

APPENDIX B

Construction Noise Modeling Worksheets

Bonita Vista High School Track and Field Project - Section 4.5 (Noise)
Nearest Receiver

Appendix B - Construction Noise Modeling Worksheets

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per FTA guidance = **80**
allowable hours over which Leq is to be averaged (example: 8 for County of San Diego, FTA guidance) = **8**

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Concrete saw	1	20	90		40	91.9	1	60	76
	Excavator	1	40	81		40	82.9	2	120	73
	Dozer	1	40	82		40	83.9	2	120	74
Total for Demolition Phase:										79.2
Site Preparation	Dozer	1	40	82		30	86.4	3	180	78
	Backhoe	1	40	78		30	82.4	3	180	74
Total for Site Preparation Phase:										79.7
Grading	Excavator	1	40	81		30	85.4	1	60	72
	Grader	1	40	85		30	89.4	1	60	76
	Dozer	1	40	82		30	86.4	1	60	73
	Backhoe	1	40	78		30	82.4	1	60	69
Total for Grading Phase:										79.6
Construction of Concessions & Restrooms	Man Lift	1	20	75		145	65.8	8	480	59
	Generator	1	50	72		145	62.8	8	480	60
	Backhoe	1	40	78		145	68.8	8	480	65
	Welder / Torch	1	40	73		145	63.8	8	480	60
Total for Construction of Concessions & Restrooms Phase:										67.5
Replacement of Track 1	Man Lift	1	20	75		65	72.7	8	480	66
	Generator	1	50	72		65	69.7	8	480	67
	Backhoe	1	40	78		65	75.7	8	480	72
	Welder / Torch	1	40	73		65	70.7	8	480	67
Total for Replacement of Track 1 Phase:										74.5
Replacement of Turf Fields	Man Lift	1	20	75		55	74.2	8	480	67
	Generator	1	50	72		55	71.2	8	480	68
	Backhoe	1	40	78		55	77.2	8	480	73
	Welder / Torch	1	40	73		55	72.2	8	480	68
Total for Replacement of Turf Fields Phase:										75.9
Replacement of Track 2	Man Lift	1	20	75		65	72.7	8	480	66
	Generator	1	50	72		65	69.7	8	480	67
	Backhoe	1	40	78		65	75.7	8	480	72
	Welder / Torch	1	40	73		65	70.7	8	480	67
Total for Replacement of Track 2 Phase:										74.5
Installation of Bleachers/Lighting/Other	Crane	1	16	81		35	84.1	5	300	74
	Man Lift	1	20	75		35	78.1	5	300	69
	Generator	1	50	72		35	75.1	5	300	70
	Backhoe	1	40	78		35	81.1	5	300	75
	Welder / Torch	1	40	73		35	76.1	5	300	70
Total for Installation of Bleachers/Lighting/Other Phase:										79.4
Paving 1	Paver	1	50	77		50	77.0	8	480	74
	Roller	1	20	80		50	80.0	8	480	73
	Concrete Mixer Truck	1	40	79		50	79.0	8	480	75
Total for Paving 1 Phase:										78.9
Paving 2	Concrete Mixer Truck	1	40	79		50	79.0	8	480	75
	Roller	1	20	80		50	80.0	8	480	73
	Paver	1	50	77		50	77.0	8	480	74
Total for Paving 2 Phase:										78.9

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 allowable hours over which Leq is to be averaged (example: 8 for County of San Diego, FTA guidance) = **8**

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	Concrete saw	1	20	90		175	79.1	8	480	72
	Excavator	3	40	81		175	70.1	8	480	71
	Dozer	2	40	82		175	71.1	8	480	70
Total for Demolition Phase:										75.9
Site Preparation	Dozer	3	40	82		145	72.8	8	480	74
	Backhoe	4	40	78		145	68.8	8	480	71
Total for Site Preparation Phase:										75.4
Grading	Excavator	1	40	81		145	71.8	8	480	68
	Grader	1	40	85		145	75.8	8	480	72
	Dozer	1	40	82		145	72.8	8	480	69
	Backhoe	3	40	78		145	68.8	8	480	70
Total for Grading Phase:										75.7
Construction of Concessions & Restrooms	Man Lift	3	20	75		225	61.9	8	480	60
	Generator	1	50	72		225	58.9	8	480	56
	Backhoe	3	40	78		225	64.9	8	480	66
	Welder / Torch	1	40	73		225	59.9	8	480	56
Total for Construction of Concessions & Restrooms Phase:										67.4
Replacement of Track 1	Man Lift	3	20	75		180	63.9	8	480	62
	Generator	1	50	72		180	60.9	8	480	58
	Backhoe	3	40	78		180	66.9	8	480	68
	Welder / Torch	1	40	73		180	61.9	8	480	58
Total for Replacement of Track 1 Phase:										69.3
Replacement of Turf Fields	Man Lift	3	20	75		200	63.0	8	480	61
	Generator	1	50	72		200	60.0	8	480	57
	Backhoe	3	40	78		200	66.0	8	480	67
	Welder / Torch	1	40	73		200	61.0	8	480	57
Total for Replacement of Turf Fields Phase:										68.4
Replacement of Track 2	Man Lift	3	20	75		180	63.9	8	480	62
	Generator	1	50	72		180	60.9	8	480	58
	Backhoe	3	40	78		180	66.9	8	480	68
	Welder / Torch	1	40	73		180	61.9	8	480	58
Total for Replacement of Track 2 Phase:										69.3
Installation of Bleachers/Lighting/Other	Crane	1	16	81		132	72.6	8	480	65
	Man Lift	3	20	75		132	66.6	8	480	64
	Generator	1	50	72		132	63.6	8	480	61
	Backhoe	3	40	78		132	69.6	8	480	70
	Welder / Torch	1	40	73		132	64.6	8	480	61
Total for Installation of Bleachers/Lighting/Other Phase:										72.7
Paving 1	Paver	2	50	77		170	66.4	8	480	66
	Roller	2	20	80		170	69.4	8	480	65
	Concrete Mixer Truck	2	40	79		170	68.4	8	480	67
Total for Paving 1 Phase:										71.2
Paving 2	Concrete Mixer Truck	2	40	79		170	68.4	8	480	67
	Roller	2	20	80		170	69.4	8	480	65
	Paver	2	50	77		170	66.4	8	480	66
Total for Paving 2 Phase:										71.2