Summary

File Name on Meter	831_Data.534.s
File Name on PC	831_0001742-20200727 113747-831_Data.534.ldbin
Serial Number	0001742
Model	Model 831
Firmware Version	2.300
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2020-07-27 11:37:47
Stop	2020-07-28 11:47:51
Duration	24:10:04.102
Run Time	24:10:04.102
Pause	00:00:00.0
Pre-Calibration	2020-07-27 11:33:58
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRM831
Microphone Correction	Off
Integration Method	Linear
Gain	0.0 dB
Overload	142.2 dB

	A	C	Z
Under Range Peak	**74.6**	71.6	76.6 dB
Under Range Limit	**26.0**	26.2	31.3 dB
Noise Floor	16.8	17.0	22.1 dB

Results

L_{Aeq}	67.0	
LAE	116.4	
EA	48.520	mPa^2h
$L_{Apeak\ (max)}$	2020-07-27 11:38:52	124.0 dB
L_{ASmax}	2020-07-28 06:10:00	95.1 dB
L_{ASmin}	2020-07-28 00:56:29	40.5 dB
SEA	135.7 dB	
LAS > 60.0 dB (Exceedance Counts / Duration)	1930	35266.5 s
LAS > 90.0 dB (Exceedance Counts / Duration)	7	12.0 s
L_{Apeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Apeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Apeak} > 140.0 dB (Exceedance 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**
	69.6	68.6	60.9	70.3	68.8	67.6

L_{Ceq}	72.6 dB	
L_{Aeq}	67.0 dB	
L_{Ceq} - L_{Aeq}	5.6 dB	
L_{AIeq}	71.0 dB	
L_{Aeq}	67.0 dB	
L_{AIeq} - L_{Aeq}	4.0 dB	

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	67.0		72.6		80.1	
$L_{S(max)}$	95.1	2020/07/28 6:10:00	106.5	2020/07/27 11:42:26	120.8	2020/07/27 11:42:26
$L_{F(max)}$	100.5	2020/07/27 11:42:30	114.2	2020/07/27 11:42:26	128.0	2020/07/27 11:42:26
$L_{I(max)}$	104.8	2020/07/27 11:42:30	117.8	2020/07/27 11:42:26	131.0	2020/07/27 11:42:26
$L_{S(min)}$	40.5	2020/07/28 0:56:29	57.7	2020/07/28 1:55:46	60.1	2020/07/28 2:13:03
$L_{F(min)}$	39.6	2020/07/28 0:56:29	55.3	2020/07/28 2:52:02	57.4	2020/07/28 2:52:02
$L_{I(min)}$	40.4	2020/07/28 1:03:34	58.0	2020/07/28 1:55:17	60.6	2020/07/28 1:26:38
$L_{Peak(max)}$	124.0	2020/07/27 11:38:52	127.0	2020/07/27 11:42:30	133.8	2020/07/27 11:42:26

Overload Count	0
Overload Duration	0.0 s

Statistics

LAI1.70	77.4 dB
LAI8.30	71.5 dB
LAI10.00	70.5 dB
LAI25.00	63.6 dB
LAI50.00	55.6 dB
LAI75.00	50.2 dB

Summary

File Name on Meter	LxT_Data.027.s
File Name on PC	LxT_0004615-20200727 122034-LxT_Data.027.ldbin
Serial Number	0004615
Model	SoundTrack LxT®
Firmware Version	2.301
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2020-07-27 12:20:34
Stop	2020-07-28 12:36:01
Duration	24:15:27.102
Run Time	24:15:27.102
Pause	00:00:00.0
Pre-Calibration	2020-07-27 12:18:49
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Linear
Overload	142.0 dB

	A	**C**	**Z**	
Under Range Peak	**98.2**	95.2	100.2	dB
Under Range Limit	**36.1**	34.1	42.1	dB
Noise Floor	23.4	23.9	31.3	dB

Results

L_{Aeq}	55.2		
LAE	104.6		
EA	3.214	mPa^2h	
EA8	1.060	mPa^2h	
EA40	5.300	mPa^2h	
$L_{Apeak\ (max)}$	2020-07-27 12:20:39	115.2	dB
L_{ASmax}	2020-07-27 12:20:39	90.8	dB
L_{ASmin}	2020-07-28 02:43:13	40.6	dB
SEA	-99.94	dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	1	3.2	s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0	s
L_{Apeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0	s
L_{Apeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0	s
L_{Apeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0	s
L_{Ceq}	67.5	dB	
L_{Aeq}	55.2	dB	
L_{Ceq} - L_{Aeq}	12.3	dB	
LAI_{eq}	59.2	dB	
L_{Aeq}	55.2	dB	
LAI_{eq} - L_{Aeq}	4.0	dB	

	A		**C**	
	dB	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	55.2		67.5	
$L_{S(max)}$	90.8	2020/07/27 12:20:39		
$L_{S(min)}$	40.6	2020/07/28 2:43:13		
$L_{Peak(max)}$	115.2	2020/07/27 12:20:39		

Overload Count	0	
Overload Duration	0.0	s

Dose Settings

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

Results

Dose	0.00	0.01	%
Projected Dose	0.00	0.00	%
TWA (Projected)	-0.4	15.9	dB
TWA (t)	7.6	23.9	dB
Lep (t)	60.0	60.0	dB

Statistics

LAI1.70	62.2	dB
LAI8.30	57.7	dB
LAI25.00	54.1	dB
LAI50.00	50.9	dB
LAI75.00	49.0	dB
LAI90.00	47.5	dB

Summary

File Name on Meter	831_Data.536.s
File Name on PC	831_0001742-20200728 125419-831_Data.536.ldbin
Serial Number	0001742
Model	Model 831
Firmware Version	2.300
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2020-07-28 12:54:19
Stop	2020-07-28 13:17:00
Duration	00:22:40.6
Run Time	00:22:40.6
Pause	00:00:00.0
Pre-Calibration	2020-07-28 12:51:55
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRM831
Microphone Correction	Off
Integration Method	Linear
Gain	0.0 dB
Overload	141.9 dB

	A	C	Z
Under Range Peak	**74.4**	71.4	76.4 dB
Under Range Limit	**25.9**	26.1	31.2 dB
Noise Floor	16.8	17.0	22.0 dB

Results

L_{Aeq}	50.5	
LAE	81.8	
EA	16.904	µPa²h
$L_{Apeak\ (max)}$	2020-07-28 13:16:57	85.4 dB
L_{ASmax}	2020-07-28 13:08:47	61.3 dB
L_{ASmin}	2020-07-28 13:16:43	46.7 dB
SEA	-99.94 dB	
LAS > 60.0 dB (Exceedance Counts / Duration)	3	7.3 s
LAS > 90.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Apeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Apeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Apeak} > 140.0 dB (Exceedance 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**
	50.5	50.5	-99.94	50.5	50.5	-99.94

L_{Ceq}	65.4 dB	
L_{Aeq}	50.5 dB	
L_{Ceq} - L_{Aeq}	14.9 dB	
L_{AIeq}	52.3 dB	
L_{Aeq}	50.5 dB	
L_{AIeq} - L_{Aeq}	1.8 dB	

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	50.5		65.4		73.3	
$L_{S(max)}$	61.3	2020/07/28 13:08:47	73.6	2020/07/28 12:54:31	86.2	2020/07/28 13:16:25
$L_{F(max)}$	65.1	2020/07/28 13:16:57	76.6	2020/07/28 12:54:31	89.9	2020/07/28 13:16:44
$L_{I(max)}$	71.2	2020/07/28 12:54:19	77.7	2020/07/28 12:54:31	93.0	2020/07/28 13:16:44
$L_{S(min)}$	46.7	2020/07/28 13:16:43	61.3	2020/07/28 12:55:39	65.0	2020/07/28 13:03:40
$L_{F(min)}$	46.1	2020/07/28 13:16:26	59.7	2020/07/28 13:03:29	62.8	2020/07/28 12:55:19
$L_{I(min)}$	46.4	2020/07/28 13:16:26	62.4	2020/07/28 13:02:49	66.1	2020/07/28 12:55:22
$L_{Peak(max)}$	85.4	2020/07/28 13:16:57	84.2	2020/07/28 13:08:47	95.2	2020/07/28 13:16:44

Overload Count	0
Overload Duration	0.0 s

Statistics

LAI1.70	56.9 dB
LAI8.30	52.6 dB
LAI10.00	52.2 dB
LAI25.00	50.4 dB
LAI50.00	49.3 dB
LAI75.00	48.6 dB

Summary

File Name on Meter	831_Data.537.s
File Name on PC	831_0001742-20200728 132117-831_Data.537.ldbin
Serial Number	0001742
Model	Model 831
Firmware Version	2.300
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2020-07-28 13:21:17
Stop	2020-07-28 13:46:22
Duration	00:25:05.7
Run Time	00:25:05.7
Pause	00:00:00.0
Pre-Calibration	2020-07-28 12:49:01
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRM831
Microphone Correction	Off
Integration Method	Linear
Gain	0.0 dB
Overload	141.9 dB

	A	C	Z
Under Range Peak	**74.4**	71.4	76.4 dB
Under Range Limit	**25.9**	26.1	31.2 dB
Noise Floor	16.8	17.0	22.0 dB

Results

L_{Aeq}	45.7	
LAE	77.5	
EA	6.209	µPa²h
$L_{Apeak\ (max)}$	2020-07-28 13:46:21	77.5 dB
L_{ASmax}	2020-07-28 13:29:31	53.2 dB
L_{ASmin}	2020-07-28 13:22:35	42.4 dB
SEA	-99.94 dB	

LAS > 60.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 90.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Apeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Apeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Apeak} > 140.0 dB (Exceedance 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**
	45.7	45.7	-99.94	45.7	45.7	-99.94

L_{Ceq}	60.6 dB
L_{Aeq}	45.7 dB
L_{Ceq} - L_{Aeq}	14.9 dB
L_{AIeq}	47.6 dB
L_{Aeq}	45.7 dB
L_{AIeq} - L_{Aeq}	1.9 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	45.7		60.6		70.1	
$L_{S(max)}$	53.2	2020/07/28 13:29:31	67.2	2020/07/28 13:23:27	82.5	2020/07/28 13:40:47
$L_{F(max)}$	56.8	2020/07/28 13:29:29	70.1	2020/07/28 13:23:27	88.0	2020/07/28 13:40:46
$L_{I(max)}$	60.3	2020/07/28 13:46:21	71.8	2020/07/28 13:23:27	91.2	2020/07/28 13:40:46
$L_{S(min)}$	42.4	2020/07/28 13:22:35	57.3	2020/07/28 13:25:32	58.9	2020/07/28 13:21:17
$L_{F(min)}$	41.6	2020/07/28 13:29:54	55.2	2020/07/28 13:25:23	58.5	2020/07/28 13:25:31
$L_{I(min)}$	42.3	2020/07/28 13:22:30	58.2	2020/07/28 13:31:45	62.4	2020/07/28 13:32:22
$L_{Peak(max)}$	77.5	2020/07/28 13:46:21	78.1	2020/07/28 13:46:21	93.5	2020/07/28 13:40:46

Overload Count	0
Overload Duration	0.0 s

Statistics

LAI1.70	50.3 dB
LAI8.30	48.2 dB
LAI10.00	47.8 dB
LAI25.00	46.1 dB
LAI50.00	44.8 dB
LAI75.00	44.0 dB

Construction Generated Noise

Building Type	Domestic Housing		**Distance (ft)**
Construction Noise at 50 Feet (dBA Leq)			50
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	83	83	
Excavation	88	75	
Foundation Construction	81	81	
Building Construction	81	65	
Finishing and Site Cleanup	88	72	

North - Residential			
Maximum Construction Noise (dBA Leq)			20
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	91	91	
Excavation (Site Preparation)	96	83	
Foundation Construction	89	89	
Building Construction	89	73	
Paving	96	80	
Average Construction Noise (dBA Leq)			310
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	67	67	
Excavation (Site Preparation)	72	59	
Foundation Construction	65	65	
Building Construction	65	49	
Paving	72	56	

West - Residential			
Maximum Construction Noise (dBA Leq)			20
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	91	91	
Excavation (Site Preparation)	96	83	
Foundation Construction	89	89	
Building Construction	89	73	
Paving	96	80	
Average Construction Noise (dBA Leq)			305
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	67	67	
Excavation (Site Preparation)	72	59	
Foundation Construction	65	65	
Building Construction	65	49	
Paving	72	56	

South - Residential			
Maximum Construction Noise (dBA Leq)			110
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	76	76	
Excavation (Site Preparation)	81	68	
Foundation Construction	74	74	
Building Construction	74	58	
Paving	81	65	
Average Construction Noise (dBA Leq)			400
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	65	65	
Excavation (Site Preparation)	70	57	
Foundation Construction	63	63	
Building Construction	63	47	
Paving	70	54	

East - Commercial			
Maximum Construction Noise (dBA Leq)			20
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	91	91	
Excavation (Site Preparation)	96	83	
Foundation Construction	89	89	
Building Construction	89	73	
Paving	96	80	
Average Construction Noise (dBA Leq)			305
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	67	67	
Excavation (Site Preparation)	72	59	
Foundation Construction	65	65	
Building Construction	65	49	
Paving	72	56	

Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the USEPA, December 31, 1971. Based on analysis for Office Building, Hotel, Hospital, School, and Public Works.

Unmitigated Construction Generated Vibration

North - Residential		Closest Distance (feet):	5
	Approximate RMS a	Approximate RMS	
	66	73.000	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	2.348	
Caisson Drill	0.089	0.995	
Large bulldozer	0.089	0.995	
Small bulldozer	0.003	0.034	
Jackhammer	0.035	0.391	
Loaded trucks	0.076	0.850	
	Criteria	0.300	1700
West - Residential		Closest Distance (feet):	5
	Approximate RMS a	Approximate RMS	
	Velocity at 25 ft,	Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	2.348	
Large bulldozer	0.089	0.995	
Small bulldozer	0.003	0.034	
Jackhammer	0.035	0.391	
Loaded trucks	0.076	0.850	
	Criteria	0.300	
South - Residential		Closest Distance (feet):	125
	Approximate RMS a	Approximate RMS	
	Velocity at 25 ft,	Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.019	
Large bulldozer	0.089	0.008	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.003	
Loaded trucks	0.076	0.007	
	Criteria	0.300	
East - Commercial		Closest Distance (feet):	25
	Approximate RMS a	Approximate RMS	
	Velocity at 25 ft,	Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.210	
Large bulldozer	0.089	0.089	
Small bulldozer	0.003	0.003	
Jackhammer	0.035	0.035	
Loaded trucks	0.076	0.076	
	Criteria	0.300	

Based on distance to nearest structure

[1.] Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet

Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2006).

Mitigated Construction Generated Vibration

North - Residential		Closest Distance (feet):	25
	Approximate RMS a 66	Approximate RMS 73.000	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.210	
Caisson Drill	0.089	0.089	
Large bulldozer	0.089	0.089	
Small bulldozer	0.003	0.003	
Jackhammer	0.035	0.035	
Loaded trucks	0.076	0.076	
	Criteria	0.300	1700
West - Residential		Closest Distance (feet):	25
	Approximate RMS a Velocity at 25 ft,	Approximate RMS Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.210	
Large bulldozer	0.089	0.089	
Small bulldozer	0.003	0.003	
Jackhammer	0.035	0.035	
Loaded trucks	0.076	0.076	
	Criteria	0.300	
South - Residential		Closest Distance (feet):	125
	Approximate RMS a Velocity at 25 ft,	Approximate RMS Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.019	
Large bulldozer	0.089	0.008	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.003	
Loaded trucks	0.076	0.007	
	Criteria	0.300	
East - Commercial		Closest Distance (feet):	25
	Approximate RMS a Velocity at 25 ft,	Approximate RMS Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.210	
Large bulldozer	0.089	0.089	
Small bulldozer	0.003	0.003	
Jackhammer	0.035	0.035	
Loaded trucks	0.076	0.076	
	Criteria	0.300	

Based on distance to nearest structure

[1.] Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet

Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2006).

Barrier Performance Module

This module provides to the user a measure on the barrier's effectiveness on noise reduction. A list of the input/output variables and their definitions, as well as illustrations of different scenarios are provided.

Calculator

View Day/Night Noise Level Calculator (/programs/environmental-review/dnl-calculator/)

View Descriptions of the Input/Output variables.

Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the Input and Output variables with the mouse.

WARNING: If there is direct line-of-sight between the Source and the Observer, the module will report erroneous attenuation. "Direct line-of-sight" means if the 5' tall Observer can see the noise Source (cars, trucks, trains, etc.) over the Barrier (wall, hill/excavation, building, etc.), the current version of Barrier Performance Module will not accurately calculate the attenuation provided. In this instance, there is unlikely to be any appreciable attenuation.

Road/Rail Site DNL:

Note: Barrier height must block the line of sight

Input Data

H	10	**R^1**	10
S	6	**D^1**	10
O	5	**α**	180

Calculate Output

Output Data

h	4	**R**	10
D	10	**FS**	13.1752

New Site DNL:

-13.1752

Refresh

Note: If you have separate Road and Rail DNL values, please enter the values below to calculate the new site DNL:

Road DNL:

Rail DNL:

Calculate

Combined New Site DNL:

Input/Output Variables

Input Variables

The following variables and definitions from the barrier being assessed are the input required for the web-based barrier performance module:

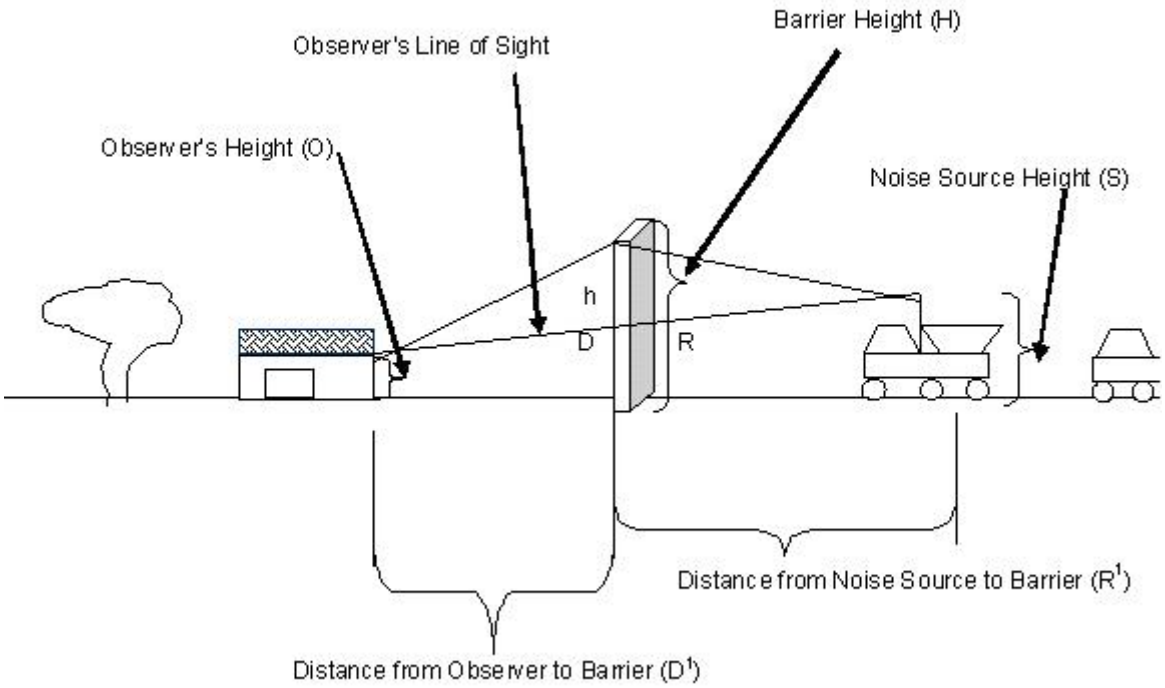
- H = Barrier Height
- S = Noise Source Height
- O = Observer Height (known as the receiver)
- R^1 = Distance from Noise Source to Barrier
- D^1 = Distance from the Observer to the Barrier
- α = Line of sight angle between the Observer and the Noise Source, subtended by the barrier at observer's location

Output Variables

Definitions of the output variables from the mitigation module of the Day/Night Noise Level Assessment Tools as part of the Assessment Tools for Environmental Compliance:

- h = The shortest distance from the barrier top to the line of sight from the Noise source to the Observer.
- R = Slant distance along the line of sight from the Barrier to the Noise Source
- D = Slant distance along the line of sight from the Barrier to the Observer

The “actual barrier performance for barriers of finite length” is noted on the worksheets(in the Guidebook) as **FS**.



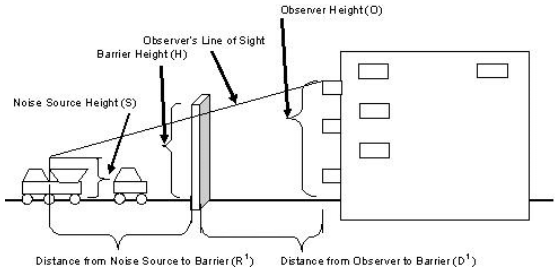
Barrier Implementation Scenarios

Locate the cursor on the following thumbnails to enlarge the respective scenario as implementation examples of the barrier performance module.

Scenario #1:

Noise receiver at a higher elevation than the noise source and a man-made noise barrier in between the receiver and the source.

Scenario #1:

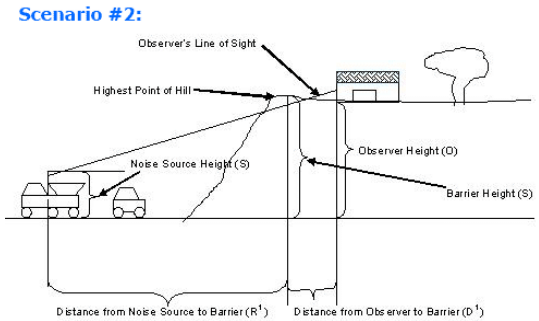


Noise receiver at a higher elevation than the noise source and a man-made noise barrier in between the receiver and the source.

(https://www.hudexchange.info/resources/documents/Barrier-Performance-Module-Barrier-Implementation-Scenario-1.gif)

view larger version of image (/resource/3841/barrier-performance-module-bpm-barrier-implementation-scenarios/)

Scenario #2:



Noise receiver at a higher elevation than the noise source and a natural barrier (hill) between the receiver and the source.

(https://www.hudexchange.info/resources/documents/Barrier-Performance-Module-Barrier-Implementation-Scenario-2.gif)

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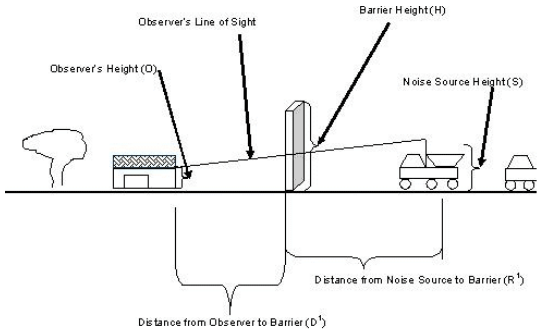
Noise receiver at a higher elevation than the noise source and a natural barrier (hill) between the receiver and the source.

Scenario #3:

Noise receiver at almost the same elevation of the noise source



Noise receiver at almost the same elevation of the noise source and a man-made noise barrier between the receiver and the source.

(https://www.hudexchange.info/resources/documents/Barrier-Performance-Module-Barrier-Implementation-Scenario-3.gif)

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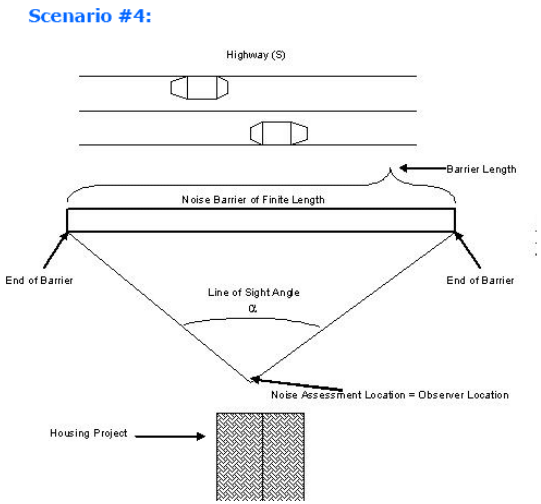
and a man-made noise barrier between the receiver and the source.

Scenario #4:



A noise barrier of finite length between a noise source and a receiver. This top view illustrates the angle a, subtended by the barrier at the observer's location.

(https://www.hudexchange.info/resources/documents/Barrier-Performance-Module-Barrier-Implementation-Scenario-4.gif)

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A noise barrier of finite length between a noise source and a receiver. This top view illustrates the angle α, subtended by the barrier at the observer's location.

implementation-scenarios/)

Contents

Walnut Grove Residential Project

Roadway Segment		Speed	24-hour Traffic Volume: Existing	Future Without Project	Future With Project	Distance to CNEL from Roadway Centerline: Existing 50.0 Feet	60 CNEL	65 CNEL	70 CNEL	Future No Project 50.0 Feet	60 CNEL	65 CNEL	70 CNEL	Future With Project 50.0 Feet	60 CNEL	65 CNEL	70 CNEL	Change From Existing	Change due to Project	Noise Level (CNEL or Ldn) at Distance from Roadway Centerline: Existing 50 feet			Future No Proj 50 feet			Future Plus Proj 50 feet			Change From Existing	Change due to Project
Rowland, West of Project		40.0	11,900	12,100	12,549	71.1	275	127	59	71.2	278	129	60	71.3	284	132	61	0.2	0.2	71.1	71.1	71.1	71.2	71.2	71.2	71.3	71.3	71.3	+0.2	+0.2
Rowland, East of Project		40.0	11,900	12,100	12,774	71.1	275	127	59	71.2	278	129	60	71.4	288	134	62	0.3	0.2	71.1	71.1	71.1	71.2	71.2	71.2	71.4	71.4	71.4	+0.3	+0.2
Rowland, East of Azusa		40.0	14,400	14,700	14,812	71.9	312	145	67	72.0	316	147	68	72.0	318	147	68	0.1	0.0	71.9	71.9	71.9	72.0	72.0	72.0	72.0	72.0	72.0	+0.1	+0.0
Azusa, North of Rowland		40.0	44,500	45,400	45,512	76.8	662	307	143	76.9	670	311	144	76.9	672	312	145	0.1	0.0	76.8	76.8	76.8	76.9	76.9	76.9	76.9	76.9	76.9	+0.1	+0.0
Azusa, South of Rowland		40.0	41,500	42,300	42,749	76.5	631	293	136	76.6	640	297	138	76.6	644	299	139	0.1	0.0	76.5	76.5	76.5	76.6	76.6	76.6	76.6	76.6	76.6	+0.1	+0.1

Assumptions:

Fleet Mix: 92% Autos; 3% Medium Trucks; 5% Heavy Trucks

Simplified to 2 lanes: 6.1 meters= 20.0 feet from centerline

future: 6.1 meters= 20.0 feet from centerline

Noise path decay parameter for hard site

Time of Day: 70% Day; 15% Evening; 15% Night

Calculations using methods of Federal Highway Administration *Highway Traffic Noise Prediction Model*, December, 1978. Baseline California vehicle noise levels from Caltrans, TAN 95-03, 1995

Source of standard assumptions:

24-hour distribution of traffic volumes:
70% day (7-7), 15% evening (7-10), 15% night (10-7)
Analysis of L.A. County 24-hour traffic counts for selected arterial streets conducted by Pat Mann for Inglewood Noise Element, 1974

Truck Mix

ARB standard fleet mix for air quality analysis
Heavy trucks for noise model includes heavy diesel tractor-trailers only
Medium trucks for noise model includes buses and bobtail trucks
Autos includes cars, vans, pickups and light trucks