Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet

Project: 60577193 - Oceano Dunes Planning+Outreach

Date: **Wednesday, November 11, 2020** **to** **Thursday, November 12, 2020**

Site: LT-01

Hour	Leq	Lmax	L50	L90
10:00	53.5	89.1	51.4	49.1
11:00	55.7	91.3	52.7	49.8
12:00	55.3	90.9	53.4	49.8
13:00	54.9	90.5	53.7	50.3
14:00	57.4	93.0	55.9	54.1
15:00	58.0	93.5	56.4	54.7
16:00	56.2	91.8	54.0	49.9
17:00	53.7	89.2	50.2	47.8
18:00	49.7	85.3	47.8	45.7
19:00	52.3	87.9	48.0	45.8
20:00	48.4	83.9	46.1	43.9
21:00	46.8	82.4	45.3	43.4
22:00	45.5	81.1	44.2	42.6
23:00	49.5	85.1	49.5	44.0
0:00	52.4	88.0	51.5	49.2
1:00	53.0	88.6	52.2	49.8
2:00	49.4	85.0	49.1	47.4
3:00	51.5	87.1	50.6	47.4
4:00	51.1	86.7	50.6	47.7
5:00	50.9	86.5	50.7	49.2
6:00	51.4	87.0	50.2	48.2
7:00	57.2	92.8	54.1	52.1
8:00	51.8	87.3	50.4	48.2
9:00	52.1	87.7	49.4	46.3

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	54.6	89.1	51.3	48.7
Nighttime (10 p.m. - 7 a.m.)	50.9	86.1	49.8	47.3

Uppermost-Level

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	58.0	93.5	56.4	54.7
Nighttime (10 p.m. - 7 a.m.)	53.0	88.6	52.2	49.8

Percentage of Energy

Daytime	79%
Nighttime	21%

Calculated L_{dn}, dBA

58.1

Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet

Project: 60577193 - Oceano Dunes Planning+Outreach

Date: **Wednesday, November 11, 2020** **to** **Thursday, November 12, 2020**

Site: LT-02

Hour	Leq	Lmax	L50	L90
11:00	50.9	86.5	45.0	42.5
12:00	48.0	83.6	45.9	43.6
13:00	51.4	87.0	48.3	45.3
14:00	53.2	88.7	49.4	48.2
15:00	52.3	87.8	50.2	49.1
16:00	50.1	85.7	47.9	45.6
17:00	46.9	82.5	45.7	44.1
18:00	43.3	78.8	42.6	40.5
19:00	43.3	78.8	42.6	41.1
20:00	43.2	78.8	41.5	39.0
21:00	41.3	76.8	40.1	37.5
22:00	41.2	76.8	40.3	38.1
23:00	41.1	76.6	40.4	38.3
0:00	43.9	79.5	43.6	41.0
1:00	44.3	79.9	43.8	41.9
2:00	42.9	78.5	42.6	41.0
3:00	43.2	78.8	42.7	40.7
4:00	46.8	82.4	46.3	44.1
5:00	46.8	82.3	46.2	44.3
6:00	49.9	85.5	49.2	46.4
7:00	48.7	84.2	47.9	45.5
8:00	45.3	80.8	43.0	40.9
9:00	48.1	83.7	41.5	38.3
10:00	48.7	82.1	44.5	40.6

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	49.0	83.1	45.1	42.8
Nighttime (10 p.m. - 7 a.m.)	45.4	80.0	43.9	41.8

Uppermost-Level

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	53.2	88.7	50.2	49.1
Nighttime (10 p.m. - 7 a.m.)	49.9	85.5	49.2	46.4

Percentage of Energy

Daytime	79%
Nighttime	21%

Calculated L_{dn}, dBA

52.5

Long-Term 24 Hour Continuous Noise Monitoring
Model Input Sheet

Project: 60577193 - Oceano Dunes Planning+Outreach

Date: **Wednesday, November 11, 2020** **to** **Thursday, November 12, 2020**

Site: LT-03

Hour	Leq	Lmax	L50	L90
13:00	52.1	87.7	50.8	48.3
14:00	51.5	87.1	50.4	47.2
15:00	53.6	89.2	53.1	50.7
16:00	52.1	87.7	50.7	48.1
17:00	49.5	85.1	48.6	44.1
18:00	47.1	82.6	45.2	39.2
19:00	44.6	80.2	42.9	38.4
20:00	43.8	79.4	42.3	38.6
21:00	43.0	78.6	41.3	38.0
22:00	41.6	77.2	39.2	36.8
23:00	41.0	76.6	39.0	37.1
0:00	40.8	76.4	38.5	36.3
1:00	40.7	76.2	37.8	35.2
2:00	42.1	77.7	38.8	36.3
3:00	44.1	79.7	41.8	38.8
4:00	46.8	82.4	45.1	42.5
5:00	50.4	86.0	49.0	44.6
6:00	52.4	88.0	51.6	48.0
7:00	50.5	86.1	49.3	46.2
8:00	49.5	85.1	46.1	41.4
9:00	49.2	84.8	45.3	40.5
10:00	48.8	84.4	46.4	41.2
11:00	49.6	85.2	47.7	44.3
12:00	50.5	86.1	49.1	45.9

Averages

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	49.9	84.6	47.3	43.5
Nighttime (10 p.m. - 7 a.m.)	46.7	80.0	42.3	39.5

Uppermost-Level

	Leq	Lmax	L50	L90
Daytime (7 a.m. - 10 p.m.)	53.6	89.2	53.1	50.7
Nighttime (10 p.m. - 7 a.m.)	52.4	88.0	51.6	48.0

Percentage of Energy

Daytime	78%
Nighttime	22%

Calculated L_{dn}, dBA

53.8

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	577	60
	50	87
ST-01	50	87

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Excavator	85	0.4
Dozer	85	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Excavator	81.0
Dozer	81.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	485	60
	50	85
ST-01	50	85

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Excavator	85	0.4
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Excavator	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
84.7

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	387	60
	50	82
ST-01	50	82

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
82.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	560	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Excavator	85	0.4
Grader	85	0.4
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Excavator	81.0
Grader	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	479	60
	50	85
ST-01	50	85

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Paver	85	0.5
Pavement Scarafier	85	0.2
Roller	85	0.2

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Paver	82.0
Pavement Scarafier	78.0
Roller	78.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
84.5

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	486	60
	50	85
ST-01	50	85

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Crane	85	0.16
Man Lift	85	0.2
Generator	82	0.5
Tractor	84	0.4
Welder / Torch	73	0.05

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Crane	77.0
Man Lift	78.0
Generator	79.0
Tractor	80.0
Welder / Torch	60.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
84.7

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	219	60
	50	76
ST-01	50	76

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Compressor (air)	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
76.0

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	577	60
	50	87
ST-01	50	87

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Excavator	85	0.4
Dozer	85	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Excavator	81.0
Dozer	81.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	387	60
	50	82
ST-01	50	82

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
82.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	560	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Excavator	85	0.4
Grader	85	0.4
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Excavator	81.0
Grader	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	486	60
	50	85
ST-01	50	85

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Crane	85	0.16
Man Lift	85	0.2
Generator	82	0.5
Tractor	84	0.4
Welder / Torch	73	0.05

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Crane	77.0
Man Lift	78.0
Generator	79.0
Tractor	80.0
Welder / Torch	60.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
84.7

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	479	60
	50	85
ST-01	50	85

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Paver	85	0.5
Pavement Scarafier	85	0.2
Roller	85	0.2

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Paver	82.0
Pavement Scarafier	78.0
Roller	78.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
84.5

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	219	60
	50	76
ST-01	50	76

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Compressor (air)	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
76.0

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	387	60
	50	82
ST-01	50	82

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Grader	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Grader	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
82.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	530	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
85.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	428	60
	50	83
ST-01	50	83

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Crane	85	0.16
Man Lift	85	0.2
Tractor	84	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Crane	77.0
Man Lift	78.0
Tractor	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
83.3

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	219	60
	50	76
ST-01	50	76

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Compressor (air)	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
76.0

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	530	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
85.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	387	60
	50	82
ST-01	50	82

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
82.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	560	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Excavator	85	0.4
Grader	85	0.4
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Excavator	81.0
Grader	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	576	60
	50	87
ST-01	50	87

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Mixer Truck	85	0.4
Paver	85	0.5
Pavement Scarafier	85	0.2
Roller	85	0.2
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Mixer Truck	81.0
Paver	82.0
Pavement Scarafier	78.0
Roller	78.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.5

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	219	60
	50	76
ST-01	50	76

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Compressor (air)	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
76.0

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	577	60
	50	87
ST-01	50	87

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Excavator	85	0.4
Dozer	85	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Excavator	81.0
Dozer	81.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	387	60
	50	82
ST-01	50	82

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Grader	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Grader	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
82.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	530	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
85.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	428	60
	50	83
ST-01	50	83

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Crane	85	0.16
Man Lift	85	0.2
Tractor	84	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Crane	77.0
Man Lift	78.0
Tractor	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
83.3

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	575	60
	50	87
ST-01	50	87

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Mixer Truck	85	0.4
Paver	85	0.5
Roller	85	0.2
Tractor	84	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Mixer Truck	81.0
Paver	82.0
Roller	78.0
Tractor	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.5

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	219	60
	50	76
ST-01	50	76

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Compressor (air)	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
76.0

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	530	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
85.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	387	60
	50	82
ST-01	50	82

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Grader	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Grader	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
82.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	597	60
	50	87
ST-01	50	87

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Excavator	85	0.4
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Excavator	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.9

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	428	60
	50	83
ST-01	50	83

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Crane	85	0.16
Man Lift	85	0.2
Tractor	84	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Crane	77.0
Man Lift	78.0
Tractor	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
83.3

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	543	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Mixer Truck	85	0.4
Paver	85	0.5
Roller	85	0.2
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Mixer Truck	81.0
Paver	82.0
Roller	78.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
85.9

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	219	60
	50	76
ST-01	50	76

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Compressor (air)	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
76.0

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	530	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
85.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	387	60
	50	82
ST-01	50	82

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Grader	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Grader	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
82.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	597	60
	50	87
ST-01	50	87

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Excavator	85	0.4
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Excavator	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.9

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	428	60
	50	83
ST-01	50	83

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Crane	85	0.16
Man Lift	85	0.2
Tractor	84	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Crane	77.0
Man Lift	78.0
Tractor	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
83.3

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	543	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Mixer Truck	85	0.4
Paver	85	0.5
Roller	85	0.2
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Mixer Truck	81.0
Paver	82.0
Roller	78.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
85.9

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	219	60
	50	76
ST-01	50	76

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Compressor (air)	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
76.0

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	387	60
	50	82
ST-01	50	82

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
82.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	560	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Excavator	85	0.4
Grader	85	0.4
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Excavator	81.0
Grader	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	486	60
	50	85
ST-01	50	85

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Crane	85	0.16
Man Lift	85	0.2
Generator	82	0.5
Tractor	84	0.4
Welder / Torch	73	0.05

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Crane	77.0
Man Lift	78.0
Generator	79.0
Tractor	80.0
Welder / Torch	60.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
84.7

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	219	60
	50	76
ST-01	50	76

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Compressor (air)	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
76.0

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	485	60
	50	85
ST-01	50	85

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Dozer	85	0.4
Scraper	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Dozer	81.0
Scraper	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
84.7

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	560	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Excavator	85	0.4
Grader	85	0.4
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Excavator	81.0
Grader	81.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	476	60
	50	84
ST-01	50	84

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Crane	85	0.16
Excavator	85	0.4
Man Lift	85	0.2
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Crane	77.0
Excavator	81.0
Man Lift	78.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
84.5

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	530	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
85.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	375	60
	50	82
ST-01	50	82

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Crane	85	0.16
Man Lift	85	0.2
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Crane	77.0
Man Lift	78.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
81.9

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	530	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
85.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	387	60
	50	82
ST-01	50	82

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Grader	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Grader	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
82.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	376	60
	50	82
ST-01	50	82

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Crane	85	0.16
Man Lift	85	0.2
Backhoe	80	0.4
Welder / Torch	73	0.05

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Crane	77.0
Man Lift	78.0
Backhoe	76.0
Welder / Torch	60.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
81.9

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	219	60
	50	76
ST-01	50	76

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Compressor (air)	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
76.0

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	530	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
85.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	387	60
	50	82
ST-01	50	82

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Grader	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Grader	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
82.2

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	530	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Saw	90	0.2
Dozer	85	0.4
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Saw	83.0
Dozer	81.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
85.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	428	60
	50	83
ST-01	50	83

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Crane	85	0.16
Man Lift	85	0.2
Tractor	84	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Crane	77.0
Man Lift	78.0
Tractor	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
83.3

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	543	60
	50	86
ST-01	50	86

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Concrete Mixer Truck	85	0.4
Paver	85	0.5
Roller	85	0.2
Backhoe	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Concrete Mixer Truck	81.0
Paver	82.0
Roller	78.0
Backhoe	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
85.9

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Project-Generated Construction Source Noise Prediction Model

60577193 - Oceano Dunes Planning+Outreach

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L_{eq} dBA)
Threshold*	219	60
	50	76
ST-01	50	76

Assumptions:	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Compressor (air)	80	0.4

Ground Type	Soft
Ground Factor	0.50

Predicted Noise Level [2]	L_{eq} dBA at 50 feet[2]
Compressor (air)	76.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
76.0

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, Janua

[2] Based on the following from the Federal Transit Noise and Vibration

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Traffic Noise Prediction Model, (FHWA RD-77-108)

Model Input Sheet

Project Name : 60577193 - Oceano Dunes Planning+Outreach
Project Number : 60577193
Modeling Condition : Existing
Ground Type : Hard
K Factor : NA
Metric (L_{eq}, L_{dn}, CNEL) : Ldn
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway	Segment From	Segment To	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
1	Highway 1	OSO FLACO UNDERPASS	North of OSO FLACO UNDERPASS	7300	40	50	97	2	1	87	0	13	
2	Highway 1	ENTRANCE, UNION OIL COKING PLANT	North of ENTRANCE, UNION OIL COKING PLANT	7700	40	50	97	2	1	87	0	13	
3	Highway 1	ARROYO GRANDE ROAD	North of ARROYO GRANDE ROAD	7200	40	50	97	2	1	87	0	13	
4	Highway 1	HALCYON ROAD	North of HALCYON ROAD	9900	40	50	97	2	1	87	0	13	
5	Highway 1	ENTRANCE, PISMO BEACH STATE PARK	North of ENTRANCE, PISMO BEACH STATE PARK	11400	40	50	97	2	1	87	0	13	
6	Highway 1	GROVER CITY, GRAND AVENUE	North of GROVER CITY, GRAND AVENUE	13000	40	50	97	2	1	87	0	13	
7	Highway 1	PISMO BEACH, VILLA CREEK	North of PISMO BEACH, VILLA CREEK	10400	40	50	97	2	1	87	0	13	

Traffic Noise Prediction Model, (FHWA RD-77-108)

Predicted Noise Levels

Project Name : 60577193 - Oceano Dunes Planning+Outreach
Project Number : 60577193
Modeling Condition : Existing
Metric (Leq, Ldn, CNEL) : Ldn

		Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
Segment	Roadway	From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Highway 1	OSO FLACO UNDI	North of OSO FLA(	64.0	56.1	57.9	65.5	18	56	177	561	1775
2	Highway 1	ENTRANCE, UNIO	North of ENTRANC	64.3	56.3	58.1	65.7	19	59	187	592	1872
3	Highway 1	ARROYO GRANDI	North of ARROYO	64.0	56.0	57.8	65.4	18	55	175	554	1751
4	Highway 1	HALCYON ROAD	North of HALCYON	65.3	57.4	59.2	66.8	24	76	241	761	2407
5	Highway 1	ENTRANCE, PISM	North of ENTRANC	66.0	58.0	59.8	67.4	28	88	277	877	2772
6	Highway 1	GROVER CITY, GI	North of GROVER	66.5	58.6	60.4	68.0	32	100	316	1000	3161
7	Highway 1	PISMO BEACH, VI	North of PISMO BE	65.6	57.6	59.4	67.0	25	80	253	800	2529

Traffic Noise Prediction Model, (FHWA RD-77-108)

Model Input Sheet

Project Name : 60577193 - Oceano Dunes Planning+Outreach
Project Number : 60577193
Modeling Condition : Construction Trips
Ground Type : Hard
K Factor : NA
Metric (L_{eq}, L_{dn}, CNEL) : Leq
Traffic Desc. (Peak or ADT) : Peak

Segment	Roadway	Segment From	Segment To	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
1	Haul Route	Point A	Point B	32	35	50	93	2	5	87	0	13	

Traffic Noise Prediction Model, (FHWA RD-77-108)

Predicted Noise Levels

Project Name : 60577193 - Oceano Dunes Planning+Outreach
Project Number : 60577193
Modeling Condition : Construction Trips
Metric (Leq, Ldn, CNEL) : Leq

		Segment		Noise Levels, dB Leq				Distance to Traffic Noise Contours, Feet				
Segment	Roadway	From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Haul Route	Point A	Point B	49.0	42.0	51.2	53.6	1	4	11	36	114