

**Appendix F:
Noise Supporting Information**

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Summary

Filename LxT_Data.136
 Serial Number 4228
 Model SoundTrack LxT®
 Firmware Version 2.206
 User Dana
 Location Oakmont Emerald Isle
 Job Description
 Note
 Measurement Description
 Start 18/08/2016 16:12:18
 Stop 19/08/2016 14:19:13
 Duration 22:06:54.9
 Run Time 22:06:54.9
 Pause 0:00:00.0

Pre Calibration 18/08/2016 15:52:09
 Post Calibration None
 Calibration Deviation ---

Overall Settings

RMS Weight A Weighting
 Peak Weight A Weighting
 Detector Slow
 Preamp PRMLxT2B
 Microphone Correction Off
 Integration Method Exponential
 Overload 145.8 dB

	A	C	Z
Under Range Peak	101.9	98.9	103.9 dB
Under Range Limit	38.0	36.0	44.0 dB
Noise Floor	25.3	25.8	33.2 dB

Results

LASeq 47.8 dB
 LASe 96.8 dB
 EAS 535.688 µPa²h
 EAS8 193.780 µPa²h
 EAS40 968.902 µPa²h
 LApeak (max) 18/08/2016 16:13:07 103.9 dB
 LASmax 19/08/2016 12:03:01 76.7 dB
 LASmin 19/08/2016 05:57:28 31.6 dB
 SEA -99.9 dB

LAS > 85.0 dB (Exceedence Counts / Duration) 0 0.0 s
 LAS > 115.0 dB (Exceedence Counts / Duration) 0 0.0 s
 LApeak > 135.0 dB (Exceedence Counts / Duration) 0 0.0 s
 LApeak > 137.0 dB (Exceedence Counts / Duration) 0 0.0 s
 LApeak > 140.0 dB (Exceedence Counts / Duration) 0 0.0 s

Community Noise

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00
Community Noise	49.5	49.9	38.7	50.0	50.6	45.7	38.7
LCSeq	56.2 dB						
LASeq	47.8 dB						
LCSeq - LASeq	8.4 dB						
LAleq	51.6 dB						
LAeq	47.8 dB						
LAleq - LAeq	3.8 dB						
# Overloads	0						
Overload Duration	0.0 s						

Dose Settings

	OSHA-1	OSHA-2
Dose Name	OSHA-1	OSHA-2
Exch. Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose -99.9 -99.9 %
 Projected Dose -99.9 -99.9 %
 TWA (Projected) -99.9 -99.9 dB
 TWA (t) -99.9 -99.9 dB
 Lep (t) 52.2 52.2 dB

Statistics

LAS5.00 48.4 dB
 LAS10.00 46.3 dB
 LAS33.30 40.0 dB
 LAS50.00 38.3 dB
 LAS66.60 36.8 dB
 LAS90.00 35.0 dB

TABLE Existing-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Fountaingrove Pkwy to Gullane Drive

NOTES: Oakmont Emerald Isle - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 960 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 50.55

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

TABLE Existing-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Gullane Drive to Kilarney Circle

NOTES: Oakmont Emerald Isle - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 910 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 50.32

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

TABLE Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Fountaingrove Pkwy to Gullane Drive

NOTES: Oakmont Emerald Isle - Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 190 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 43.51

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

TABLE Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Gullane Drive to Kilarney Circle

NOTES: Oakmont Emerald Isle - Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 33.74

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

TABLE Existing + Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Fountaingrove Pkwy to Gullane Drive

NOTES: Oakmont Emerald Isle - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1200 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 51.52

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

TABLE Existing + Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Gullane Drive to Kilarney Circle

NOTES: Oakmont Emerald Isle - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 930 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 50.41

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

TABLE Baseline-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Fountaingrove Pkwy to Gullane Drive

NOTES: Oakmont Emerald Isle - Baseline

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2000 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 53.74

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

TABLE Baseline-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Gullane Drive to Kilarney Circle

NOTES: Oakmont Emerald Isle - Baseline

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2000 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 53.74

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

TABLE Baseline + Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Fountaingrove Pkwy to Gullane Drive

NOTES: Oakmont Emerald Isle - Baseline + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2200 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 54.15

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

TABLE Baseline + Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Gullane Drive to Kilarney Circle

NOTES: Oakmont Emerald Isle - Baseline + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2000 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 53.74

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

TABLE Future-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Fountaingrove Pkwy to Gullane Drive

NOTES: Oakmont Emerald Isle - Future

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3600 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.29

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	68.1

TABLE Future-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Gullane Drive to Kilarney Circle

NOTES: Oakmont Emerald Isle - Future

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3600 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.29

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	68.1

TABLE Future + Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Fountaingrove Pkwy to Gullane Drive

NOTES: Oakmont Emerald Isle - Future + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3800 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	70.6

TABLE Future + Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/25/2019

ROADWAY SEGMENT: Thomas Lake Harris Drive - Gullane Drive to Kilarney Circle

NOTES: Oakmont Emerald Isle - Future + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3600 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

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

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.29

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	68.1

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