APPENDIX E
Noise Data

AVIATION BOULEVARD AT ARTESIA BOULEVARD SOUTHBOUND TO WESTBOUND RIGHT TURN IMPROVEMENT PROJECT

dBA2 = dBA1 + 10Log10 (d1/d2)2

New River Project

where:
dBA 2 = Estimated Construction Noise Level;
dBA1 = Reference noise level at 25 feet (from Construction dBA Noise Levels By Distance and Construction Phase);
d1 = reference distance of 25 feet;
d2 = Approximate Receptor Location Distance

	dBA1	d1	d2	dBA2
Concrete Saw	84.0	100	5	110.0
Concrete Mixer Truck	73.0	100	5	99.0
Backhoe	72.0	100	5	98.0
Dozer	76.0	100	5	102.0
Excavator	75.0	100	5	101.0
Forklift	72.0	100	5	98.0
Paver	71.0	100	5	97.0
Roller	74.0	100	5	100.0
Tractor	78.0	100	5	104.0206
Water Truck	74.0	100	5	100.0206
Grader	79	100	5	105.0206
General Industrial Equipment	79	100	5	105.0206

Source: Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054)* , January 2006.

AVIATION BOULEVARD AT ARTESIA BOULEVARD SOUTHBOUND TO WESTBOUND RIGHT TURN IMPROVEMENT PROJECT

Equipment		PPV at 25 feet (in/sec)	Calculated distance (feet) 5
Pile Driver (impact)	upper range	1.518	16.9718
	typical	0.644	7.2001
Pile Driver (sonic)	upper range	0.734	8.2064
	typical	0.17	1.9007
Clam shovel drop (slurry wall)		0.202	2.2584
Hydromill (slurry wall)	in soil	0.008	0.0894
	in rock	0.017	0.1901
Vibratory Roller		0.21	2.3479
Hoe Ram		0.089	0.9951
Large bulldozer		0.089	0.9951
Caisson drilling		0.089	0.9951
Loaded trucks		0.076	0.8497
Jackhammer		0.035	0.3913
Small bulldozer		0.003	0.0335
Rock Breaker		0.059	0.6596

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines* , May 2006. Table 12-2.