

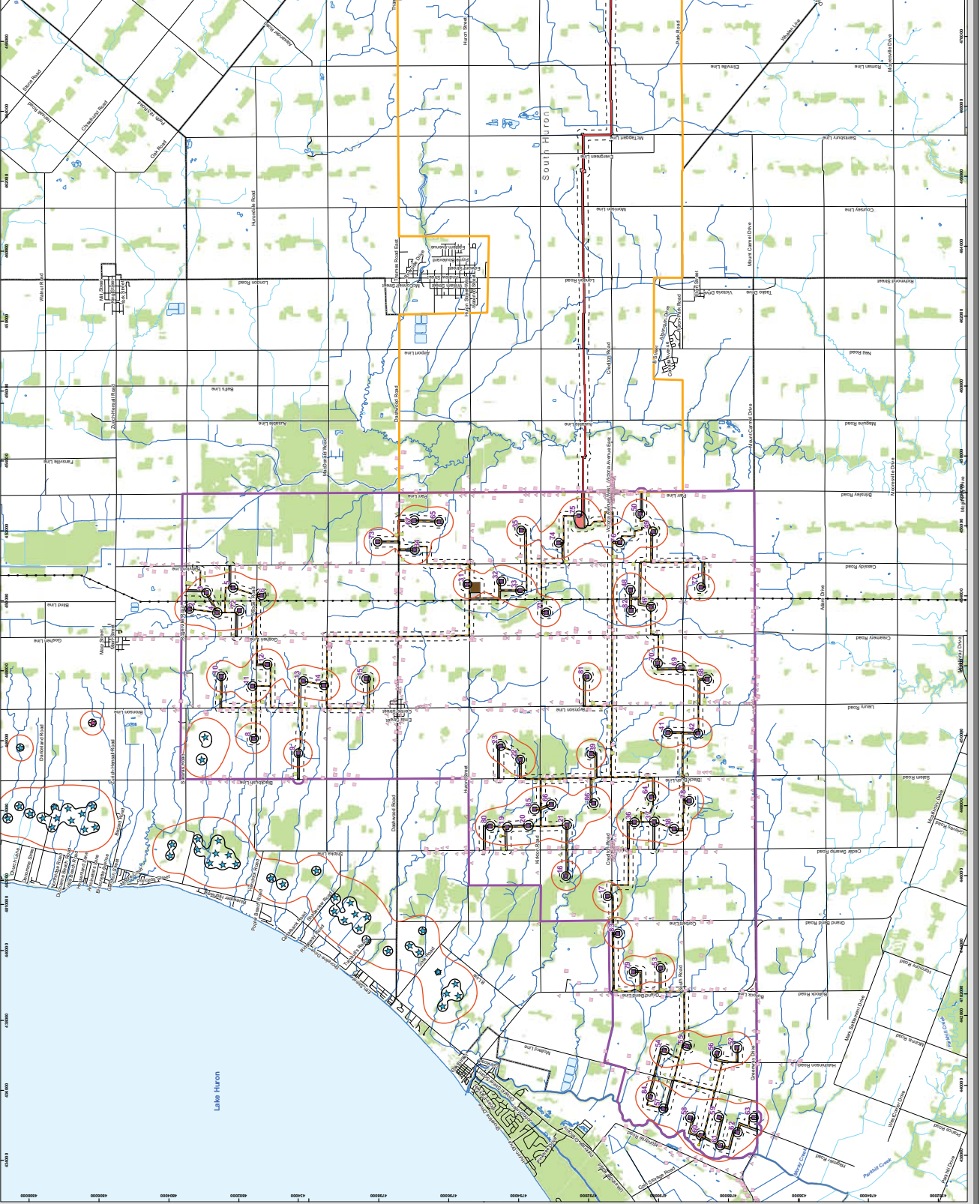
Legend

- Wind Energy Centre Study Area
- Non-participating Receptor
- Participating Receptor
- 120m Area of Investigation
- Municipal Division
- Roads
- Natural Features
 - Watercourse (ASCA, UTRCA)
 - Watercourse (MNR)
 - Waterbody
 - Wooded Area
 - Zurich Wind Turbine
 - Grand Bend Wind Farm
- Project Location
 - GE Turbine
 - Permanent Meteorological Tower
 - Access Road
 - Collection Line
 - Transmission Line
 - Temporary Laydown Area
 - Breaker Switch Station
 - Transformer Station
 - Disturbance Area
 - Existing 50kV Transmission Line
- Noise Results
 - 40.0 dba
 - 49.0 dba

0 500 1000 2000
 METERS
 0 500 1000 2000
 FEET
 UTM Zone 17N, NAD 83
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Goshen Wind Energy Centre
 Noise Modelling Assessment
Wind Speed = 9m/s
 November 2013
 Project ID: 1015032

AECOM



10/15/13 10:29 AM
 C:\Users\jgibson\Documents\1015032\1015032_01\1015032_01.dwg
 10/15/13 10:29 AM
 C:\Users\jgibson\Documents\1015032\1015032_01\1015032_01.dwg

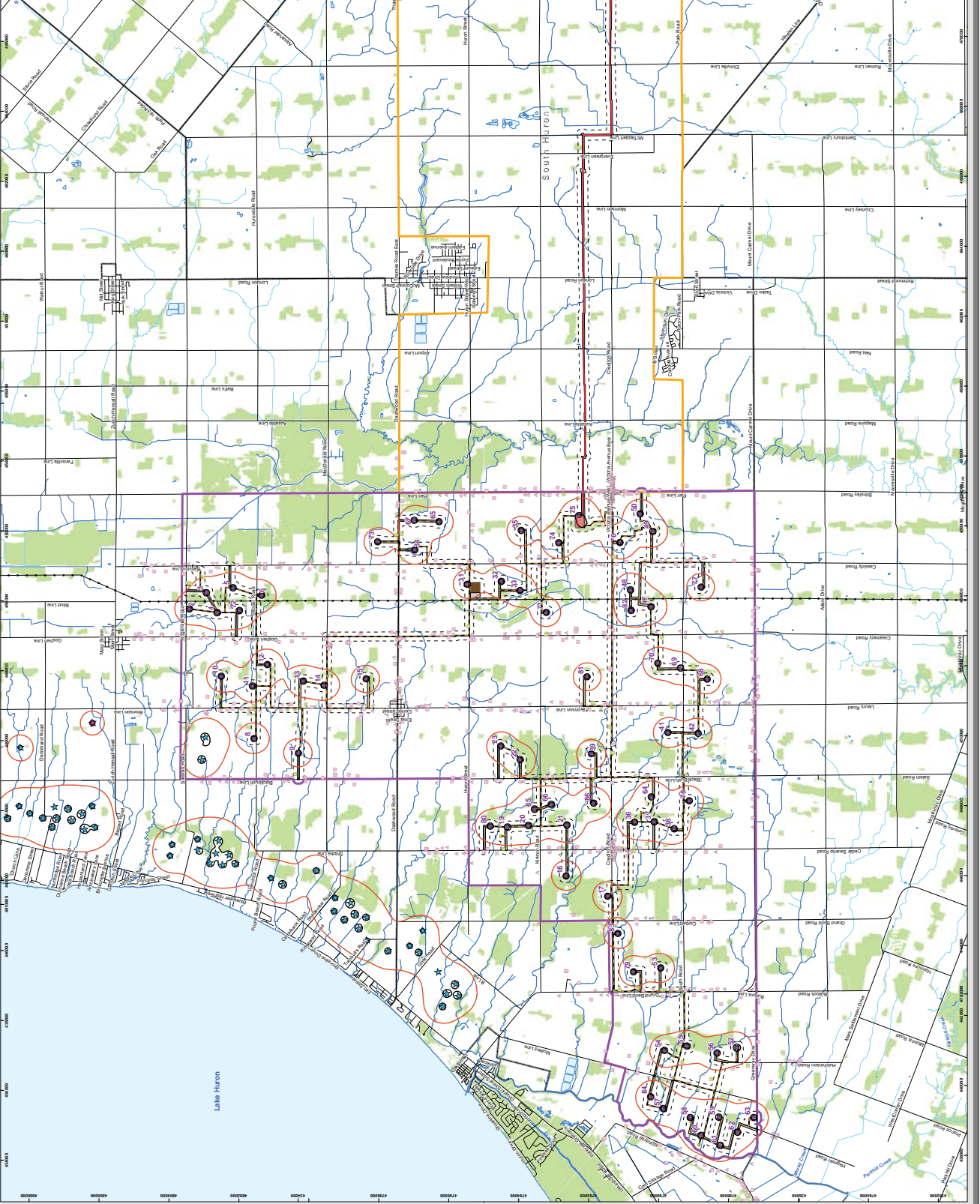
Legend

- Wind Energy Centre Study Area Receptors
 - Non-participating Receptor
 - Participating Receptor
 - 120m Area of Investigation
 - Municipal Division
 - Roads
- Project Location
 - GE Turbine
 - Permanent Meteorological Tower
 - Access Road
 - Collection Line
 - Transmission Line
 - Temporary Laydown Area
 - Breaker Switch Station
 - Transformer Station
 - Disturbance Area
 - Existing 50kV Transmission Line
- Natural Features
 - Watercourse (ASCA, UTRCA)
 - Watercourse (MNR)
 - Waterbody
 - Wooded Area
 - Zurich Wind Turbine
 - Grand Bend Wind Farm
- Noise Results
 - 40.0 dba
 - 51.0 dba

0 500 1000 1500 2000
 METERS
 UTM Zone 17N, NAD 83
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Goheen Wind Energy Centre
 Noise Modelling Assessment
 Wind Speed = 10m/s
 November 2013
 Project ID: 1015032

AECOM



4180000 4181000 4182000 4183000 4184000 4185000 4186000 4187000 4188000 4189000 4190000 4191000 4192000 4193000 4194000 4195000 4196000 4197000 4198000 4199000 4200000
 4750000 4751000 4752000 4753000 4754000 4755000 4756000 4757000 4758000 4759000 4760000 4761000 4762000 4763000 4764000 4765000 4766000 4767000 4768000 4769000 4770000

Appendix D

Sample Calculations

Goshen Noise Results

Configuration	
Parameter	Value
General	
Country	International
Max. Error (dB)	0.00
Max. Search Radius (m)	5000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (m)	1000.00
Min. Length of Section (m)	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	60.00
Reference Time Night (min)	60.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	150.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	1
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rcvr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	
	Excl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (°C)	10
rel. Humidity (%)	70
Ground Absorption G	0.70
Wind Speed for Dir. (m/s)	3.0
Roads (RLS-90)	
Strictly acc. to RLS-90	
Railways (Schall 03)	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (???)	
Strictly acc. to AzB	

(Wind Speed = 6m/s)

Goshen Noise Results

Receiver
 Name: Goshen
 ID: GSH2053
 X: 455299.00
 Y: 4794758.00
 Z: 254.50

Point Source, ISO 9613, Name: "31", ID: "Goshen"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	452335.00	4797930.00	330.26	0	32	80.1	80.1	0.0	0.0	83.8	0.0	-4.3	0.0	0.0	0.0	0.0	-0.0	0.6	0.6
2	452335.00	4797930.00	330.26	0	63	89.6	89.6	0.0	0.0	83.8	0.4	-4.3	0.0	0.0	0.0	0.0	-0.0	9.7	9.7
3	452335.00	4797930.00	330.26	0	125	94.4	94.4	0.0	0.0	83.8	1.7	1.3	0.0	0.0	0.0	0.0	-0.0	7.6	7.6
4	452335.00	4797930.00	330.26	0	250	95.1	95.1	0.0	0.0	83.8	4.3	-0.4	0.0	0.0	0.0	0.0	-0.0	7.4	7.4
5	452335.00	4797930.00	330.26	0	500	96.1	96.1	0.0	0.0	83.8	8.3	-1.3	0.0	0.0	0.0	0.0	-0.0	5.4	5.4
6	452335.00	4797930.00	330.26	0	1000	96.9	96.9	0.0	0.0	83.8	16.1	-1.3	0.0	0.0	0.0	0.0	-0.0	-1.6	-1.6
7	452335.00	4797930.00	330.26	0	2000	95.2	95.2	0.0	0.0	83.8	42.1	-1.3	0.0	0.0	0.0	0.0	-0.0	-29.4	-29.4
8	452335.00	4797930.00	330.26	0	4000	88.6	88.6	0.0	0.0	83.8	142.4	-1.3	0.0	0.0	0.0	0.0	-0.0	-136.3	-136.3
9	452335.00	4797930.00	330.26	0	8000	70.0	70.0	0.0	0.0	83.8	508.0	-1.3	0.0	0.0	0.0	0.0	-0.0	-520.4	-520.4

Point Source, ISO 9613, Name: "32", ID: "Goshen"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	452553.00	4796971.00	325.00	0	32	80.1	80.1	0.0	0.0	82.0	0.0	-3.8	0.0	0.0	0.0	0.0	-0.0	2.0	2.0
2	452553.00	4796971.00	325.00	0	63	89.6	89.6	0.0	0.0	82.0	0.4	-3.8	0.0	0.0	0.0	0.0	-0.0	11.1	11.1
3	452553.00	4796971.00	325.00	0	125	94.4	94.4	0.0	0.0	82.0	1.4	1.4	0.0	0.0	0.0	0.0	-0.0	9.7	9.7
4	452553.00	4796971.00	325.00	0	250	95.1	95.1	0.0	0.0	82.0	3.5	-0.3	0.0	0.0	0.0	0.0	-0.0	9.9	9.9
5	452553.00	4796971.00	325.00	0	500	96.1	96.1	0.0	0.0	82.0	6.7	-1.2	0.0	0.0	0.0	0.0	-0.0	8.7	8.7
6	452553.00	4796971.00	325.00	0	1000	96.9	96.9	0.0	0.0	82.0	13.1	-1.2	0.0	0.0	0.0	0.0	-0.0	3.1	3.1
7	452553.00	4796971.00	325.00	0	2000	95.2	95.2	0.0	0.0	82.0	34.2	-1.2	0.0	0.0	0.0	0.0	-0.0	-19.8	-19.8
8	452553.00	4796971.00	325.00	0	4000	88.6	88.6	0.0	0.0	82.0	115.7	-1.2	0.0	0.0	0.0	0.0	-0.0	-107.8	-107.8
9	452553.00	4796971.00	325.00	0	8000	70.0	70.0	0.0	0.0	82.0	412.7	-1.2	0.0	0.0	0.0	0.0	-0.0	-423.5	-423.5

Point Source, ISO 9613, Name: "33", ID: "Goshen"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	452366.00	4796399.00	320.41	0	32	80.1	80.1	0.0	0.0	81.5	0.0	-3.7	0.0	0.0	0.0	0.0	-0.0	2.3	2.3
2	452366.00	4796399.00	320.41	0	63	89.6	89.6	0.0	0.0	81.5	0.3	-3.7	0.0	0.0	0.0	0.0	-0.0	11.5	11.5
3	452366.00	4796399.00	320.41	0	125	94.4	94.4	0.0	0.0	81.5	1.3	1.3	0.0	0.0	0.0	0.0	-0.0	10.2	10.2
4	452366.00	4796399.00	320.41	0	250	95.1	95.1	0.0	0.0	81.5	3.4	-0.3	0.0	0.0	0.0	0.0	-0.0	10.5	10.5
5	452366.00	4796399.00	320.41	0	500	96.1	96.1	0.0	0.0	81.5	6.4	-1.2	0.0	0.0	0.0	0.0	-0.0	9.4	9.4
6	452366.00	4796399.00	320.41	0	1000	96.9	96.9	0.0	0.0	81.5	12.4	-1.2	0.0	0.0	0.0	0.0	-0.0	4.1	4.1
7	452366.00	4796399.00	320.41	0	2000	95.2	95.2	0.0	0.0	81.5	32.6	-1.2	0.0	0.0	0.0	0.0	-0.0	-17.8	-17.8
8	452366.00	4796399.00	320.41	0	4000	88.6	88.6	0.0	0.0	81.5	110.3	-1.2	0.0	0.0	0.0	0.0	-0.0	-102.0	-102.0
9	452366.00	4796399.00	320.41	0	8000	70.0	70.0	0.0	0.0	81.5	393.3	-1.2	0.0	0.0	0.0	0.0	-0.0	-403.6	-403.6

Point Source, ISO 9613, Name: "35", ID: "Goshen"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	454089.00	4796605.00	331.86	0	32	80.1	80.1	0.0	0.0	77.9	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	5.2	5.2
2	454089.00	4796605.00	331.86	0	63	89.6	89.6	0.0	0.0	77.9	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	14.5	14.5
3	454089.00	4796605.00	331.86	0	125	94.4	94.4	0.0	0.0	77.9	0.9	1.7	0.0	0.0	0.0	0.0	-0.0	14.0	14.0
4	454089.00	4796605.00	331.86	0	250	95.1	95.1	0.0	0.0	77.9	2.2	0.0	0.0	0.0	0.0	0.0	-0.0	15.0	15.0
5	454089.00	4796605.00	331.86	0	500	96.1	96.1	0.0	0.0	77.9	4.2	-0.9	0.0	0.0	0.0	0.0	-0.0	15.0	15.0
6	454089.00	4796605.00	331.86	0	1000	96.9	96.9	0.0	0.0	77.9	8.2	-0.9	0.0	0.0	0.0	0.0	-0.0	11.8	11.8
7	454089.00	4796605.00	331.86	0	2000	95.2	95.2	0.0	0.0	77.9	21.4	-0.9	0.0	0.0	0.0	0.0	-0.0	-3.2	-3.2
8	454089.00	4796605.00	331.86	0	4000	88.6	88.6	0.0	0.0	77.9	72.5	-0.9	0.0	0.0	0.0	0.0	-0.0	-60.8	-60.8
9	454089.00	4796605.00	331.86	0	8000	70.0	70.0	0.0	0.0	77.9	258.5	-0.9	0.0	0.0	0.0	0.0	-0.0	-265.4	-265.4

Point Source, ISO 9613, Name: "47", ID: "Goshen"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	452425.00	4792588.00	320.00	0	32	80.1	80.1	0.0	0.0	82.1	0.0	-3.9	0.0	0.0	0.0	0.0	-0.0	1.9	1.9

(Wind Speed = 6m/s)

Goshen Noise Results

Point Source, ISO 9613, Name: "47", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
2	452425.00	4792588.00	320.00	0	63	89.6	89.6	0.0	0.0	82.1	0.4	-3.9	0.0	0.0	0.0	0.0	-0.0	11.0	11.0
3	452425.00	4792588.00	320.00	0	125	94.4	94.4	0.0	0.0	82.1	1.4	1.5	0.0	0.0	0.0	0.0	-0.0	9.4	9.4
4	452425.00	4792588.00	320.00	0	250	95.1	95.1	0.0	0.0	82.1	3.6	-0.2	0.0	0.0	0.0	0.0	-0.0	9.6	9.6
5	452425.00	4792588.00	320.00	0	500	96.1	96.1	0.0	0.0	82.1	6.8	-1.2	0.0	0.0	0.0	0.0	-0.0	8.3	8.3
6	452425.00	4792588.00	320.00	0	1000	96.9	96.9	0.0	0.0	82.1	13.3	-1.2	0.0	0.0	0.0	0.0	-0.0	2.6	2.6
7	452425.00	4792588.00	320.00	0	2000	95.2	95.2	0.0	0.0	82.1	34.9	-1.2	0.0	0.0	0.0	0.0	-0.0	-20.7	-20.7
8	452425.00	4792588.00	320.00	0	4000	88.6	88.6	0.0	0.0	82.1	118.1	-1.2	0.0	0.0	0.0	0.0	-0.0	-110.5	-110.5
9	452425.00	4792588.00	320.00	0	8000	70.0	70.0	0.0	0.0	82.1	421.4	-1.2	0.0	0.0	0.0	0.0	-0.0	-432.4	-432.4

Point Source, ISO 9613, Name: "48", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	452825.00	4793244.00	320.00	0	32	80.1	80.1	0.0	0.0	80.3	0.0	-3.4	0.0	0.0	0.0	0.0	-0.0	3.2	3.2
2	452825.00	4793244.00	320.00	0	63	89.6	89.6	0.0	0.0	80.3	0.3	-3.4	0.0	0.0	0.0	0.0	-0.0	12.4	12.4
3	452825.00	4793244.00	320.00	0	125	94.4	94.4	0.0	0.0	80.3	1.2	1.6	0.0	0.0	0.0	0.0	-0.0	11.4	11.4
4	452825.00	4793244.00	320.00	0	250	95.1	95.1	0.0	0.0	80.3	2.9	-0.1	0.0	0.0	0.0	0.0	-0.0	12.0	12.0
5	452825.00	4793244.00	320.00	0	500	96.1	96.1	0.0	0.0	80.3	5.5	-1.0	0.0	0.0	0.0	0.0	-0.0	11.4	11.4
6	452825.00	4793244.00	320.00	0	1000	96.9	96.9	0.0	0.0	80.3	10.7	-1.0	0.0	0.0	0.0	0.0	-0.0	7.0	7.0
7	452825.00	4793244.00	320.00	0	2000	95.2	95.2	0.0	0.0	80.3	28.1	-1.0	0.0	0.0	0.0	0.0	-0.0	-12.2	-12.2
8	452825.00	4793244.00	320.00	0	4000	88.6	88.6	0.0	0.0	80.3	95.2	-1.0	0.0	0.0	0.0	0.0	-0.0	-85.8	-85.8
9	452825.00	4793244.00	320.00	0	8000	70.0	70.0	0.0	0.0	80.3	339.4	-1.0	0.0	0.0	0.0	0.0	-0.0	-348.7	-348.7

Point Source, ISO 9613, Name: "49", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	454586.00	4792838.00	330.00	0	32	80.1	80.1	0.0	0.0	77.2	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	5.9	5.9
2	454586.00	4792838.00	330.00	0	63	89.6	89.6	0.0	0.0	77.2	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	15.2	15.2
3	454586.00	4792838.00	330.00	0	125	94.4	94.4	0.0	0.0	77.2	0.8	1.7	0.0	0.0	0.0	0.0	-0.0	14.6	14.6
4	454586.00	4792838.00	330.00	0	250	95.1	95.1	0.0	0.0	77.2	2.0	0.0	0.0	0.0	0.0	0.0	-0.0	15.8	15.8
5	454586.00	4792838.00	330.00	0	500	96.1	96.1	0.0	0.0	77.2	3.9	-0.9	0.0	0.0	0.0	0.0	-0.0	15.9	15.9
6	454586.00	4792838.00	330.00	0	1000	96.9	96.9	0.0	0.0	77.2	7.6	-0.9	0.0	0.0	0.0	0.0	-0.0	13.0	13.0
7	454586.00	4792838.00	330.00	0	2000	95.2	95.2	0.0	0.0	77.2	19.9	-0.9	0.0	0.0	0.0	0.0	-0.0	-1.0	-1.0
8	454586.00	4792838.00	330.00	0	4000	88.6	88.6	0.0	0.0	77.2	67.2	-0.9	0.0	0.0	0.0	0.0	-0.0	-54.9	-54.9
9	454586.00	4792838.00	330.00	0	8000	70.0	70.0	0.0	0.0	77.2	239.8	-0.9	0.0	0.0	0.0	0.0	-0.0	-246.1	-246.1

Point Source, ISO 9613, Name: "50", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	455040.00	4793271.00	330.88	0	32	80.1	80.1	0.0	0.0	74.6	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	8.5	8.5
2	455040.00	4793271.00	330.88	0	63	89.6	89.6	0.0	0.0	74.6	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	17.9	17.9
3	455040.00	4793271.00	330.88	0	125	94.4	94.4	0.0	0.0	74.6	0.6	1.7	0.0	0.0	0.0	0.0	-0.0	17.5	17.5
4	455040.00	4793271.00	330.88	0	250	95.1	95.1	0.0	0.0	74.6	1.5	0.1	0.0	0.0	0.0	0.0	-0.0	19.0	19.0
5	455040.00	4793271.00	330.88	0	500	96.1	96.1	0.0	0.0	74.6	2.9	-0.9	0.0	0.0	0.0	0.0	-0.0	19.6	19.6
6	455040.00	4793271.00	330.88	0	1000	96.9	96.9	0.0	0.0	74.6	5.6	-0.9	0.0	0.0	0.0	0.0	-0.0	17.6	17.6
7	455040.00	4793271.00	330.88	0	2000	95.2	95.2	0.0	0.0	74.6	14.7	-0.9	0.0	0.0	0.0	0.0	-0.0	6.9	6.9
8	455040.00	4793271.00	330.88	0	4000	88.6	88.6	0.0	0.0	74.6	49.6	-0.9	0.0	0.0	0.0	0.0	-0.0	-34.6	-34.6
9	455040.00	4793271.00	330.88	0	8000	70.0	70.0	0.0	0.0	74.6	176.8	-0.9	0.0	0.0	0.0	0.0	-0.0	-180.5	-180.5

Point Source, ISO 9613, Name: "65", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	454014.00	4798992.00	328.23	0	32	80.1	80.1	0.0	0.0	83.9	0.0	-4.3	0.0	0.0	0.0	0.0	-0.0	0.5	0.5
2	454014.00	4798992.00	328.23	0	63	89.6	89.6	0.0	0.0	83.9	0.4	-4.3	0.0	0.0	0.0	0.0	-0.0	9.5	9.5
3	454014.00	4798992.00	328.23	0	125	94.4	94.4	0.0	0.0	83.9	1.8	1.3	0.0	0.0	0.0	0.0	-0.0	7.4	7.4
4	454014.00	4798992.00	328.23	0	250	95.1	95.1	0.0	0.0	83.9	4.4	-0.4	0.0	0.0	0.0	0.0	-0.0	7.1	7.1
5	454014.00	4798992.00	328.23	0	500	96.1	96.1	0.0	0.0	83.9	8.4	-1.3	0.0	0.0	0.0	0.0	-0.0	5.1	5.1
6	454014.00	4798992.00	328.23	0	1000	96.9	96.9	0.0	0.0	83.9	16.4	-1.3	0.0	0.0	0.0	0.0	-0.0	-2.1	-2.1
7	454014.00	4798992.00	328.23	0	2000	95.2	95.2	0.0	0.0	83.9	42.9	-1.3	0.0	0.0	0.0	0.0	-0.0	-30.3	-30.3
8	454014.00	4798992.00	328.23	0	4000	88.6	88.6	0.0	0.0	83.9	145.2	-1.3	0.0	0.0	0.0	0.0	-0.0	-139.2	-139.2
9	454014.00	4798992.00	328.23	0	8000	70.0	70.0	0.0	0.0	83.9	517.8	-1.3	0.0	0.0	0.0	0.0	-0.0	-530.4	-530.4

(Wind Speed = 6m/s)

Goshen Noise Results

Point Source, ISO 9613, Name: "71", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	451847.00	4795562.00	320.00	0	32	80.1	80.1	0.0	0.0	82.0	0.0	-3.8	0.0	0.0	0.0	0.0	-0.0	2.0	2.0
2	451847.00	4795562.00	320.00	0	63	89.6	89.6	0.0	0.0	82.0	0.4	-3.8	0.0	0.0	0.0	0.0	-0.0	11.1	11.1
3	451847.00	4795562.00	320.00	0	125	94.4	94.4	0.0	0.0	82.0	1.4	0.7	0.0	0.0	0.0	0.0	-0.0	10.3	10.3
4	451847.00	4795562.00	320.00	0	250	95.1	95.1	0.0	0.0	82.0	3.5	-0.7	0.0	0.0	0.0	0.0	-0.0	10.2	10.2
5	451847.00	4795562.00	320.00	0	500	96.1	96.1	0.0	0.0	82.0	6.7	-1.4	0.0	0.0	0.0	0.0	-0.0	8.8	8.8
6	451847.00	4795562.00	320.00	0	1000	96.9	96.9	0.0	0.0	82.0	13.1	-1.4	0.0	0.0	0.0	0.0	-0.0	3.2	3.2
7	451847.00	4795562.00	320.00	0	2000	95.2	95.2	0.0	0.0	82.0	34.4	-1.4	0.0	0.0	0.0	0.0	-0.0	-19.8	-19.8
8	451847.00	4795562.00	320.00	0	4000	88.6	88.6	0.0	0.0	82.0	116.3	-1.4	0.0	0.0	0.0	0.0	-0.0	-108.3	-108.3
9	451847.00	4795562.00	320.00	0	8000	70.0	70.0	0.0	0.0	82.0	414.8	-1.4	0.0	0.0	0.0	0.0	-0.0	-425.4	-425.4

Point Source, ISO 9613, Name: "74", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	453886.00	4795484.00	328.47	0	32	80.1	80.1	0.0	0.0	75.0	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	8.1	8.1
2	453886.00	4795484.00	328.47	0	63	89.6	89.6	0.0	0.0	75.0	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	17.4	17.4
3	453886.00	4795484.00	328.47	0	125	94.4	94.4	0.0	0.0	75.0	0.6	1.5	0.0	0.0	0.0	0.0	-0.0	17.2	17.2
4	453886.00	4795484.00	328.47	0	250	95.1	95.1	0.0	0.0	75.0	1.6	-0.1	0.0	0.0	0.0	0.0	-0.0	18.6	18.6
5	453886.00	4795484.00	328.47	0	500	96.1	96.1	0.0	0.0	75.0	3.0	-1.0	0.0	0.0	0.0	0.0	-0.0	19.0	19.0
6	453886.00	4795484.00	328.47	0	1000	96.9	96.9	0.0	0.0	75.0	5.9	-1.0	0.0	0.0	0.0	0.0	-0.0	17.0	17.0
7	453886.00	4795484.00	328.47	0	2000	95.2	95.2	0.0	0.0	75.0	15.4	-1.0	0.0	0.0	0.0	0.0	-0.0	5.7	5.7
8	453886.00	4795484.00	328.47	0	4000	88.6	88.6	0.0	0.0	75.0	52.2	-1.0	0.0	0.0	0.0	0.0	-0.0	-37.6	-37.6
9	453886.00	4795484.00	328.47	0	8000	70.0	70.0	0.0	0.0	75.0	186.1	-1.0	0.0	0.0	0.0	0.0	-0.0	-190.1	-190.1

Point Source, ISO 9613, Name: "75", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	454731.00	4795014.00	330.00	0	32	80.1	80.1	0.0	0.0	67.0	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	16.2	16.2
2	454731.00	4795014.00	330.00	0	63	89.6	89.6	0.0	0.0	67.0	0.1	-3.0	0.0	0.0	0.0	0.0	-0.0	25.6	25.6
3	454731.00	4795014.00	330.00	0	125	94.4	94.4	0.0	0.0	67.0	0.3	1.2	0.0	0.0	0.0	0.0	-0.0	26.0	26.0
4	454731.00	4795014.00	330.00	0	250	95.1	95.1	0.0	0.0	67.0	0.6	-0.1	0.0	0.0	0.0	0.0	-0.0	27.7	27.7
5	454731.00	4795014.00	330.00	0	500	96.1	96.1	0.0	0.0	67.0	1.2	-1.0	0.0	0.0	0.0	0.0	-0.0	29.0	29.0
6	454731.00	4795014.00	330.00	0	1000	96.9	96.9	0.0	0.0	67.0	2.3	-1.0	0.0	0.0	0.0	0.0	-0.0	28.6	28.6
7	454731.00	4795014.00	330.00	0	2000	95.2	95.2	0.0	0.0	67.0	6.1	-1.0	0.0	0.0	0.0	0.0	-0.0	23.2	23.2
8	454731.00	4795014.00	330.00	0	4000	88.6	88.6	0.0	0.0	67.0	20.6	-1.0	0.0	0.0	0.0	0.0	-0.0	2.1	2.1
9	454731.00	4795014.00	330.00	0	8000	70.0	70.0	0.0	0.0	67.0	73.4	-1.0	0.0	0.0	0.0	0.0	-0.0	-69.4	-69.4

Point Source, ISO 9613, Name: "76", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	454137.00	4793736.00	328.67	0	32	80.1	80.1	0.0	0.0	74.8	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	8.3	8.3
2	454137.00	4793736.00	328.67	0	63	89.6	89.6	0.0	0.0	74.8	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	17.6	17.6
3	454137.00	4793736.00	328.67	0	125	94.4	94.4	0.0	0.0	74.8	0.6	1.7	0.0	0.0	0.0	0.0	-0.0	17.3	17.3
4	454137.00	4793736.00	328.67	0	250	95.1	95.1	0.0	0.0	74.8	1.6	0.0	0.0	0.0	0.0	0.0	-0.0	18.7	18.7
5	454137.00	4793736.00	328.67	0	500	96.1	96.1	0.0	0.0	74.8	2.9	-0.9	0.0	0.0	0.0	0.0	-0.0	19.3	19.3
6	454137.00	4793736.00	328.67	0	1000	96.9	96.9	0.0	0.0	74.8	5.7	-0.9	0.0	0.0	0.0	0.0	-0.0	17.3	17.3
7	454137.00	4793736.00	328.67	0	2000	95.2	95.2	0.0	0.0	74.8	15.0	-0.9	0.0	0.0	0.0	0.0	-0.0	6.3	6.3
8	454137.00	4793736.00	328.67	0	4000	88.6	88.6	0.0	0.0	74.8	50.8	-0.9	0.0	0.0	0.0	0.0	-0.0	-36.1	-36.1
9	454137.00	4793736.00	328.67	0	8000	70.0	70.0	0.0	0.0	74.8	181.3	-0.9	0.0	0.0	0.0	0.0	-0.0	-185.2	-185.2

Point Source, ISO 9613, Name: "77", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	453186.00	4791237.00	322.04	0	32	80.1	80.1	0.0	0.0	83.3	0.0	-4.1	0.0	0.0	0.0	0.0	-0.0	1.0	1.0
2	453186.00	4791237.00	322.04	0	63	89.6	89.6	0.0	0.0	83.3	0.4	-4.1	0.0	0.0	0.0	0.0	-0.0	10.1	10.1
3	453186.00	4791237.00	322.04	0	125	94.4	94.4	0.0	0.0	83.3	1.6	1.4	0.0	0.0	0.0	0.0	-0.0	8.1	8.1
4	453186.00	4791237.00	322.04	0	250	95.1	95.1	0.0	0.0	83.3	4.1	-0.3	0.0	0.0	0.0	0.0	-0.0	8.0	8.0
5	453186.00	4791237.00	322.04	0	500	96.1	96.1	0.0	0.0	83.3	7.8	-1.3	0.0	0.0	0.0	0.0	-0.0	6.3	6.3
6	453186.00	4791237.00	322.04	0	1000	96.9	96.9	0.0	0.0	83.3	15.2	-1.3	0.0	0.0	0.0	0.0	-0.0	-0.3	-0.3
7	453186.00	4791237.00	322.04	0	2000	95.2	95.2	0.0	0.0	83.3	39.8	-1.3	0.0	0.0	0.0	0.0	-0.0	-26.7	-26.7
8	453186.00	4791237.00	322.04	0	4000	88.6	88.6	0.0	0.0	83.3	134.7	-1.3	0.0	0.0	0.0	0.0	-0.0	-128.1	-128.1
9	453186.00	4791237.00	322.04	0	8000	70.0	70.0	0.0	0.0	83.3	480.5	-1.3	0.0	0.0	0.0	0.0	-0.0	-492.5	-492.5

(Wind Speed = 6m/s)

Goshen Noise Results

Point Source, ISO 9613, Name: "82", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	452242.00	4793145.00	320.00	0	32	80.1	80.1	0.0	0.0	81.8	0.0	-3.8	0.0	0.0	0.0	0.0	-0.0	2.1	2.1
2	452242.00	4793145.00	320.00	0	63	89.6	89.6	0.0	0.0	81.8	0.4	-3.8	0.0	0.0	0.0	0.0	-0.0	11.3	11.3
3	452242.00	4793145.00	320.00	0	125	94.4	94.4	0.0	0.0	81.8	1.4	1.5	0.0	0.0	0.0	0.0	-0.0	9.8	9.8
4	452242.00	4793145.00	320.00	0	250	95.1	95.1	0.0	0.0	81.8	3.5	-0.2	0.0	0.0	0.0	0.0	-0.0	10.1	10.1
5	452242.00	4793145.00	320.00	0	500	96.1	96.1	0.0	0.0	81.8	6.6	-1.2	0.0	0.0	0.0	0.0	-0.0	8.9	8.9
6	452242.00	4793145.00	320.00	0	1000	96.9	96.9	0.0	0.0	81.8	12.8	-1.2	0.0	0.0	0.0	0.0	-0.0	3.5	3.5
7	452242.00	4793145.00	320.00	0	2000	95.2	95.2	0.0	0.0	81.8	33.5	-1.2	0.0	0.0	0.0	0.0	-0.0	-18.9	-18.9
8	452242.00	4793145.00	320.00	0	4000	88.6	88.6	0.0	0.0	81.8	113.4	-1.2	0.0	0.0	0.0	0.0	-0.0	-105.4	-105.4
9	452242.00	4793145.00	320.00	0	8000	70.0	70.0	0.0	0.0	81.8	404.5	-1.2	0.0	0.0	0.0	0.0	-0.0	-415.1	-415.1

Area Source, ISO 9613, Name: "Goshen Transformer Top", ID: "GOSHENTRANSTOP"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN	
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)	
1	454557.80	4794884.40	254.27	0	32	45.1	45.1	0.0	0.0	68.5	0.0	-5.0	0.0	0.0	0.0	0.0	-0.0	-18.5	-18.5
2	454557.80	4794884.40	254.27	0	63	64.3	64.3	0.0	0.0	68.5	0.1	-5.0	0.0	0.0	0.0	0.0	-0.0	0.6	0.6
3	454557.80	4794884.40	254.27	0	125	76.4	76.4	0.0	0.0	68.5	0.3	-0.1	0.0	0.0	0.0	0.0	-0.0	7.6	7.6
4	454557.80	4794884.40	254.27	0	250	78.9	78.9	0.0	0.0	68.5	0.8	-1.5	0.0	0.0	0.0	0.0	-0.0	11.1	11.1
5	454557.80	4794884.40	254.27	0	500	84.3	84.3	0.0	0.0	68.5	1.4	-2.4	0.0	0.0	0.0	0.0	-0.0	16.7	16.7
6	454557.80	4794884.40	254.27	0	1000	81.5	81.5	0.0	0.0	68.5	2.8	-2.4	0.0	0.0	0.0	0.0	-0.0	12.6	12.6
7	454557.80	4794884.40	254.27	0	2000	77.7	77.7	0.0	0.0	68.5	7.3	-2.4	0.0	0.0	0.0	0.0	-0.0	4.3	4.3
8	454557.80	4794884.40	254.27	0	4000	72.5	72.5	0.0	0.0	68.5	24.7	-2.4	0.0	0.0	0.0	0.0	-0.0	-18.3	-18.3
9	454557.80	4794884.40	254.27	0	8000	63.4	63.4	0.0	0.0	68.5	88.0	-2.4	0.0	0.0	0.0	0.0	-0.0	-90.7	-90.7
10	454556.51	4794881.36	254.27	0	32	50.9	50.9	0.0	0.0	68.5	0.0	-5.0	0.0	0.0	0.0	0.0	-0.0	-12.7	-12.7
11	454556.51	4794881.36	254.27	0	63	70.1	70.1	0.0	0.0	68.5	0.1	-5.0	0.0	0.0	0.0	0.0	-0.0	6.4	6.4
12	454556.51	4794881.36	254.27	0	125	82.2	82.2	0.0	0.0	68.5	0.3	-0.1	0.0	0.0	0.0	0.0	-0.0	13.4	13.4
13	454556.51	4794881.36	254.27	0	250	84.7	84.7	0.0	0.0	68.5	0.8	-1.5	0.0	0.0	0.0	0.0	-0.0	16.9	16.9
14	454556.51	4794881.36	254.27	0	500	90.1	90.1	0.0	0.0	68.5	1.4	-2.4	0.0	0.0	0.0	0.0	-0.0	22.5	22.5
15	454556.51	4794881.36	254.27	0	1000	87.3	87.3	0.0	0.0	68.5	2.8	-2.4	0.0	0.0	0.0	0.0	-0.0	18.4	18.4
16	454556.51	4794881.36	254.27	0	2000	83.5	83.5	0.0	0.0	68.5	7.3	-2.4	0.0	0.0	0.0	0.0	-0.0	10.1	10.1
17	454556.51	4794881.36	254.27	0	4000	78.3	78.3	0.0	0.0	68.5	24.7	-2.4	0.0	0.0	0.0	0.0	-0.0	-12.5	-12.5
18	454556.51	4794881.36	254.27	0	8000	69.2	69.2	0.0	0.0	68.5	88.1	-2.4	0.0	0.0	0.0	0.0	-0.0	-85.0	-85.0
19	454554.63	4794879.63	254.27	0	32	43.6	43.6	0.0	0.0	68.5	0.0	-5.0	0.0	0.0	0.0	0.0	-0.0	-20.0	-20.0
20	454554.63	4794879.63	254.27	0	63	62.8	62.8	0.0	0.0	68.5	0.1	-5.0	0.0	0.0	0.0	0.0	-0.0	-0.9	-0.9
21	454554.63	4794879.63	254.27	0	125	74.9	74.9	0.0	0.0	68.5	0.3	-0.1	0.0	0.0	0.0	0.0	-0.0	6.2	6.2
22	454554.63	4794879.63	254.27	0	250	77.4	77.4	0.0	0.0	68.5	0.8	-1.5	0.0	0.0	0.0	0.0	-0.0	9.7	9.7
23	454554.63	4794879.63	254.27	0	500	82.8	82.8	0.0	0.0	68.5	1.4	-2.4	0.0	0.0	0.0	0.0	-0.0	15.3	15.3
24	454554.63	4794879.63	254.27	0	1000	80.0	80.0	0.0	0.0	68.5	2.8	-2.4	0.0	0.0	0.0	0.0	-0.0	11.1	11.1
25	454554.63	4794879.63	254.27	0	2000	76.2	76.2	0.0	0.0	68.5	7.3	-2.4	0.0	0.0	0.0	0.0	-0.0	2.8	2.8
26	454554.63	4794879.63	254.27	0	4000	71.0	71.0	0.0	0.0	68.5	24.7	-2.4	0.0	0.0	0.0	0.0	-0.0	-19.8	-19.8
27	454554.63	4794879.63	254.27	0	8000	61.9	61.9	0.0	0.0	68.5	88.3	-2.4	0.0	0.0	0.0	0.0	-0.0	-92.4	-92.4
28	454553.51	4794882.40	254.27	0	32	48.7	48.7	0.0	0.0	68.6	0.0	-5.0	0.0	0.0	0.0	0.0	-0.0	-14.9	-14.9
29	454553.51	4794882.40	254.27	0	63	67.9	67.9	0.0	0.0	68.6	0.1	-5.0	0.0	0.0	0.0	0.0	-0.0	4.3	4.3
30	454553.51	4794882.40	254.27	0	125	80.0	80.0	0.0	0.0	68.6	0.3	-0.2	0.0	0.0	0.0	0.0	-0.0	11.4	11.4
31	454553.51	4794882.40	254.27	0	250	82.5	82.5	0.0	0.0	68.6	0.8	-1.6	0.0	0.0	0.0	0.0	-0.0	14.8	14.8
32	454553.51	4794882.40	254.27	0	500	87.9	87.9	0.0	0.0	68.6	1.4	-2.5	0.0	0.0	0.0	0.0	-0.0	20.4	20.4
33	454553.51	4794882.40	254.27	0	1000	85.1	85.1	0.0	0.0	68.6	2.8	-2.5	0.0	0.0	0.0	0.0	-0.0	16.2	16.2
34	454553.51	4794882.40	254.27	0	2000	81.3	81.3	0.0	0.0	68.6	7.3	-2.5	0.0	0.0	0.0	0.0	-0.0	7.9	7.9
35	454553.51	4794882.40	254.27	0	4000	76.1	76.1	0.0	0.0	68.6	24.8	-2.5	0.0	0.0	0.0	0.0	-0.0	-14.8	-14.8
36	454553.51	4794882.40	254.27	0	8000	67.0	67.0	0.0	0.0	68.6	88.4	-2.5	0.0	0.0	0.0	0.0	-0.0	-87.5	-87.5
37	454554.60	4794885.00	254.27	0	32	49.0	49.0	0.0	0.0	68.6	0.0	-5.0	0.0	0.0	0.0	0.0	-0.0	-14.6	-14.6
38	454554.60	4794885.00	254.27	0	63	68.2	68.2	0.0	0.0	68.6	0.1	-5.0	0.0	0.0	0.0	0.0	-0.0	4.5	4.5
39	454554.60	4794885.00	254.27	0	125	80.3	80.3	0.0	0.0	68.6	0.3	-0.2	0.0	0.0	0.0	0.0	-0.0	11.6	11.6
40	454554.60	4794885.00	254.27	0	250	82.8	82.8	0.0	0.0	68.6	0.8	-1.6	0.0	0.0	0.0	0.0	-0.0	15.0	15.0
41	454554.60	4794885.00	254.27	0	500	88.2	88.2	0.0	0.0	68.6	1.4	-2.4	0.0	0.0	0.0	0.0	-0.0	20.6	20.6
42	454554.60	4794885.00	254.27	0	1000	85.4	85.4	0.0	0.0	68.6	2.8	-2.4	0.0	0.0	0.0	0.0	-0.0	16.5	16.5
43	454554.60	4794885.00	254.27	0	2000	81.6	81.6	0.0	0.0	68.6	7.3	-2.4	0.0	0.0	0.0	0.0	-0.0	8.1	8.1
44	454554.60	4794885.00	254.27	0	4000	76.4	76.4	0.0	0.0	68.6	24.8	-2.4	0.0	0.0	0.0	0.0	-0.0	-14.5	-14.5
45	454554.60	4794885.00	254.27	0	8000	67.3	67.3	0.0	0.0	68.6	88.3	-2.4	0.0	0.0	0.0	0.0	-0.0	-87.2	-87.2
46	454556.21	4794886.10	254.27	0	32	43.8	43.8	0.0	0.0	68.5	0.0	-5.0	0.0	0.0	0.0	0.0	-0.0	-19.8	-19.8
47	454556.21	4794886.10	254.27	0	63	63.0	63.0	0.0	0.0	68.5	0.1	-5.0	0.0	0.0	0.0	0.0	-0.0	-0.7	-0.7
48	454556.21	4794886.10	254.27	0	125	75.1	75.1	0.0	0.0	68.5	0.3	-0.1	0.0	0.0	0.0	0.0	-0.0	6.4	6.4
49	454556.21	4794886.10	254.27	0	250	77.6	77.6	0.0	0.0	68.5	0.8	-1.5	0.0	0.0	0.0	0.0	-0.0	9.8	9.8
50	454556.21	4794886.10	254.27	0	500	83.0	83.0	0.0	0.0	68.5	1.4	-2.4	0.0	0.0	0.0	0.0	-0.0	15.5	15.5
51	454556.21	4794886.10	254.27	0	1000	80.2	80.2	0.0	0.0	68.5	2.8	-2.4	0.0	0.0	0.0	0.0	-0.0	11.3	11.3

(Wind Speed = 6m/s)

Goshen Noise Results

Area Source, ISO 9613, Name: "Goshen Transformer Top", ID: "GOSHENTRANSTOP"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
52	454556.21	4794886.10	254.27	0	2000	76.4	76.4	0.0	0.0	68.5	7.3	-2.4	0.0	0.0	0.0	0.0	-0.0	3.0	3.0
53	454556.21	4794886.10	254.27	0	4000	71.2	71.2	0.0	0.0	68.5	24.7	-2.4	0.0	0.0	0.0	0.0	-0.0	-19.6	-19.6
54	454556.21	4794886.10	254.27	0	8000	62.1	62.1	0.0	0.0	68.5	88.2	-2.4	0.0	0.0	0.0	0.0	-0.0	-92.2	-92.2

vert. Area Source, ISO 9613, Name: "Goshen Transformer North Wall", ID: "GTRANSNORTH"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	454555.40	4794886.43	253.29	0	32	46.9	46.9	3.0	0.0	68.5	0.0	-5.1	0.0	0.0	2.2	0.0	-0.0	-15.8	-15.8
2	454555.40	4794886.43	253.29	0	63	66.1	66.1	3.0	0.0	68.5	0.1	-5.1	0.0	0.0	2.9	0.0	-0.0	2.7	2.7
3	454555.40	4794886.43	253.29	0	125	78.2	78.2	3.0	0.0	68.5	0.3	-0.7	0.0	0.0	3.6	0.0	-0.0	9.5	9.5
4	454555.40	4794886.43	253.29	0	250	80.7	80.7	3.0	0.0	68.5	0.8	-1.9	0.0	0.0	4.5	0.0	-0.0	11.8	11.8
5	454555.40	4794886.43	253.29	0	500	86.1	86.1	3.0	0.0	68.5	1.4	-2.6	0.0	0.0	5.6	0.0	-0.0	16.2	16.2
6	454555.40	4794886.43	253.29	0	1000	83.3	83.3	3.0	0.0	68.5	2.8	-2.6	0.0	0.0	7.0	0.0	-0.0	10.7	10.7
7	454555.40	4794886.43	253.29	0	2000	79.5	79.5	3.0	0.0	68.5	7.3	-2.6	0.0	0.0	8.8	0.0	-0.0	0.5	0.5
8	454555.40	4794886.43	253.29	0	4000	74.3	74.3	3.0	0.0	68.5	24.8	-2.6	0.0	0.0	10.8	0.0	-0.0	-24.1	-24.1
9	454555.40	4794886.43	253.29	0	8000	65.2	65.2	3.0	0.0	68.5	88.3	-2.6	0.0	0.0	12.9	0.0	-0.0	-98.9	-98.9
10	454558.62	4794886.43	253.29	0	32	26.5	26.5	3.0	0.0	68.5	0.0	-5.1	0.0	0.0	0.0	0.0	-0.0	-33.9	-33.9
11	454558.62	4794886.43	253.29	0	63	45.7	45.7	3.0	0.0	68.5	0.1	-5.1	0.0	0.0	0.0	0.0	-0.0	-14.8	-14.8
12	454558.62	4794886.43	253.29	0	125	57.8	57.8	3.0	0.0	68.5	0.3	-0.7	0.0	0.0	0.0	0.0	-0.0	-7.3	-7.3
13	454558.62	4794886.43	253.29	0	250	60.3	60.3	3.0	0.0	68.5	0.8	-1.9	0.0	0.0	0.0	0.0	-0.0	-4.1	-4.1
14	454558.62	4794886.43	253.29	0	500	65.7	65.7	3.0	0.0	68.5	1.4	-2.6	0.0	0.0	0.0	0.0	-0.0	1.4	1.4
15	454558.62	4794886.43	253.29	0	1000	62.9	62.9	3.0	0.0	68.5	2.8	-2.6	0.0	0.0	0.0	0.0	-0.0	-2.8	-2.8
16	454558.62	4794886.43	253.29	0	2000	59.1	59.1	3.0	0.0	68.5	7.3	-2.6	0.0	0.0	0.0	0.0	-0.0	-11.1	-11.1
17	454558.62	4794886.43	253.29	0	4000	53.9	53.9	3.0	0.0	68.5	24.7	-2.6	0.0	0.0	0.0	0.0	-0.0	-33.6	-33.6
18	454558.62	4794886.43	253.29	0	8000	44.8	44.8	3.0	0.0	68.5	87.9	-2.6	0.0	0.0	0.0	0.0	-0.0	-106.0	-106.0
19	454555.40	4794886.43	254.29	0	32	46.9	46.9	3.0	0.0	68.5	0.0	-5.0	0.0	0.0	0.0	0.0	-0.0	-13.7	-13.7
20	454555.40	4794886.43	254.29	0	63	66.1	66.1	3.0	0.0	68.5	0.1	-5.0	0.0	0.0	0.0	0.0	-0.0	5.5	5.5
21	454555.40	4794886.43	254.29	0	125	78.2	78.2	3.0	0.0	68.5	0.3	-0.1	0.0	0.0	0.0	0.0	-0.0	12.5	12.5
22	454555.40	4794886.43	254.29	0	250	80.7	80.7	3.0	0.0	68.5	0.8	-1.5	0.0	0.0	0.0	0.0	-0.0	16.0	16.0
23	454555.40	4794886.43	254.29	0	500	86.1	86.1	3.0	0.0	68.5	1.4	-2.4	0.0	0.0	0.0	0.0	-0.0	21.6	21.6
24	454555.40	4794886.43	254.29	0	1000	83.3	83.3	3.0	0.0	68.5	2.8	-2.4	0.0	0.0	0.0	0.0	-0.0	17.4	17.4
25	454555.40	4794886.43	254.29	0	2000	79.5	79.5	3.0	0.0	68.5	7.3	-2.4	0.0	0.0	0.0	0.0	-0.0	9.1	9.1
26	454555.40	4794886.43	254.29	0	4000	74.3	74.3	3.0	0.0	68.5	24.8	-2.4	0.0	0.0	0.0	0.0	-0.0	-13.5	-13.5
27	454555.40	4794886.43	254.29	0	8000	65.2	65.2	3.0	0.0	68.5	88.3	-2.4	0.0	0.0	0.0	0.0	-0.0	-86.2	-86.2
28	454558.62	4794886.43	254.29	0	32	26.5	26.5	3.0	0.0	68.5	0.0	-5.0	0.0	0.0	0.0	0.0	-0.0	-34.1	-34.1
29	454558.62	4794886.43	254.29	0	63	45.7	45.7	3.0	0.0	68.5	0.1	-5.0	0.0	0.0	0.0	0.0	-0.0	-14.9	-14.9
30	454558.62	4794886.43	254.29	0	125	57.8	57.8	3.0	0.0	68.5	0.3	-0.0	0.0	0.0	0.0	0.0	-0.0	-8.0	-8.0
31	454558.62	4794886.43	254.29	0	250	60.3	60.3	3.0	0.0	68.5	0.8	-1.5	0.0	0.0	0.0	0.0	-0.0	-4.5	-4.5
32	454558.62	4794886.43	254.29	0	500	65.7	65.7	3.0	0.0	68.5	1.4	-2.4	0.0	0.0	0.0	0.0	-0.0	1.2	1.2
33	454558.62	4794886.43	254.29	0	1000	62.9	62.9	3.0	0.0	68.5	2.8	-2.4	0.0	0.0	0.0	0.0	-0.0	-3.0	-3.0
34	454558.62	4794886.43	254.29	0	2000	59.1	59.1	3.0	0.0	68.5	7.3	-2.4	0.0	0.0	0.0	0.0	-0.0	-11.3	-11.3
35	454558.62	4794886.43	254.29	0	4000	53.9	53.9	3.0	0.0	68.5	24.7	-2.4	0.0	0.0	0.0	0.0	-0.0	-33.8	-33.8
36	454558.62	4794886.43	254.29	0	8000	44.8	44.8	3.0	0.0	68.5	87.9	-2.4	0.0	0.0	0.0	0.0	-0.0	-106.2	-106.2
37	454555.40	4794886.43	251.29	0	32	46.9	46.9	3.0	0.0	68.5	0.0	-5.3	0.0	0.0	3.0	0.0	-0.0	-16.3	-16.3
38	454555.40	4794886.43	251.29	0	63	66.1	66.1	3.0	0.0	68.5	0.1	-5.3	0.0	0.0	3.8	0.0	-0.0	2.1	2.1
39	454555.40	4794886.43	251.29	0	125	78.2	78.2	3.0	0.0	68.5	0.3	-0.9	0.0	0.0	4.4	0.0	-0.0	8.9	8.9
40	454555.40	4794886.43	251.29	0	250	80.7	80.7	3.0	0.0	68.5	0.8	-2.1	0.0	0.0	5.2	0.0	-0.0	11.4	11.4
41	454555.40	4794886.43	251.29	0	500	86.1	86.1	3.0	0.0	68.5	1.4	-2.9	0.0	0.0	6.1	0.0	-0.0	16.0	16.0
42	454555.40	4794886.43	251.29	0	1000	83.3	83.3	3.0	0.0	68.5	2.8	-2.9	0.0	0.0	7.3	0.0	-0.0	10.6	10.6
43	454555.40	4794886.43	251.29	0	2000	79.5	79.5	3.0	0.0	68.5	7.3	-2.9	0.0	0.0	8.9	0.0	-0.0	0.7	0.7
44	454555.40	4794886.43	251.29	0	4000	74.3	74.3	3.0	0.0	68.5	24.8	-2.9	0.0	0.0	10.8	0.0	-0.0	-23.9	-23.9
45	454555.40	4794886.43	251.29	0	8000	65.2	65.2	3.0	0.0	68.5	88.3	-2.9	0.0	0.0	12.9	0.0	-0.0	-98.6	-98.6
46	454558.62	4794886.43	251.29	0	32	26.5	26.5	3.0	0.0	68.5	0.0	-5.3	0.0	0.0	0.0	0.0	-0.0	-33.7	-33.7
47	454558.62	4794886.43	251.29	0	63	45.7	45.7	3.0	0.0	68.5	0.1	-5.3	0.0	0.0	0.0	0.0	-0.0	-14.6	-14.6
48	454558.62	4794886.43	251.29	0	125	57.8	57.8	3.0	0.0	68.5	0.3	-0.9	0.0	0.0	0.0	0.0	-0.0	-7.1	-7.1
49	454558.62	4794886.43	251.29	0	250	60.3	60.3	3.0	0.0	68.5	0.8	-2.1	0.0	0.0	0.0	0.0	-0.0	-3.8	-3.8
50	454558.62	4794886.43	251.29	0	500	65.7	65.7	3.0	0.0	68.5	1.4	-2.9	0.0	0.0	0.0	0.0	-0.0	1.6	1.6
51	454558.62	4794886.43	251.29	0	1000	62.9	62.9	3.0	0.0	68.5	2.8	-2.9	0.0	0.0	0.0	0.0	-0.0	-2.5	-2.5
52	454558.62	4794886.43	251.29	0	2000	59.1	59.1	3.0	0.0	68.5	7.3	-2.9	0.0	0.0	0.0	0.0	-0.0	-10.8	-10.8
53	454558.62	4794886.43	251.29	0	4000	53.9	53.9	3.0	0.0	68.5	24.7	-2.9	0.0	0.0	0.0	0.0	-0.0	-33.4	-33.4
54	454558.62	4794886.43	251.29	0	8000	44.8	44.8	3.0	0.0	68.5	87.9	-2.9	0.0	0.0	0.0	0.0	-0.0	-105.8	-105.8
55	454555.40	4794886.43	252.29	0	32	46.9	46.9	3.0	0.0	68.5	0.0	-5.2	0.0	0.0	2.8	0.0	-0.0	-16.2	-16.2
56	454555.40	4794886.43	252.29	0	63	66.1	66.1	3.0	0.0	68.5	0.1	-5.2	0.0	0.0	3.5	0.0	-0.0	2.3	2.3
57	454555.40	4794886.43	252.29	0	125	78.2	78.2	3.0	0.0	68.5	0.3	-0.8	0.0	0.0	4.2	0.0	-0.0	9.0	9.0

(Wind Speed = 6m/s)

Goshen Noise Results

vert. Area Source, ISO 9613, Name: "Goshen Transformer North Wall", ID: "GTRANSNORTH"

Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahaus (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
58	454555.40	4794886.43	252.29	0	250	80.7	80.7	3.0	0.0	68.5	0.8	-2.0	0.0	0.0	5.0	0.0	-0.0	11.5	11.5
59	454555.40	4794886.43	252.29	0	500	86.1	86.1	3.0	0.0	68.5	1.4	-2.8	0.0	0.0	6.0	0.0	-0.0	16.0	16.0
60	454555.40	4794886.43	252.29	0	1000	83.3	83.3	3.0	0.0	68.5	2.8	-2.8	0.0	0.0	7.3	0.0	-0.0	10.5	10.5
61	454555.40	4794886.43	252.29	0	2000	79.5	79.5	3.0	0.0	68.5	7.3	-2.8	0.0	0.0	8.9	0.0	-0.0	0.6	0.6
62	454555.40	4794886.43	252.29	0	4000	74.3	74.3	3.0	0.0	68.5	24.8	-2.8	0.0	0.0	10.8	0.0	-0.0	-24.0	-24.0
63	454555.40	4794886.43	252.29	0	8000	65.2	65.2	3.0	0.0	68.5	88.3	-2.8	0.0	0.0	12.9	0.0	-0.0	-98.8	-98.8
64	454558.62	4794886.43	252.29	0	32	26.5	26.5	3.0	0.0	68.5	0.0	-5.2	0.0	0.0	0.0	0.0	-0.0	-33.8	-33.8
65	454558.62	4794886.43	252.29	0	63	45.7	45.7	3.0	0.0	68.5	0.1	-5.2	0.0	0.0	0.0	0.0	-0.0	-14.7	-14.7
66	454558.62	4794886.43	252.29	0	125	57.8	57.8	3.0	0.0	68.5	0.3	-0.8	0.0	0.0	0.0	0.0	-0.0	-7.2	-7.2
67	454558.62	4794886.43	252.29	0	250	60.3	60.3	3.0	0.0	68.5	0.8	-2.0	0.0	0.0	0.0	0.0	-0.0	-3.9	-3.9
68	454558.62	4794886.43	252.29	0	500	65.7	65.7	3.0	0.0	68.5	1.4	-2.8	0.0	0.0	0.0	0.0	-0.0	1.5	1.5
69	454558.62	4794886.43	252.29	0	1000	62.9	62.9	3.0	0.0	68.5	2.8	-2.8	0.0	0.0	0.0	0.0	-0.0	-2.6	-2.6
70	454558.62	4794886.43	252.29	0	2000	59.1	59.1	3.0	0.0	68.5	7.3	-2.8	0.0	0.0	0.0	0.0	-0.0	-10.9	-10.9
71	454558.62	4794886.43	252.29	0	4000	53.9	53.9	3.0	0.0	68.5	24.7	-2.8	0.0	0.0	0.0	0.0	-0.0	-33.5	-33.5
72	454558.62	4794886.43	252.29	0	8000	44.8	44.8	3.0	0.0	68.5	87.9	-2.8	0.0	0.0	0.0	0.0	-0.0	-105.9	-105.9
73	454555.40	4794886.43	250.40	0	32	45.9	45.9	3.0	0.0	68.5	0.0	-5.4	0.0	0.0	3.2	0.0	-0.0	-17.4	-17.4
74	454555.40	4794886.43	250.40	0	63	65.1	65.1	3.0	0.0	68.5	0.1	-5.4	0.0	0.0	3.9	0.0	-0.0	1.0	1.0
75	454555.40	4794886.43	250.40	0	125	77.2	77.2	3.0	0.0	68.5	0.3	-1.0	0.0	0.0	4.6	0.0	-0.0	7.8	7.8
76	454555.40	4794886.43	250.40	0	250	79.7	79.7	3.0	0.0	68.5	0.8	-2.3	0.0	0.0	5.3	0.0	-0.0	10.4	10.4
77	454555.40	4794886.43	250.40	0	500	85.1	85.1	3.0	0.0	68.5	1.4	-3.0	0.0	0.0	6.1	0.0	-0.0	15.0	15.0
78	454555.40	4794886.43	250.40	0	1000	82.3	82.3	3.0	0.0	68.5	2.8	-3.0	0.0	0.0	7.3	0.0	-0.0	9.7	9.7
79	454555.40	4794886.43	250.40	0	2000	78.5	78.5	3.0	0.0	68.5	7.3	-3.0	0.0	0.0	8.9	0.0	-0.0	-0.2	-0.2
80	454555.40	4794886.43	250.40	0	4000	73.3	73.3	3.0	0.0	68.5	24.8	-3.0	0.0	0.0	10.8	0.0	-0.0	-24.8	-24.8
81	454555.40	4794886.43	250.40	0	8000	64.2	64.2	3.0	0.0	68.5	88.3	-3.0	0.0	0.0	12.9	0.0	-0.0	-99.6	-99.6
82	454558.62	4794886.43	250.40	0	32	25.5	25.5	3.0	0.0	68.5	0.0	-5.4	0.0	0.0	0.0	0.0	-0.0	-34.6	-34.6
83	454558.62	4794886.43	250.40	0	63	44.7	44.7	3.0	0.0	68.5	0.1	-5.4	0.0	0.0	0.0	0.0	-0.0	-15.5	-15.5
84	454558.62	4794886.43	250.40	0	125	56.8	56.8	3.0	0.0	68.5	0.3	-1.0	0.0	0.0	0.0	0.0	-0.0	-8.0	-8.0
85	454558.62	4794886.43	250.40	0	250	59.3	59.3	3.0	0.0	68.5	0.8	-2.2	0.0	0.0	0.0	0.0	-0.0	-4.8	-4.8
86	454558.62	4794886.43	250.40	0	500	64.7	64.7	3.0	0.0	68.5	1.4	-3.0	0.0	0.0	0.0	0.0	-0.0	0.7	0.7
87	454558.62	4794886.43	250.40	0	1000	61.9	61.9	3.0	0.0	68.5	2.8	-3.0	0.0	0.0	0.0	0.0	-0.0	-3.4	-3.4
88	454558.62	4794886.43	250.40	0	2000	58.1	58.1	3.0	0.0	68.5	7.3	-3.0	0.0	0.0	0.0	0.0	-0.0	-11.7	-11.7
89	454558.62	4794886.43	250.40	0	4000	52.9	52.9	3.0	0.0	68.5	24.7	-3.0	0.0	0.0	0.0	0.0	-0.0	-34.3	-34.3
90	454558.62	4794886.43	250.40	0	8000	43.8	43.8	3.0	0.0	68.5	87.9	-3.0	0.0	0.0	0.0	0.0	-0.0	-106.7	-106.7

vert. Area Source, ISO 9613, Name: "Goshen Transformer East Wall", ID: "GOSHTRANSEAST"

Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahaus (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	454552.20	4794881.80	252.77	0	32	45.8	45.8	3.0	0.0	68.6	0.0	-5.1	0.0	0.0	3.8	0.0	-0.0	-18.4	-18.4
2	454552.20	4794881.80	252.77	0	63	65.0	65.0	3.0	0.0	68.6	0.1	-5.1	0.0	0.0	5.6	0.0	-0.0	-1.1	-1.1
3	454552.20	4794881.80	252.77	0	125	77.1	77.1	3.0	0.0	68.6	0.3	-0.8	0.0	0.0	7.8	0.0	-0.0	4.2	4.2
4	454552.20	4794881.80	252.77	0	250	79.6	79.6	3.0	0.0	68.6	0.8	-2.0	0.0	0.0	10.3	0.0	-0.0	5.0	5.0
5	454552.20	4794881.80	252.77	0	500	85.0	85.0	3.0	0.0	68.6	1.4	-2.7	0.0	0.0	13.1	0.0	-0.0	7.7	7.7
6	454552.20	4794881.80	252.77	0	1000	82.2	82.2	3.0	0.0	68.6	2.8	-2.7	0.0	0.0	15.9	0.0	-0.0	0.7	0.7
7	454552.20	4794881.80	252.77	0	2000	78.4	78.4	3.0	0.0	68.6	7.3	-2.7	0.0	0.0	18.1	0.0	-0.0	-9.8	-9.8
8	454552.20	4794881.80	252.77	0	4000	73.2	73.2	3.0	0.0	68.6	24.8	-2.7	0.0	0.0	18.9	0.0	-0.0	-33.4	-33.4
9	454552.20	4794881.80	252.77	0	8000	64.1	64.1	3.0	0.0	68.6	88.6	-2.7	0.0	0.0	19.4	0.0	-0.0	-106.7	-106.7
10	454552.20	4794885.35	252.77	0	32	42.2	42.2	3.0	0.0	68.6	0.0	-5.1	0.0	0.0	3.4	0.0	-0.0	-21.6	-21.6
11	454552.20	4794885.35	252.77	0	63	61.4	61.4	3.0	0.0	68.6	0.1	-5.1	0.0	0.0	5.1	0.0	-0.0	-4.2	-4.2
12	454552.20	4794885.35	252.77	0	125	73.5	73.5	3.0	0.0	68.6	0.3	-0.8	0.0	0.0	7.2	0.0	-0.0	1.2	1.2
13	454552.20	4794885.35	252.77	0	250	76.0	76.0	3.0	0.0	68.6	0.8	-2.0	0.0	0.0	9.7	0.0	-0.0	2.0	2.0
14	454552.20	4794885.35	252.77	0	500	81.4	81.4	3.0	0.0	68.6	1.4	-2.7	0.0	0.0	12.4	0.0	-0.0	4.7	4.7
15	454552.20	4794885.35	252.77	0	1000	78.6	78.6	3.0	0.0	68.6	2.8	-2.7	0.0	0.0	15.2	0.0	-0.0	-2.3	-2.3
16	454552.20	4794885.35	252.77	0	2000	74.8	74.8	3.0	0.0	68.6	7.3	-2.7	0.0	0.0	17.5	0.0	-0.0	-12.9	-12.9
17	454552.20	4794885.35	252.77	0	4000	69.6	69.6	3.0	0.0	68.6	24.9	-2.7	0.0	0.0	18.5	0.0	-0.0	-36.6	-36.6
18	454552.20	4794885.35	252.77	0	8000	60.5	60.5	3.0	0.0	68.6	88.6	-2.7	0.0	0.0	19.2	0.0	-0.0	-110.2	-110.2
19	454552.20	4794881.80	253.77	0	32	45.8	45.8	3.0	0.0	68.6	0.0	-5.0	0.0	0.0	3.8	0.0	-0.0	-18.5	-18.5
20	454552.20	4794881.80	253.77	0	63	65.0	65.0	3.0	0.0	68.6	0.1	-5.0	0.0	0.0	4.9	0.0	-0.0	-0.5	-0.5
21	454552.20	4794881.80	253.77	0	125	77.1	77.1	3.0	0.0	68.6	0.3	-0.6	0.0	0.0	6.4	0.0	-0.0	5.5	5.5
22	454552.20	4794881.80	253.77	0	250	79.6	79.6	3.0	0.0	68.6	0.8	-1.9	0.0	0.0	8.3	0.0	-0.0	6.9	6.9
23	454552.20	4794881.80	253.77	0	500	85.0	85.0	3.0	0.0	68.6	1.4	-2.6	0.0	0.0	10.5	0.0	-0.0	10.1	10.1
24	454552.20	4794881.80	253.77	0	1000	82.2	82.2	3.0	0.0	68.6	2.8	-2.6	0.0	0.0	13.1	0.0	-0.0	3.3	3.3
25	454552.20	4794881.80	253.77	0	2000	78.4	78.4	3.0	0.0	68.6	7.3	-2.6	0.0	0.0	15.9	0.0	-0.0	-7.8	-7.8
26	454552.20	4794881.80	253.77	0	4000	73.2	73.2	3.0	0.0	68.6	24.8	-2.6	0.0	0.0	18.8	0.0	-0.0	-33.3	-33.3
27	454552.20	4794881.80	253.77	0	8000	64.1	64.1	3.0	0.0	68.6	88.6	-2.6	0.0	0.0	19.6	0.0	-0.0	-107.0	-107.0

(Wind Speed = 6m/s)

Goshen Noise Results

vert. Area Source, ISO 9613, Name: "Goshen Transformer East Wall", ID: "GOSHTRANSEAST"																				
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN	
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)	
28	454552.20	4794885.35	253.77	0	32	42.2	42.2	3.0	0.0	68.6	0.0	-5.0	0.0	0.0	3.4	0.0	-0.0	-21.8	-21.8	
29	454552.20	4794885.35	253.77	0	63	61.4	61.4	3.0	0.0	68.6	0.1	-5.0	0.0	0.0	4.5	0.0	-0.0	-3.7	-3.7	
30	454552.20	4794885.35	253.77	0	125	73.5	73.5	3.0	0.0	68.6	0.3	-0.6	0.0	0.0	6.0	0.0	-0.0	2.3	2.3	
31	454552.20	4794885.35	253.77	0	250	76.0	76.0	3.0	0.0	68.6	0.8	-1.9	0.0	0.0	7.9	0.0	-0.0	3.7	3.7	
32	454552.20	4794885.35	253.77	0	500	81.4	81.4	3.0	0.0	68.6	1.4	-2.6	0.0	0.0	10.2	0.0	-0.0	6.8	6.8	
33	454552.20	4794885.35	253.77	0	1000	78.6	78.6	3.0	0.0	68.6	2.8	-2.6	0.0	0.0	12.8	0.0	-0.0	0.1	0.1	
34	454552.20	4794885.35	253.77	0	2000	74.8	74.8	3.0	0.0	68.6	7.3	-2.6	0.0	0.0	15.5	0.0	-0.0	-11.1	-11.1	
35	454552.20	4794885.35	253.77	0	4000	69.6	69.6	3.0	0.0	68.6	24.9	-2.6	0.0	0.0	18.4	0.0	-0.0	-36.6	-36.6	
36	454552.20	4794885.35	253.77	0	8000	60.5	60.5	3.0	0.0	68.6	88.6	-2.6	0.0	0.0	19.4	0.0	-0.0	-110.5	-110.5	
37	454552.20	4794881.80	250.77	0	32	45.8	45.8	3.0	0.0	68.6	0.0	-5.4	0.0	0.0	5.9	0.0	-0.0	-20.3	-20.3	
38	454552.20	4794881.80	250.77	0	63	65.0	65.0	3.0	0.0	68.6	0.1	-5.4	0.0	0.0	8.2	0.0	-0.0	-3.5	-3.5	
39	454552.20	4794881.80	250.77	0	125	77.1	77.1	3.0	0.0	68.6	0.3	-1.0	0.0	0.0	10.8	0.0	-0.0	1.4	1.4	
40	454552.20	4794881.80	250.77	0	250	79.6	79.6	3.0	0.0	68.6	0.8	-2.2	0.0	0.0	13.6	0.0	-0.0	1.9	1.9	
41	454552.20	4794881.80	250.77	0	500	85.0	85.0	3.0	0.0	68.6	1.4	-3.0	0.0	0.0	16.5	0.0	-0.0	4.5	4.5	
42	454552.20	4794881.80	250.77	0	1000	82.2	82.2	3.0	0.0	68.6	2.8	-3.0	0.0	0.0	18.2	0.0	-0.0	-1.4	-1.4	
43	454552.20	4794881.80	250.77	0	2000	78.4	78.4	3.0	0.0	68.6	7.3	-3.0	0.0	0.0	19.0	0.0	-0.0	-10.5	-10.5	
44	454552.20	4794881.80	250.77	0	4000	73.2	73.2	3.0	0.0	68.6	24.8	-3.0	0.0	0.0	19.5	0.0	-0.0	-33.7	-33.7	
45	454552.20	4794881.80	250.77	0	8000	64.1	64.1	3.0	0.0	68.6	88.6	-3.0	0.0	0.0	19.7	0.0	-0.0	-106.8	-106.8	
46	454552.20	4794885.35	250.77	0	32	42.2	42.2	3.0	0.0	68.6	0.0	-5.4	0.0	0.0	4.4	0.0	-0.0	-22.4	-22.4	
47	454552.20	4794885.35	250.77	0	63	61.4	61.4	3.0	0.0	68.6	0.1	-5.4	0.0	0.0	6.4	0.0	-0.0	-5.2	-5.2	
48	454552.20	4794885.35	250.77	0	125	73.5	73.5	3.0	0.0	68.6	0.3	-1.0	0.0	0.0	8.6	0.0	-0.0	-0.0	-0.0	
49	454552.20	4794885.35	250.77	0	250	76.0	76.0	3.0	0.0	68.6	0.8	-2.2	0.0	0.0	11.2	0.0	-0.0	0.7	0.7	
50	454552.20	4794885.35	250.77	0	500	81.4	81.4	3.0	0.0	68.6	1.4	-3.0	0.0	0.0	14.0	0.0	-0.0	3.3	3.3	
51	454552.20	4794885.35	250.77	0	1000	78.6	78.6	3.0	0.0	68.6	2.8	-3.0	0.0	0.0	16.2	0.0	-0.0	-3.0	-3.0	
52	454552.20	4794885.35	250.77	0	2000	74.8	74.8	3.0	0.0	68.6	7.3	-3.0	0.0	0.0	17.7	0.0	-0.0	-12.8	-12.8	
53	454552.20	4794885.35	250.77	0	4000	69.6	69.6	3.0	0.0	68.6	24.9	-3.0	0.0	0.0	18.7	0.0	-0.0	-36.5	-36.5	
54	454552.20	4794885.35	250.77	0	8000	60.5	60.5	3.0	0.0	68.6	88.6	-3.0	0.0	0.0	19.3	0.0	-0.0	-110.0	-110.0	
55	454552.20	4794881.80	251.77	0	32	45.8	45.8	3.0	0.0	68.6	0.0	-5.3	0.0	0.0	5.5	0.0	-0.0	-20.0	-20.0	
56	454552.20	4794881.80	251.77	0	63	65.0	65.0	3.0	0.0	68.6	0.1	-5.3	0.0	0.0	7.6	0.0	-0.0	-3.0	-3.0	
57	454552.20	4794881.80	251.77	0	125	77.1	77.1	3.0	0.0	68.6	0.3	-0.9	0.0	0.0	10.1	0.0	-0.0	2.0	2.0	
58	454552.20	4794881.80	251.77	0	250	79.6	79.6	3.0	0.0	68.6	0.8	-2.1	0.0	0.0	12.8	0.0	-0.0	2.6	2.6	
59	454552.20	4794881.80	251.77	0	500	85.0	85.0	3.0	0.0	68.6	1.4	-2.8	0.0	0.0	15.7	0.0	-0.0	5.2	5.2	
60	454552.20	4794881.80	251.77	0	1000	82.2	82.2	3.0	0.0	68.6	2.8	-2.8	0.0	0.0	18.2	0.0	-0.0	-1.5	-1.5	
61	454552.20	4794881.80	251.77	0	2000	78.4	78.4	3.0	0.0	68.6	7.3	-2.8	0.0	0.0	19.0	0.0	-0.0	-10.7	-10.7	
62	454552.20	4794881.80	251.77	0	4000	73.2	73.2	3.0	0.0	68.6	24.8	-2.8	0.0	0.0	19.5	0.0	-0.0	-33.8	-33.8	
63	454552.20	4794881.80	251.77	0	8000	64.1	64.1	3.0	0.0	68.6	88.6	-2.8	0.0	0.0	19.7	0.0	-0.0	-106.9	-106.9	
64	454552.20	4794885.35	251.77	0	32	42.2	42.2	3.0	0.0	68.6	0.0	-5.3	0.0	0.0	4.1	0.0	-0.0	-22.2	-22.2	
65	454552.20	4794885.35	251.77	0	63	61.4	61.4	3.0	0.0	68.6	0.1	-5.3	0.0	0.0	6.0	0.0	-0.0	-5.0	-5.0	
66	454552.20	4794885.35	251.77	0	125	73.5	73.5	3.0	0.0	68.6	0.3	-0.9	0.0	0.0	8.2	0.0	-0.0	0.3	0.3	
67	454552.20	4794885.35	251.77	0	250	76.0	76.0	3.0	0.0	68.6	0.8	-2.1	0.0	0.0	10.8	0.0	-0.0	1.0	1.0	
68	454552.20	4794885.35	251.77	0	500	81.4	81.4	3.0	0.0	68.6	1.4	-2.8	0.0	0.0	13.5	0.0	-0.0	3.7	3.7	
69	454552.20	4794885.35	251.77	0	1000	78.6	78.6	3.0	0.0	68.6	2.8	-2.8	0.0	0.0	16.2	0.0	-0.0	-3.1	-3.1	
70	454552.20	4794885.35	251.77	0	2000	74.8	74.8	3.0	0.0	68.6	7.3	-2.8	0.0	0.0	17.7	0.0	-0.0	-12.9	-12.9	
71	454552.20	4794885.35	251.77	0	4000	69.6	69.6	3.0	0.0	68.6	24.9	-2.8	0.0	0.0	18.7	0.0	-0.0	-36.6	-36.6	
72	454552.20	4794885.35	251.77	0	8000	60.5	60.5	3.0	0.0	68.6	88.6	-2.8	0.0	0.0	19.3	0.0	-0.0	-110.1	-110.1	
73	454552.20	4794881.80	249.88	0	32	44.8	44.8	3.0	0.0	68.6	0.0	-5.5	0.0	0.0	6.2	0.0	-0.0	-21.5	-21.5	
74	454552.20	4794881.80	249.88	0	63	64.0	64.0	3.0	0.0	68.6	0.1	-5.5	0.0	0.0	8.6	0.0	-0.0	-4.8	-4.8	
75	454552.20	4794881.80	249.88	0	125	76.1	76.1	3.0	0.0	68.6	0.3	-1.1	0.0	0.0	11.3	0.0	-0.0	0.1	0.1	
76	454552.20	4794881.80	249.88	0	250	78.6	78.6	3.0	0.0	68.6	0.8	-2.3	0.0	0.0	14.1	0.0	-0.0	0.5	0.5	
77	454552.20	4794881.80	249.88	0	500	84.0	84.0	3.0	0.0	68.6	1.4	-3.1	0.0	0.0	17.0	0.0	-0.0	3.1	3.1	
78	454552.20	4794881.80	249.88	0	1000	81.2	81.2	3.0	0.0	68.6	2.8	-3.1	0.0	0.0	18.2	0.0	-0.0	-2.3	-2.3	
79	454552.20	4794881.80	249.88	0	2000	77.4	77.4	3.0	0.0	68.6	7.3	-3.1	0.0	0.0	19.0	0.0	-0.0	-11.5	-11.5	
80	454552.20	4794881.80	249.88	0	4000	72.2	72.2	3.0	0.0	68.6	24.8	-3.1	0.0	0.0	19.5	0.0	-0.0	-34.6	-34.6	
81	454552.20	4794881.80	249.88	0	8000	63.1	63.1	3.0	0.0	68.6	88.6	-3.1	0.0	0.0	19.7	0.0	-0.0	-107.7	-107.7	
82	454552.20	4794885.35	249.88	0	32	41.2	41.2	3.0	0.0	68.6	0.0	-5.5	0.0	0.0	4.6	0.0	-0.0	-23.6	-23.6	
83	454552.20	4794885.35	249.88	0	63	60.4	60.4	3.0	0.0	68.6	0.1	-5.5	0.0	0.0	6.6	0.0	-0.0	-6.4	-6.4	
84	454552.20	4794885.35	249.88	0	125	72.5	72.5	3.0	0.0	68.6	0.3	-1.1	0.0	0.0	8.9	0.0	-0.0	-1.2	-1.2	
85	454552.20	4794885.35	249.88	0	250	75.0	75.0	3.0	0.0	68.6	0.8	-2.3	0.0	0.0	11.5	0.0	-0.0	-0.5	-0.5	
86	454552.20	4794885.35	249.88	0	500	80.4	80.4	3.0	0.0	68.6	1.4	-3.1	0.0	0.0	14.3	0.0	-0.0	2.2	2.2	
87	454552.20	4794885.35	249.88	0	1000	77.6	77.6	3.0	0.0	68.6	2.8	-3.1	0.0	0.0	16.2	0.0	-0.0	-3.9	-3.9	
88	454552.20	4794885.35	249.88	0	2000	73.8	73.8	3.0	0.0	68.6	7.3	-3.1	0.0	0.0	17.7	0.0	-0.0	-13.7	-13.7	
89	454552.20	4794885.35	249.88	0	4000	68.6	68.6	3.0	0.0	68.6	24.9	-3.1	0.0	0.0	18.7	0.0	-0.0	-37.4	-37.4	
90	454552.20	4794885.35	249.88	0	8000	59.5	59.5	3.0	0.0	68.6	88.6	-3.1	0.0	0.0	19.3	0.0	-0.0	-110.9	-110.9	

(Wind Speed = 6m/s)

Goshen Noise Results

vert. Area Source, ISO 9613, Name: "Goshen Transformer South", ID: "GOSHTRANSOUTH"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
34	454555.43	4794879.31	252.77	0	2000	79.6	79.6	3.0	0.0	68.5	7.3	-2.7	0.0	0.0	0.0	0.0	-0.0	9.5	9.5
35	454555.43	4794879.31	252.77	0	4000	74.4	74.4	3.0	0.0	68.5	24.7	-2.7	0.0	0.0	0.0	0.0	-0.0	-13.2	-13.2
36	454555.43	4794879.31	252.77	0	8000	65.3	65.3	3.0	0.0	68.5	88.1	-2.7	0.0	0.0	0.0	0.0	-0.0	-85.7	-85.7
37	454555.43	4794879.31	249.88	0	32	46.0	46.0	3.0	0.0	68.5	0.0	-5.5	0.0	0.0	4.7	0.0	-0.0	-18.9	-18.9
38	454555.43	4794879.31	249.88	0	63	65.2	65.2	3.0	0.0	68.5	0.1	-5.5	0.0	0.0	5.6	0.0	-0.0	-0.6	-0.6
39	454555.43	4794879.31	249.88	0	125	77.3	77.3	3.0	0.0	68.5	0.3	-1.1	0.0	0.0	6.7	0.0	-0.0	5.8	5.8
40	454555.43	4794879.31	249.88	0	250	79.8	79.8	3.0	0.0	68.5	0.8	-2.3	0.0	0.0	8.3	0.0	-0.0	7.5	7.5
41	454555.43	4794879.31	249.88	0	500	85.2	85.2	3.0	0.0	68.5	1.4	-3.0	0.0	0.0	10.3	0.0	-0.0	10.9	10.9
42	454555.43	4794879.31	249.88	0	1000	82.4	82.4	3.0	0.0	68.5	2.8	-3.0	0.0	0.0	12.7	0.0	-0.0	4.4	4.4
43	454555.43	4794879.31	249.88	0	2000	78.6	78.6	3.0	0.0	68.5	7.3	-3.0	0.0	0.0	15.4	0.0	-0.0	-6.6	-6.6
44	454555.43	4794879.31	249.88	0	4000	73.4	73.4	3.0	0.0	68.5	24.7	-3.0	0.0	0.0	18.2	0.0	-0.0	-32.1	-32.1
45	454555.43	4794879.31	249.88	0	8000	64.3	64.3	3.0	0.0	68.5	88.1	-3.0	0.0	0.0	19.9	0.0	-0.0	-106.3	-106.3
46	454555.43	4794879.31	250.77	1	4000	74.4	74.4	3.0	0.0	68.6	25.0	-3.0	0.0	0.0	7.7	0.0	6.0	-27.1	-27.1
47	454555.43	4794879.31	250.77	1	8000	65.3	65.3	3.0	0.0	68.6	89.3	-3.0	0.0	0.0	9.5	0.0	3.6	-99.8	-99.8
48	454555.43	4794879.31	251.77	1	4000	74.4	74.4	3.0	0.0	68.6	25.0	-2.9	0.0	0.0	4.8	0.0	6.0	-24.3	-24.3
49	454555.43	4794879.31	251.77	1	8000	65.3	65.3	3.0	0.0	68.6	89.3	-2.9	0.0	0.0	4.8	0.0	3.6	-95.2	-95.2

(Wind Speed = 6m/s)

Goshen Noise Results

Receiver
 Name: Goshen
 ID: GSH769
 X: 439554.00
 Y: 4788402.00
 Z: 190.74

Point Source, ISO 9613, Name: "52", ID: "Goshen"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	440156.00	4788373.00	269.63	0	32	81.5	81.5	0.0	0.0	66.7	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	17.8	17.8
2	440156.00	4788373.00	269.63	0	63	91.2	91.2	0.0	0.0	66.7	0.1	-3.0	0.0	0.0	0.0	0.0	-0.0	27.5	27.5
3	440156.00	4788373.00	269.63	0	125	94.8	94.8	0.0	0.0	66.7	0.2	1.6	0.0	0.0	0.0	0.0	-0.0	26.3	26.3
4	440156.00	4788373.00	269.63	0	250	94.2	94.2	0.0	0.0	66.7	0.6	0.1	0.0	0.0	0.0	0.0	-0.0	26.8	26.8
5	440156.00	4788373.00	269.63	0	500	94.6	94.6	0.0	0.0	66.7	1.2	-0.9	0.0	0.0	0.0	0.0	-0.0	27.7	27.7
6	440156.00	4788373.00	269.63	0	1000	99.1	99.1	0.0	0.0	66.7	2.3	-0.9	0.0	0.0	0.0	0.0	-0.0	31.1	31.1
7	440156.00	4788373.00	269.63	0	2000	98.0	98.0	0.0	0.0	66.7	5.9	-0.9	0.0	0.0	0.0	0.0	-0.0	26.3	26.3
8	440156.00	4788373.00	269.63	0	4000	88.8	88.8	0.0	0.0	66.7	19.9	-0.9	0.0	0.0	0.0	0.0	-0.0	3.1	3.1
9	440156.00	4788373.00	269.63	0	8000	71.2	71.2	0.0	0.0	66.7	71.1	-0.9	0.0	0.0	0.0	0.0	-0.0	-65.7	-65.7

Point Source, ISO 9613, Name: "55", ID: "Goshen"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	440005.00	4789811.00	266.23	0	32	80.1	80.1	0.0	0.0	74.4	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	8.7	8.7
2	440005.00	4789811.00	266.23	0	63	89.6	89.6	0.0	0.0	74.4	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	18.0	18.0
3	440005.00	4789811.00	266.23	0	125	94.4	94.4	0.0	0.0	74.4	0.6	1.8	0.0	0.0	0.0	0.0	-0.0	17.6	17.6
4	440005.00	4789811.00	266.23	0	250	95.1	95.1	0.0	0.0	74.4	1.5	0.1	0.0	0.0	0.0	0.0	-0.0	19.1	19.1
5	440005.00	4789811.00	266.23	0	500	96.1	96.1	0.0	0.0	74.4	2.8	-0.9	0.0	0.0	0.0	0.0	-0.0	19.8	19.8
6	440005.00	4789811.00	266.23	0	1000	96.9	96.9	0.0	0.0	74.4	5.5	-0.9	0.0	0.0	0.0	0.0	-0.0	17.9	17.9
7	440005.00	4789811.00	266.23	0	2000	95.2	95.2	0.0	0.0	74.4	14.4	-0.9	0.0	0.0	0.0	0.0	-0.0	7.3	7.3
8	440005.00	4789811.00	266.23	0	4000	88.6	88.6	0.0	0.0	74.4	48.6	-0.9	0.0	0.0	0.0	0.0	-0.0	-33.5	-33.5
9	440005.00	4789811.00	266.23	0	8000	70.0	70.0	0.0	0.0	74.4	173.3	-0.9	0.0	0.0	0.0	0.0	-0.0	-176.8	-176.8

Point Source, ISO 9613, Name: "56", ID: "Goshen"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	439925.00	4788922.00	266.37	0	32	80.1	80.1	0.0	0.0	67.2	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	15.9	15.9
2	439925.00	4788922.00	266.37	0	63	89.6	89.6	0.0	0.0	67.2	0.1	-3.0	0.0	0.0	0.0	0.0	-0.0	25.4	25.4
3	439925.00	4788922.00	266.37	0	125	94.4	94.4	0.0	0.0	67.2	0.3	1.6	0.0	0.0	0.0	0.0	-0.0	25.4	25.4
4	439925.00	4788922.00	266.37	0	250	95.1	95.1	0.0	0.0	67.2	0.6	0.1	0.0	0.0	0.0	0.0	-0.0	27.2	27.2
5	439925.00	4788922.00	266.37	0	500	96.1	96.1	0.0	0.0	67.2	1.2	-0.9	0.0	0.0	0.0	0.0	-0.0	28.6	28.6
6	439925.00	4788922.00	266.37	0	1000	96.9	96.9	0.0	0.0	67.2	2.4	-0.9	0.0	0.0	0.0	0.0	-0.0	28.3	28.3
7	439925.00	4788922.00	266.37	0	2000	95.2	95.2	0.0	0.0	67.2	6.2	-0.9	0.0	0.0	0.0	0.0	-0.0	22.7	22.7
8	439925.00	4788922.00	266.37	0	4000	88.6	88.6	0.0	0.0	67.2	21.1	-0.9	0.0	0.0	0.0	0.0	-0.0	1.2	1.2
9	439925.00	4788922.00	266.37	0	8000	70.0	70.0	0.0	0.0	67.2	75.3	-0.9	0.0	0.0	0.0	0.0	-0.0	-71.5	-71.5

Point Source, ISO 9613, Name: "57", ID: "Goshen"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	438121.00	4790232.00	260.50	0	32	80.1	80.1	0.0	0.0	78.3	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	4.8	4.8
2	438121.00	4790232.00	260.50	0	63	89.6	89.6	0.0	0.0	78.3	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	14.0	14.0
3	438121.00	4790232.00	260.50	0	125	94.4	94.4	0.0	0.0	78.3	0.9	1.8	0.0	0.0	0.0	0.0	-0.0	13.4	13.4
4	438121.00	4790232.00	260.50	0	250	95.1	95.1	0.0	0.0	78.3	2.3	0.1	0.0	0.0	0.0	0.0	-0.0	14.4	14.4
5	438121.00	4790232.00	260.50	0	500	96.1	96.1	0.0	0.0	78.3	4.4	-0.9	0.0	0.0	0.0	0.0	-0.0	14.3	14.3
6	438121.00	4790232.00	260.50	0	1000	96.9	96.9	0.0	0.0	78.3	8.6	-0.9	0.0	0.0	0.0	0.0	-0.0	10.9	10.9
7	438121.00	4790232.00	260.50	0	2000	95.2	95.2	0.0	0.0	78.3	22.6	-0.9	0.0	0.0	0.0	0.0	-0.0	-4.8	-4.8
8	438121.00	4790232.00	260.50	0	4000	88.6	88.6	0.0	0.0	78.3	76.3	-0.9	0.0	0.0	0.0	0.0	-0.0	-65.1	-65.1
9	438121.00	4790232.00	260.50	0	8000	70.0	70.0	0.0	0.0	78.3	272.1	-0.9	0.0	0.0	0.0	0.0	-0.0	-279.5	-279.5

Point Source, ISO 9613, Name: "58", ID: "Goshen"																			
Nr.	X (m)	Y (m)	Z (m)	Refl.	Freq. (Hz)	LxT dB(A)	LxN dB(A)	K0 (dB)	Dc (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	LrT dB(A)	LrN dB(A)
1	437973.00	4789428.00	260.00	0	32	80.1	80.1	0.0	0.0	76.5	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	6.6	6.6

(Wind Speed = 6m/s)

Goshen Noise Results

Point Source, ISO 9613, Name: "58", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
2	437973.00	4789428.00	260.00	0	63	89.6	89.6	0.0	0.0	76.5	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	15.9	15.9
3	437973.00	4789428.00	260.00	0	125	94.4	94.4	0.0	0.0	76.5	0.8	1.8	0.0	0.0	0.0	0.0	-0.0	15.4	15.4
4	437973.00	4789428.00	260.00	0	250	95.1	95.1	0.0	0.0	76.5	1.9	0.1	0.0	0.0	0.0	0.0	-0.0	16.6	16.6
5	437973.00	4789428.00	260.00	0	500	96.1	96.1	0.0	0.0	76.5	3.6	-0.9	0.0	0.0	0.0	0.0	-0.0	16.9	16.9
6	437973.00	4789428.00	260.00	0	1000	96.9	96.9	0.0	0.0	76.5	7.0	-0.9	0.0	0.0	0.0	0.0	-0.0	14.3	14.3
7	437973.00	4789428.00	260.00	0	2000	95.2	95.2	0.0	0.0	76.5	18.3	-0.9	0.0	0.0	0.0	0.0	-0.0	1.3	1.3
8	437973.00	4789428.00	260.00	0	4000	88.6	88.6	0.0	0.0	76.5	61.9	-0.9	0.0	0.0	0.0	0.0	-0.0	-48.9	-48.9
9	437973.00	4789428.00	260.00	0	8000	70.0	70.0	0.0	0.0	76.5	220.7	-0.9	0.0	0.0	0.0	0.0	-0.0	-226.3	-226.3

Point Source, ISO 9613, Name: "59", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	438098.00	4788616.00	260.36	0	32	80.1	80.1	0.0	0.0	74.4	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	8.7	8.7
2	438098.00	4788616.00	260.36	0	63	89.6	89.6	0.0	0.0	74.4	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	18.1	18.1
3	438098.00	4788616.00	260.36	0	125	94.4	94.4	0.0	0.0	74.4	0.6	1.8	0.0	0.0	0.0	0.0	-0.0	17.7	17.7
4	438098.00	4788616.00	260.36	0	250	95.1	95.1	0.0	0.0	74.4	1.5	0.1	0.0	0.0	0.0	0.0	-0.0	19.2	19.2
5	438098.00	4788616.00	260.36	0	500	96.1	96.1	0.0	0.0	74.4	2.8	-0.9	0.0	0.0	0.0	0.0	-0.0	19.8	19.8
6	438098.00	4788616.00	260.36	0	1000	96.9	96.9	0.0	0.0	74.4	5.5	-0.9	0.0	0.0	0.0	0.0	-0.0	18.0	18.0
7	438098.00	4788616.00	260.36	0	2000	95.2	95.2	0.0	0.0	74.4	14.3	-0.9	0.0	0.0	0.0	0.0	-0.0	7.4	7.4
8	438098.00	4788616.00	260.36	0	4000	88.6	88.6	0.0	0.0	74.4	48.3	-0.9	0.0	0.0	0.0	0.0	-0.0	-33.2	-33.2
9	438098.00	4788616.00	260.36	0	8000	70.0	70.0	0.0	0.0	74.4	172.4	-0.9	0.0	0.0	0.0	0.0	-0.0	-175.8	-175.8

Point Source, ISO 9613, Name: "60", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	437501.00	4789050.00	260.00	0	32	80.1	80.1	0.0	0.0	77.7	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	5.4	5.4
2	437501.00	4789050.00	260.00	0	63	89.6	89.6	0.0	0.0	77.7	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	14.7	14.7
3	437501.00	4789050.00	260.00	0	125	94.4	94.4	0.0	0.0	77.7	0.9	1.8	0.0	0.0	0.0	0.0	-0.0	14.1	14.1
4	437501.00	4789050.00	260.00	0	250	95.1	95.1	0.0	0.0	77.7	2.1	0.1	0.0	0.0	0.0	0.0	-0.0	15.2	15.2
5	437501.00	4789050.00	260.00	0	500	96.1	96.1	0.0	0.0	77.7	4.1	-0.9	0.0	0.0	0.0	0.0	-0.0	15.2	15.2
6	437501.00	4789050.00	260.00	0	1000	96.9	96.9	0.0	0.0	77.7	8.0	-0.9	0.0	0.0	0.0	0.0	-0.0	12.2	12.2
7	437501.00	4789050.00	260.00	0	2000	95.2	95.2	0.0	0.0	77.7	20.9	-0.9	0.0	0.0	0.0	0.0	-0.0	-2.5	-2.5
8	437501.00	4789050.00	260.00	0	4000	88.6	88.6	0.0	0.0	77.7	70.6	-0.9	0.0	0.0	0.0	0.0	-0.0	-58.8	-58.8
9	437501.00	4789050.00	260.00	0	8000	70.0	70.0	0.0	0.0	77.7	252.0	-0.9	0.0	0.0	0.0	0.0	-0.0	-258.8	-258.8

Point Source, ISO 9613, Name: "61", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	437294.00	4788459.00	260.00	0	32	80.1	80.1	0.0	0.0	78.1	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	5.0	5.0
2	437294.00	4788459.00	260.00	0	63	89.6	89.6	0.0	0.0	78.1	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	14.3	14.3
3	437294.00	4788459.00	260.00	0	125	94.4	94.4	0.0	0.0	78.1	0.9	1.8	0.0	0.0	0.0	0.0	-0.0	13.6	13.6
4	437294.00	4788459.00	260.00	0	250	95.1	95.1	0.0	0.0	78.1	2.3	0.1	0.0	0.0	0.0	0.0	-0.0	14.7	14.7
5	437294.00	4788459.00	260.00	0	500	96.1	96.1	0.0	0.0	78.1	4.3	-0.9	0.0	0.0	0.0	0.0	-0.0	14.6	14.6
6	437294.00	4788459.00	260.00	0	1000	96.9	96.9	0.0	0.0	78.1	8.4	-0.9	0.0	0.0	0.0	0.0	-0.0	11.3	11.3
7	437294.00	4788459.00	260.00	0	2000	95.2	95.2	0.0	0.0	78.1	21.9	-0.9	0.0	0.0	0.0	0.0	-0.0	-3.9	-3.9
8	437294.00	4788459.00	260.00	0	4000	88.6	88.6	0.0	0.0	78.1	74.2	-0.9	0.0	0.0	0.0	0.0	-0.0	-62.8	-62.8
9	437294.00	4788459.00	260.00	0	8000	70.0	70.0	0.0	0.0	78.1	264.6	-0.9	0.0	0.0	0.0	0.0	-0.0	-271.8	-271.8

Point Source, ISO 9613, Name: "62", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	437743.00	4788017.00	260.00	0	32	80.1	80.1	0.0	0.0	76.4	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	6.7	6.7
2	437743.00	4788017.00	260.00	0	63	89.6	89.6	0.0	0.0	76.4	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	16.1	16.1
3	437743.00	4788017.00	260.00	0	125	94.4	94.4	0.0	0.0	76.4	0.7	1.8	0.0	0.0	0.0	0.0	-0.0	15.5	15.5
4	437743.00	4788017.00	260.00	0	250	95.1	95.1	0.0	0.0	76.4	1.9	0.1	0.0	0.0	0.0	0.0	-0.0	16.8	16.8
5	437743.00	4788017.00	260.00	0	500	96.1	96.1	0.0	0.0	76.4	3.5	-0.9	0.0	0.0	0.0	0.0	-0.0	17.1	17.1
6	437743.00	4788017.00	260.00	0	1000	96.9	96.9	0.0	0.0	76.4	6.9	-0.9	0.0	0.0	0.0	0.0	-0.0	14.6	14.6
7	437743.00	4788017.00	260.00	0	2000	95.2	95.2	0.0	0.0	76.4	18.0	-0.9	0.0	0.0	0.0	0.0	-0.0	1.8	1.8
8	437743.00	4788017.00	260.00	0	4000	88.6	88.6	0.0	0.0	76.4	60.8	-0.9	0.0	0.0	0.0	0.0	-0.0	-47.6	-47.6
9	437743.00	4788017.00	260.00	0	8000	70.0	70.0	0.0	0.0	76.4	216.8	-0.9	0.0	0.0	0.0	0.0	-0.0	-222.2	-222.2

(Wind Speed = 6m/s)

Goshen Noise Results

Point Source, ISO 9613, Name: "63", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	438227.00	4787615.00	261.81	0	32	80.1	80.1	0.0	0.0	74.8	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	8.3	8.3
2	438227.00	4787615.00	261.81	0	63	89.6	89.6	0.0	0.0	74.8	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	17.7	17.7
3	438227.00	4787615.00	261.81	0	125	94.4	94.4	0.0	0.0	74.8	0.6	1.8	0.0	0.0	0.0	0.0	-0.0	17.2	17.2
4	438227.00	4787615.00	261.81	0	250	95.1	95.1	0.0	0.0	74.8	1.5	0.1	0.0	0.0	0.0	0.0	-0.0	18.7	18.7
5	438227.00	4787615.00	261.81	0	500	96.1	96.1	0.0	0.0	74.8	2.9	-0.9	0.0	0.0	0.0	0.0	-0.0	19.3	19.3
6	438227.00	4787615.00	261.81	0	1000	96.9	96.9	0.0	0.0	74.8	5.7	-0.9	0.0	0.0	0.0	0.0	-0.0	17.3	17.3
7	438227.00	4787615.00	261.81	0	2000	95.2	95.2	0.0	0.0	74.8	15.0	-0.9	0.0	0.0	0.0	0.0	-0.0	6.3	6.3
8	438227.00	4787615.00	261.81	0	4000	88.6	88.6	0.0	0.0	74.8	50.7	-0.9	0.0	0.0	0.0	0.0	-0.0	-35.9	-35.9
9	438227.00	4787615.00	261.81	0	8000	70.0	70.0	0.0	0.0	74.8	180.7	-0.9	0.0	0.0	0.0	0.0	-0.0	-184.6	-184.6

Point Source, ISO 9613, Name: "84", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	438410.00	4790647.00	260.41	0	32	80.1	80.1	0.0	0.0	79.0	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	4.1	4.1
2	438410.00	4790647.00	260.41	0	63	89.6	89.6	0.0	0.0	79.0	0.3	-3.0	0.0	0.0	0.0	0.0	-0.0	13.3	13.3
3	438410.00	4790647.00	260.41	0	125	94.4	94.4	0.0	0.0	79.0	1.0	1.8	0.0	0.0	0.0	0.0	-0.0	12.6	12.6
4	438410.00	4790647.00	260.41	0	250	95.1	95.1	0.0	0.0	79.0	2.5	0.1	0.0	0.0	0.0	0.0	-0.0	13.5	13.5
5	438410.00	4790647.00	260.41	0	500	96.1	96.1	0.0	0.0	79.0	4.8	-0.9	0.0	0.0	0.0	0.0	-0.0	13.2	13.2
6	438410.00	4790647.00	260.41	0	1000	96.9	96.9	0.0	0.0	79.0	9.3	-0.9	0.0	0.0	0.0	0.0	-0.0	9.4	9.4
7	438410.00	4790647.00	260.41	0	2000	95.2	95.2	0.0	0.0	79.0	24.4	-0.9	0.0	0.0	0.0	0.0	-0.0	-7.4	-7.4
8	438410.00	4790647.00	260.41	0	4000	88.6	88.6	0.0	0.0	79.0	82.7	-0.9	0.0	0.0	0.0	0.0	-0.0	-72.2	-72.2
9	438410.00	4790647.00	260.41	0	8000	70.0	70.0	0.0	0.0	79.0	294.9	-0.9	0.0	0.0	0.0	0.0	-0.0	-303.0	-303.0

Point Source, ISO 9613, Name: "79", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	441914.00	4791634.00	272.76	0	32	80.1	80.1	0.0	0.0	83.0	0.0	-4.1	0.0	0.0	0.0	0.0	-0.0	1.2	1.2
2	441914.00	4791634.00	272.76	0	63	89.6	89.6	0.0	0.0	83.0	0.4	-4.1	0.0	0.0	0.0	0.0	-0.0	10.3	10.3
3	441914.00	4791634.00	272.76	0	125	94.4	94.4	0.0	0.0	83.0	1.6	1.5	0.0	0.0	0.0	0.0	-0.0	8.3	8.3
4	441914.00	4791634.00	272.76	0	250	95.1	95.1	0.0	0.0	83.0	4.0	-0.3	0.0	0.0	0.0	0.0	-0.0	8.3	8.3
5	441914.00	4791634.00	272.76	0	500	96.1	96.1	0.0	0.0	83.0	7.6	-1.2	0.0	0.0	0.0	0.0	-0.0	6.7	6.7
6	441914.00	4791634.00	272.76	0	1000	96.9	96.9	0.0	0.0	83.0	14.8	-1.2	0.0	0.0	0.0	0.0	-0.0	0.3	0.3
7	441914.00	4791634.00	272.76	0	2000	95.2	95.2	0.0	0.0	83.0	38.8	-1.2	0.0	0.0	0.0	0.0	-0.0	-25.4	-25.4
8	441914.00	4791634.00	272.76	0	4000	88.6	88.6	0.0	0.0	83.0	131.3	-1.2	0.0	0.0	0.0	0.0	-0.0	-124.5	-124.5
9	441914.00	4791634.00	272.76	0	8000	70.0	70.0	0.0	0.0	83.0	468.3	-1.2	0.0	0.0	0.0	0.0	-0.0	-480.1	-480.1

Point Source, ISO 9613, Name: "53", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	442135.00	4790871.00	273.76	0	32	80.1	80.1	0.0	0.0	82.1	0.0	-3.9	0.0	0.0	0.0	0.0	-0.0	1.9	1.9
2	442135.00	4790871.00	273.76	0	63	89.6	89.6	0.0	0.0	82.1	0.4	-3.9	0.0	0.0	0.0	0.0	-0.0	11.1	11.1
3	442135.00	4790871.00	273.76	0	125	94.4	94.4	0.0	0.0	82.1	1.4	1.5	0.0	0.0	0.0	0.0	-0.0	9.4	9.4
4	442135.00	4790871.00	273.76	0	250	95.1	95.1	0.0	0.0	82.1	3.6	-0.2	0.0	0.0	0.0	0.0	-0.0	9.7	9.7
5	442135.00	4790871.00	273.76	0	500	96.1	96.1	0.0	0.0	82.1	6.8	-1.2	0.0	0.0	0.0	0.0	-0.0	8.4	8.4
6	442135.00	4790871.00	273.76	0	1000	96.9	96.9	0.0	0.0	82.1	13.2	-1.2	0.0	0.0	0.0	0.0	-0.0	2.8	2.8
7	442135.00	4790871.00	273.76	0	2000	95.2	95.2	0.0	0.0	82.1	34.7	-1.2	0.0	0.0	0.0	0.0	-0.0	-20.4	-20.4
8	442135.00	4790871.00	273.76	0	4000	88.6	88.6	0.0	0.0	82.1	117.2	-1.2	0.0	0.0	0.0	0.0	-0.0	-109.5	-109.5
9	442135.00	4790871.00	273.76	0	8000	70.0	70.0	0.0	0.0	82.1	418.0	-1.2	0.0	0.0	0.0	0.0	-0.0	-428.9	-428.9

Point Source, ISO 9613, Name: "54", ID: "Goshen"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	439792.00	4790436.00	265.00	0	32	80.1	80.1	0.0	0.0	77.2	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	5.9	5.9
2	439792.00	4790436.00	265.00	0	63	89.6	89.6	0.0	0.0	77.2	0.2	-3.0	0.0	0.0	0.0	0.0	-0.0	15.2	15.2
3	439792.00	4790436.00	265.00	0	125	94.4	94.4	0.0	0.0	77.2	0.8	1.8	0.0	0.0	0.0	0.0	-0.0	14.6	14.6
4	439792.00	4790436.00	265.00	0	250	95.1	95.1	0.0	0.0	77.2	2.0	0.1	0.0	0.0	0.0	0.0	-0.0	15.8	15.8
5	439792.00	4790436.00	265.00	0	500	96.1	96.1	0.0	0.0	77.2	3.9	-0.9	0.0	0.0	0.0	0.0	-0.0	15.9	15.9
6	439792.00	4790436.00	265.00	0	1000	96.9	96.9	0.0	0.0	77.2	7.6	-0.9	0.0	0.0	0.0	0.0	-0.0	13.0	13.0
7	439792.00	4790436.00	265.00	0	2000	95.2	95.2	0.0	0.0	77.2	19.9	-0.9	0.0	0.0	0.0	0.0	-0.0	-1.0	-1.0
8	439792.00	4790436.00	265.00	0	4000	88.6	88.6	0.0	0.0	77.2	67.2	-0.9	0.0	0.0	0.0	0.0	-0.0	-54.9	-54.9
9	439792.00	4790436.00	265.00	0	8000	70.0	70.0	0.0	0.0	77.2	239.8	-0.9	0.0	0.0	0.0	0.0	-0.0	-246.1	-246.1

(Wind Speed = 6m/s)

Appendix E

Linear (Unweighted) Turbine Sound Power Levels

Appendix E. Linear (Unweighted) Turbine Sound Power Levels

The following tables are reproductions of the turbine noise emission tables provided in Section 9. However, the octave band sound power levels are provided as a linear level (i.e., with no weighting applied). The sound power levels provided below, and in Section 9 are equivalent.

Table E-A. General Electric Model 1.6-100 LNTE

Associated Project: Goshen Wind Energy Centre											
Make: General Electric											
Model: GE 1.6-100 LNTE											
Electrical Rating: 1.6 Megawatts											
Hub Height (m): 80 metres											
Wind Shear Coefficient: 0.29											
Source of Data: Provided by General Electric (Appendix B)											
		Linear Octave Band Sound Power Level (dB(lin))									
		Manufacturer's Emission Levels					Adjusted Emission Levels				
10 m Height Wind Speed (m/s)		6	7	8	9	10	6	7	8	9	10
Frequency (Hz)	63	106.5	110.2	110.3	110.3	110.2	110.3	110.2	110.2	110.2	110.2
	125	104.5	107.7	107.9	107.9	107.8	107.9	107.8	107.8	107.8	107.8
	250	103.3	104	103.9	104	104.1	103.9	104.1	104.1	104.1	104.1
	500	98.7	100.3	99.8	99.9	100.2	99.8	100.2	100.2	100.2	100.2
	1000	91.8	97.1	97.5	97.6	97.8	97.5	97.8	97.8	97.8	97.8
	2000	91.2	94.5	94.5	94.3	93.9	94.5	93.9	93.9	93.9	93.9
	4000	87.9	88.7	88.1	87.4	86.9	88.1	86.9	86.9	86.9	86.9
	8000	71.4	71.5	71.7	70.5	70.2	71.7	70.2	70.2	70.2	70.2
Overall A-weighted		100.4	100.5	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0

Table E-B. General Electric Model 1.56-100

Associated Project: Goshen Wind Energy Centre											
Make: General Electric											
Model: GE 1.56-100											
Electrical Rating: 1.56 Megawatts											
Hub Height (m): 80 metres											
Wind Shear Coefficient: 0.29											
Source of Data: Provided by General Electric (Appendix B)											
		Linear Octave Band Sound Power Level (dB(lin))									
		Manufacturer's Emission Levels					Adjusted Emission Levels				
10 m Height Wind Speed (m/s)		6	7	8	9	10	6	7	8	9	10
Frequency (Hz)	63	112.4	116.7	117.4	117.4	117.4	117.4	117.4	117.4	117.4	117.4
	125	106.2	110.3	110.9	111.0	110.9	110.9	111.0	110.9	110.9	110.9
	250	100.5	102.5	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
	500	97.8	98.9	97.8	97.7	97.7	97.8	97.7	97.7	97.7	97.7
	1000	95.2	99.6	99.1	98.9	98.8	99.1	98.9	98.8	98.8	98.8
	2000	90.1	96.0	96.8	96.9	97.0	96.8	96.9	97.0	97.0	97.0
	4000	83.6	87.4	87.8	88.2	88.5	87.8	88.2	88.5	88.5	88.5
	8000	66.9	70.0	70.1	69.6	69.4	70.1	69.6	69.4	69.4	69.4
Overall A-weighted		100.3	104.0	104.0	104.0	104.0	104.0	104.0	104.0	104.0	104.0

Table E-C. ENERCON Model E-48

Associated Project: Zurich Wind Project											
Make: ENERCON											
Model: E-48											
Electrical Rating: 800 kilowatts											
Hub Height (m): 76 metres											
Wind Shear Coefficient: 0.29											
Source of Data: Provided by ENERCON (Appendix B)											
		Linear Octave Band Sound Power Level (dB(lin))									
		Manufacturer's Emission Levels					Adjusted Emission Levels				
10 metre Height Wind Speed (m/s)		6	7	8	9	10	6	7	8	9	10
Frequency (Hz)	63	105.7	107.8	105.8	106.0	104.8	105.8	104.8	104.8	104.8	104.8
	125	99.7	102.4	102.1	103.4	100.5	102.1	100.5	100.5	100.5	100.5
	250	99.1	102.4	103.7	104.7	101.9	103.7	101.9	101.9	101.9	101.9
	500	96.0	98.9	100.3	100.7	100.0	100.3	100.0	100.0	100.0	100.0
	1000	92.6	94.1	95.5	95.1	97.9	95.5	97.9	97.9	97.9	97.9
	2000	86.2	87.8	87.9	88.8	91.5	87.9	91.5	91.5	91.5	91.5
	4000	82.6	85.1	84.8	87.8	86.6	84.8	86.6	86.6	86.6	86.6
	8000	81.3	84.7	84.7	88.2	85.7	84.7	85.7	85.7	85.7	85.7
Overall A-weighted		97.8	100.3	101.4	102.0	102.1	101.4	102.0	102.1	102.1	102.1

Table E-D. Siemens SWT-2.3-113 Max Power 1824 kW

Associated Project: Grand Bend Wind Farm											
Make: Siemens											
Model: SWT-2.3-113											
Electrical Rating: 1824 kilowatts											
Hub Height (m): 99.5 metres											
Wind Shear Coefficient: 0.29											
Source of Data: Provided by Siemens (Appendix B)											
		Linear Octave Band Sound Power Level (dB(lin))									
		Manufacturer's Emission Levels					Adjusted Emission Levels				
10 metre Height Wind Speed (m/s)		6	7	8	9	10	6	7	8	9	10
Frequency (Hz)	63	110.1	109.5	108.9	109.0	108.7	109.5	109.0	108.7	108.7	108.7
	125	105.5	104.3	103.4	102.9	112.0	104.3	102.9	102.0	102.0	102.0
	250	102.6	101.7	101.4	100.8	100.0	101.7	100.8	100.0	100.0	100.0
	500	95.3	95.6	96.1	95.9	95.6	95.6	95.9	95.6	95.6	95.6
	1000	94.1	94.5	94.1	94.0	94.3	94.5	94.0	94.3	94.3	94.3
	2000	91.7	92.0	92.1	92.3	92.8	92.0	92.3	92.8	92.8	92.8
	4000	82.5	85.2	87.2	89.1	89.3	85.2	89.1	89.3	89.3	89.3
	8000	67.8	71.0	73.2	73.2	73.1	71.0	73.2	73.1	73.1	73.1
Overall A-weighted		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table E-E. Siemens SWT-2.3-113 Max Power 1903 kW

Associated Project: **Grand Bend Wind Farm**
 Make: **Siemens**
 Model: **SWT-2.3-113**
 Electrical Rating: **1903 kilowatts**
 Hub Height (m): **99.5 metres**
 Wind Shear Coefficient: **0.29**
 Source of Data: **Provided by Siemens (Appendix B)**

		Linear Octave Band Sound Power Level (dB(lin))									
		Manufacturer's Emission Levels					Adjusted Emission Levels				
10 metre Height Wind Speed (m/s)		6	7	8	9	10	6	7	8	9	10
Frequency (Hz)	63	110.3	109.7	109.1	109.2	108.9	109.7	109.2	108.9	108.9	108.9
	125	105.9	104.7	103.8	103.3	102.4	104.7	103.3	102.4	102.4	102.4
	250	103.8	103.0	102.6	102.0	101.2	103.0	102.0	101.2	101.2	101.2
	500	96.8	97.1	97.4	97.2	96.9	97.1	97.2	96.9	96.9	96.9
	1000	95.0	95.4	95.1	95.0	95.3	95.4	95.0	95.3	95.3	95.3
	2000	92.4	92.8	93.1	93.3	93.8	92.8	93.3	93.8	93.8	93.8
	4000	82.6	85.7	87.8	89.7	89.8	85.7	89.7	89.8	89.8	89.8
	8000	67.8	71.4	73.7	73.7	73.6	71.4	73.7	73.6	73.6	73.6
Overall A-weighted		101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0

Table E-F. Siemens SWT-2.3-113 Max Power 2030 kW

Associated Project: **Grand Bend Wind Farm**
 Make: **Siemens**
 Model: **SWT-2.3-113**
 Electrical Rating: **2030 kilowatts**
 Hub Height (m): **99.5 metres**
 Wind Shear Coefficient: **0.29**
 Source of Data: **Provided by Siemens (Appendix B)**

		Linear Octave Band Sound Power Level (dB(lin))									
		Manufacturer's Emission Levels					Adjusted Emission Levels				
10 metre Height Wind Speed (m/s)		6	7	8	9	10	6	7	8	9	10
Frequency (Hz)	63	110.5	109.8	109.3	109.4	109.1	109.8	109.4	109.1	109.1	109.1
	125	106.3	105.1	104.2	103.7	102.8	105.1	103.7	102.8	102.8	102.8
	250	105.0	104.1	103.7	103.1	102.4	104.1	103.1	102.4	102.4	102.4
	500	98.4	98.7	98.7	98.5	98.3	98.7	98.5	98.3	98.3	98.3
	1000	96.0	96.3	96.1	96.0	96.3	96.3	96.0	96.3	96.3	96.3
	2000	93.2	93.5	94.0	94.2	94.7	93.5	94.2	94.7	94.7	94.7
	4000	82.8	86.0	88.3	90.2	90.4	86.0	90.2	90.4	90.4	90.4
	8000	68.0	71.8	74.2	74.2	74.1	71.8	74.2	74.1	74.1	74.1
Overall A-weighted		102.0	102.0	102.0	102.0	102.0	102.0	102.0	102.0	102.0	102.0

Table E-G. Siemens SWT-2.3-113 Max Power 2126 kW

Associated Project: Grand Bend Wind Farm											
Make: Siemens											
Model: SWT-2.3-113											
Electrical Rating: 2126 kilowatts											
Hub Height (m): 99.5 metres											
Wind Shear Coefficient: 0.29											
Source of Data: Provided by Siemens (Appendix B)											
		Linear Octave Band Sound Power Level (dB(lin))									
		Manufacturer's Emission Levels					Adjusted Emission Levels				
10 metre Height Wind Speed (m/s)		6	7	8	9	10	6	7	8	9	10
Frequency (Hz)	63	110.8	110.1	109.5	109.6	109.4	110.1	109.6	109.4	109.4	109.4
	125	106.7	105.4	104.6	104.1	103.3	105.4	104.1	103.3	103.3	103.3
	250	105.6	104.9	104.9	104.3	103.6	104.9	104.3	103.6	103.6	103.6
	500	99.9	100.1	100.2	100.1	99.8	100.1	100.1	99.8	99.8	99.8
	1000	97.4	97.7	97.0	97.0	97.3	97.7	97.0	97.3	97.3	97.3
	2000	93.8	94.0	94.8	95.0	95.6	94.0	95.0	95.6	95.6	95.6
	4000	83.0	86.0	88.3	90.2	90.4	86.0	90.2	90.4	90.4	90.4
8000	67.4	71.5	74.1	74.2	74.1	71.5	74.2	74.1	74.1	74.1	
Overall A-weighted		103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0

Table E-H. Siemens SWT-2.3-113 Max Power 2221 kW

Associated Project: Grand Bend Wind Farm											
Make: Siemens											
Model: SWT-2.3-113											
Electrical Rating: 2221 kilowatts											
Hub Height (m): 99.5 metres											
Wind Shear Coefficient: 0.29											
Source of Data: Provided by Siemens (Appendix B)											
		Linear Octave Band Sound Power Level (dB(lin))									
		Manufacturer's Emission Levels					Adjusted Emission Levels				
10 metre Height Wind Speed (m/s)		6	7	8	9	10	6	7	8	9	10
Frequency (Hz)	63	111.0	109.8	109.7	109.9	109.6	109.8	109.9	109.6	109.6	109.6
	125	107.0	107.4	104.9	104.4	103.6	107.4	104.4	103.6	103.6	103.6
	250	106.2	106.3	105.8	105.3	104.5	106.3	105.3	104.5	104.5	104.5
	500	101.4	101.2	101.0	100.9	100.6	101.2	100.9	100.6	100.6	100.6
	1000	98.8	98.7	98.0	98.0	98.3	98.7	98.0	98.3	98.3	98.3
	2000	94.4	94.2	95.9	96.2	96.7	94.2	96.2	96.7	96.7	96.7
	4000	83.1	86.8	89.8	91.7	91.9	86.8	91.7	91.9	91.9	91.9
8000	66.7	72.3	75.6	75.7	75.6	72.3	75.7	75.6	75.6	75.6	
Overall A-weighted		104.0	104.0	104.0	104.0	104.0	104.0	104.0	104.0	104.0	104.0

Table E-I. Siemens SWT-2.3-113

Associated Project: Grand Bend Wind Farm Make: Siemens Model: SWT-2.3-113 Electrical Rating: 2300 kilowatts Hub Height (m): 99.5 metres Wind Shear Coefficient: 0.29 Source of Data: Provided by Siemens (Appendix B)																																
Linear Octave Band Sound Power Level (dB(lin))																																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td colspan="5" style="text-align: center;">Manufacturer's Emission Levels</td> <td colspan="5" style="text-align: center;">Adjusted Emission Levels</td> </tr> <tr> <td style="text-align: center;">10 metre Height Wind Speed (m/s)</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td style="text-align: center;">8</td> <td style="text-align: center;">9</td> <td style="text-align: center;">10</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td style="text-align: center;">8</td> <td style="text-align: center;">9</td> <td style="text-align: center;">10</td> </tr> </table>												Manufacturer's Emission Levels					Adjusted Emission Levels					10 metre Height Wind Speed (m/s)	6	7	8	9	10	6	7	8	9	10
	Manufacturer's Emission Levels					Adjusted Emission Levels																										
10 metre Height Wind Speed (m/s)	6	7	8	9	10	6	7	8	9	10																						
Frequency (Hz)	63	111.2	110.8	109.9	110.1	109.8	110.8	110.1	109.8	109.8	109.8																					
	125	107.4	108.5	105.3	104.8	104.0	108.5	104.8	104.0	104.0	104.0																					
	250	105.4	106.2	107.0	106.4	105.7	106.2	106.4	105.7	105.7	105.7																					
	500	102.1	102.6	102.5	102.4	102.1	102.6	102.4	102.1	102.1	102.1																					
	1000	99.7	100.3	98.9	98.9	99.2	100.3	98.9	99.2	99.2	99.2																					
	2000	94.1	94.7	96.7	97.0	97.5	94.7	97.0	97.5	97.5	97.5																					
	4000	83.9	85.1	89.8	91.7	92.0	85.1	91.7	92.0	92.0	92.0																					
8000	68.5	69.2	75.5	75.6	75.5	69.2	75.6	75.5	75.5	75.5																						
Overall A-weighted		104.4	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0																					

Appendix E

Memo Update to the Parcel
Boundary Setback Reduction
Analysis



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Memorandum

To/Attention	Marc Rose, MES, MCIP, RPP	Date	November 1, 2013
From	Michael Pease	Project No	15633
cc		Steno	wu
Subject	Goshen Wind Energy Centre - Parcel Boundary Setback Reduction Analysis Update		

Purpose

The purpose of this memo is to provide an update to the Parcel Boundary Setback Reduction Analysis Report (“Report”) issued by IBI Group in August 2012 for the Goshen Wind Energy Centre. In the time period between submission of the Report and present date, changes to turbine locations have occurred. As such, additional analysis is required to supplement the original Report for any turbines located within 80 metres of an adjacent property boundary. The following revisions will be analyzed:

- Relocation of Turbine 71; and
- Removal of Turbine 46

In addition, our previous report spoke to the undertaking of an analysis of Sixteen (16) turbines within the Goshen Wind Energy Centre. Given that changes have been made, at present, only fifteen (15) turbines require analysis based on the deletion of Turbine 46.

Lastly, our previous report stated that the Goshen Wind Energy Centre proposed a total of seventy-two (72) turbines, where seventy (70) are now proposed due to project updating.

Analysis

The methodology for this analysis was the same process as the Report. Specifically, the analysis included identification of turbines that were less than 80 metres from a lot line; undertake an analysis of the local surrounding land use characteristics; determine the potential impacts of the wind turbine on the surrounding land uses; and discuss what, if any, preventative measures should be employed to mitigate such impacts.

Turbine 71 – Pt Lot 15, Concession 10

Description

Turbine 71 is located 61.4 metres from the closest lot line (southerly side lot line) which is less than the minimum requirement of blade length plus 10 metres (60 metres) and is 18.6 metres less than required as the standard setback without undertaking any further analysis. The adjacent lands are used for field crop purposes with buildings and structures located to the

Marc Rose, MES, MCIP, RPP – November 1, 2013

southeast at an approximate distance of 700 metres. Land use within the vicinity of the proposed turbine would be restricted to seasonal farming activities with otherwise minimal human activities (See Turbine 71 Map in Appendix 1).

Potential Impacts

Adverse impacts to the neighbouring parcel from the reduced setback may include damage to crops as a result of turbine failure. However, this impact is already present at an 80 metre setback and is not enhanced significantly by a reduction of 18.6 metres. There is no adverse impact on nearby properties or land use activities.

Preventative Measures

Preventative measures to address potential damage to neighbouring crops include certification of the wind turbine by professional engineers; ongoing regular maintenance and monitoring of the wind turbine by operations staff; and shutdown mechanisms and protocols in extreme weather instances to prevent damage to wind turbines. All of these measures are standard best practices and no additional preventative measures are required for the change in setback.

Turbine 46 – Part Lot 3, Con 10

Based on updates to the project, Turbine 46, which was previously proposed on Part Lot 3, Concession 10, has been removed and analysis in the report, dated August 2012, should be disregarded.

Conclusion

Based on the preceding analysis one (1) turbine location was considered for an updated reduced setback from property boundaries, while one (1) was removed from the Parcel Boundary Setback Reduction Analysis Report (“Report”) issued by IBI Group in August 2012, it is our opinion that there would be no adverse impacts as a result of the setback reductions; and that standard preventative measures implemented through best practices address any change in impacts that may be encountered.






IBI GROUP
Michael Pease
Planner



Goshen
Wind Energy Centre
Huron County, Ontario

Parcel Boundary Setback
Reduction Analysis

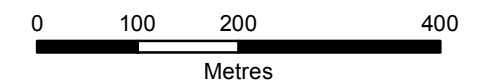
Legend

-  Turbine Location
-  Host Land Parcel
Pt Lot 15, Con 10
-  Neighbouring Land Parcel
Pt Lot 14 & Pt Lot 15, Con 12

Required Lotline Setback

-  Agreement Will Be in Place
With Assessment - No Setback
Required
-  No Agreement - 60m Setback
With Assessment

Turbine 71



1:7,500

NAD 1983 UTM Zone 17N



Enlarged Turbine Area

71
61.4 m

Turbine 71
Northing: 4,795,562 m
Easting: 451,847 m