

**Appendix G:
Noise Supporting Information**

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Mechanical Equipment Noise Calculation

Receptor: Closest Residence - northwest of Project

Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements												
No.	Equipment Description	Reference (dBA) 25 ft	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy		
		Lmax						Leq				
1	Commercial grade mechanical ventilation equipment	60	1	100	1470	0.5	0	24.6	15.8	37.71869728		
2	Commercial grade mechanical ventilation equipment	60	1	100	1500	0.5	0	24.4	15.5	35.86095691		
3	Commercial grade mechanical ventilation equipment	60	1	100	1550	0.5	0	24.2	15.2	33.0385346		
4	Commercial grade mechanical ventilation equipment	60	1	100	1600	0.5	0	23.9	14.8	30.51757813		
5	Commercial grade mechanical ventilation equipment	60	1	100	1650	0.5	0	23.6	14.5	28.25791804		
6												
7												
8												
9												
10												
								Lmax[4]	25	Leq	22	

Notes:

- [1] Percentage of time activity occurs each hour
- [2] Soft ground terrain between project site and receptor.
- [3] Shielding due to terrain or structures
- [4] Calculated Lmax is the Loudest value.

Ldn Calculations					
	Time	Hourly Leq	Leq'	0.1*Leq	antiLog
Night	12:00 AM	22.2	32.2	3.218518923	1653.93685
	1:00 AM	22.2	32.2	3.218518923	1653.93685
	2:00 AM	22.2	32.2	3.218518923	1653.93685
	3:00 AM	22.2	32.2	3.218518923	1653.93685
	4:00 AM	22.2	32.2	3.218518923	1653.93685
	5:00 AM	22.2	32.2	3.218518923	1653.93685
Day	6:00 AM	22.2	32.2	3.218518923	1653.93685
	7:00 AM	22.2	22.2	2.218518923	165.393685
	8:00 AM	22.2	22.2	2.218518923	165.393685
	9:00 AM	22.2	22.2	2.218518923	165.393685
	10:00 AM	22.2	22.2	2.218518923	165.393685
	11:00 AM	22.2	22.2	2.218518923	165.393685
	12:00 PM	22.2	22.2	2.218518923	165.393685
	1:00 PM	22.2	22.2	2.218518923	165.393685
	2:00 PM	22.2	22.2	2.218518923	165.393685
	3:00 PM	22.2	22.2	2.218518923	165.393685
	4:00 PM	22.2	22.2	2.218518923	165.393685
	5:00 PM	22.2	22.2	2.218518923	165.393685
	6:00 PM	22.2	22.2	2.218518923	165.393685
	7:00 PM	22.2	22.2	2.218518923	165.393685
8:00 PM	22.2	22.2	2.218518923	165.393685	
9:00 PM	22.2	22.2	2.218518923	165.393685	
Night	10:00 PM	22.2	32.2	3.218518923	1653.93685
	11:00 PM	22.2	32.2	3.218518923	1653.93685
Sum					17366.33692
Sum/24					723.5973717
Log10(Sum/24)					2.859496981
10*Log10(Sum/24)					28.59496981
24 Hour Ldn					29

Parking Lot activity

Reference Noise Level Calculation

No.	Equipment Description	Reference (dBA) 50 ft	Quantity	Usage factor[1]	Distance to nearest Property Line	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy	
		Lmax						Leq			
1	parking lot activity	70	8	1	1360	1	0	41.3	16.0	39.75422349	
2	parking lot activity	70	10	1	1400	1	0	41.1	16.6	45.55393586	
3	parking lot activity	70	20	1	1450	1	0	40.8	19.1	82.00418221	
4	parking lot activity	70	20	1	1500	1	0	40.5	18.7	74.07407407	
5											
6											
7											
8											
9											
10											
								Lmax[4]	41	Leq	24

Notes:

- [1] Percentage of time maximum noise levels occur each hour
- [2] Soft ground terrain between project site and receptor.
- [3] Noise reduction factor due to terrain, landscaping, or structures
- [4] Calculated Lmax is the Loudest value.

Ldn Calculations	Time	Hourly Leq	Leq'	0.1*Leq	antiLog	
						Night
	1:00 AM	23.8	33.8	3.382712826	2413.864156	
	2:00 AM	23.8	33.8	3.382712826	2413.864156	
	3:00 AM	23.8	33.8	3.382712826	2413.864156	
	4:00 AM	23.8	33.8	3.382712826	2413.864156	
	5:00 AM	23.8	33.8	3.382712826	2413.864156	
	6:00 AM	23.8	33.8	3.382712826	2413.864156	
Day	7:00 AM	23.8	23.8	2.382712826	241.3864156	
	8:00 AM	23.8	23.8	2.382712826	241.3864156	
	9:00 AM	23.8	23.8	2.382712826	241.3864156	
	10:00 AM	23.8	23.8	2.382712826	241.3864156	
	11:00 AM	23.8	23.8	2.382712826	241.3864156	
	12:00 PM	23.8	23.8	2.382712826	241.3864156	
	1:00 PM	23.8	23.8	2.382712826	241.3864156	
	2:00 PM	23.8	23.8	2.382712826	241.3864156	
	3:00 PM	23.8	23.8	2.382712826	241.3864156	
	4:00 PM	23.8	23.8	2.382712826	241.3864156	
	5:00 PM	23.8	23.8	2.382712826	241.3864156	
	6:00 PM	23.8	23.8	2.382712826	241.3864156	
	7:00 PM	23.8	23.8	2.382712826	241.3864156	
	8:00 PM	23.8	23.8	2.382712826	241.3864156	
	9:00 PM	23.8	23.8	2.382712826	241.3864156	
Night	10:00 PM	23.8	33.8	3.382712826	2413.864156	
	11:00 PM	23.8	33.8	3.382712826	2413.864156	
					Sum	25345.57364
					Sum/24	1056.065568
					Log10(Sum/24)	3.023690883
					10*Log10(Sum/24)	30.23690883
					24 Hour Ldn	30

Loading/Unloading

Receptor: Closest receptor - school south of the site

Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements

No.	Equipment Description	Reference (dBA) 50 ft	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy	
		Lmax						Leq			
1	Loading/Unloading - surface level	70	10	5	1600	1	0	39.9	21.8	152.5878906	
2	Loading/Unloading - surface level	70	10	5	1650	1	0	39.6	21.4	139.1323705	
3	Loading/Unloading - surface level	70	10	5	1700	1	0	39.4	21.0	127.2135152	
4	Loading/Unloading - surface level	70	10	5	1750	1	0	39.1	20.7	116.6180758	
5	Loading/Unloading - docks	70	7	5	1800	1	0	38.9	18.8	75.01714678	
6	Loading/Unloading - docks	70	7	5	1850	1	0	38.6	18.4	69.09758553	
7	Loading/Unloading - docks	70	7	5	1900	1	0	38.4	18.0	63.78480828	
8	Loading/Unloading - docks	70	7	5	1950	1	0	38.2	17.7	59.00301758	
9											
10											
								Lmax[4]	40	Leq	29

Notes:

- [1] Percentage of time activity occurs each hour
- [2] Soft ground terrain between project site and receptor.
- [3] Shielding reduction from proposed warehouse structure
- [4] Calculated Lmax is the Loudest value.

Ldn Calculations	Time	Hourly Leq	Leq'	0.1*Leq	antiLog	
Night	12:00 AM	29.0	39.0	3.904420368	8024.544103	
	1:00 AM	29.0	39.0	3.904420368	8024.544103	
	2:00 AM	29.0	39.0	3.904420368	8024.544103	
	3:00 AM	29.0	39.0	3.904420368	8024.544103	
	4:00 AM	29.0	39.0	3.904420368	8024.544103	
	5:00 AM	29.0	39.0	3.904420368	8024.544103	
Day	6:00 AM	29.0	39.0	3.904420368	8024.544103	
	7:00 AM	29.0	29.0	2.904420368	802.4544103	
	8:00 AM	29.0	29.0	2.904420368	802.4544103	
	9:00 AM	29.0	29.0	2.904420368	802.4544103	
	10:00 AM	29.0	29.0	2.904420368	802.4544103	
	11:00 AM	29.0	29.0	2.904420368	802.4544103	
	12:00 PM	29.0	29.0	2.904420368	802.4544103	
	1:00 PM	29.0	29.0	2.904420368	802.4544103	
	2:00 PM	29.0	29.0	2.904420368	802.4544103	
	3:00 PM	29.0	29.0	2.904420368	802.4544103	
	4:00 PM	29.0	29.0	2.904420368	802.4544103	
	5:00 PM	29.0	29.0	2.904420368	802.4544103	
	6:00 PM	29.0	29.0	2.904420368	802.4544103	
	7:00 PM	29.0	29.0	2.904420368	802.4544103	
	8:00 PM	29.0	29.0	2.904420368	802.4544103	
	9:00 PM	29.0	29.0	2.904420368	802.4544103	
	Night	10:00 PM	29.0	39.0	3.904420368	8024.544103
		11:00 PM	29.0	39.0	3.904420368	8024.544103
					Sum	84257.71308
					Sum/24	3510.738045
					Log10(Sum/24)	3.545398426
					10*Log10(Sum/24)	35.45398426
					24 Hour Ldn	35

TABLE Existing-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021
ROADWAY SEGMENT: Paoli Loop Road - south of Green Island Road
NOTES: Giovannoni Logistics Center Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3000 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
88.08	9.34
M-TRUCKS	
1.65	0.19
H-TRUCKS	
0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	55.4	118.7

TABLE Existing-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021
ROADWAY SEGMENT: Green Island Road - Paoli Loop Road to future Devlin Road
NOTES: Giovannoni Logistics Center Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4800 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
88.08	9.34
M-TRUCKS	
1.65	0.19
H-TRUCKS	
0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	75.5	162.2

TABLE Existing-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021
ROADWAY SEGMENT: Green Island Road - west of future Devlin Road
NOTES: Giovannoni Logistics Center Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4800 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	75.5	162.2

TABLE Existing-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021
ROADWAY SEGMENT: South Kelly Road - SR 29 to Devlin Road
NOTES: Giovannoni Logistics Center Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1400 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
88.08	9.34
M-TRUCKS	
1.65	0.19
H-TRUCKS	
0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.62

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	0.0	71.6

TABLE Existing-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021
ROADWAY SEGMENT: SR 29 - South Kelly Road to Green Island Road
NOTES: Giovannoni Logistics Center Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30900 SPEED (MPH): 65 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
88.08	9.34
M-TRUCKS	
1.65	0.19
H-TRUCKS	
0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.84

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
128.4	272.8	585.9	1261.2

TABLE Existing plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021

ROADWAY SEGMENT: Paoli Loop Road - south of Green Island Road

NOTES: Giovannoni Logistics Center Project - Existing plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3700 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.84

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	63.6	136.4

TABLE Existing plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021

ROADWAY SEGMENT: Green Island Road - Paoli Loop Road to future Devlin Road

NOTES: Giovannoni Logistics Center Project - Existing plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6400 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	91.4	196.5

TABLE Existing plus Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021

ROADWAY SEGMENT: Green Island Road - west of future Devlin Road

NOTES: Giovannoni Logistics Center Project - Existing plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4800 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
88.08	9.34
M-TRUCKS	
1.65	0.19
H-TRUCKS	
0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	75.5	162.2

TABLE Existing plus Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021

ROADWAY SEGMENT: South Kelly Road - SR 29 to Devlin Road

NOTES: Giovannoni Logistics Center Project - Existing plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2500 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	NIGHT -----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.13

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn -----	65 Ldn -----	60 Ldn -----	55 Ldn -----
0.0	0.0	0.0	105.2

TABLE Existing plus Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021

ROADWAY SEGMENT: SR 29 - South Kelly Road to Green Island Road

NOTES: Giovannoni Logistics Center Project - Existing plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31300 SPEED (MPH): 65 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.90

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
129.5	275.2	590.9	1272.1

TABLE Future without Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021

ROADWAY SEGMENT: Paoli Loop Road - south of Green Island Road

NOTES: Giovannoni Logistics Center Project - Future without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3700 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.84

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	63.6	136.4

TABLE Future without Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021

ROADWAY SEGMENT: Green Island Road - Paoli Loop Road to future Devlin Road

NOTES: Giovannoni Logistics Center Project - Future without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5900 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	86.6	186.1

TABLE Future without Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021

ROADWAY SEGMENT: Green Island Road - west of future Devlin Road

NOTES: Giovannoni Logistics Center Project - Future without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5900 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	NIGHT -----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn -----	65 Ldn -----	60 Ldn -----	55 Ldn -----
0.0	0.0	86.6	186.1

TABLE Future without Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021

ROADWAY SEGMENT: South Kelly Road - SR 29 to Devlin Road

NOTES: Giovannoni Logistics Center Project - Future without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2400 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.96

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	0.0	102.3

TABLE Future without Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021
ROADWAY SEGMENT: SR 29 - South Kelly Road to Green Island Road
NOTES: Giovannoni Logistics Center Project - Future without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 52300 SPEED (MPH): 65 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 76.13

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
180.8	386.7	831.8	1791.0

TABLE Future plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021

ROADWAY SEGMENT: Paoli Loop Road - south of Green Island Road

NOTES: Giovannoni Logistics Center Project - Future plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4300 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.49

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	70.2	150.8

TABLE Future plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021

ROADWAY SEGMENT: Green Island Road - Paoli Loop Road to future Devlin Road

NOTES: Giovannoni Logistics Center Project - Future plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7400 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.85

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	100.6	216.5

TABLE Future plus Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021

ROADWAY SEGMENT: Green Island Road - west of future Devlin Road

NOTES: Giovannoni Logistics Center Project - Future plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5900 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	86.6	186.1

TABLE Future plus Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021
ROADWAY SEGMENT: South Kelly Road - SR 29 to Devlin Road
NOTES: Giovannoni Logistics Center Project - Future plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3500 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
88.08	9.34
M-TRUCKS	
1.65	0.19
H-TRUCKS	
0.66	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.59

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	61.3	131.5

TABLE Future plus Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 08/25/2021
ROADWAY SEGMENT: SR 29 - South Kelly Road to Green Island Road
NOTES: Giovannoni Logistics Center Project - Future plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 52700 SPEED (MPH): 65 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES	
	DAY	NIGHT
	---	-----
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 76.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
181.7	388.7	836.0	1800.2
