Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/22/2012
Case Description: Demolition

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Demolition@50'	Residential	50.0	50.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	50.0	0.0
Concrete Saw	No	20		89.6	50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Front End Loader	No	40		79.1	50.0	0.0
Front End Loader	No	40		79.1	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Concrete Saw	89.6	82.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw	89.6	82.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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N/A     N/A       N/A     N/A     N/A     N/A     N/A     N/A
Front End Loader          79.1    75.1        N/A     N/A     N/A     N/A
N/A     N/A       N/A     N/A     N/A     N/A     N/A     N/A
Front End Loader          79.1    75.1        N/A     N/A     N/A     N/A
N/A     N/A       N/A     N/A     N/A     N/A     N/A     N/A
               Total      89.6    89.8        N/A     N/A     N/A     N/A
N/A     N/A       N/A     N/A     N/A     N/A     N/A     N/A
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Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/22/2012
Case Description: Demolition

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Grading@50'	Residential	50.0	50.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	50.0	0.0
Scraper	No	40		83.6	50.0	0.0
Scraper	No	40		83.6	50.0	0.0
Compactor (ground)	No	20		83.2	50.0	0.0
Grader	No	40	85.0		50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)		Noise Limit Exceedance (dBA)	
	Day	Evening	Night	Day	Evening	Night
Equipment	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq
Dozer	81.7 77.7	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Scraper	83.6 79.6	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Scraper	83.6 79.6	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Compactor (ground)	83.2 76.2	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Grader	85.0 81.0	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Total	85.0 86.1	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/22/2012
Case Description: Paving

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Paving@50'	Residential	50.0	50.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	50.0	0.0
Roller	No	20		80.0	50.0	0.0
Roller	No	20		80.0	50.0	0.0
Grader	No	40	85.0		50.0	0.0
Front End Loader	No	40		79.1	50.0	0.0
Generator	No	50		80.6	50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)			
	Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	77.2	74.2	N/A	N/A	N/A	N/A
Roller	80.0	73.0	N/A	N/A	N/A	N/A
Roller	80.0	73.0	N/A	N/A	N/A	N/A
Grader	85.0	81.0	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A
Generator	80.6	77.6	N/A	N/A	N/A	N/A
Total	85.0	84.5	N/A	N/A	N/A	N/A

Noise Limit Exceedance (dBA)

	Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	N/A	N/A	N/A	N/A	N/A	N/A
Roller	N/A	N/A	N/A	N/A	N/A	N/A
Roller	N/A	N/A	N/A	N/A	N/A	N/A
Grader	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	N/A	N/A	N/A	N/A	N/A	N/A
Generator	N/A	N/A	N/A	N/A	N/A	N/A
Total	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/22/2012
Case Description: Building Construction

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
BuildingConstruction@50'	Residential	50.0	50.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Compactor (ground)	No	20		83.2	50.0	0.0
Crane	No	16		80.6	50.0	0.0
Crane	No	16		80.6	50.0	0.0
Dozer	No	40		81.7	50.0	0.0
Front End Loader	No	40		79.1	50.0	0.0
Front End Loader	No	40		79.1	50.0	0.0
Welder / Torch	No	40		74.0	50.0	0.0
Welder / Torch	No	40		74.0	50.0	0.0
Welder / Torch	No	40		74.0	50.0	0.0
Welder / Torch	No	40		74.0	50.0	0.0
Welder / Torch	No	40		74.0	50.0	0.0
Welder / Torch	No	40		74.0	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

	Calculated (dBA)		Day		Evening		Night		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	83.2	76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	80.6	72.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	80.6	72.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Front End Loader          79.1    75.1        N/A     N/A     N/A     N/A
N/A     N/A       N/A     N/A     N/A     N/A     N/A     N/A
Welder / Torch            74.0    70.0        N/A     N/A     N/A     N/A
N/A     N/A       N/A     N/A     N/A     N/A     N/A     N/A
Welder / Torch            74.0    70.0        N/A     N/A     N/A     N/A
N/A     N/A       N/A     N/A     N/A     N/A     N/A     N/A
Welder / Torch            74.0    70.0        N/A     N/A     N/A     N/A
N/A     N/A       N/A     N/A     N/A     N/A     N/A     N/A
Welder / Torch            74.0    70.0        N/A     N/A     N/A     N/A
N/A     N/A       N/A     N/A     N/A     N/A     N/A     N/A
Welder / Torch            74.0    70.0        N/A     N/A     N/A     N/A
N/A     N/A       N/A     N/A     N/A     N/A     N/A     N/A
Welder / Torch            74.0    70.0        N/A     N/A     N/A     N/A
N/A     N/A       N/A     N/A     N/A     N/A     N/A     N/A
                Total     83.2    86.1        N/A     N/A     N/A     N/A
N/A     N/A       N/A     N/A     N/A     N/A     N/A     N/A
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Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/22/2012
Case Description: Utilities

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Utilities@50'	Residential	50.0	50.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Front End Loader	No	40		79.1	50.0	0.0
Front End Loader	No	40		79.1	50.0	0.0
Dozer	No	40		81.7	50.0	0.0
Pickup Truck	No	40		75.0	50.0	0.0
Pickup Truck	No	40		75.0	50.0	0.0

Results

	Calculated (dBA)		Noise Limit Exceedance (dBA)		Noise Limits (dBA)	
	Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	80.7	76.7	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A
Pickup Truck	75.0	71.0	N/A	N/A	N/A	N/A
Pickup Truck	75.0	71.0	N/A	N/A	N/A	N/A
Total	81.7	83.9	N/A	N/A	N/A	N/A

Noise Levels During Phase 1 Construction

Reference Levels: Construction Noise at 50 Feet (dBA Leq)[1]

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]	Drop Off hard=0; soft=0.5
Demolition	50	83	50	90	0
Grading		78		82	
Utilities		77		81	
Paving		74		77	
Building Construction		77		81	

Construction Noise at Conexant buildings to West

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	670	60	180	78
Grading		55		71
Utilities		54		70
Paving		52		66
Building Construction		54		70

Construction Noise at Office Buildings to the Northwest (off Von Karman)

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	580	61	205	77
Grading		56		69
Utilities		55		68
Paving		53		65
Building Construction		55		68

Construction Noise at Office Buildings to Southwest (across Jamboree and Fairchild)

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	615	61	200	78
Grading		56		70
Utilities		55		69
Paving		52		65
Building Construction		55		69

Construction Noise to UCI Child Development Center (off Jamboree)

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	1000	57	275	75
Grading		52		67
Utilities		51		66
Paving		48		62
Building Construction		51		66

Construction Noise at offices to the East (Off Birch)

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	1300	54	825	65
Grading		49		57
Utilities		48		56
Paving		46		53
Building Construction		48		56

Construction Noise at Jazz Semiconductor building

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	200	71	50	90
Grading		66		82
Utilities		65		81
Paving		62		77
Building Construction		65		81

[1] Calculations based on the Roadway Construction Noise Model with the construction information provided by the applicant.
[2] Average daily noise level including all equipment in use simultaneously considering utilization factors.
[3] Maximum instanteneous noise level from the loudest equipment used during the construction phase.

Noise Levels During Phase 2 Construction

Reference Levels: Construction Noise at 50 Feet (dBA Leq)[1]

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]	Drop Off hard=0; soft=0.5
Demolition	50	83	50	90	0
Rough Grading		78		82	
Utilities		77		81	
Paving		74		77	
Building Construction		77		81	

Construction Noise at Conexant buildings to West

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	1350	54	220	77
Rough Grading		49		69
Utilities		48		68
Paving		46		64
Building Construction		48		68

Construction Noise at Office Buildings to the Northwest (off Von Karman)

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	300	67	100	84
Rough Grading		62		76
Utilities		61		75
Paving		59		71
Building Construction		61		75

Construction Noise at Office Buildings to Southwest (across Jamboree and Fairchild)

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	1375	54	700	67
Rough Grading		49		59
Utilities		48		58
Paving		45		54
Building Construction		48		58

Construction Noise to UCI Child Development Center (off Jamboree)

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	770	59	400	72
Rough Grading		54		64
Utilities		53		63
Paving		50		59
Building Construction		53		63

Construction Noise at offices to the East (Off Birch)

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	600	61	65	87
Rough Grading		56		79
Utilities		55		78
Paving		53		75
Building Construction		55		78

Construction Noise at adjacent Phase 1 buildings

Construction Phase	Distance: Receptor to center of activity	Average Level (dBA Leq)[2]	Distance: Receptor to border of site	Maximum Level (dBA Lmax)[3]
Demolition	220	70	25	96
Rough Grading		65		88
Utilities		64		87
Paving		61		83
Building Construction		64		87

[1] Calculations based on the Roadway Construction Noise Model with the construction information provided by the applicant.
[2] Average daily noise level including all equipment in use simultaneously considering utilization factors.
[3] Maximum instanteneous noise level from the loudest equipment used during the construction phase.