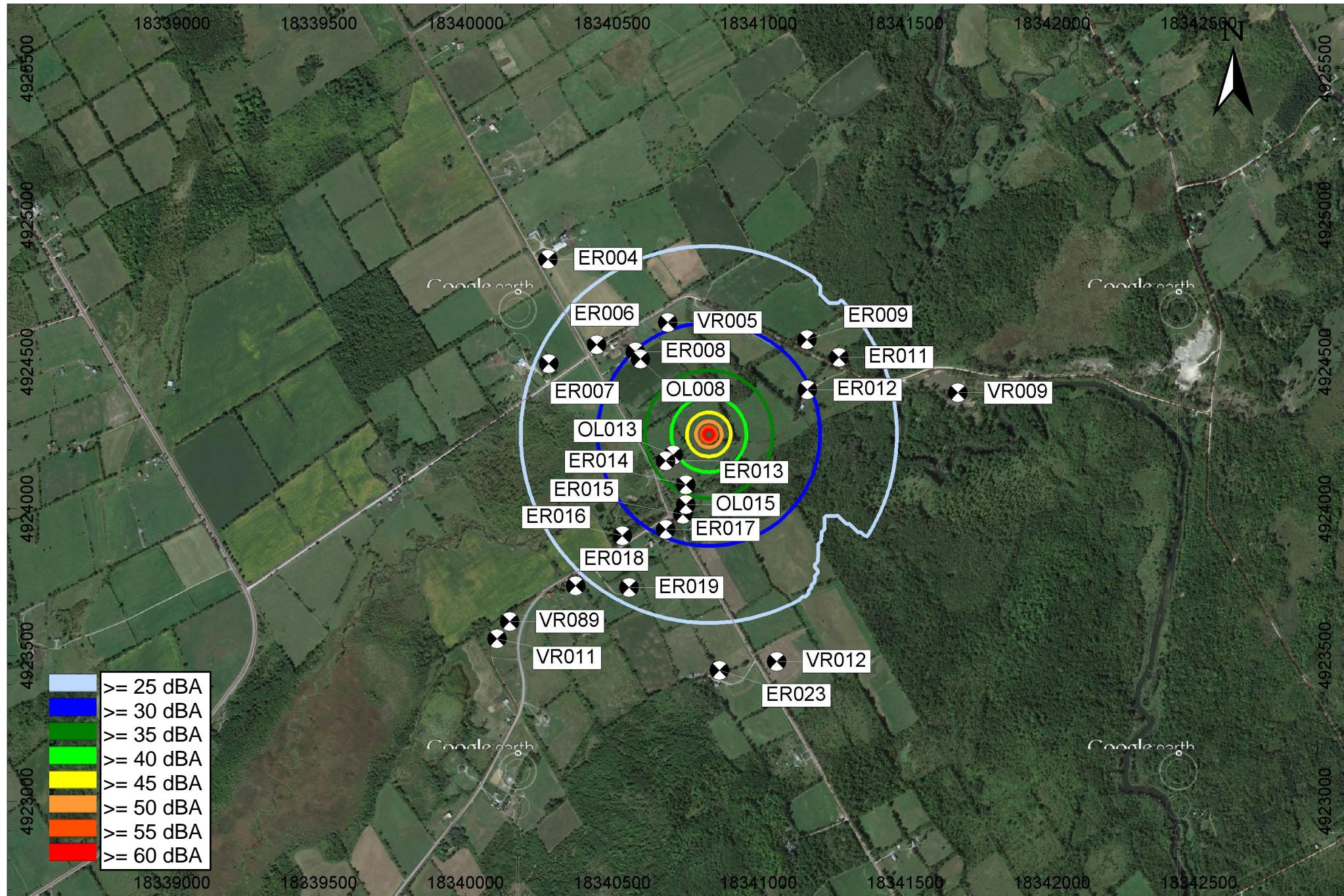
Page 2 of 2
Created on: 9/18/2017

*ER=Existing Receptor, VR=Vacant Lot, OL=Outdoor Living Area

Noise Receptor ID*	Description	Predicted Noise Impact (dBA)	UTM Coordinates (x)	UTM Coordinates (y)	Height (m)	Distance to Nearest Noise Source (m)	Nearest Noise Source
ER082	Existing	25	18344832	4913818	4.5	704	Inv_C1
ER081	Existing	22	18345146	4913964	4.5	969	Inv_C1
ER080	Existing	22	18345196	4913995	4.5	1023	Inv_C1
VR092	Vacant Lot	32	18342341	4914894	4.5	547	Inv_F4
VR046	Vacant Lot	26	18341617	4914372	4.5	931	Inv_F1
VR045	Vacant Lot	27	18341714	4914431	4.5	843	Inv_F1
VR043	Vacant Lot	33	18342989	4915209	4.5	359	Inv_F4
VR042	Vacant Lot	32	18342537	4915066	4.5	404	Inv_F4
VR041	Vacant Lot	31	18342930	4915305	4.5	442	Inv_F4
VR040	Vacant Lot	29	18343191	4915462	4.5	671	Inv_F4
VR039	Vacant Lot	26	18343668	4915655	4.5	1042	Inv_F6
OL064	OLA	34	18342652	4914923	1.5	242	Inv_F4
ER068	Existing	29	18341890	4914638	4.5	742	Inv_F1
ER067	Existing	29	18341953	4914682	4.5	710	Inv_F1
ER066	Existing	26	18341697	4914640	4.5	917	Inv_F1
ER065	Existing	30	18342110	4914777	4.5	654	Inv_F1
ER064	Existing	35	18342628	4914940	4.5	269	Inv_F4
ER063	Existing	32	18342374	4914869	4.5	513	Inv_F4
ER062	Existing	32	18342390	4914942	4.5	503	Inv_F4
ER061	Existing	32	18342396	4914985	4.5	505	Inv_F4
ER060	Existing	32	18342592	4915128	4.5	396	Inv_F4
ER059	Existing	32	18342742	4915184	4.5	351	Inv_F4
ER058	Existing	32	18342754	4915200	4.5	361	Inv_F4
ER057	Existing	23	18342116	4915344	4.5	908	Inv_F4
VR089	Vacant Lot	21	18340151	4923616	4.5	932	Transformer_62MW
VR012	Vacant Lot	17	18341061	4923480	4.5	807	Transformer_62MW
VR011	Vacant Lot	20	18340107	4923557	4.5	1004	Transformer_62MW
VR009	Vacant Lot	22	18341679	4924396	4.5	861	Transformer_62MW
VR005	Vacant Lot	29	18340689	4924635	4.5	407	Transformer_62MW
OL013	OLA	37	18340708	4924183	1.5	141	Transformer_62MW
ER023	Existing	23	18340867	4923449	4.5	805	Transformer_62MW
ER019	Existing	26	18340558	4923732	4.5	589	Transformer_62MW
ER018	Existing	24	18340376	4923737	4.5	688	Transformer_62MW
ER017	Existing	31	18340682	4923929	4.5	356	Transformer_62MW
ER016	Existing	28	18340534	4923908	4.5	455	Transformer_62MW
ER014	Existing	36	18340751	4924082	4.5	189	Transformer_62MW
ER013	Existing	37	18340683	4924164	4.5	172	Transformer_62MW
ER012	Existing	30	18341166	4924406	4.5	368	Transformer_62MW
ER011	Existing	27	18341274	4924516	4.5	515	Transformer_62MW
ER009	Existing	28	18341164	4924577	4.5	465	Transformer_62MW
ER008	Existing	28	18340580	4924535	1.5	376	Transformer_62MW
ER007	Existing	26	18340284	4924494	4.5	597	Transformer_62MW
ER006	Existing	28	18340447	4924558	4.5	489	Transformer_62MW
ER004	Existing	23	18340282	4924850	4.5	810	Transformer_62MW
ER015	Existing	33	18340742	4923981	4.5	286	Transformer_62MW
OL008	OLA	29	18340596	4924510	1.5	347	Transformer_62MW
OL015	OLA	32	18340751	4924014	1.5	252	Transformer_62MW



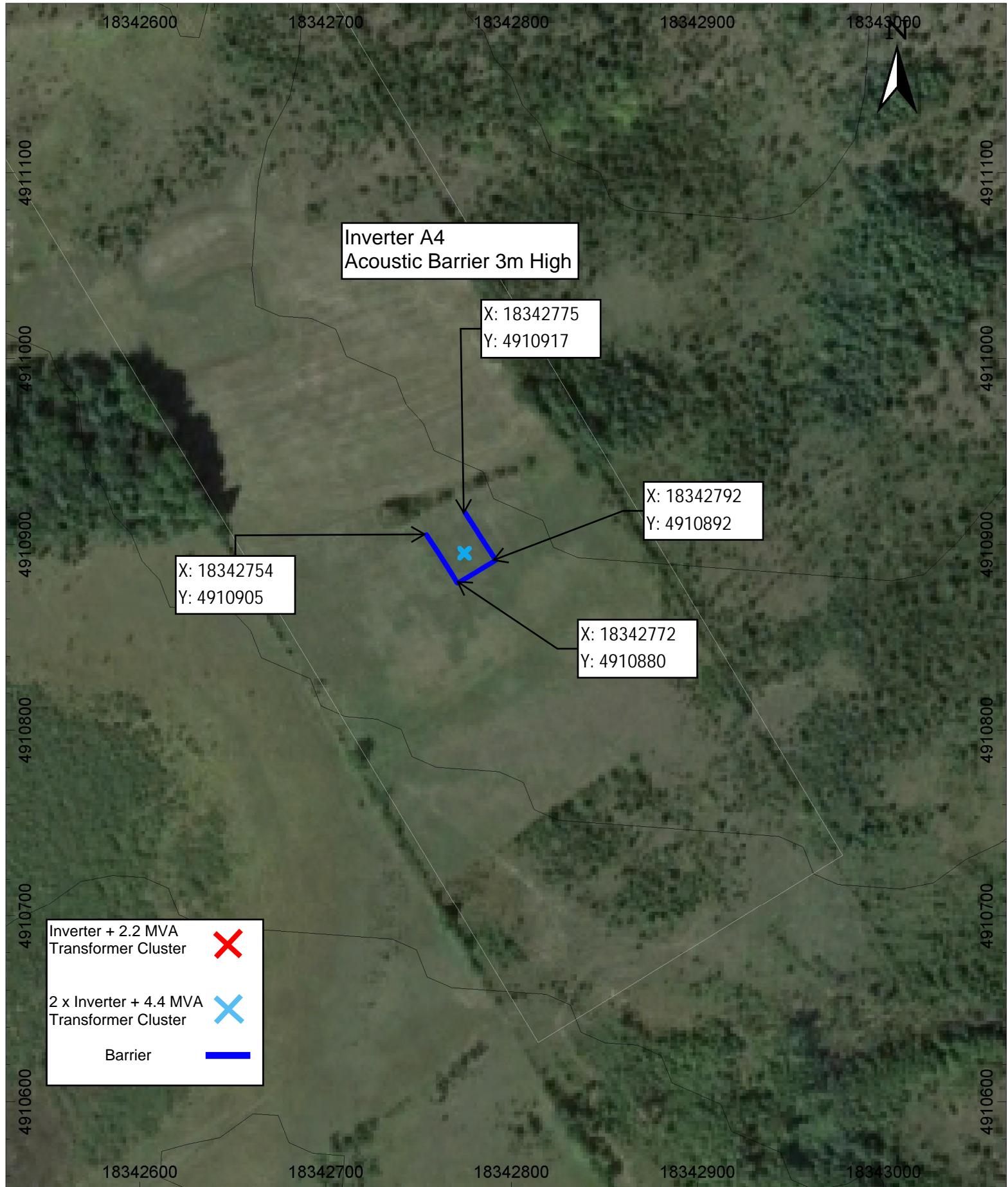




 aercoustics	Project ID: 16100.00	Project Name
	Scale: NTS	Loyalist Solar Farm
	Drawn by: KC	
	Reviewed by: AC	
	Date: Sept 15, 2017	
	Revision: 1	
Figure Title		Figure C.03
Noise Contours at 4.5m - Night - Northern Parcel		

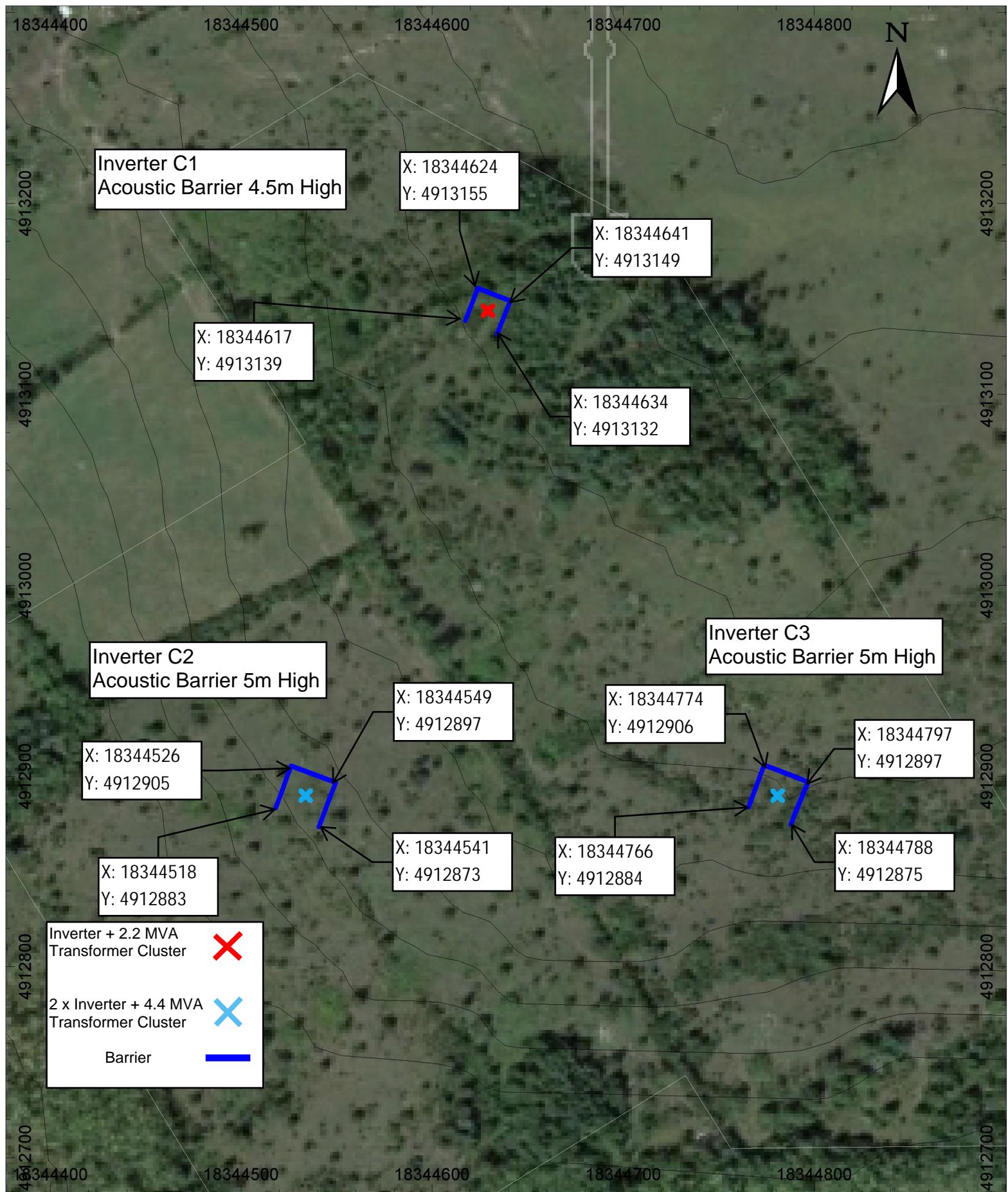
Appendix D

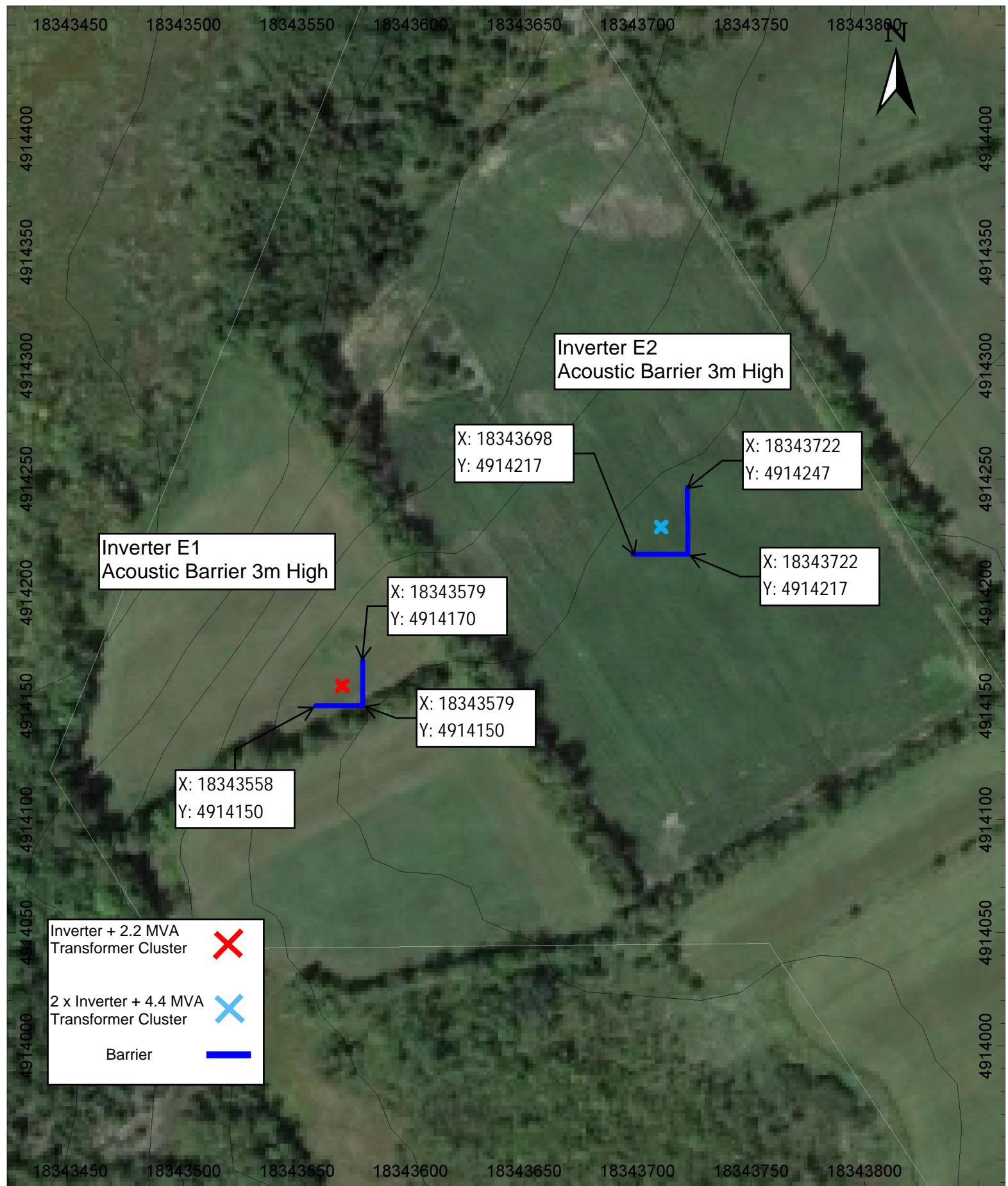
Acoustic Barrier Locations

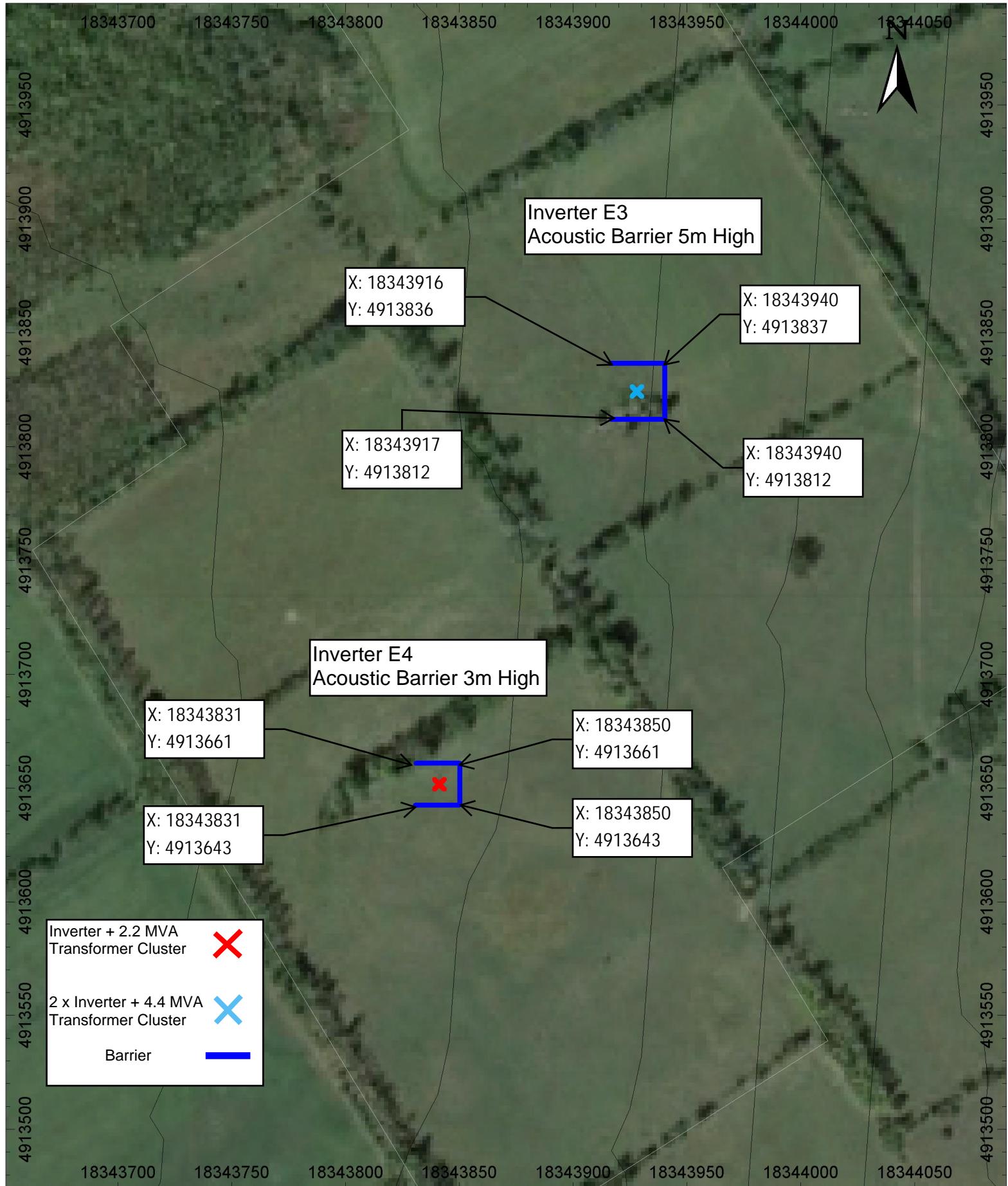


aercoustics	Project ID: 16100.00	Project Name
	Scale: NTS Drawn by: KC Reviewed by: AC Date: Sept 15, 2017 Revision: 1	Loyalist Solar Farm
		Figure Title
		Noise Barrier for Inverter A4

Figure D.01

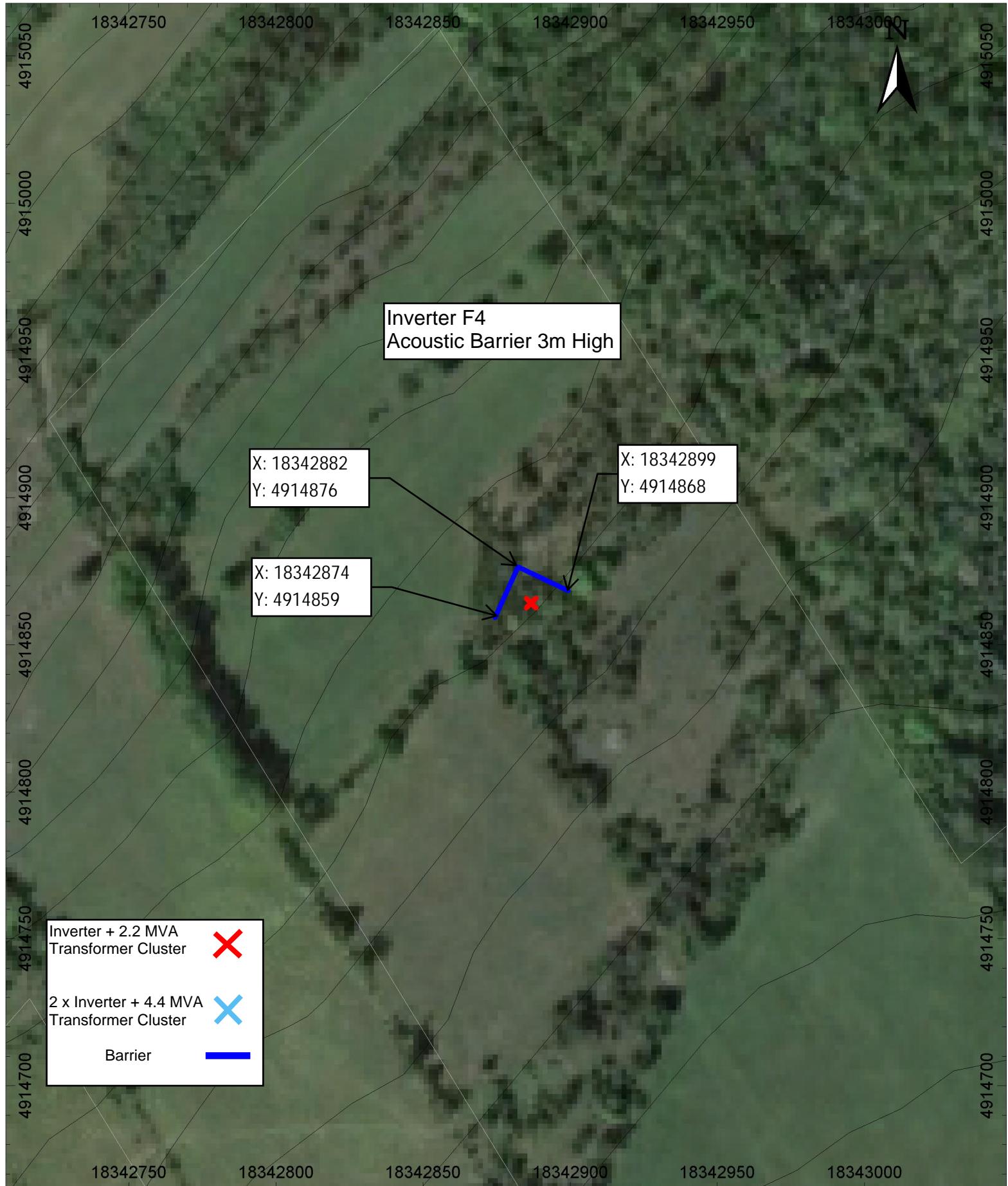








 aercoustics	Project ID: 16100.00	Project Name
	Scale: NTS	Loyalist Solar Farm
	Drawn by: KC	
	Reviewed by: AC	
Date: Sept 15, 2017 Revision: 1		Figure Title
Noise Barrier for Inverter F1		Figure D.05



Appendix E

Detailed Noise Impact Calculations

Receiver: ER064
 Project: Loyalist Solar
 Project Number: 16100

Time Period	Total (dBA)
Night	35

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER064	18342628.2	4914939.7	164.8

Note: -10 dB threshold used for reporting sample calculations. Predicted octave band sound levels below -10 dB are not reported.

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	58	0.0	32	72.8	0.0	-5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-10
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	74	0.0	63	72.8	0.0	-5.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	6
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	83	0.0	125	72.8	0.0	4.1	0.0	0.5	0.0	0.0	0.0	0.0	0.0	6
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	87	0.0	250	72.8	0.0	2.4	0.0	1.3	0.0	0.0	0.0	0.0	0.0	10
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	87	0.0	500	72.8	0.0	-1.3	0.0	2.4	0.0	0.0	0.0	0.0	0.0	13
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	83	0.0	1000	72.8	0.0	-1.7	0.0	4.5	0.0	0.0	0.0	0.0	0.0	8
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	84	0.0	2000	72.8	0.0	-1.7	0.0	11.8	0.0	0.0	0.0	0.0	0.0	1
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	61	0.0	32	73.2	0.0	-5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-7
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	77	0.0	63	73.2	0.0	-5.5	0.0	0.2	0.0	0.0	0.0	0.0	0.0	9
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	86	0.0	125	73.2	0.0	3.7	0.0	0.5	0.0	0.0	0.0	0.0	0.0	9
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	90	0.0	250	73.2	0.0	2.1	0.0	1.4	0.0	0.0	0.0	0.0	0.0	13
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	90	0.0	500	73.2	0.0	-1.4	0.0	2.5	0.0	0.0	0.0	0.0	0.0	16
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	87	0.0	1000	73.2	0.0	-1.8	0.0	4.7	0.0	0.0	0.0	0.0	0.0	10
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	87	0.0	2000	73.2	0.0	-1.8	0.0	12.5	0.0	0.0	0.0	0.0	0.0	3
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	61	0.0	32	75.7	0.0	-5.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	-10
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	77	0.0	63	75.7	0.0	-5.6	0.0	0.2	0.0	0.0	0.0	0.0	0.0	7
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	86	0.0	125	75.7	0.0	3.6	0.0	0.7	0.0	0.0	0.0	0.0	0.0	6
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	90	0.0	250	75.7	0.0	2.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	11
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	90	0.0	500	75.7	0.0	-1.5	0.0	3.3	0.0	0.0	0.0	0.0	0.0	12
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	87	0.0	1000	75.7	0.0	-1.8	0.0	6.3	0.0	0.0	0.0	0.0	0.0	6
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	87	0.0	2000	75.7	0.0	-1.8	0.0	16.6	0.0	0.0	0.0	0.0	0.0	-4
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	74	0.0	63	76.0	0.0	-5.6	10.4	0.2	0.0	0.0	0.0	0.0	0.0	-7
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	83	0.0	125	76.0	0.0	3.9	0.9	0.7	0.0	0.0	0.0	0.0	0.0	1
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	87	0.0	250	76.0	0.0	2.3	2.5	1.8	0.0	0.0	0.0	0.0	0.0	4
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	87	0.0	500	76.0	0.0	-1.4	6.1	3.4	0.0	0.0	0.0	0.0	0.0	2
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	83	0.0	1000	76.0	0.0	-1.8	6.5	6.5	0.0	0.0	0.0	0.0	0.0	-4
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	77	0.0	63	67.4	0.0	-5.0	9.8	0.1	0.0	0.0	0.0	0.0	0.0	5
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	86	0.0	125	67.4	0.0	3.2	1.6	0.3	0.0	0.0	0.0	0.0	0.0	14
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	90	0.0	250	67.4	0.0	2.3	2.5	0.7	0.0	0.0	0.0	0.0	0.0	17
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	90	0.0	500	67.4	0.0	-1.2	6.0	1.3	0.0	0.0	0.0	0.0	0.0	17
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	87	0.0	1000	67.4	0.0	-1.6	6.4	2.4	0.0	0.0	0.0	0.0	0.0	12
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	87	0.0	2000	67.4	0.0	-1.6	6.4	6.4	0.0	0.0	0.0	0.0	0.0	8
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	94	0.0	4000	67.4	0.0	-1.6	6.4	21.6	0.0	0.0	0.0	0.0	0.0	0
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	1	87	0.0	2000	67.6	0.0	-1.6	6.4	6.5	0.0	0.0	0.0	0.0	0.0	8
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	1	94	0.0	4000	67.6	0.0	-1.6	6.4	22.1	0.0	0.0	0.0	0.0	0.0	-1
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	61	0.0	32	67.4	0.0	-5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	77	0.0	63	67.4	0.0	-5.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	86	0.0	125	67.4	0.0	3.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0	15
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	90	0.0	250	67.4	0.0	2.3	0.0	0.7	0.0	0.0	0.0	0.0	0.0	20
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	90	0.0	500	67.4	0.0	-1.2	0.0	1.3	0.0	0.0	0.0	0.0	0.0	23
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	87	0.0	1000	67.4	0.0	-1.6	0.0	2.4	0.0	0.0	0.0	0.0	0.0	18
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	87	0.0	2000	67.4	0.0	-1.6	0.0	6.4	0.0	0.0	0.0	0.0	0.0	15
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	94	0.0	4000	67.4	0.0	-1.6	0.0	21.7	0.0	0.0	0.0	0.0	0.0	6

Receiver: ER064
 Project: Loyalist Solar
 Project Number: 16100

Time Period	Total (dBA)
Night	35

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER064	18342628.2	4914939.7	164.8

Note: -10 dB threshold used for reporting sample calculations. Predicted octave band sound levels below -10 dB are not reported.

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahou	Cmet	Dc	RL	Lr
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	61	0.0	32	66.0	0.0	-4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	77	0.0	63	66.0	0.0	-4.9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	16
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	86	0.0	125	66.0	0.0	2.8	0.0	0.2	0.0	0.0	0.0	0.0	0.0	17
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	90	0.0	250	66.0	0.0	2.2	0.0	0.6	0.0	0.0	0.0	0.0	0.0	21
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	90	0.0	500	66.0	0.0	-1.2	0.0	1.1	0.0	0.0	0.0	0.0	0.0	24
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	87	0.0	1000	66.0	0.0	-1.6	0.0	2.0	0.0	0.0	0.0	0.0	0.0	20
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	87	0.0	2000	66.0	0.0	-1.6	0.0	5.4	0.0	0.0	0.0	0.0	0.0	17
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	94	0.0	4000	66.0	0.0	-1.6	0.0	18.3	0.0	0.0	0.0	0.0	0.0	11
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	58	0.0	32	59.6	0.0	-3.6	8.4	0.0	0.0	0.0	0.0	0.0	0.0	-7
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	74	0.0	63	59.6	0.0	-3.6	8.4	0.0	0.0	0.0	0.0	0.0	0.0	9
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	83	0.0	125	59.6	0.0	2.4	2.3	0.1	0.0	0.0	0.0	0.0	0.0	18
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	87	0.0	250	59.6	0.0	3.0	1.7	0.3	0.0	0.0	0.0	0.0	0.0	22
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	87	0.0	500	59.6	0.0	-0.7	5.5	0.5	0.0	0.0	0.0	0.0	0.0	22
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	83	0.0	1000	59.6	0.0	-1.1	5.9	1.0	0.0	0.0	0.0	0.0	0.0	18
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	84	0.0	2000	59.6	0.0	-1.1	5.9	2.6	0.0	0.0	0.0	0.0	0.0	17
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	91	0.0	4000	59.6	0.0	-1.1	5.9	8.8	0.0	0.0	0.0	0.0	0.0	18
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	61	0.0	32	65.6	0.0	-4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	77	0.0	63	65.6	0.0	-4.8	0.0	0.1	0.0	0.0	0.0	0.0	0.0	16
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	86	0.0	125	65.6	0.0	2.8	0.0	0.2	0.0	0.0	0.0	0.0	0.0	18
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	90	0.0	250	65.6	0.0	2.2	0.0	0.6	0.0	0.0	0.0	0.0	0.0	22
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	90	0.0	500	65.6	0.0	-1.2	0.0	1.0	0.0	0.0	0.0	0.0	0.0	25
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	87	0.0	1000	65.6	0.0	-1.6	0.0	2.0	0.0	0.0	0.0	0.0	0.0	21
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	87	0.0	2000	65.6	0.0	-1.6	0.0	5.2	0.0	0.0	0.0	0.0	0.0	18
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	94	0.0	4000	65.6	0.0	-1.6	0.0	17.6	0.0	0.0	0.0	0.0	0.0	12
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	58	0.0	32	67.1	0.0	-5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	74	0.0	63	67.1	0.0	-5.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	12
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	83	0.0	125	67.1	0.0	3.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	12
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	87	0.0	250	67.1	0.0	2.5	0.0	0.7	0.0	0.0	0.0	0.0	0.0	17
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	87	0.0	500	67.1	0.0	-1.1	0.0	1.2	0.0	0.0	0.0	0.0	0.0	19
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	83	0.0	1000	67.1	0.0	-1.6	0.0	2.3	0.0	0.0	0.0	0.0	0.0	15
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	84	0.0	2000	67.1	0.0	-1.6	0.0	6.2	0.0	0.0	0.0	0.0	0.0	12
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	91	0.0	4000	67.1	0.0	-1.6	0.0	21.0	0.0	0.0	0.0	0.0	0.0	4

Receiver: VR060
 Project: Loyalist Solar
 Project Number: 16100

Time Period	Total (dBA)
Night	36

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR060	18342226.8	4912130.1	145.8

Note: -10 dB threshold used for reporting sample calculations. Predicted octave band sound levels below -10 dB are not reported.

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	61	0.0	32	59.5	0.0	-3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	77	0.0	63	59.5	0.0	-3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	86	0.0	125	59.5	0.0	2.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	24
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	90	0.0	250	59.5	0.0	2.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0	28
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	90	0.0	500	59.5	0.0	-0.8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	31
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	87	0.0	1000	59.5	0.0	-1.2	0.0	1.0	0.0	0.0	0.0	0.0	0.0	27
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	87	0.0	2000	59.5	0.0	-1.2	0.0	2.6	0.0	0.0	0.0	0.0	0.0	26
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	94	0.0	4000	59.5	0.0	-1.2	0.0	8.7	0.0	0.0	0.0	0.0	0.0	27
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	85	0.0	8000	59.5	0.0	-1.2	0.0	30.9	0.0	0.0	0.0	0.0	0.0	-4
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	74	0.0	63	66.2	0.0	-4.9	9.7	0.1	0.0	0.0	0.0	0.0	0.0	3
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	83	0.0	125	66.2	0.0	3.1	1.6	0.2	0.0	0.0	0.0	0.0	0.0	12
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	87	0.0	250	66.2	0.0	2.6	2.2	0.6	0.0	0.0	0.0	0.0	0.0	15
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	87	0.0	500	66.2	0.0	-1.1	5.9	1.1	0.0	0.0	0.0	0.0	0.0	14
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	83	0.0	1000	66.2	0.0	-1.5	6.3	2.1	0.0	0.0	0.0	0.0	0.0	10
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	84	0.0	2000	66.2	0.0	-1.5	6.3	5.6	0.0	0.0	0.0	0.0	0.0	7
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	91	0.0	4000	66.2	0.0	-1.5	6.3	18.9	0.0	0.0	0.0	0.0	0.0	1
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	77	0.0	63	70.2	0.0	-5.3	10.1	0.1	0.0	0.0	0.0	0.0	0.0	2
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	86	0.0	125	70.2	0.0	3.6	1.2	0.4	0.0	0.0	0.0	0.0	0.0	11
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	90	0.0	250	70.2	0.0	2.2	2.6	1.0	0.0	0.0	0.0	0.0	0.0	14
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	90	0.0	500	70.2	0.0	-1.3	6.1	1.8	0.0	0.0	0.0	0.0	0.0	13
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	87	0.0	1000	70.2	0.0	-1.7	6.5	3.3	0.0	0.0	0.0	0.0	0.0	8
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	87	0.0	2000	70.2	0.0	-1.7	6.5	8.8	0.0	0.0	0.0	0.0	0.0	3
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	77	0.0	63	73.6	0.0	-5.5	10.3	0.2	0.0	0.0	0.0	0.0	0.0	-2
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	86	0.0	125	73.6	0.0	3.8	1.0	0.6	0.0	0.0	0.0	0.0	0.0	7
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	90	0.0	250	73.6	0.0	2.1	2.7	1.4	0.0	0.0	0.0	0.0	0.0	10
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	90	0.0	500	73.6	0.0	-1.4	6.2	2.6	0.0	0.0	0.0	0.0	0.0	9
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	87	0.0	1000	73.6	0.0	-1.8	6.5	4.9	0.0	0.0	0.0	0.0	0.0	3
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	87	0.0	2000	73.6	0.0	-1.8	6.5	13.1	0.0	0.0	0.0	0.0	0.0	-5

Receiver: OL013
 Project: Loyalist Solar
 Project Number: 16100

Time Period	Total (dBA)
Night	37

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	OL013	18340708.1	4924182.8	151.5

Note: -10 dB threshold used for reporting sample calculations. Predicted sound level impacts below -10 dB are not reported.

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	50	0.0	32	54.0	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	69	0.0	63	54.0	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	82	0.0	125	54.0	0.0	1.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	26
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	84	0.0	250	54.0	0.0	4.9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	25
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	89	0.0	500	54.0	0.0	2.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	33
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	87	0.0	1000	54.0	0.0	-0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	33
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	83	0.0	2000	54.0	0.0	-1.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	28
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	78	0.0	4000	54.0	0.0	-1.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	20
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	69	0.0	8000	54.0	0.0	-1.0	0.0	16.5	0.0	0.0	0.0	0.0	0.0	-1

Receiver: VR081

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	25

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR081	18343140.4	4910358.7	147.9

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	76.0	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	74.1	0.0	0.3	4.4	5.4	0.0	0.0	0.0	0.0	0.0	10
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	71.7	0.0	0.1	0.0	4.8	0.0	0.0	0.0	0.0	0.0	21
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	67.2	0.0	-0.1	4.8	4.0	0.0	0.0	0.0	0.0	0.0	22

Receiver: VR080

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	24

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR080	18343410.1	4910517.5	146.4

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	76.2	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	74.4	0.0	0.3	4.4	5.4	0.0	0.0	0.0	0.0	0.0	10
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	72.2	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	21
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	68.4	0.0	0.0	4.7	4.2	0.0	0.0	0.0	0.0	0.0	21

Receiver: VR079

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR079	18342881.0	4910340.5	149.7

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	75.5	0.0	0.2	0.0	5.6	0.0	0.0	0.0	0.0	0.0	17
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	73.5	0.0	0.3	4.4	5.2	0.0	0.0	0.0	0.0	0.0	11
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	70.9	0.0	0.1	0.0	4.6	0.0	0.0	0.0	0.0	0.0	22
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	66.0	0.0	0.0	4.8	3.8	0.0	0.0	0.0	0.0	0.0	23

Receiver: VR078

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	23

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR078	18343577.4	4910614.3	145.4

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	76.4	0.0	0.2	4.6	5.9	0.0	0.0	0.0	0.0	0.0	11
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	72.7	0.0	0.1	0.0	5.0	0.0	0.0	0.0	0.0	0.0	20
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	69.6	0.0	0.1	4.7	4.4	0.0	0.0	0.0	0.0	0.0	19

Receiver: VR075

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	21

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR075	18343789.5	4910743.9	145.0

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	76.8	0.0	0.2	4.5	6.0	0.0	0.0	0.0	0.0	0.0	10
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	73.6	0.0	0.1	0.0	5.2	0.0	0.0	0.0	0.0	0.0	19
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	71.2	0.0	0.1	4.6	4.7	0.0	0.0	0.0	0.0	0.0	17

Receiver: ER119

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	21

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER119	18343328.1	4910050.3	144.8

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	74.2	0.0	0.2	0.0	5.3	0.0	0.0	0.0	0.0	0.0	18
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	71.1	0.0	0.0	4.7	4.6	0.0	0.0	0.0	0.0	0.0	17

Receiver: ER118

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	25

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER118	18342773.4	4910166.0	152.9

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	76.1	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	74.3	0.0	0.4	0.0	5.4	0.0	0.0	0.0	0.0	0.0	15
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	72.1	0.0	0.2	0.0	4.8	0.0	0.0	0.0	0.0	0.0	21
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	68.3	0.0	0.0	4.8	4.1	0.0	0.0	0.0	0.0	0.0	21

Receiver: ER117

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	25

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER117	18342935.9	4910206.7	150.0

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	76.2	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	74.4	0.0	0.4	4.4	5.4	0.0	0.0	0.0	0.0	0.0	10
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	72.1	0.0	0.1	0.0	4.8	0.0	0.0	0.0	0.0	0.0	21
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	68.0	0.0	0.0	4.8	4.1	0.0	0.0	0.0	0.0	0.0	21

Receiver: ER116

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	25

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER116	18342834.6	4910185.7	152.0

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	76.1	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	74.3	0.0	0.4	4.4	5.4	0.0	0.0	0.0	0.0	0.0	10
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	72.0	0.0	0.1	0.0	4.8	0.0	0.0	0.0	0.0	0.0	21
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	68.1	0.0	0.0	4.8	4.1	0.0	0.0	0.0	0.0	0.0	21

Receiver: ER115

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER115	18342739.6	4910254.0	150.7

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	75.6	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	73.7	0.0	0.4	4.4	5.3	0.0	0.0	0.0	0.0	0.0	11
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	71.3	0.0	0.1	0.0	4.7	0.0	0.0	0.0	0.0	0.0	22
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	67.2	0.0	0.0	4.8	4.0	0.0	0.0	0.0	0.0	0.0	22

Receiver: ER114

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	27

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER114	18342559.6	4910360.0	147.9

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	74.8	0.0	0.2	0.0	5.5	0.0	0.0	0.0	0.0	0.0	17
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	72.8	0.0	0.3	4.4	5.1	0.0	0.0	0.0	0.0	0.0	12
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	70.2	0.0	0.1	0.0	4.5	0.0	0.0	0.0	0.0	0.0	23
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	66.2	0.0	0.0	4.8	3.8	0.0	0.0	0.0	0.0	0.0	23
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	1	98	0.0	A	66.5	0.0	0.1	4.7	3.9	0.0	0.0	0.0	0.0	12.2	11

Receiver: ER113

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER113	18343317.6	4910588.4	147.0

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	75.6	0.0	0.1	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	73.7	0.0	0.3	4.5	5.3	0.0	0.0	0.0	0.0	0.0	11
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	71.3	0.0	0.1	0.0	4.7	0.0	0.0	0.0	0.0	0.0	22
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	66.9	0.0	0.0	4.8	3.9	0.0	0.0	0.0	0.0	0.0	22

Receiver: ER112

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	24

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER112	18343580.9	4910760.0	145.7

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	76.0	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	74.3	0.0	0.4	4.4	5.4	0.0	0.0	0.0	0.0	0.0	10
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	72.2	0.0	0.1	0.0	4.9	0.0	0.0	0.0	0.0	0.0	21
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	69.2	0.0	0.1	4.7	4.3	0.0	0.0	0.0	0.0	0.0	20

Receiver: ER111

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	22

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER111	18343878.4	4910900.0	145.2

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	76.7	0.0	0.3	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	73.8	0.0	0.1	0.0	5.2	0.0	0.0	0.0	0.0	0.0	19
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	71.9	0.0	0.1	4.6	4.8	0.0	0.0	0.0	0.0	0.0	16

Receiver: ER108

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER108	18343466.2	4911180.8	144.8

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	74.2	0.0	0.2	4.6	5.3	0.0	0.0	0.0	0.0	0.0	14
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	72.3	0.0	0.3	4.5	5.0	0.0	0.0	0.0	0.0	0.0	13
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	70.3	0.0	0.1	0.0	4.5	0.0	0.0	0.0	0.0	0.0	23
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	68.5	0.0	0.1	4.7	4.2	0.0	0.0	0.0	0.0	0.0	20
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	1	98	0.0	A	68.7	0.0	-0.4	5.2	4.2	0.0	0.0	0.0	0.0	8.5	12

Receiver: ER107

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	29

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER107	18343187.3	4911201.0	145.1

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	72.5	0.0	0.1	4.6	4.9	0.0	0.0	0.0	0.0	0.0	16
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	70.0	0.0	0.3	4.5	4.5	0.0	0.0	0.0	0.0	0.0	15
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	67.1	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	27
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	65.2	0.0	0.0	4.8	3.7	0.0	0.0	0.0	0.0	0.0	24
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	1	98	0.0	A	65.6	0.0	-0.5	5.2	3.7	0.0	0.0	0.0	0.0	7.4	16

Receiver: VR067

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	33

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR067	18342130.1	4911105.8	149.9

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	68.7	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	25
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	65.4	0.0	0.2	0.0	3.8	0.0	0.0	0.0	0.0	0.0	25
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	64.1	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	30
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	67.6	0.0	0.0	4.7	4.0	0.0	0.0	0.0	0.0	0.0	21
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	1	98	0.0	A	67.8	0.0	0.1	0.0	4.1	0.0	0.0	0.0	0.0	11.6	14

Receiver: VR066

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	29

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR066	18341684.6	4911498.9	153.8

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	67.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	27
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	67.8	0.0	0.3	0.0	4.2	0.0	0.0	0.0	0.0	0.0	22
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	70.0	0.0	0.1	4.7	4.4	0.0	0.0	0.0	0.0	0.0	19
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	72.9	0.0	0.1	0.0	5.0	0.0	0.0	0.0	0.0	0.0	20

Receiver: VR065

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR065	18341449.1	4911418.1	151.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	69.8	0.0	0.1	0.0	4.4	0.0	0.0	0.0	0.0	0.0	24
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	70.4	0.0	0.3	0.0	4.6	0.0	0.0	0.0	0.0	0.0	19
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	71.9	0.0	0.1	4.6	4.8	0.0	0.0	0.0	0.0	0.0	16
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	74.1	0.0	0.2	4.6	5.3	0.0	0.0	0.0	0.0	0.0	14

Receiver: VR064

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	23

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR064	18341271.5	4911356.9	151.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	71.5	0.0	0.1	0.0	4.7	0.0	0.0	0.0	0.0	0.0	22
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	72.0	0.0	0.4	4.4	4.9	0.0	0.0	0.0	0.0	0.0	13
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	73.2	0.0	0.2	4.6	5.1	0.0	0.0	0.0	0.0	0.0	15
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	74.9	0.0	0.2	4.5	5.5	0.0	0.0	0.0	0.0	0.0	13

Receiver: VR062

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	34

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR062	18341883.7	4911920.6	150.0

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	61.1	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	34
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	66.6	0.0	0.2	4.5	4.0	0.0	0.0	0.0	0.0	0.0	19
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	70.4	0.0	0.0	4.7	4.5	0.0	0.0	0.0	0.0	0.0	18
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	73.7	0.0	0.1	4.6	5.2	0.0	0.0	0.0	0.0	0.0	14

Receiver: VR059

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	34

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR059	18341905.3	4912029.1	148.3

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	61.5	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	33	
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	67.3	0.0	0.2	4.5	4.1	0.0	0.0	0.0	0.0	19	
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	70.9	0.0	0.1	4.7	4.6	0.0	0.0	0.0	0.0	18	
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	74.1	0.0	0.1	4.6	5.3	0.0	0.0	0.0	0.0	14	

Receiver: ER105

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER105	18341608.5	4910903.9	150.8

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	72.1	0.0	0.1	0.0	4.8	0.0	0.0	0.0	0.0	0.0	21
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	71.1	0.0	0.3	0.0	4.7	0.0	0.0	0.0	0.0	0.0	18
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	71.1	0.0	0.1	0.0	4.6	0.0	0.0	0.0	0.0	0.0	22
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	72.3	0.0	0.2	4.6	4.9	0.0	0.0	0.0	0.0	0.0	16

Receiver: ER104

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	28

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER104	18341740.7	4911112.7	151.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	69.9	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	24
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	68.9	0.0	0.3	0.0	4.3	0.0	0.0	0.0	0.0	0.0	21
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	69.3	0.0	0.1	0.0	4.3	0.0	0.0	0.0	0.0	0.0	24
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	71.5	0.0	0.1	4.6	4.7	0.0	0.0	0.0	0.0	0.0	17

Receiver: ER103

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	32

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER103	18342021.9	4911246.4	151.1

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	67.2	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	27
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	64.6	0.0	0.2	0.0	3.7	0.0	0.0	0.0	0.0	0.0	26
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	65.5	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	29
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	69.4	0.0	0.1	1.9	4.3	0.0	0.0	0.0	0.0	0.0	22
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	1	98	0.0	A	69.5	0.0	0.1	0.0	4.4	0.0	0.0	0.0	0.0	12.9	11

Receiver: ER102

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	32

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER102	18341863.4	4911488.5	154.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	65.1	0.0	-0.1	0.0	3.6	0.0	0.0	0.0	0.0	0.0	29
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	65.3	0.0	0.2	0.0	3.8	0.0	0.0	0.0	0.0	0.0	25
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	68.1	0.0	0.1	4.7	4.1	0.0	0.0	0.0	0.0	0.0	21
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	71.7	0.0	0.1	0.0	4.8	0.0	0.0	0.0	0.0	0.0	21

Receiver: ER100

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	29

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER100	18341680.1	4911789.7	150.8

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	65.4	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	29
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	68.2	0.0	0.3	4.5	4.2	0.0	0.0	0.0	0.0	0.0	17
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	71.1	0.0	0.1	4.7	4.6	0.0	0.0	0.0	0.0	0.0	17
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	74.0	0.0	0.1	4.6	5.3	0.0	0.0	0.0	0.0	0.0	14

Receiver: ER098

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	32

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER098	18341803.2	4911958.3	149.4

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	63.2	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	31
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	67.8	0.0	0.3	4.5	4.2	0.0	0.0	0.0	0.0	0.0	18
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	71.1	0.0	0.1	4.7	4.6	0.0	0.0	0.0	0.0	0.0	17
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	74.2	0.0	0.1	4.6	5.3	0.0	0.0	0.0	0.0	0.0	14

Receiver: ER097

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	28

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER097	18341616.5	4911927.8	148.2

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	66.3	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	28
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	69.4	0.0	0.3	4.5	4.4	0.0	0.0	0.0	0.0	0.0	16
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	72.1	0.0	0.1	4.7	4.8	0.0	0.0	0.0	0.0	0.0	16
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	74.8	0.0	0.2	4.6	5.5	0.0	0.0	0.0	0.0	0.0	13

Receiver: VR060

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	36

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR060	18342226.8	4912130.1	145.8

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	59.5	0.0	0.1	0.0	2.8	0.0	0.0	0.0	0.0	0.0	36
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	66.2	0.0	0.2	4.6	3.9	0.0	0.0	0.0	0.0	0.0	20
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	70.2	0.0	0.1	4.7	4.5	0.0	0.0	0.0	0.0	0.0	18
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	73.6	0.0	0.2	4.6	5.2	0.0	0.0	0.0	0.0	0.0	14

Receiver: ER101

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	31

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER101	18342667.1	4911973.4	146.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	64.6	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	30
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	64.9	0.0	0.1	0.0	3.7	0.0	0.0	0.0	0.0	0.0	26
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	68.0	0.0	0.1	9.8	4.1	0.0	0.0	0.0	0.0	0.0	16
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	71.7	0.0	0.1	4.6	4.8	0.0	0.0	0.0	0.0	0.0	17

Receiver: ER099

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	30

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER099	18342629.2	4912106.6	145.8

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	64.9	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	29
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	66.5	0.0	0.2	4.9	4.0	0.0	0.0	0.0	0.0	0.0	19
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	69.4	0.0	0.1	6.9	4.3	0.0	0.0	0.0	0.0	0.0	17
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	72.7	0.0	0.2	4.6	5.0	0.0	0.0	0.0	0.0	0.0	15

Receiver: ER095

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	30

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER095	18342470.9	4912288.9	147.1

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	65.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	29
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	68.2	0.0	0.2	0.0	4.2	0.0	0.0	0.0	0.0	0.0	22
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	71.1	0.0	0.1	4.6	4.7	0.0	0.0	0.0	0.0	0.0	17
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	74.1	0.0	0.2	4.6	5.3	0.0	0.0	0.0	0.0	0.0	14

Receiver: ER090

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	27

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER090	18341930.4	4912516.0	140.6

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	67.9	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	26
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	71.4	0.0	0.3	4.5	4.8	0.0	0.0	0.0	0.0	0.0	14
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	73.8	0.0	0.2	4.6	5.2	0.0	0.0	0.0	0.0	0.0	14
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	76.2	0.0	0.2	4.5	5.8	0.0	0.0	0.0	0.0	0.0	11
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	76.5	0.0	0.2	4.6	5.9	0.0	0.0	0.0	0.0	0.0	11
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	76.8	0.0	0.2	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15

Receiver: ER088

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	27

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER088	18342330.6	4912769.1	146.9

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	70.2	0.0	0.1	0.0	4.5	0.0	0.0	0.0	0.0	0.0	23
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	72.6	0.0	0.3	0.0	5.0	0.0	0.0	0.0	0.0	0.0	17
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	74.6	0.0	0.2	4.6	5.4	0.0	0.0	0.0	0.0	0.0	13
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	76.7	0.0	0.3	4.5	6.0	0.0	0.0	0.0	0.0	0.0	10
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	76.6	0.0	0.2	0.0	5.9	0.0	0.0	0.0	0.0	0.0	15
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	75.9	0.0	0.4	0.0	5.8	0.0	0.0	0.0	0.0	0.0	13
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	74.7	0.0	0.2	4.6	5.4	0.0	0.0	0.0	0.0	0.0	13
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	74.9	0.0	0.2	0.0	5.5	0.0	0.0	0.0	0.0	0.0	17
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	75.8	0.0	0.3	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	76.8	0.0	0.3	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15

Receiver: VR058

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR058	18342834.3	4912503.3	147.0

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	70.1	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	23
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	71.3	0.0	0.3	4.6	4.8	0.0	0.0	0.0	0.0	0.0	14
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	73.0	0.0	0.2	4.6	5.0	0.0	0.0	0.0	0.0	0.0	15
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	75.1	0.0	0.2	4.5	5.5	0.0	0.0	0.0	0.0	0.0	12
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	75.8	0.0	0.3	4.5	5.7	0.0	0.0	0.0	0.0	0.0	12
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	77.0	0.0	0.3	4.5	6.0	0.0	0.0	0.0	0.0	0.0	10
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	76.7	0.0	0.3	4.5	6.0	0.0	0.0	0.0	0.0	0.0	10
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	75.7	0.0	0.2	4.6	5.7	0.0	0.0	0.0	0.0	0.0	12
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	76.1	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	76.0	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	76.7	0.0	0.3	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15

Receiver: VR057

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR057	18342970.5	4912588.0	146.6

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	71.5	0.0	0.1	0.0	4.7	0.0	0.0	0.0	0.0	0.0	22
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	72.4	0.0	0.3	6.8	5.0	0.0	0.0	0.0	0.0	0.0	10
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	73.8	0.0	0.2	4.6	5.2	0.0	0.0	0.0	0.0	0.0	14
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	75.6	0.0	0.3	4.5	5.7	0.0	0.0	0.0	0.0	0.0	12
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	75.0	0.0	0.2	4.6	5.5	0.0	0.0	0.0	0.0	0.0	13
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	76.3	0.0	0.3	4.5	5.8	0.0	0.0	0.0	0.0	0.0	11
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	76.1	0.0	0.2	4.5	5.8	0.0	0.0	0.0	0.0	0.0	11
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	74.9	0.0	0.2	4.6	5.5	0.0	0.0	0.0	0.0	0.0	13
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	73.8	0.0	0.3	4.4	5.3	0.0	0.0	0.0	0.0	0.0	11
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	75.9	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	75.7	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	76.3	0.0	0.3	0.0	5.9	0.0	0.0	0.0	0.0	0.0	15

Receiver: VR055

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR055	18343091.0	4912792.4	145.4

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	73.2	0.0	0.1	0.0	5.1	0.0	0.0	0.0	0.0	0.0	20
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	75.1	0.0	0.2	4.5	5.5	0.0	0.0	0.0	0.0	0.0	12
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	76.7	0.0	0.3	4.5	6.0	0.0	0.0	0.0	0.0	0.0	10
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	74.2	0.0	0.2	4.6	5.3	0.0	0.0	0.0	0.0	0.0	14
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	75.6	0.0	0.3	4.6	5.7	0.0	0.0	0.0	0.0	0.0	12
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	74.2	0.0	0.4	4.4	5.4	0.0	0.0	0.0	0.0	0.0	10
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	74.9	0.0	0.2	4.6	5.5	0.0	0.0	0.0	0.0	0.0	13
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	73.5	0.0	0.1	4.7	5.1	0.0	0.0	0.0	0.0	0.0	14
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	72.1	0.0	0.3	4.5	4.9	0.0	0.0	0.0	0.0	0.0	13
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	75.0	0.0	0.2	0.0	5.5	0.0	0.0	0.0	0.0	0.0	17
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	74.7	0.0	0.2	0.0	5.4	0.0	0.0	0.0	0.0	0.0	18
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	75.4	0.0	0.2	0.0	5.6	0.0	0.0	0.0	0.0	0.0	17
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	76.1	0.0	0.3	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	76.7	0.0	0.5	0.0	6.0	0.0	0.0	0.0	0.0	0.0	12

Receiver: ER096

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	27

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER096	18342755.2	4912374.0	146.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	68.5	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	25
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	70.0	0.0	0.3	4.5	4.5	0.0	0.0	0.0	0.0	0.0	15
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	72.0	0.0	0.1	5.7	4.8	0.0	0.0	0.0	0.0	0.0	15
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	74.4	0.0	0.2	4.6	5.4	0.0	0.0	0.0	0.0	0.0	13
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	76.4	0.0	0.3	4.5	5.9	0.0	0.0	0.0	0.0	0.0	11
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	76.4	0.0	0.2	4.6	5.9	0.0	0.0	0.0	0.0	0.0	11
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	76.7	0.0	0.2	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	76.6	0.0	0.2	0.0	5.9	0.0	0.0	0.0	0.0	0.0	15

Receiver: ER094

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER094	18343349.0	4912666.9	144.5

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	73.9	0.0	0.2	0.0	5.2	0.0	0.0	0.0	0.0	0.0	19
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	75.1	0.0	0.2	4.6	5.5	0.0	0.0	0.0	0.0	0.0	12
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	76.4	0.0	0.3	4.5	5.9	0.0	0.0	0.0	0.0	0.0	11
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	73.7	0.0	0.4	4.5	5.3	0.0	0.0	0.0	0.0	0.0	11
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	72.6	0.0	0.2	4.7	5.0	0.0	0.0	0.0	0.0	0.0	15
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	74.2	0.0	0.2	4.6	5.3	0.0	0.0	0.0	0.0	0.0	13
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	75.1	0.0	0.2	4.5	5.5	0.0	0.0	0.0	0.0	0.0	12
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	73.2	0.0	0.2	4.8	5.1	0.0	0.0	0.0	0.0	0.0	15
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	71.8	0.0	0.3	4.5	4.9	0.0	0.0	0.0	0.0	0.0	13
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	76.2	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	75.8	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	76.3	0.0	0.3	0.0	5.8	0.0	0.0	0.0	0.0	0.0	15
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	76.8	0.0	0.3	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15

Receiver: ER093

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER093	18342922.9	4912575.7	147.0

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	71.1	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	22
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	73.6	0.0	0.2	4.6	5.2	0.0	0.0	0.0	0.0	0.0	14
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	75.5	0.0	0.3	4.5	5.6	0.0	0.0	0.0	0.0	0.0	12
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	75.3	0.0	0.2	4.5	5.6	0.0	0.0	0.0	0.0	0.0	12
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	76.5	0.0	0.3	4.5	5.9	0.0	0.0	0.0	0.0	0.0	11
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	76.3	0.0	0.3	4.5	5.8	0.0	0.0	0.0	0.0	0.0	11
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	75.1	0.0	0.2	4.6	5.5	0.0	0.0	0.0	0.0	0.0	12
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	74.0	0.0	0.3	4.4	5.3	0.0	0.0	0.0	0.0	0.0	11
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	75.9	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	75.7	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	76.4	0.0	0.3	0.0	5.9	0.0	0.0	0.0	0.0	0.0	15

Receiver: ER092

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER092	18343035.9	4912628.3	145.7

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	72.1	0.0	0.1	0.0	4.8	0.0	0.0	0.0	0.0	0.0	21
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	72.9	0.0	0.3	4.5	5.1	0.0	0.0	0.0	0.0	0.0	12
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	74.1	0.0	0.2	4.6	5.3	0.0	0.0	0.0	0.0	0.0	14
Inv_A4	Inv_A4	18342774.7	4910895.3	144.9	0	98	0.0	A	75.9	0.0	0.3	4.5	5.7	0.0	0.0	0.0	0.0	0.0	11
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	74.6	0.0	0.2	4.6	5.4	0.0	0.0	0.0	0.0	0.0	13
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	75.9	0.0	0.3	4.5	5.8	0.0	0.0	0.0	0.0	0.0	11
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	75.8	0.0	0.2	4.5	5.7	0.0	0.0	0.0	0.0	0.0	12
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	74.5	0.0	0.2	4.6	5.4	0.0	0.0	0.0	0.0	0.0	13
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	73.3	0.0	0.3	4.5	5.2	0.0	0.0	0.0	0.0	0.0	11
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	75.8	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	75.5	0.0	0.2	0.0	5.6	0.0	0.0	0.0	0.0	0.0	16
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	76.2	0.0	0.3	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	76.9	0.0	0.3	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15

Receiver: ER091

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	27

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER091	18343385.0	4912938.7	143.8

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	75.1	0.0	0.2	0.0	5.5	0.0	0.0	0.0	0.0	0.0	17
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	75.6	0.0	0.4	0.0	5.7	0.0	0.0	0.0	0.0	0.0	13
Inv_A3	Inv_A3	18342550.8	4911275.6	146.5	0	98	0.0	A	76.4	0.0	0.3	4.5	5.9	0.0	0.0	0.0	0.0	0.0	11
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	73.0	0.0	0.3	4.6	5.1	0.0	0.0	0.0	0.0	0.0	12
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	72.2	0.0	0.2	4.8	4.9	0.0	0.0	0.0	0.0	0.0	16
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	73.9	0.0	0.2	4.7	5.2	0.0	0.0	0.0	0.0	0.0	14
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	72.8	0.0	0.3	4.4	5.1	0.0	0.0	0.0	0.0	0.0	12
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	73.5	0.0	0.2	4.6	5.1	0.0	0.0	0.0	0.0	0.0	14
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	71.3	0.0	0.1	4.9	4.7	0.0	0.0	0.0	0.0	0.0	17
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	69.6	0.0	0.2	4.5	4.5	0.0	0.0	0.0	0.0	0.0	16
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	1	95	0.0	A	69.7	0.0	0.2	0.0	4.5	0.0	0.0	0.0	0.0	7.1	13
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	75.0	0.0	0.1	0.0	5.5	0.0	0.0	0.0	0.0	0.0	17
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	74.5	0.0	0.1	0.0	5.4	0.0	0.0	0.0	0.0	0.0	18
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	75.0	0.0	0.2	0.0	5.5	0.0	0.0	0.0	0.0	0.0	17
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	77.0	0.0	0.5	0.0	6.1	0.0	0.0	0.0	0.0	0.0	11
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	75.6	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	76.0	0.0	0.4	0.0	5.8	0.0	0.0	0.0	0.0	0.0	12

Receiver: ER079

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	31

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER079	18343042.1	4913395.6	144.6

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	75.8	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_A2	Inv_A2	18342373.0	4911572.2	149.0	0	95	0.0	A	76.8	0.0	0.4	0.0	6.1	0.0	0.0	0.0	0.0	0.0	11
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	74.9	0.0	0.2	4.6	5.5	0.0	0.0	0.0	0.0	0.0	13
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	76.2	0.0	0.3	4.6	5.8	0.0	0.0	0.0	0.0	0.0	11
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	70.4	0.0	0.3	4.5	4.6	0.0	0.0	0.0	0.0	0.0	15
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	71.6	0.0	0.1	4.7	4.7	0.0	0.0	0.0	0.0	0.0	17
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	70.9	0.0	0.1	0.0	4.6	0.0	0.0	0.0	0.0	0.0	22
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	1	98	0.0	A	71.1	0.0	0.1	4.7	4.6	0.0	0.0	0.0	0.0	3.8	14
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	69.5	0.0	0.2	0.0	4.4	0.0	0.0	0.0	0.0	0.0	21
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	1	95	0.0	A	69.7	0.0	0.3	0.0	4.5	0.0	0.0	0.0	0.0	7.1	13
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	71.2	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	22	
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	70.5	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	23
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	71.4	0.0	0.1	0.0	4.7	0.0	0.0	0.0	0.0	0.0	22
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	74.4	0.0	0.4	0.0	5.4	0.0	0.0	0.0	0.0	0.0	15
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	72.6	0.0	0.2	0.0	4.9	0.0	0.0	0.0	0.0	0.0	20
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	73.5	0.0	0.4	0.0	5.2	0.0	0.0	0.0	0.0	0.0	16

Receiver: VR054

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	29

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR054	18343711.9	4913030.3	144.6

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_A1	Inv_A1	18342198.4	4911867.2	154.5	0	98	0.0	A	76.6	0.0	0.2	0.0	5.9	0.0	0.0	0.0	0.0	0.0	15
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	70.3	0.0	0.3	3.9	4.6	0.0	0.0	0.0	0.0	0.0	16
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	1	95	0.0	A	70.5	0.0	0.3	0.0	4.6	0.0	0.0	0.0	0.0	0.0	17
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	69.4	0.0	0.1	4.9	4.3	0.0	0.0	0.0	0.0	0.0	19
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	1	98	0.0	A	69.7	0.0	-0.3	5.1	4.4	0.0	0.0	0.0	0.0	3.6	15
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	71.7	0.0	0.1	5.0	4.8	0.0	0.0	0.0	0.0	0.0	16
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	72.1	0.0	0.3	4.5	4.9	0.0	0.0	0.0	0.0	0.0	13
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	72.6	0.0	0.2	4.6	4.9	0.0	0.0	0.0	0.0	0.0	16
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	69.3	0.0	0.1	5.0	4.3	0.0	0.0	0.0	0.0	0.0	19
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	1	98	0.0	A	69.6	0.0	-0.1	4.9	4.4	0.0	0.0	0.0	0.0	3.6	16
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	67.1	0.0	0.2	4.6	4.1	0.0	0.0	0.0	0.0	0.0	19
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	1	95	0.0	A	67.3	0.0	0.2	4.6	4.1	0.0	0.0	0.0	0.0	8.1	10
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	75.7	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	75.0	0.0	0.1	0.0	5.5	0.0	0.0	0.0	0.0	0.0	17
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	75.3	0.0	0.2	0.0	5.6	0.0	0.0	0.0	0.0	0.0	17
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	75.6	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	75.9	0.0	0.4	0.0	5.8	0.0	0.0	0.0	0.0	0.0	13

Receiver: VR053

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	31

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR053	18344278.4	4913358.3	149.3

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	63.3	0.0	0.1	6.4	3.5	0.0	0.0	0.0	0.0	0.0	21
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	1	95	0.0	A	63.6	0.0	0.1	4.8	3.5	0.0	0.0	0.0	0.0	3.2	19
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	65.5	0.0	0.0	5.6	3.7	0.0	0.0	0.0	0.0	0.0	23
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	1	98	0.0	A	65.8	0.0	0.0	5.8	3.8	0.0	0.0	0.0	0.0	3.9	19
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	67.7	0.0	0.0	5.7	4.1	0.0	0.0	0.0	0.0	0.0	20
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	1	98	0.0	A	68.0	0.0	-0.2	5.0	4.1	0.0	0.0	0.0	0.0	3.5	17
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	71.6	0.0	0.3	4.5	4.8	0.0	0.0	0.0	0.0	0.0	14
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	71.3	0.0	0.1	4.7	4.7	0.0	0.0	0.0	0.0	0.0	17
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	66.3	0.0	0.0	5.7	3.8	0.0	0.0	0.0	0.0	0.0	22
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	1	98	0.0	A	66.6	0.0	0.0	5.1	3.9	0.0	0.0	0.0	0.0	8.4	14
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	65.4	0.0	0.2	4.6	3.8	0.0	0.0	0.0	0.0	0.0	21
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	76.9	0.0	0.3	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	76.1	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	76.0	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	75.9	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	75.7	0.0	0.4	0.0	5.8	0.0	0.0	0.0	0.0	0.0	13

Receiver: VR052

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	29

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR052	18344548.9	4913517.0	154.9

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	62.6	0.0	0.2	6.2	3.4	0.0	0.0	0.0	0.0	0.0	22
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	66.9	0.0	0.0	6.0	3.9	0.0	0.0	0.0	0.0	0.0	21
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	67.5	0.0	0.0	5.3	4.0	0.0	0.0	0.0	0.0	0.0	21
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	1	98	0.0	A	67.7	0.0	0.0	5.2	4.1	0.0	0.0	0.0	0.0	0.0	12
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	72.4	0.0	0.3	4.5	5.0	0.0	0.0	0.0	0.0	0.0	13
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	71.8	0.0	0.1	4.7	4.8	0.0	0.0	0.0	0.0	0.0	16
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	67.8	0.0	0.0	5.5	4.1	0.0	0.0	0.0	0.0	0.0	20
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	68.2	0.0	0.3	4.5	4.2	0.0	0.0	0.0	0.0	0.0	18
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	76.9	0.0	0.3	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	76.7	0.0	0.3	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	76.4	0.0	0.2	0.0	5.9	0.0	0.0	0.0	0.0	0.0	15
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	76.0	0.0	0.4	0.0	5.9	0.0	0.0	0.0	0.0	0.0	12

Receiver: VR050

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	23

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR050	18345072.9	4913824.1	159.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	69.2	0.0	0.3	5.2	4.4	0.0	0.0	0.0	0.0	0.0	16
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	71.7	0.0	0.1	5.3	4.8	0.0	0.0	0.0	0.0	0.0	16
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	70.8	0.0	0.1	5.1	4.6	0.0	0.0	0.0	0.0	0.0	17
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	74.1	0.0	0.2	4.6	5.3	0.0	0.0	0.0	0.0	0.0	14
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	72.2	0.0	0.2	5.0	4.9	0.0	0.0	0.0	0.0	0.0	16
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	72.9	0.0	0.4	4.4	5.1	0.0	0.0	0.0	0.0	0.0	12

Receiver: ER089

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	29

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER089	18343788.1	4913116.4	144.9

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	69.5	0.0	0.3	4.4	4.4	0.0	0.0	0.0	0.0	0.0	16
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	1	95	0.0	A	69.7	0.0	0.3	0.0	4.5	0.0	0.0	0.0	0.0	0.0	18
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	68.8	0.0	0.1	5.1	4.2	0.0	0.0	0.0	0.0	0.0	20
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	1	98	0.0	A	69.1	0.0	-0.3	5.1	4.3	0.0	0.0	0.0	0.0	0.0	16
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	71.2	0.0	0.1	5.1	4.7	0.0	0.0	0.0	0.0	0.0	17
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	71.5	0.0	0.3	4.5	4.8	0.0	0.0	0.0	0.0	0.0	14
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	71.9	0.0	0.2	4.6	4.8	0.0	0.0	0.0	0.0	0.0	16
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	68.2	0.0	0.1	5.4	4.1	0.0	0.0	0.0	0.0	0.0	20
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	1	98	0.0	A	68.5	0.0	-0.3	5.1	4.2	0.0	0.0	0.0	0.0	0.0	17
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	65.6	0.0	0.2	4.6	3.8	0.0	0.0	0.0	0.0	0.0	20
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	1	95	0.0	A	65.9	0.0	0.0	4.7	3.9	0.0	0.0	0.0	0.0	0.0	13
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	75.7	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	74.9	0.0	0.2	0.0	5.5	0.0	0.0	0.0	0.0	0.0	17
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	75.1	0.0	0.2	0.0	5.5	0.0	0.0	0.0	0.0	0.0	17
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	76.9	0.0	0.4	0.0	6.1	0.0	0.0	0.0	0.0	0.0	11
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	75.4	0.0	0.2	0.0	5.6	0.0	0.0	0.0	0.0	0.0	17
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	75.6	0.0	0.4	0.0	5.7	0.0	0.0	0.0	0.0	0.0	13

Receiver: ER086

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	31

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER086	18344102.0	4913366.6	148.1

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	66.2	0.0	0.2	5.7	3.9	0.0	0.0	0.0	0.0	0.0	19
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	1	95	0.0	A	66.4	0.0	0.1	4.7	4.0	0.0	0.0	0.0	0.0	0.0	16
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	67.2	0.0	0.0	5.6	4.0	0.0	0.0	0.0	0.0	0.0	21
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	1	98	0.0	A	67.5	0.0	0.1	4.9	4.0	0.0	0.0	0.0	0.0	0.0	18
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	69.4	0.0	0.0	5.4	4.3	0.0	0.0	0.0	0.0	0.0	19
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	1	98	0.0	A	69.6	0.0	-0.3	5.1	4.4	0.0	0.0	0.0	0.0	0.0	15
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	70.6	0.0	0.3	4.5	4.6	0.0	0.0	0.0	0.0	0.0	15
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	70.5	0.0	0.1	4.7	4.5	0.0	0.0	0.0	0.0	0.0	18
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	64.8	0.0	0.0	6.3	3.6	0.0	0.0	0.0	0.0	0.0	23
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	1	98	0.0	A	65.2	0.0	-0.1	4.9	3.7	0.0	0.0	0.0	0.0	0.0	21
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	62.7	0.0	0.2	4.6	3.4	0.0	0.0	0.0	0.0	0.0	24
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	76.2	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	75.3	0.0	0.2	0.0	5.6	0.0	0.0	0.0	0.0	0.0	17
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	75.3	0.0	0.2	0.0	5.6	0.0	0.0	0.0	0.0	0.0	17
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	76.7	0.0	0.4	0.0	6.0	0.0	0.0	0.0	0.0	0.0	12
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	75.2	0.0	0.2	0.0	5.6	0.0	0.0	0.0	0.0	0.0	17
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	75.1	0.0	0.4	0.0	5.6	0.0	0.0	0.0	0.0	0.0	14

Receiver: ER085

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	32

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER085	18343880.3	4913342.2	145.3

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	68.8	0.0	0.2	5.1	4.3	0.0	0.0	0.0	0.0	0.0	16
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	1	95	0.0	A	69.0	0.0	0.2	4.6	4.4	0.0	0.0	0.0	0.0	0.0	13
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	69.0	0.0	0.0	5.3	4.3	0.0	0.0	0.0	0.0	0.0	19
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	1	98	0.0	A	69.3	0.0	-0.2	5.0	4.3	0.0	0.0	0.0	0.0	0.0	16
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	71.1	0.0	0.1	5.2	4.6	0.0	0.0	0.0	0.0	0.0	17
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	69.8	0.0	0.3	4.5	4.5	0.0	0.0	0.0	0.0	0.0	16
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	70.1	0.0	0.1	4.7	4.5	0.0	0.0	0.0	0.0	0.0	19
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	64.7	0.0	0.0	6.3	3.6	0.0	0.0	0.0	0.0	0.0	23
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	1	98	0.0	A	65.1	0.0	-0.3	5.2	3.7	0.0	0.0	0.0	0.0	0.0	21
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	60.9	0.0	0.2	4.6	3.1	0.0	0.0	0.0	0.0	0.0	26
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	1	95	0.0	A	61.4	0.0	0.1	4.7	3.2	0.0	0.0	0.0	0.0	0.0	19
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	75.3	0.0	0.2	0.0	5.6	0.0	0.0	0.0	0.0	0.0	17
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	74.4	0.0	0.1	0.0	5.4	0.0	0.0	0.0	0.0	0.0	18
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	74.5	0.0	0.1	0.0	5.4	0.0	0.0	0.0	0.0	0.0	18
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	76.2	0.0	0.4	0.0	5.9	0.0	0.0	0.0	0.0	0.0	12
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	74.6	0.0	0.2	0.0	5.4	0.0	0.0	0.0	0.0	0.0	18
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	74.6	0.0	0.4	0.0	5.5	0.0	0.0	0.0	0.0	0.0	14

Receiver: ER084

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	30

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER084	18344363.9	4913513.9	152.3

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	64.2	0.0	0.1	5.8	3.6	0.0	0.0	0.0	0.0	0.0	21
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	1	95	0.0	A	64.5	0.0	0.2	5.1	3.7	0.0	0.0	0.0	0.0	3.6	18
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	67.2	0.0	0.0	5.5	4.0	0.0	0.0	0.0	0.0	0.0	21
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	68.5	0.0	0.0	5.3	4.2	0.0	0.0	0.0	0.0	0.0	20
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	71.2	0.0	0.3	4.5	4.8	0.0	0.0	0.0	0.0	0.0	14
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	70.7	0.0	0.0	4.7	4.6	0.0	0.0	0.0	0.0	0.0	18
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	65.6	0.0	0.0	5.8	3.7	0.0	0.0	0.0	0.0	0.0	23
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	65.7	0.0	0.2	4.5	3.8	0.0	0.0	0.0	0.0	0.0	20
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	76.9	0.0	0.3	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	76.1	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	75.9	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	75.7	0.0	0.1	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	75.4	0.0	0.4	0.0	5.7	0.0	0.0	0.0	0.0	0.0	13

Receiver: ER083

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	28

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER083	18344571.8	4913634.5	155.3

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	64.9	0.0	0.2	5.9	3.7	0.0	0.0	0.0	0.0	0.0	20
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	68.5	0.0	0.1	5.7	4.2	0.0	0.0	0.0	0.0	0.0	19
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	68.8	0.0	0.1	5.2	4.2	0.0	0.0	0.0	0.0	0.0	20
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	72.1	0.0	0.3	4.5	4.9	0.0	0.0	0.0	0.0	0.0	13
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	71.4	0.0	0.1	4.7	4.7	0.0	0.0	0.0	0.0	0.0	17
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	67.5	0.0	0.0	5.7	4.0	0.0	0.0	0.0	0.0	0.0	21
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	68.3	0.0	0.3	4.5	4.2	0.0	0.0	0.0	0.0	0.0	17
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	76.8	0.0	0.3	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	76.5	0.0	0.3	0.0	5.9	0.0	0.0	0.0	0.0	0.0	15
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	76.2	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	75.7	0.0	0.4	0.0	5.8	0.0	0.0	0.0	0.0	0.0	13

Receiver: ER082

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	25

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER082	18344831.6	4913818.4	154.9

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	68.0	0.0	0.2	5.6	4.2	0.0	0.0	0.0	0.0	0.0	17
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	70.8	0.0	0.1	5.4	4.6	0.0	0.0	0.0	0.0	0.0	17
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	70.4	0.0	0.1	5.2	4.5	0.0	0.0	0.0	0.0	0.0	18
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	73.3	0.0	0.3	4.4	5.2	0.0	0.0	0.0	0.0	0.0	11
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	72.5	0.0	0.2	4.6	4.9	0.0	0.0	0.0	0.0	0.0	16
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	70.1	0.0	0.1	7.2	4.5	0.0	0.0	0.0	0.0	0.0	16
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	71.0	0.0	0.3	4.4	4.7	0.0	0.0	0.0	0.0	0.0	14
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	76.8	0.0	0.2	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	76.3	0.0	0.4	0.0	5.9	0.0	0.0	0.0	0.0	0.0	12

Receiver: ER081

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	22

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER081	18345146.0	4913963.9	158.7

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	70.7	0.0	0.3	4.9	4.7	0.0	0.0	0.0	0.0	0.0	14
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	72.8	0.0	0.1	5.1	5.0	0.0	0.0	0.0	0.0	0.0	15
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	72.1	0.0	0.1	5.0	4.8	0.0	0.0	0.0	0.0	0.0	16
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	74.3	0.0	0.2	4.6	5.3	0.0	0.0	0.0	0.0	0.0	13
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	72.8	0.0	0.2	4.9	5.0	0.0	0.0	0.0	0.0	0.0	15
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	73.6	0.0	0.4	4.4	5.2	0.0	0.0	0.0	0.0	0.0	11

Receiver: ER080

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	22

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER080	18345196.2	4913994.9	159.5

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahou	Cmet	Dc	RL	Lr
Inv_C1	Inv_C1	18344629.1	4913143.7	149.8	0	95	0.0	A	71.2	0.0	0.3	4.9	4.8	0.0	0.0	0.0	0.0	0.0	13
Inv_C2	Inv_C2	18344533.7	4912889.9	145.9	0	98	0.0	A	73.2	0.0	0.1	5.0	5.1	0.0	0.0	0.0	0.0	0.0	14
Inv_C3	Inv_C3	18344781.0	4912889.9	148.6	0	98	0.0	A	72.4	0.0	0.1	4.9	4.9	0.0	0.0	0.0	0.0	0.0	15
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	74.5	0.0	0.2	4.5	5.4	0.0	0.0	0.0	0.0	0.0	13
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	73.1	0.0	0.2	4.8	5.1	0.0	0.0	0.0	0.0	0.0	15
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	73.9	0.0	0.4	4.4	5.3	0.0	0.0	0.0	0.0	0.0	11

Receiver: VR092

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	32

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR092	18342341.0	4914894.0	172.7

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	74.1	0.0	0.4	0.0	5.4	0.0	0.0	0.0	0.0	0.0	15
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	74.7	0.0	0.2	0.0	5.4	0.0	0.0	0.0	0.0	0.0	18
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	76.6	0.0	0.2	0.0	5.9	0.0	0.0	0.0	0.0	0.0	15
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	76.8	0.0	0.4	0.0	6.1	0.0	0.0	0.0	0.0	0.0	11
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	67.1	0.0	0.0	4.7	4.0	0.0	0.0	0.0	0.0	0.0	22
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	68.2	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	26
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	67.9	0.0	-0.1	0.0	4.1	0.0	0.0	0.0	0.0	0.0	26
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	65.8	0.0	0.2	4.5	3.9	0.0	0.0	0.0	0.0	0.0	20
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	68.6	0.0	0.1	0.0	4.2	0.0	0.0	0.0	0.0	0.0	25
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	70.1	0.0	0.3	0.0	4.6	0.0	0.0	0.0	0.0	0.0	20

Receiver: VR046

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR046	18341617.0	4914371.7	174.6

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	76.9	0.0	0.5	0.0	6.1	0.0	0.0	0.0	0.0	0.0	11
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	70.4	0.0	0.1	4.7	4.5	0.0	0.0	0.0	0.0	0.0	18
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	72.0	0.0	0.2	0.0	4.8	0.0	0.0	0.0	0.0	0.0	21
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	72.9	0.0	0.1	0.0	5.0	0.0	0.0	0.0	0.0	0.0	20
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	73.7	0.0	0.4	4.4	5.3	0.0	0.0	0.0	0.0	0.0	11
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	74.2	0.0	0.2	0.0	5.3	0.0	0.0	0.0	0.0	0.0	18
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	75.3	0.0	0.4	0.0	5.7	0.0	0.0	0.0	0.0	0.0	13

Receiver: VR045

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	27

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR045	18341713.5	4914431.0	173.9

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahou	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	76.5	0.0	0.4	0.0	6.0	0.0	0.0	0.0	0.0	0.0	12
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	69.5	0.0	0.1	4.7	4.4	0.0	0.0	0.0	0.0	0.0	19
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	71.3	0.0	0.1	0.0	4.7	0.0	0.0	0.0	0.0	0.0	22
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	72.2	0.0	0.1	0.0	4.9	0.0	0.0	0.0	0.0	0.0	21
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	72.9	0.0	0.4	4.4	5.1	0.0	0.0	0.0	0.0	0.0	12
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	73.5	0.0	0.2	0.0	5.1	0.0	0.0	0.0	0.0	0.0	19
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	74.7	0.0	0.4	0.0	5.5	0.0	0.0	0.0	0.0	0.0	14

Receiver: VR043

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	33

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR043	18342988.6	4915208.7	160.3

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	72.6	0.0	0.4	0.0	5.0	0.0	0.0	0.0	0.0	0.0	17
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	72.7	0.0	0.1	0.0	5.0	0.0	0.0	0.0	0.0	0.0	20
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	75.5	0.0	0.2	4.6	5.6	0.0	0.0	0.0	0.0	0.0	12
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	71.2	0.0	0.1	0.0	4.7	0.0	0.0	0.0	0.0	0.0	22
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	70.6	0.0	0.1	0.0	4.6	0.0	0.0	0.0	0.0	0.0	23
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	68.9	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	25
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	62.1	0.0	0.2	4.6	3.3	0.0	0.0	0.0	0.0	0.0	25
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	66.8	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	27
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	65.8	0.0	0.2	0.0	3.9	0.0	0.0	0.0	0.0	0.0	25

Receiver: VR042

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	32

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR042	18342537.1	4915066.3	170.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	73.8	0.0	0.4	0.0	5.3	0.0	0.0	0.0	0.0	0.0	15
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	74.2	0.0	0.2	0.0	5.3	0.0	0.0	0.0	0.0	0.0	18
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	76.4	0.0	0.2	0.0	5.9	0.0	0.0	0.0	0.0	0.0	15
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	68.8	0.0	0.1	4.7	4.2	0.0	0.0	0.0	0.0	0.0	20
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	69.1	0.0	0.1	0.0	4.3	0.0	0.0	0.0	0.0	0.0	24
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	68.1	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	26
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	63.1	0.0	0.2	4.6	3.4	0.0	0.0	0.0	0.0	0.0	23
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	67.8	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	26
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	68.8	0.0	0.2	0.0	4.3	0.0	0.0	0.0	0.0	0.0	21

Receiver: VR041

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	31

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR041	18342930.1	4915304.5	165.9

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	73.4	0.0	0.4	0.0	5.2	0.0	0.0	0.0	0.0	16	
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	73.5	0.0	0.1	0.0	5.1	0.0	0.0	0.0	0.0	19	
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	76.0	0.0	0.2	4.6	5.8	0.0	0.0	0.0	0.0	11	
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	71.7	0.0	0.1	0.0	4.8	0.0	0.0	0.0	0.0	21	
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	71.3	0.0	0.1	0.0	4.7	0.0	0.0	0.0	0.0	22	
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	69.8	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	24	
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	63.9	0.0	0.2	4.6	3.6	0.0	0.0	0.0	0.0	22	
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	68.1	0.0	0.1	0.0	4.1	0.0	0.0	0.0	0.0	26	
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	67.4	0.0	0.3	0.0	4.1	0.0	0.0	0.0	0.0	23	

Receiver: VR040

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	29

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR040	18343190.9	4915462.4	159.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	73.7	0.0	0.4	0.0	5.3	0.0	0.0	0.0	0.0	0.0	15
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	73.5	0.0	0.1	0.0	5.2	0.0	0.0	0.0	0.0	0.0	19
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	76.1	0.0	0.3	4.5	5.8	0.0	0.0	0.0	0.0	0.0	11
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	73.5	0.0	0.2	0.0	5.2	0.0	0.0	0.0	0.0	0.0	19
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	73.0	0.0	0.2	0.0	5.0	0.0	0.0	0.0	0.0	0.0	20
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	71.7	0.0	0.1	0.0	4.8	0.0	0.0	0.0	0.0	0.0	21
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	67.5	0.0	0.2	4.6	4.1	0.0	0.0	0.0	0.0	0.0	18
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	69.9	0.0	0.1	0.0	4.4	0.0	0.0	0.0	0.0	0.0	23
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	68.5	0.0	0.3	0.0	4.3	0.0	0.0	0.0	0.0	0.0	22

Receiver: VR039

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR039	18343667.6	4915654.8	150.6

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	74.5	0.0	0.4	0.0	5.5	0.0	0.0	0.0	0.0	0.0	14
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	74.1	0.0	0.2	0.0	5.3	0.0	0.0	0.0	0.0	0.0	18
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	76.3	0.0	0.3	4.5	5.9	0.0	0.0	0.0	0.0	0.0	11
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	76.0	0.0	0.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	75.4	0.0	0.2	0.0	5.6	0.0	0.0	0.0	0.0	0.0	17
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	74.3	0.0	0.1	0.0	5.3	0.0	0.0	0.0	0.0	0.0	18
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	71.9	0.0	0.3	4.5	4.9	0.0	0.0	0.0	0.0	0.0	13
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	72.8	0.0	0.1	0.0	5.0	0.0	0.0	0.0	0.0	0.0	20
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	71.4	0.0	0.3	0.0	4.8	0.0	0.0	0.0	0.0	0.0	18

Receiver: OL064

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	34

Receiver Name	Receiver ID	X	Y	Z
Receptor	OL064	18342652.2	4914923.2	160.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	72.5	0.0	2.5	0.0	5.0	0.0	0.0	0.0	0.0	0.0	15
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	73.0	0.0	2.4	0.0	5.0	0.0	0.0	0.0	0.0	0.0	17
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	75.5	0.0	2.4	0.0	5.6	0.0	0.0	0.0	0.0	0.0	14
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	67.2	0.0	1.9	3.3	4.0	0.0	0.0	0.0	0.0	0.0	21
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	67.1	0.0	1.9	0.0	4.0	0.0	0.0	0.0	0.0	0.0	25
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	65.6	0.0	1.7	0.0	3.7	0.0	0.0	0.0	0.0	0.0	27
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	58.7	0.0	1.2	4.1	2.7	0.0	0.0	0.0	0.0	0.0	28
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	65.1	0.0	1.6	0.0	3.6	0.0	0.0	0.0	0.0	0.0	27
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	66.7	0.0	2.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	22

Receiver: ER068

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	28

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER068	18341890.4	4914638.4	175.2

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	75.8	0.0	0.4	0.0	5.8	0.0	0.0	0.0	0.0	0.0	13
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	76.4	0.0	0.3	0.0	5.9	0.0	0.0	0.0	0.0	0.0	15
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	68.4	0.0	0.0	4.7	4.2	0.0	0.0	0.0	0.0	0.0	21
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	70.2	0.0	0.1	0.0	4.5	0.0	0.0	0.0	0.0	0.0	23
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	71.0	0.0	0.1	0.0	4.6	0.0	0.0	0.0	0.0	0.0	22
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	71.2	0.0	0.3	4.4	4.8	0.0	0.0	0.0	0.0	0.0	14
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	72.2	0.0	0.2	0.0	4.9	0.0	0.0	0.0	0.0	0.0	21
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	73.5	0.0	0.4	0.0	5.2	0.0	0.0	0.0	0.0	0.0	16

Receiver: ER067

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	29

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER067	18341953.1	4914682.1	175.3

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	75.6	0.0	0.4	0.0	5.7	0.0	0.0	0.0	0.0	0.0	13
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	76.2	0.0	0.3	0.0	5.8	0.0	0.0	0.0	0.0	0.0	16
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	68.0	0.0	0.0	4.7	4.1	0.0	0.0	0.0	0.0	0.0	21
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	69.8	0.0	0.1	0.0	4.4	0.0	0.0	0.0	0.0	0.0	24
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	70.5	0.0	0.1	0.0	4.5	0.0	0.0	0.0	0.0	0.0	23
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	70.6	0.0	0.3	4.4	4.6	0.0	0.0	0.0	0.0	0.0	15
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	71.7	0.0	0.1	0.0	4.8	0.0	0.0	0.0	0.0	0.0	21
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	73.1	0.0	0.3	0.0	5.1	0.0	0.0	0.0	0.0	0.0	16

Receiver: ER066

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER066	18341697.4	4914639.7	184.9

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahou	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	76.7	0.0	0.5	0.0	6.0	0.0	0.0	0.0	0.0	11	
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	70.3	0.0	0.1	4.7	4.5	0.0	0.0	0.0	0.0	18	
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	71.8	0.0	0.1	0.0	4.8	0.0	0.0	0.0	0.0	21	
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	72.5	0.0	0.1	0.0	4.9	0.0	0.0	0.0	0.0	20	
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	72.7	0.0	0.4	4.4	5.0	0.0	0.0	0.0	0.0	12	
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	73.5	0.0	0.2	0.0	5.2	0.0	0.0	0.0	0.0	19	
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	74.7	0.0	0.4	0.0	5.5	0.0	0.0	0.0	0.0	14	

Receiver: ER065

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	30

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER065	18342109.8	4914777.0	174.9

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	75.0	0.0	0.4	0.0	5.6	0.0	0.0	0.0	0.0	0.0	14
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	75.6	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	67.3	0.0	0.0	4.8	4.0	0.0	0.0	0.0	0.0	0.0	22
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	69.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	25
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	69.4	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	24
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	68.9	0.0	0.3	4.5	4.3	0.0	0.0	0.0	0.0	0.0	17
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	70.5	0.0	0.1	0.0	4.5	0.0	0.0	0.0	0.0	0.0	23
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	72.0	0.0	0.3	0.0	4.9	0.0	0.0	0.0	0.0	0.0	18

Receiver: ER064

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	35

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER064	18342628.2	4914939.7	164.8

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	72.8	0.0	0.4	0.0	5.1	0.0	0.0	0.0	0.0	0.0	17
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	73.2	0.0	0.1	0.0	5.1	0.0	0.0	0.0	0.0	0.0	19
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	75.7	0.0	0.2	0.0	5.7	0.0	0.0	0.0	0.0	0.0	16
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	67.4	0.0	0.1	4.7	4.0	0.0	0.0	0.0	0.0	0.0	22
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	67.4	0.0	0.1	0.0	4.0	0.0	0.0	0.0	0.0	0.0	26
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	66.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	28
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	59.6	0.0	0.2	4.5	2.9	0.0	0.0	0.0	0.0	0.0	27
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	65.6	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	29
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	67.1	0.0	0.2	0.0	4.1	0.0	0.0	0.0	0.0	0.0	23

Receiver: ER063

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	32

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER063	18342373.7	4914868.7	170.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	73.9	0.0	0.4	0.0	5.3	0.0	0.0	0.0	0.0	0.0	15
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	74.4	0.0	0.2	0.0	5.4	0.0	0.0	0.0	0.0	0.0	18
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	76.4	0.0	0.2	0.0	5.9	0.0	0.0	0.0	0.0	0.0	15
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	76.6	0.0	0.4	0.0	6.0	0.0	0.0	0.0	0.0	0.0	12
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	66.6	0.0	0.0	4.7	3.9	0.0	0.0	0.0	0.0	0.0	23
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	67.7	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	26
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	67.3	0.0	-0.1	0.0	4.0	0.0	0.0	0.0	0.0	0.0	27
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	65.2	0.0	0.2	4.6	3.8	0.0	0.0	0.0	0.0	0.0	21
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	68.1	0.0	0.1	0.0	4.1	0.0	0.0	0.0	0.0	0.0	26
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	69.8	0.0	0.3	0.0	4.5	0.0	0.0	0.0	0.0	0.0	20

Receiver: ER062

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	32

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER062	18342390.0	4914941.8	171.4

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	74.0	0.0	0.4	0.0	5.3	0.0	0.0	0.0	0.0	0.0	15
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	74.5	0.0	0.2	0.0	5.4	0.0	0.0	0.0	0.0	0.0	18
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	76.6	0.0	0.2	0.0	5.9	0.0	0.0	0.0	0.0	0.0	15
Inv_E4	Inv_E4	18343841.3	4913651.6	142.4	0	95	0.0	A	76.8	0.0	0.4	0.0	6.1	0.0	0.0	0.0	0.0	0.0	11
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	67.6	0.0	0.1	4.7	4.0	0.0	0.0	0.0	0.0	0.0	22
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	68.4	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	25
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	67.9	0.0	-0.1	0.0	4.1	0.0	0.0	0.0	0.0	0.0	26
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	65.0	0.0	0.2	4.6	3.7	0.0	0.0	0.0	0.0	0.0	21
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	68.3	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	25
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	69.8	0.0	0.3	0.0	4.5	0.0	0.0	0.0	0.0	0.0	20

Receiver: ER061

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	32

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER061	18342396.3	4914985.2	171.7

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	74.1	0.0	0.4	0.0	5.4	0.0	0.0	0.0	0.0	0.0	15
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	74.6	0.0	0.2	0.0	5.4	0.0	0.0	0.0	0.0	0.0	18
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	76.7	0.0	0.2	0.0	6.0	0.0	0.0	0.0	0.0	0.0	15
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	68.1	0.0	0.1	4.7	4.1	0.0	0.0	0.0	0.0	0.0	21
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	68.8	0.0	0.1	0.0	4.2	0.0	0.0	0.0	0.0	0.0	25
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	68.2	0.0	-0.1	0.0	4.1	0.0	0.0	0.0	0.0	0.0	26
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	65.1	0.0	0.2	4.6	3.7	0.0	0.0	0.0	0.0	0.0	21
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	68.5	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	25
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	69.8	0.0	0.3	0.0	4.5	0.0	0.0	0.0	0.0	0.0	20

Receiver: ER060

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	32

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER060	18342592.4	4915128.4	169.8

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	73.8	0.0	0.4	0.0	5.3	0.0	0.0	0.0	0.0	0.0	15
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	74.1	0.0	0.1	0.0	5.3	0.0	0.0	0.0	0.0	0.0	18
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	76.4	0.0	0.2	0.0	5.9	0.0	0.0	0.0	0.0	0.0	15
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	69.5	0.0	0.1	4.7	4.4	0.0	0.0	0.0	0.0	0.0	19
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	69.6	0.0	0.1	0.0	4.4	0.0	0.0	0.0	0.0	0.0	24
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	68.5	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	25
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	63.0	0.0	0.2	4.6	3.4	0.0	0.0	0.0	0.0	0.0	24
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	67.8	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	26
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	68.6	0.0	0.3	0.0	4.3	0.0	0.0	0.0	0.0	0.0	22

Receiver: ER059

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	32

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER059	18342742.2	4915184.3	168.7

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	73.4	0.0	0.4	0.0	5.2	0.0	0.0	0.0	0.0	0.0	16
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	73.7	0.0	0.1	0.0	5.2	0.0	0.0	0.0	0.0	0.0	19
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	76.1	0.0	0.2	4.6	5.8	0.0	0.0	0.0	0.0	0.0	11
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	70.3	0.0	0.1	4.7	4.5	0.0	0.0	0.0	0.0	0.0	18
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	70.1	0.0	0.1	0.0	4.5	0.0	0.0	0.0	0.0	0.0	23
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	68.6	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	25
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	61.9	0.0	0.2	4.6	3.2	0.0	0.0	0.0	0.0	0.0	25
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	67.4	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	26
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	67.6	0.0	0.2	0.0	4.1	0.0	0.0	0.0	0.0	0.0	23

Receiver: ER058

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	32

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER058	18342753.9	4915200.1	168.8

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E1	Inv_E1	18343569.9	4914159.0	142.1	0	95	0.0	A	73.4	0.0	0.4	0.0	5.2	0.0	0.0	0.0	0.0	0.0	16
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	73.7	0.0	0.1	0.0	5.2	0.0	0.0	0.0	0.0	0.0	19
Inv_E3	Inv_E3	18343928.0	4913824.2	143.5	0	98	0.0	A	76.1	0.0	0.2	4.6	5.8	0.0	0.0	0.0	0.0	0.0	11
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	70.4	0.0	0.1	3.2	4.5	0.0	0.0	0.0	0.0	0.0	20
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	70.2	0.0	0.1	0.0	4.5	0.0	0.0	0.0	0.0	0.0	23
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	68.8	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	25
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	62.2	0.0	0.2	4.6	3.3	0.0	0.0	0.0	0.0	0.0	24
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	67.5	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	26
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	67.7	0.0	0.2	0.0	4.1	0.0	0.0	0.0	0.0	0.0	23

Receiver: ER057

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	23

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER057	18342115.8	4915344.1	173.5

Source ID	Source Name	X	Y	Z	RefL	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Inv_E2	Inv_E2	18343710.4	4914229.0	142.8	0	98	0.0	A	76.8	0.0	0.2	4.5	6.0	0.0	0.0	0.0	0.0	10	
Inv_F1	Inv_F1	18342544.0	4914287.6	147.5	0	98	0.0	A	72.1	0.0	0.1	5.1	4.8	0.0	0.0	0.0	0.0	16	
Inv_F2	Inv_F2	18342734.0	4914287.6	142.9	0	98	0.0	A	72.8	0.0	0.1	4.6	5.0	0.0	0.0	0.0	0.0	15	
Inv_F3	Inv_F3	18342863.5	4914432.4	143.0	0	98	0.0	A	72.4	0.0	0.0	4.7	4.9	0.0	0.0	0.0	0.0	16	
Inv_F4	Inv_F4	18342886.7	4914864.2	150.7	0	95	0.0	A	70.2	0.0	0.3	4.9	4.6	0.0	0.0	0.0	0.0	15	
Inv_F5	Inv_F5	18343036.7	4914593.6	143.7	0	98	0.0	A	72.5	0.0	0.1	4.7	4.9	0.0	0.0	0.0	0.0	16	
Inv_F6	Inv_F6	18343226.0	4914711.0	142.7	0	95	0.0	A	73.1	0.0	0.4	4.4	5.1	0.0	0.0	0.0	0.0	12	

Receiver: VR089

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	21

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR089	18340150.5	4923616.2	153.4

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	70.4	0.0	-1.0	0.0	2.4	0.0	0.0	0.0	0.0	21	

Receiver: VR012

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	17

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR012	18341060.5	4923480.0	163.0

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	69.1	0.0	-1.0	5.7	2.1	0.0	0.0	0.0	0.0	0.0	17

Receiver: VR011

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	20

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR011	18340107.2	4923556.7	153.2

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	71.0	0.0	-1.0	0.0	2.5	0.0	0.0	0.0	0.0	20	

Receiver: VR009

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	22

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR009	18341678.8	4924395.8	154.9

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	69.7	0.0	-1.0	0.0	2.2	0.0	0.0	0.0	0.0	22	

Receiver: VR005

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	29

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	VR005	18340689.2	4924635.1	154.2

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	63.2	0.0	-0.8	0.0	1.2	0.0	0.0	0.0	0.0	29	

Receiver: OL013

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	37

Receiver Name	Receiver ID	X	Y	Z
Receptor - Vacant Lot	OL013	18340708.1	4924182.8	151.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	54.0	0.0	1.2	0.0	0.5	0.0	0.0	0.0	0.0	37	

Receiver: ER023

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	23

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER023	18340866.5	4923449.3	167.8

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	69.1	0.0	-1.0	0.0	2.1	0.0	0.0	0.0	0.0	23	

Receiver: ER019

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER019	18340557.7	4923731.6	159.6

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	66.4	0.0	-0.9	0.0	1.6	0.0	0.0	0.0	0.0	26	

Receiver: ER018

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	24

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER018	18340375.8	4923736.9	154.8

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	67.8	0.0	-1.0	0.0	1.9	0.0	0.0	0.0	0.0	24	

Receiver: ER017

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	31

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER017	18340682.1	4923929.3	153.3

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	62.0	0.0	-0.7	0.0	1.1	0.0	0.0	0.0	0.0	31	

Receiver: ER016

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	28

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER016	18340534.2	4923908.3	152.8

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	64.2	0.0	-0.9	0.0	1.3	0.0	0.0	0.0	0.0	28	

Receiver: ER014

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	36

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER014	18340750.8	4924081.9	150.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	56.5	0.0	-0.5	0.0	0.6	0.0	0.0	0.0	0.0	36	

Receiver: ER013

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	37

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER013	18340683.1	4924163.8	154.4

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	55.7	0.0	-0.5	0.0	0.6	0.0	0.0	0.0	0.0	37	

Receiver: ER012

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	30

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER012	18341165.6	4924405.6	154.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	62.3	0.0	-0.7	0.0	1.1	0.0	0.0	0.0	0.0	30	

Receiver: ER011

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	27

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER011	18341273.5	4924516.1	150.9

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	65.2	0.0	-0.9	0.0	1.5	0.0	0.0	0.0	0.0	27	

Receiver: ER009

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	28

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER009	18341163.9	4924576.6	154.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	64.3	0.0	-0.9	0.0	1.3	0.0	0.0	0.0	0.0	28	

Receiver: ER008

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	28

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER008	18340580.1	4924535.0	150.8

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	62.5	0.0	1.1	0.0	1.1	0.0	0.0	0.0	0.0	0.0	28

Receiver: ER007

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	26

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER007	18340283.7	4924493.8	154.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	66.5	0.0	-0.9	0.0	1.7	0.0	0.0	0.0	0.0	26	

Receiver: ER006

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	28

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER006	18340447.3	4924558.5	154.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	64.8	0.0	-0.9	0.0	1.4	0.0	0.0	0.0	0.0	28	

Receiver: ER004

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	23

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER004	18340281.6	4924850.4	155.6

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	69.2	0.0	-1.0	0.0	2.1	0.0	0.0	0.0	0.0	23	

Receiver: ER015

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	33

Receiver Name	Receiver ID	X	Y	Z
Receptor	ER015	18340741.8	4923981.4	150.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	60.1	0.0	-0.6	0.0	0.9	0.0	0.0	0.0	0.0	33	

Receiver: OL008

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	29

Receiver Name	Receiver ID	X	Y	Z
Receptor	OL008	18340596.0	4924509.8	150.3

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	61.8	0.0	1.1	0.0	1.1	0.0	0.0	0.0	0.0	0.0	29

Receiver: OL015

Project: Loyalist Solar Farm

Project Number: 16100

Time Period	Total (dBA)
Night	32

Receiver Name	Receiver ID	X	Y	Z
Receptor	OL015	18340750.9	4924014.0	147.5

Source ID	Source Name	X	Y	Z	Refl.	Lw	L/A	Freq	Adiv	K0	Agr	Abar	Aatm	Afol	Ahous	Cmet	Dc	RL	Lr
Transformer_625MVA	Transformer_625MVA	18340830.0	4924253.6	153.8	0	93	0.0	A	59.0	0.0	1.1	0.0	0.8	0.0	0.0	0.0	0.0	32	

Appendix F

Supporting Documentation

Appendix F.01

Main Project Transformer Sound Calculations



80 South Lake Avenue, Suite 780, Pasadena, CA 91101. TEL (626) 535-0132, FAX (626) 535-0134

RE: Confirmation of the Main Transformer Sound Level Design for the Loyalist Solar Project

Dear Sir or Madam:

The purpose of this letter is to confirm that Shihlin Electric will design and supply a 34.5 / 230 kV 37.5/50/62.5 MVA Transformer in accordance to C88 manufacturing principles and testing as per IEEE to satisfy the following sound levels:

- * Sound level at ONAN/ONAF/ONAF Ratings: 65.6/66/66 dBA
- * Maximum Sound Power Level: 88 dBA (ONAF)

Furthermore, please refer to the enclosed equipment summary and specification which Shihlin is contractually obligated to abide by per its supply agreement with Loyalist Solar LP. The sound level specification is contained within Section 17.0.

A handwritten signature in black ink, appearing to read "Dudley Hsu".

Dudley Hsu

Head Supervisor

Shihlin Electric

DOCUMENT INFORMATION			
CLIENT	BluEarth Renewables Inc.	DOCUMENT TYPE	Exhibit A
PROJECT	Loyalist Solar Project	DOCUMENT TITLE	T1 Main Power Transformer 37.5/50/62 MVA, 240-34.5 kV
LOCATION	Stone Mills, ON	DOCUMENT NO.	16099-01-EX-9000
PROJECT NO.	16099-01	REVISION	B

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1.0 GENERAL DESCRIPTION

Item	9000
Quantity	1
Type	Core Type
Rating (MVA)	37.5/50/62
Cooling	ONAN/ONAF/ONAF
Oil Preservation System	Conservator
Oil Type	Mineral
Temperature Rise	65°C
Phase	3
Frequency Primary Voltage (Hz)	60
Primary Voltage (kV)	240 WYE
On-Load Tap Changer	±16 x 0.625% (±10%)
Primary BIL (kV)	900
Primary Termination	Oil Filled Bushings
Secondary Winding (kV)	34.5 Delta
Secondary BIL (kV)	200
Secondary Termination	Cable Pads in Air Terminal Chamber
Angular Displacement	Ynd1
Impedance	6.0% at 37.5 MVA / 8.1% / 10.05%
Guaranteed No-Load Losses, 100% Voltage	44.5 kW
Guaranteed Load Losses (62 MVA / 75°C)	+16 Tap: 225 kW +8 Tap: 227 kW Nominal: 229 kW -8 Tap: 242 kW -16 Tap: 249 kW
Maximum Guaranteed Losses (37.5 MVA / 75 °C)	128.5 kW

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Sound Level at ONAN/ONAF Ratings	65.6/66/66 dBA
Maximum Sound Power Level	88 dBA (ONAF)

2.0 STANDARDS

- CAN/CSA-C88-M90 – Power Transformers and Reactors
- IEEE C57.12.00 – Standard General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers
- IEEE C57.12.10 – Standard for Transformers—230 kV and Below 833/958 through 8333/10 417 kVA, Single-Phase, and 750/862 Through 60000/80000/100000 kVA, Three-Phase Without Load Tap Changing; and 3750/4687 Through 60000/80000/100000 kVA with Load Tap Changing
- IEEE C57.12.70 – Terminal Markings and Connections for Distribution and Power Transformers
- IEEE C57.12.80 – Standard Terminology for Power and Distribution Transformers
- IEEE C57.12.90 – Standard Test Code for Liquid-Immersed Distribution Power, and Regulating Transformers and Guide for Short-Circuit Testing of Distribution and Power Transformers
- IEEE C57.12.91 – Guide for Short Circuit Testing of Distribution and Power Transformers
- IEEE C57.13 – Requirements for Instrument Transformers
- IEEE C57.19.00 – General Requirements and Test Procedure for Power Apparatus Bushings
- IEEE C57.19.01 – IEEE Standard Performance Characteristics and Dimensions for Outdoor Apparatus Bushings
- IEEE C57.120 – Loss Evaluation Guide for Power Transformers and Reactors
- IEEE C62.11-2012 – IEEE Standard for Metal-Oxide Surge Arresters for AC Power Circuits (>1 kV)
- ASTM D877 – Test Method for Dielectric Breakdown Voltage of Insulating Liquids Using Disk Electrodes
- NEMA TR1 – Transformers, Regulators, and Reactors.
- CSA C802.2 (SOR/94651) – Canadian Energy Efficiency Regulations
- CSA – Canadian Standards Association
- EFC – Electro-Federation Canada (Formerly EEMAC)
- IEEE – Institute of Electrical and Electronics Engineers
- NEMA – National Electrical Manufacturers Association
- UL – Underwriters Laboratory

3.0 ENVIRONMENTAL CONDITIONS

Altitude: < 1000 m
 Ambient Temperature Range: -40°C to +40°C

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4.0 CORE AND COIL CONSTRUCTION

Circular stacked core design with mitered and step lapped joints to keep core losses, excitation current and noise level at limits specified in the standards.

The core shall be clamped and braced to resist distortion caused by short-circuit stresses within rating or transportation handling and to prevent the shifting of core laminations.

The core shall be constructed of high-grade, grain oriented, silicon steel laminations, with high magnetic permeability. The transformer core shall be insulated from the tank and grounded at one easily accessible (through handhole or manhole) location.

All windings and internal connections shall be copper and be in accordance with all IEEE standards.

5.0 BUSHINGS

High and medium voltage connection to be overhead termination via oil filled bushings with oil level visible from the ground.

Bushings shall be rated for maximum transformer capacity. High voltage bushings shall have a voltage rating sufficient for the maximum system operating voltage.

The bushings shall be top cover mounted and furnished with suitable clamp type terminal connectors, with NEMA 4-hole connector pads.

All high voltage bushings shall be removable without access to the interior of the transformer.

All bushings shall be sealed to eliminate breathing.

High voltage bushings are to be manufactured as per IEEE Std. C57.19.00 and IEEE Std. C57.19.01.

6.0 LIGHTNING ARRESTORS

Lightning arrestors are to be mounted to the transformer on both the high voltage and low voltage side of the transformer.

The transformer manufacturer shall be responsible for ensuring the transformer insulation system is coordinated with the surge arrester rating, and make recommendation(s) to modify the surge arrester specifications if necessary.

7.0 ON-LOAD TAP CHANGER

An automatically operated load tap changer shall be provided for changing the primary winding taps, for purposes of maintaining a constant secondary voltage at differing transmission system voltage and loading levels. A vacuum style LTC will be provided.

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Full capacity taps shall be located in the high voltage windings and thirty-two (32) only shall be provided, sixteen above (equal to 10%) and sixteen below (equal to 10%) rated voltage.

The tap changer shall be capable of carrying the full transformer short-circuit current without damage or contact separation.

The tap-changer mechanism, including the diverter switch will be located in-tank.

The tap changer shall include the following accessories:

- Tap position transmitter (0/1 mA, 4/20 mA, 0/5 V, 0/10 V, 0/20 mA).
- Operations counter.

The tap changer shall have the following control provisions built into the control circuitry:

- LOCAL/REMOTE selector switch (locally mounted in LTC control cabinet).
- AUTO/MANUAL/OFF selector switch (locally mounted in LTC control cabinet), to be used when the LTC is in 'local' mode.
- AUTO/MANUAL/OFF selector switch (to be mounted by others in a remote cabinet), to be used when the LTC is in 'remote' mode.
- Remote tap position Raise/Lower contact input provisions.
- Blocking of tap changer on a loss of AC sensing voltage, regardless of the operating mode.
- Blocking of tap changer on operation of a remote lockout relay, regardless of the operating mode.
- Blocking of tap changer during periods exceeding its current rating/under fault conditions.
- Loss of potential auxiliary relay for SCADA annunciations.

8.0 ACCESSORIES

The transformer shall be supplied and equipped complete with the following set of the accessories:

- i) Magnetic liquid level gauge with alarm contacts.
- ii) Dial type thermometer with alarm contacts and drag hand for maximum indication.
- iii) Pressure-vacuum gauge with alarm contacts.
- iv) A 1-inch upper filter press connection with pipe cap.
- v) A 1-inch drain valve and bottom filter press connection with drain valve plug.
- vi) A rapid pressure rise relay with seal-in relay contacts and controls mounted in a control wiring cabinet. The operating voltage shall be 125V DC
- vii) A space heater with thermostat shall be provided in the control cabinet.
- viii) Pressure/vacuum bleeder device
- ix) A two (2) element Buchholz type relay located in the pipe between conservator tank and the main tank so that it collects all gas evolved. One set of form-C contacts to be provided and wired to the control cabinet.

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- x) Winding temperature indicator and relay to indicate hot-spot temperatures of the windings. Associated devices such as heating coils, thermometer bulb, heating well, gauge and current transformers shall be provided.
- xi) 100Ω, 3-wire temperature coefficient compensated platinum resistance type temperature detectors (RTD) shall be installed within the transformer as follows:
 - Transformer Winding: two (2) sets RTD per phase to simulate the hot spot of each winding, wired to the control cabinet.
 - Transformer Oil: one (1) RTD for the top oil temperature, wired to the control cabinet.

Current transformer terminal blocks shall be the shorting type, GE style IKU-6SC.

9.0 CURRENT TRANSFORMERS

The transformer shall be supplied complete with the current transformers as detailed below:

- i) One (1) set of three (3) 1200:5 A multi-ratio current transformers installed on the high voltage windings, minimum of C800 relaying accuracy class, continuous thermal rating of 1.50.
- ii) One (1) set of three (3) 1200:5 A multi-ratio current transformers installed on the high voltage windings, minimum of C800 relaying accuracy class, 0.3 B 1.8 metering accuracy class, continuous thermal rating of 1.50.
- iii) One (1) set of three (3) 400:5 A multi-ratio current transformers installed on the high voltage windings, 0.15 B 0.9 metering accuracy class, continuous thermal rating of 1.50.
- iv) One (1) set of three (3) 1200:5 A multi-ratio current transformers installed on the medium voltage windings, minimum of C800 relaying accuracy class, 0.3 B 1.8 metering accuracy class, continuous thermal rating of 1.50.
- v) Two (2) sets of three (3) 2000:5 A multi-ratio current transformers installed on the medium voltage (34500 V) windings, minimum of C800 relaying accuracy class, continuous thermal rating of 1.50.
- vi) One (1) 1200:5 A multi-ratio current transformer installed on the neutral winding, minimum of C800 relaying accuracy class, 0.3 B 1.8 metering accuracy class, continuous thermal rating of 1.50.
- vii) One (1) 1200:5 A multi-ratio current transformer installed on the neutral winding, minimum of C800 relaying accuracy class, continuous thermal rating of 1.50.

All current transformers shall be connected in Wye, with the neutral points facing the transformer. All current transformer wiring is to be brought to shorting terminal blocks in a six-wire configuration, with the wye points made up on the terminal blocks.

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10.0 CONTROL CABINET

The control cabinet shall be weather proof. All of the electrical devices shall terminate on stud type terminal block. Provide 15 % extra terminal block capacity. Provide a suitable sized thermostatically controlled heater. Heaters shall be separately fused from other devices. A minimum of 76 to 100 mm clearance between components (i.e., terminal blocks, etc.) and cabinet walls is required. Provide a removable gasketed plate in the bottom of the cabinet suitable for Field drilling and conduit runs for Owner wiring. A door-actuated light shall be included. The interior of control cabinet of the tap changer shall be finished with anti-condensation type white paint.

A NEMA Type 4 control cabinet shall be provided. The cabinet door shall have provisions for padlocking. Cabinet shall contain an auxiliary 120 VAC duplex outlet, overhead lighting, and heaters as required.

11.0 MECHANICAL FEATURES

- Transformer main cover to be welded to the tank
- Provide individual radiator isolation valves at the top and bottom tank ports
- LV Throat complete with gasketed bottom access handhole, provide gasket for mating flange to bus duct
- A manhole for access is required on the cover, it shall be mounted on a raised flange
- The main transformer cover shall be suitably sloped to shed water
- To facilitate safety of workmen during maintenance etc., the Owner proposes to install a 'Transformer Fall Arrest System' manufactured by Uni-Hoist. For this, the Supplier shall supply and install (weld) two mounting plates (type NUH 4000-2) at the periphery of the top cover so that a Transformer Tower System (type NUH 4000-P1A) can be conveniently attached to each of the mounting plates.
- A metal ladder with barrier that comes with padlocking facilities shall be provided. The top of the ladder shall possess a safety barrier (backstop) to facilitate entry to top of the tank.
- All valves shall be non-corrosive, oil tight and equipped with threaded plugs or blanking plates. The following valves shall be included for the main tank as a minimum:
 - Two inch vacuum pulling valve on tank cover
 - Two inch valve at the conservator top
 - Oil drain valve
 - Oil sampling valve
 - 1.5" NPT valve for Hydrogen Monitoring Equipment (Hydran)
- The following valves shall be included for the OLTC compartment. The valves shall be so located that oil filtering is practicable with the transformer energized or de-energized.
 - Oil filter connection, top
 - Oil filter connection, bottom

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- All nuts and bolts $\frac{1}{2}$ " in diameter and smaller when used on exterior parts of the transformer exposed to the atmosphere shall be stainless or galvanized. Nuts and bolts over $\frac{1}{2}$ " shall be hot dipped galvanized. Plated fasteners are not acceptable, however fasteners like "Everdur", etc. may be accepted.

11.1. Insulation Fluid and Preservation System

The fluid preservation system shall be a conservator tank design. The conservator tank shall be of adequate capacity for the required ambient temperature range -40°C to +40°C and mounted with a slope between the ends to facilitate draining. The conservator tank shall be equipped with a diaphragm or bag that will allow for oil expansion through a moisture filter. The ambient air breathing in and out of the diaphragm shall be filtered for moisture using silica filters.

The insulating fluid shall be of the mineral oil.

The transformer insulating fluid shall be certified to contain no detectable PCB's at the time of shipment and the tank shall be so labeled. Certification shall also be provided that the transformer and components have not been contaminated with PCB's prior to shipment.

The transformer insulating fluid shall meet or exceed the requirements of the appropriate ANSI and ASTM fluid Standards. The transformer fluid shall be tested for dielectric breakdown and moisture content just prior at the time of shipment.

The transformer insulating fluid is to contain a sludge prevention inhibitor.

11.2. Cooling System

The transformer shall be self-cooled.

Cooling tubes or radiators shall be rigidly supported to the tank wall, either through pipes or brackets.

Radiators are to be detachable and equipped with isolating valves and drain/vent plugs.

Cooling fans shall be 120/208 VAC rated. Fan motors shall be totally enclosed, squirrel cage, weatherproof and placed in the path of the cold air flow.

11.3. Grounding Provisions

All non-energized metallic components of the transformer shall be grounded.

Tank grounding provisions shall consist of two ground pads, welded to the base or to the tank wall near the base at opposite sides.

Copper-faced or stainless steel ground pads with NEMA spacing suitable for a minimum 4/0 AWG copper conductor shall be provided.

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11.4. Wiring

All devices mounted on the transformer, including current transformer secondary circuits, shall be wired to the control cabinet.

All control wiring shall be stranded copper without splices and a minimum of #14 AWG SIS and #10 AWG for current transformers. Wiring between gauges and other devices and the control box shall be enclosed in rigid galvanized steel conduit or flexible liquid seal type conduit.

Wiring shall be neatly arranged in tied wire bundles or run in wire duct. Wire terminals shall be full eye ring-type copper with insulated sleeves overlapping wire insulation. Pre-insulated ring type terminal connectors shall be used on all terminal blocks and throughout the current circuits. Spade-type connectors are not acceptable. Adhesive type wire bundle hold-down clamps shall not be used. All hold-downs shall be bolted or welded. Wiring and cables entering/exiting enclosures or raceway shall be protected from damage.

Splices shall not be used.

Wire labels shall be provided and installed at both ends of all internal wires. Wire labels shall be machine embossed black lettering on white plastic heat shrink sleeves.

All symbols and wiring identification systems shall be in accordance with the applicable standards.

All terminal blocks shall be identified and marked with the wire numbers. Twenty-five percent terminal blocks shall be supplied spare for Owner's future use.

11.5. Nameplates

Transformer shall be furnished with a stainless steel diagrammatic nameplate, permanently attached with non-corrosive hardware. The diagrammatic nameplate shall include the name of the manufacturer of the equipment as well as the location where the transformer was manufactured and tested. In addition, the transformer manufacturer and location of manufacture is to be supplied at the time of quotation.

The nameplate shall contain all connection and rating information in accordance with applicable standards, plus the approximate weight of parts to be lifted for un-tanking, type and quantity of oil, and the date of manufacture.

The nameplate shall state that the transformer was manufactured to CSA-C88-M90 standards.

11.6. Exterior Finish

The transformer painting system shall be the Vendor's standard. The transformer shall be thoroughly cleaned and phosphatized, paint with at least one corrosion inhibiting primer and one finish coat to provide a minimum total dry-film thickness of not less than 3 mils. The finish shall be ANSI 61, grey.

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PROJECT NO.	16099-01	REVISION	B

12.0 TESTING

Provide testing per CSA and Agreement. A temperature Rise test will be performed on the first of each design transformer, test results of a duplicate transformer will not be accepted. Take samples for DGA before Dielectric testing, before Temperature Rise Testing (ONAN) and after Temperature Rise testing (ONAF) (if applicable).

13.0 DRAWINGS AND APPROVALS

All documents shall be in English.

Provide a Design and Manufacturing schedule to the Owner within one week of confirmation of the order. The schedule must show as a minimum, electrical design completion date, Owner drawing completion date, major manufacturing processes start and finish dates including specifically a Pre-Tank Inspection date and the start and finish dates for Testing.

Owner hold points to include Design Review, Pre-Tank Inspection and Test Witness. The reviews/Inspections may be held or waived at the discretion of the Owner. Provide bushing drawings for Owner approval as soon as practical. Provide a Nameplate drawing, Outline drawing and Wiring Diagrams as soon as practical for Owner approval. 2 copies of all documents are required for review purposes. Provide a list of tests including guaranteed values and test levels.

14.0 OPERATION AND MAINTENANCE MANUALS

All documents shall be in English.

Operation and Maintenance (O&M) Manuals to be provided per the Agreement, which shall include operation and maintenance documentation, copies of Owner drawings, copies of all component and accessories information, renewal parts list and certified test results. Supplier to provide 2 copies of the final O&M Manuals - one copy for the Control Cabinet and a PDF version.

15.0 SHIPPING AND TRANSPORTATION

Transformers are to be delivered to the Delivery Point in accordance with the agreement. Units shall be transported with impact recorder, the recordings from which will be made available to the Owner on delivery.

DOCUMENT INFORMATION			
CLIENT	BluEarth Renewables Inc.	DOCUMENT TYPE	Exhibit A
PROJECT	Loyalist Solar Project	DOCUMENT TITLE	T1 Main Power Transformer 37.5/50/62 MVA, 240-34.5 kV
LOCATION	Stone Mills, ON	DOCUMENT NO.	16099-01-EX-9000
PROJECT NO.	16099-01	REVISION	B

16.0 SPARE PARTS

Both critical and recommended spare parts (as listed in Supplier's proposal) are included, as follows:

Critical

Item	OEM Part Number	Quantity	Unit Price (CAD)	Extended Price (CAD)
1	POC900G0800	1	13,000	13,000
2	88813	1	3,600	3,600
3	Gasket	1	2,000	2,000
Subtotal		3	18,600	18,600

Recommended

Item	OEM Part Number	Quantity	Unit Price (CAD)	Extended Price (CAD)
1	F26X	1	1,800	1,800

17.0 SOUND LEVEL

Sound levels have been provided in advance by Shihlin. The levels are as follows:

37.5 MVA : 65.5dB
 50 MVA: 66dB
 62 MVA: 66dB

The maximum sound power level is 88 dBA (ONAF).

18.0 PROJECT SITE

See attached Map Exhibit A – Map.



Aercoustics Engineering Ltd.
1004 Middlegate Road, Suite 1100
Mississauga, ON L4Y 0G1

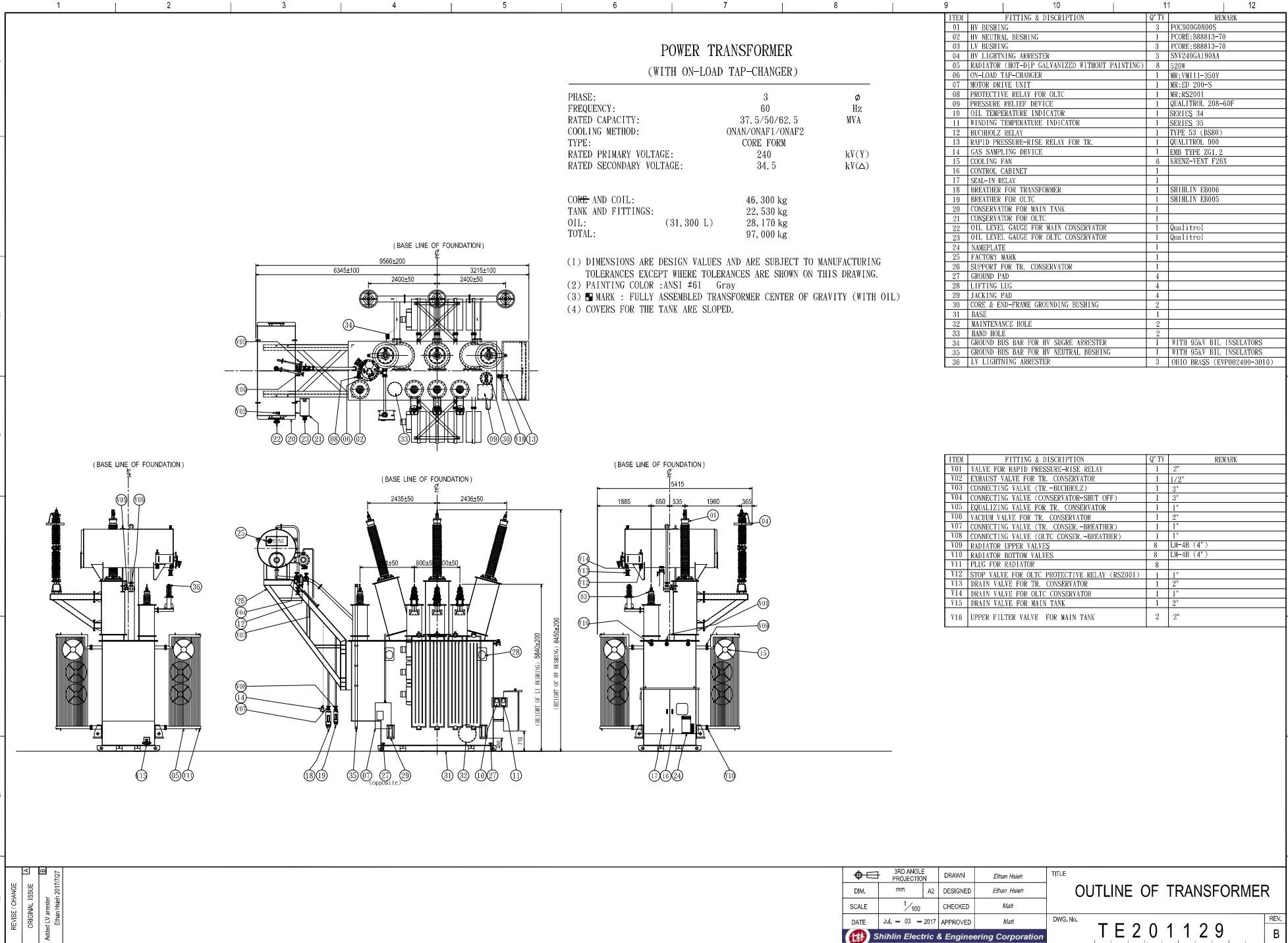
Tel: 416-249-3361
Fax 416-249-3613
aercoustics.com

MVA Rating	Estimated Sound Pressure Level [dBA]	31.5	63	125	250	500	1000	2000	4000	8000	Overall Sound Power (dBA)*	surface area m^2 (based on manufacturer dimensions)
Main Loyalist Transformer	62.5	70	-3 85	3 91	5 93	0 88	0 88	-6 82	-11 77	-16 72	-23 65	88 64

Include Tonal Penalty

90 96 98 93 93 87 82 77 70 93

*Adjustment for transformers according to Noise and Vibration Control Engineering - Principles and Applications (Table 18.1) by L. Beranek and I. Ver



Appendix F.02

Inverter Manufacturer Specifications

SUNNY CENTRAL 2200-US

SC 2200-US-10



Economic

- Highest power density
- Market leading efficiency
- Provides ancillary services with Q-on-Demand
- Reduce installation and transportation costs with up to four inverters in a standard shipping container on a flat-bed truck

Robust

- Proven and intelligent precision air-cooling technology
- Durable built for outdoor installation in harsh environmental conditions
- Robust and redundant fiber optic communication network configurations

Flexible

- Operation up to 1,000 V DC
- Highest DC:AC design ratio in the industry
- Nominal power operation from -25°C to 50°C

Highly integrated

- Area for customer SCADA equipment
- Integrated zone monitoring
- LOTO DC and AC disconnects
- On-board 120V AC Power Outlet

SUNNY CENTRAL 2200-US

The new Sunny Central: maximum power density and integration

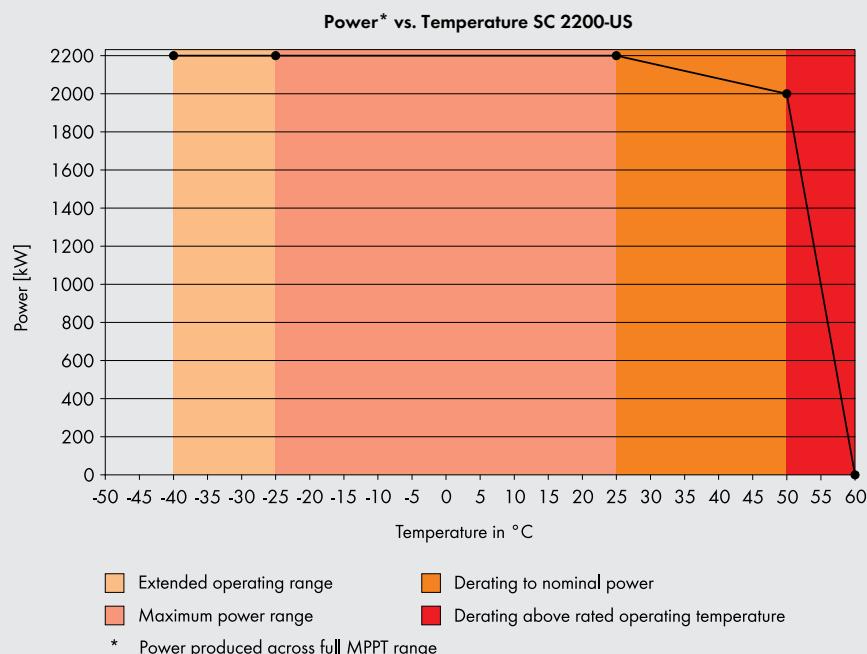
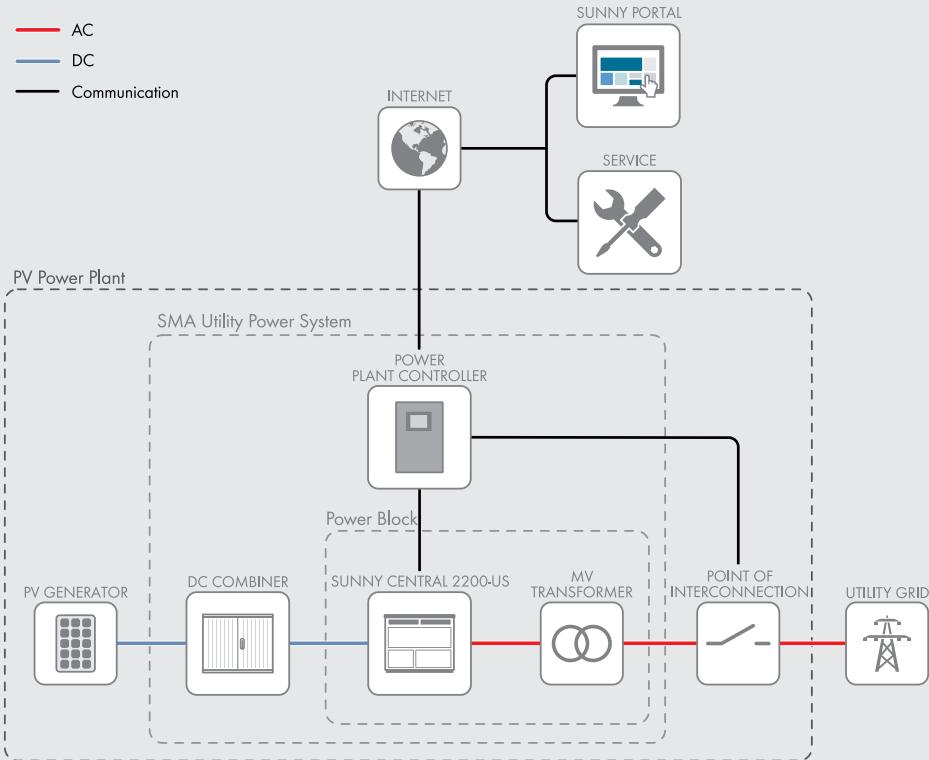
The Sunny Central 2200-US inverter (2,200 kVA for 1,000 V DC at 25°C) minimizes the total installed cost while maximizing the energy production of the photovoltaic power plant. Integrated control power, convenience power, network switch and optional NEC 2014 compliant DC recombiner and disconnect dramatically increase the speed to energization. The new Sunny Central can connect to virtually any grid in the harshest conditions. It is suitable for global outdoor installation with its proven OptiCool™ precision air cooling technology ensuring smooth operation even under extreme environmental conditions.

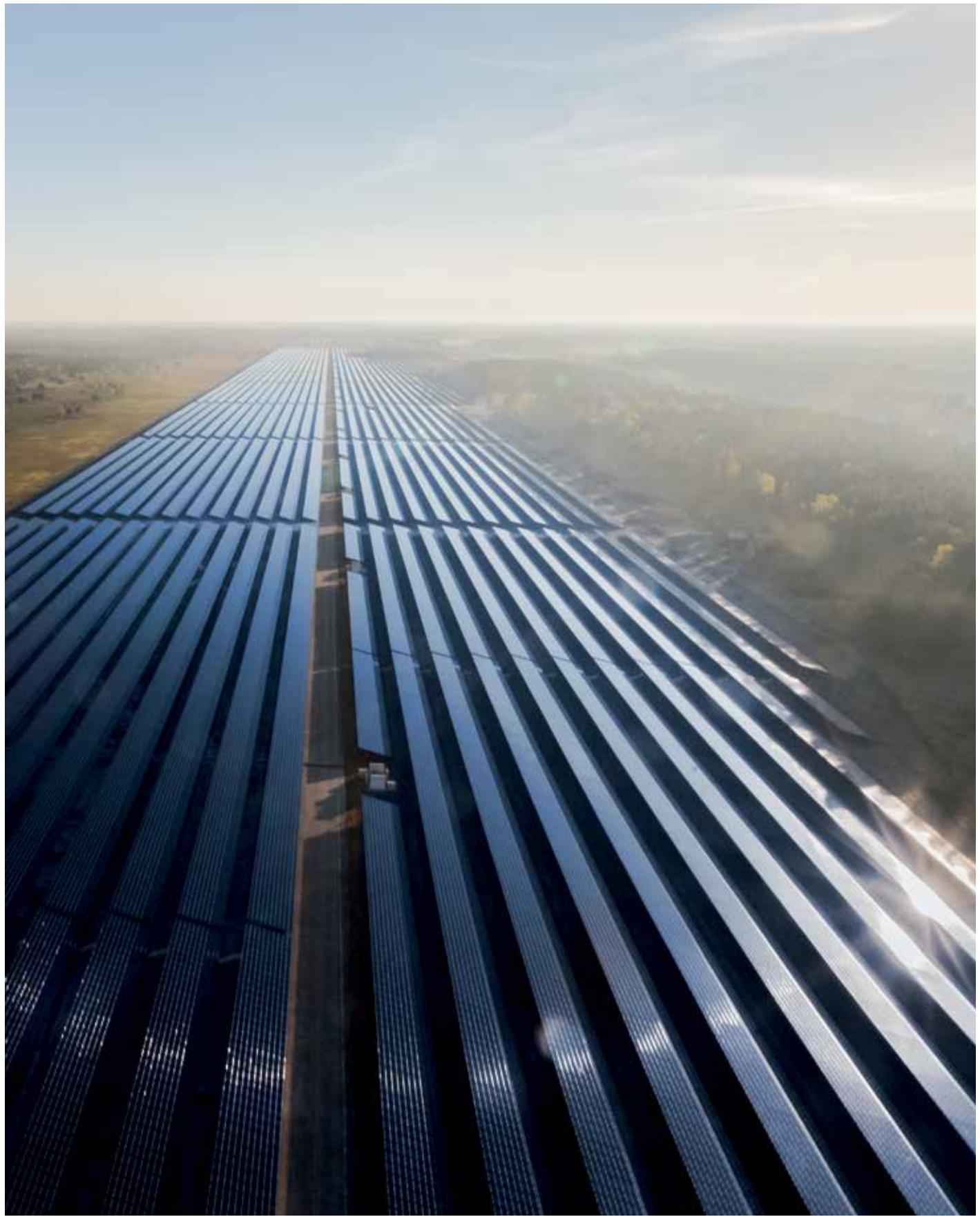
SUNNY CENTRAL 2200-US

Technical Data		SC 2200-US
Input (DC)		
MPP voltage range V_{DC} (@ 25°C / @ 50°C) ²⁾		570 V to 950 V / 800 V
Min. input voltage $V_{DC, min}$ / start voltage $V_{DC, start}$		545 V / 645 V
Max. open circuit and operating voltage $V_{DC, max}$		1,000 V
Max. operating DC current $I_{DC, max}$ (@ 25°C / @ 50°C)		3,960 A / 3600 A
Max. short-circuit current $I_{DC, sc}$		6400 A
Number of DC inputs (24/28/32) ³⁾		● / ○ / ○
Max. number of DC cables per DC input (for each polarity)		2 x 800 kcmil, 2 x 400 mm ²
Integrated zone monitoring (shunt resistors)		○
Available DC fuse sizes (per input)		200 A, 250 A, 315 A, 350 A, 400 A, 450 A, 500 A
Output (AC)		
Nominal AC power (@ 25°C / @ 40°C / @ 50°C)		2,200 kVA / 2,080 kVA / 2,000 kVA
Nominal AC power at $\cos \phi = 0.8$ (@ 25°C / @ 40°C / @ 50°C) ⁴⁾		1,760 kW / 1,664 kW / 1,600 kW
Max AC output current (@ 25°C / @ 40°C / @ 50°C)		3,300 A / 3,120 A / 3,000 A
Nominal AC current $I_{AC, nom}$		3,300 A
Max. total harmonic distortion		< 3% at nominal power
Nominal AC voltage / nominal AC voltage range (line-to-line)		385 V / 308 V to 462 V
AC power frequency		50 Hz, 60 Hz (± 3 Hz)
Max. short-circuit current ratio at the AC terminal		> 2
Power factor at rated power / displacement power factor adjustable		1 / 0.8 leading to 0.8 lagging
Efficiency		
Max. efficiency / European weighted efficiency / CEC weighted efficiency ¹⁾		98.6% / 98.4% / 98.0%
Protection and Disconnection Devices		
Input-side disconnection point		DC load-break switch
Output-side disconnection point		AC circuit breaker
DC overvoltage protection		Surge arrester, type I
Lightning protection (as per IEC 62305-1)		Level III
Ground-fault monitoring / remote ground-fault monitoring		○ / ○
Insulation monitoring		○
Degree of protection (as per IEC 60529)		IP54
Degree of protection (as per NEMA)		3R
General Data		
Dimensions (W / H / D)		2,780 mm / 2,318 mm / 1,588 mm (109.4 inch / 91.3 inch / 62.5 inch)
Weight		< 4,000 kg (8,819 lb)
Max. self-consumption (operation) / self-consumption (stand-by)		< 8,100 W / < 300 W
Internal control power supply		Integrated 8.4 kVA transformer
Operating temperature range ⁴⁾		-25°C to 60°C / -13°F to 140°F
Temperature range (stand-by)		-40°C to 60°C / -40°F to 140°F
Temperature range (storage)		-40°C to 70°C / -40°F to 158°F
Noise emission ⁵⁾		66.4 dB(A)
Max. permissible value for relative humidity (condensing)		0% to 95% (non-condensing) and up to 100% (condensing) for max. 2 months per year
Maximum operating altitude above MSL 1000m (3281 ft) / 3000m (9843 ft)		● / ○ (with power reduction)
Fresh air consumption		3,826 cfm / 6,500 m ³ /h
Features		
DC connection		Terminal lug on each input with NEMA lug hole pattern
AC connection		With busbar system (three busbars, one per line conductor)
Communication		Modbus TCP/IP / Ethernet (FO MM, Cat-5)
Enclosure / roof color		RAL 9016 / RAL 7004
Display: HMI touchscreen (10.1") / None		● / ○
Convenience power supply transformer		○ (2.5 kVA)
Certificates and approvals		UL 1741, UL 1998, UL 840 Category IV, EMC FCC Part 15 Class A, IEEE 1547, BDEW and CE
● Standard feature ○ Optional feature		
Type designation		SC-2200-US-10

- 1) Efficiency measured with internal power supply
- 2) At unity power factor
- 3) Ungrounded systems available with 24 inputs only
- 4) Power derated above 50°C, 0 kVA above 60°C
- 5) Sound pressure level at a distance of 10 m

PLANT DIAGRAM





SC2200USDUS170324 All products and services described as well as technical data are subject to change, even for reasons of country-specific deviations, at any time without notice. SMA assumes no liability for errors or omissions. For current information, see www.SMA-Solar.com.

Toll Free +1 888 4 SMA USA
www.SMA-America.com

SMA America, LLC

Noise Reduction Kit

For SC2xxx(-EV)(-US)

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1 Description

The main noise emitting parts of SC2xxx inverter generation are the stack (inverter bridge) with its 3 kHz switching frequency, the main fan of the cooling system and the sine wave choke.

To reduce the noise level of SC2xxx inverter generation (SC 1850-US, SC 2200-US, SC 2500-EV-US, SC 2750-EV-US, SC 2200, SC 2500-EV and SC 2750-EV) additional noise baffles will be installed at the air inlet and at the exhaust. The noise baffle is equipped with cellofoam to reduce the noise level of the inverter.

Please note: This technical documentation is based on the current status of the predevelopment noise reduction kit version. All stated data in this document are subject to be changed related to the final Serial Version of the Noise Reduction Kit. The intention of the document is to provide an overview of the current status and the concept design.

1.1 Mechanical Design

1.1.1 Environmental Conditions

Ambient temperature range	-40°C to +60°C
Humidity	0 to 95 % Humidity up to 100% must be possible for more than 2 month a year.
UV resistance	DIN EN ISO 11507 (Type 1 / Method A)
Snow load carrying capacity	2400 N/m ²
Environmental conditions according to EN 60721-3-4	4K4H (with temperature range from Point 3.2), 4Z1, 4Z5, 4Z7, 4B2, 4C1, 4S4, 4M3
Environmental conditions according to EN 60721-3-2	2M2 - Without fall- and drop-test

1.1.2 Material noise reduction kit

Material of the Components	
Sheet metal parts	If not otherwise specified: EN 10346-DX51D+Z275-N-A alternativ material: EN 10346-DX51D+Z275-M-A-C EN 10346-DX51D+AZ150-A-C
Foam Material	Cello HR 290/71 alternative: HR 290/0

1.1.3 Corrosion Protection

Corrosion Protection	
Sheet metal parts	Pregalvanised steel
Standard Parts	If not otherwise specified: external parts: DIN EN ISO 9227 SS white rust 120 h / red rust 360 h - CrVI-free internal parts: DIN EN ISO 9227 SS white rust 72 h / red rust 144 h - CrVI-free

1.1.4 Drawings

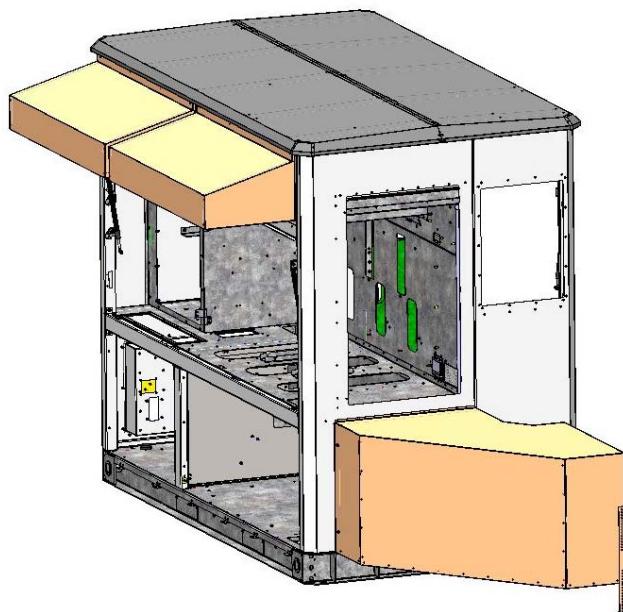


Figure 1) Concept overview noise reduction kit mounted

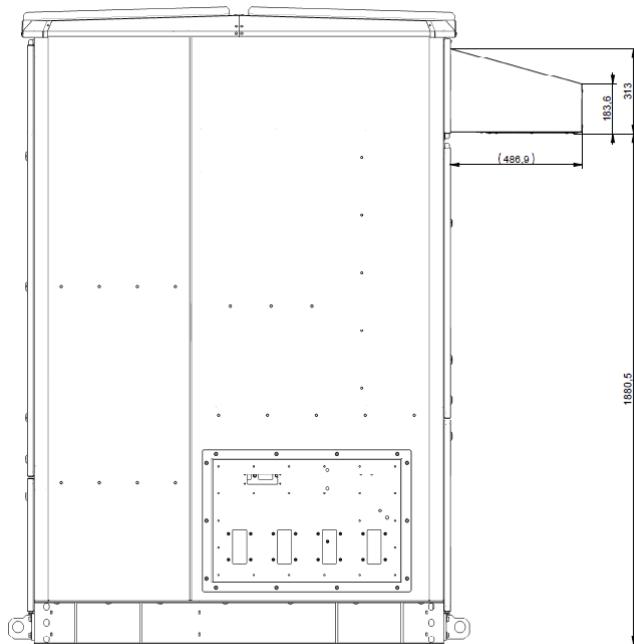


Figure 2) Air inlet noise reduction kit, side view

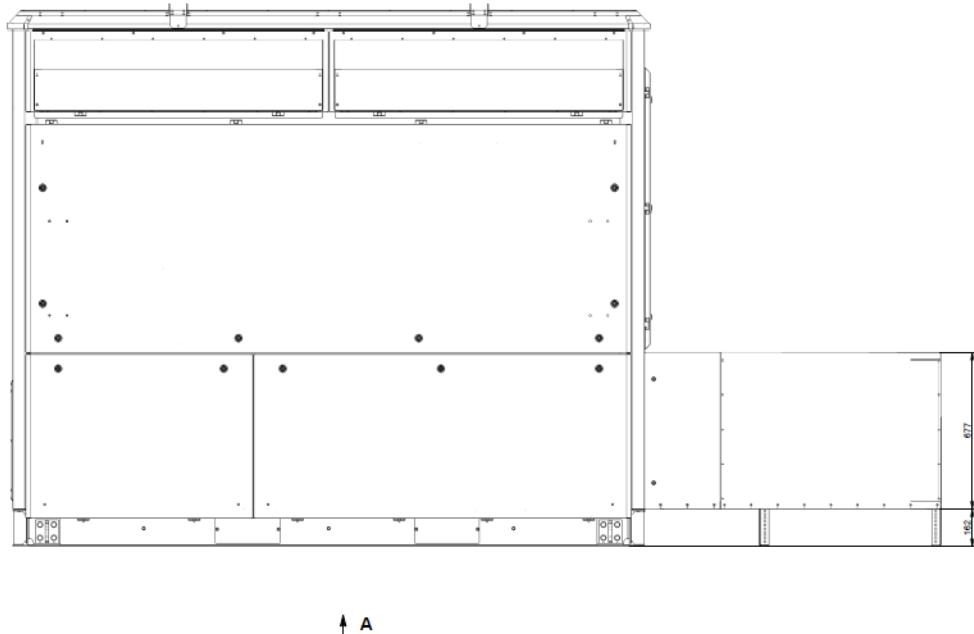


Figure 3) Exhaust noise reduction kit, back side

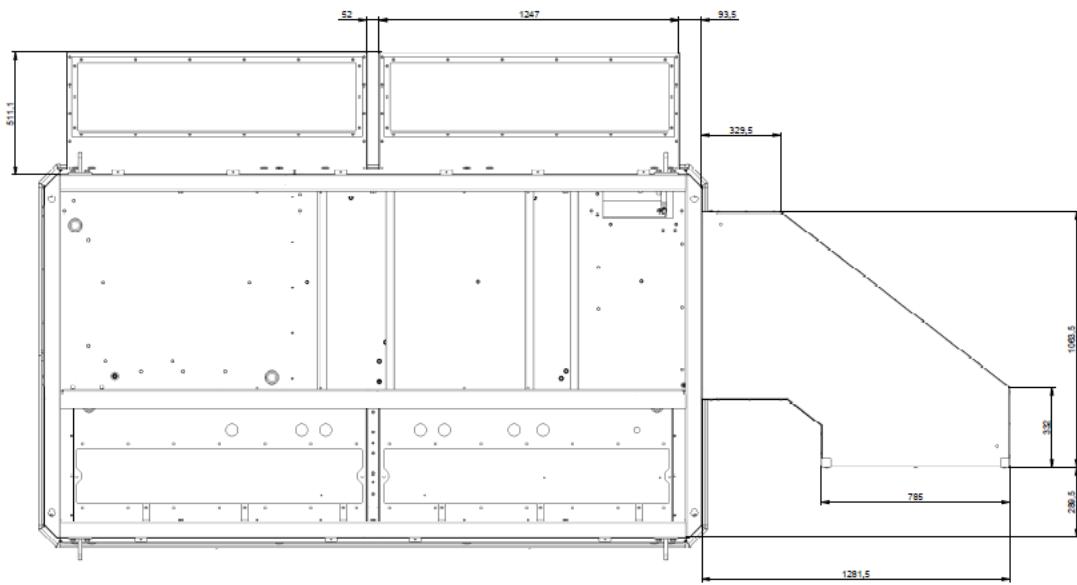


Figure 4) Exhaust noise reduction kit, top view

2 Noise tests

Preliminary sound level measurement according to DIN EN ISO 3744:2011-02 and DIN EN ISO 9614-2:2010-11 have been conducted

The measurements have been compared with the standard measurements without the noise reduction kit. The two measurements have shown a reduction of the soundpower value (L_{WA}) of 94 dB(A) to 89.35 dB(A). The sound pressure level in 10m distance has been reduced by 5.3 dB(A) from 64 dB(A) to 58.7 dB(A).

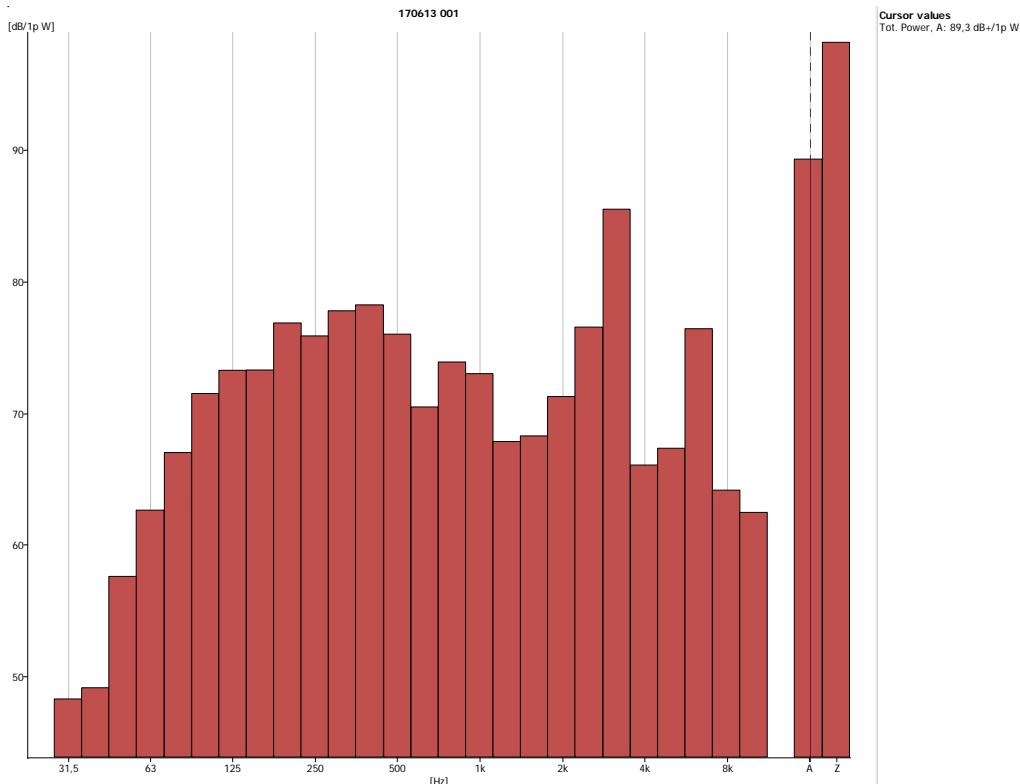


Figure 5) 2.2 MW 1400 V DC operation including noise reduction

Frequency	dB
25 Hz	43.82
31.5 Hz	48.3
40 Hz	49.15
50 Hz	57.62
63 Hz	62.66
80 Hz	67.04
100 Hz	71.53
125 Hz	73.29
160 Hz	73.31
200 Hz	76.9
250 Hz	75.91
315 Hz	77.82
400 Hz	78.27
500 Hz	76.04
630 Hz	70.51
800 Hz	73.92
1 kHz	73.03
1.25 kHz	67.88
1.6 kHz	68.3
2 kHz	71.3
2.5 kHz	76.57
3.15 kHz	85.55
4 kHz	66.09
5 kHz	67.36
6.3 kHz	76.45
8 kHz	64.18
10 kHz	62.48
A	89.35
Z	98.24

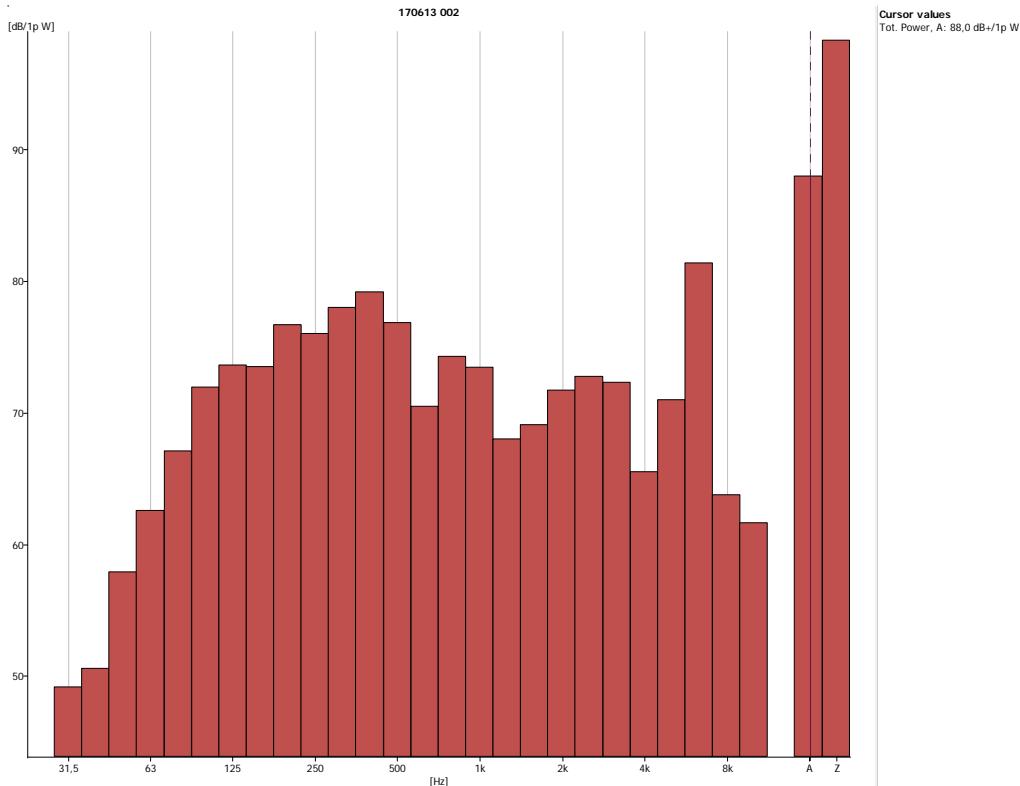


Figure 6) 1.4 MW 1470 V DC operation including noise reduction

Frequency	dB
25 Hz	43.85
31.5 Hz	49.18
40 Hz	50.6
50 Hz	57.93
63 Hz	62.6
80 Hz	67.13
100 Hz	71.98
125 Hz	73.66
160 Hz	73.54
200 Hz	76.72
250 Hz	76.06
315 Hz	78.04
400 Hz	79.21
500 Hz	76.88
630 Hz	70.52

Frequency	dB
800 Hz	74.32
1 kHz	73.49
1.25 kHz	68.04
1.6 kHz	69.12
2 kHz	71.75
2.5 kHz	72.8
3.15 kHz	72.35
4 kHz	65.55
5 kHz	71.02
6.3 kHz	81.41
8 kHz	63.79
10 kHz	61.66
A	88.02
Z	98.35

2.1 Additional test for fan noise analysis:

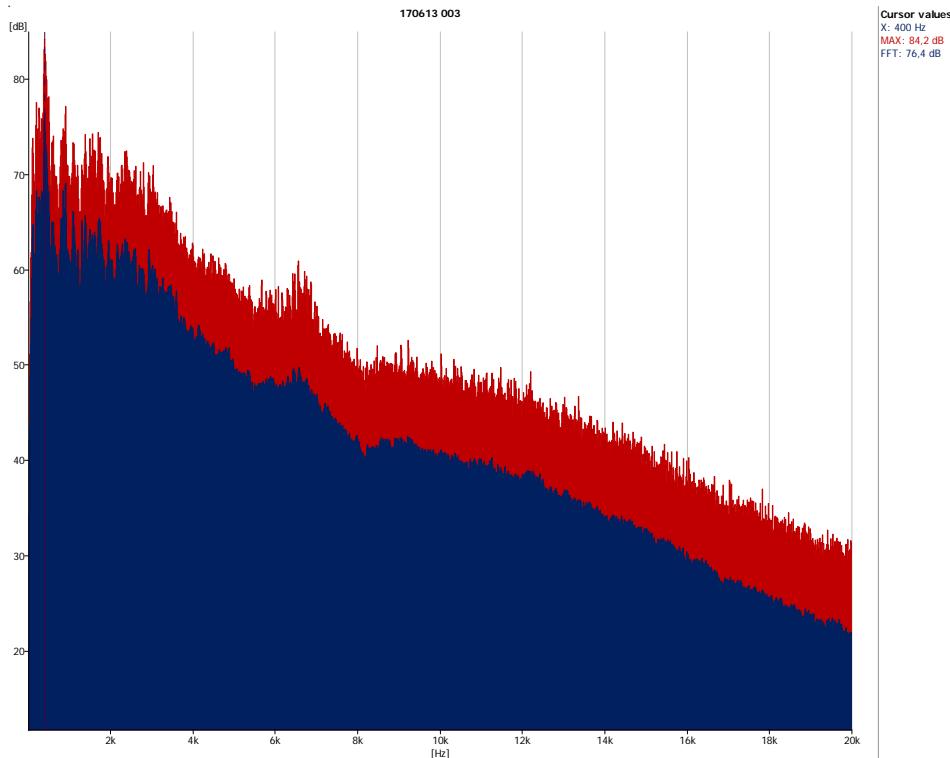


Figure 7) 100% fan speed (no IGBT operation) without noise reduction 1m distance from air

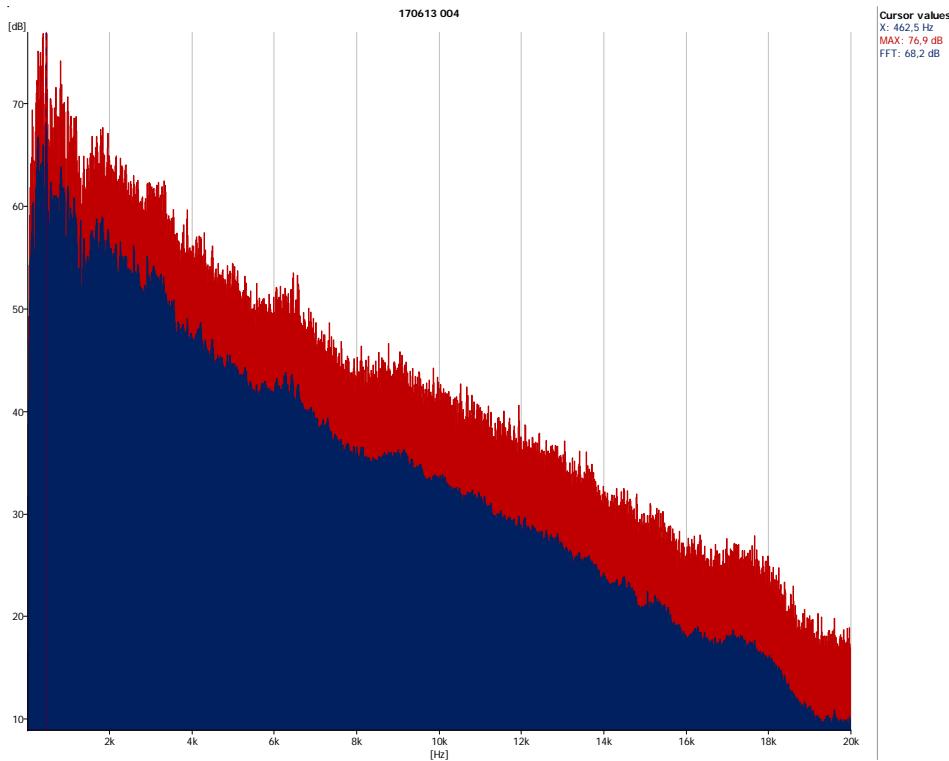


Figure 8) 100% fan speed (no IGBT operation) with noise reduction 1m distance from air inlet

2.2 Summary testing

Preliminary tests on a predevelopment noise reduction kit status have shown a possible noise reduction from -5.3dB, see test results below. However the predevelopment concept will be improved and redesigned, an even better results in terms of the noise reduction can be expected.

3 Appendix

3.1 Example datasheet of cellofoam for the noise reduction kit

TECHNICAL DATA

NOISE CONTROL **LAMINATION** **MOLDED NON-WOVENS** **GASKETS**

 **Cello® 471Ä**

PRODUCT DESCRIPTION
Cello® 471Ä is a dark grey, top-quality PUR-ether foam with a sealed, but air-permeable surface.

TYPICAL APPLICATIONS
Construction and farm machinery, heating/ventilation/AC systems, cabins/casings/hoods machine construction, medical technology

KEY BENEFITS

- Robust and resilient surface
- Attractive lozenge patterns
- Excellent sound absorption values
- Largely resistant to oil, water and fuel
- Suitable for use in hot and humid environments (ether foam has a better aging resistance under high air humidity conditions than ester foam)

BASIC PRODUCT
471Ä NK: no self-adhesive equipment

PRODUCT OPTIONS

- 471Ä SK: self-adhesive rear face
- 471Ä SBF SK: backed with elastomer-modified bitumen sheeting (see Technical Data sheet)
- 471Ä KF: rear face laminated with pile fabric for velcro-fastening

DIMENSIONS, UNTRIMMED*

PRODUCT	THICKNESS (mm)	Sheets (mm)	ROLLS
471Ä	10, 20, 30, 40, 50 ± 1	1050 x 1500 2100 x 1500	Length: max. 60m (depending on thickness) Width: 1500mm
471Ä SBF	12, 22, 32, 42, 52 ± 1,2	1000 x 1000	not available

Other thicknesses / dimensions on request
Ready-to-use parts acc. to your specifications or drawing

STORAGE

- Dry and in closed rooms
- Self-adhesive materials: max. 6 months
- 471Ä SBF SK: max. 3 months

SPECIAL TIP
For the fixation of our articles with pile fabric backing we recommend the Cello® Velcro tape.

* untrimmed: useful width guaranteed as ordered, some layers (e.g. non-woven, film, foam) may partially exceed this width.

PLEASE REFER TO OUR LEAFLET "PROCESSING AND APPLICATION"

Details and values given in this leaflet have been compiled with care. They are not binding, however, and Cellofoam GmbH & Co. KG disclaims any liability for any damages or derivative costs also in connection with any third party's patents or rights. The information given does not release the buyer from testing the material for the intended use. Subject to technical changes. For updates of this data sheet, please go to our website.

Cellofoam GmbH & Co. KG **EQ ZERT ISO 9001 CERTIFIED**

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01

Appendix F.03

Medium Voltage Transformer Sound Level Estimates

Medium Voltage Transformer Sound Level Estimates

Project: Loyalist Solar Project - Noise Assessment Study Report

Report ID: 16100.00.RP9

Page 1 of 1

Created on: 9/18/2017

2.2 MVA - Medium Voltage Transformer Sound Power Estimate

Rated Capacity	2.2 MVA
NEMA Sound Pressure Estimate [1]	62 dBA
Assumed Surface Area	33 m ²

	31.5	63	125	250	500	1000	2000	4000	8000	Total (dBA)
Frequency Spectrum Adjustment [2]	-3	3	5	0	0	-6	-11	-16	-23	-
Sound Power Level (dB)	74	80	82	77	77	71	66	61	54	78

[1] Based on NEMA TRI-1993 (R2000), Table 0-2, Immersed Power Transformers

[2] from Beranek, Noise and Vibration Control Engineering, 1992. Table 18.1, Line 28

Medium Voltage Transformer Sound Level Estimates

Project: Loyalist Solar Project - Noise Assessment Study Report

Report ID: 16100.00.RP9

Page 1 of 1

Created on: 9/18/2017

4.4 MVA - Medium Voltage Transformer Sound Power Estimate

Rated Capacity	4.4 MVA
NEMA Sound Pressure Estimate [1]	65 dBA
Assumed Surface Area	46 m ²

	31.5	63	125	250	500	1000	2000	4000	8000	Total (dBA)
Frequency Spectrum Adjustment [2]	-3	3	5	0	0	-6	-11	-16	-23	-
Sound Power Level (dB)	79	85	87	82	82	76	71	66	59	82

[1] Based on NEMA TRI-1993 (R2000), Table 0-2, Immersed Power Transformers

[2] from Beranek, Noise and Vibration Control Engineering, 1992. Table 18.1, Line 28

Appendix B – Project Modifications Report Public Notice

NOTICE OF A PROPOSED CHANGE TO A RENEWABLE ENERGY PROJECT BY LOYALIST SOLAR LP

Project Name: Loyalist Solar Project

IESO Reference Number: L-006345-SPV-001-054

MOECC Reference Number: 7835-AJDRWP

Project Location: Within the Township of Stone Mills, County of Lennox and Addington, approximately 9 km north of the Town of Greater Napanee.

Dated at: The Township of Stone Mills this 9th day of November 2017

Loyalist Solar LP, a partnership between the Mohawks of the Bay of Quinte and BluEarth Renewables, is planning to engage in a renewable energy project, in respect of which, the issuance of a renewable energy approval (REA) is required. The Project is subject to the provisions of the Environmental Protection Act (Act) Part V.0.1 and Ontario Regulation 359/09 (Regulation). This notice must be distributed in accordance with section 16.0.1. This notice is being distributed to make the public aware of a proposed change to the project.

Project Description and

Proposed Change:

Pursuant to the Act and Regulation, the facility, in respect of which this project was originally proposed to be engaged in, consisted of a Class 3 Solar Facility. If approved, this facility would have a total maximum name plate capacity of 54 MW.

A change is being proposed to the project.

The change consists of the reconfiguration of the project components within the Project location to accommodate the relocation of inverter stations, and the inclusion of additional noise mitigation. This change does not affect the name plate capacity of the project, or result in a change in noise above the 40dB limit. If approved with this change, this facility would remain at the maximum name plate capacity of 54 MW. The project location, taking the proposed change into account, is shown in the key map.

Documents for Public

Inspection: Loyalist Solar LP has updated the Noise Impact Assessment to document the change in inverter station locations and the additional noise mitigation. The updated Noise Impact Assessment and a Modification Report further describing the proposed changes will be available for public inspection on November 10, 2017 on proponent's website at:

<http://www.bluearth.ca/loyalist>.

Written copies of the Project Description Report and supporting documents were last made available for public inspection as of December 1, 2016 on the project website as well as at the Township of Stone Mills Main Office (4504 County Road 4, Centreville) and Camden East Public Library (2832 County Rd. 1 East, Camden East).

Contact Information: To learn more about the Project, or to communicate comments and/or concerns, please contact:

Tom Bird

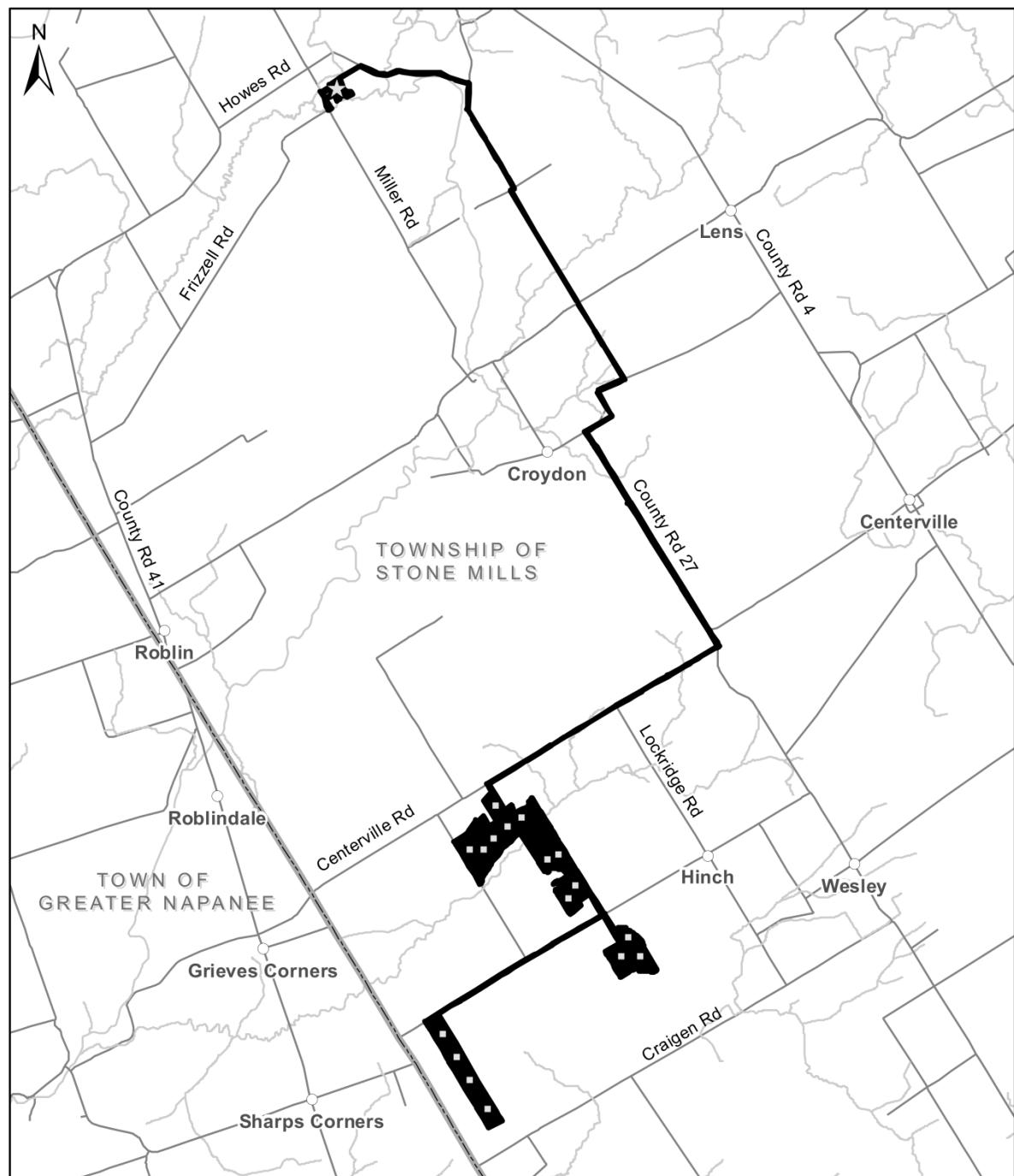
Director, Regulatory

Loyalist Solar LP

34 Harvard Rd., Guelph ON N1G 4V8

Toll Free Number: (844) 214-2578

projects@bluearth.ca



Map of Project Location

Legend

Lower Tier Municipality

Towns

Watercourses

Kilometers
0 1 2 4

Project Location

Inverters

Substation

Roads

Date: November 1, 2017
Projection: NAD83, Zone 17
Source: Ontario Ministry of Natural

The proposed site for the Project is located on lands within the Township of Stone Mills in the County of Lennox & Addington.

To learn more about the Project, or to communicate comments and/or concerns, please contact:
Tom Bird
Director, Regulatory
Loyalist Solar LP
34 Harvard Rd., Guelph ON N1G 4V8
Toll Free Number: (844) 214-2578
projects@bluearth.ca